New York State COVID-19 After Action Report

June 2024

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II. Executive Summary

The COVID-19 pandemic was, by many measures, the greatest public health crisis to confront New York, the United States, and the international community in more than one hundred years. New York State (NYS) has frequently been characterized as the "epicenter" of the pandemic in the US, due to the early and aggressive manifestation of the disease, which quickly infected tens of thousands. COVID-19 rapidly spread through New York City and across the state, testing every facet of emergency preparedness, public health , human services, and disaster response and recovery. This report summarizes and analyzes NYS's response across various sectors, addressing both its many successes and areas where significant improvements are necessary.

It also provides a cautionary tale for the Empire State and those that would defend it against the unexpected. New York was, by some measures, presumed to be one of the better prepared states for an infectious disease outbreak. It had invested in the development of pandemic plans and strategies, taken part in state and federal exercises, and was widely recognized for the extent and sophistication of its healthcare establishment. Public health planners assumed that sufficient warning would be available to ramp up a defense. State leaders placed what would come to be seen as unjustified confidence in the ability of public health academics to devise and manage logistics. The rapid spread of the disease astonished medical professionals trying to halt its advance. The greatest shortfall in the State's preparedness, however, was its failure to consider a threat scenario that exceeded its response capabilities.

New York's preparedness for a pandemic, as with other emergencies and disasters, was built on an established body of laws, plans, and policies intended to ensure a rapid, collaborative response across state and local government. The State's response framework, embodied in the Comprehensive Emergency Management Plan and an arsenal of supporting plans and annexes, assigned responsibilities for planning, response, and recovery operations for various hazards to different departments and agencies, with the New York State Department of Health as the lead for infectious diseases. The State's early actions were characterized by perfectly logical efforts to ramp up healthcare capacity, implement widespread testing, and enforce quarantine and isolation measures. This plan had been used effectively during prior public health emergencies, including H1N1 and Legionnaires Disease, but the scale and complexity of COVID-19 rapidly exceeded anticipatory measures and preparedness assumptions.

The need to combat the aggressive spread and the rising mortality of the COVID-19 pandemic prompted State leadership to adopt novel strategies that went beyond existing plans. Early such actions included the declaration of a state of emergency and heavily leveraging executive powers to respond to the emerging health crisis. As Governor Andrew Cuomo engaged directly in the management of the response, there was a movement away from the State's established public health and emergency management structure, pandemic response plans and interagency procedures toward the promotion of "top down" initiatives, often based on outside expertise and

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initiatives of the Executive Chamber. Reflecting this centralized direction, Governor Cuomo would issue hundreds of executive orders over the next two years aimed at mitigating virus spread and protecting the state.

The pandemic's spread revealed a need for disease surveillance on an unprecedented scale, requiring increased laboratory capacity, trained public health personnel, and integrated data systems to track and manage new and existing cases.

The strain on hospitals, inpatient facilities, and emergency medical services demonstrated both the resilience and vulnerabilities of New York's healthcare system. Healthcare workers and facilities faced critical shortages of personal protective equipment (PPE) and struggled to manage patient surges, particularly in the cities. In response, the State sought to bolster hospital surge capacity, improve the resilience of supply chains, and foster collaborative networks among healthcare providers to share resources and best practices.

Similarly, skilled nursing and congregate care settings (i.e., nursing and group homes), were severely impacted by the pandemic, demonstrating the acute vulnerabilities of these environments to infectious disease outbreaks. The spread of COVID-19 through skilled nursing facility homes and the subsequent mortality among that population was a source of emotional distress to families as well as an area where the State came up well short in terms of both perception and performance, although overall outcomes were not substantially inconsistent with overall performance in such facilities nationwide.

The State's nearly overnight transition from classrooms to virtual learning encountered significant obstacles to maintaining educational quality through online platforms and brought to light the stark disparities in digital resource access among students. The "digital divide", the inability or varying degrees of some to access information online, became a recurring theme in the data analyzed for this report. Mostly poor, underserved, and minority students in less resourced settings were at risk of not having the hardware nor the internet bandwidth required to fully access the sometimes uneven educational resources being provided by educators with limited experience in a remote teaching environment.

The pandemic and the measures taken to battle it had devastating impacts on virtually every New York business and industry, with widespread closures, significant economic losses, and barriers to resuming

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operations. Reduced customer demand or access due to lock-downs, supply chain disruptions, and the necessity of implementing stringent health and safety measures all played key factors in the economic downturn caused by COVID-19. On the plus side, programs aimed at providing loans, grants, and other forms of financial aid were pivotal in helping businesses withstand the economic downturn and prepare for a gradual return to normalcy. On the negative, the State experienced shortfalls in providing clear and timely information on guidance for operating, closing, and reopening.

The pandemic's strain on social services further revealed the critical gaps in support systems designed to assist the most vulnerable. In its response and recovery, the State has identified opportunities for strengthening these networks to ensure they can withstand the pressures of large-scale emergencies. Moreover, the data indicates the necessity of targeted healthcare interventions and the provision of comprehensive social services that are accessible and responsive to the various needs of these populations. State agencies that serve these groups failed to have viable "all-hazards" emergency response plans to ensure equitable distribution of resources and partnerships with community organizations to facilitate outreach and support.

Managing human resources and workforce issues during the pandemic was a challenge for State and local agencies, and particularly for those providing essential services, specifically including healthcare, where "work-from-home" was not an option. Innovative strategies for scaling workforce capacity quickly and efficiently, including cross-training existing employees, utilizing retired professionals, and better leveraging of volunteers, became doctrine through the emergency. The introduction of remote work capabilities across the public and private sector helped prevent the spread of the virus and maintained organizational functions, transforming the definition of work arrangements. Going forward, strategic workforce planning needs to be integrated into emergency preparedness efforts that consider a broader range of potential threats and hazards.

While NYS demonstrated considerable strength and adaptability in the face of COVID-19, the pandemic unveiled systemic shortcomings that require comprehensive strategies to enhance resilience, improve public health, and ensure the well- being of all New Yorkers in the face of future crises. Recommendations across sectors emphasize the need for integrated planning, robust support systems, and a commitment to addressing inequities, underscoring the importance of a coordinated, inclusive approach to emergency management.

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III. Methodology

In conducting the comprehensive review of New York State's (NYS) response to the COVID-19 pandemic, the reporting approach was structured to ensure thorough data collection, expert analysis, and practical, actionable recommendations. This section outlines the methods employed to gather, assess, and synthesize the data that form the basis of the findings and recommendations.

Data Collection

This after-action report's (AAR) primary source of information was a systematic data collection effort that engaged with key stakeholders through surveys, interviews, and town hall-style listening sessions to capture a broad spectrum of experiences and perspectives. This included input from state agency executives, frontline workers, public health officials, educators, business owners, and nonprofit service providers. Regrettably, a number of key officials were unwilling to participate in the interview process, many citing concerns about possible litigation and other legal actions related to their roles in the State's pandemic response. Although this has undoubtedly resulted in some gaps in the record assembled here, it was probably inevitable given the voluntary nature of the data collection process. To help offset that lack of first person engagement, the AAR team collected and analyzed thousands of official and publicly-available documents including executive orders, public health advisories, internal leadership reports, media reports, previously conducted reports, and legislative actions specific to NYS's pandemic response. The AAR team meticulously reviewed these documents to understand the chronological sequence of events, decisions, and actions taken.

Analysis

The analysis phase was structured around evaluating the effectiveness of NYS's pandemic response strategies. This included assessing public health preparedness, healthcare infrastructure resilience, education sector adjustments, business and industry impacts, as well as the State's efforts to protect vulnerable and marginalized populations. The AAR team paid particular attention to the adaptability of response measures, coordination among various state agencies, and the communication strategies employed to inform and engage with the public.

Accessibility and Readability

Recognizing the importance of making the AAR findings accessible to a wide audience, this report aims to present the analysis in clear, straightforward language. The AAR team has attempted to minimize technical jargon and break down complex concepts to ensure that readers without a background in emergency management or public health can easily understand the report's content. This approach aligns with the State's commitment to transparency and public accountability, ensuring that all New Yorkers can engage with the findings and contribute to the ongoing dialogue about preparing the whole community to respond effectively to the next emergency, disaster, or public health crisis.

Conclusion

The methodology employed in the report was designed to provide a comprehensive understanding of NYS's response to the COVID-19 pandemic, highlighting key areas of success and identifying opportunities for improvement. By combining rigorous document analysis with extensive stakeholder engagement, this report that not only evaluates past actions but also offers insights that can inform future response and recovery efforts. The focus on accessibility ensures that this report can serve as a valuable resource for policymakers, public health professionals, and the general public alike, fostering informed discussion and ongoing improvement in NYS's disaster response and preparedness activities. For additional information on the methods used to develop this report, see Appendix B: How Data was Collected.

IV. Incident Overview

A. Incident Summary

On March 1, 2020, the New York State Electronic Clinical Laboratory Reporting System processed 73 COVID-19 test results in 62 counties statewide, signaling the beginning of New York State's (NYS) official battle against COVID-19.

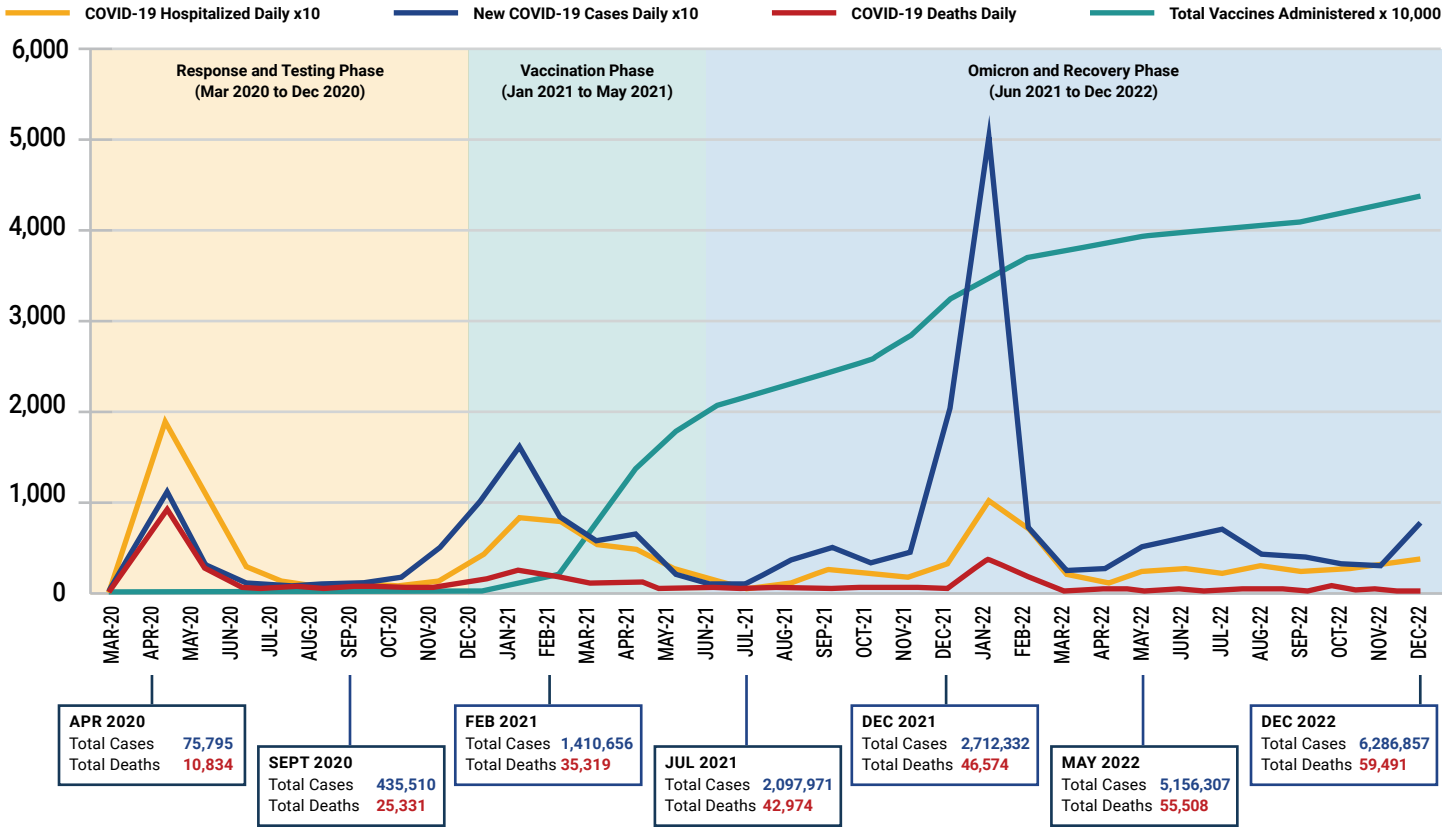
In the years prior to the pandemic, the State had written and routinely tested a range of robust disaster response and recovery preparedness plans, including pandemic plans, continuity plans, and comprehensive emergency management plans. However, once COVID-19 took hold in the State, decision-makers were overwhelmed by the disease's rapid onset and the severity of its impacts and felt the plans were inadequate to handle such an event. An analysis of the data surrounding NYS's response and recovery supports these opinions.

Regardless of the perceived quality of the executive orders (EOs), laws, guidance, advisories, and other such policies created by state officials, there is no denying the substantial effects the pandemic has had on NYS. The new virus challenged scientists, healthcare providers, emergency management departments, and the nation to respond when they had minimal facts at their disposal. This led to the State's numerous releases of EOs and guidance in the initial phase of the pandemic when there was immense pressure to disclose details about COVID-19 as soon as they were obtained.

The four principal data categories that drove the State's decision-making process throughout the pandemic included the number of positive cases, hospitalizations, COVID-19-related deaths, and vaccinations administered. These numbers depicted the spread and impact of COVID-19 among the state and assisted in visualizing the success of response efforts. The data categories ultimately defined the operational periods found throughout this report.

The response can be divided into three distinct operational periods: the initial COVID-19 response and testing phase (March 2020 to December 2020), the second COVID-19 wave and vaccination phase (January 2021 to May 2021), and lastly, the Omicron and recovery phase (June 2021 to December 2022).

Figure 1: NYS COVID-19 DATA COMPARISON



1. Initial COVID-19 Response and Testing Phase (March 2020 to December 2020)

Governor Cuomo announced on March 1, 2020, that a 39-year-old healthcare worker returning to Manhattan from a trip to Iran had carried COVID-19 into NYS. In less than a week, another 16 confirmed cases were announced in New York City alone. After the World Health Organization declared a global COVID-19 pandemic on March 11, 2020, it was evident that a response to a health crisis with a magnitude not seen since the 1918 influenza pandemic was required.

By March 7, 2020, 76 positive cases of COVID-19 had been confirmed in five New York counties. Governor Cuomo's declaration of a state of emergency on March 7, 2020, expanded the State's operational response capabilities. The expedited procurement of cleaning supplies, testing supplies, and equipment as well as expedited personnel onboarding, served to increase available healthcare resources. The state of emergency also allowed qualified professionals other than doctors and nurses to conduct testing and provided clear rules against price gouging and the steps to enforce it. This helped fill the gaps in essential healthcare staff required for full-scale operational response.

In the following week, between March 8 and March 12, New York State issued executive orders (EOs), announced guidance, created guidance and policies, and released new codes, rules, and regulations to limit exposure, lower risk, and optimistically, slow the spread of the virus. New York City issued guidance for avoiding densely populated public transit, such as buses, subways, and trains and waiting for less crowded vehicles when possible.

On March 10, 2020, Governor Cuomo held a press conference where he announced 108 confirmed COVID-19 cases in New Rochelle, the highest number of cases in the state. Deeming the area a "cluster," he announced his acceptance of NYS Health Commissioner Dr. Howard Zucker's recommended containment strategy. During the press conference, Governor Cuomo detailed the protocol's containment strategy, which included closing schools, houses of worship, and other large gathering facilities within a one-mile radius around New Rochelle from March 12, 2020, to March 25, 2020. The Governor also deployed National Guard troops to a health department

command post to assist with delivering food and cleaning public spaces within the containment area.

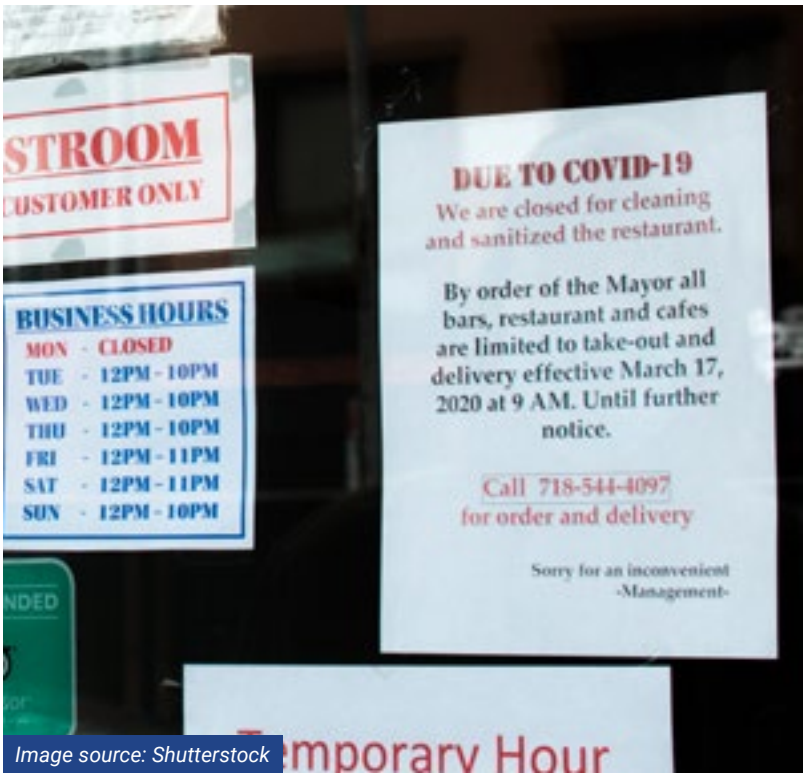
On March 12, 2020, Governor Cuomo issued EO 202.1, which initiated a series of societal changes that impacted average life in a metropolitan area. EO 202.1 was effective immediately and included requirements such as canceling or postponing all gatherings in NYS with an expected attendance of 500 people, or more, prohibiting any bars or restaurants from having on-site service for eating or drinking and requiring casinos, gyms, fitness centers, and movie theaters to cease operations.

Although the EO's intention was to protect public health, the financial consequences of the closures prompted substantial backlash from impacted businesses and individuals.

On March 13, 2020, President Trump issued an emergency declaration in response to the COVID-19 outbreak in the United States, which showed the federal government's acknowledgment of the virus' rapid spread and its potential to strain the country's healthcare system. The emergency declaration advised all hospitals and medical facilities to assess their readiness level and be prepared to activate surge plans. In response to the President's emergency declaration, NYS gave nursing homes guidance and requirements in an effort to limit exposure and spread of the virus to the vulnerable populations living within those facilities. NYS announced the decision to limit visitors to nursing homes that were not medically necessary and require health screenings and masking of all nursing home workers.

On March 14, 2020, the first two COVID-19 deaths were recorded in NYS. Dr. Oxiris Barbot, the New York City Department of Health Commissioner, said, "This is a painful moment, and one we furiously worked to avoid. We urge all New Yorkers to continue to take the necessary precautions to keep themselves and their fellow New Yorkers safe and healthy. We never for a moment lost sight of how serious this situation is, but this tragedy reflects how critical and dire the spread of the virus really is. Our hearts go out to the family during this difficult time."

Governor Cuomo signed an executive order on March 16, 2020, directing that schools across the state would be closed for two weeks to limit exposure and slow the spread of COVID-19. This declaration was extended three more times, eventually resulting in the release of Executive Order 202.28 on May 7, 2020, which closed schools through the remainder of the



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academic year. The closure of schools affected at least 2,512,973 students statewide in grades K-12 and required the transformation of education from an in-person classroom experience to learning online in a virtual room.[1] "It's critical that we protect our students from this virus, and given the current circumstances we are in, we do not think it is possible to put the necessary precautions in place that would allow us to reopen schools this academic year," Governor Cuomo said. During the announcement to keep the schools closed, Governor Cuomo directed schools and colleges to begin creating reopening plans and noted that the State would review these plans. The switch to distance learning forced unprecedented decisions for New York's school systems. Many school districts struggled to find out how to get all students connected to the virtual platforms, and many students, families, and staff were facing challenging circumstances educationally and beyond. As New York's school systems pivoted to support their students, other educators around the nation watched and noted their decisions and strategies.

[1] "2021 | NY STATE - Enrollment Data | NYSED Data Site." n.d. https://data.nysed.gov/enrollment.php?year=2021&state=yes


Image source: Shutterstock

Despite significant adjustments to normal operating procedures, the New York healthcare system struggled to expand operational response capabilities. The soaring number of admissions, positive cases, and lack of available beds were not adequately addressed in preparedness plans, and essential supplies remained scarce. On March 18, 2020, Governor Cuomo announced that the United States Naval Ship Comfort would be deployed to New York City's harbor to provide additional staffing and bed availability. "We are fighting a war against this pandemic, and we know that two of the most effective ways to stop it is [sic] by reducing density and increasing our hospital capacity so our healthcare system is not overwhelmed," Governor Cuomo said.[2] The hospital ship arrived on March 30, 2020, and stayed for nearly a month. It provided care to 182 patients during the three-and-a-half weeks it was in New York City.[3]

On March 20, 2020, Governor Cuomo signed "Matilda's Law," named after the Governor's mother, to protect vulnerable populations in New York, including the elderly, those with compromised immune systems, and individuals with underlying conditions. This law limited visitation from anyone other than immediate family members and increased pre-screening measures before allowing those individuals to visit. These pre-screening and mitigation measures included taking temperatures, completing flu-like symptom questionnaires, and recommending all visitors and patients wear masks. "We know the most effective way to reduce the spread of this virus is through social distancing and density reduction measures," Governor Cuomo said.

On March 20, 2020, Governor Cuomo signed the "New York on PAUSE" executive order.[4] This order went into effect on March 22, 2020, and required non-essential businesses statewide to keep their employees out of the office and encouraged individuals to stay home and indoors. Consequences for non-compliance with this order included mandatory business closure and civil fines. Also, in this EO, the governor asked any personal protective equipment (PPE) product providers to sell to the State to increase the amount of available PPE for essential workers. He also provided incentive funding for companies that had the capability to begin producing PPE to do so.

By the end of March, the growing number of COVID-19 patients continued to overwhelm New York. Governor Cuomo continued to seek out temporary medical facilities aggressively and the personnel to staff them. One strategy for this was the revision of the Public Health Law through Executive Order 202.1. This EO permitted the Commissioner of Health to approve the establishment of temporary hospital locations and extensions without following standard approval processes. On March 26, 2020, Governor Cuomo announced that a total of 52,000 healthcare workers, notably including retirees and students, had signed up to volunteer to work as surge staff. Additionally, New York set up a state hotline to provide free online mental health services, which was staffed with over 8,600 mental health professionals.

By April 4, New York recorded over 75,000 total COVID-19 cases and continued to set records for the highest number of positive tests and the highest number of hospitalizations in a single day. At a press conference, Mayor de Blasio said New York City was preparing for a "horrible increase in the number of deaths."[5] The city accepted refrigeration trucks provided by the Federal Emergency Management Agency (FEMA) to serve as temporary mortuaries for the deceased and avoid the need for temporary burials.

On April 15, 2020, Governor Cuomo issued Executive Order 202.17, requiring all people to wear a mask or face covering out in public or when social distancing was not an option. Additionally, the measure required nursing homes to report any positive COVID-19 cases and deaths among residents to their families within 24 hours. This was not previously mandatory.

[2] NYS Executive Chamber Press Release. 2020. "Amid Ongoing COVID-19 Pandemic, Governor Cuomo Announces Deployment of 1,000-Bed Hospital Ship 'USNS Comfort' to New York Harbor." Press release. March 18, 2020.
[3] Fleet, B. F. U. 2. (n.d.). USNS Comfort arrives in New York. Military Sealift Command. https://www.msc.usff.navy.mil/Press-Room/News-Stories/Article/2346256/usns-comfort-arrives-in-new-york/
[4] NYS Executive Chamber Press Release, "Governor Cuomo Signs the "NYS on PAUSE Executive Order." Albany, NY, March 20, 2020.
[5] "Mayor de Blasio Holds Media Availability on COVID-19." 2020. Press release. Uploaded by NYC Office of the Mayor. April 1, 2020.

At this time, the governor also announced that the State would begin antibody testing, initially prioritizing the tests for frontline healthcare workers, first responders, and other essential workers. This initiative then expanded to include a randomized 3,000 individuals which gave the State baseline data to estimate approximately 13.9% of New Yorkers likely had contracted COVID-19, recovered, and had some level of antibodies for the virus.

After peaking in April, New York's numbers of new positive cases, hospitalizations, and deaths steadily declined, offering relief to the State's distressed healthcare system. By May, New York began cautiously looking ahead toward re-opening.

Governor Cuomo announced a plan to reopen the state using different schedules for different regions.

The re-opening plans addressed many areas, including but not limited to regional hospital bed availability, regional testing regimens, contract tracers, facilities for self-isolation, region-to-region coordination, tele-medicine, tele-education, and regional control rooms. The plans also had guidelines for ensuring protections for frontline essential workers and requiring businesses to have plans to protect workers.

Additionally, Governor Cuomo announced the creation of the New York Forward Re-Opening Advisory Board to help guide the State's reopening strategy. The board consisted of business, community, and civic leaders from across the state, and former Secretaries to the Governor Steve Cohen and Bill Mulrow were the chairs.

Vaccination against COVID-19 became a primary requirement for re-opening regions in New York. On April 30, 2020, the Trump Administration launched Operation Warp Speed, an initiative to produce a vaccine against COVID-19 as quickly as possible. The federal government funded the development of six promising vaccine candidates while still in the clinical trial phase, including the Pfizer-BioNTech and Moderna mRNA vaccines and Johnson and Johnson's traditional virus-based vaccine.

On May 14, 2020, Governor Cuomo significantly eased restrictions for business capacities, social gatherings limits, and event venues with the release of Executive Order 202.31. Businesses could return up to full capacity as long as six-foot social distancing could be maintained. Limits on outdoor gatherings increased from 200 to 500 people, and indoor gatherings increased from 10 to 50 people. Moreover, if all attendees at an event could produce proof of vaccination and a negative COVID-19 test, even these limits could be withdrawn.

On May 14, 2020, Governor Cuomo outlined Phase One re-opening for businesses in several regions and emphasized that it would be a phased process. With the numbers of hospitalizations and deaths declining, Governor Cuomo announced the start of Phase Two of re-opening on June 2, 2020, with the release of Executive Order 202.36. The EO allowed low-risk outdoor activities and dining. On June 16, Phase Three of the re-opening commenced, which included allowing visitors to visit hospitals and group homes. A month later, every region in New York was in Phase Four of re-opening, and the State was feeling some sense of success.

During the early summer months, Governor Cuomo announced that all NYS schools would re-open for full in-person learning for the 2020-2021 school year beginning in September. "While teachers and school administrators did an incredible job pivoting to remote learning with virtually zero notice, there's no denying the discrimination students who did not have the right equipment faced. With the way our COVID-19 numbers are currently trending, there is no reason why our students should not get back to in-person learning as usual, and we look forward to welcoming them back. If there is a change in the trajectory of the virus, we will revisit the decision," Governor Cuomo said.[6]

The protective measures in place continued to demonstrate effectiveness during the summer months. COVID-19 infection rates remained at less than one percent.[7] By the middle of September, New York had shown even more progress in handling the virus.

As the fall began, testing kits were readily available and allowed for increased testing capabilities. With re-opening efforts underway, healthcare workers and school staff were required to submit to COVID-19 testing at daily and weekly rates under the reporting advisory letter released on September 21, 2020. The increase in testing showed a rise in positive case numbers, but hospitalizations and deaths were not increasing at the same rapid rate. On October 2, 2020, the NYS Commissioner of Health sent an order to local governments to report enforcement activities and outline specific consequences for failure to enforce EOs.

[6] "Governor Cuomo Announces All New York State Schools to Reopen in September." Press release. May 14, 2020.
[7] "Governor Cuomo Announces COVID-19 Infection Rate Below 1 Percent" Press release. September 18, 2020.

On December 7, 2020, Governor Cuomo directed the NYS Department of Health to begin implementing the State's "surge and flex" protocol and mandated all hospitals to begin expanding their bed capacity by 25% in preparation for a potential COVID-19 surge since the cold and flu season would likely increase demands on New York hospitals.

At this time, the governor also outlined New York's micro-cluster strategy and announced that regions that reached critical hospital capacity had a high population, and sustained test positivity rates above four percent would be designated red zones. Red zones prohibited mass gatherings, closed in-person schooling, restricted restaurants to take-out or delivery only, and only allowed essential businesses to remain open. If regions could not stabilize hospitalization rates within five days, closures and restrictions would go into effect. Governor Cuomo said, "We've done a couple of things that are different than other states. In New York, the State sets all the policies and keeps numbers that are determinative of the policies. Now, we close down if you hit critical hospital capacity. We're implementing the surge and flex."[8]

Image source: Shutterstock

[8] "Governor Cuomo Directs State Department of Health to Begin Implementing 'Surge & Flex' Hospital Protocol" Press release. December 7, 2020.

2. Second COVID-19 Wave and Vaccination Phase (January 2021 to May 2021)

With the start of 2021, NYS began rolling out COVID-19 vaccinations. On January 4, 2021, all outpatient and ambulatory frontline, high-risk healthcare workers of any age providing direct in-person patient care were eligible for vaccination. On January 13, 2021, the next phase of the State's vaccination plan was rolled out and expanded to include people 65 years and older and immunocompromised individuals. In mid-January, the State opened five vaccination centers and began vaccinating eligible individuals. The centers were Javits Center, Westchester County Center, NY State Fair Expo Center, SUNY, and Jones Beach.

The Jones Beach location was the first drive-through mass vaccination site. January 2021 also saw the deployment of community vaccination preparation kits and the launch of a COVID-19 vaccine tracker dashboard and a hotline focused on vaccine-related fraud. The second wave of COVID-19 included the UK variant, which in late January had been found in 42 cases across the state.

Image source: Shutterstock

By February 2021, New Yorkers with underlying medical conditions and hotel workers became eligible for vaccines. Governor Cuomo announced sweeping nursing home reform legislation to increase transparency, hold nursing home operators accountable for misconduct, and helping ensure facilities were prioritizing patient care over profits. On February 22, 2021, State Health Commissioner Dr. Howard Zucker released nursing home visitation guidance and requirements.

The next phase of vaccinations included all New Yorkers age 30 and older. By the end of March 2021, over 20% of New York's more than 19 million residents had received their first dose, and 10.4% were fully vaccinated. The State conducted a massive outreach effort and began the "Roll Up Your Sleeve" ad campaign to encourage all New Yorkers, especially individuals from hard-hit communities, to receive the vaccine. Part of this incentive included Governor Cuomo signing legislation that would grant employees time off to receive the COVID-19 vaccination. To further ensure vaccine distribution equity and access to potentially underserved residents, twelve community-based vaccination sites were opened across New York.

Throughout March and into April, the State began to ease restrictions. This included expanded indoor dining capacities, larger outdoor gatherings, the opening of entertainment venues if within a given limited capacity, and the reduction of quarantine requirements for travelers. In April, New Yorkers age 16 and older were eligible for the vaccine, though only Pfizer was available for those 16 or 17. This came one month earlier than the May 1 deadline for universal eligibility that the Biden Administration demanded. Community-based pop-up vaccination sites became more prevalent and mass vaccination sites began accepting walk-in appointments.

By the middle of May, many of the protective measures and restrictions had been lifted. This included dropping capacity restrictions on most businesses and no longer requiring vaccinated people to wear masks indoors. The Centers for Disease Control and Prevention (CDC) was adjusting its guidance to meet the changing elements of the virus and the state of the nation. May 2021 also ushered in other vaccine incentives, such as scratch-off tickets and scholarships to NYS public colleges.

3. Omicron and Recovery Phase (June 2021 to December 2022)

On June 18, 2021, Governor Cuomo announced that state-run mass vaccination sites would begin to scale down and shift efforts to localized vaccination efforts. "From the highest positivity rate on the globe to one of the lowest positivity rates in the nation, New Yorkers have worked tirelessly to keep their communities safe and show up for each other throughout the pandemic," Governor Cuomo said.[9] By the end of June, NYS rescinded the emergency declaration.

Throughout the summer, positive cases, hospitalizations, and deaths remained low in New York while the vaccination numbers climbed. On July 28, 2021, the deadline was set for mandated vaccination of patient-facing healthcare workers at state-run hospitals and NYS employees. Government employees were required to provide proof of vaccination or be tested weekly for COVID-19.

On August 18, 2021, in partnership with the University of Albany, the NYS Department of Health released data on the effectiveness of vaccines in the fight against COVID-19. This study was the first of its kind in the nation and demonstrated that vaccination would be the best way for people to protect themselves.

"The findings of our research are clear: Vaccines provide the strongest protection for New Yorkers against getting infected or becoming hospitalized due to COVID-19," said senior author and State Health Commissioner Dr. Howard Zucker. The findings of this study were released following the emergence of the Delta variant of COVID-19, which accounted for 94% of all COVID-19 cases at this time.

On August 23, 2021, Governor Cuomo resigned, and at midnight on August 24 Governor Hochul took office. She announced $200 million in additional food assistance for New Yorkers enrolled in the Supplemental Nutrition Assistance Program, signed into law a new moratorium enabling all protections of the Tenant Safe Harbor Act for residential tenants suffering financial hardships, and adjusted the businesses' eligibility for the COVID-19 Pandemic Small Business Recovery Grant Program.

On July 7, 2021, the NYS Department of Health finalized and released Interim Guidance for In-Person Instruction at Pre-K to Grade 12 Schools. This guidance authorized EMTs to administer the COVID-19 vaccine and designated COVID-19 as a highly contagious communicable disease under the NYS HERO Act, requiring all employers to implement workplace safety plans in the event of an airborne infectious disease.

On September 29, 2021, Governor Hochul updated the guidance for the NYS COVID-19 Vaccination Program to expand mandated vaccinations to include employees in facilities offering services to people, such as the Office of Mental Health and the Office for People with Developmental Disabilities.

Beginning in September 2021, the rise of the Omicron variant resulted in a significant increase in the number of COVID-19-positive tests. In an attempt to diminish the surge, Governor Hochul declared a state of emergency as part of a preemptive strategy. Sixty National Guard medical teams were deployed to various New York long-term care facility locations to assist with resource needs.

Personal protective measures and mitigation strategies, such as masking, continued to evolve in the early months of 2022 based on the analysis of several COVID-19 data trends. These changes were outlined on February 4, 2022, within the New Isolation and Quarantine Guidance Update and the Updated Advisory on Return-to-Work Protocols for Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2. Hospitalizations and deaths began to increase in January, which led Governor Hochul to request additional resources from the federal government to provide relief to hospitals and emergency services. Governor Hochul said, "These critical resources will build on our ongoing winter surge plan efforts to assist our overstressed hospitals so they can maintain patient care and relieve some of our exhausted medical staff and emergency responders." This support came in the form of two Department of Defense military medical teams and 30 national ambulance contract teams.

On March 2, 2022, Governor Hochul announced that students in New York public schools were able to unmask. This decision followed changes in metrics used by the CDC to determine risk and transmission levels in communities. On April 19, 2022, a judge lifted the federal mandate to wear masks on public transit. However, Governor Hochul maintained the mandate for New York.

During the months of April and May, Governor Hochul announced the distribution of federal pandemic funding to provide millions of dollars' worth of food, financial assistance, and childcare assistance to support low-income and struggling families who incurred significant costs during the COVID-19 pandemic. "The economic toll of the COVID-19 pandemic disproportionately impacted low-income families across our state, especially those with children," Governor Hochul said, "This one-time

[9] "Governor Cuomo Updates New Yorkers on State's Progress During COVID-19 Pandemic" Press release. June 21, 2021.

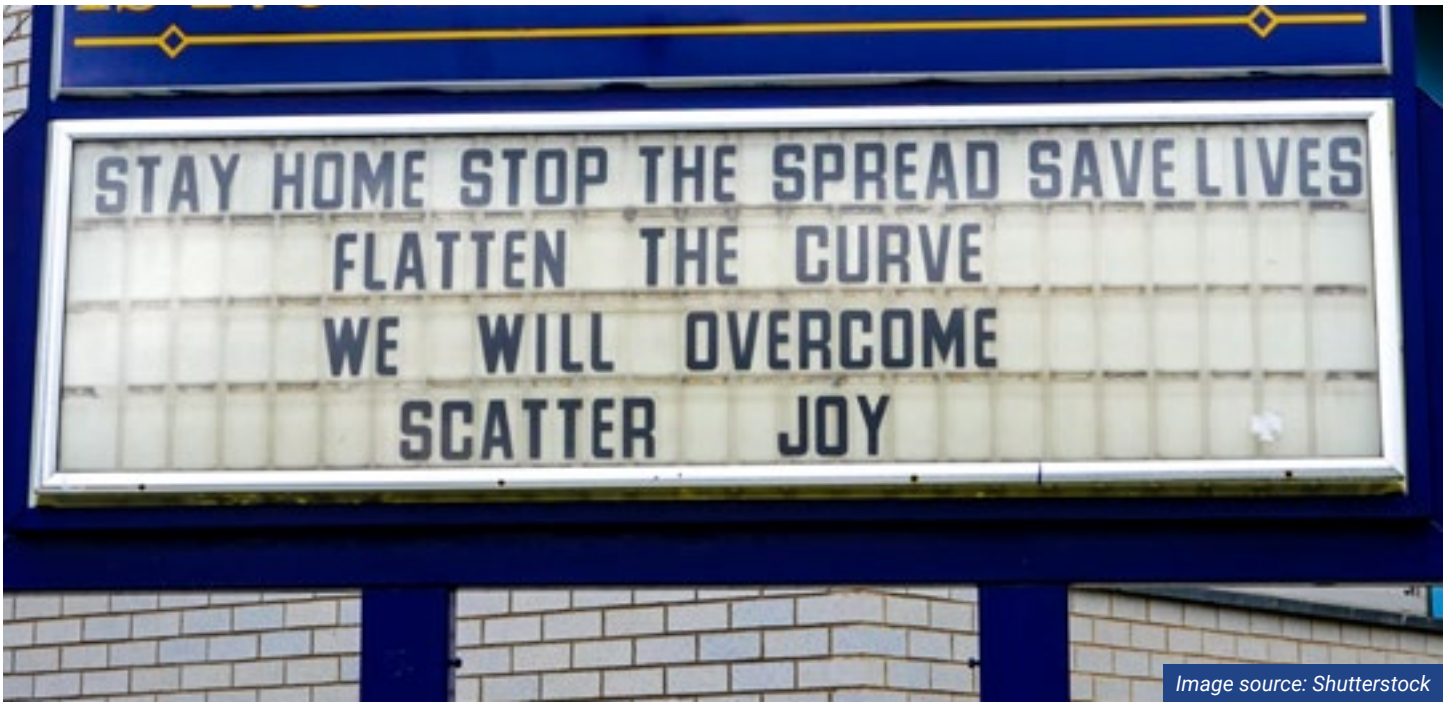


Image source: Shutterstock

payment will provide tens of thousands of families with a critical lifeline to help pay past-due bills or other household expenses that accrued as a result of the COVID-19 pandemic."[10]

By June 18, 2022, the CDC had expanded the vaccination roll out, including the recommendation of COVID-19 vaccines for children as young as six months old. This guidance came alongside fairly steady low numbers of hospitalizations and deaths across NYS throughout the summer.

On September 7, 2022, nearly six months after the federal mandate was lifted, Governor Hochul announced that the NYS mandate to wear a mask on public transportation and transit hubs would be lifted. This did not change the mask mandate related to healthcare facilities, including nursing homes and assisted living facilities.

During the winter of 2022, while COVID-19 hospitalizations and deaths remained stable, although elevated, the increase in the flu and RSV began to tax the healthcare systems and experts urged hospitals to begin once again considering surge capacity plans.

Although the federal public health emergency and the national emergency declaration did not end until May 11, 2023, Rockland County, one of the first jurisdictions to experience the original wave of infections in March 2020, signaled recovery from the pandemic on December 9, 2022, when the county website COVID-19 dashboard was shut down.

[10] "Governor Hochul Announces Additional Support from Federal Government to Combat Omicron Surge in New York State" Press release. January 13, 2022

V. Pandemic Preparedness & Response in New York State

While New York State (NYS) was probably not as prepared for the COVID-19 pandemic as its leaders and the agencies responsible for mounting a response believed it was, there were several key areas where New York was better off than other states. These included a sophisticated health surveillance capability and access to extremely sophisticated medical and health research communities. On the other hand, in the earliest days of the disease's arrival, the New York State Department of Health (NYSDOH) quickly lost the Governor's confidence in its ability to lead the response.

NYS's reaction to the pandemic quickly went beyond any strategies envisioned in the State's pre-existing plans and policies for dealing with such an emergency. However, plans and policies are seldom intended to be followed verbatim, but rather as one interview participant stated, "…are used as frameworks and … government had sufficient plans." Furthermore, many officials interviewed for this report acknowledged that the scale and speed of the event dictated how existing plans were or were not used by state leaders carrying out the response.[11]

Many county and some NYS department participants expressed the feeling that, "one of the most frustrating components of this event was when the State removed local control from local entities, basically saying locally elected officials could no longer protect their own communities and that it would be handled statewide."[12] There was a feeling that the State's one-size-fits-all approach that replaced the pre-existing coordination-oriented plans didn't work. "Expectations of timing and metric goals were a hindrance, not the policies themselves. The policies weren't bad, it was the ability to operationalize those policies that created the challenges because what works for one county may or may not work for another."

[11] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[12] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls 2023

1. Public Health Preparedness

Actions Taken Prior to COVID-19 Onset

The State's efforts to prepare for COVID-19 actually began at least as early as the second week of 2020. "As senior officials at DHSES *(Division of Homeland Security and Emergency Services)* were made aware of COVID-19 they immediately shared this information with their commissioner, who in turn reached out to NYSDOH as to what they might need."[13] The senior official went on to say, however, that the NYSDOH did not appear to have expressed any response to this information nor request any type of support for preparations.[14]

Regardless of that comment, the NYSDOH did begin raising awareness about the disease. The department sent out information to nursing homes in the state on February 7, 2020 regarding COVID-19 prevention procedures. Other preparations were also actively underway weeks before the governor's disaster declaration. One official interviewed for this report stated, "DOH had done their homework, and they had plans in place that had been practiced; they had staff augmentation support identified."[15]

Within DHSES, the Office of Emergency Management was reaching out to their county-level partners, as well as to their colleagues at New York City Emergency Management (NYCEM) but upstate counties, at least, had no needs at the time.[16] NYCEM was leaning forward by early January 2020, sharing information and best practices with other big cities across the globe.[17] NYC also elevated activation of their EOC and began conducting pandemic preparedness drills.

Even four years after the pandemic's arrival, most persons involved in that response believe that the NYS was reasonably prepared for a public health event but not an event this big, this fast. "We trained in these types of scenarios in the past. Our policies were in place but not on a large enough scale for this incident. We had to change as the game changed."[18]

Plans in Place Before the Onset of COVID-19

NYS had, as has been noted elsewhere, a sophisticated preparedness structure, mandated under state law, and implemented by professional emergency managers. Beyond the NYS Comprehensive Emergency Management Plan (CEMP), which set out the State's organizational structure for dealing with disasters, a variety of additional plans and annexes, including continuity of operations plans (COOP), pandemic plans, points of distributions (POD), mass fatality, and many others had been developed and were supported by agencies and organizations at all levels of government. The question really is not whether there were plans, but rather, how capable were the agencies and their leadership in being able to execute them. Additionally, another interviewee stated, "departments had to adapt as operations moved forward. The Department should have a basic framework and infectious disease/ pandemic plan in place prior to COVID and…adjust plans as more information became available."[19]

Based on Governor Cuomo's past practice of leading from the front, noted by several participants that he had a limited tolerance for those he felt were incapable of management. One of the more notable examples comes from a participant who noted, "that the Chamber quickly came to the conclusion that there was an issue with DOH's ability to execute their pandemic plan, stating that DOH personnel were at max capacity very early in the event and as the pandemic grew, it reached beyond what the plan addressed."[20] Additionally, that same participant stated during one particular briefing with the governor, there was a discussion about personal protective equipment (PPE), and the term MERC was used, referring to the State's Medical Emergency Response Cache. A moment later in the conversation, a senior from the official from DOH asked which agency "owned the MERC," and the response was "You." Several former State officials believe that was the moment Governor Cuomo decided to take command of the incident."[21]

Another participant corroborated that claim by stating that early on, the direction for the NYSDOH changed, and they went a different route based on the administration's mandates. The NYSDOH had ventilators and stockpiles of supplies, but the pandemic had quickly outstripped their planning. The Executive Chamber saw the coordination of the necessary logistics function as being beyond the capability of the NYSDOH.

[13] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[14] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[15] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[16] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[17] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[18] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[19] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[20] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[21] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023

Consequences of Shifting Away from Pre-established Plans

After that meeting, the NYSDOH's role as the lead response agency shifted to the Executive Chamber. Simultaneously, the NYSDOH's Pandemic Response Plan was essentially disregarded. Many participants stated, "that Cuomo appeared to lose confidence in or even abandoned a lot of the plans that were in place in lieu of an executive order-driven operation."[22]

"The state had the plans but did not follow them because the Executive Chamber wanted to do their own thing." For instance, the state and local NYSDOH have been planning and practicing vaccination PODS for years. Instead, the Executive Chamber mandated that everyone use "hub hospitals" to run the programs and they did not have the capability to do so.[23]

A county official stated, "if the State had used the plans that were available and written, then yes, they would have had the proper plans in place but instead we were stuck with all these executive orders."[24] The flood of executive orders and other state guidance caused significant issues for the response. Considerable effort was required just to decipher what was being requested or required, how guidance had changed from other previous requirements, and how to integrate state directives with local emergency orders. That struggle caused an inadvertent disconnect among the various levels of government.

A local official related that "the Chamber doesn't know us or what we are going through." Another participant, referencing the challenge of one-size-fits-all orders, said that "mandates cannot be uniformly implemented! All counties have different priorities and circumstances but again, do they care?"[25] Others reported that the processes and procedures regarding social distancing guidelines, school closings, testing, vaccinations, closing and reopening of businesses and industry were consistently changing.

A former state official stated, "there were plans on the shelf that were never opened or used. Plans were too quickly abandoned, and new plans were made ad hoc with little or no transparency."[26] Yet, the Governor's assumption of a role at the front of the response did not surprise those that had been paying attention. One public safety official related, "the Executive Chamber's level of engagement was what they expected. The Governor has always been engaged during incidents and disasters to make sure the state agencies support the needs of the people as much as possible. With COVID they expected nothing less from the Governor and that is what they got."[27]

Governor Cuomo and Emergency Management

In examining NYS's preparedness for COVID-19, it is important to note that this was not Governor Cuomo's first experience leading the response to a major disaster.

Prior to his election as Governor, Andrew Cuomo was President Bill Clinton's Secretary of Housing and Urban Development (HUD). In that capacity he was directly involved in HUD's support of the federal government's response to major disasters, including hurricanes. He mentioned this experience at press conferences early in his tenure as Governor, where he noted the importance of preparedness.[28]

In August 2011, within months of Governor Cuomo's assuming office, NYS was impacted when Hurricane Irene hit. In the days leading up to the storm's landfall near New York City, the Governor held numerous press conferences to inform citizens of the State's preparations and urged New Yorkers to take personal responsibility in keeping themselves as safe as possible. This adoption of the role of leader or spokesman would become a consistent practice throughout his tenure.[29]

We see a very similar posture a year later in the run-up to 2012's "Superstorm" Sandy. Once again, the Governor held daily press conferences leading up to and during the event. In barely a year, the Governor showed how he applied what he had learned from that experience with Hurricane Irene. He was applying a certain level of prominence to emergency and disaster preparedness and response.

At a press conference on October 30, 2012, before Sandy's landfall, Cuomo laid out his approach to applying the lessons learned from Irene to Sandy.[30] Several of his comments offer insights into his thought process.[31]

[22] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[23] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[24] Gov. Cuomo on Hurricane Sandy - The New York Times (nytimes.com) Oct 30, 2012
[25] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[26] Gov. Cuomo on Hurricane Sandy - The New York Times (nytimes.com) Oct 30, 2012
[27] Gov. Cuomo on Hurricane Sandy - The New York Times (nytimes.com) Oct 30, 2012
[28] Gov. Cuomo on Hurricane Sandy - The New York Times (nytimes.com) Oct 30, 2012
[29] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[30] Gov. Cuomo on Hurricane Sandy - The New York Times (nytimes.com) Oct 30, 2012
[31] Gov. Cuomo on Hurricane Sandy - The New York Times (nytimes.com) Oct 30, 2012

- "Find a balance between being over-prepared versus being under-prepared. We don't want people to think we are not under control and that leads to fear."
- "Citizens have a responsibility to keep themselves safe, thus, need to provide enough information so they can do that."
- "Disasters are unpredictable, and people should not underestimate the real danger."
- "The scarcity of resources becomes an issue in large-scale events, so they were leaning forward to bring in utility companies."
- "Prepare all you can but then you must see what cards you are dealt and be able to react."

Beyond public messaging, however, Governor Cuomo also assumed a very hands-on role during Sandy, operating out of his offices in Manhattan in order to be on the forefront of the response to the flooding and other damage that rocked the region. In many instances, the Governor and his staff were visiting areas hit hard by the storm, meeting with the victims and making commitments of assistance. In doing so, his actions were outside the normal local to state support request system spelled out in the NYS CEMP.[32]

This experience is echoed and amplified in how Governor Cuomo led throughout the COVID-19 pandemic. That hard-won experience in managing scarcity of resources, not underestimating the risk, the constant and consistent briefings for the public, and the desire to allay or mitigate public fears would be reflected in daily press conferences and Leaders' Intelligence Reports during the pandemic. He expressed his convictions time and time again that preparation is the key to success, citizens need to have information to make informed decisions for themselves, they need to be active in their actions, and disasters are unpredictable, so New Yorkers should not underestimate or be dismissive of guidance that could keep them safe.

Politics and COVID-19

It is impossible to discuss the policy aspects of the pandemic response without considering the supercharged political component. Presidents, governors, mayors, and a host of other appointed and elected officials were highly visible throughout the COVID-19 response. Governor Cuomo's daily televised briefings were seen as either a counterpoint or counter-programming to the sometimes-hyper-political flavor of President Trump's press conferences. The dynamics of political engagement in the shaping of policy were largely viewed unfavorably by those who were interviewed for this report, especially regarding when elected officials were providing tactical information to those who were responsible for performing the response and recovery actions.

This is not to say that everyone thought poorly of the Executive Chamber's engagement. One state official reported that "my preference would have been to allow my facility to make plans and changes in procedure at a faster rate. However, each facility is part of the agency and cannot work independently. Overall, I do believe that the Governor's Office directions were quite good."[33] A county official contributed that "they were able to use existing plans to guide decisions and then adjust, modify, or improve upon those plans to make them more relevant to the situation. For instance, the county health department had an existing plan for vaccinations, and they were able to adjust that plan as a foundation for testing sites."[34]

There was a general consensus among participants that political dynamics led to a disconnect between federal, state, and local elected officials and complicated the efforts of response agency personnel to execute their plans. A NYS official mentioned that "State policies were not always aligned with the things that the federal agencies were saying."[35] Furthermore, a former local official stated that the disconnect went beyond the Washington-Albany contention, claiming, "the State of New York and the City of New York were at constant odds with the governor and the mayor sending mixed and conflicting messages."[36]

There are also those who believe nearly all pandemic decisions were politically driven. One state employee declared, "the plans that were in place were blocked by political concerns and unable to be implemented. Instead, everything was on the fly. The death surge came very quickly. Hospitals and mortuaries were quickly overrun with decedents."[37] Predictably, perhaps, that sentiment was not only directed at the State. Others had strong opinions about how plans were implemented in New York City. One interviewee

[32] Hurricane Sandy Response After Action Report, The National Center for Security & Preparedness (on behalf of New York State Division of Homeland Security and Emergency Services) July 1, 2013.
[33] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[34] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[35] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2023
[36] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[37] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023

Image source: Shutterstock

stated, "NYC had a strong pandemic plan for fatality management; however, the process was blocked by the Mayor because he did not want the bodies buried in a 'Potters Field.'"[38]

Many of those participating in the discussions for this report cited the creation of an environment that was perceived to be more for political benefit than for those in need.[39] A county official claimed that "the politics of the situation hindered their response as a whole. Government representatives completely bastardized the entire process. Politicians were going to local [groups] such as NGOs, non-profits, and other organizations and offering resources. At the same time, the county was doing the same thing, which wasted time and duplicated efforts. There was no coordination of efforts throughout the entire disaster."[40] Another state official stated that "some of the Governor's regional representatives didn't have the experience in navigating the political landscape and adhering to the rules. And because of that, there were conversations being had with county executives and governor's reps wherein the information was not always being transmitted to county EMs."[41]

A former state official observed "I'm not sure if it was political or not but it felt that COVID became political in the sense that it was used to push agendas that were not directly tied to actual response operations."[42] The second came from a county official who said "the reality of it was they had to keep their heads down and move forward with the task at hand. They had zero control of the politics and tried to work through and around them the best they could."[43]

[37] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[38] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[39] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews & Town Halls 2023
[40] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[41] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[42] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023
[43] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2023

2. COVID-19 Response Coordination

On March 7, 2020, citing the threat posed by the sudden and rapid rise in the number of COVID-19 cases in the state, Governor Cuomo signed Executive Order 202.72 (commonly referred to as "EO 202") declaring a statewide disaster.[44] This directive effectively ended the "coordination" phase of the State's response to the disease and marked the beginning of the "direction" phase, during which the Governor's office assumed a centralized, hands-on role in leading NYS efforts. Although not fully inconsistent with New York's Comprehensive Emergency Management Plan (CEMP), the Governor's decision resulted in a primarily top-down approach to defining and conducting COVID-19 operational activities. While the Governor's strong and very public leadership approach was generally received favorably during the early stages of the pandemic, it was marred at times with criticisms of the centralized, and at times ad hoc, nature of the State's strategies. As the pandemic wore on, perceived dismissal of input from local officials and other stakeholders would mount, contributing to the early end of Cuomo's administration in August 2021.[45]

New York State Coordination Structure

New York State (NYS) is a home-rule state consisting of 62 counties and more than 1500 cities, with more than 75% of the state's twenty million residents living in or around New York City. During "normal" incident responses, the State's role is to facilitate assistance in response to requests from local governments. State agencies, including the NYSDOH and the DHSES, work with local departments of health (LDHs) and local emergency management agencies through well-established principles of incident command. This approach reflects the home rule concept that emergencies are local and should be managed at the level closest to the incident.

The NYS Comprehensive Emergency Management Plan is built on a coordination-centered structure, emphasizing its role in providing local governments with liaison, guidance, and support while affording situational awareness to state leadership. In practice, this role constitutes a bit of a balancing act, with the DHSES routinely engaged with city and county emergency management agencies across five regions, each subdivided into two response zones. State regional personnel collaborate with their local agencies, many of which are relatively lightly staffed, sharing information and guidance, coordinating training and exercises, and promoting best practices.

DHSES centers much of its coordination activities, both daily and during response operations, in the State Emergency Operations Center (EOC) in Albany. The EOC serves as a focal point for New York's communication with local, state, and federal partners and the hub of its planning and resource management activities. The EOC is organized around integrating other state agencies responsible for emergency support functions (ESFs), such as transportation, public health, search & rescue, and energy, into a collaborative structure based on the incident command system.

The NYSDOH maintains a similar supporting and collaborative role with LDHs across the state through a system of seven regional and district offices located in Albany, Syracuse, New York City, Central Islip, New Rochelle, Buffalo, and Rochester.

Under New York Executive Law Section 28 of Article 2-B, the Governor has the authority to declare a disaster an emergency when they determine that a disaster has occurred or may be imminent for which local governments cannot respond adequately.[46] The law allows the Governor, upon the declaration of a state disaster emergency, the authority to direct any state government agencies to assist in coordination with the Disaster Preparedness Commission.[47] During the time of the declared emergency, the Governor may issue directives by EO when deemed necessary to cope with the crisis as well as other reasonably necessary procedures for the measure's enforcement. This expansive authority is not out of line with that granted to chief executives in many other states.

During his tenure in office, Governor Cuomo routinely issued disaster declarations to make State resources available and otherwise facilitate responses to a range of weather-related incidents, including winter storms, floods, and hurricanes (notably, "Superstorm" Sandy in October of 2012), as well as for public health emergencies such as influenza. The declarations

[44] The decision to include the entire State of New York as the "affected area" would be a source of contention throughout the pandemic response. EO 202.72 (ny.gov).
[45] Cuomo issued his final emergency declaration on August 21, 2021, just two days before leaving office, for Hurricane Henri.
[46] NYS Executive Law, Chapter 18, Article 2-B, Section 29, Direction of state agency assistance in a disaster emergency.
[47] The Disaster Preparedness Commission (DPC) is responsible for the preparation of State disaster plans, the direction of State disaster operations and coordinating those with local government operations, and the coordination of federal, State, and private recovery efforts. The DPC is comprised of the commissioners, directors, or chairpersons of 30 State agencies and two volunteer organizations, the American Red Cross and 211 NYS

allowed the State to engage in actions to protect property and lives, suspend certain laws and regulations perceived as unnecessarily hampering critical functions, such as lifting restrictions on commercial drivers, and mitigate hazards, such as requiring the closure of public buildings (including schools). The Executive Chamber's level of engagement was what interviewees expected.[48] The Governor had always been engaged during incidents and disasters to make sure the state agencies support the needs of the people as much as possible.

COVID-19 Response Coordination

As discussed elsewhere in this report, the state's public health officials and other leadership personnel were aware of COVID-19 in the weeks prior to its arrival in New York. Along with their federal counterparts in Washington D.C., the rapid spread of the disease in China was a source of considerable concern. Planning was underway for what was expected to be a significant health event. The scale of the event was, however, in considerable question.

The NYSDOH and New York City's Department of Health and Mental Hygiene talked frequently with the CDC and the Department of Health and Human Services. The governor and other senior leaders were briefed on the anticipated threat, and discussions on potential actions were underway. While a number of strategies were being considered, there was a reluctance among key decision-makers to accept that the consequences of COVID-19 could play out in New York as they had in China or that similar lockdown strategies would be necessary. There was a belief that US health surveillance and hospital systems would be a match for disease occurrences. This attitude was reinforced by official pronouncements from Washington discounting the threat and, when actions were taken, treating it as an Asia-centered problem. This wishful thinking would be overtaken by the events of the next several years.

The first confirmed case of COVID-19 in New York was a traveler from Iran via Qatar (not China) who tested positive on March 1, 2020. She had arrived at John F. Kennedy International Airport in late February. Governor Cuomo held a joint press conference with NYC Mayor de Blasio, at which both leaders announced the news while offering reassurances.

"Excuse our arrogance as New Yorkers — I speak for the mayor also on this one — we think we have the best healthcare system on the planet right here in New York," Governor Cuomo said. "So, when you're saying, what happened in other countries versus what happened here, we don't even think it's going to be as bad as it was in other countries."

The next day another confirmed case was reported in New Rochelle, involving a person who had not recently traveled. Public messaging was still focused on playing down concerns among the public. The State's EOC was activated on March 2, 2020. Planning started to identify next steps, which would culminate in the Governor's declaration of a state of emergency on March 7, 2020. The EOC would maintain 24/7 operations until the end of the pandemic emergency, serving as the primary point for response coordination. The following emergency support functions (ESFs) were activated to assist in direct response and coordination efforts: #1 – transportation, #2 – communication, #6 – mass care, emergency assistance, housing and human services, #7 - logistics, and #8 – public health and medical services.[49] The EOC would become the ongoing physical command center for the balance of the pandemic, responding to requests for information from the Governor and working to coordinate response efforts across New York and among state departments.[50]

EO-202 mandated a number of immediate measures be taken, including limited lockdowns, mass testing, isolation and quarantine, and ramping up healthcare facility capabilities.[51] Also, per Section 28 of Article 2-B, the Governor, having determined that the outbreak was of such severity and magnitude that an effective response was beyond the capabilities of the State and its jurisdictions, formally requested federal assistance. According to participants, EO-202.05, which ended local government's executive order powers, significantly hampered the ability to respond and recover from COVID-19. This EO stated that no local government could issue any local emergency, executive order, or local law with respect to the virus without the approval of the NYS Department of Health.[52]

[48] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[49] This information is confirmed through the 611 daily Leaders Intelligence Reports that the State EOC produced.
[50] The Governor's decision to primarily center response management within his office led to the EOC being underutilized or misapplied to the COVID response. It was reported that the Governor's advisors assigned tasks that were already in place, showing a lack of understanding of roles and responsibilities within the Emergency Operations Center. New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2024.
[51] EO 202.72 (ny.gov)
[52] AcQuario,.S, Golden, P., & Lavigne, M. (2021), Our Darkest Hours, Archway Publishing

In part because of the lack of full understanding of the virus and its spread, and in part because New York is a home-rtule state, the EO issued by Governor Cuomo was statewide in scope, requiring the same actions of small communities like Utica and Cayuga County as were demanded of New York City.[53] Various agencies at the state and local levels were given missions and directed to plan and execute them.

Many more state directives and response measures would be forthcoming. Governor Cuomo signed hundreds of EOs over the next fifteen months, and the NYSDOH and the New York State Education Department (NYSED) issued other policies and guidance.

New York counties responded to EO-202 by implementing varied measures suited to their communities to protect public health, manage the spread of the virus, and ensure the safety of residents. Counties collaborated with state agencies in developing implementation measures tailored to their populations' needs and capabilities. Some common responses included:

- **Public health guidelines:** Counties followed guidelines issued by health authorities, such as promoting social distancing, mask-wearing, and hand hygiene.
- **Testing and contact tracing:** Counties established testing sites and contact tracing programs to identify and isolate cases promptly.
- **Healthcare preparedness:** Counties collaborated with hospitals and healthcare facilities to enhance capacity, secure medical supplies, and provide necessary care.
- **Business restrictions:** Counties enforced restrictions on businesses, including capacity limits, closures, and safety protocols.
- **Communication and education:** Counties disseminated information about covid-19 prevention, symptoms, and resources through public announcements, websites, and social media.
- **Emergency operations centers:** Counties activated emergency operations centers to coordinate response efforts, allocate resources, and communicate with state agencies.
- **Support for vulnerable populations:** Counties assisted vulnerable populations, such as the elderly and those with underlying health conditions, by providing essential services and support.
- **Enforcement of quarantine measures:** Counties monitored compliance with quarantine orders and ensured that individuals followed isolation guidelines.

The flood of new requirements from Albany exposed limits in the capabilities of local health departments and other agencies to execute their new responsibilities. While primarily due to long-standing funding and staffing shortfalls, the new directives also disrupted other health missions – which did not disappear with COVID-19.

At the state level, the NYSDOH was coming to grips with its inability to fully execute missions at the level the Governor's orders called for, which substantially exceeded the scale and tempo of the operations envisioned in the existing health emergency and pandemic response plans. The NYSDOH did not have the staffing, resources, or logistical capability needed to mount a response on this scale.[54] The capacity to support LDHs also looking for assistance was not available either. A major vulnerability discovered early on was the assumption written into the State's plans that resources such as personal protective equipment (PPE), medications, and even surge personnel would be available from the federal government. Discovering this shortfall, the NYSDOH engaged in ad hoc planning with the DHSES, healthcare networks and providers, and contractors to develop plans quickly.

Another key partner in framing and executing the State's response was the NYSED. Executive Orders 200, 202.2, 202.4, 202.11, 202.14, 202.18, and 202.28 dictated the (eventual) full closure of all schools in New York. The NYSED had to coordinate at the local level with school administrations while working with them to develop alternative strategies for teachers, students, and their families. The NYSED also coordinated with the Department of Transportation and the Department of Youth and Community to provide transportation and childcare services for eligible students.

[53] When legal challenges against the COVID measures were being considered, it was noted that one of the strengths of the State's position was that the restrictions were in fact uniform, rather than being tailored for different jurisdictions.
[54] This was not an exception. State and local health departments across the nation that were charged with leading and executing pandemic response operations were consistently found to be ill-suited for such missions. "The pandemic put a spotlight on a public health system hollowed out by years of insufficient funding. Health departments were overstretched, responding to the pandemic with archaic technologies and with overworked staff…" Ready or Not 2021: Protecting the Public's health From Diseases, Disaster, and Bioterrorism, Trust for America's Health (2021).

The coordination of community response was handled in a separate manner. The focus at the community level was to halt or mitigate the spread of COVID-19. Efforts to reduce the spread were communicated through guidance to both the public and practitioners to practice hand and respiratory hygiene, quarantine, isolation, cleaning, and testing. The many messages were communicated in various forms and multiple languages. Topics included:

- Reporting Advisory Letter to Healthcare Providers,
- Interim Guidance for Cleaning and Disinfection of Food Manufacturing Facilities or Food Retail Stores for COVID-19,
- Face Masks and Coverings for COVID-19,
- Interim Guidance for Beach Activities During the COVID-19 Public Health Emergency,
- Guidance on the Contacts of a Close or Proximate Contact of a Confirmed or Suspected Case of COVID-19, and
- Frequently Asked Questions Related to Virtual Early Intervention (EI) Visits.

The NYSDOH elected to release all guidance, FAQs, and user checklists exclusively on the department's website.[55] As a result, critical stakeholders such as local healthcare agencies and departments, restaurants, hospitals, nursing homes, and other businesses seeking the latest guidance and health information were forced to search for it on the NYSDOH website.

If Governor Cuomo was the State's incident commander, coordination would stem from the instruments supporting his actions, which were largely centered on the Executive Chamber. One consequence of the Governor's centralization of response leadership in his office was the diminishment of the existing interagency coordination structure and the formation of ad hoc structures and operations. Some agencies that might have been included in decision-making meetings or structures spelled out in the CEMP found themselves relatively sidelined. For example, in the early days of the pandemic response, the Executive Chamber began to procure durable medical equipment and other equipment without involving other agencies such as DHSES. However, the Executive Chamber did bring in other agencies as the initial COVID-19 phase picked up.

The number of policies and plans released in the initial COVID-19 period was overwhelming and unforeseen, requiring agencies and the public to act immediately on multiple occasions. Citizens were able to access guidance as it was released, in the format or language of their choice, so long as they had a device that connected them to the Internet or the news. As the initial phase commenced, agencies and organizations began implementing their own preparedness plans.

The push of guidance and other information was most effective in the first 60 days of response, due to agencies and the public constantly searching for information. After the first 60 to 90 days, the ongoing release of hundreds of EOs and new policies, in many instances without formal coordination with stakeholders at the state or local levels, contributed to mass confusion and response fatigue.

The State's policies also conflicted with plans of multiple agencies. Plans did not adequately address what would be needed, thus resources and supplies such as PPE and durable medical equipment were critically short or on backorder by the time needs were apparent. The lack of planning and coordination, in combination with the overwhelming number of directives for isolation, quarantine, and hygiene, resulted in the mass receipt of supplies much too late. This stockpile long outlasted the pandemic.

According to multiple stakeholders, instead of information being released to agencies to pass down to other levels of the structure for implementation, everyone found out simultaneously. This unintentionally forged multiple divides in response that severed the operational, logistical, and coordination capabilities of agencies and businesses. The approach also consisted of viewing COVID-19 as a public health issue instead of an operational problem. Jurisdictions and agencies failed to capitalize on the talents and capabilities of their emergency management departments. They also failed to understand or communicate their roles and responsibilities and encountered breakdowns in coordination and interoperability.

Ad hoc multi-agency meetings were conducted daily via phone calls led by DHSES Commissioner Murphy. Meeting participants routinely included the Governor's office, some agency directors, and decision-makers from the healthcare sector. The Governor and his staff's involvement in response planning and execution produced unexpected and even confusing outcomes. For example, when the first round of measures was issued specifically to address the early outbreak in New

[55] New York State COVID 19 Stakeholder Engagement - Stakeholder Interview 2023

Rochelle, the Executive Chamber led coordination and outreach. The DHSES was not in the room when the Executive Chamber coordinated with the NYSDOH.[56]

As noted elsewhere in this report, the Governor's daily briefings during the COVID-19 emergency remain viewed by persons both in and out of government as extremely successful. It is also clear that the daily briefings became a beast which needed to be fed with new statistics, guidance, recommendations, and other information for public consumption.

The Governor's decision to directly manage the response inevitably resulted in a primarily top-down approach to the coordination of COVID-19 operational activities. In order to ensure communication with the 62 county governments, the Executive Chamber assigned the Empire State Economic Commission staff to coordinate outreach to county executives. The ten economic planning districts became "control rooms" through which members of the Executive Chamber could disseminate information to and simultaneously coordinate with county executives.[57] This repurposing of an existing organization was widely considered useful, providing a means for outreach from senior state executives to the senior county executives on critical issues.

Legislative Engagement

Throughout most of the Cuomo Administration's management of the COVID-19 pandemic, the NYS legislature exercised little direct oversight of response operations. This meant executive decisions were carried out absent the usual legislative scrutiny. The statewide one-size-fits-all rule central to the Governor's centralized, executive order-based approach began to wear on critics relatively early, particularly as the disease ebbed and flowed during the summer of 2021. The lockdowns, the school closings, and the economic price being paid were driving a backlash.

In March 2021, nearly a year after the beginning of the COVID-19 emergency, the legislature voted to repeal Cuomo's pandemic emergency powers. According to participants, the counties pressured legislatures to take back control because Cuomo's EOs were doing more harm than good at that point.[58] The repeal re-established a balance between executive authority and legislative oversight, ensuring that critical public health actions were still possible while maintaining democratic accountability. Although the Governor could still maintain existing COVID-19 rules or modify them, he was now required to submit a justification to the legislature within specific time-frames. Matters such as lockdowns were returned to local control. Local governments impacted by executive actions also received notice and an opportunity to comment on any continuations or modifications.

On April 25, 2021, the State lifted the emergency declaration and began scaling down vaccination efforts. Vaccine rates increased while positivity rates, hospitalizations, and deaths decreased.[59] Studies started to show the benefits of the vaccine and many employers required employees to either show proof of vaccination or be tested weekly. During this period, the Delta variant emerged and accounted for the majority of all COVID-19 cases.

With the resignation of Governor Cuomo on August 23, 2021, Lieutenant Governor Hochul assumed the office at 12:01 a.m. the following day and the responsibility for NYS's continued response through the final stages of the COVID-19 pandemic. Governor Hochul addressed many areas affected by the pandemic in her first few months in office, including a renewed commitment to using the State's emergency management framework for the development, declaration, and implementation of policy. Food assistance programs were expanded, residential and commercial evictions were addressed, and recovery efforts were put in place for small businesses. The NYSED released guidance for in-person classroom instruction and determined further requirements under the HERO Act. New York State's Excelsior Pass aided in the COVID-19 vaccine credential systems and the expansion of tourism and travel across the state.

Even with vaccine mandates, the Omicron variant of COVID-19 caused positive tests to spike in September 2021. In response, a new state of emergency was declared, with new protective measures. Hospitalizations and deaths began to increase, prompting Governor Hochul to request additional resources from the federal government to provide relief to hospitals and emergency services.

Through 2022, Governor Hochul signed significant legislation to provide aid across various areas of need, including childcare and food security. The CDC again expanded the vaccination roll out. COVID-19 hospitalizations and deaths remained low.

[56] New York State COVID 19 Stakeholder Engagement - Stakeholder Interview 2023
[57] The Executive Chamber is the Office of the Governor and includes immediate staff that assists the Governor in managing State government.
[58] New York State COVID-19 Stakeholder Engagement - Town Hall 2023
[59] LIR data

3. Conclusion

NYS' response to the pandemic quickly exceeded any strategies envisioned in the State's pre-existing plans and policies for dealing with such an emergency. However, these plans and policies, and the wealth of previous lessons learned that they contained, were almost immediately disregarded and overruled by the Executive Chamber's preferred top-down, centralized emergency management approach.

While local authorities routinely demonstrated the ability to manage responses to a wide range of incidents and emergencies, the pandemic starkly illustrated the need to be able to effectively augment health, emergency management, human services, public safety, and other local capabilities with appropriate state assets.

NYS has a well-defined and proven system for addressing those requirements. Unfortunately, the State's pandemic response is also an illustration of why it is so important to understand and use these capabilities.

Governor Cuomo's decision to center the State's response in the Executive Chamber and, more specifically, in his office was a significant and unnecessary mistake. The structures developed through hard-won experience from events including 9/11 and Hurricane Sandy were largely ignored and the State's chief executive office served as the central point of the response. Although his decisive actions were widely praised during the early stages of the pandemic, his failure to shift to full incorporation of the State's established institutions in coordinating the ongoing response operation resulted in unnecessary confusion at a time when New Yorkers needed clarity.

VI. Incident Analysis

A. Public Health Preparedness

Fully understanding New York State's (NYS) response to the COVID-19 pandemic requires an assessment of the preparations that were made to prevent and mitigate the consequences of a public health emergency. Although NYS possessed, in many respects, a robust public health infrastructure, COVID-19 exposed and exploited a number of critical vulnerabilities.

Before the pandemic, NYS was ranked as low-performing in preparedness by Trust for America's Health (TFAH), a non-profit, non-partisan health policy organization. In its 2019 annual report evaluating preparedness activities in each US state and territory, "Ready or Not 2020: Protecting the Public's Health from Diseases, Disasters, and Bioterrorism," the TFAH found that NYS faced challenges in terms of infectious disease control, public health funding, and healthcare delivery system readiness.[60] In its 2024 report, TFAH continues to rank NYS in the low-performance tier for public health preparedness. While some improvements have been made, the TFAH study found the following key factors impacting the State's preparedness:

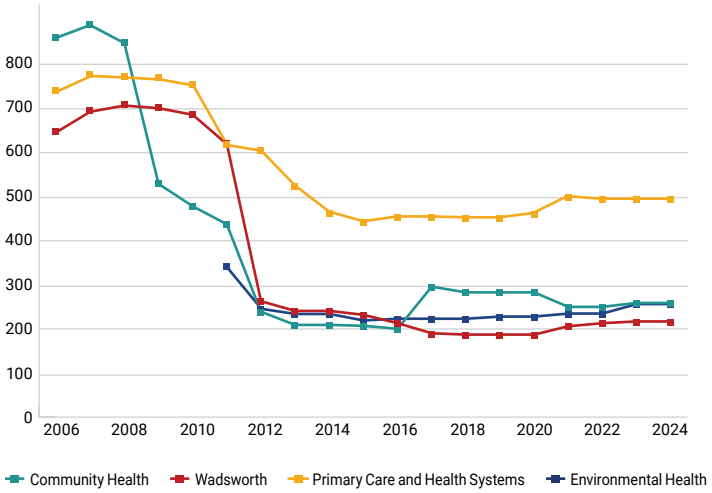
- Policymakers had not heeded lessons from past emergencies.
- Primary care and non-Medicaid public health funding had been substantially reduced over the previous decade.
- Misinformation and disinformation posed, and continues to present, a significant challenge with the potential to jeopardize decades of progress in public health readiness.

AT A GLANCE:

New York State's preparedness for a public health emergency could have been better had the lessons of numerous historical public health emergencies been adequately codified into the State's response policies and strategies. Without a cohesive planning, training, and exercise program for public health emergencies, the State more or less enacted vigorous and stringent policies and strategies on the fly. At times, these strategies were effective in mitigating COVID-19. At other times, they engendered public mistrust and ultimately did more harm to response efforts than good. The State's most enduringly effective response efforts have been related to managing the long-term effects of COVID-19.

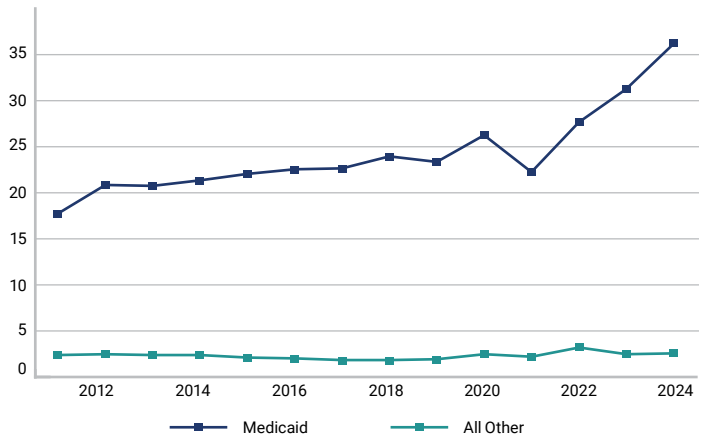
[60] In a separate study funded by the Robert Wood Johnson Foundation, which examined similar and other factors, the National Health Security Preparedness Index ranked New York as one of the best prepared states. This alternate outcome is primarily attributed to high scoring of the state's Health Surveillance capability. In two particularly significant areas, Incident & Information Management and Countermeasure Management, New York was deemed to be slightly below the average for all states. 2020 NHSPI, Colorado School of Public Health, University of Colorado (2021). https://nhspi.org/tools-resources/

Figure 2: Staffing in selected areas of the NYSDOH



Source: NYS Division of Budget: https://openbudget.ny.gov/budgetArchives.html

Figure 3: State funding for NYSDOH



Source: NYS Division of Budget: https://openbudget.ny.gov/budgetArchives.html

New York's lack of emphasis on public health preparedness is striking given the number of public health emergencies with which the State grappled between 2000 and 2020. The West Nile Virus outbreaks caused thousands of cases and fatalities, prompting investments in mosquito control. The SARS scare highlighted the need for international collaboration and healthcare worker preparedness. Avian Influenza outbreaks on poultry farms emphasized collaboration between public health and agriculture agencies. A resurgence of West Nile Virus cases stressed the importance of long-term control strategies. The H1N1 pandemic underscored the need for stockpiling medications, surge capacity planning, and clear communication. Enterovirus D68 outbreaks highlighted the need for improved surveillance for emerging viruses affecting children. Finally, the global Ebola outbreak, while not causing cases in NYS, emphasized the importance of health preparedness as a core State function. The State's experience with these significant events set the stage for how COVID-19 would impact New York from a public health perspective.

Equally startling is the continuing vulnerability of the State's populace, and particularly those living in New York City and other major cities. A report issued in August 2023 by the Empire Center for Public Policy[61] concluded that the COVID-19 outbreak began in New York "a month or more earlier and spiked six times higher than shown by the available testing data, which was scarce in those early days. The infection rate likely peaked around March 19, three weeks earlier than previously believed – an insight that might have significantly changed how officials handled the crisis."

Equally startling, the report went on to conclude that New York City's mortality rate during that first global wave of COVID ranked only behind Mexico City among the world's largest urban centers. "These updated understandings confirm beyond doubt that New York was both acutely vulnerable to the emerging virus and frightfully ill-prepared to defend itself. By the yardstick that matters most – the number of lives lost – New York's response was not merely sub-par or below average, but among the least effective in the world."

[61] Behind the Curve – The Extreme Severity of New York City's First Pandemic Wave, Bill Hammond, Empire Center for Public Policy, August 30, 2023.

1. Analysis

In assessing NYS's public health response to COVID-19, it is important to consider the pre-existing conditions and structures that were in place before the pandemic.
The effectiveness of the response to an infectious disease or other public health threat is highly contingent upon the underlying medical infrastructure and preparedness capabilities in place before the emergency event occurs. Multiple factors contribute to the spread or containment of a disease and how successful the government will be at protecting the public. Prior to the COVID-19 pandemic, NYS considered itself to possess a robust and comprehensive public health infrastructure.[62]

Several factors contributed to this assessment of NYS's pre-pandemic preparedness:

- **New York State Department of Health (NYSDOH) Preparedness Plan:** NYSDOH maintained a comprehensive public health emergency preparedness plan outlining response protocols for various emergencies, including pandemics. This plan was regularly reviewed, updated, and exercised.
- **Hospital preparedness programs:** NYSDOH collaborated with local health departments and hospitals to develop and implement preparedness plans, including pandemic plans and surge capacity strategies for managing a significant increase in patients.
- **Public health workforce development:** State programs supported the training and development of a skilled public health workforce. This included initiatives focused on epidemiology, outbreak investigation, and communication skills.
- **Strong public health laws:** NYS has a comprehensive legal framework for public health emergencies, established under the Public Health Law (PHL). The PHL empowers NYSDOH to investigate outbreaks, isolate cases, and implement quarantine measures.
- **Well-funded local health departments (LHDs):** NYS boasts a network of well-funded LHDs, with significant autonomy in preparedness efforts. These LHDs play a crucial role in disease surveillance, community outreach, and outbreak response at the local level.
- **Experience with past outbreaks:** As previously noted, NYS had valuable experience responding to prior public health emergencies, including the H1N1 pandemic in 2009. This experience helped shape preparedness plans and inform resource allocation. From a health systems standpoint, these experiences seasoned staff and decision-makers throughout all aspects of the NYS public health enterprise, from the hospital and point-of-care level to epidemiology and laboratory diagnostics and policymakers.
- **Laboratory response capabilities:** NYS's robust public health laboratory system was a clear strength in the pandemic response. The Wadsworth Center, the State's globally recognized public health laboratory, played a central role in focusing on critical public health concerns such as responding to threats, studying emerging infections, analyzing environmental exposures, and licensing clinical and environmental laboratories. The State lab is a member of the Laboratory Response Network (LRN), a nationwide network of laboratories coordinated by the Centers for Disease Control and Prevention (CDC), and tasked with responding quickly to biological threats and public health emergencies. New York has consistently responded to previous health crises in the State by expanding laboratory capacity and capabilities to meet future biological threats.

[62] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024

These pre-pandemic efforts provided the foundation for NYS's response to COVID-19. However, as the pandemic unfolded, vulnerabilities became evident:

Sub-optimal Stockpile Management

While NYS maintained stockpiles of essential supplies, concerns surfaced early on about their adequacy for a large-scale pandemic. According to reports, stockpiles may not have contained sufficient quantities of personal protective equipment (PPE), ventilators, and other critical equipment. Additionally, an investigation by the Associated Press revealed that several states, including New York, had to grapple with excess PPE toward the end of the pandemic as expiration dates approached and demand subsided. An NYS Inspector General report cited a state-run health facility at which improperly stored PPE was subsequently damaged and had to be destroyed, with a value of between $560,000 and $1.6 million. This example underscores the importance of optimal stockpile management and preparedness efforts.

Healthcare System Capacity Coordination

Prior to COVID-19, concerns existed about the New York healthcare system's capacity to handle a patient surge during a major outbreak. This was particularly true in population centers such as New York City. By late March 2020, the governor had ordered all hospitals in NYS to increase their bed capacity by 50%. Subsequently, there was spare capacity available for surge patients during the initial wave of COVID-19, but the system lacked coordination. As a result, while NYC hospitals struggled to meet the surge of COVID-19 patients, hospital beds upstate had vacancies. Yet, there were also no plans in place to transfer patients within the state en masse.

Data Sharing and Communication

Pre-existing challenges in data sharing and communication among different public health agencies and providers hindered a coordinated response during COVID-19. These issues were exacerbated early in the pandemic by highly opaque and siloed decision-making and information-sharing practices at the State's executive level. Communication and data-sharing issues were consistently reported by stakeholders interviewed and surveyed for this report. These challenges and the manner in which the State addressed them are explored in greater detail in the Pandemic Preparedness and Response section of this report.[63]

> *"[There were] inadequate stockpiles of PPE, medical equipment, etc. Without warehouse space in individual facilities, [we used] old, outdated buildings for storage because we simply didn't have any other storage space. There was a huge effort undertaken to distribute PPE, hand sanitizer, etc., but often the supplies we received were cheap and unusable."*
>
> *- Town Hall Participant*

Stagnant or Declining Funding for Public Health Preparedness and Competition for Resources

Public health preparedness often competes for funding with other priorities within the NYS budget. Nearly all states rely heavily on federal grant programs for building and maintaining preparedness capabilities. Previously cited reports from the Trust for America's Health (TFAH), the Government Accountability Office (GAO), American Medical Association (AMA), and other organizations have documented a decline in federal funding for public health preparedness across the US in the decade leading up to the COVID-19 pandemic. Of this the GAO states:

"In May 2018, we reported that annual CDC public health preparedness award amounts to jurisdictions had generally decreased over the years. We reported then that, according to CDC officials, such decreases limited jurisdictional preparedness capacity—such as the ability to maintain preparedness staff."[62]

Specifically, funding from the Public Health Emergency Preparedness (PHEP) program and the Hospital Preparedness Program (HPP), that form the backbone of state, local, tribal, and territorial health preparedness, had been cut back. Like other states, PHEP saw its funding slashed from $940 million in 2002 to $675 million in 2020, and HPP experienced a budget decline from $515 million in 2004 to $275.5 million in 2020. Like all states, New York suffered from this reduced funding to its public health preparedness infrastructure.

Lack of Awareness of Pandemic Response Planning

The vast majority (75%) of state employees surveyed across all agencies for this report stated that prior to COVID-19, they had no knowledge of a plan within their agency to deal with a pandemic.[63]

[63] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[62] Public Health Preparedness, GAO, November 2023, 2023, https://www.gao.gov/assets/d23105891.pdf
[63] New York State COVID-19 Stakeholder Engagement - Surveys, 2023
[64] New York State COVID-19 Stakeholder Engagement - Surveys, 2023

> *"[There was an] inability to download testing/ vaccination data to ease targeting of vulnerable/ marginalized populations."*
>
> *- Town Hall Participant*

Nearly the same fraction (78%) of state employees, when asked on the survey if they were aware of the statewide Department of Health and Mental Hygiene (DOHMH) pandemic plan, reported that they had no knowledge of the plan before COVID-19.[65]

Furthermore, most state employees (61%) felt NYS was either not prepared or somewhat unprepared for a pandemic before COVID-19. Only one percent of those surveyed expressed an opinion that the State was "very prepared."[66]

Pre-Existing Vulnerability to Pandemics in NYS

Despite its strengths in many aspects of preparedness, NYS was particularly vulnerable to the COVID-19 pandemic due to its high population density, interconnected transportation systems, and diverse demographics. Densely populated areas, particularly New York City and its surrounding urban counties, were at increased risk for rapid transmission of the virus and, consequently, produced extremely high numbers of positive cases for COVID-19. These factors make NYS a prime environment for public health emergencies, particularly pandemics. Understanding these vulnerabilities provides essential context explaining why and how COVID-19 spread so rapidly throughout New York, and what factors directly contributed to bringing the disease under control.

Population Density and Urbanization

New York City, with its 8.5 million residents (19 million in the metropolitan area including Connecticut and New Jersey) living in close proximity, represents a rich environment for the rapid spread of infectious diseases. Airborne and droplet-borne diseases can easily be transmitted through crowded subways, buses, and buildings. This density extends to other major cities like Buffalo and Rochester, increasing the risk of multiple outbreaks throughout the state that spill over into surrounding suburban areas.

Global Travel Hub

Major international airports like JFK International Airport and Newark Liberty International Airport serve as gateways into the US for tens of millions of travelers from around the world annually. This constant influx of people substantially increases the likelihood that infected individuals will bring new diseases and infected individuals into the state. The ease of domestic travel via air, rail, and road further complicates containment efforts, as infected individuals can quickly spread the disease across state lines.

Challenges of a Mobile Population

New York's large transient population, including millions of commuters from New Jersey and Connecticut, migrant workers, individuals and families experiencing homelessness, and seasonal residents, poses unique challenges. Significant segments of these mobile populations may have faced limited access to healthcare, faced economic instability, and experienced housing insecurity. Addressing their needs during pandemics requires targeted strategies and outreach efforts.

The COVID-19 pandemic starkly revealed these vulnerabilities. The early surge of cases in New York City, including the rapidly soaring death toll, dramatically illustrated the risks associated with dense urban environments. Furthermore, challenges in reaching and providing care to mobile populations hampered containment efforts. See the Vulnerable Populations section of this report for a discussion of how disparities in healthcare access and social determinants of health contributed to disproportionate illness and mortality rates among vulnerable groups.

[65] New York State COVID-19 Stakeholder Engagement - Surveys, 2023
[66] New York State COVID-19 Stakeholder Engagement - Surveys, 2023

2. Findings

The emergence of the COVID-19 pandemic in early 2020 thrust NYS into a public health crisis the likes of which the state had not experienced. The State faced unique challenges as the virus spread rapidly due to its concentrated urban centers and diverse population. The State's public health response was marked by a number of initiatives intended to aggressively contain the continued spread of the disease. The State's response evolved as the pandemic wore on, objectives were met, and new challenges emerged.

Initial COVID-19 Response and Testing Phase

NYS quickly implemented a series of aggressive public health measures to contain the spread of the virus. These measures focused on five key areas:

1. Early Identification of Cases

Widespread testing initiatives were launched to identify infected individuals as quickly as possible. This involved expanding testing availability at hospitals and clinics and even setting up temporary testing sites.

2. Aggressive Contact Tracing

Public health officials implemented robust contact tracing programs to identify individuals who had been in close contact with confirmed cases. These contacts were then notified and advised to isolate themselves to prevent further transmission.

3. Social Distancing and Isolation

As COVID-19 emerged in NYS, the State implemented a multifaceted strategy that included social distancing and isolation measures aimed at curbing the spread of the virus.

4. Public Health Campaigns

Comprehensive public health campaigns were launched to educate the public about the virus, including its symptoms, modes of transmission, and preventive measures. Educational materials were disseminated in multiple languages to reach diverse populations.

5. Hospital Capacity Expansion

NYS proactively addressed the potential surge in COVID-19 cases by expanding hospital capacity. Efforts included setting up temporary medical facilities called alternative care sites (ACS), such as the Javits Center and the USNS Comfort. These facilities provided additional beds and resources to accommodate the influx of patients. Additionally, non-traditional spaces like convention centers were converted into treatment centers. However, securing critical medical equipment, such as ventilators and PPE, posed logistical challenges. More on the ACS locations that the State established can be found in the Hospitals and Inpatient Facilities section of this report.

The following section provides more details into efforts made by NYS to slow the initial surge of COVID-19 cases.

6. Statewide Stay-at-Home Order

In early 2020, while the federal government focused efforts on limiting entry from Asian nations, the novel virus infiltrated the state through travelers from Europe, leading to widespread community transmission.

NYS faced an urgent need to slow down the virus's spread while balancing the well-being of its residents. In an unprecedented move to curb the rapid spread of COVID-19, Governor Andrew Cuomo issued a statewide Stay-at-Home Order on March 20, 2020.

The "NYS on PAUSE" executive order was a 10-point policy that mandated the closure of all non-essential businesses and public spaces, while urging residents to stay home except for essential needs like groceries, medical care, or obtaining medication. The stay-at-home order aimed to significantly reduce person-to-person contact and minimize the virus' transmission potential. This drastic measure, while disruptive, played a crucial role in "flattening the curve" and preventing healthcare systems from becoming completely overwhelmed during the initial surge of cases.

Key measures implemented by this stay-at-home order are highlighted below:

a. Closure of Non-Essential Businesses

- Effective at 8 PM on Sunday, March 22, 2020, all non-essential businesses statewide were mandated to close in-office personnel functions.
- Essential services like groceries and healthcare continued to operate, but other businesses adjusted to remote work or temporary closures.

b. Workplace Adaptations

- For workers and businesses deemed as "essential," workplace hazard controls were enforced to maintain social distancing.
- Employers were encouraged to implement remote work arrangements.

c. Temporary Ban on Non-Essential Gatherings

- The order temporarily banned all non-essential gatherings of any size for any reason.
- Social events, religious services, and other gatherings were curtailed to minimize close contact and prevent virus transmission.
- The subway system and other mass transit systems throughout the state, a lifeline for millions of New Yorkers, saw reduced ridership as people avoided crowded trains.

d. Challenges and Considerations of the Social Distancing Measures

- NYS faced the need to strike a balance between economic activity and public health. The gradual easing of restrictions was based on infection rates, hospital capacity, and scientific insights.

7. Four-Phase Reopening Plan

From April to July 2020, NYS followed a four-phase reopening plan by region. Each phase allowed specific industries to resume operations while adhering to social distancing guidelines. This cautious approach aimed to prevent a resurgence while restoring economic vitality.

8. Isolation Measures

Isolation measures were a crucial component of the public health strategy for preventing wider transmission of COVID-19 and protecting both infected individuals and their communities. However, these measures were not without controversy. In one instance, state legislators challenged the constitutionality of the NYS isolation and quarantine procedures in a county court, winning the decision. The ruling was later reversed, but it highlighted the challenges of balancing public health requirements and individual rights.

Another controversy involved state Health Department Rule 2.13 that allowed State officials to detain individuals for public safety reasons. The rule was challenged by lawmakers and a conservative group, who raised concerns about due process violations.

Image source: Shutterstock

Additionally, there were concerns about the potential for abuse of power and the impact of isolation measures on mental health and well-being. An analysis of the policies and laws developed during the pandemic are presented in the Pandemic Preparedness and Response section of this report.

Despite these challenges, New York continued to adapt and evolve its approach based on evolving scientific insights and fluctuating infection rates, aiming to provide an appropriate, comprehensive response to the pandemic. The following describes how NYS implemented isolation measures to curb the virus's spread:

a. Isolation for Infected Individuals

- **Home isolation:** Individuals with confirmed or suspected COVID-19 were instructed to self-isolate at home. This prevented further spread within households and communities.
- **Healthcare facilities:** Severe cases required hospitalization. Isolation units were designated to care for infected patients while minimizing exposure to healthcare workers. This topic is explored in greater detail in the Hospitals and Inpatient Facilities section of this report.

b. Quarantine for Exposed Individuals and Close Contacts

Those exposed to a confirmed case were required to quarantine. This prevented potential transmission during the virus's incubation period.

c. Travel Quarantine

Travelers arriving in NYS from high-risk areas were mandated to self-quarantine for 14 days.

d. Enforcement

Enforcement measures were put in place to encourage compliance with social distancing and isolation guidelines. Violators faced the following fines and penalties.

- **Mass gathering violations:** Mass gatherings were banned entirely in areas designated as red zones under the State's COVID-19 Cluster Zone Strategy. Violators could be fined up to $15,000 per day. In other areas, penalties would be based on the severity of the violation.
- **Social distancing and mask-wearing infractions:** Individuals failing to adhere to social distancing or mask-wearing requirements could be fined up to $1,000 per day. Employers had to ensure that employees complied with these rules, especially when in direct contact with customers or the public, or face potential fines and criminal penalties.
- **Businesses and institutions:** Businesses violating social distancing and mask-wearing guidelines could face fines. Schools, houses of worship, and non-essential businesses had to adhere to capacity limits and other restrictions.

Image source: Shutterstock

9. Mobilizing Medical Surge Capacity Resources

Anticipating a potential surge in COVID-19 cases, NYS undertook significant efforts to expand hospital capacity and secure critical medical equipment. These efforts encompassed two key strategies:

a. Hospital Capacity Expansion

Hospitals were encouraged to expand bed capacity by converting non-essential areas into temporary patient care units. Additionally, alternate care sites were set up in various locations to provide additional treatment spaces.

2. Hospital Securing Essential Medical Equipment

NYS aggressively pursued the acquisition of essential medical equipment, including ventilators, PPE, and testing supplies. This involved working with federal agencies, private companies, and even international partners to secure these critical resources. More information on medical surge capacity is provided in the Hospitals and Inpatient Facilities section of this report.

Public Health Measures During the Second COVID-19 Wave Through Vaccination and Recovery

As the vaccination campaign began, the State made efforts to expand public access to COVID-19 data by establishing a data hub website designed to centralize information and make it easier to access and understand. The COVID-19 Data in New York site enhanced transparency and facilitated data-informed decision-making.[67]

1. Return-to-School Strategy

As the 2022 academic year approached, NYS prioritized students' safe return to classrooms. The NYS Education Department distributed a health and safety guide that offered resources for Pre-K-to-Grade 12 schools in New York to navigate the COVID-19 pandemic. It included information from various sources like the CDC and the NYS Department of Health, and covered aspects like reopening guidance and assessment resources. NYS also provided over one million COVID-19 tests to schools, ensuring regular testing in educational settings. This approach helped identify and contain outbreaks swiftly, minimizing the risk of transmission within school communities. More importantly, this initiative was critical to preventing children from becoming infected at school and spreading COVID-19 at home to elderly or chronically ill family members. Recognizing the need to provide parents with a trusted source of sound public health advice and to combat misinformation, NYS created a website specifically addressing COVID-19 and children. The Kids and COVID-19 "what you need to know" site provided information on keeping children safe from COVID-19, information on vaccines for children, including their safety and effectiveness, and how to prepare a child for vaccination.[68] For more details on educational initiatives taken during COVID-19, see the Education section of this AAR.

2. Vaccination and Boosters

NYS launched intensive efforts to get New Yorkers vaccinated and boosted. The State recognized that widespread vaccination was crucial for achieving community immunity and curbing the virus' spread. NYS actively promoted COVID-19 vaccination as part of its pandemic response. As variants of the virus emerged, the State kept up efforts to encourage New Yorkers to get vaccinated or receive boosters and to stay informed. Through its COVID-19 portal, NYS urged individuals to get tested, vaccinated, and receive treatment and provided online resources to do so. These efforts helped slow the spread of the Omicron variant and prevented the State from resorting to restrictive social distancing efforts again.

The success of that effort is reflected in the estimated 95% of New Yorkers that have received at least one dose. Despite some perceptions that COVID-19 is "over" and ongoing efforts by anti-vax 15,763,340 people, or 81% of the State's population, had been fully vaccinated according to a May 10 estimate based on local, state and federal sources by USAFacts.[69]

The State instituted the following public health measures:

a. Mass Vaccination Sites

NYS maintained the availability of mass vaccination sites as needed. These sites played a pivotal role in administering vaccines efficiently and in reaching large segments of the population.

b. Early Testing Advocacy

NYS's decision to distribute over 75 million at-home COVID-19 tests to residents and encourage them to test "early and often" was crucial. Regular testing allowed for early detection of cases, prompt isolation, and effective containment. By identifying positive cases swiftly, NYS aimed to prevent further transmission and protect vulnerable populations.

c. Access to COVID-19 Treatment and Therapeutics

In July of 2022, NYS launched a state-wide hotline to provide immediate assistance to individuals without access to healthcare professionals. This initiative ensured that anyone experiencing COVID-19 symptoms or seeking guidance could receive timely information and support. Additionally, the state remained committed to supporting New Yorkers struggling with the effects of "Long COVID-19". Recognizing the long-term impact of the virus on physical and mental health, NYS aimed to provide comprehensive care and resources for affected individuals.

d. "Long COVID-19" Resources

As the pandemic waned, reports of lingering effects from those who were infected emerged. Long COVID-19, also known as "Long-Haul COVID-19" or Post-Acute Sequelae of SARS-CoV-2 (PASC), refers to a condition where individuals infected with COVID-19 continue to experience a wide range of physical, mental, emotional, and psychological symptoms long after their initial infection. In a 2023 report, the NYS Insurance Fund (NYSIF), a

[67] COVID-19 Data in New York, NYSDOH, https://coronavirus.health.ny.gov/covid-19-data-new-york
[68] Kids and COVID-19, NYSDOH, https://coronavirus.health.ny.gov/what-you-need-know#:~:text=Kids%20and%20COVID%2D19,-What%20You%20Need&text=COVID%2D19%20can%20make%20children,recommended%20COVID%2D19%20vaccine%20doses.
[69] New York Coronavirus Vaccination Progress, USAFacts, May 10, 2023, https://usafacts.org/about-usafacts/

not-for-profit agency of the State of New York that offers worker's compensation, disability benefits, and paid family leave insurance, found that 31% of all claimants suffered or were suffering from Long COVID-19. Additionally, 18% of claimants with Long COVID-19 - about 5% of COVID-19 claimants - were unable to return to work for more than one year. Currently, there is no specific test to diagnose long COVID-19 nor treatments.

NYS has approached the ongoing challenge of long COVID-19 in several ways:

- **Resources for New Yorkers:** The NYS Office of Mental Health (OMH) established a dedicated Long COVID-19 resources page. This resource hub offered guidance, coping strategies, and mental health information for those navigating the long-term effects of COVID-19. Additionally, NYSIF has established a site dedicated to providing information and resources to workers with Long COVID-19.
- **Educational opportunities:** NYS offered online educational opportunities to aid workers who believed they contracted COVID-19 due to exposure at work, especially those suffering from ongoing long-haul symptoms. The State, through its Worker's Compensation Board, established a site to assist workers in filing claims, locating a provider, and keeping them updated on information, rules, and legal changes.
- **Research and ongoing efforts:** The state has convened and collaborated with health scientists and specialists to comprehensively respond to Long COVID-19. NYSDOH has also created an internal working group tasked with producing education and resources on the topic of Long COVID-19, developing data monitoring and tracking, and increasing access to treatment for those experiencing Long COVID-19.
- **COVID-19 mental wellness resources:** NYS adopted innovative approaches to monitor the pandemic. Wastewater surveillance allowed early detection by analyzing sewage samples for traces of the virus. Genetic analysis helped track variants and provided crucial insights into their prevalence and potential impact. However, timely variant identification and response remained critical challenges.

3. COVID-19 mental wellness resources

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During the late stages of the COVID-19 pandemic, NYS recognized the profound impact on mental health and prioritized comprehensive support for its residents. Here are key initiatives:

- **COVID-19 resources:** The OMH established a dedicated page for members of the public looking for information on COVID-19 mental health resources. This site offers guidance, coping strategies, and mental health information for individuals navigating pandemic-related stress and anxiety.
- **Tips for mental wellness:** NYS provided practical advice on managing pandemic-related stress and anxiety. Available in multiple languages, these tips emphasized self-care, emotional well-being, and resilience during challenging times.
- **Mental health in the next phase of COVID-19:** Recognizing that emotional reactions evolve during a crisis, NYS created a guide to address the ongoing mental health impacts of the pandemic. This resource offered coping strategies and access to mental health resources.
- **Mental health resources during an emergency:** NYS OMH has a site with resources for 24/7 crisis counseling and support for people experiencing emotional distress related to natural or human-caused disasters.
- **Grief Support and Coping:** NYS acknowledged the profound grief experienced by those who lost loved ones during the pandemic. Resources were provided to help individuals process their emotions and find support. The State also provided information on suicide prevention and a library of guidance documents to assist residents with coping with the mental health impacts of COVID-19.
- **Supporting others through grief:** NYS emphasized empathy and understanding for those coping with loss. This initiative aimed to foster compassion and community during challenging times and arm New Yorkers with awareness of the grieving process.

3. Conclusion

The COVID-19 pandemic exposed vulnerabilities in NYS's public health preparedness, but also underscored some underlying strengths. While pre-existing public health efforts like the NYSDOH preparedness plan and a seasoned public health workforce provided a foundation for success, the pandemic revealed areas for improvement in stockpile management, healthcare system coordination, data sharing, and communication. Furthermore, the need to address social determinants of health and ensure equitable access to healthcare became even more critical.

Looking forward, NYS has a unique opportunity to learn from these experiences and strengthen its public health preparedness. This must include dedicating consistent funding, bolstering stockpiles of essential supplies, and investing in its public health workforce, particularly at the local level. Additionally, fostering clear communication, addressing misinformation, and integrating mental health services into emergency preparedness plans are crucial steps toward a more comprehensive response. By leveraging the State's vast resources, including those of the academic and intellectual community, and collaborating with key stakeholders, NYS can ensure it is well-equipped to face future public health challenges.

By proactively addressing vulnerabilities and prioritizing the gaps in capabilities, coupled with a commitment to continuous improvement, New York stands to serve as a model for public health preparedness not only nationally, but globally.

Image source: Shutterstock

4. Recommendations

A consolidated list of recommendations for NYS public health preparedness follows:

1. Maintain a Robust Public Health Infrastructure

The State should invest in comprehensive preparedness plans that outline response protocols for emerging infectious diseases. These plans should include regular training drills for public health staff, healthcare workers, and first responders. The state should also allocate sufficient funding to strengthen local health departments by improving staffing levels, communication technologies, and data analysis capabilities.

2. Enhance Stockpile Management

The State should conduct regular audits and risk assessments to identify potential shortages in critical supplies like PPE, ventilators, medications, and diagnostic tests. The State should also implement a just-in-time inventory management system to ensure adequate stockpiles are readily available while minimizing storage costs. To mitigate potential supply chain issues, the State should partner with local manufacturers to increase domestic production of essential medical supplies and reduce reliance on overseas sources.

3. Improve Healthcare System Coordination

The State should develop a regionalized approach to healthcare surge capacity that coordinates bed availability, staffing resources, and equipment distribution across different hospitals. The State should also establish clear protocols for patient transfer between facilities during outbreaks to ensure timely and efficient care. The State should help foster communication and collaboration among public health agencies and healthcare providers to share best practices and treatment protocols.

4. Prioritize Data Sharing and Communication

The State should establish a centralized data collection and reporting system that gathers real-time data on case numbers, hospitalizations, and vaccination rates across the state. The State should also ensure transparent and timely communication of this data to the public health community, healthcare providers, and the general public. The State should develop clear and consistent messaging strategies to educate the public about ongoing public health threats, preventive measures, and available resources.

5. Secure Funding for Public Health Preparedness

The State should advocate for increased federal funding for public health preparedness programs. This funding is critical to maintain surge capacity within the healthcare system, support to ongoing public health campaigns, and investments in the research and development of novel diagnostics, therapeutics, and vaccines. The state should also partner with public health advocacy organizations and academic institutions to raise awareness about the importance of preparedness funding for the state's overall health security.

6. Develop Strategies for Mobile Populations

The State should identify and map high-risk mobile populations within the state, such as migrant workers, individuals experiencing homelessness, and seasonal residents; partner with community organizations to establish targeted outreach programs that provide culturally appropriate healthcare services and education on public health threats; develop mobile testing units and vaccination clinics to increase accessibility for these populations and address potential healthcare disparities.

7. Invest in Public Health Campaigns

The State should allocate resources to develop and disseminate educational materials in multiple languages that are tailored to different demographics and cultural backgrounds. The State should utilize various communication channels, including traditional media, social media platforms, and community forums, to reach a broad audience. The State should also design public health campaigns to address vaccine hesitancy and promote healthy behaviors like mask-wearing and social distancing when necessary.

8. Expand Early Detection and Contact Tracing

The State should implement robust testing initiatives that are widely accessible and affordable for all residents. This may include offering free or low-cost testing at convenient locations like community centers and pharmacies. The State should also develop a well-trained contact tracing workforce with the resources and technology needed to efficiently identify infected individuals, isolate contacts, and prevent further transmission.

9. Promote Vaccination and Booster Programs

The State should support comprehensive vaccination programs that ensure equitable access to all communities, and develop strategies to combat vaccine hesitancy by providing evidence-based information and addressing concerns about vaccine safety and efficacy. The State should also promote the importance of booster shots to maintain long-term immunity and encourage individuals to stay up to date with recommended vaccinations.

10. Address Long-Term Health Effects

The State should allocate resources to establish long-term healthcare services and support programs for individuals suffering from post-COVID-19 conditions like Long COVID-19, and continue to promote research into the causes and treatment of these conditions to improve patient care. The state should also develop potential rehabilitation programs and collaborate with patient advocacy groups to address the specific needs of individuals experiencing long-term complications from COVID-19.

Image source: Shutterstock

B. Hospitals and Inpatient Facilities

1. Analysis

What Was Known

Some effective infectious disease response strategies, such as care providers deploying personal protective equipment (PPE) to protect themselves and their patients, have been in use at least since the 14th century when the bubonic plague swept Europe. New York State (NYS), along with its four Health Emergency Preparedness Coalitions (HEPCs), counties, local jurisdictions, and hospitals, are all responsible for having plans, trainings, and exercise opportunities to practice their level of preparedness for a variety of disaster scenarios scaling from local impact to national-level disasters including pandemics.

Some of the problems identified during the COVID-19 pandemic are not new concepts. These include decompressing hospital surge to maintain bed capacity for the most acute patients, increasing surveillance and testing capacity to predict acute care needs, utilizing alternate care spaces to maintain in-patient hospital beds, and coordinating resources and care across facilities and regions. Planning for these activities, and then demonstrating the efficacy of those plans and proficiency in response through exercises, is required of NYS and of the 17 provider type facilities within the state that receive Medicare and Medicaid dollars from the U.S. government. The standards by which states are assessed (and with which they can plan), and the means by which they can coordinate with regional and state preparedness organizations, are provided in federal guidance from various U.S. government agencies.

Public health preparedness capabilities: The Centers for Disease Control and Prevention (CDC) Public Health Preparedness (PHEP) Capabilities spell out the capabilities, functions, and tasks that states, tribes, and territories should be able to execute to protect their residents' health from natural or human-caused threats.

CMS emergency preparedness Rule: The Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers Final Rule published by the Center for Medicare and Medicaid Services (CMS) in 2016 and revised in 2019 provides emergency preparedness standards with which the 17 healthcare provider types and suppliers specified by CMS are to be compliant.[70]

AT A GLANCE:

The COVID-19 pandemic created a demand for inpatient healthcare services unequaled in recent history. While many of the challenges that arose during the COVID-19 pandemic were novel, the issues faced by New York State facilities and the State's healthcare infrastructure as a result of the virus were not. There were many unknowns and many more knowns at play throughout COVID-19. More adequate planning, training and exercise opportunities would have resulted in a more seamless response to the COVID-19 pandemic in NYS.

Hospital preparedness program: The Administration for Strategic Preparedness and Response (ASPR) Hospital Preparedness Program (HPP) is a federal funding and leadership resource designed to increase the ability of hospitals and healthcare facilities to respond effectively to a disaster through planning and partnerships. HPP, through cooperative agreements with states and select major metropolitan areas (of which New York City is one), "collaborates with state and local health departments, prepares [healthcare] delivery systems to save lives through the development of [healthcare] coalitions."[71]

What Was Unknown

NYS officials, hospitals, and the public did not know how deeply pervasive COVID-19 would be in its impact, how long and complex the response would become, how strongly the response would be influenced by considerations other than clinical and logistics management, and exactly how unprepared the response stakeholders were. Those unknowns included the inadequacy of planning scenarios and parameters to effectively model a 21st century pandemic that came fraught with resource crises related to supply chain collapse and staff shortages.

Real-time Strategic Shift

The pandemic triggered a major shift in how the State conceived of response management, and that new idea came with the inevitable consequences of switching response modalities and rapidly creating policy in an attempt to respond to immediate operational needs. On a federal level, the CDC, HHS, and FEMA all fought for control. At the state level, multiple task forces were

[70] CMS.Gov, 2023
[71] CMS.Gov, 2023

established by the State, creatively partnering with private industry and philanthropies to solve the many problems of the COVID-19 response. In one of many examples, the Cuomo Administration partnered with Bloomberg School of Public Health and the Bloomberg Philanthropies Team to create a contact tracing system. During the response, it was unclear whether DOH was the lead agency or if Governor Cuomo established a proxy system for health response management. Regardless of the merits of the task-force model, the change in strategy caused confusion during response.

History of Hospital Beds and Staffing

No healthcare system in the U.S. prior to the start of the pandemic was remotely near any historic high for in-patient bed capacity. U.S. hospital care where patients are admitted to facilities in anticipation of receiving treatment which will alleviate or eliminate a threat to their life or well-being moved from a high in the 1950s and 1960s, with nearly 2,000 beds for every 100,000 people, to only 253 beds per 100,000 people by 2020. Demand in the mid-20th century was driven by population growth and still-uncontrolled infectious diseases like polio. The availability of Medicare and Medicaid made hospital care attainable for people who may have been previously more likely to be treated in the home by a family physician, increasing inpatient bed demand. By the time the pandemic hit 60 years later, American policy positions and healthcare practices had changed significantly. Since the early 80s, a shift in focus on cost management in the face of mushrooming price escalation, care delivery more oriented to out-patient care, and advancements in treatments all changed the face of inpatient care. This resulted in more capability, higher cost, and less capacity.

In 2020, NYS ranked fourth in the nation for total hospital beds and 23rd in the U.S. on beds per capita with 2.53 beds per 1,000 population, slightly exceeding the national average of 2.35 beds. The America of 2020 had 12% of the beds available in the 1960s.

Hospital Bed Availability

Location	Total Hospital Beds	Beds per 1,000 Population
United States	**784,112**	**2.35**
1: California	73,877	1.89
2: Texas	66,074	2.20
3: Florida	55,144	2.48
4: New York	49,726	2.53

History of Hospital Care Provider Staffing

The shortage of patient care staff was common knowledge since it was in the news. Nursing shortages pre-dated COVID-19 by decades. The aging of baby boomers has long been acknowledged as an approaching staffing challenge as older, experienced nurses retire and take their ranks among the largest population over 65 in U.S. history, creating a population increasingly vulnerable to disease, as COVID-19 demonstrated, with fewer nurses and ancillary care providers to support them.

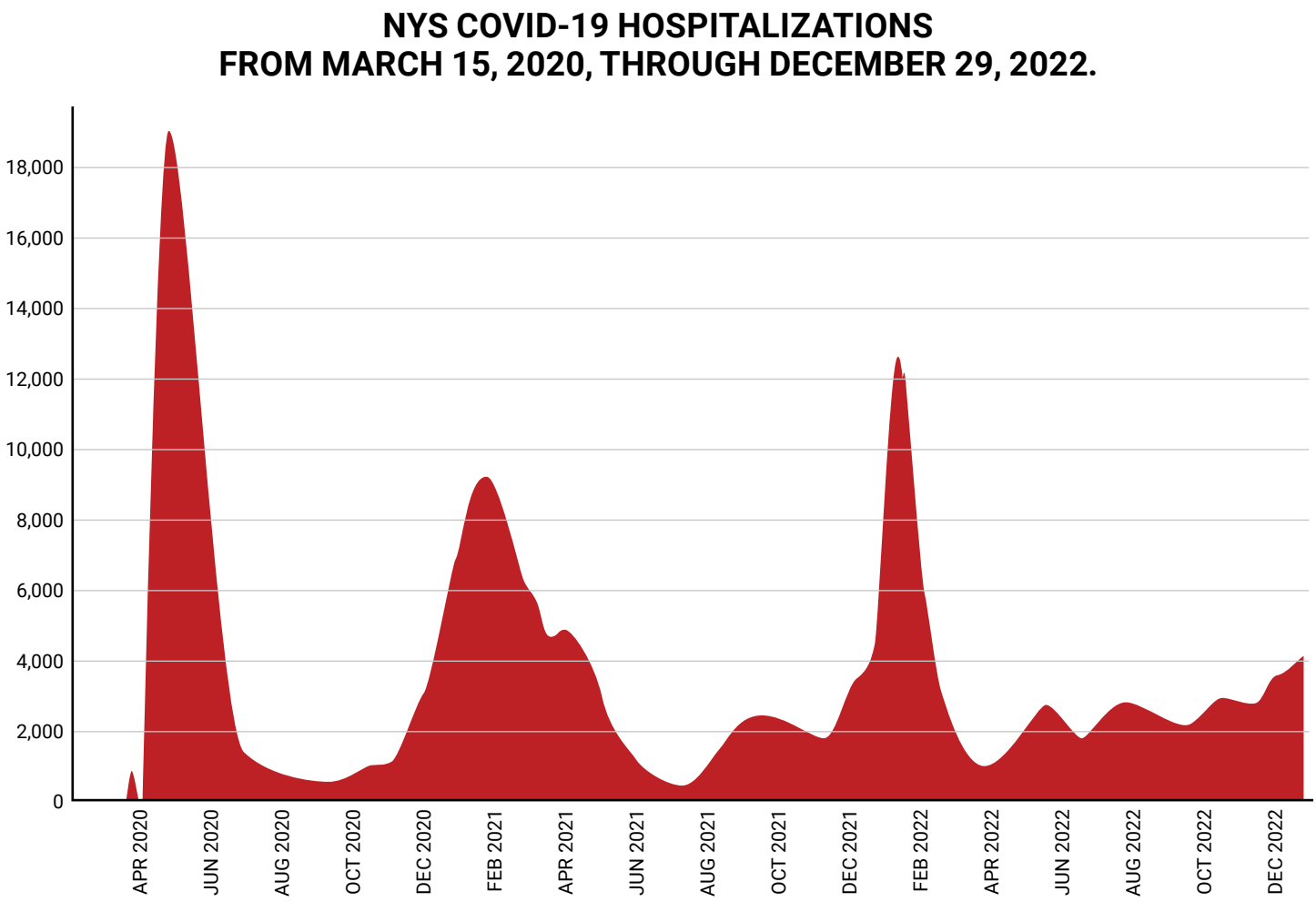
History of Investment in Public Health Preparedness

One of the more pressing issues impacting public health preparedness, and a consistent finding of multiple preparedness-specific reports (both COVID-19-related and from other real-world and exercise findings), is the need for sustained investment in preparedness to address the "boom and bust" cycle of public health budgets. Retrospective analyses of public health disasters point the need for investments to support public health infrastructure and capabilities to address both everyday and emergency events. There is a cycle to funding, with increases during emergencies and decreasing investments after things are stable again.

Since the 2008 recession, and with waning attention to public health emergencies, agencies' preparedness investments and resources needed to sustain progress had declined prior to the COVID-19 pandemic. Although some of the decline in funding has been made up with one-time emergency supplemental appropriations for large-scale disasters such as the H1N1 influenza, Ebola, Zika, and COVID-19, these supplemental funds are restricted to specific uses to address specific emergencies. Consequently, despite funding increases during emergencies, public health agencies have been unable to sustain temporary workforce expansions or to implement enterprise-wide data systems. Hospital preparedness program (HPP) funding recorded a high of $498 million in 2003 and steadily decreased to $362 million in 2009. Following a brief increase in funding in 2010 ($391 million), the funding consistently decreased to $227 million by 2018. The PHEP cooperative funding was reduced 30% over 18 years. New York reorganized its Health Emergency Preparedness Coalition structure and strategy as a result of the significant federal decrease in HPP funding.

Image source: Shutterstock

Figure 4: NYS COVID-19 Hospitalizations From March 15, 2020, Through December 29, 2022.



The dates selected represent the timeframe of inquiry for this AAR.

A Rapidly Overwhelmed Healthcare System

The dramatic increase in the number of COVID-19 patients in New York bumped up against a health system optimized to both keep patients out of hospitals and keep hospital staffing as lean as possible within the bounds of safe care provision.[72] In a research article about overwhelmed health systems, Tangcharoensathien, et al stated, "By January 2021, New York State with a population of 19.5 million had reported a total of 1,098,725 cases, with 38,879 deaths and 573,358 active cases."[73] They continued:

"These cases are a challenge not only in and of themselves but represent the degradation of care delivery capability and capacity for all patients. Heart attacks, cancer, diabetes, childbirth, injuries, and other causes for inpatient care continue whether or not a health system is challenged by infectious disease."

[72] New York State, "Daily Hospitalization Summary," https://coronavirus.health.ny.gov/daily-hospitalization-summary

[73] N Viroj Tangcharoensathien, Mary T. Bassett, Anne Mills. Qingyueb Meng. "Are Overwhelmed Health Systems an Inevitable Consequence of COVID-19? Experiences from China, Thailand, and New York State". The British Medical Journal. (2021). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8896039/

2. Findings

The previous underpinnings set up the discussion regarding what was independently observed, reported by stakeholders, and compared against standards for healthcare response to provide actionable insights for hospitals and inpatient care delivery during public health emergencies. The themes that emerged were similar in nature to themes observed across the AAR review, and included resource management and distribution; public health infrastructure preparedness, coordination and response; and equity and accessibility in healthcare service.

> *"When I showed you the price of ventilators went from $25,000 to $45,000. Why? Because we bid $25,000. California says, 'I'll give you $30,000' and Illinois says, 'I'll give you $35,000' and Florida says, 'I'll give you $40,000,'" Cuomo said during a press conference Saturday. "We're literally bidding up the prices ourselves."*
>
> *-Former Governor Andrew Cuomo*
>
> *Via ABC News*

Resource Management and Distribution

There were four major resource acquisition, allocation, and management issues that had outsized effects on NYS hospitals. The first was the shortage of PPE, includingN95 masks, surgical masks, and medical gowns. The second was a shortage of durable medical equipment required by the most ill COVID-19 patients. The third was a shortage of in-patient beds, both standard medical inpatient beds and specialty beds like intensive care unit (ICU) beds. The final was the shortage of clinical care personnel, both in numbers and capacity.

a. Personal Protective Equipment (PPE)

Prior to the pandemic, healthcare workers in the U.S. would not have advocated for the prolonged use or reuse of disposable PPE. During the COVID-19 response, this became common along with the use of masks not standard to the clinical situation. Surgical masks are designed to protect patients from the respiratory droplets of caregivers. Respirator-type masks, such as the N95, are meant to protect clinical care providers from inhaling bacteria and viruses from patients. N95 masks are optimally designed to be used once, for a limited duration and a single patient encounter. The shortage during the early days of the COVID-19 response meant that healthcare workers had little recourse but to accept limited protection over none if they were to continue to provide care. The routine reliance on foreign supply chains and just-in-time resupply systems were instrumental in keeping the cost of disposable PPE and other supplies low. In hindsight, the limits of these systems in the face of a prolonged and pervasive disruption of global supply networks are clear. New York was able to solve the PPE shortage creatively and effectively but received criticism for being heavy-handed with its regulatory and punitive stance on PPE stockpiling. Future response efforts will be more robust if planning considerations mitigate supply chain hazards. Ideally, there would be an equitable sharing of responsibility for PPE provision between the State, its HEPCs, and healthcare facilities without passing the burden of failure to clinical care providers.

b. Durable Medical Equipment

Critically ill COVID-19 patients required extensive and resource-intensive care and life support measures. Many of the sickest patients needed intubation, mechanical ventilation, extracorporeal membrane oxygenation (ECMO) support, high-flow oxygen, or dialysis. These needs placed immense pressure on the healthcare system. Scenario models for considering the needs for durable medical equipment were not robust enough to account for a situation in which a need for resources was nation-wide and simultaneous. This created an unexpected competition for durable medical equipment between states. Governor Cuomo called for a nationwide buying consortium in April 2020 when competition for ventilators between states caused costs to skyrocket and supplies to plummet.[74] Competition again came into play within the state. A quote from one of the key stakeholder interviews conducted for this AAR highlighted this pressing issue:

"There needs to be a better process for how to distribute PPE to the counties and have a stockpile. Counties became pitted against each other to get resources and it was not a fair policy."[75]

The Coronavirus Aid, Relief, and Economic Security (CARES) Act included a $16 billion allocation for the purchase of strategic national stockpile (SNS) supplies including life-saving durable medical equipment. HHS attempted to improve the ventilator situation by procuring $3 billion worth of ventilators for the SNS. Unfortunately, many of the machines purchased were

[74] ABC News, "Competition Among State, Local Governments Creates Bidding War for Medical Equipment," 2020
[75] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, 2023-2024

not of the type used to treat acute respiratory distress syndrome not of the type used to treat acute respiratory distress syndrome (ARDS), which was a common affliction among the most ill COVID-19 patients.

c. Considerations

There are valid reasons for just-in-time resupply strategies that include iterative payments and reductions in warehousing costs. In an article titled "New York Spent $250M on Tech to Fight COVID that No One Uses," Joseph Spector reported that NYS purchased 8,555 ventilators and other large pieces of equipment that then had to be warehoused and maintained.[76] Currently, the NYS National Guard is tasked with managing the ventilator stockpile. The same article quotes a NYSDOH statement, "As part of New York State's ongoing response efforts to COVID-19, any medical equipment that could prepare the state for future public health emergencies or pandemics will be maintained and stored for future use."[77] Before the State makes any decisions about strategy for supply stockpiling, it will have to understand more completely the ramifications of "more is more." Significant forensic accounting to capture pandemic-related reimbursable costs, ensure that procurement is appropriate, warranted, and ethically contracted will likely continue into the foreseeable future. After that process, the State should create a comprehensive strategy which combines the most successful public health disaster commodities management practices, including coordinated buying to mitigate competition, strategic public-private partnerships, and considerations for working with iterative resupply within a framework that is not overly reliant on forces outside the control of the State. Other areas of this AAR discuss the requirements for NYS internal improvements, including resource management technology and resource management processes in the areas of requirements development, resource tracking, requests, allocation and distribution of resources to the providers in need.

Beyond the more logistical considerations around acquiring and distributing critical durable medical equipment, there are ethical considerations forced into play when the need for the materials is greater than the capacity to provide them. In a study simulating the clinical allocation of ventilators using New York's ventilator allocation guidelines, the authors explored how implementation would affect "overall mortality and health disparities during the apex of the COVID-19 2020 surge."[78, 79] As the possibility loomed for NYS hospitals that ventilator supply would be exhausted by COVID-19 patients, consideration was given to ventilator allocation, noting that there was little existing evidence as to how well the allocation guidance would perform.[80] Given such a monumental ethical challenge, establishing a routine mechanism for testing and challenging models should become part of the State's preparedness culture. The research pointed to some inadequacies in the model and provided concrete remedies for improving the triage model used for allocations, which should be incorporated into the State's future planning efforts. The larger lessons to be learned are that routinely vetted and tested simulation modeling for care standards should be considered as standard practice for future planning and that building reliable systems for commodity acquisition is a vital preparedness activity. Warehousing and distribution of critical resources is a desired outcome objective for future public health response.

Staffing Increases

NYS increased the ranks of available healthcare providers during the pandemic in creative ways. Governor Cuomo issued various executive orders easing licensing requirements to help integrate additional healthcare professionals into the state workforce. Governor Hochul extended Executive Order (EO) 4: Declaring a Statewide Disaster Emergency Due to Healthcare Staffing Shortages in the State of New York. The order allowed, among other things, healthcare workers from other states to work in NYS without having to take the extra step of becoming licensed in the state. The State also worked to entice retired clinical and emergency medical service (EMS) personnel, or those with lapsed licensure back into the healthcare workforce, although this effort did not yield significant results.

Temporary (also called "traveling" or "agency") nursing and clinical staff came to New York in large numbers, taking advantage of pay scales that most nurses had never imagined. This solved some problems while

[76] Thomas Bergin "The U.S. Has Spent Billions Stockpiling Ventilators, But Many Won't Save Critically Ill COVID-19 Patients." Reuters, December 02, 2020. https://www.reuters.com/article/idUSKBN28C1N5/
[77] Rich Branson et al, "The US Strategic National Stockpile Ventilators in Coronavirus Disease," Chest Journal. Volume 159, Issue 2, (2021): 634 , https://journal.chestnet.org/article/S0012-3692(20)34505-0/fulltext?_ga=2.240764416.2023761813.1663250905-518952024.1663250905
[78] Joseph Spector, "New York spent $250M on Tech to Fight Covid That No One Uses." Politico. (New York) September 2022. https://www.politico.com/news/2022/09/20/ny-ventilators-covid-national-guard-00056603
[79] Joseph Spector, "New York spent $250M on Tech to Fight Covid That No One Uses." Politico. (New York) September 2022. https://www.politico.com/news/2022/09/20/ny-ventilators-covid-national-guard-00056603
[80] Walsh, B.C. et al "Simulation of New York City's Ventilator Allocation Guideline During the Spring 2020 COVID-19 Surge," Journal of the American Medical Association. Volume 6, Issue 10, (2023). https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2810189

creating others. NYS has a nursing union, the NYS Nurses Association, with 42,000 nurses. The influx of travel nurses meant that union nurses working at set salaries were working alongside non-union subcontractors, sometimes earning significantly more than they were.[81] This negatively affected NYS union nursing staff morale, especially in cases where travelers were also able, by virtue of their contracts with individual facilities, willing to pay a premium to alleviate their staffing crisis to be able to have a greater say in their schedules and shift assignments.[82] National and NYS trade associations have lobbied to protect facilities and consumers from the fiscal ramifications of unbridled free market competition for critical services during a disaster. Both the American Health Care Association and the NYS Health Care Facilities Association have worked to introduce legislation to cap travel nurse pay.[83] Travel nurses responded to the call for legislation on caps, and their points are worth consideration when planning for the next pervasive and prolonged healthcare crisis. Given the environment in which nurses and other clinical care providers were required to work, pay was often the driving incentive for putting their comfort, mental health, licensure, and lives on the line. Absent incentives to do so, nurses may elect to sit out the next pandemic.

Staff Capability

Staffing in healthcare is more than simply having a certain number of people working. Staffing number allocations that are aligned with patient numbers and acuity, all else being equal, are tied to patient safety and care quality.[84] A fuller definition of "staffing" includes a more functional understanding that the person working the patient care floor must have the required competencies to perform the tasks they are assigned as well as the physical, mental, and emotional capability and stamina to perform them well over time regardless of stressors. Burn-out, PTSD, moral distress, and other issues worsened staff shortages during the COVID-19 pandemic.

Despite efforts to enhance staffing numbers and care delivery capacity through regulatory waivers issued by state and federal governments and incentivized out-of-state, NYS hospitals were still stretched to their limits trying to deliver care to their patients. Operationally, most health systems could quickly build the infection control and disease treatment competencies required to meet basic patient needs, in part using protocols iteratively developed and quickly disseminated by large hospitals and federal agencies. However, all new infection control and patient care processes had to be integrated and managed by hospital staff. Due to the rapid pace of the pandemic surge and the acuity of patients' illnesses, many hospital staff had to be trained rapidly to achieve competency in new care delivery paradigms. New treatment areas were opened. Hallways, auditoriums, conference spaces, and swiftly constructed triage tents were used for patient care. Hundreds of new and complex policies, processes, and procedures needed to be developed quickly and taught to, in some cases, newly redeployed staff now caring for these critically ill patients. Moreover, new infection control processes were vital and being developed in rapid-fire sequence as PPE supplies and availability fluctuated daily. All of these competencies were learned under increased stress, fatigue, and realistic fears by healthcare workers regarding personal safety and the safety of their friends, family, colleagues, and patients.

[81] Ryan Whalen, "New York State Looking at First Steps to Address Proliferation of Traveling Nurse Industry. Spectrum News. (Buffalo), January 2023. https://spectrumlocalnews.com/nys/buffalo/politics/2023/01/12/state-looking-at-first-steps-to-address-proliferation-of-traveling-nurse-industry#:~:text=Gov.,the%20proliferation%20of%20traveling%20nurses.

[82] Ryan Whalen, "New York State Looking at First Steps to Address Proliferation of Traveling Nurse Industry. Spectrum News. (Buffalo), January 2023. https://spectrumlocalnews.com/nys/buffalo/politics/2023/01/12/state-looking-at-first-steps-to-address-proliferation-of-traveling-nurse-industry#:~:text=Gov.,the%20proliferation%20of%20traveling%20nurses.

[83] This Legislation Could Cap Travel Nurse Pay, Staffing Agencies Accused of 'Price Gouging'". Nurse.Org, (2022). https://nurse.org/articles/travel-nurse-pay-caps/19 New York State Department of Health, "New York State Ventilator Allocation Guidelines." New York State Task Force on Life and the Law, 2015. https://www.health.ny.gov/regulations/task_force/reports_publications/docs/ventilator_guidelines.pdf

[84] This Legislation Could Cap Travel Nurse Pay, Staffing Agencies Accused of 'Price Gouging'". Nurse.Org, (2022). https://nurse.org/articles/travel-nurse-pay-caps/19 New York State Department of Health, "New York State Ventilator Allocation Guidelines." New York State Task Force on Life and the Law, 2015. https://www.health.ny.gov/regulations/task_force/reports_publications/docs/ventilator_guidelines.pdf

Considerations

1. Adequacy and Distribution of Supplies

Ensuring an adequate supply of essential resources such as PPE, ventilators, and other durable and expendable medical equipment was a significant challenge. The distribution of these resources was uneven, leading to disparities in availability across different healthcare facilities and regions.

2. Innovative Solutions

In response to commodity shortages, innovative solutions emerged, such as 3D printing of equipment and collaboration with universities for equipment production and cold storage for vaccines. These creative approaches helped supplement traditional supply chains and address shortages more effectively.

3. Staffing

The strategies for increasing staff numbers were a net win for a state with the financial resources to buy its way out of staffing challenges. Absent analysis about whether the strategies were "good" or "bad," they did come at a cost and created resentment. Smaller facilities in-state could not compete with the premiums NYS facilities paid out-of-state nurses. A secondary shortage crisis was created when smaller facilities lost staff to higher wages. NYS has subsequently sought to limit the pay for travel nurses to avoid the unpredictable financial outlays for surge staff in the future. NYS has already taken steps to increase its pool of NYS-based clinical care staff. New York Assembly Bill 5153 was introduced early in 2024.

The goals of the bill are to "enact the NYS Nursing Shortage Correction Act; establish the NYS nursing recruitment incentive and retention program, provide for tuition benefits and the reimbursement of student loans if a person is a registered and licensed nurse, and, establish that the State University of New York and City University of New York shall pay for a person's education if such person signs a contract stating that he or she shall work in NYS as a registered nurse."

4. Competition

Competition for all resource types pitted states against each other, requiring smaller NYS facilities to go up against larger hospitals and healthcare systems to acquire resources. Even when financially supported by state and federal funding, facilities were encouraged to utilize the private marketplace to purchase goods and services. NYS industries were encouraged to retool operations to provide essential goods, and travel agencies were heavily utilized as force multipliers for NYS' healthcare staffing solutions. All of these industries expected to be compensated for their efforts, and the extent to which they should have been compensated is a matter of perspective. Regardless of an individual's opinion regarding the relative appropriateness of free market competition and making money during a disaster, future decision-makers should consider the impact in terms of vulnerability when crafting future policies and strategies for public health response.

In any competitive system, there are winners and losers. NYS was frequently a "winner" in procuring commodity and personnel resources because it had financial power and strategically partnered to increase its buying power. A microcosm of this was seen as big health systems either beat out smaller ones to obtain resources or suffered less fiscal harm to their bottom lines when forced to pay greatly inflated prices. Facilities without as much buying power consequently increased in vulnerability. They were more vulnerable to fiscal impacts that operationally limited their ability to provide adequate protections to their staff and care to patients, who then became vulnerable to the outcomes from that degraded care capability and capacity.

Public Health Infrastructure, Preparedness, Coordination, and Response Operations

Public health infrastructure can be broadly defined as how the State organizes itself to manage daily public health issues and public health emergencies. The pre-set mechanisms of NYS' public health infrastructure evolved during the response COVID-19. As required by federal guidance, a state's response organization must be scalable, with the capacity to expand to meet the response needs created by the disaster. Typically, response organization and operations are both predetermined during extensive prior planning cycles. The structure of a response organization, while designed to be flexible to meet specific challenges, does not change radically when a disaster strikes.

As far as utilizing prior planning and organizational structures, NYS went "off book" fairly quickly both in terms of organization and operations. The frequent answer to survey and town hall questions about using existing plans for response to COVID-19 was, to paraphrase, "No, we didn't. We knew they wouldn't work."[85] Although doctrinally, the entire public health response system depends on successful planning at all levels of government for a wide range of public health threats, more and more after-action reports on the pandemic show a commonly observed trend was to toss out doctrine. Using existing plans gave way to real-time problem-solving, especially as the pandemic wore on and jurisdictions faced increasing pressures to return as many services as possible to normal operations.

In the healthcare provision arena, NYS agencies struggled to adequately provide surged and sustained emergency response operations while simultaneously juggling requirements to telework, address staffing shortages, and maintain an adequate level of service provision in all of their critical functions. Continuity of operations planning (COOP) rarely ever materialized the way NYS emergency response plans predicted. Regardless, across the board, NYS agencies reported that they had robust or recently completed COOPs and technology sufficient to flex operations to web-based models.[86]

a. New Strategies and Some Consequences

Two new response strategies were born from the State's shift from existing plans to a problem-solving response strategy that had a direct effect on how the State provided support to hospitals and healthcare systems. The first was to establish a taskforce-based response model to manage functional and/or mission-based healthcare provision requirements. The second was to establish separate advisory groups to provide executive-level policy and operational input to guide how the State addressed healthcare provision challenges and implemented solution sets.

b. Taskforce Response Model

There is insufficient respondent evidence available from interviewed COVID-19 response stakeholders and open-source research to state whether the emergence of taskforce style response was a pre-defined strategy intentionally selected at the state executive level early in the pandemic or if it arose organically and then proliferated. NYS, local jurisdictions, trade organizations, and healthcare institutions became proficient at establishing task forces to target specific issues to manage and resolve them.[87]

c. Executive Advisory

Governor Cuomo enlisted a group of special advisors to help tackle the many challenges of COVID-19, including health policy subject matter experts (SMEs) to advise on hospital policies like the "surge and flex" response plans, that largely follow the CMS requirements for hospital emergency planning and are now in the process of being codified into hospital planning requirements, and response objectives.[88] Organizations like the Healthcare Association of New York State (HANYS) were consulted to provide insights and recommendations to support hospital response. At operational levels below the executive, State response stakeholders voiced frustrations that a large group of consultant incident management teams (IMTs) brought in to manage and support lacked the NYS-centric or emergency response experience to create the most effective solutions that best supported end users.

[85] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[86] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[87] The term "taskforce response model" is unique to this AAR and used as a convenient way to describe a system put into place multiple times during New York's response efforts but should not be construed as a formal response construct.
[88] New York State. "Hospital Emergency Surge and Flex Response Plans, Section 360.3" New York Codes, Rules and Regulations, (December 2022), https://regs.health.ny.gov/volume-c-title-10/content/section-3603-hospital-emergency-surge-and-flex-response-plans

Advocates for these strategies stated that the taskforce models and SMEs brought targeted expertise and capability into the fight against COVID-19, solving problems more efficiently and effectively than any existing plan or organization could have executed. The two models freed the NYSDOH to focus on continuity of operations and sustainment of important other than COVID-19. Critics claimed that perhaps the advisors brought subjective perspectives along with their expertise and that the practices effectively sidelined the expertise and state-specific institutional knowledge of NYSDOH personnel. The fairly public reliance on external expertise to guide pandemic healthcare policy, coupled with publicly embarrassing treatment of NYSDOH's reporting of COVID-19 cases and nursing home fatalities, effectively eroded public trust in the NYSDOH.

d. Considerations

NYS was not the only one to shift its response paradigms away from traditional incident command system models grounded in government agency-centric response operations to taskforce and function-based response systems historically leveraged for public-private partnerships. These systems have some advantages, including the utilization of systems, processes, and technologies already available and custom-built to meet response needs. An example is the partnership between New York City and Medline to manage PPE supply chains. They also return key leadership personnel – who are often tasked to staff operational and policy development incident response roles in addition to, or to the exclusion of, their daily responsibilities – to the leadership and management of their own divisions, agencies, and departments.[89]

These task forces are also not likely to go away in future responses, having provided effective outcomes during the pandemic. Public-private partnerships in policy development and surging with IMT support staff (versus hiring full-time government staff) is unlikely to disappear from future responses either. With a neutral approach to the paradigms, the State should be thoughtful about inclusion for future responses. Downgrading the operational inputs and insights of its own institutions to garner quicker results would ultimately be counterproductive. Reliance on IMTs as force multipliers should be based on a reasonable degree of State-led supervision that includes timely, routine, and valued implementation of feedback from end users so that tactical solutions created by IMTs (for example, the daily questions about PPE reporting required of facilities in HERDS) are user-friendly and appropriate for hospital and healthcare systems already struggling to meet care needs in a crisis situation.

Response Coordination

Respondents and research both indicated communication and coordination challenges among NYS government bodies, hospitals, nursing homes, and other healthcare facilities within the broader healthcare ecosystem. Almost 27% of interview respondents and 31% of town hall participants mentioned confusion and frustration due to lack of clear communication from state leadership on new mandates or policies and the absence of a unified response plan lead to hurried decision-making.[90]

Tactical operations such as implementing effective patient transfers between facilities and patient load balancing systems among hospitals were cited as examples of operations that were hampered by sub-par communication and coordination systems and processes.[91] At higher levels of response operations, New York City Comptroller Scott Stringer issued a letter in July of 2020, that tied planning and coordination deficiencies at all levels to a disproportionate death rate among New York City's vulnerable populations.[92] Respondents also underlined the lack of a unified reporting structure, the burden of data collection initiatives, and the misalignment between state and federal data requirements as significant issues.[93]

a. Policy by Presser

Interviewees, town hall participants and survey respondents also articulated powerful dissatisfaction with the "policy-by-presser" standard that became more and more normal during the pandemic. The expectation of being responsive in real time to policy announcements not previously communicated, much less coordinated, with the relevant State agencies, was overwhelming and unfair to the agencies and facilities downstream of the pronouncements.[94] Issuing state

[89] Medline, "Case Study: How New York City Got PPE To The People Who Need It Most," (2020). https://www.medline.com/strategies/supply-chain/how-new-york-city-got-ppe-to-the-people-who-need-it-most/
[90] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[91] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[92] Scott Stringer, "Letter to Governor Andrew Cuomo: Review of H+H's Response to COVID-19." The City of New York, Office of the Comptroller, (July 2020). https://comptroller.nyc.gov/wp-content/uploads/2020/07/7.17.20-HH-Response-to-COVID-19.docx.pdf
[93] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[94] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024

policy and operational mission requirements with no notice via daily press statements is poor practice and must be avoided in future responses. See the section of this AAR about communication for more details on the downfalls of this practice.

b. Health Emergency Preparedness

The State knew of the need for enhanced coordination and information sharing to support hospitals and the healthcare response system. Public health emergency coordination and information sharing are two of the public health emergency preparedness (PHEP) capabilities. States are required to have planning and systems in place to execute coordinated public health response and to provide information to healthcare response stakeholders. Federal funding is provided through the ASPR HPP so that states can meet the federal requirement of establishing healthcare coalitions to provide whole community coordinated response to health emergencies.

In a document that details the effectiveness of the COVID-19 hospital surge and flex system, the author notes that in 2020 New York's 213 hospitals operated "as essentially a private entity in a highly competitive environment."[95] The document went on to say that "Prior to the COVID-19 pandemic, these individual institutions and hospital networks rarely worked together or coordinated as a unified healthcare system."[96] The document uses the illustration of Elmhurst Hospital (a New York City H+H system facility). Early in the first month of the pandemic, Elmhurst was overwhelmed with patients. This occurred within a healthcare system that had 900 available in-system beds and 3,500 geographically close beds in New York City.[97] This prompted the creation of the surge and flex system, tasked with being a "singular coordinated statewide public healthcare system."[98] On March 30, 2020, Governor Cuomo announced a new hospital central coordinating team, the NYS Hospital Capacity Coordination Center (the Center) to facilitate a more coordinated and strategic approach among the State's healthcare systems and hospitals to combat the COVID-19 pandemic. Data was collected daily from hospitals and real-time dashboards were built to track COVID-19 hospitalizations by hospital, hospital system, counties, and regions of the state to inform the work of the Center.

c. Considerations

The observation that pre-COVID-19 hospitals functioned independently and without coordination speaks volumes about the lack of preparedness despite the federal standards and regulations of NYS' healthcare infrastructure. The requirement to build an entirely new surge and flex system and additionally establish a capacity coordination center at the start of the pandemic indicates that the healthcare coalition's regional efforts for system coordination were inadequate. The NYS HEPC includes four regional coalitions four regional coalitions that are led by NYSDOH directors. Within the coalitions, there are four regional training centers that are HPP grant-funded through the NYSDOH that provide, "identification, coordination, development, delivery, and/or evaluation of emergency preparedness training for members of the Healthcare Emergency Preparedness Coalitions."[99] Acknowledging the fiscal realities of the lack of federal funding for health system preparedness during stable times, the State should commit itself to creating a culture of preparedness that effectively integrates hospitals and health systems into emergency preparedness and response planning, training, exercise, and evaluation programs that are rigorous and required. Expanding the statewide system to effectively include the HEPCs in a meaningful way will be a way to leverage local and regional relationships to enhance the statewide system.

Hospital Surge Decompression Response Operations

On March 23, 2020, Governor Cuomo's directive to increase bed capacity by 50% to 100% demonstrated understanding of the critical requirement to prepare healthcare facilities for the anticipated influx of COVID-19 patients. This document cited "an urgent need to expand hospital capacity." To alleviate strain on existing facilities, NYS aggressively worked to establish other alternate patient care sites in estimated high impact areas, including the Brooklyn Center with 280 beds and the South Beach Psychiatric Center in Staten Island, managed by Northwell, with 260 beds.[100] Trade organizations borrowed the taskforce model to address surge requirements. The Greater New York Hospital

[95] New York State Department of Health, "Surge and Flex Health Coordination System," (August 2020). https://regs.health.ny.gov/sites/default/files/pdf/emergency_regulations/Surge%20and%20Flex%20Health%20Coordination%20System_1.pdf
[96] New York State Department of Health, "Surge and Flex Health Coordination System," (August 2020). https://regs.health.ny.gov/sites/default/files/pdf/emergency_regulations/Surge%20and%20Flex%20Health%20Coordination%20System_1.pdf
[97] New York State Department of Health, "Surge and Flex Health Coordination System," (August 2020). https://regs.health.ny.gov/sites/default/files/pdf/emergency_regulations/Surge%20and%20Flex%20Health%20Coordination%20System_1.pdf\
[98] New York State Department of Health, "Surge and Flex Health Coordination System," (August 2020). https://regs.health.ny.gov/sites/default/files/pdf/emergency_regulations/Surge%20and%20Flex%20Health%20Coordination%20System_1.pdf
[99] University of Rochester Medical Center, "New York State Health Emergency Preparedness Coalition" (2023). https://www.urmc.rochester.edu/emergency-preparedness.aspx
[100] Additional sites, constructed but never activated, included SUNY Stonybrook (1028 beds), SUNY Old Westbury (1024 beds), and the Westchester Convention Center (110 beds).

Association (GNYHA) formed the GNYHA surge capacity taskforce to "support hospitals and governmental agencies to quickly evaluate these unused clinical and non-clinical spaces for their maximum potential bed count and appropriate acuity level."[101]

a. USNS Comfort

On March 18, 2020, Governor Cuomo announced that the United State Naval Ship (USNS) Comfort would be deployed to New York's harbor to address the significant hospital surge.[102] "We are fighting a war against this pandemic, and we know that two of the most effective ways to stop it is by reducing density and increasing our hospital capacity, so our healthcare system is not overwhelmed," Governor Cuomo said.[103] The ship's capabilities were impressive.[104] It is a floating 1,000-bed hospital with 15 patient wards, 80 intensive care beds, and 11 operating suites. The Comfort arrived at Pier 90 in Manhattan on March 30th, 2020, and stayed for nearly a month. A total of 182 patients were seen on the Comfort during those three and a half weeks.[105]

Image source: Shutterstock

b. Javits New York Medical Station

The government's surge plans included strategies for expanding in-hospital capacity by repurposing existing spaces and establishing near-hospital surge beds to accommodate the increasing number of patients. In addition to expanding hospital capacity, NYS and city governments worked to establish alternate care sites (ACSs). These sites were a component of the State's pandemic response plan, and were temporary healthcare facilities, often established in non-traditional settings. These facilities are rapidly constructed to provide additional capacity (also called "surge capacity") and capability for delivering medical care during public health crises or other events that strain local medical resources. These sites may also be referred to as "temporary expansion locations," or "field hospitals". One of these was the Jacob K. Javits Convention Center which was transformed into the nation's largest alternate care site: Javits New York Medical Station (Javits).

Javits was an impressive example of NYS' capability to expand patient beds and care capacity. The facility itself was large enough to support efficient patient care configurations. It came equipped with power, plumbing, and security to ensure that the facility could successfully be configured to support 2,500 patient beds.[108] The facility was set up as a field hospital by the U.S. Army Corps of Engineers. Northwell Health, New York's largest healthcare provider, provided administrative oversight of the location, which was licensed by the State via an emergency order.[107]

The Javits mission was first defined as a field hospital to provide care for non-COVID-19 patients. These patients would notionally represent a lower acuity than COVID-19 patients. Traditional hospital beds could be preserved for the more complex care needs of COVID-19 patients. Eventually, Javits had to switch to providing COVID-19 patient care due to need. The patient selection process for Javits was geared towards accepting those who had sufficiently progressed in their clinical course as to represent relatively low-risk for requiring complex or emergent care. Javits did have the planning and capability to care for declining patients, and, in alignment with their

[101] GNYHA, "News: GYHA Surge Capacity Taskforce," (July 2020). https://www.gnyha.org/news/gnyha-surge-capacity-taskforce/
[102] New York State. "Amid Ongoing COVID-19 Pandemic, Governor Cuomo Announces Deployment of 1,000-Bed Hospital Ship 'USNS Comfort' to New York Harbor," (March 2020). https://www.Governor.ny.gov/news/amid-ongoing-covid-19-pandemic-Governor-cuomo-announces-deployment-1000-bed-hospital-ship-usns
[103] New York State. "Amid Ongoing COVID-19 Pandemic, Governor Cuomo Announces Deployment of 1,000-Bed Hospital Ship 'USNS Comfort' to New York Harbor," (March 2020). https://www.Governor.ny.gov/news/amid-ongoing-covid-19-pandemic-Governor-cuomo-announces-deployment-1000-bed-hospital-ship-usns
[104] U.S. Navy, "U.S. Navy Military Sealift Command: USNS Comfort" (February 2023). https://www.msc.usff.navy.mil/Ships/Comfort/Statistics/
[105] Fuentes, G. (2020, April 2). Patients start arriving on Navy hospital ships; medical officials expect more transfers for care in NYC, LA - USNI News. USNI News. https://news.usni.org/2020/04/02/patients-start-arriving-on-navy-hospital-ships-medical-officials-expect-more-transfers-for-care-in-nyc-la
[106] Administration for Strategic Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE), "Alternative Care Sites: The Federal Experience in New York City. (March 2023). https://files.asprtracie.hhs.gov/documents/aspr-tracie-alternative-care-sites-the-federal-experience-in-new-york-city.pdf
[107] Administration for Strategic Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE), "Alternative Care Sites: The Federal Experience in New York City. (March 2023). https://files.asprtracie.hhs.gov/documents/aspr-tracie-alternative-care-sites-the-federal-experience-in-new-york-city.pdf

pre-start estimates, approximately nine percent of their patients required ICU care, including ventilator management. Providers at Javits noted this ability to provide higher-than-expected care in an ACS as a potent future planning factor for public health disaster preparedness.[108]

After approximately one month of use, Javits closed on May 3, 2020, having seen just over 1,000 patients in total. The number represents 1,000 additional beds available across the healthcare enterprise in the downstate region during the early patient surge of the pandemic, but questions were raised about why Javits, with its impressive capabilities and robust facility, was not utilized to greater effect, especially with struggling facilities in the vicinity.

The underutilization of alternate care sites left hospital stakeholders confused and displeased.[109] While stakeholders reported a perception that ACS's were never really intended to be used, but that they functioned as a publicity tactic to demonstrate State response efforts, it seems objectively unlikely that the State would expend tens of millions of dollars on an elaborate photo opportunity. Another perspective was that the hospitals transferring patients to this facility were already being negatively impacted financially. Their elective procedure revenue stream had effectively been shut off, so hospitals viewed the transfer of COVID-19 patients to ACS venues as representing additional lost revenue that they could not afford.

Interestingly, the Javits model was borrowed and replicated in other jurisdictions.

NYS health departments traditionally have been responsive to requests for collaboration from other jurisdictions when they hold expertise and experience that will help planners respond to distant disasters. For example, New York City's Department of Health and Mental Hygiene was approached to provide SME insights and suggestions to assist Miami Beach in quickly creating a post-emergency canvassing operation (PECO) to quickly poll residents about their access to water, electricity, food, and safe shelter following Hurricane Irma. In addition to SME consultation, they provided canvasing strategy, coordination plans, and operational tools to conduct PECO. During the pandemic, Washington DC planners benefitted from extensive consultation with NYS that included lessons learned and operational insights as they worked to establish an ACS facility in the Washington Convention Center.

Image source: Shutterstock

c. Considerations

The narrative that evolved from research and the expressed considerations of subject matter experts, both involved in NYS' COVID-19 response and in the data analysis for this AAR, underscores the gaps and challenges in the existing public health infrastructure and preparedness for dealing with large-scale health emergencies like the COVID-19 pandemic. From the initial shutdowns intended to prevent hospital system collapse to the rapid setup of makeshift hospitals and the struggle to maintain essential services, the research findings highlight the need for better preparedness, planning, and flexibility in public health responses. They also touch on the importance of building and maintaining strong relationships between health departments, hospitals, and other key stakeholders to enhance future public health responses. Clearly, the relationships that NYS has forged with external health response stakeholders demonstrate that the State's relationships and experience can be foundational to a successful response.

[108] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, 2023-2024
[109] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024

Addressing Equity and Accessibility in Emergency Healthcare Delivery

New York's vested interest in providing policy and planning for equitable care made the inclusion of specific questions about vulnerability and equity a standard part of the AAR methodology. Twenty-three percent of respondents in town halls and interviews discussed concerns about access to healthcare among marginalized and vulnerable populations.[110]

Inequity as well as access and quality disparities aligned with social and functional vulnerability are not unique to the COVID-19 pandemic response. Other discussions in this AAR have focused on the inherent disparities in access to quality healthcare for vulnerable populations that have existed in a chronic state in NYS for decades. These disparities were worsened and then splashed across headlines as a result of the pandemic. In general, NYS demonstrates a daily commitment to engaging on healthcare equity and vulnerabilities topics to better understand them and to create and implement strategies for change. COVID-19 forced the State to consider rapid interventions to mitigate the worst possible outcomes of inequitable clinical care access. NYS jurisdictions again utilized the targeted-response taskforce model to set up systems to address equity in care provision. For example, NYS established the NYS COVID-19 Vaccine Equity Task Force and Created the New York City Taskforce on Racial Inclusion and Equity, convened in April 2020, to "monitor the COVID-19 response in effected neighborhoods and identify key disparities through analysis and dialogue with effected communities."[111]

The degree to which the State was successful in mitigating poorer outcomes for its most vulnerable residents is a subject of debate and bears considerable future research. Operationally, COVID-19 response stakeholders who provided feedback recommended expansion and improvements in the State's telehealth services as well as in the State's targeted "hyper-local" outreach to vulnerable populations.[112] They addressed strategic partnerships with, and support to, community organizations that provide healthcare services that may keep vulnerable residents healthy enough to avoid hospitalization during public health crises.[113] As an overarching policy, the State must include equitable healthcare access as an essential component of its future public health preparedness system. This approach would involve considerations to improve equitable access in every planning component and response system. Just as the State's future public heath coordination systems require a foundational "culture of preparedness", the State's future culture of preparedness requires a foundational "culture of equity."

[110] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls 2023-2024
[111] New York State, "New York State Equitable Vaccine Administration Information, RPA #: PA-02-NY-4480 PW #: 151, (September 2022). https://openbudget.ny.gov/covid-funding/eva/nys-equitable-vaccine-info-sep-2022.pdf
[112] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[113] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024

3. Conclusion

The COVID-19 crisis highlighted a fragmented healthcare system that never fully prepared for a long-term pandemic event that grew quicker than most expected. The COVID-19 pandemic has demonstrated that while planning is important, even the best plans inevitably will not and cannot foresee or anticipate every eventuality because each emergency or crisis is unique. COVID-19 presented an unprecedented challenge and placed strains on every part of the State's healthcare system. Planning and preparedness must provide for a clear chain of command and responsibility to ensure a coordinated, timely, and effective response and to allow for the flexibility that the AAR team's preliminary inquiry identified.

Healthcare inequities were also seen in a new light. Differences in capability and capacity to respond between small and large organizations were highlighted, as well as the inability to continue routine care in this type of situation. Despite these stressors, New York's healthcare providers and hospitals all rose to the occasion. Still, there is opportunity for improvement. The State, as well as hospital organizations and associations, should carefully consider the lessons learned to assure they are not repeated.

Image source: Shutterstock

4. Recommendations

In the aftermath of a disaster response, it is important for the officials involved to identify mistakes, analyze how they happened, and build systems that can prevent them from occurring again. The recommendations fall into various categories, including workforce, competency, education, training, and more.

They are as follows:

1. Review existing planning. As evidenced by the abandonment of many existing health-oriented response plans, NYS's planning infrastructure should be comprehensively reviewed with lessons-learned documented and implemented at all levels.
2. Updated planning must, at the most basic level, identify key roles and responsibilities for the various players in the healthcare delivery system in the event of systemwide health emergencies. Any plan must provide for clear chains of command and responsibility for different aspects of incident management.
3. The State should develop contingency plans – for creating hospital surge capacity and for housing infected nursing home residents – in conjunction with relevant stakeholders and SMEs.
4. The State should develop systems to routinely monitor for disease outbreaks and to rapidly deploy its own testing kits in the event the CDC's efforts falter.
5. The State should consider its incident command structure and how it will incorporate the most successful elements of the task-force incident management model into future response organizational structures.
6. State and local assessment of pre-pandemic planning should be done related to staffing and public health infrastructure to support at-risk organizations.
7. Greater state-level management of items on allotment is necessary to ensure that hard-hit areas receive the needed staff, equipment, and supplies.
8. The State should provide enhanced funding as an economic incentive to expand the State's workforce (including recent retirees) in strategic categories to ensure a sufficient supply of competent staff.
9. The State should create and sustain flexible public health crisis response teams that can be deployed to support hospitals and health systems in need of competent surge staff.
10. The State should educate and train various managerial-level hospital staff in areas such as supply chain management for potential future pandemics.
11. The state should provide support for crisis management and incident command tools and resources that enable effective teamwork and communication within and between healthcare organizations as well as clinical experts (e.g., physicians, nurses, and frontline staff).
12. The State should create an ACS template and toolbox applications.
13. The State should create PPE, ventilator, and vaccine allocation processes, policies, and regulations.
14. The State should develop and provide data and dissemination models and tools that are accurate, defined, consistently communicated, and easily understood by the consumer.
15. The State should ensure that hospitals have advanced knowledge of guidance changes, allowing them to pivot operationally and clinically and be in a position to assist local public health organizations.
16. Providers of critical equipment should be identified in advance and the State should work in concert with hospital systems to put in place contingency contracts to ensure supplies are available when and as needed.
17. The State should increase stockpiles of critical healthcare supplies increases (e.g., PPE, ventilators).
18. In coordination with input from NYS SMEs, the State should reimagine and decrease the reporting requirements related to stockpiling healthcare supplies.
19. If the State desires to continue to plan for ACSs for future emergencies, a list of possible locations should be pre-identified. The state should establish agreements and exercise standard operating procedures for establishing and operating an ACS with those facilities.

20. If the State decides to continue with the ACS model, it should revisit its plans for ACSs based on lessons learned during COVID-19 and expand those plans to include a call center and dispatch capability.
21. The State should establish hospital readiness standards, surge planning, and normalize COVID-19 patient care in traditional medical settings.
22. The State should ensure public health readiness and surge capacity.
23. The State should Investigate opportunities to invest in healthcare workforce stabilization and expansion.
24. The State should engage the federal government in national endemic response, pandemic readiness, and needed reforms.

Image source: Shutterstock

C. Skilled Nursing Facilities and Congregate Care

New York State (NYS) nursing, congregate care, and long-term care homes roared into the headlines early in the COVID-19 pandemic, as deaths among nursing home residents rapidly outstripped COVID-19 fatalities among similarly aged people in non-nursing home residential settings. The daily diet of COVID-19 reporting was full of stories describing rising fatalities, especially among nursing home residents. Newspapers, television stations, and social media outlets were filled with tales of nursing home care providers competing with each other for appropriate personal protective equipment (PPE), and family members recounting the misery of residents left isolated from any semblance of normal life. Nursing home staff, facility management, and trade organizations also voiced frustration and concerns regarding the challenges of safely staffing facilities and complying with new policies and regulations. During the collection of information and other research in the preparation of this AAR, NYS citizens shared their anguish over being unable to visit loved ones in nursing homes during the pandemic, and the grief over the many that died alone without family contact. Although this human tragedy was certainly not unique to New York, the perceived lack of clarity regarding State policies and transparency of reporting related to the illnesses and deaths prompted deep and lingering mistrust among surviving family members.[114] Representatives from state agencies shared their efforts to rapidly understand and improve the situations faced by congregate care residents while working to surge their response capability and capacity, maintain their normal critically important functions, adapt to new social distancing and telework paradigms, and try to stay healthy themselves.[115]

All these perspectives paint a heart-wrenching and potentially demoralizing picture of COVID-19 as experienced in NYS' long-term care and congregate care facilities. New York's poor performance, with a rate of 70.9 deaths per 1000 nursing home residents, ranked it in the bottom third of all states.[116] This is especially significant since New York has more residents living in nursing homes than any other state in the nation.[117]

Despite these challenges, NYS achieved meaningful results in reducing nursing home COVID-19 cases and mortality with its vaccination campaign. NYS ranked fourth in the nation for rapid implementation and total uptake for vaccinations of staff in nursing homes.[118] Even with these positives, there were significant negative impacts on those in NYS' nursing homes and their families.

AT A GLANCE:

While NYS policies with a direct impact on skilled nursing and congregate care facilities were frequently rushed and uncoordinated, they ultimately provided appropriate guidance that was consistent with universal best practices in congregate care and accurately reflected the best understanding of the scientific community at the time they were issued. COVID-19 highlighted many preexisting discrepancies in the level of care available at NYS nursing homes. While early in the pandemic, publicly funded facilities in disadvantaged communities were more likely to experience higher rates of infection and fatalities, NYS resource assistance, including its vaccination program, leveled the playing field.

The number of nursing home facilities and patients presented many issues for the State, but these were difficult problems for private and non-profit operators, as well. Early efforts to mitigate the spread of the aggressive virus, including quarantines and other isolation strategies, were in some respects too little too late. In other instances, particularly prior to the introduction of effective vaccines, they were occasionally implemented in a ham-handed fashion, creating more ill-will in the face of an already difficult situation. The extraordinary nature of a global pandemic that affected virtually all stakeholders at the same time complicated response efforts across disciplines. Novel disasters require the expedited development of policy and operational strategy. Prior to COVID-19 nursing homes had been particularly deficient in disaster preparedness. These deficiencies, highlighted by the pandemic, rose into the public consciousness. Positively, this attention has engendered the crafting of novel solutions to improve the quality and equity of care in NYS nursing homes.

[114] 233 New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[115] 233 New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[116] Calculated using Center for Medicare and Medicaid Services CMS data cumulative through the last week of 2020.
[117] (Kaiser Family Foundation, 2017)
[118] Crain's New York Business, "NY Fourth in Nation for Vaccinated Nursing Home Workers", February 11, 2022, https://www.crainsnewyork.com/health-pulse/ny-fourth-nation-vaccinated-nursing-home-workers-cms-data-shows

1. Analysis

Metrics for Assessment

The overarching themes identified in the public health and healthcare arena, and in skilled nursing and congregate care facilities specifically, mirrored the themes identified in other sectors.

- Even the most well-intentioned policy had unforeseen consequences in NYS nursing homes. Policy decisions may have led to acceptable outcomes, but the communication surrounding them resulted in unforced errors. Top-down policy implementation and process management allowed the State to provide rapid direction and guidance to healthcare facilities, that resulted in fatality rates that were on-par or better than the rest of the country. However, the paradigm did not facilitate, or much tolerate, the creation of locally-appropriate solution sets. While appropriately responsive policy was crafted as a function of best intentions on the best available data at the time it was developed, the collaboration to develop policy and the communication of policy to key stakeholders and the public was poor and created anxiety for the families of nursing home residents. Inadequate communication and coordination among state agencies and between state agencies and facilities caused confusion, personnel and material resource waste, and mistrust.
- The State-directed policy of "feeding the beast", providing the public with raw data on an at- least-daily basis, was another time-consuming effort that scratched a public itch for information but did not in turn yield efficient and effective support from the State.[119]

Other identified themes are NYS nursing home specific but raise considerations with the potential to improve future emergency response efforts across disciplines. Most notably, the real tragedy of what happened in NYS nursing homes during the COVID-19 pandemic was that many of the challenges these facilities faced were predictable and could have been better mitigated. More work is needed to improve nursing home emergency response preparedness and rectify the long-standing systemic and structural biases typically found in these facilities.

- For example, reports from the Office of the Attorney General and the Office of the Comptroller attempted to provide actionable and accurate, real-time assessments of situations in nursing homes. However, these documents were routinely devoid of input from appropriate State subject matter experts and frequently contained inflammatory language that stoked public fears.[120] With a reevaluation of the public information dissemination and other emergency response processes, the State could improve the efficacy of its emergency response for residents of skilled nursing home facilities, and NYS residents more broadly.

Metrics for Assessment

The people who lived through COVID-19 and the people who were tasked with implementing the State's strategic decisions for response and managing the impact of these policies and mandates deserve a representative voice. When significant numbers of members of these groups all agree on challenges and areas for improvement, it warrants the attention of anyone charged with improving future response efforts. At the same time, opinion obviously has its limitations, especially when influenced by personal biases, perspectives, and pressures beyond strictly clinical or operational necessities.

Federal metrics (e.g., the CDC's Public Health Emergency Preparedness Capabilities) provide a model for how state and local jurisdictions should prepare for and respond to public health emergencies.[121] Additional federal standards (e.g., the HHS ASPR 2017-2022 Health Care Preparedness and Response Capabilities) quantify and define quality care requirements in healthcare facilities, including nursing homes, in times of a public health disaster.[122] A brief list of the most relevant standards for this discussion is appended. These benchmarks, among others, serve as useful guideposts to frame what was expected versus what occurred. These standards also serve as a useful tool to identify improvements foundational to effective public health emergency response in healthcare facilities.

[119] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[120] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[121] See the CDC's website at https://nashuanh.gov/1092/Public-Health-Emergency-Preparedness-Tra#:~:text=CDC's%20Public%20Health%20Preparedness%20Capabilities,resources%20to%20build%20or%20sustain.
[122] See chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.phe.gov/Preparedness/planning/hpp/reports/Documents/2017-2022-healthcare-pr-capablities.pdf.

Policy Development, Implementation, and Consequences.

NYS issued 480 policies and directives associated with the health and human services sector. Of these, 106 policies or directives were related to skilled nursing facilities, rehabilitation facilities,congregate care and long-term care facilities.[123] A small number of these policies were the subject of intense public scrutiny and outcry. Others were cited by AAR interviewees as having had pronounced impacts on their ability to report, coordinate, and execute care efficiently and effectively.[124] While many of these policies were developed hurriedly and without the full input of all relevant NYS subject matter experts and stakeholders, this analysis found that they were issued in good faith based on the intformation that was available at the time the policy decisions were made. However, this section addresses three policies that garnered the particular ire of the public and nursing home stakeholders and had serious outcomes, either for nursing home residents or staff.

Figure 3: NYS COVID-19 Hospitalizations illustrates the instances of daily cases with and without protective measures in relation to NYS healthcare system capacity.

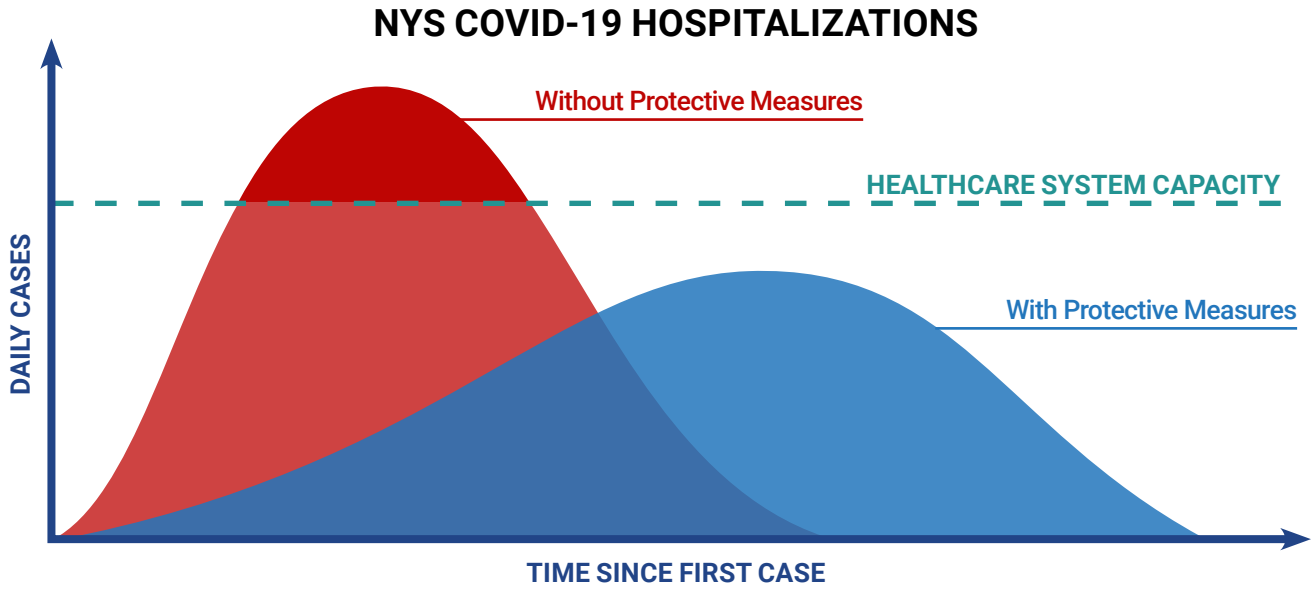
Nursing Home Readmission

Governor Cuomo announced on March 25, 2020, that recovering COVID-19 patients be readmitted to New York nursing homes from hospitals.[125] Nursing homes did not have the option of refusing an admission based on the patient's COVID-19 diagnosis. It immediately became a focal point for criticism. In the early days of the pandemic, when infections spread through nursing homes with the deadliest effect, loved ones, clinicians, and nursing home administrators expressed concern at opening these facilities, home to an incredibly vulnerable population, to COVID-19 patients. Hospital decompression is one component of managing medical surge. Other policies to create more available hospital beds and to establish alternate care sites (ACSs) were enacted around the same time. Most Americans will recall the efforts to "flatten the curve" by using public health measures to decrease the number of COVID-19 patients and slow the spread of the disease. The intent was to preserve the healthcare system's scarce personnel and material resources and maintain clinical operational capacity to provide care and resupply. As applied in NYS clinical settings, less acutely ill patients or patients who had passed their clinical crisis and were recovering were discharged to home or a lower level of care such as a rehabilitation center or nursing home.

Like other strategies put into place to manage the medical surge, the State relied on the standards of infection control and public health disaster management to preserve the acute care capacity of the health system. What the State did not anticipate in those early days was the second and third order effects of the specific policy or the scope and scale of the pandemic.

The admission and re-admission to nursing homes strategy could only be as effective as the successful application of standard infection control practices in the receiving nursing homes. These standards have long been required by state and federal law, and by

Figure 5: NYS COVID-19 Hospitalizations



[123] These numbers come from counts based on open-source research and documentation submitted by the State for this AAR.
[124] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[125] NYS Press Release: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://skillednursingnews.com/wp-content/uploads/sites/4/2020/03/DOH_COVID-19__NHAdmissionsReadmissions__032520_1585166684475_0.pdf.

state and federal guidance specific to COVID-19, and include actions like universal precautions, appropriate use of PPE, physical distancing, isolation, quarantine, surveillance, and testing.

All these infection control practices demonstrably prevent disease spread in healthcare facilities when and if they can be effectively and fully applied. Later research showed that almost no nursing home in the nation was successful at preventing COVID-19 cases from occurring in their facilities over the course of the pandemic.[126] The more successful nursing homes were those that most effectively managed the spread of the virus within the facility once it was there.[127] These more successful facilities had better access to tools for infection control and were more likely to avoid staffing and PPE shortages. Their less well-equipped counterparts had higher resident mortality.

The admission of patients to nursing homes created a small secondary medical surge for the facilities gaining residents. Every one of these patients was still recovering from a life-threatening illness requiring more care than normal, and each of these patients represented an infection risk to all the other patients, requiring the facility to figure out isolation, quarantine, and distancing in a finite space. Other concerns developed about the reporting of COVID-19 patients sent to nursing homes. Along with concerns that the State was underreporting COVID-19 deaths in nursing homes, the State's number of COVID-19 patients admitted to nursing homes varied between an initial report of 6,327 admissions to a revised number in May of 2020 of 9,056 admissions.[128] The discrepancy lies in a change between what information was initially provided, which was the number of new patients admitted to nursing homes and the second number, that included 2,729 patients that were sent from hospitals back to the nursing homes where they had previously been residents.

The explanation makes sense, but changing numbers fueled public mistrust of the government's data and of State agencies. No matter how they were counted at that point in time, they represented to the public an unacceptable threat to the safety of a vulnerable population. By the middle of May 2020, the Cuomo administration reversed course on this directive, and nursing homes were barred from accepting COVID-19 patients without a prior negative test.

Nursing Home Lock-down

On Friday, March 13, 2020, New York mandated that nursing homes disallow outside visitors in all instances except for compassionate care, such as end-of-life visits. This ban followed federal guidance. The Center for Medicare and Medicaid Services (CMS) issued memorandum QSO 20-14-NH providing guidance to facilities on restricting the visitation of all non-essential healthcare personnel.[129] Most states issued similar bans. The U.S. bans were preceded by visitation bans to healthcare facilities in Asia and Europe. For example, Finland's Emergency Powers Act of March 17, 2020, banned visits to nursing homes by residents' family members.[130] It was well-established by mid-March that COVID-19 took a devastating toll on the elderly and that congregate living situations worsened vulnerability for often medically fragile individuals. The public and many officials still held the hope that the ban, and the virus itself, would be short-lived. At that time, Governor Cuomo's emergency order only extended until April 6, 2020.

This policy, as with the readmission policy previously discussed, was grounded in standards for public health emergency response to an infectious disease outbreak. Reverse isolation is the sequestration of vulnerable patients to protect them from being lethally infected by another person. A routine example of this is keeping hospitalized cancer patients with suppressed immune systems in negative pressure rooms. Staff wear PPE to prevent the spread of germs from potentially killing their patient.

As nursing home residents died alone, and family members grieved missing last precious days with their loved ones, the toll of social isolation on nursing home residents became increasingly evident. Not only were outside visitors banned from nursing homes, extra-curricular activities were curtailed, congregate meals were eliminated, and group outings ended. A key finding of the Office of the Attorney General's report, Nursing Home Response to COVID-19 Pandemic,

[126] Sun, Z., Chai, L., & Ma, R. (2023). Long-Term Care Research in the Context of COVID-19 Pandemic: A Bibliometric Analysis. Healthcare (Basel, Switzerland), 11(9), 1248. https://doi.org/10.3390/healthcare11091248
[127] Christopher Cronin and William Evans, "Nursing Home Quality, COVID-19 Deaths, and Excess Mortality. J Health Econ Volume 82, (January 2022), https://www.sciencedirect.com/science/article/pii/S0167629622000121?via%3Dihub
[128] Bernard Condon and Jennifer Peltz, "Over 9,000 Virus Patients Sent Into NY Nursing Homes. AP News Service, (February 2021). https://apnews.com/article/new-york-andrew-cuomo-us-news-coronavirus-pandemic-nursing-homes-512cae0abb55a55f375b3192f2cdd6b5
[129] U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services, "Nursing Home Visitation - COVID-19 Ref: QSO-20-39-NH, (September 2020) https://www.hhs.gov/guidance/sites/default/files/hhs-guidance-documents/QSO-20-39-NH%20Revised%2003.28.2023.pdf
[130] Jari Pirhonen et al. "COVID-19 Related Visiting Ban in Nursing Homes as a Source of Concern for Residents' Family Members: a Cross Sectional Study. (2022). BMC Nursing Journal, Article 255,(September 2022) https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-022-01036-4
130 Jari Pirhonen et al. "COVID-19 Related Visiting Ban in Nursing Homes as a Source of Concern for Residents' Family Members: a Cross Sectional Study. (2022). BMC Nursing Journal, Article 255,(September 2022) https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-022-01036-4

issued in January 2021, was that a "Lack of nursing home compliance with the executive order requiring communication with family members caused avoidable pain and distress."[131] New Yorkers shared stories in the press of being unable to communicate with their family members, even electronically. Some shared that they found out their family member had died up to a week prior to being notified.[132]

By September 2020, state restrictions had been relaxed, following the lead of CMS that acknowledged the undeniable toll of isolation on the physical and mental health of nursing home residents. NYS still required that a facility be free of COVID-19 infections for 14 days before allowing visitors, if they could provide a negative COVID-19 test taken within the past week. Until vaccination was widely available, this effectively prohibited visitation in many NYS facilities. Nursing home visitation did not return to a more normal status until the end of February 2021. Subsequent research illustrated the tangible toll on human lives that severe isolation caused in nursing homes. By 2021, non-COVID-19 deaths in the nation's nursing homes exceeded COVID-19 fatalities.[133] Many factors may explain these numbers. Non-congregate dining means patients were not supervised at meals and may have become malnourished. Decreased activities and physical distancing meant many residents remained in their rooms and in their beds for extended periods of time, and negatively impacted their strength, placing them at risk for other life-threatening complications.

PPE Stockpiles and Reporting

NYS provided 8,510,729 pieces of PPE to state nursing homes. The logistics and coordination effort to pull off that degree of material distribution is impressive and worthy of repeating for all future response, with some considerations.

The State did successfully manage to obtain an astonishing amount of PPE and equipment. It established a regional consortium and incentivized state businesses to retool their manufacturing operations to provide needed supplies. It created new systems to inventory and manage supplies. Localities also innovated to solve supply and distribution issues.

- For example, a small effort to make face shields was born of a partnership between SUNY New Paltz and the Ulster County executive. The project received corporate and foundation financial support, materials, and engineering support. A production capability based on a collection of 3D printers in the Hudson Valley evolved into a sophisticated operation producing "thousands of the face shields per day".[134]
- New York City partnered with Medline to rapidly store existing and newly purchased PPE inventory and bring the inventory into Medline's online inventory management and web-based ordering platform. They then developed mechanisms to deliver ordered materials to more than 1300 individual agencies starting in August 2020.[135]

Some of these processes will serve NYS well in the future if they are codified, updated based on stakeholder feedback, and then practiced regularly.

The CDC standards for public health preparedness require that jurisdictions prepare for pandemics. Part of that preparedness posture is to stockpile goods such as certain types of medications and disposable and durable medical equipment and material, like ventilators and PPE. Much of the planning for future pandemics relies on a combination of historical experience and predictive threat assessment forecasting. This is why, for example, the Strategic National Stockpile (SNS) cache has a distinct focus on chemical, biological, radiation and nuclear threats and influenza. Public health preparedness strategists attempt to make plans appropriate for addressing all types of hazards. The processes and procedures they create are designed to be flexible and scalable so they can be adapted to any situation. The system can work if it is constantly and robustly maintained, practiced, resupplied, and well-funded. Unfortunately, COVID-19 happened when these standards were not fully met nationally or in NYS.

[131] New York State Office of the Attorney General, "Nursing Home Response to COVID-19 Pandemic, Revised," (January 2021). https://ag.ny.gov/sites/default/files/2021-nursinghomesreport.pdf
[132] Karen DeWitt, "Families of Nursing Home Residents Protest for More Access", North Country Public Radio. (October, 2020). https://www.northcountrypublicradio.org/news/story/42492/20201015/families-of-nursing-home-residents-protest-for-more-access#:~:text=Oct%2015%2C%202020%20%E2%80%94%20A%20small,sign%20of%20changing%20the%20rules.
[133] Cronin, Christopher J. & Evans, William N., 2022. "Nursing home quality, COVID-19 deaths, and excess mortality," Journal of Health Economics, Elsevier, vol. 82(C).
[134] Ulster County, New York. "Ulster County Executive Ryan Announces Community PPE Production Effort has Produced Over 30,000 Face Shields for Hospitals, Nursing Homes, and Local Governments," UlsterCountyNY.Gov. (May 2020). https://ulstercountyny.gov/news/executive/ulster-county-executive-ryan-announces-community-ppe-production-effort-has-produced
[135] Medline, 2020

- NYS's public health infrastructure was understaffed and underprepared in terms of training, equipment, technology and in testing of processes and procedures. Inadequately supported and unprepared for the scope and scale of a truly global pandemic, the State faced challenges to acquire resources and implement systems to distribute them, including paying high prices for PPE.[136] Supply chains for PPE were heavily reliant on foreign suppliers. They failed when those suppliers were faced with COVID-19 as well.
- Inventory strategies used by individual healthcare facilities, states, and the federal government saved money day-to-day with a just-in-time resupply program, meaning there was no real large stockpile that could go for a long period of time without resupply, and resupply failed when the supply chain failed.
- Federal stockpile funding never kept pace with the roles it was expected to fulfill.
- Prior to COVID-19, the management of the stockpile was transitioning from the CDC to the ASPR. This transition was not completed when the pandemic started and contributed to confusion.
- During the response the federal government transferred operational management from the U.S. Department of Health and Human Services to the Federal Emergency Management Agency. This effectively disrupted communications with NYS, hampering attempts to coordinate logistics for PPE resupply.

According to the U.S. Office of Inspector General, the SNS met its statutory obligations to "distribute its limited supply of PPE and other supplies during the first 3 months of 2020"[137] By then, New York was already struggling.

NYS started the pandemic with a relative lack of preparedness for a large and sustained response requiring PPE and medical expendables. NYS believed that the federal government's coordinating role for resource coordination and allocation would have been more robust and coordinated. In the absence of fully comprehensive support on the federal level, NYS was left to solve problems on its own. Public health is typically well funded and supplied but is challenged when a deadly disease emerges. The last stress test for a pandemic was H1N1 influenza ended a decade before COVID-19 and was not dire enough to prompt the State to invest and innovate in public health emergency preparedness. The 2019 measles outbreak in New York City required public health support from the State, but the outbreak was regionally contained and managed largely by New York City's Department of Health and Mental Hygiene. No prior event prompted action for large-scale preparations and the subsequent massive effort required to solve the PPE crisis.

Stockpiling and Reporting Challenges

Nursing home representatives during interviews, surveys, and town hall sessions noted the logistical, fiscal, and reporting challenges that surrounded receipt and acquisition of PPE.

Stockpile Requirement

As part of the State's "surge and flex," the State issued regulations requiring nursing homes to stockpile PPE sufficient to sustain its workforce for 60 days. Nursing homes and other healthcare facilities were encouraged to work with local and regional emergency management entities and private vendors to acquire PPE. The first iteration of the rule calculations for the required amount of PPE per home were made using PPE use rates from April 2020. Updates in July 2021 required a seven-component calculation rubric based on positivity rate, number of beds, and other data points. Facilities that failed to obtain and maintain a sufficient supply of PPE faced revocation of their licensure and fines. They

Image source: Shutterstock

[136] Amy J. Frontz, "The Strategic National Stockpile Was Not Positioned To Respond Effectively to the COVID-19 Pandemic," U.S. Department of Health and Human Services, The Office of Inspector General. (October 2023). https://oig.hhs.gov/oas/reports/region4/42002028.pdf
[137] Amy J. Frontz, "The Strategic National Stockpile Was Not Positioned To Respond Effectively to the COVID-19 Pandemic," U.S. Department of Health and Human Services, The Office of Inspector General. (October 2023). https://oig.hhs.gov/oas/reports/region4/42002028.pdf

were offered a 14-day grace period for a first offense. Nursing home respondents to surveys and town halls and interviewed stakeholders from long-term care trade associations cited multiple issues with the rule, including:

- The complexity of cyclically calculating the required PPE amounts and the burden of reporting the amount of PPE each facility was required to have on hand,
- The logistical realities of either storing that much PPE in buildings that were already struggling to provide physical distancing space for residents or spending money to rent appropriate space to house it, and
- The fiscal burden of trying to buy PPE in a hyperinflated market, competing against other facilities, larger healthcare systems, and the State itself.

Reporting to and by the State

Nursing home respondents were almost universal in expressing their frustration with the State's required reporting on the Health Electronic Response Data System (HERDS). NYS also uses NORA, the Nosocomial Outbreak Reporting Application, and nursing home surveys to gather data on nursing home infection rates and disease outbreaks.[138] State officials had sympathy for the staff at nursing homes. One quipped, "I know, believe me, don't get me started on HERDS."[139] The additional threat of fines for late reporting levied against nursing home staff already exhausted by managing a deadly disease in their midst for which they were as ill-prepared as the State, caused long-lasting resentment.

Of course, reporting on nursing home fatalities became a huge issue during COVID-19. The State has been accused of failing to accurately report on the nursing home related deaths of over 4,000 New Yorkers. Depending on the narrative provided by various sources this is a result of either:

- Shoddy, opaque and variable reporting standards (Comptroller's Report),[140]
- Purposeful misrepresentation (Comptroller's Report), and/or
- Adherence to state law requiring that deaths in NYS be reported based on where the decedent expires, not where they became ill or injured (NYSDOH).

The Comptroller's report, "Use, Collection, and Reporting of Infection Control Data" as revised March 2022, categorically states, "…we determined that instead of providing accurate and reliable information during a public health emergency, the [NYSDOH] conformed its presentation [of data collected through any of 3 reporting mechanisms from nursing homes] to the Executive's narrative, often presenting data in a manner that misled the public." Interviewed representatives from the NYSDOH and other NYS agencies that provided congregate care were quick to point out the adherence to state law for reporting as the primary cause for the variance in attribution of deaths related to nursing homes.[141] They also noted that they were not consulted by the Comptroller's office for their input or perspective before issuing the report.[142]

Understanding Measures of Quality in Nursing Homes

The NYS Office of the Attorney General (OAG) report, "Nursing Home Response to COVID-19 Pandemic" (as revised, January 30, 2021) examined, among other things, the relationship between CMS ratings of nursing homes, staffing levels, and COVID-19 cases and deaths in nursing homes.[143] Early in the COVID-19 response, OAG logged a total of 953 reports to a hotline set up to receive complaints, initially relating to communications by nursing homes with family members.[144] The complaints expanded in scope, and OAG also received complaints alleging COVID-19 related neglect through their typical channels. The final OAG investigation and report content eventually went on to address a variety of ills related to nursing homes, COVID-19, and the management of response and reporting by NYSDOH.

Complaints leveled against the OAG report were mainly that its issuance came before OAG's investigations and enforcement activities were complete and without first requesting input from NYSDOH.[145] The report described the unusual circumstances in which it was issued and clearly states that its findings were preliminary. Additionally, the scope of the allegations compared to the total number of nursing home patients (n=0.9%) and total number of nursing homes still under investigation at the time of publishing (more than 20 out of 630, or

[138] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews/Town Halls , 2023
[139] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[140] Office of the New York State Comptroller, "Use, Collection, and Reporting of Infection Control Data," (March 2022). https://www.osc.ny.gov/state-agencies/audits/2022/03/15/use-collection-and-reporting-infection-control-data
[141] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[142] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[143] New York State Office of the Attorney General, "Nursing Home Response to COVID-19 Pandemic." (As Revised, January 2021), https://ag.ny.gov/sites/default/files/2021-nursinghomesreport.pdf
[144] OAG 2021
[145] OAG, 2021, 5

a little over 3%) were relatively small. The raw data is taken directly from the OAG report and the percentage calculations were made for this AAR. Regardless of how the data was provided in the OAG report, this is not how the results were typically characterized in the media, which led to confusion, anger, and mistrust of NYSDOH among the public. NYSDOH stakeholders interviewed for this AAR felt that the report, absent their input or explanations, was unnecessarily critical at a time when public trust in the health response was important to maintain.[146]

The NYS Comptroller is tasked with conducting audits of state and local governments to ensure that they use taxpayer money effectively and efficiently to promote the common good.[147] In March 2022, the NYS Comptroller issued an audit, covering a period from January 2017 through November 2021. The intent of the audit was to, "determine whether the Department of Health (Department) is collecting necessary data to make informed decisions and promote strong infection prevention and control policies, and whether the data collected by the Department, including data reported to the public, is accurate and reliable."[148] The purpose of the report aligns with the Comptroller's duty to conduct audits of state agencies. Its findings echoed findings in the OAG report that the State, and specifically NYSDOH, "Conformed its presentation [of infection control data] to the Executive's narrative, often presenting data in a manner that misled the public."[149] The audit further stated, "the [NYS Health] Department, as a result, was not transparent in its reporting of COVID-19 deaths at nursing homes. Whether due to the poor-quality data that it was collecting initially or, later, a deliberate decision, for certain periods during the pandemic, the Department understated the number of deaths at nursing homes by as much as 50%".[150] According to the Comptroller's report, NYSDOH failed to report approximately 4,100 nursing home deaths. The Comptroller's report also noted that NYSDOH changed the basis for reporting of deaths in nursing homes, specifically reporting only resident deaths that occurred at nursing homes versus associating all deaths of nursing home residents.

2. COVID-19 and Non-COVID-19 Deaths in Nursing Homes

The details involved in nursing home deaths during the pandemic contain more nuance than simply a result of poor-quality care and low staffing. In broad terms, the OAG report correlates lower CMS quality ratings with higher COVID-19 deaths. The report also correlates low staffing with increased COVID-19 deaths.

However, research into COVID-19 at long-term care and congregate care settings shows that the CMS overall quality ratings provide a baseline understanding for regulatory entities and for families considering various nursing home options. The ratings compare nursing homes based on a fairly complex aggregate assessment of the facility's health inspection rating, staffing levels, and quality rating.[151] They indicate "how well a nursing home abides by pre-determined guidelines,(e.g. staffing), and minimizes objectively bad health outcomes, (e.g. bed sores)."[152] These ratings are not designed to predict how any facility would do, regardless of quality rating, given a "high level of uncertainty, where guidelines from the centralized authority, as well as public opinion, attach extraordinary weight to preventing a single bad outcome, namely COVID-19 cases and deaths."[153]

Early in the pandemic, the CMS star rating was an accurate metric for predicting mortality. One-star facilities experienced 15% more deaths than five-star facilities. However, after September 2020, that predictive relationship disappears.[154] Gorges and Konetzka established in their research that the strongest predictor of nursing home resident mortality was the incidence of the disease in the county in which the nursing home is located.[155] A seemingly counter-intuitive finding demonstrated unequivocally that a five-star rating was highly correlated with non-COVID-19 deaths in nursing homes during the same time period. These five-star nursing homes experienced almost nine percent more total deaths than one-star rated homes.[156] At this point, the nursing home quality ratings are better used as proxies for other kinds of health data that can be collected and applied to a planning strategy.

[146] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[147] NYS Office of the Comptroller, 2022
[148] NYS Office of the Comptroller, 2022.
[149] NYS Office of the Comptroller, 2022.
[150] NYS Office of the Comptroller, 2022.
[151] Centers for Medicare and Medicaid Services. "Brief Explanation of Five-Star Rating Methodology," CMS.Gov (as accessed, March 2023). https://www.cms.gov/medicare/provider-enrollment-and-certification/certificationandcomplianc/downloads/brieffivestartug.pdf.
[152] Cronin, Christopher J. & Evans, William N., 2022. "Nursing home quality, COVID-19 deaths, and excess mortality," Journal of Health Economics, Elsevier, vol. 82(C).
[153] Cronin, Christopher J. & Evans, William N., 2022. "Nursing home quality, COVID-19 deaths, and excess mortality," Journal of Health Economics, Elsevier, vol. 82(C).
[154] Cronin, Christopher J. & Evans, William N., 2022. "Nursing home quality, COVID-19 deaths, and excess mortality," Journal of Health Economics, Elsevier, vol. 82(C).
[155] Rebecca Gorges and R. Tamara Konetzka, "Staffing Levels and COVID-19 Cases and Outbreaks in US Nursing Homes," Journal of American. Geriatrics. Soc. Volume 68, Issue 11 (August 2020) https://agsjournals.onlinelibrary.wiley.com/doi/10.1111/jgs.16787
[156] Cronin, Christopher J. & Evans, William N., 2022. "Nursing home quality, COVID-19 deaths, and excess mortality," Journal of Health Economics, Elsevier, vol. 82(C).

COVID-19 fatalities were higher among non- white residents in NYS nursing homes. In understanding this reality, it's important to note that before the COVID-19 pandemic even began, New Yorkers with Medicaid were already more likely to be admitted to a one or two-star nursing home than a four- or five-star home. The virus itself demonstrated that it was more likely to result in fatalities among those over 65 than in younger individuals. However, among individuals over 65, the death rate for people in nursing homes was still significantly higher than for those not in a congregate care setting.

Staffing is one of the three pillars of the CMS star rating system. The OAG report associated low staffing levels with COVID-19 deaths in nursing homes. In part due to the tone and syntax of the OAG report, the public may infer that low quality, as evidenced by low staffing within for-profit nursing homes valuing profit over quality care, results in COVID-19 deaths, but again, the details hold more nuance. While it is true that two-thirds of nursing home deaths in NYS were associated with for-profit facilities, just under 70% of NYS nursing homes are for-profit.

Lower staffing ratios equate to lower CMS star ratings and are more associated with one-star and two-star facilities than four-star and five-star facilities. For decades before the pandemic, NYS nursing homes were seen as undesirable places to work, with lower pay, fewer professional staff, and fewer benefits as compared to other types of facilities. During COVID-19 staff working in facilities in disadvantaged environments were more likely to be exposed to COVID-19. These individuals were also more likely to be financially vulnerable and have more than one job. They were more likely to import COVID-19 to their facilities, spread COVID-19 between their facilities, leave nursing home jobs for higher-paying employment, and contribute to staffing shortages by becoming ill themselves. One of the things the CMS ratings may predict is the likelihood of any given skilled nursing facility to be located in an area with higher social vulnerability index (SVI) scores, more social determinates of health (SDOH) risk factors, and health disparities.[157] Locations with higher SVI scores are more likely to need support before, during, or after disasters than those with lower SVI scores. The SDOH risk factors are the conditions in the environments where people are born, live, and work that affect a wide range of health, functioning, and quality of life outcomes and risks. Poverty, medical bills, housing insecurity and instability, inadequate success to healthcare, availability of healthcare, limited social support, isolation, discrimination, inequity, racism, and institutionalization are all circumstances associated with higher risk for NYS nursing home residents. Areas with higher SVI scores also have more associated SDOH issues. SDOH risk factors contributed to health disparities and inequity experienced across NYS skilled nursing facilities.[158] Health disparities as defined by NYSDOH are "measurable differences in health status, access to care, and quality of care as determined by race, ethnicity, sexual orientation, gender identity, a preferred language other than English, gender expression, disability status, aging population, immigration status, and socioeconomic status."[159]

Vaccination Success

The biggest factor in eliminating COVID-19 in nursing homes was vaccination. On January 4, 2021, all frontline healthcare, homecare, hospice, and nursing home workers became eligible to receive COVID-19 vaccination. According to the Kaiser Family Foundation, NYS was at the forefront of ensuring that nursing home patients and staff were vaccinated.[160] Staff vaccination was accomplished faster and more completely in NYS compared to almost all other states. The efficiency of the State's vaccination program in nursing homes resulted in dramatic drops in nursing home deaths, beating results among the general public by a wide margin.

[157] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, "Social Determinates of Health," (as accessed May 2023), https://health.gov/healthypeople/priority-areas/social-determinants-health
[158] (HHS, 2024).
[159] New York State Department of Health, "Health Equity. (as accessed January 2024) https://www.health.ny.gov/community/health_equity/
[160] Priya Chidambaram and MaryBeth Musumeci, "Nursing Home Staff Vaccination Rates Vary Widely by State as Vaccination Mandates Take Effect," KFF, (February 2022).

2. Findings

Nursing Home Readmission

The State is required by virtue of the applicable federal standards to have planning and processes in place to execute medical surge strategies to preserve the capacity to provide life-saving clinical care. It is also obligated to ensure that people are not discriminated against due to their health conditions. The policy to admit or return COVID-19 patients to nursing homes following hospital admission was an attempt to accomplish both standard public health disaster practices. However, it was still a major point of contention.

There are several considerations for future response efforts that arise from examining this policy and the effects of its implementation. One is how the State will avoid the appearance of impropriety. During the development of this AAR, reports have been received and statements have been made that NYS reporting during the COVID-19 pandemic included purposeful and politically motivated discrepancies. While the State offered credible explanations for the discrepancies, public mistrust had already developed. Another example where the appearance of impropriety came to the forefront was regarding ageism. Public perception of the nursing home admission policy (coupled with other factors, like prioritizing PPE for acute care facilities) was that the State was choosing hospital patients over nursing home patients, representing a "survival of the fittest" mindset.

Nursing Home Lockdown

During any emergency situation involving a massive number of casualties, the standard for response is typically grounded in population-based care, that is to do the most good for the most people. The State, in observing its obligation to protect nursing home residents, took a population-based approach designed to offer pervasive blanket protection against the COVID-19 disease infiltrating facilities. While at the time the strategy was implemented, the root cause of most nursing home infections was not known. However, this strategy missed the mark not only because the second and third order effects of isolation and the degradation of holistic care were not considered but also since the ban on outsiders could not prevent the disease being unavoidably brought in by staff.

PPE Stockpiling and Reporting

Valuing public health preparedness can be a means to address systemic and structural flaws that challenge public health practice daily. Public health preparedness requires, and thus enhances, the routine coordination and communication among healthcare facilities, health systems, localities, regional coordinating entities, and the State. Public health preparedness also values the input of diverse voices and stakeholders. This includes valuing political realities but not assigning them primacy in consideration. Inclusion creates buy-in. Buy-in enhances coordination and efficiency. The State is already taking positive steps to address its preparedness shortcomings for PPE specifically and public health response capability in general. An updated report from the Comptroller notes that NYSDOH has filled 75 new positions (of a potential 110). The NYS Logistics Annex to the State CEMP is also being updated. The State's surge and flex healthcare coordination plan is being codified into law.

Nursing home survey and interview respondents noted that the policies and requirements for skilled nursing home and congregate care facilities were frequently a 'one-size-fits-all solution' without recourse if it was not realistic or necessary for a given facility.[161] They also voiced resentment at the punitive tone of the regulations.[162] When interviewing staff at a nursing home, the healthcare association was asked if their association had been included in Governor Cuomo's team of advisors to help inform policy for nursing homes, the answer was no.[163] The opinion was expressed that they would not ever be included and that this was politically motivated.[164] Whether or not this specific perspective is true cannot be verified, but the overarching sentiment among nursing home stakeholders was that from tactics to policy, they were not consulted and had little voice with the State.[165] This mistrust between the State and nursing homes hampered coordination, including an increased likelihood that required reporting would be fudged to meet the letter of the law on reporting requirements to avoid fines and risks to licensure.

[161] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Surveys and Town Halls, 2023-2024
[162] York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Surveys and Town Halls, 2023-2024
[163] York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, 2023-2024
[164] York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, 2023-2024
[165] York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Surveys and Town Halls, 2023-2024

Reporting of Nursing Home Fatalities

The theme of mistrust is again seen in the State's reporting of nursing home deaths. The State's reporting was, as noted in the Comptroller's report, lacking in transparency. The State did not consider the appearance of impropriety related to how it was reporting COVID-19 nursing home deaths until the public was already upset, having noticed and reported the discrepancies. Failing to anticipate the potential for raising public concern, the State then failed to effectively and broadly communicate specifically why the reporting varied over time and generally why public health data changes were not made when better data was obtained or poor data could have been replaced. The State's antiquated technology and data systems did not help it avoid those issues.

Furthermore, accusations flew when the Comptroller's audit was released. The appearance was of a badly fractured state government, which does not help instill confidence. The Office of the State Comptroller is not required to consult with the agencies it is auditing. Had it done so, it may have been able to present some mitigating information in its report to help the public understand potential root causes for nursing home deaths. It may also have preserved some trust between itself and other agencies. All these degradations of trust, between constituent facilities and the State, among state agencies, between agencies and the Executive Chamber, and between the State and the public, can be understood as self-inflicted wounds.

Understanding Measures of Quality in Nursing Homes

CMS quality ratings were poor predictors of whether COVID-19 could be kept out of a nursing home completely, but evidence suggests that the higher-rated facilities were less likely to experience disruptions in care provision due to staffing shortages or challenges related to PPE availability. They were also more likely to test residents and staff routinely and in response to a new case in the facility. They were more likely to receive test results earlier than lower-rated facilities. As a result, especially earlier in the pandemic, even when higher-rated facilities had COVID-19 cases in their facilities, they were better able to contain infection spread. The suggestion is that they had the resources to manage their way to lower mortality. Lower-rated facilities were able to catch-up by fall of 2020, when significant state support was in place, leveling inherent disparities.

The Success of Vaccination Programs in Nursing Homes

The near universal implementation of effective vaccination in NYS nursing homes meant that a facility's quality rating was not a factor in vaccination success. This shows that NYS can get positive outcomes throughout its nursing homes and achieve its mandate to ensure quality care.

3. Conclusion

The novelty of the COVID-19 pandemic explains some of what happened in NYS skilled nursing and congregate care facilities. It does not, however, explain all the challenges faced by New York's long-term care communities, and history will not accept novelty as an excuse for avoidable response failings. The State had known pre-pandemic issues, including:

- Public health preparedness coordination and funding shortfalls, with nursing home preparedness lapses, especially in lower-rated facilities,
- Reporting technology and processes that were outdated shortly after the Y2K response and not well understood even among state agencies, and
- Under-addressed systemic and nursing home specific social vulnerability issues that impacted facilities' ability to respond.

The absence of a culture of preparedness was compounded by the unanticipated impacts of a global pandemic affecting all response stakeholders at once, effectively limiting mutual aid and causing competition for resources. These impacts include:

- A global collapse of supply chains for durable and disposable medical equipment including PPE, resulting in a scramble for innovative acquisition and commodity logistics solutions,
- The need to create policy and strategy rapidly to respond to the unique care environment response requirements caused by the SARS-Cov-2 virus,
- Staff shortages in nursing homes due to illnesses of staff and their families, and competition for staff resources. . Thus, facilities less able to buy their way out of staffing challenges remained chronically understaffed throughout the pandemic, and
- New requirements and operational tempos for data reporting proved taxing without producing as much benefit to users as intended.
- The degradation of public trust in public health:
  - Aggravated by a unique political climate in the nation and in NYS,
  - Magnified by confusing and contradictory State reporting that had a domino effect. Public confusion and concern led to audits and reports by external-to-health state agencies that illuminated important issues, but were also inflammatory in tone and lacking input from state health entities, and
  - Reported aggressively in the media to a public that lacked public health literacy.

The State did realize significant successes in its pandemic response related to skilled nursing facilities and other congregate care facilities. The vaccination program effectively suppressed the COVID-19 crisis at a rate in nursing homes faster than was achieved in the state at large. Systems put into place to alleviate competition for scarce resources, like retooling existing industry for PPE production and creating buying consortiums, were effective in increasing access to critical items for nursing homes.

The State has an opportunity to capture these successes and learn from the challenges. An important component of improvement for the benefit of long-term care and congregate care residents will be considering all improvements from perspectives that make whole community coordination, user-friendliness, user needs and equity not just considerations but the cornerstones of response efforts.

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4. Recommendations

a. Transparency and Public Health Literacy

Before the next health crisis, the State should deeply consider how it will increase the health literacy of its citizens and foster buy-in for the importance of public health practices.

1. NYS decision-makers should establish checkpoints in the policy development process to address how it will consider and manage transparency in messaging and reporting to avoid the appearance of impropriety.
2. NYS will benefit from helping its citizens learn about the limitations of public health data. Effectively setting expectations for how often numbers will be shared and creating buy-in for the concept that getting accurate data is better than getting fast data would benefit the State in future emergencies. Investing in public education around how and why public health data evolves over time could be an effective strategy for NYS to earn back some of the eroded public trust.

b. Nursing Home Lock-Downs

For future public health emergencies, the State may consider more person-centric approaches to a public health emergency.

1. Nursing homes that were most successful with maintaining staffing, PPE, and testing were also the most successful at preventing COVID-19 deaths in their facilities, even when cases were present within the building's walls.
2. Collaborative support to nursing homes most likely to struggle with these factors, well in advance of the next emergency, will improve outcomes and decrease the need for immediate reactive response strategies.

c. PPE Stockpiling and Reporting

To be more successful in the next public health crisis, the State must do more to develop a culture of public health preparedness and be highly focused on and inclusive of nursing homes in the public health preparedness system. Recommended strategies include:

1. Address budget shortfalls for public health preparedness funding.
2. Enhance local and regional public health emergency preparedness coordination.
3. Require whole community exercise and training.
4. Address resourcing systems to facilitate user-friendly reporting and resupply requests that are filled in a timely and accurate manner.
5. Address how stockpile versus just-in-time resupply strategies can be reimagined and leveraged to create better, more efficient, and disruption resistant PPE supply chains.

d. Reporting Strategies

With the world watching how NYS responds to disasters, building back a culture of trust in an intentional and collaborative way will be the work of all state agencies and even all future administrations.

Future day-to-day reporting operations will have to make sizable efforts to increase transparency efficiency, interagency coordination and communication.

- Functionally, end-user-friendly reporting standards housed in updated hardware and software systems will improve the State's readiness, ability to report accurately, and possibly trust levels with the public.
- Planning and coordination efforts must be inclusive of an improved process for reporting from nursing homes and hospitals to the State, within state agencies, and from the State to the public.
- State agencies should anticipate future reporting requirements and audits and work together to create work product that drives improvement. Planning and coordination should be a collaborative effort with input from individual facilities, local and regional emergency management public health preparedness entities, relevant state agencies, and the Executive Chamber.

e. Quality Improvement and Anticipating Support

The State should assess and address lower-rated nursing homes and congregate care facilities within the context of its requirement to support vulnerable populations during a disaster.

1. Residents in lower-rated nursing homes are more likely to be subject to numerous factors that increase their social vulnerability and decrease their likelihood for positive health outcomes.
2. Understand the limits of what the CMS rating data can illuminate regarding root causes for health outcomes during a disaster and consider further

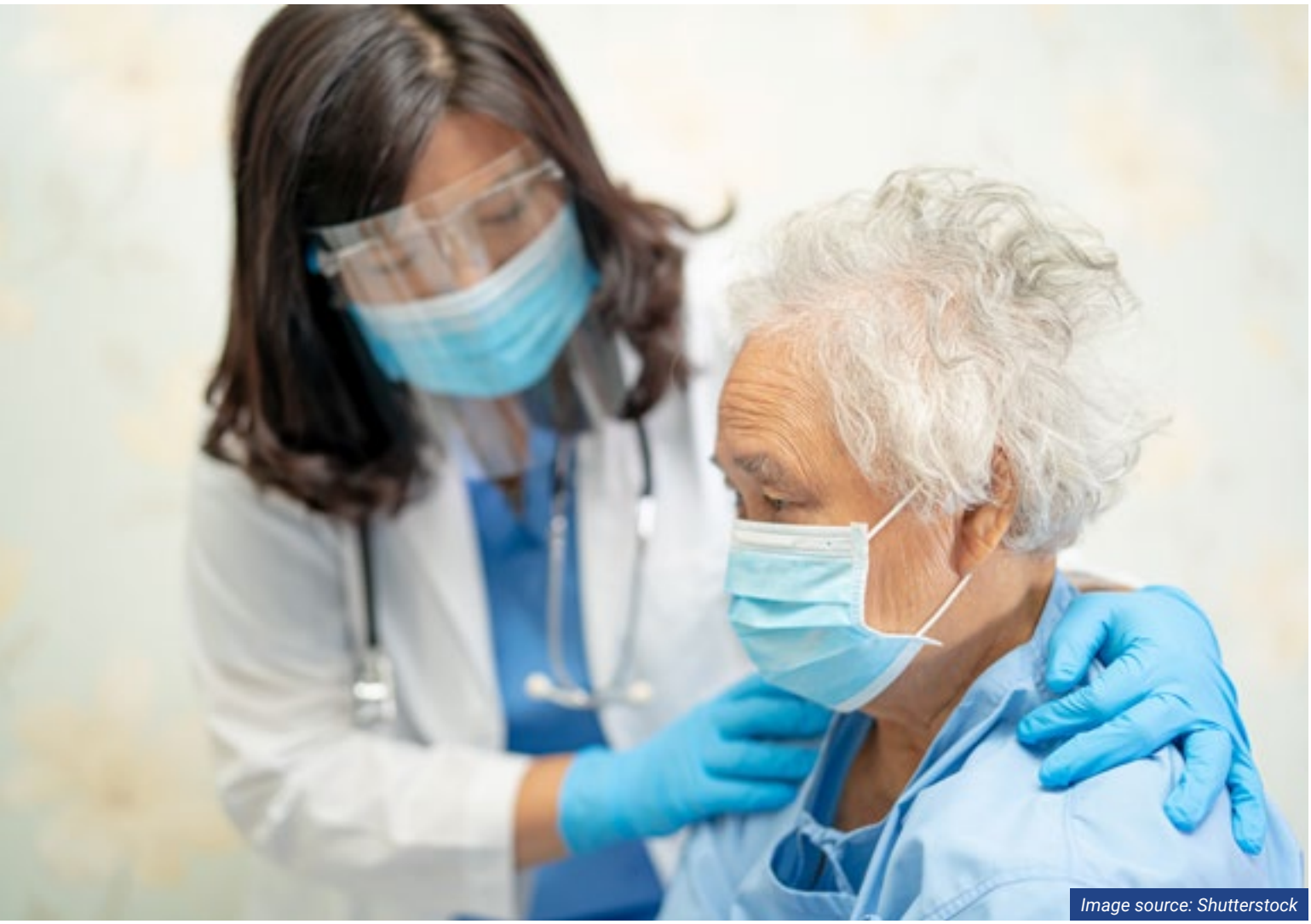
research for building a more robust framework for assessing a facility's likelihood for success or challenges during a disaster.

3. Develop a strategy to hold lower-rated facilities accountable but also support their ability to provide effective care during a disaster through training and effective, efficient resource support.

f. Replication of Vaccination Program Successes

The State has, and should capitalize on, the opportunity to replicate its successes in vaccination to create targeted interventions for nursing homes and other vulnerable populations.

Utilize the taskforce model successfully employed during the COVID-19 response to deeply examine the successes of vaccination in nursing homes. Examine and compare whether vaccination programs for other vulnerable populations were as effective as the nursing home effort. The State should specifically examine how these findings can be deployed for other vulnerable populations, including in other types of congregate care settings, sheltered populations, and mass care settings.



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D. K-12 and Higher Education

The New York State Education Department (NYSED) operates autonomously from the New York State (NYS) executive branch, its commissioner appointed by the State's elected Board of Regents. NYSED provides governance to an extensive system of more than 700 school districts, 200 other local educational agencies (LEAs), 2,000 private and charter schools, 900 museums, and 7,000 libraries. It also oversees the Office of the Professions (OP), which regulates more than 55 professional certifications for nearly 900,000 licensed professionals, including those in nursing and medicine.

The chancellor of NYSED also serves as president of the University of the State of New York, which includes public and private higher education institutions, for-profit schools, facilities for vocational rehabilitation, special education services, schools for the visually and hearing impaired, the State Archives, and broadcasting services.

Although the chancellor and NYSED function outside the direct supervision of the Governor and separate from the Executive Chamber, the administration of the state's schools and educational system depends on a cooperative and amicable partnership between NYSED and the Governor's executive office.

AT A GLANCE:

While effectively contributing to broader public health efforts, school closures and remote learning strategies exposed and expanded pre-existing inequities within the education system. School closures also highlighted the many ways in which educational institutions serve as community anchor points, providing resources and services beyond education. Future planning efforts should carefully consider the hardships and lasting impacts, especially on vulnerable populations, caused by the loss of these institutions.

1. Analysis

Suspension of In-Person Education

In the spring of 2020, NYSED provided education and services to 3.2 million kindergarten through 12th grade students at 4,440 schools and oversaw 248 colleges and universities with a combined enrollment of over 900,000. Despite physical closures following Executive Order (EO) 202.18, educational activities transitioned to remote platforms, in effort to ensure that the closure of school buildings did not equate to a halt in learning for the remainder of the 2019-2020 academic year.

The suspension of in-person education represented a decisive turn in the State's handling of the pandemic crisis within the education sector. This period was marked by initial communication and coordination challenges between the Executive Chamber and NYSED, complicating the transition. The abrupt move to remote learning exposed a lack of preparedness among educators and widened educational inequities, as students in both rural and urban districts struggled with insufficient access to technology.

The following executive orders were released to communicate school closure decisions and revaluations: EO 200, EO 202.2, EO 202.4, EO 202.11, EO 202.14, EO 202.18, and EO 202.28. These EOs required the temporary closure of all public and private schools across the state to mitigate the spread of COVID-19. This directive urged schools to transition to remote learning to protect students, educators, and communities from the escalating pandemic. The decision, although drastic, was aligned with broader public health objectives and reflected similar measures globally.

The use of various communication methods was key to effectively reaching a broad audience. However, the swift changes often caused confusion and highlighted the struggle for clear and consistent messaging. On March 16, 2020, Governor Cuomo issued EO 202.4 to shut down all schools within the state by March 18, providing minimal notice to the affected agencies.

These agencies, crucial for the order's execution, were informed only on the day the order was signed, leaving little time for preparation or strategic planning of a major logistical undertaking. NYSED released guidance documents to communicate decisions, updates, and recommendations to schools regarding school closures. These documents also included methods to allow schools to meet the requirements

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associated with school closures imposed on them through the following executive orders: School (PreK-12) Guidance: COVID-19, Interim Cleaning and Disinfection Guidance for Primary and Secondary Schools for COVID-19, and Interim Advisory for In-Person Special Education Services and Instruction During the COVID-19 Public Health Emergency. NYSED relied on guidance documents from NYSDOH to draft their own guidance for schools and universities, especially concerning issues of social distancing and virus rates.

NYS transitioned students of all levels from classrooms to remote learning. This shift required educational institutions to quickly adapt operationally and technologically to support remote teaching and learning. This required the development and implementation of strategies for transitioning employees to remote work, ensuring all students had online access, and maintaining safe conditions for any necessary in-person activities. Additionally, the certification of professionals, especially in the healthcare sector, was a pressing issue due to the disruptions caused by the closures.

Educational institutions encountered significant hurdles in getting clear and consistent communication and guidance from state and local authorities and executive leadership. Conflicting information, lack of clarity on reporting requirements, and insufficient directives state, from the local authorities, and executive leadership hindered decision-making processes and operational efficiency.

A profound technological and logistical hurdle for K-12 schools was ensuring that every student, teacher, and staff member had equal access to essential resources, such as broadband internet. The difference in technology access, how resources were allocated, and geographic locations emphasized the critical need to tackle equity issues in the educational system.

Additionally, schools were required to offer meals to children in their communities and to provide in-person learning for children with special needs. In addition to their primary role as educational institutions, New York schools play a critical role in supporting the welfare of children within their communities. Recognizing this, schools were mandated to remain operational even when other services were suspended. This directive served a dual purpose: First, it ensured that all children, especially those from underprivileged backgrounds, continued to have access to essential meal programs that they depend on during school days. For many children, the meals provided by schools are a crucial source of nutrition, which is fundamental not only to their physical growth but also to their cognitive development and overall well-being. Second, the mandate to keep schools open was particularly aimed at safeguarding the educational needs of children with special needs. This population of students often requires a more tailored educational approach with specialized support that cannot be easily replicated through remote learning platforms. The one-on-one attention, access to specialized equipment, and structured learning environment that in-person schooling provides are integral to their educational programs. By ensuring that these students could continue to attend school in person, the mandate sought to prevent any regression in their development that could occur due to a disruption in their routine and support systems.

Image source: Shutterstock

This approach reflects a broader understanding of the role of schools play in society, acknowledging that they are not just places of learning but also community hubs that provide stability and support for vulnerable people. By requiring schools to maintain these critical functions, the directive underscores the importance of educational equity and the recognition that schools must adapt to serve their communities in times of crisis.

Similarly, colleges and universities faced many operational challenges as they shut down. The closure of campuses forced students out of their dormitories, requiring refunds of housing payments. Requirements for financial aid repayment due to course unit deficiencies were suspended to alleviate students' burdens. These factors resulted in substantial revenue shortfalls for many institutions.

NYS's suspension of in-person education, in line with global efforts to control the virus, highlighted and worsened pre-existing inequalities in technology access and resource availability for remote learning. The State's efforts to ensure educational continuity, including mobilizing online learning resources, reflected a commitment to maintaining education amid the crisis. This analysis, drawing on document reviews, surveys, interviews, and town hall forums, identified key findings in coordination, communication, and learning disparities.

a. Coordination

Ambiguity in Decision-Making

Overlapping jurisdictions of school districts across multiple counties led to confusion over compliance and decision-making authority, complicating coordination efforts. A town hall forum participant captured this finding and said, "BOCES (Board of Cooperative Education Services) regions and many school districts overlap counties. Having to comply with different county Public Health Department mandates was challenging to say the least."[166]

Local vs. State Directives

The sector faced a significant tension between the desire for local autonomy and the requirement for cohesive state directives, a dilemma highlighted by the struggle to manage crises effectively across varied educational landscapes. This tension was encapsulated in the observation, "We scream for local control and then we scream for direction. It's a conundrum."[167] The balance between local discretion and the necessity for centralized guidance in times of crisis was complex.

Unique Regional Needs

As one stakeholder reported, "One size doesn't fit all: we are a large rural county in NYS [bordering] other states and we had specific and sometimes unique circumstances that weren't always addressed or recognized by NYS."[168] The crisis revealed the limitations of a uniform approach, particularly for rural areas with distinct challenges.

Enhanced Cooperation Between NYSED and NYSDOH

The pandemic significantly disrupted state licensure and board examinations, interrupting the entry of professionals into the healthcare system. The collaboration between agencies notably improved the healthcare professionals' certification process, highlighting effective and targeted strategies for managing crises.

Image source: Shutterstock

[166] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall 2024
[167] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[168] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2024

b. Communication

Challenges with the Executive Chamber

Communication between NYSED and the Executive Chamber was highlighted as challenging according to interviews with key stakeholders in education, pointing to an area for potential improvement. As one interviewee noted, "NYSED commissioner did not have a seat at table or ear on the phone with the Executive Chamber."[169]

Stressful Press Conference Timing and Communication Challenges

The timing of the Governor's press conferences, particularly on Fridays at 5:00 pm, created stressful situations for educational institutions. These press conferences often announced important updates or directives, leaving little time for planning or response over the weekend.

NYSED's Internal and Stakeholder Communications

NYSED demonstrated effective and consistent communication within the agency and with stakeholder groups, facilitating a coordinated flow of information.

Public Engagement Strategy

NYSED successfully engaged with the public through a comprehensive communication strategy, including a regularly updated website and frequent email updates to staff, parents, students, and administrators.

Inter-Agency Communication

The interaction between NYSED and other state agencies was often delayed in terms of receiving guidance, indicating a need for enhanced inter-agency communication to streamline response efforts.

There were interagency communication challenges reported between NYSED and the NYSDOH, which adversely affected the timely issuance of school reopening guidelines by the NYSED. This delay stemmed from NYSED's dependence on receiving critical health and safety protocols from the NYSDOH, such as social distancing requirements, masking policies, and procedures for reporting virus incidents.

Communication Consistency

Early on, mixed messages and confusion were common. Often, new EOs were announced in press briefings, leaving school leadership with no time for planning or further information dissemination.

Child Welfare and Vulnerable Populations

The mandate requiring schools to remain open for the education of children with special needs showcased the Governor's commitment to supporting this vulnerable population. At the same time, the communication of available services was frequently unclear or miscommunicated to parents and caregivers. As a result, these services were often underutilized or entirely missed.[170]

c. Equity and Access to Learning in Remote Schooling

Inequitable Technology Access

The shift to remote learning deepened socioeconomic divides by highlighting disparities in students' access to technology, disproportionately affecting those from lower-income backgrounds. Additionally, students in more rural parts of New York had significant issues accessing broadband internet, due to the lack of cell towers in these areas.

Persistent Absenteeism

School and university closures, along with the transition to remote learning, contributed to ongoing issues with absenteeism, suggesting challenges in engaging all students effectively in a remote setting.[171]

Academic and Social Development Impacts

Remote learning has been linked to lower test scores and hindered social development among students, indicating that it may not be an equal substitute for in-person educational experiences.[172]

Delays in Academic Milestones

The pandemic's disruptions caused delays in graduations and certifications, affecting students' educational and professional progress.

Looking towards the future, these findings offer valuable lessons for navigating crises in the education sector, emphasizing the importance of equity, adaptability, and comprehensive support. The experience highlighted the critical need for enhanced preparedness and support systems to address educational inequities and ensure the well-being of all students, especially those most vulnerable.

[169] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview 2024
[170] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023 - 2024
[171] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2024
[172] Mervosh, Sarah; Cain Miller, Clara; Paris, Francesca. "What the Data Says About Pandemic School Closures, Four Years Later." The New York Times, March 19, 2024, https://www.nytimes.com/2024/03/18/upshot/pandemic-school-closures-data.html.

d. Reopening Schools

As educational institutions across the board embarked on the path to reopening during the COVID-19 pandemic, a delicate balance had to be struck between advancing educational goals and ensuring the health and safety of students and staff. This analysis explores the multifaceted challenges and strategic responses that shaped the reopening of schools and universities.

The process of opening schools was marked by meticulous planning to create environments that were as safe as possible, incorporating mask-wearing, social distancing, and, where applicable, vaccine mandates into the daily routine. Despite these efforts, concerns over safety led to increased absenteeism. K-12 schools also faced the daunting task of managing varying reporting mandates from the patchwork of public health directives across counties.

The psychological toll of the pandemic necessitated a greater focus on mental health support for students. Academically, the transition aimed to mitigate the setbacks experienced during remote learning, with a focus on test scores, grade advancement, and the crucial aspect of social development.

Higher education navigated similar challenges with different complexities. Meeting stringent reporting mandates was critical for monitoring and mitigating the spread of COVID-19 within the campus community.

Policies around mask-wearing, social distancing, and vaccine compliance became central to the effort of maintaining in-person learning. Yet, the pandemic's impact on university life extended beyond health protocols. A notable decline in enrollment reflected students' hesitations about returning to traditional campus experiences. The pervasive issue of mental health also emerged as a significant concern, driving universities to enhance support services.

The strategy for reopening schools was based on a series of policy documents focused on health and safety requirements such as vaccination, social distancing, wearing masks, and reporting cases of the virus. These requirements were designed to align student educational needs with public health guidelines.

Key documents included:

- **Executive Order 202.61:** Mandated the reporting of COVID-19 test results and diagnoses in schools to NYSED.
- **NYSED reopening guidance:** Titled "Recovering, Rebuilding, and Renewing: The Spirit of New York's Schools." This detailed policy framework was crafted during summer 2020 in collaboration with NYSED and NYSED, reflecting a deliberate and knowledgeable approach to safely restarting face-to-face education.

The State utilized various channels to communicate reopening plans including:

- **Press conferences:** Provided real-time updates and allowed for direct questioning from the media and public.
- **Website:** Centralized information on guidelines and FAQs for easy access by school administrators, teachers, parents, and other stakeholders.
- **NYSED commissioner meetings with key stakeholders:** Included those from NYS United Teachers, the NYS Council of School Superintendents, the NYS School Boards Association, the Big 5 Schools, the Council of School Supervisors and Administrators, Empire State Supervisors and Administrators Association, NYS Federation of School Administrators, NYS Parent and Teacher Association, and the School Administrators Association of NYS, and BOCES District Superintendents.

d. Coordination

Interagency Dynamics

NYSED had to wait for directives from NYSDOH before it could develop its essential guidelines within the required timeframe. The desperation for guidance was articulated by an interviewee: "DOH remained silent while NYSED was looking for guidance. The Executive Chamber would direct orders that did not consider the different barriers specific regions presented. DOH was almost silent and difficult to work with, as NYSED was trying to put out guidance for schools."[173]

Despite these initial setbacks, inter-agency cooperation between NYSDOH and NYSED eventually led to the collaborative development of health and safety protocols for schools, ensuring the safe reopening of educational institutions.

[173] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

Stakeholder Engagement

The Executive Chamber formed the Reimagine Education Advisory Group, consisting of diverse educational stakeholders such as NYSED representatives, students, parents, representatives from rural areas, and advocates for special education and vulnerable communities. Their role was to provide input and recommendations to help school administrators reopen New York schools in fall 2020.

Implementation Variability

Adhering to reopening guidelines proved difficult for districts in various circumstances, including those in rural areas, low-income communities, or those with a high concentrations of special education students, multilingual learners, or immigrant populations.

Compliance Challenges

The flexibility in executing directives resulted in uneven approaches and compliance among school districts, especially considering various counties' differing health department interpretations.[174]

Communication Guidance Provision

NYSED issued comprehensive guidance documents to school districts and LEAs to assist administrators in readying their facilities and staff for the reopening of schools by September 2020. The formulation of these guidelines experienced a slight delay, while waiting for NYSDOH to release its health and safety requirements, including directives on masking and social distancing within schools and universities.

Communication Gaps

Frequent policy shifts often led to delays in disseminating crucial information, causing confusion and frustration among school administrators, teachers, and parents as they struggled to stay informed.

d. Child Welfare, Vulnerable Populations, Educational Disparities

Digital Divide

The pandemic starkly exposed the digital divide, with families lacking internet connectivity and those in poverty facing significant hurdles in accessing education. NYSED's initiative to distribute laptops and other equipment played a crucial role in bridging the connectivity gap.

Mental Health Support

The shift to online mental health counseling emerged as a silver lining, enhancing service accessibility and availability for older students. The general consensus highlighted students' need for emotional support, prompting a concerted effort to equip them with necessary technological tools.[175] The pandemic period saw significant strides in assessing and screening for social and emotional issues, leading to improved support for mental health. These steps demonstrated a growing recognition of the critical role of emotional well-being in educational success.

Social Development and Community Services

The closure of schools also led to a decrease in reports to county service providers, such as probation, child protective services, and women's protective services, indicating that schools play a critical role in the early identification of issues beyond academic concerns. This situation highlights the interconnectedness of educational institutions with broader community services and the essential role of schools in students' overall welfare.

Supporting Vulnerable Populations and Lasting Impacts

The State implemented various policies and directives aimed at mitigating the educational impact of COVID-19 across diverse and disadvantaged communities. These included mandates for remote learning, distribution of technology and internet access, special education accommodations, and health protocols for in-person learning. These directives were designed to mitigate the immediate impacts of school closures on disadvantaged communities, including those in rural communities, low-income families, students experiencing homelessness, and others in need of special education services. Key documents included:

- EO 202.45, issued June 6, 2020, mandated schools to provide food access, addressing food insecurity among students.
- EO 202.37, issued June 5, 2020, allowed schools to remain open for children with special needs, ensuring continued access to essential services.
- NYSDOH Guidance, issued June 8, 2020: "Interim Advisory for In-Person Special Education Services and Instruction During the COVID-19 Public Health Emergency."

[174] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[175] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

- NYSED Reopening Guidance: Titled "Recovering, Rebuilding, and Renewing: The Spirit of New York's Schools," was crafted reflecting a deliberate and knowledgeable approach to safely restarting in-person education.

Despite the initiation of various policies designed to ensure educational access and safety, challenges such as the digital divide and the unequal impact of policies persisted. Vulnerable students encountered significant hurdles, highlighting the critical need for more customized support, flexible policies, and improved communication.

In the K-12 education sector in New York, there were multiple approaches to, and outcomes from, policies implemented in response to the COVID-19 pandemic. The distribution of technology played a pivotal role in bridging the digital divide, as hardware and Internet access were provided to low-income families to enhance the educational accessibility for students across rural and urban areas. Special education services in some districts showcased resilience and adaptability, employing a blend of in-person, hybrid, and remote platforms to continue delivering essential services and accommodations.

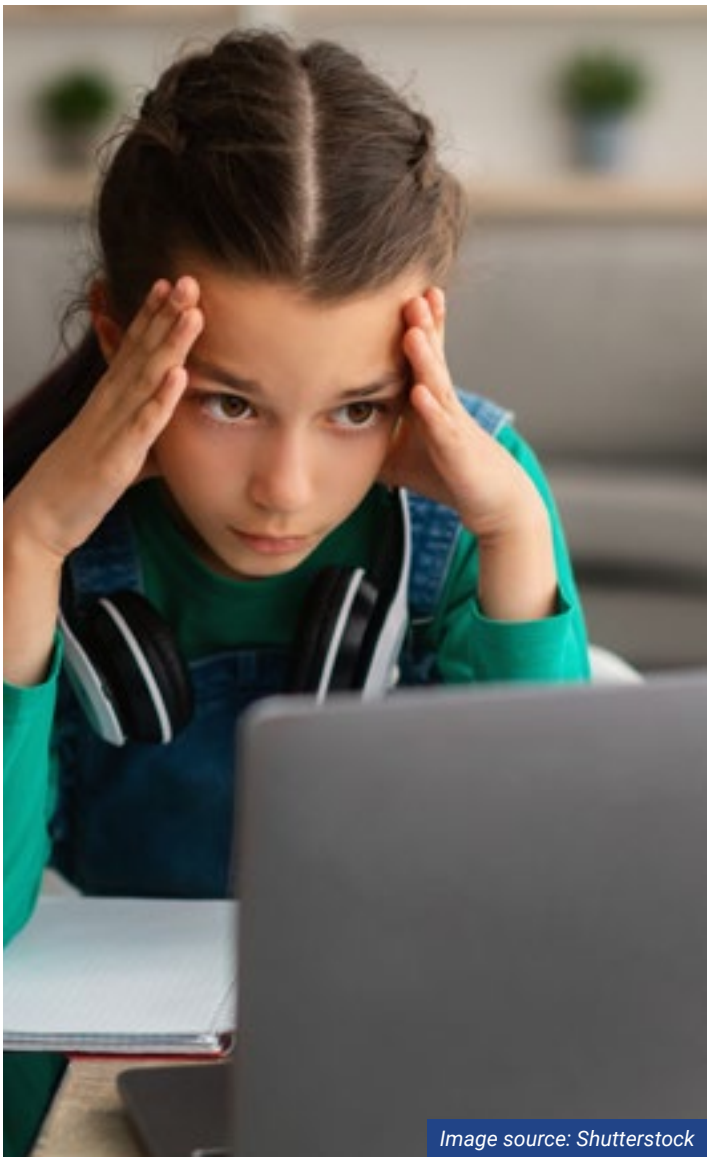

Image source: Shutterstock

However, the support for non-traditional populations, including immigrant and refugee families as well as multilingual learners, was found lacking. This revealed a gap in targeted assistance for groups facing unique challenges.

After NYS universities reopened post-pandemic, the higher education landscape encountered a series of challenges and adaptations. Efforts to engage with diverse communities were emphasized, with a significant push to consult and involve a broad spectrum of stakeholders in the policymaking process. Despite these initiatives, vulnerable groups such as students experiencing homelessness, multilingual learners, and students from immigrant families faced considerable obstacles in effectively engaging with remote learning. These accessibility and engagement challenges contributed to a worrying trend of low enrollment and an increased dropout rate, highlighting the urgency of developing focused strategies to ensure all students can fully participate and succeed in the evolving educational environment.

The school closures had profound and lasting impacts on students, expanding educational inequalities and leading to widespread learning loss. The interruptions to the traditional education models have not only impacted academic achievement but also affected students' social skills and mental health, creating a pressing need for comprehensive strategies that address both the immediate and long-term needs of all students, particularly those most at risk.

The long-term impact of NYS' educational measures, particularly concerning the learning loss among lower-income and vulnerable populations, remains a concern. The inability to fully address this issue suggests the potential for long-term inequalities within the education system.

2. Findings

The COVID-19 pandemic left a lasting imprint on the education sector in New York, with significant repercussions that continue to shape the landscape of K-12 schooling and higher education. One of the most profound impacts has been the noticeable delays in the social development of school-age children. The isolation and lack of regular, in-person interaction disrupted the normal trajectory of social skills and emotional intelligence development, underscoring the need for targeted interventions to address these setbacks.

The roles and expectations for teachers and staff underwent a dramatic transformation due to the pandemic. Educators were navigating a new reality where their responsibilities extended beyond traditional teaching duties. The shift towards supporting students' additional needs required a significant adjustment, challenging educators to adapt to a rapidly changing environment.

This period also saw a pedagogical shift towards whole-child community schooling. Moving away from a predominant focus on standardized testing, the priority became ensuring that students were fed, healthy, and supported comprehensively. This approach highlighted the importance of addressing the various dimensions of a child's well-being as central to their educational success.

Along with these changes, student mental health emerged as a heightened priority. Recognizing the toll that the pandemic and its associated challenges took on students' mental well-being, Governor Hochul's administration made significant investments in mental health support for students. This commitment to funding reflects an acknowledgment of mental health's critical role in the overall educational ecosystem.

Furthermore, rural counties in New York faced their own unique challenges, with over one million residents leaving upstate New York. This outward migration reflects broader socioeconomic trends and pressures worsened by the pandemic, affecting the community fabric and resource allocation within these areas.

The measures taken by NYS to support education in vulnerable and marginalized populations underscore the state's commitment to maintaining critical support systems for students most at risk of falling through the cracks during unprecedented times. Such initiatives highlight the importance of a safety net that ensures every student is considered regardless of the circumstances.

Reopening of schools in New York in the middle of the COVID-19 pandemic required navigating complex inter-agency cooperation, implementing new reporting guidelines, and balancing between remote and hybrid learning formats. These challenges underscore the importance of clear communication, flexibility in educational formats, and robust cooperation between health and educational agencies to ensure a safe learning environment. Despite these hurdles, the resilience shown by educators, students, and families highlights a collective commitment to education and public health.

Together, these lasting impacts paint a picture of an education sector that was profoundly affected by the COVID-19 pandemic. From the social development of children to the evolving roles of educators and the prioritization of mental health, the landscape of K-12 education in New York was reshaped in ways that will require ongoing attention and adaptation. Looking towards the future, these experiences provide valuable lessons on the necessity of preparedness, adaptability, and fostering strong partnerships across various government agencies and the community.

3. Conclusion

The suspension of in-person education in New York was a necessary intervention at the height of the COVID-19 pandemic and reflected a prioritization of health and safety over conventional educational processes. While effective in contributing to broader public health efforts, this measure exposed and expanded pre-existing inequities within the education system, especially in the shift to remote learning. The State's response, characterized by swift action and efforts to mitigate the impact on education continuity, demonstrated the complexities of managing a crisis that intersects public health and education. The varied effectiveness of these efforts underscores the importance of preparedness, flexibility, and equitable access to resources as essential components of education sector resilience. Moving forward, it is imperative to address these gaps through targeted policies and support mechanisms, ensuring that the education system is robust enough to withstand future crises without compromising the quality of education or widening disparities among students.

The implementation of EOs 202.45 and 202.37 demonstrates NYS's proactive approach to safeguarding the welfare of its vulnerable student populations during the pandemic. By ensuring access to food and specialized education services, the state addressed fundamental needs crucial for students' physical and educational well-being. However, these actions also shed light on pre-existing inequalities within the educational system, particularly regarding resource distribution and access to necessary technologies for remote learning. This situation underscores the need for continued evaluation and adaptation of policies to meet the diverse needs of all students, especially those from marginalized backgrounds, and serves as a significant reminder of the systemic challenges that remain in achieving educational equity and the critical role of targeted interventions in addressing these issues.

4. Recommendations

By implementing the following recommendations, NYS can build on the foundations laid by the EOs to create a more resilient, inclusive, and equitable education system that is prepared to support all students, particularly those most in need, in any crisis.

1. Expand Access to Technology and Internet Services

The State should develop and implement a statewide program to help provide all students, especially those from low-income families and rural areas, with the necessary technology (devices) and internet access to participate in remote learning effectively. This should include partnerships with technology companies and internet service providers to reduce cost barriers and infrastructure improvements in underserved areas.

2. Strengthen Support for Special Education Services

NYS should increase funding and resources for schools to enhance the delivery of special education services both in-person and remotely. This includes training for teachers in special education pedagogies adapted for online learning and ensuring that all necessary therapeutic and support services are accessible to students with special needs, regardless of their learning environment.

3. Enhance Nutritional Support Programs

The State should explore options for year-round nutritional support, including during summer breaks and other school closures. This could involve extending school food programs into community centers and libraries or developing partnerships with local food banks and meal delivery services to reach students where they are.

4. Conduct Regular Needs Assessments

The State should regularly assess the needs of vulnerable and marginalized student populations through surveys and community feedback mechanisms. NYS should use this data to continuously adapt and refine educational policies and support services to effectively address emerging challenges and disparities.

5. Strengthen Inter-Agency Collaboration

The State should establish a permanent joint task force between NYSED and the Department of Education to coordinate efforts in crisis situations. This task force should be responsible for developing unified guidelines for schools, streamlining communication, and ensuring a cohesive approach to public health and education. The State should also conduct regular training sessions and drills for potential scenarios to enhance preparedness and response efficiency.

6. Clarify Reporting Guidelines

The state should develop clear, concise, and consistent reporting guidelines for COVID-19 cases within schools, in collaboration with health authorities. This should include standardized processes for tracking, reporting, and responding to cases and a centralized reporting system that is accessible to all relevant parties. Training for school administrators on these procedures will be crucial for effective implementation.

7. Enhance Flexibility in Learning Formats

The State should invest in technology and training to support both remote and hybrid learning models, ensuring that schools can seamlessly transition between formats as needed. This includes providing students with necessary devices and internet access, as well as professional development for teachers in best practices for online instruction.

8. Innovate Large Group Event Management

The State should develop guidelines and creative solutions for safely conducting large group events, such as graduations, sporting events, and dances. This could involve virtual alternatives, outdoor venues with social distancing measures, and staggered event schedules to reduce crowd sizes, ensuring that students can participate in key activities without compromising safety.

9. Strengthen Support for Vulnerable Students

The State should establish comprehensive support programs for students with special needs, multilingual learners, and those who rely on schools for essential services. This includes tailored educational resources,

mental health support, and nutritional programs to ensure that these students receive the support they need, regardless of the learning environment.

10. Invest in Remote Learning Infrastructure and Training

The state should allocate resources for developing robust remote learning platforms and training educators in effective online teaching practices. This will ensure that schools are better prepared for future disruptions and can provide high-quality education remotely.

11. Develop Comprehensive Crisis Response Plans

The State should require all school districts to create and regularly update comprehensive crisis response plans. These plans should cover a range of emergencies, including pandemics, and detail protocols for transitioning between in-person and remote learning, ensuring continuity of education and support services.

12. Establish a Unified Education Response Coordination System

The state should establish a unified education response coordination system to streamline collaboration between multi-county school districts and state agencies. This system should include inter-agency teams and set communication schedules to keep all parties aligned and informed. It should also develop standardized emergency response protocols for complex jurisdictions and incorporate a feedback mechanism to continuously improve crisis response and preparedness.

Image source: Shutterstock

E. Infrastructure

AT A GLANCE:

Although COVID-19 did not cause any physical damage to New York State's infrastructure, the demands it placed on critical infrastructure and the agencies charged with maintaining essential services were arguably second only to those experienced during 2012's Superstorm Sandy. Staffing disruptions, resource availability, and the need for novel problem-solving severely tested New York's critical infrastructure and community lifelines. Representatives and vital service providers often rose to the challenge, innovating with novel solutions in near real-time.

The following survey of information technology, mass transit, agriculture, and facilities management analyzes the pandemic's impact on New York State's (NYS) critical infrastructure and the efforts of NYS agencies to mitigate the pandemic's impact on New Yorkers.

Image source: Shutterstock

1. Analysis

a. Information Technology

The decision to move many employees to a remote work-from-home model placed substantial burdens on information technology (IT) functions in public and private sector workplaces across the United States. NYS was no different. While many State agencies rely exclusively on the Office of Information Technology Services (ITS) for support and equipment, some agencies retain primary IT functions in-house, using ITS as a supplemental provider. Regardless of their dependency, the vast majority of state agencies were challenged during the pandemic with urgent orders for new laptops, routers, servers, and other equipment, along with the associated technical assistance required to implement and support large numbers of staff working online.

ITS was also called upon to provide resources to numerous vaccine and testing sites, including developing pandemic-related applications such as screening tools and the Empire Pass for vaccination tracking. Agency-specific information technology staff were also called upon to support similar tasks for their organizations.

Communication

When asked about overall communication between those responsible for technology solutions and the State, the consensus was "Not perfect, but not horrible." There was room for improvement, according to many who were interviewed and polled.[176] ITS did not operate in a vacuum and was in close contact with the Governor's office. As a central support agency, members of the ITS executive team participated on the Governor's COVID-19 Steering Committee. These senior staff were tied into the information stream and expressed that they felt the Governor's press conferences were informative and helpful. Other ITS and agency information technology staff expressed reservations, noting that the Governor's communications, including sensitive information or guidance, were received at the agency level at the same time that the public received it. "The Governor occasionally announced something, and then hours later, we would receive information from the DOH on what we should be working on now."[177]

ITS respondents indicated that the "politics [of COVID]" was not an issue for them.[178] They listened to the Governor's calls and assisted with items that fell within their lanes. ITS respondents described a practice of communicating everything they could to their teams and agency partners, including how to work remotely, plans for returning to work, information on COVID-19 from the New York State Department of Health (NYSDOH) and the Centers for Disease Control and Prevention (CDC), mental health tips, etc. This resulted in a dramatically heightened level of messaging from ITS to its stakeholders throughout State government.[179]

The rush to develop responses meant that "Many of the State's directives were "figure it out" with general guidance at best."[180] This mirrored comments from many information technology professionals within ITS and those working in agency-specific offices. "We were all running on a "build-it-and-release-it model once we were comfortable with a solution. So much needed to be done "on the fly" that it was hard to plan organized, specific directives."[181] Tech agencies retransmitted the information coming from NYSDOH but felt they were not receiving information about "best practices". "We could have performed and communicated to our staff better if things were planned out from the State, and we had more scheduled interagency meetings and sharing."[182] Agencies reported that there was no statewide communication even at top State levels, resulting in them feeling they were often piecing the guidance together.[183]

Interagency Assistance

From the early onset of the virus, ITS focused its efforts almost exclusively on pandemic response and recovery, setting aside other projects and playing a crucial role in assisting with other NYS agencies' technology and process challenges. ITS staff were assigned to NYSDOH for several weeks to provide direct support with setting up hospital capacity and coordination centers that would determine how and where to move patients and handle all tactical issues.

[176] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Surveys, 2023
[177] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[178] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023
[179] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[180] The year before COVID-19, ITS put out approximately two dozen interagency communications or guidance documents per year. During the COVID-19 response, they put out more than 200 annually. Even with a return to more routine operations, the "new normal" for interagency messaging, while much lower than during the pandemic peak, is much higher than pre-2020 levels.
[181] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[182] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[183] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

Working with physicians, epidemiologists, and other professional staff, ITS built processes that could track and assist in managing patient transportation, facility failures, and data center coordination. ITS also supported the State in getting unemployment insurance (UI) money to the large number of newly eligible recipients. ITS professionals working as the "Tech Squad," focused on practical aspects of streamlining and expanding services, including developing ways to handle more calls from applicants/recipients, analyzing gaps in call flow, and automating processes.

Information technology professionals at ITS, as well as from other agencies, knew that their skill sets were vital to NYS' response to COVID-19. "We just had to throw on PPE and get the job done. If NYSDOH workers had to be there, then we needed to be there as well to help the recovery."[184]

ITS worked on-site on many inter-agency initiatives, cleaning their equipment before and after remote work as well as instructing other agencies to clean and disinfect their equipment. This was especially important at hospital and vaccine/testing sites, where the cleaning and disinfecting of med carts and other equipment was challenging. "We assisted agencies with how to clean technical assets from COVID-19 without destroying or damaging them while also keeping themselves safe."[185]

Legal

As noted elsewhere, the State's response to COVID-19 prompted many legal questions . One such issue for those supporting information technology was medical privacy. Employees in both the public and private sectors were required to have their temperatures taken, often daily. This prompted the question that if this data was collected, where was it stored? Similarly, after the vaccine mandate was passed, some employees refused to show proof of vaccination and were suspended until either showing proof or until the mandate was lifted. This raised questions about whether individuals have the right to protect their medical privacy.

ITS built many of the systems and processes used throughout the state government, and they did not want to be liable if something in the process or the storage and access to this private information was not handled properly and legally. ITS also had staff working in other agencies who also raised questions about how much private health information state personnel were obligated to share.

During the pandemic response, ITS staff constantly researched and reviewed cases, legislation, and state and federal directives. This new area of focus resulted in the creation of new internal policy and management structures. As described by an interviewee, "[ITS now has] a new executive leadership position - Chief Privacy Officer - their full-time job is making sure the plans and policies are fair and securely maintain the proper privacy expectations of the employees."[186]

ITS understood its employees were under tremendous pressure and stress with the burden of solving the State's technical issues, working overtime, and in many cases not being able to work remotely or out of potential harm's way. As a result, they instituted messaging campaigns to assist with morale and mental health. As one interviewee reported, "We put out a semi-weekly bulletin that included resources like EAP (employee assistance program) and hotlines, including a positive message about the great things ITS was assisting with and building so they felt good about being a part of a successful team."[187] ITS leadership instilled in their teams the message that doctors and nurses were not the only ones stepping up to meet the challenges of the pandemic. They highlighted the "critical tasks completed because of [ITS personnel]."[188] The ITS Chief Information Officer (CIO) received positive feedback from employees on this messaging, and many ITS staff did step up, working long hours at herculean tasks. However, ITS still suffered its share of professional burnout. They lost to retirement, health issues, and general attrition staff members who were unable to handle the added stress.

Staffing, Recruitment, and Retention

At the time of the pandemic, ITS had a business continuity plan, but – as with so many others – it did not adequately address the capacity issues faced by the agency during the pandemic. The agency had to adapt plans and policies as needed and as guidance from the Executive Chamber evolved. Major gaps were identified in the plans, policies, and procedures governing the transition to remote work and the digitization of paper Documents. At the time of the publication of this report, ITS was continuing to work on these challenges.

[184] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[185] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[186] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[187] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[188] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

In 2016, with 4000 staff members, ITS was understaffed according to workload and spending plans. At the start of the pandemic its workforce had fallen to 3500. Even as the demands of the emergency increased, the demand for ITS services staffing levels remained suboptimum. Like most NYS agencies, ITS had never anticipated nor planned for a situation where almost its entire workforce would be sent home. Like most agencies, ITS also had to weather staff absences due to illness or for other health reasons. As one interviewee stated, "Emergency procurement allowed for the supplies that were desperately needed, as well as some contractor staff, though this was hard due to remote work, out-of-state contractors not being able to easily travel, and a host of other reasons."[189]

ITS also struggled with determining which personnel were "essential" vs. "non-essential." Morale issues surfaced when some employees were required to stay in the office while others were required to work remotely. There was poor communication about the meaning of the terms, resulting in confusion about the guidance. Some employees identified as "non-essential" interpreted the designation as meaning they were less valuable and, therefore, more likely to be terminated. Other employees designated as "essential" expressed concerns about remaining in potentially hazardous working conditions. One interviewee quipped, "Employees were asking if the State will pay for additional life insurance policies if essential workers get sick from returning to work."[190] Another interviewee noted, "at first, there were questions about who would supply cleaning and sanitation supplies for us to clean work areas, but that was alleviated quickly. Also, the rules need to be clear when you stay home - did I come into "contact" with an infected person or not, i.e., how close did I need to be? Leadership and employees felt that the rules must be consistent across all agencies on what essential means, and how remote work was defined. "Health and safety rules needed to be clearer, especially for workers who handled inter-agency projects where rules were inconsistent."[191] Interviewees argued that rules were not applied to everyone equally. For example, not everyone had to receive a COVID-19 test before coming back. Some employees reportedly had to work remotely for up to 10 days following a positive test. Others could come back immediately. Some were required to work remotely for even longer than 10 days following a positive test.

Image source: Shutterstock

Transition to Remote Work

Early in the pandemic, deployments meant ITS staff were working on-site. These projects were focused on building and expanding the capacity of the virtual desktop system for ITS and NYS customer agencies, switching personnel from desktops and deploying more laptops for remote/mobile work, and which took advantage of available "Build Back Better" dollars. Some projects became hybrid or remote eligible, including examining the needs of mainframes and creating robotic/automation to process transactions backlogged from Google. Additionally, hybrid teams

[189] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[190] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[191] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[192] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

focused on setting up the NYSDOH call center, creating and modifying the NYS Wallet system, and equipping/staffing vaccination sites.

While ITS had access to virtual meeting platforms including Webex, Teams, and Zoom, and provided training and encouragement in their application, these platforms were largely unused prior to COVID-19. The demands of hybrid and remote staffing forced a dramatic change in the penetration and acceptance of online communications. Training NYS agency users on Teams and its many collaborative capabilities was challenging. The ITS technology staff was flexible and assisted in working on many projects, solving every problem they faced or were tasked with. As one interview put it, "It can be debated if we solved [every problem] the "right" way or not, but in the pandemic conditions, we thrived on getting done. ITS played a critical role in every site."[192]

b. Mass Transit

The Metropolitan Transportation Authority (MTA) is the largest public transit authority in North America, responsible for bus, subway and other services in the New York City metropolitan area, including 12 counties in southern New York and two in southwestern Connecticut. The MTA carries more than 11 million bus and subway passengers, and more then 850,000 vehicles on its seven toll bridges and two tunnels, per weekday.

Image source: Shutterstock

MTA employs 70,000 people, 30,000 who work in the vast subway system, which includes 472 stations, and another 20,000 who operate the region's busses. The vast scale of MTA operations, meant that a pandemic would have substantial impacts on operations. As one interviewee stated, "MTA experienced more than 100 employee deaths. [The pandemic created] a tremendous staff shortage, unprecedented fluctuation in consumer demand, and added responsibilities including delivering PPE and other support throughout the City and State."[193]

Primary challenges included supplying information to MTA's tens of thousands of employees, interpreting conflicting information, and keeping up with the frequency of changes in policy and directives. Operational hurdles included modifying and reducing routes, making time to clean trains, and moving available personnel around in response to staffing shortages.

Transition to Remote Work

Overall, MTA employees interviewed for this report expressed a sense of pride in their overall flexibility and ability to take on the challenges while acknowledging that some staff members were truly afraid of and frustrated by the pandemic.

Many transportation employees stepped up and wanted to assist in any way they could. With a limited work-from-home culture, none of the office-based employees were accustomed to working remotely. Supplies and equipment were not readily available to support remote work, causing many employees to use personal computers to keep working. MTA's systems were crashing as they were overwhelmed by over 9000 administrative employees working remotely.

As a consequence of its pandemic experience, MTA is now piloting a one-day-a-week telework program and using it as a recruiting tool, benefit, morale booster, and part of its future crisis management planning.

Communication

Getting information to employees was a challenge. As noted by one interviewee, "MTA deals with the challenge of a geographically disbursed workforce, along with some employees not having phones and email addresses."[194] As a result, it was difficult to keep pace with the many rapidly changing directives coming from the Executive Chamber. There were occasions when MTA staff ending a shift had still not received

[192] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[193] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[194] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

updated guidance about when the next group should come on duty. The frequent conflicts that occurred between guidance from state and federal agencies and NYS employment lawyers added to the confusion. State directives, rather than being broadly written for general use, were often too specific, not providing sufficient leeway to manage essential workers in such a way as to get the job done (e.g., in the application of social distancing policies).

MTA employed daily Microsoft Teams virtual meetings to maintain communications with staff and keep as many as possible informed of changing policies and procedures. Employees fell into two categories - those who stepped up, adapted to new rules, and focused on solving problems, and those who were truly scared and frustrated.[195] MTA ramped up communications about safety and cleanliness, encouraging the more anxious employees to come to work.

MTA's enterprise network, Everbridge, distributed messages to employees through personal emails and phones and, with the assistance of unions, old-school "face-to-face" methods. MTA has adapted this proactive model to ask non-essential workers to stay home during inclement weather or climate emergencies, such as the air quality concerns associated with smoke from Canadian wildfires.

Success was found on an informal basis through many ad hoc meetings and contact with friends in other state agencies, which provided an opportunity to share experiences, data, approaches, and best practices.

Interagency Assistance

MTA found creative ways to deploy its bus assets, the nimblest form of public transportation, to meet changing transit requirements. Much of the focus was on priority routes serving hospitals and critical infrastructure. In response to the establishment of vaccination centers, MTA initiated additional routes to make participation in the initiative easier. MTA housed saliva testing sites in all 472 subway stations. MTA also worked closely with its peer organization, the Port Authority, conducting meetings and collaborating to share information on policy and procedure.

MTA was one of the first in the industry to receive COVID-19 tests in all phases and was asked to assist in transportation to the vaccine center at the Jacob Javits Convention Center. They were asked to transport kits to nursing homes and to assist in guarding vaccine and test sites. MTA facilities also provided space for storing supplies for deployment.

Labor Relations

Although there was serious talk of service cuts due to reduced ridership and decreased revenues, particularly when federal money was delayed, these ultimately did not occur. Management and labor shared a perspective on this point, as MTA wanted to keep capacity for customers, and unions wanted employees on the job. Unions sued and forced subways to return to full service as well as the pandemic eased.

On the other hand, the new health requirements created some discord. Unions pushed back on the initial directive requiring the daily taking of employees' temperatures. They were particularly concerned about who was getting the information and how it would be used. There was also dissatisfaction about (frequently changing) policies affecting PPE, testing, and vaccinations.

Trains were originally shut down, then resumed running on limited schedules. As part of the effort to sanitize the subways, trains were initially shut down for four, then later for two hours a night for cleaning. To keep coverage in place, buses had to continue to operate 24 hours a day, seven days a week. Union representatives were involved in negotiating operations changes and actively protecting their members.

Staffing, Recruitment, and Retention

The direct and indirect consequences of COVID-19 were felt in MTA's efforts to maintain its ranks throughout the pandemic and beyond.

Although MTA had pre-existing plans developed in response to prior flooding events to use as a guide, most system staffing and scheduling modifications were developed from the ground up over two to three weeks of what one interviewee called "panic mode" response efforts.[196]

MTA had to create systems to track who was out sick, under quarantine, etc. Staffing shortages forced MTA to practice triage in determining what essential work to perform, namely the minimum required to maintain daily operations. MTA relied heavily on contractors to meet cleaning demands and to backfill for absent employees. Contractors also performed roles such as manning the COVID public information hotline. MTA constantly updated call center scripts to address the latest guidance on COVID-19 and federal paid sick leave issues. Licensing qualifications and required training prevented the timely hiring of

[195] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[196] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

additional operators and created some road blocks to onboarding contractors. MTA continues to function in a COVID-modified world. Absenteeism has become a new normal, with a 30% increase from pre-pandemic numbers. As it looks to rebuild its ranks, MTA is at a recruiting disadvantage, as most jobs are on-site. Many agencies and companies offer commensurate pay for telecommuting, making it difficult to recruit new employees.

Sanitation

The MTA used research from the U.S. Environmental Protection Agency (EPA) and the Department of Homeland Security (DHS) to assist in establishing the proper frequency and methods for cleaning. Product research and chemical testing for cleaning became a discussion point with the public. One interviewee pointed out the challenges with identifying the best cleaning products, stating, "Another challenge was 'snake oil salesmen'- contractors trying to sell us various cleaning solutions. It was difficult to know which ones were best, so we went back to EPA and DHS for clarification."[197] MTA ultimately had to pilot a public communication campaign to inform the public of the cleaning schedule and chemicals used.

For buses, there were few enough riders per bus that social distancing was possible, and vinyl curtains were added to protect operators. Rear-door entry was used for most non-express to reduce passenger interaction with drivers, and the first two rows of seats were chained off.[198] MTA hired an engineering firm to design an enclosure to protect bus operators from passengers which is still in use, now with an emphasis on protecting against violence toward drivers.

Disinfection of the bus fleet was originally performed every 72 hours (taking 45 minutes per bus). But, in May 2020 the cycle for disinfections was increased to once every 24 hours. With a reduced workforce, this was difficult to achieve even when the full fleet of 5000 in-service buses was reduced by 40% due to decreased ridership. Additional training was required for the operators of electrostatic sprayers, who also had to be fit-tested for respirator use.

If someone in a facility tested positive for COVID-19, contractors were brought in to disinfect the site. Contractors were primarily used for disinfecting facilities rather than vehicles, as bus cleaning was performed by MTA employees to help honor the commitment to keep anyone willing and able to work employed. In these ways, MTA maintained all maintenance and DOT requirements throughout the pandemic.

For subways, the early mandate was to increase the disinfection of stations and cars, once daily for trains and twice daily for stations. The original disinfection rate for subway cars was once every 72 hours, then increased to once every 24 hours. MTA initiated new reporting systems to track sanitation measures. Subways were shut down in the evenings for disinfection, as yards did not have enough storage space for all the trains to be shut down.

Image source: Shutterstock

[197] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[198] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

c. Energy

The New York State Energy Research and Development Authority (NYSERDA) was generally well-prepared for the pandemic. Interviewees credited their relatively high degree of preparedness to a pre-pandemic initiative to build out a virtual work environment, and the agency's pursuit of state certification for its emergency operations plans. The authority had working Continuity of Operations (COOP) and Continuity of Government plans which also served it well. In a show of teamwork, NYSERDA, which faced fewer staffing shortages than other state agencies, volunteered personnel for additional roles with the NYS Department of Labor (NYSDOL) and NYSDOH. NYSERDA roles at these agencies included staffing call centers and other processing-related tasks.

Other than some solar panel supply chain challenges, the authority's biggest challenge during COVID-19 response and recovery efforts was keeping up with the frequency with which the State changed directions on issues. From NYSERDA's perspective, the Executive Chamber's directives were often at odds with science or federal guidance.

Regardless, agency personnel took each update in guidance seriously and put a lot of time and effort into responding to each change. As a result, and coupled with the overall lengthy duration of the event, many personnel reported feeling fatigued at the constant changes Overall NYSERDA personnel felt very comfortable with their response efforts and recognized that their autonomy as an authority versus a department/agency of the State gave them the ability to be more nimble than most.

Communication

From NYSERDA's perspective, the State had some communication gaps, but overall felt the Executive Chamber did a good job of fostering cross-collaboration across agencies. Interviewees found the state disseminated information helpful, but their interpretation was that the general nature of the messages implied that recipients should tailor the guidance to their own best purposes. As one interviewee said, "As a trend we were seeing top-down policies, basically making many responsible for themselves."[199] As the pandemic progressed, NYSERDA felt that guidance became increasingly less clear, and that near daily changes caused some confusion. For example, during the Delta Variant spike, the State required their staff to return to the office, which caused consternation and confusion among employees, including those at NYSERDA, especially as COVID-19 infection rates were increasing. However, NYSERDA's internal communications were instrumental in easing the concerns of authority employees. One interviewee stated, "Internal communications within our organization helped many employees feel safer and more secure once in the offices, highlighting our policies in place to maintain the health of everyone."[200]

Morale and Mental Health

In additional to disseminated weekly positive messages from the NYSERDA president, the authority also instituted Daily Pause Checks. During these checks, supervisors would check in with staff members to assess how everyone was doing (e.g. did anyone have any needs or concerns). The authority was especially focused on checking with parents of young children, and older workers potentially facing isolation.

d. Agriculture

The Department of Agriculture and Markets (DOA) was somewhat successful as it worked to maintain its operations while dealing with COVID-19's disruption of the food supply chain. "We had a working Continuity of Operations Plan and Emergency Mode Operations Plan that we took out, reviewed, and used," said one interviewee.[201] The agency had conducted annual tabletop exercises addressing events impacting various parts of the food chain. DOA had a good rapport with the Executive Chamber and strong partner relationships with organizations including the Cornell Cooperative Extension and regional food banks that collaborated with positive outcomes. Many of the agency's personnel already worked remotely, so virtual operations were relatively easier to adopt.

The unanticipated impact of COVID on the food chain was its drastic disruption to the entire chain. The pandemic impacted producers, consumers, and everyone in between. DOA defined its mission during COVID as preventing a food crisis on top of a pandemic. Our initial focus was making sure we could get the food to consumers, but also making sure we could get the food at all. This meant ensuring processing facilities as well as the farms stayed open. DOA made the clear-cut case that food suppliers were essential workers.

[199] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[200] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[201] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

Top-down State directives had some unintended consequences. For example, when the Executive Chamber learned that grocery store shelves were empty of milk, its subsequent directives resulted in DOA ordering more than 300 tractor-trailer loads of raw milk rerouted from cheese and other dairy product manufacturing to milk bottling plants. Predictably, this resulted in an oversupply of milk, which dairies had to dump, highlighting the need for a more nuanced approach to food supply chain issues.[202]

In response, DOH and the Executive Chamber announced the "Nourish NY" program to identify surplus food and reroute it to food banks and people who needed it. DOA had been shipping food from rural to urban areas for a long time, through the Emergency Food System's 10 regional food banks. So, it was natural for DOA to support Nourish NY as a liaison for suppliers, markets, food banks, and consumers to get products to pantries and food banks. A number of subsequent USDA food programs were based on Nourish NY, through which DOA distributed the largest amount of food to Long Island in New York State history.

COVID-19 highlighted systemic problems with food availability and nutrition in the State. Summarized by one interviewee, "The food security issue is also becoming a food "nutrition" security issue with different challenges, and it was magnified by COVID-19."[203] During the COVID-19 pandemic NYS lost people due to lack of nutrition. One interviewee noted, "[food insecurity] is an old problem - statistics show, for example, that the South Bronx has the highest rates of childhood obesity and juvenile diabetes in NYS, so not an issue of not enough food but the wrong food."[204]

Communication

Like other agencies, DOA also struggled to keep pace with the near daily changes in the scientific community's understanding of the disease and subsequent health guidance. As one interviewee quipped, "For example, at first, we did not know if you could catch COVID-19 from touching the same table as an infected person. It was a challenge to keep up with this guidance and inform our stakeholders."[205]

The biggest challenge with communication was getting the news to farmers and other workers in agriculture and agri-businesses. DOA spent considerable staff time creating and distributing guidance.

Workforce Classification and Mandate Enforcement

Determining which farmers and growers were critical and/or essential and those that needed to close was also difficult. For example, DOA wrestled with whether greenhouses, flower growers, 4-H horse programs, landscapers, and others should be classified as "essential". DOA representatives met with 65 agricultural groups across the state, including the Farm Bureau and Food Industry Alliance, on an at-least weekly basis to discuss work force classification issues.

DOA staff also struggled with directives to enforce mandated from the Executive Chamber. "It was hard to enforce the "guidance" that was put into place - we were expected to enforce the guidance but it is not in our bylaws to be able to enforce it," reported an interviewee. "We are not an enforcement agency. We had to leave it to the DOH and other agencies to handle the enforcement."[206]

As a result, there were inconsistencies in how local jurisdictions interpreted and enforced State policies and guidelines. DOA placed its emphasis on the counties that were following the guidance and endeavored to help them proceed with their operations safely. DOA staff emphasized what organizations could do during the pandemic versus what they couldn't do.

Interagency Assistance

Over the course of the pandemic response, DOA loaned 100 people to support other agencies,including DOH (vaccine site support), DOL (unemployment insurance processing assistance), and the State Liquor Authority (checking restaurants for capacities/safety inspections). These personnel consistently maintained daily communications with their colleagues at DOA despite their assignments at other agencies.

DOA also worked closely with Cornell Cooperative Extension, which has staff in every New York county. Cornell assisted with sheltering, food and PPE distribution, and promoted communication between the DOA and the state's farmers. Cornell knew the clientele, the 4-H volunteers, open shelters, feeding sites, etc.

While the NYS Education Department is responsible for feeding students, DOA supported them and was directly involved in food distribution through the schools. DOA considered schools "food responders" like their own

[202] Potato growers and other producers also found themselves unable to sell food into markets where demand had been halved. New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[203] DOA had been shipping food from rural to urban areas for a long time, through the Emergency Food System's 10 regional food banks.
[204] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[205] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[206] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

department, acting as a force multiplier to feed New Yorkers. DOA's Farm-to-School program helped schools distribute food and PPE.

Morale and Mental Health

During the pandemic, DOA had to support its staff emotionally and mentally and watch for burnout and other mental health issues. At the forefront DOA leadership encouraged personnel to practice empathy for fellow employees. The working day frequently extended beyond the typical "9:00 to 5:00".. Leadership emphasized the need for personnel to take care of themselves in order to help others DOA also worked with DOH to facilitate webinars providing mental health assistance and promoting awareness about available resources.

Staffing, Recruitment, and Retention

One of the biggest challenges DOA faced during the pandemic response was staffing shortages. Prior to COVID-19, the 500-person agency had 50 vacant positions. By halfway through the pandemic they had 100 vacant positions. Before the pandemic occurred DOA had an approved budget for additional staff to support the State Fair, but they were disallowed from leveraging this budget to fill personnel vacancies when the fair was canceled. Only once DOA was permitted to hold events at the State Fairgrounds again, were they permitted to leverage these finances for hiring.

Planning

DOA's Food Safety and Inspection and other critical safety functions had to maintain operations during COVID to keep the food supply moving. Annual food chain disruption tabletop exercises likely played a role in the agency's preparedness to meet the challenges of COVID. "The night before the shutdown we went through the COOP, EMOP, and our roster making sure the critical staff members were supplied with equipment and resources," said an interviewee. "Risk management is something we live with daily. Having a plan for extraordinary circumstances is second nature for DOA."[207]

e. Facilities and Property

The Office of General Services (OGS) handles human resources for 13 New York State agencies and is a central communications hub for the State. OGS warehousing and distribution divisions handled all of

Image source: Shutterstock

the hand sanitizer and PPE issues for the Executive Chamber. Most of the systems they now employ did not exist before COVID-19 and had to be built on the fly (see Information Technology, above). OGS was not always happy with the communication flow from the State and felt interagency roles and responsibilities were often muddled.

OGS was instrumental in how building, and building management groups dealt with COVID-19 issues including modifications to older buildings to handle COVID-19 air issues, cleaning protocols, etc. However, none of their prior plans addressed any of the issues they faced.

Communication

OGS was not always satisfied with the communication flow from the State and felt interagency roles and responsibilities were often muddled. OGS leadership often found their guidance and next steps spelled out in press releases rather than through traditional interagency communication channels which forced them to play catchup. "For example," one interviewee stated, "we found out about going remote at 4:00 pm, had it approved at 5:00 pm, and had to scramble

[207] Potato growers and other producers also found themselves unable to sell food into markets where demand had been halved. New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

to figure out "who" and "how" after the employees had already gone home."[208] OGS leadership had to deconflict and prioritize DOH guidelines with requests from the Executive Chamber, and decide what operations they could realistically maintain through the pandemic. OGS personnel often had to watch the Governor's press conferences to see what their upcoming job duties needed to be. In many cases, "the phones would already be ringing" as agency staff found out that people were being directed to OGS for assistance. In other cases, OGS would learn that unexpected deliveries were on their way to the agency, and personnel would not know what it was expected to do with the items once they arrived.

OGS also felt that many directives impacting human resources were too general or left too open to interpretation, and various agencies OGS supported wanted the agency interpret the mandates differently.

Many within OGS felt there was plenty of communication from the State, but that no one was specifically responsible for making the decisions. For example, the Executive Chamber was described as a bottleneck where SMEs were not invited to participate in the decision-making process. As a result, actions had to be reworked after the fact. An interviewee provided the following example: "Many warehousing decisions were made by the Executive Chamber without anyone from OGS even beintg asked for their opinion. [This] often resulted in unattainable/ unmanageable assignments."[209]

f. Inter-agency Assistance

OGS interviewees had no illusions that the agency was prepared to deal with the pandemic. Most OGS construction projects for major clients including Military and Naval Affairs, State Police, and the Office of Mental Health were halted. Many OGS staff were working remotely or assigned to COVID-related projects such as assessing hospital locations for surge traffic. The agency issued PPE for on-site staff, and worked with ITS to handle the number of remote workers. However, many OGS contractors continued to work on-site, processing construction change orders for PPE and other work issues. Agency personnel also continued to stamp architectural and engineering work electronically during the pandemic.

Morale and Mental Health

OGS experienced a lot of employee burnout. In some cases, employees had been working seven days a week for so long, they had difficulty decompressing enough to take a day off. "There should have been much more coordination with the Office of Mental Health, including the sharing of information regarding meditation, recognizing burnout, tools to cope, etc.," lamented one interviewee.[210]

Staffing, Recruitment, and Retention

OGS managed work-related contact tracing and follow-on actions. As testing was not available at first, any reported illness was presumed to be COVID-19. This aggressive assumption created significant staffing issues for OGS and the agencies they served.

Coming into COVID-19, OGS was already understaffed due to hiring freezes. This made it even more difficult to maintain an adequate level of staffing due illnesses and quarantine guidelines. Overall, OGS noted that bringing in the National Guard was a big help. However, when guard members did not have skill sets in warehousing, (e.g., driving forklifts) they were just extra bodies that OGS felt obliged to find work for.

Planning

OGS did not have a pandemic plan. OGS was built to be an "in-person" agency and had to rework many policies and procedures on the fly. They had to rely on partners but often were not invited or present when key decisions affecting them were made. "In some respects, the response was driven by people who were not familiar with the existing plans," said an interviewee.[211]

For example, plans did not exist for disposing of products. Hand sanitizer was produced under a U.S. Food and Drug Administration emergency exemption, and could not be distributed after December 2021. After that time, the remaining sanitizer (tens of thousands of cases), which was highly flammable, had to be disposed of.

[208] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[209] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[210] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[211] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

No plans existed for demobilizing warehousing and distribution sites, resulting in slow demobilization efforts that were coordinated on the fly. OGS reported that the Executive Chamber took so long to demobilize two alternate care sites and they took damage due to winter. OGS eventually became responsible for decommissioning and auctioning off any reusable materials from these sites.[212]

The lack of planning for donation management created significant challenges for OGS, which was tasked with managing donations for COVID-19 across the state. Well meaning individuals donated many different items to COVID-19 relief efforts. Despite State communications to the contrary, many donated items were not helpful. Regardless of what was donated, every item had the same inventory procedure, no matter how small. For example, donations of 1 bottle of hand sanitizer had to be accounted for daily. As a result, OGS spent a significant amount of State resources and money packaging, disposing of, and moving donated items that were not used.

Furthermore, OGS lacked a strong plan for directing COVID-related questions and requests. As the "general services" agency, they were a likely choice for citizens or other agencies who did not know who else to call with human resources, donations, and a myriad of other questions. OGS has always served as a catch-all agency, but during COVID, OGS received inquiries from members of the Legislature and other politicians. Many of these requests pertained to subject matter outside of OGS' areas of expertise, and the agency lacked clear policies or procedures on how to handle these requests.

Sanitation Efforts

Cleaning was required twice daily for high-touch areas, common points, elevators, bathrooms, etc. For effeciency sake, OGS remodeled many breakrooms and common areas with COVID-19-resistant surfaces. They purged air handling systems twice daily at the onset, then once daily later in the pandemic. MERV 14 efficiency filtration was obtainable, with MERV 13 being the minimum requirement. It took OGS personnel 6 months to update 700+ air handlers throughout the state. Funding for this effort came from First Instance Funding through capital funds was used, and reimbursed through the DOH Cares Act.

Realizing the immensity of the task of cleaning large state-owned and managed facilities, OGS purchased foggers to expedite the task. However, OGS ran into system issues in underused facilities where they had to manually flush toilets and run faucets to maintain a freshwater supply in the system and keep chlorine levels in plumbing at the minimum specifications. They also had to design and build new air filtration in older buildings, requiring untold recalculations and systems changes.

OGS had two teams, blue and gold, for who was in the field and who was in the office. Office-based personnel assisted with messaging, signage, updated guidance, and cleaning instructions for facilities and later for COVID hot spots once all employees returned to office environments.

Procurement

As one interviewee put it, "procurement was "hell on earth" with no centralized organization."[213] The State competed with itself in many cases as multiple agencies were trying to procure the same items for the same locations. It was hard to manage inventories and shipments when operating in a panic mode.

OGS' role before the pandemic was putting contracts in place so the State (and agencies, authorities, schools, municipalities, healthcare centers, etc.) could purchase from vetted contractors without an additional procurement process. OGS did not purchase products, they simply built the process for purchasing. During the pandemic, however, they were charged with purchasing PPE and other supplies for temporary hospital locations. NYSDOH placed the purchase orders with OGS and then OGS procurement services sought out the items needed that were not previously on a procurement contract. OGS worked 10-14-hour mandatory work days seven days a week. OGS discovered that different agencies were bidding on the same products for the same orders, causing additional costs and vendor frustration. There was frequent miscommunication with purchase orders as they were not always tailored to the task set out by NYSDOH. For example, in one instance items received were for a tent-based satellite hospital and not for the warehouse they were intended for. Some estimates were wildly inaccurate, resulting from "Googling" what might be needed in, for example, a field hospital. Purchasing received poor information and mistakes were made such as "pack-n-plays" being purchased instead of hospital cribs, and ventilators with foreign voltage and plugs that went unused. In other cases, some items were paid for and never received.

[212] OGS managed Alternate Care Facilities (2 in Long Island, and 1 in Westchester County).
[213] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

g. County Infrastructure

A common sentiment among county infrastructure leaders and staff was that government workers made the difference, not private firms. Local leaders were perceived as leading the way with communication, setting up task forces to get businesses reopened, and doing other creative things to positively impact vulnerable populations.

In terms of alignment with how counties viewed planning, communication, and response from the State, the findings often aligned with the political leaning of county leadership. Some felt the State made difficult decisions, good or bad, and allowed them to be creative. Others felt the State interfered with and in some cases competed with the county's recovery. Regardless of politics, most felt they needed better and more timely data to make better decisions and a uniform platform for data collection and analysis. Additionally, most county personnel felt that local agencies needed to be put in charge and that the State should have served in a supporting role. Finally, all agreed that counties and all of their agencies and partners should have updated plans, versus regional or state-level plans that do not account for local differences.

Communication

Local officials frequently felt that the State became a competitor for resources. Several interviewees went so far as to assert that the State "stole" vaccines from local sites by re-routing trucks to "State-run" sites.[214] Many local interviewees felt that decisions were political and that they did not always follow Federal/CDC guidelines which caused considerable confusion.

In another example, an interviewee expressed consternation that, "our vaccination site at the community college was running smoothly. The state came in and took over this site and it was not running as efficiently, seemed to be a duplication of efforts, and was not productive. After the State took over, it was running at a 75% lower vaccination rate."

There were some inconsistencies in communication and responsibility as well. In some areas the State was the authority, and in others it was mearly an advising partner. For example, the State allowed local emergency medical service (EMS) agencies to run their systems and left them alone during COVID-19. The NYSDOH gave them guidelines, and the State chose not to be the authority. On the other hand, local health departments were very much under the State's control. Communication was very different in each case.

Multiple platforms were used for communications with NYSDOH, the Office of Emergency Management, and EMS. County personnel needed three separate logins into three separate platforms to do things like order vaccines (it was different if you were a pharmacy or a health department), run reports, etc. They felt that the data required by NYSDOH was too much and too frequent.

There was also a lag in communication at times. Counties waited for the Governor's press conferences daily to find out what the new rules were, then received guidance on the new rules up to two weeks later. Different State agencies also communicated very differently with counties. "DHSES kept all the directives and communication with local EM departments, and did not do a good job of communicating with other stakeholders,"said one interviewee.[215] In contrast, it felt as though NYSDOH held information in a silo and distributed it slowly.

Within the counties themselves, there were communication issues as well. Hospitals were losing communications within their systems and also within the public health systems. There are multiple hospitals sometimes being operated by multiple systems, and they do not communicate easily with each other or with the county. County leadership counted on the hospitals to send information up to them, which often conflicted with data coming down from the State.

In terms of recovery, there were communication issues between the counties, their contractors and FEMA and State emergency management. There was a feeling that everyone was understaffed and overworked, causing delays and frustration.[216]

County representatives did report some communication successes as well. "We had weekly phone calls with our school districts and had 3x/week calls with our 48 local governments," said one interviewee. "We covered everything discussed in the press conferences with the governor, set up updates via the web to keep our local governments informed, and set up a 12-member business task force led by a county executive and a retail restaurant owner. The task force shared information on how to safely reopen, obtain supplies, manage outdoor dining, and set up food security programs."[217]

[214] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[215] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[216] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[217] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

Vulnerable Populations

The various county representatives interviewed and polled were extremely positive about their efforts to reach vulnerable populations during the pandemic. They built task forces and worked with various partners such as houses of worship, first responders, NYS Office for People With Developmental Disabilities, the Association of Nursing Homes, and even sports teams. Many counties boasted a strong multicultural makeup which helped build trust in many communities that were hesitant to be vaccinated. Unique programs were developed, for example, coordinating at-home vaccines and food for the elderly and those who are homebound, and using bi-lingual staff as liaisons to help get the information on vaccines to non-English speaking communities. The New York Knicks even played a part by starring in a vaccination video for one county.

Staffing, Recruitment, and Retention

Many counties, like state agencies, were understaffed going into and for the duration of the pandemic. The hours and duration of the event were too much for many to handle, resulting in staffing shortages. Particularly in short supply were epidemiologists, nurses for health care centers, vaccination site workers, and case tracking investigators. Some counties had staffing issues within their EMS system, including fire departments. Groups like the Volunteer Medical Reserve Corps and community emergency response teams were helpful at the pandemic's onset but soon ran out of steam.

Planning

Many county representatives complained that their regional emergency management plans were replaced by a plan handed to them by the State. There is no way for there to be one guidance for all municipalities. Many of the areas supported by the county do not have any current, accurate, or updated plans. In addition, the emergency management plans for hospitals and nursing homes within counties are not always made available to their local governments. This lack of coordination related in avoidable challenges such as multiple facilities all relying on the same vendors for contracted backup . Another example is too many hospitals were counting on the same excess beds at other facilities. In-county plans need to be de-conflicted among partner organizations.

Transition to Remote Work

Some counties were better prepared than others, mainly based on the level of pre-existing systems and equipment in place for working remotely. Some counties had to quickly purchase and install platforms for remote meetings, while others were prepared. "We were fortunate that our head of sustainability insisted we put Webex in as an initiative in 2019, so we already had the infrastructure to conduct virtual meetings," said one interviewee.[218] Many county officials agreed that county human resources (HR) departments were some of the most essential of all the essential workers. With the number of people they had to hire and train, it would have never happened without them.

[218] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

2. Findings

"We had 3 main priorities: Maintain and improve public health, assist our fragile health systems in any way we could, and keep schools and businesses open if possible."[219] This quote from an interview with NYS infrastructure leadership encapsulates State's approach to recovery from the pandemic. It also puts into perspective the decisions that infrastructure agencies and county infrastructure leadership had to adapt to. Getting the vaccine out as far and wide as possible was of the highest priority, and infrastructure agencies and workers were challenged to assist in numerous ways. Maneuvering around the passion of all sides of these issues had a ripple effect on infrastructure as well. In some cases, smooth recovery fell naturally into place, and in others, the obstacles proved difficult to overcome.

Communication

To simplify the information flow, most information was generated by the federal government. The State was not always happy with this communication. "We were critical of the Federal Government here. Their direction was unclear, and we believe they knew that not all information shared was correct (i.e., cloth masks were ineffective.) The federal government lost both the State's and subsequently the public's trust, making our (the State's) job more difficult. We ultimately tried to follow the CDC or do better. We relied heavily on our Department of Health to interpret guidelines for the state while trying to be as flexible as possible to business owners and be protective yet equitable."[220] The State then took this national information, along with their own messaging, and communicated to commissioners daily and some more often (EM and DOH, for example.) The CDC and then DOH communication across agencies was often too complex, so the State worked with them to simplify the messaging. This information was often disseminated via the Governor's morning conference. Ultimately, this is where many of the infrastructure agencies were in lockstep – some parts of the Governor's morning conference were good, but some of the information was often lost in translation.

Findings point to overall communication from the State-to-infrastructure leadership needing improvement in the following areas. First, the information was often not specific enough, causing differences in interpretation among agencies. These differences created issues during the numerous times that agencies supported one another on projects. Second, there was consensus that the timing of communications and the frequency of changes issued caused problems in both getting information to infrastructure staff and ensuring they had the most updated information with minimal confusion. With many infrastructure employees not necessarily having access to cell phones and email, these frequent changes had a more pronounced effect. Finally, the communication was also difficult for agency leadership to "buy into" as there was the opinion that they had subject matter expertise and therefore should have been involved in the development and messaging of said communication.

Communication from infrastructure agencies to their employees faced similar issues as State-to-agency messaging due to timing, changes, etc. However, our findings show that agency communication improved during and after the pandemic. This is from improved systems (Teams, Zoom, Webex, etc.) and a heightened focus on communicating with staff. Many agencies now have regular virtual calls with their entire teams or subsets therein. "Every 6 weeks we hold an all-staff "Teams" meeting (3000+ people) and our leadership shares updates."[221] In addition, infrastructure personnel are now hybrids of in-office and remote teams, most with work-issued laptops and phones which have also improved communication flow.

Communication between the State and counties pertaining to vaccination site management was an area of particular concern for many counties. This concern was the same despite county political affiliation, unlike other opinions of the State's COVID-19 response which generally fell along party lines. Where there were both State and local vaccination sites in proximity, there was a perceived lack of communication on resources and a sense of "competition" between locations. Counties felt they knew their local markets better and could mange the vaccination operations more efficiently.

A particular communication point discussed in every infrastructure interview, survey, and town hall meeting involved essential vs. non-essential employee labels. Findings indicate that definitions should be established and applied within each agency. Infrastructure agencies are different and may define "essential"

[219] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[220] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[221] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

differently based on the tasks being asked of them by the State. On the other hand, there was consensus that health and safety rules have to be clear, and applied equally to all agencies. All county representatives said reporting requirements were cumbersome and inconsistent.

Interagency Assistance

Interagency coordination as directed by the State was viewed mostly positively by infrastructure agencies. Most agencies lent resources to NYSDOL and NYSDOH, as well as moved and stored PPE, vaccines, and marketing materials. ITS played an important role across most agencies in assisting with technology improvements to support communication, data collection/reporting, state-wide initiatives to manage vaccinations, and developing tools to successfully transition to remote work. They also assisted with the DOA's "Nourish NY" application which helps farmers with access to food get it to need areas. OGS supported many agencies in human resource functions which ramped up during the pandemic.

There was evidence of many successful "informal" communication and sharing among representatives of various agencies. Friends and colleagues contacted one another and compared notes on the interpretation of directives, human resource practices, safety and mental health tips, etc. Formalizing some of these unofficial networks will benefit all agencies.

Some issues and corresponding needs for improvements did arise. First, the lack of consistency among agencies in enforcing guidelines became problematic. When employees of agencies were working together, and often in close proximity, the rules of testing, temperatures, and waiting periods needed to be enforced uniformly. In addition, the communication issues discussed above were highlighted when agencies worked together and yet received information at different times or interpreted directives differently. Infrastructure agencies agree that a central communications group with representatives from all agencies helps establish "one voice" across State employees. Overall, infrastructure agencies believe their interagency communication, camaraderie, and trust have improved since the onset of the pandemic.

Legal

Infrastructure did not have many legal issues that arose specifically due to COVID-19. The two highlighted by interviewees centered around overtime pay and information privacy. The overtime issue stemmed from some employees qualifying for a higher rate of pay for additional hours worked, commonly referred to as overtime pay, and other salaried employees not qualifying despite similar circumstances and job classifications. The privacy issues stemmed from the collection of health-related information such as testing and vaccination status.

Morale and Mental Health

The overall increase in attention to the mental health of State employees was viewed as a pandemic success story. Most agencies and employees polled felt that in this regard the State came out of COVID-19 stronger. Most infrastructure agencies felt that the communication coming from the State through OMH and other agencies was clear and helpful. All infrastructure agencies reported improvements to their internal mental health programs and ability to recognize issues earlier due to increased interaction with personnel.

Not unexpectedly, morale fluctuated among infrastructure personnel and. The pandemic took a toll on many State infrastructures in the form of a significant number of lives lost, short and long-term sickness, fatigue, and numerous other negative impacts. The mental health messaging and programming that was developed before, during, and after the pandemic helped, but many employees ultimately retired, if eligible, or left the State workforce as a result of the impacts of the pandemic.

Unions

The findings on interaction with unions during the pandemic were mixed. Some agencies had strong relationships with their union partners and continued to work together smoothly for the protection and safety of infrastructure employees. Others did have negative interactions with unions where they were not on the same page regarding interpretation of directives, etc.

Staffing, Recruitment, and Retention

Most agencies had staff shortages, many due to a hiring freeze, before the onset of COVID-19, and these shortages proved detrimental once COVID-19-related staffing issues materialized. This issue was also magnified when coupled with the finding that the pandemic created a difficult environment for outsourcing within the infrastructure. Many positions require significant training and were not able to be outsourced, (e.g., train operators). Others found that the competition for quality staff augmentation, along


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with the pandemic environment of social distancing and frequent sick time usage made it difficult to count on outsourced resources as well. All agencies agreed that plans for maintaining staff levels at all times need to be in place.

Human resource departments, whether in-house or outsourced through OGS were heavily taxed during COVID-19. The amount of reporting, testing, managing time out of work, etc., took its toll on HR teams.

There are mixed findings on recruitment in the aftermath of COVID-19. Many agencies reported that they have difficulty recruiting new employees due to the onsite requirements of positions in their agencies. However, the State does not see staff recruiting and retention as a problem despite competing with private industry, which is more lenient with remote work rules.

Planning

No infrastructure agency had a plan in place that considered an event as widespread and long-lasting as COVID-19. However, agencies with updated plans in place that they were trained on and regularly exercised performed better than those without plans. That is not to say that agencies that made decisions on the fly did not have successful outcomes, but overall it was easier for those that at least a template to follow to be successful. DOA is an example, where they used existing COOP plans and other emergency plans as a guide to work from. The MTA also had provisional schedules they were able to work from rather than building them from scratch.

ITS uncovered the need for modernization plans to be built for every agency, process, and customer base. Some work was delayed or halted due to the inability of individuals and organizations to transition to remote work. In some cases this was due to a lack of equipment, or systems, or reliance on paper records and processes.

NYS infrastructure agencies learned a tremendous amount during COVID-19 that could be used as a template for changes to increase resiliency. For example, vaccine centers and feeding centers had been done before and plans existed to set them up, but major vaccination and feeding operations were built partially on the fly. The successful, creative solutions used need to be memorialized and built into training programs as new staff replace departing staff. However, there was a shared sentiment that planning cannot be too prescriptive. Leaders have to be trained and ultimately given the latitude to lead and be held responsible.

Finally, a shared belief from infrastructure agencies was that while many agencies and leaders rose to the occasion and made decisions, there needs to be a clearer picture of who owns each responsibility and task. There were numerous examples of the Executive Chamber or another agency making a decision that fell under the purview of a different agency, and confusion resulted. There was also confusion about who to call, whether you were an agency or a concerned citizen, with issues or concerns. Lines were often blurred between the Executive Chamber and an array of State agencies.

Sanitation

The central finding on cleaning and sanitation during the pandemic was that every agency did what they needed to do to keep their employees and visitors safe, but clearer direction on best practices and better vetting of vendors and solutions is warranted. Many agencies referred to their confusion when deciding on the best courses of sanitation, including chemicals, purifiers, foggers, sprayers, etc. They did not always know the best route to take and wanted assistance going forward.

Transition to Remote Work

Much of the success in transitioning to remote work was in proportion to where an infrastructure agency was in the planning and execution stage of technology upgrades. Agencies with widespread laptop use, Teams/WebEx platforms launched, etc., made an easier transition. Smaller agencies proved to be nimbler, with less to purchase and implement.

Infrastructure by its nature often meant that employees were not able to work remotely, (e.g., operating transportation systems, maintaining facilities, and installing technology at mobile vaccine centers). Agencies had to develop hybrid models where applicable and focus on creating safe environments for employees to remain on the job. Working with the State and other agency partners, many successes were achieved and need to be memorialized.

Infrastructure also played a major role in the State's overall return to onsite work initiative. ITS built the "return to work portal" and Excelsior Pass applications with over 11 million downloads. Transportation allowed workers to get to and from work safely and assisted in delivering the PPE supplies needed to perform their jobs.

Procurement

The main finding is that the State enacted emergency procurement and contracting rules which were impactful in allowing infrastructure agencies like OGS and ITS, among others, to cut through red tape to get things done in an expedited fashion. The early stages of the pandemic were critical and the State and its agencies did what needed to be done in an environment of relaxed rules. The feeling among infrastructure agencies is that the transition back to normal rules and regulations made it more difficult to continue at the pace needed to solve problems as expected.

Some areas could be improved with planning and communication. One area is how the State managed procurement for vaccination centers, field hospitals, and other out-of-the-ordinary endeavors to combat COVID-19. Agencies were competing against each other as a result of poor planning and urgent needs for products and equipment already in high demand. A well-established roadmap for this process will save time and money.

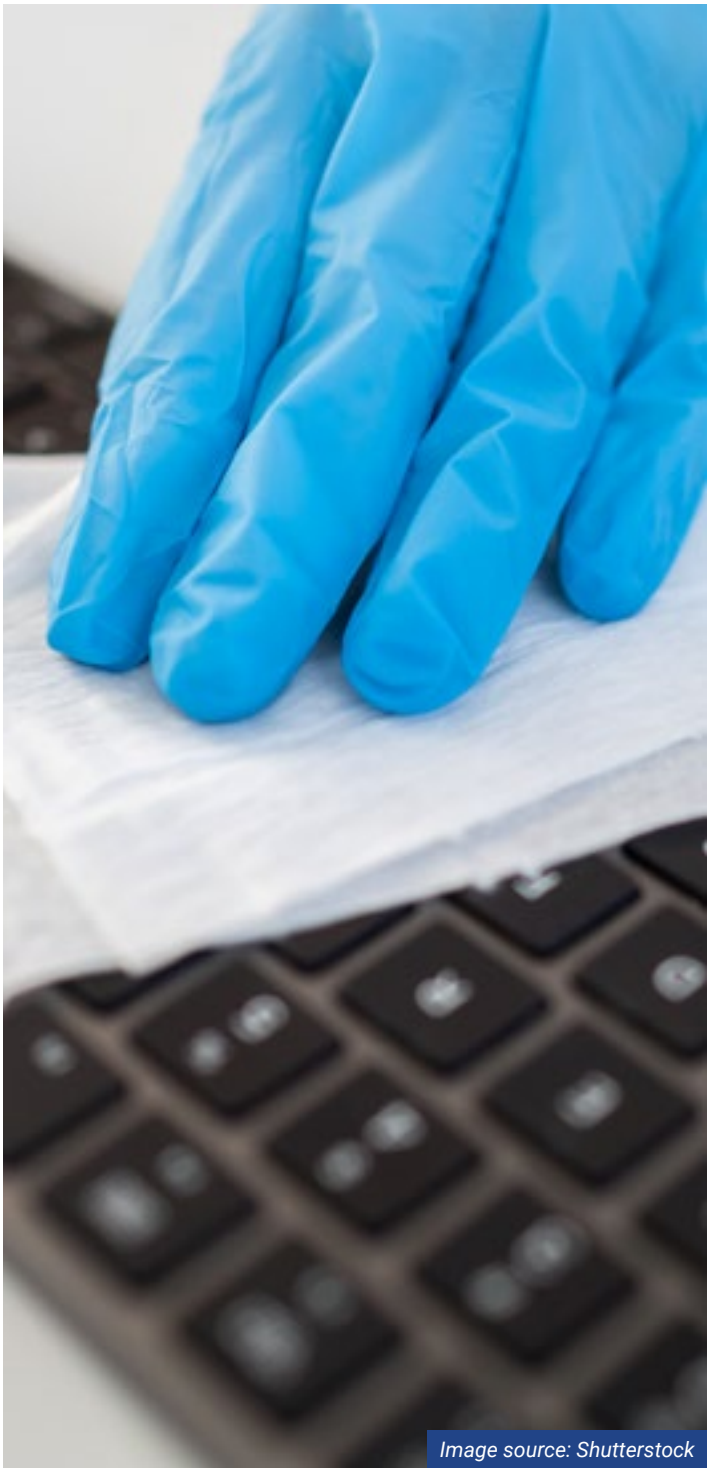


Image source: Shutterstock

3. Conclusion

Investigating the numerous agencies, authorities, and partners that make up NYS's "infrastructure" workforce provided an incredible view into the heart of the State's recovery from COVID-19. It can be accurately stated that the strongest infrastructure was the was the NYS employees themselves. They went above and beyond to ensure that their fellow citizens had a safe environment. Many of the infrastructure staff were "essential" and their accomplishments support this label.

Many strategies and initiatives enacted by the State and infrastructure agencies were successful and should be memorialized to be trained on and used for future natural and man-made disasters. The State's COVID-19 policies for emergency procurement and contracting played an important role in removing red tape to allow infrastructure agencies to complete the tasks that needed to be completed without unnecessary delays. Interagency communication and assistance were crucial in getting support systems back up and running. More frequent and creative ways of checking in on the mental health of State employees were developed and maintained throughout the pandemic, and continue to be an important part of agency practice today.

As with any large-scale disaster recovery, not everything went perfectly. Communication from the State to its agencies and employees often lacked specificity and changed more frequently than many agencies could reasonably keep their employees abreast of. Inconsistencies in enforcing COVID-19 health and safety regulations made interagency work challenging. Pre-COVID-19 staffing shortages and hiring freezes wreaked havoc on infrastructure agencies' ability to fully respond to the additional roles and responsibilities with which they were tasked. Finally, plans either did not exist, did not get used to their full extent, or were not able to meet the depth and breadth of the pandemic, leaving many vital management tasks to be created "on the fly."

The ability of infrastructure agencies to flex and change allowed them to build upon the existing systems and ultimately expand them to handle the changes the pandemic presented. Infrastructure was a leader and model for being flexible and molding to the needs/rules of the pandemic. Adapting all State and infrastructure agency plans with the lessons learned from the pandemic will allow these agencies to remain the core of the State's workforce.

4. Recommendations

1. The State should develop and maintain a cadre of surge support, build a better capacity plan for the technology workforce, and truly invest in IT personnel, not just equipment and software.
2. The State should complete a review of all legacy software applications, with either a rewrite or replace outdated ones with off-the-shelf applications.
3. The State should complete a full review of all policies and procedures to identify and digitize all outdated paper-based processes.
4. The State needs a stronger and more resilient food system and plan to keep people fed in the event of another disruption anywhere in the food chain. NYS cannot rely on other states or other countries. NYS needs a plan to transform the food system.
5. The State needs to devise a plan to support agency human resource departments should they become overloaded and need additional staffing during future emergency responses.
6. The State should facilitate additional planning, training and exercise programs to help agencies be better prepared.
7. The State should conduct a thorough review of how best to harden infrastructure for future events and prevent disruptions.
8. The State should produce resilience planning workshops and templates for all agencies/ departments to use to promote consistency across agencies and municipalities.
9. The State should centralize the procurement process. The State needs to prevent multiple agencies from attempting to procure the same items from the same sources.
10. The State should better match emergency assignments with agencies that have subject matter expertise in each assignment area, as opposed to putting DHSES or another agency in control.
11. The State should improve the use of subject matter experts in lead roles and decision-making. For example, the Governor named former government administrative employees to “task forces” and had them give orders even though they did not know the new organizational system of what agency did what and did not consult with SMEs effectively throughout the process.
12. The State should develop pre-planned procurement lists vetted by professionals. The lists need to be specific and include usage, price ranges, etc.
13. The State should create a site demobilization policy that considers lease renewals and terminations, legal ramifications, move-out issues, contracting, transportation, seasonal issues, etc.
14. The State should create a clear determination of who (what Agency) “owns” a process. For example, contractors were working on DHSES contracts but working solely in OGS facilities. Who is in charge? What happens if something goes wrong, i.e., injury, disagreement, etc.?
15. The State should develop a plan focusing on cash donations and improved donation management.
16. The State should strive to limit the ability of a politician to make medical decisions. For example, there were many instances where the State was putting out opposing guidance to the CDC, creating confusion.
17. The State should limit the ability of local and regional politicians to take back channels for requests during an emergency.
18. The State should create a centralized dashboard for data collection and dissemination across the State.
19. The State should design a clear direction for calls and requests for assistance within the state system. This should include requests from citizens, legislators, other agencies, etc.

F. Business and Industry

The pandemic profoundly impacted virtually every New York business and industry. On March 20, 2020, "New York on PAUSE" was introduced and signed as a statewide initiative to mitigate the spread of the pandemic. Regulations were enacted, designating businesses, and ultimately their employees, as essential or non-essential. Non-essential businesses were instructed to cease all in-office operations. This created personnel reductions and layoffs, as well as temporary and permanent business closures and vacant office spaces.

The hardest-hit New York businesses include those in the hospitality and restaurant industries, the latter trying to navigate ever-changing guidance and regulations. Significant impacts on the trucking industry, including a driver shortage, contributed to severe supply chain issues for retail and grocery stores. Trade and industry groups supported the New York business community by providing information and advocacy for businesses negatively impacted by executive orders (EO) and guidance issued by the State.

This chapter details the pandemic's impact on New York's businesses and industries, and reviews the roles of essential business designations, trade groups, industry associations, and public-private partnerships. It also discusses business reopening challenges, supply chain issues for food and other necessary commodities, Nourish NY, and the provision of financial relief to businesses. It analyzes New York's business and industry strengths and challenges and provides recommendations to enhance the State's preparedness and resilience.

AT A GLANCE

Even with the help of federally funded grants and other relief measures, New York businesses and industry struggled under stringent business closure mandates, and many did not survive. Many organizations that did survive faced difficulty overcoming significant tax burdens in rebuilding their financial stability. Future planning efforts should engage public-private partnerships and other stakeholders to better promote and protect the economic well-being of New York industry.

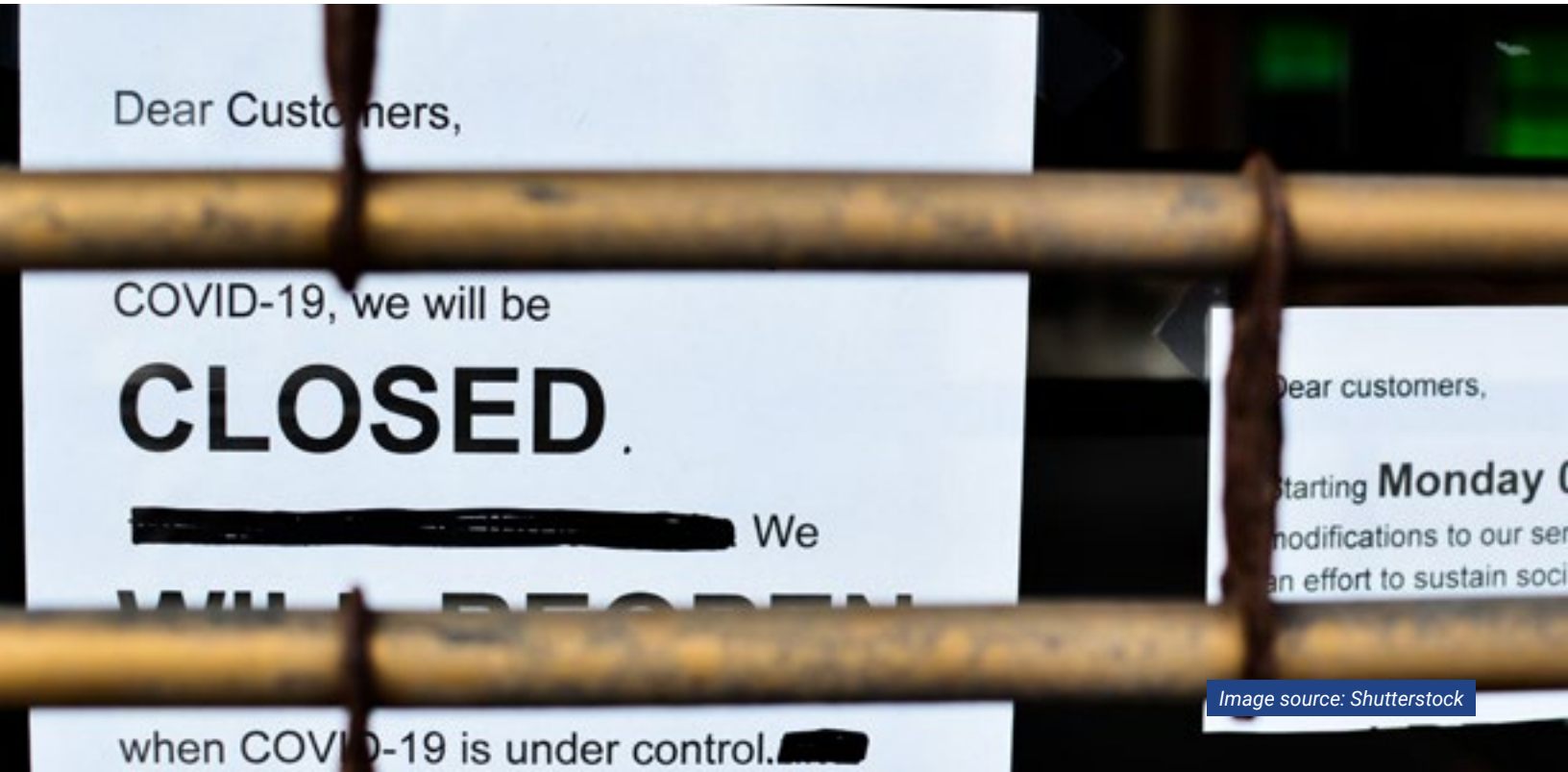


Image source: Shutterstock

1. Analysis

New York on PAUSE

"New York on PAUSE" was an initiative that called for a halt to public activity in New York to stem the spread of COVID-19.[222] It is contained in EO 202.8 and was signed on March 20, 2020. This order effectively closed all in-person businesses in the state, with limited exceptions. This was issued at a time when limited information was available regarding how the illness was transmitted and no tests or vaccines had been developed.

All businesses that could do so, particularly financial and information-focused firms, converted their operations to remote work. Such businesses, many of which tended to have better-paid workforces, experienced more limited disruptions in their daily work. However, in-person businesses designated non-essential had to close their doors with the assumption that these closures would last a few weeks at least.

As the pandemic continued, infection and death rates skyrocketed, and more information about how COVID-19 was transmitted became available, the lockdowns were extended multiple times and businesses remained closed into the summer of 2020.

Reopening was an awkward process. In May 2020, the State created a system to identify areas with more concentrated infection rates. Red zones indicated areas where the pandemic was active, while orange and yellow zones indicated lower infection rates. The reopening plans also had phases one to four with more activity allowed for businesses in the later phases. Business owners had to understand what zone and phase of reopening governed each area. This made things much more complicated for businesses with multiple locations.

Following "New York on PAUSE", the Governor's office issued EOs and guidance at a rapid pace.[223] Businesses struggled to keep up. Many businesses were required to cease or restrict operations. Restaurants and bars could only serve food and beverages to go. All businesses were directed to use telecommuting to the extent possible, and the non-essential in-person workforce was reduced by 100%. An exception was made for "essential business or entities providing essential services or functions."[224] Guidance on EO 202.6 issued by Empire State Development (ESD) explained essential business or entities as generally part of basic categories that included healthcare operations, certain infrastructure and manufacturing, some retail, and a few others. Even though many types of businesses were specifically listed in the guidance, there was still a lot of confusion. As one stakeholder interviewed said, "This crisis caught everyone in chaos. No one knew what to say and what to do. Since there are complex labor laws, no one wanted to get sued when they could no longer retain employees. There were uncertainties legally, operationally, and morally."[225] For example, restaurants were considered "essential" but were required to operate at reduced capacity. One of our interviewees commented, "Throughout that first weekend, restaurants and the state spent a lot of time trying to figure out what 50% occupancy meant."[226]

New York was one of the first states that allowed businesses to apply for "essential" status and many proactively applied for this status as a protective measure.[227]

New York on PAUSE Secondary Effects

"New York on PAUSE" also included quarantine requirements for travelers. This had a negative impact on the trucking industry that was so integral to ensuring food and goods were delivered around the state and across state lines.

In one of the town halls focused on business and industry, participants identified unanticipated consequences to the trucking and transportation industry. Most of the food that comes into the state does so via truck, rather than by rail. Even though the trucking industry was considered "essential", they were hampered by quarantine requirements that restricted travel. "The impact to transportation was not considered when New York City was issuing quarantine requirements. Trucking companies could not afford to have truckers go into NYC and then need to quarantine before they could leave."[228]

A theme that arose in multiple focus areas was the need to modernize many aspects of government regulations to include digital documentation. For example, in the trucking industry, drivers are required to carry paper documents, such as oversize or overweight permits. It was observed by one interviewee that "reducing the paperwork burden on the New York State side, the industry side and the enforcement side would have led to efficiencies and limited contact between people."[229]

[222] "Governor Cuomo Signs the 'New York State on PAUSE' Executive Order."
[223] "Governor Cuomo Signs the 'New York State on PAUSE' Executive Order."
[224] "Guidance on Executive Order 202.6,"
[225] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[226] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[227] Researchers were unable to find statistics on the number of businesses that applied for this designation and were approved or denied.
[228] Tatiana, "Memo for Domestic Employers on Executive Order 202.6 by Governor Cuomo | Hand in Hand."
[229] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

Trade Groups and Industry Associations

Because of the complexity and with so much at stake, businesses relied on industry associations and trade groups to help them interpret and implement these orders and navigate how to proceed. Many of these organizations opened their services to non-members to serve their larger communities. A memo issued by Hand in Hand, the Domestic Employers Network is an example of such a guidance.[230]

A trade group representative interviewee observed, "The pandemic opened people's eyes to cooperation among each other. Instead of fighting over supplies and customers, people saw the value of the trade association and sharing best practices, even with competitors. Everyone just wanted to survive, and the collaboration helped everyone."[231]

Throughout the pandemic, businesses across the state struggled to navigate the quickly changing landscape. These efforts were hampered by differences between state and local rules. The trade associations and industry organizations were key to resolving these conflicts and assisting businesses in navigating the right course of action. Interviewees shared similar observations of this conflict:

- "New York City opened at different times and had different rules than the rest of the state. This was possibly being driven by city politicians being too scared to reopen. I wish we had pushed harder for the reopening in NYC to happen sooner. We received pushback because there was more fear in the city. We still received pushback when we finally did reopen. We felt that we were caught in the middle of a political battle."[232]
- "The onset was confusing. You had a number of things that needed to be fleshed out. Some aspects of the (food) industry operate in more than one state. Other states were taking proactive actions. Then, during the initial days, an added layer of confusion was the localities making their own decisions and how that worked within the state. Mayors and county executives were making calls on their own. Eventually it worked itself out, but there needed to be clarity and uniformity throughout the state."[233]
- "There was a major failure of city-state coordinated messaging. This lack of coordination set the tone for so many problems and missteps that occurred. This also exacerbated mistrust toward the government. It also led to a tough place politically. They knew there was going to be a disaster and it would have its uncertainties, but the lack of a unified communication between state and city government created so much more uncertainty."[234]
- A specific example of this situation is the rules around farmer's markets and whether they were considered "essential."[235]
- "One of the markets did not open on time because their county determined they were not essential and could not open. The Farm Bureau was blaming the market manager, who was not at fault. We had to school them as to what the rules were, and rules of the county and they had to work together."[236]
- "Some counties were more restrictive than the state. If we could get the county to speak with the Deputy Commissioner, we could overcome those difficulties. Markets all followed the state guidelines, but when a county was more restrictive there were lots of conversations between them and the state. They had to find compromises. Most ultimately were able to operate"[237]
- "The reopening process was insufficient in that upstate New York and Long Island were opened before the city. People in the (trucking) industry couldn't see the point of some places opening but the city staying closed, especially if they were very close in location. It hurt the industry and took longer for them to get back."[238]

The trade associations were also integral in helping businesses navigate industry-specific challenges. For example, the State Liquor Authority (SLA) requires deliveries to be paid in cash on delivery.[239] Because of reduced revenues, businesses did not have the cash on hand to pay these fees. If a payment is not made properly, suppliers are required to report the business to the SLA.[240] The SLA does not have rule-making authority; a waiver or modification would need to come from the state legislature, which had seemingly ceded all COVID-19-related rulemaking to the Executive Chamber. When

[230] Tatiana, "Memo for Domestic Employers on Executive Order 202.6 by Governor Cuomo | Hand in Hand."
[231] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[232] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[233] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[234] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[235] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[236] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[237] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[238] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[239] "New York State Liquor Authority"
[240] "Delinquency Reporting"

the overwhelmed state government seemed to overlook certain industries, their trade associations stepped in to bridge the gap by communicating with the various state agencies and local governments to ensure essential goods and services could be safely delivered.[241]

Similarly, trade associations unsuccessfully advocated for a concession to waive or defer required sales tax payments due to the state when businesses did not have money to pay. At least one interviewee felt that they filled a role that ideally would have been done by the government.[242]

Public-private Partnerships

The pandemic's challenges also provided opportunities for unique collaboration with public-private partnerships (PPP). For example, Empire State Digital paired the Small Business Development Center at Binghamton University with global e-commerce and e-payment providers to connect New York-based small businesses "with the education, access and resources needed to digitize, expand and adapt to the new economy due to the changes from COVID-19."[243] Participants also had access to a free online ordering tool for local restaurants across the state through Ritual ONE.

These partnerships were discussed in a New York Times article regarding PPP. Many of the public-private partnerships launched during the pandemic centered around health care delivery. Some of these programs included:

- **CV29 Check Up:** a free, anonymous, personalized online tool that evaluates an individual's risks associated with COVID-19 and provides recommendations and resources to reduce those risks.[244]
- **COVID-19 Hospital Loan Fund:** a collaboration between New York City and Goldman Sachs to support safety-net hospitals while they were waiting for FEMA reimbursements.[245]
- **NYS-CVS PPP:** a partnership between the state and CVS to link residents to more than 700 testing sites.[246]

Other partnerships addressed other sectors that were also impacted by the pandemic. The Association on Aging-Ageless Innovation PPP was developed to help combat social isolation and depression among older adults during the pandemic and beyond.[243]

The ACS office of PPP in the NYC Administration for children's' services is a laboratory for developing these partnerships to support children. The PPP MTA COVID-19 Driven Financial Distress imagines how a PPP could resolve financial distress caused by the pandemic for the NY MTA.

PPP in transportation is covered in a March 2021 report from the Congressional Research Service that outlines benefits and risks of these partnerships in the transportation sector. The World Bank's *COVID-19 Impact on PPPs* is an interesting assessment of these types of partnerships globally.

PPP Responses to COVID-19 and Future Pandemics was a virtual workshop in June 2020 with The National Academies of Sciences, Engineering, and Medicine's Forum on Public-Private Partnerships (PPP) for Global Health and Safety. The workshop was used to "review best practices from past PPP epidemic and pandemic responses to determine if those frameworks have applications to the COVID-19 pandemic. The workshop explored PPP innovations that are addressing COVID-19 in other countries; examined PPP pandemic responses that expand the distribution of global public goods; and discussed PPP pandemic responses that enable the development of a global health security agenda."

New York on PAUSE Secondary Effects

As the State looked toward reopening, there were many logistical issues that made this process challenging for businesses. Daily press conferences were valuable in disseminating information to the public. However, the interviewed stakeholders received important information simultaneously with the public. They did not have time to analyze the information, which often contained new guidelines and executive orders before their members asked for assistance understanding what was just announced.

This was especially problematic when certain rules, programs, and accommodations were due to expire, and an extension would be announced at the last minute. Businesses had to devote time and resources to planning for both an extension of these rules, programs, and accommodations and their expiration. An interviewee observed: "There were several exemptions, waivers, and extensions in place related to licensing, registration, and regulatory relief. It seemed that every month, they would wait until the day before,

[241] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[242] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[243] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[244] "NYSOFA Launches COVID-19 Online Risk Assessment Tool."
[245] Candid, "New York City, Goldman Sachs Partner on COVID-19 Hospital Loan Fund."
[246] Amid Ongoing COVID-19 Pandemic, Governor Cuomo Announces New York State Has Doubled Testing Capacity to Reach 40,000 Tests per Day, Encourages Eligible New Yorkers to Get Tested for COVID-19."
[247]

or in some cases, the day the relief was set to expire before they issue a decision on whether to extend it. That made it incredibly difficult for businesses that were operating under that relief to plan and continue operations. This is another example of communication challenges that created questions and confusion."[248]

In addition to the challenges listed above, the business community experienced other issues as well. For example, the trucking industry had difficulty with delivery services. "There were issues navigating their reopening procedures as many businesses operated differently and would not let the drivers inside the facilities. This led to issues with restroom access and break room access, forcing drivers to stay in their trucks (not yard, not facility) for long periods of times while waiting to leave the facility."[249]

Another challenge noted during the reopening phase was confusing and vague guidance. As noted by one stakeholder, "Some policies were difficult to interpret, either due to complicated wording or because they were vague and open to interpretation, and it was difficult to tell which potential interpretation would be considered the correct one."[250] This created issues that were intertwined across the industry.

This interconnection can be seen in the relationship between the State Liquor Authority (SLA) and dining establishments. As dining began to reopen, restaurants and bars were trying to get back on their feet and rebuild revenue. Businesses attempted to reopen in accordance with whatever guidance they had received, and this caused a great deal of confusion. "Restaurants feared that they were going to do something wrong. This was new territory that had never been dealt with by the industry."[251]

At the same time as bars and restaurants were reopening, the SLA shifted from reactive enforcement to proactive investigations leading to a multitude of license suspensions. These suspensions were impactful because they came at a time when businesses were just getting their footing and trying to rebuild revenues. "The SLA worked to communicate policies and requirements with New York businesses. They prepared their own "outward facing documents and hard guidance with outlines of how particular Executive Orders or guidance from DOH" and were "in contact with many constituents as the pandemic unfolded including trade associations for manufacturing, bars, restaurants, liquor stores, grocery stores, bodegas, and statewide and national wholesalers."[252] Even though this was a benefit to some trade association members, not all establishments had that luxury. Fortunately, trade associations stepped in to help across the industry. Many associations aided their constituents as well as non-members who were seeking resources, clarification and information, opening their resources and communications to all New Yorkers.

Supply Chain Issues

a. Trucking

The trucking industry is a vital component of the supply chain. Before the pandemic, the industry was already facing a labor shortage. This worsened as many chose to retire early to avoid the risks of contracting COVID-19. When the State shut down Department of Motor Vehicle (DMV) operations, it allowed individuals to renew their licenses online, however, commercial operators had to continue to renew their licenses in person, which was not available. When the DMV shut down, they also closed Commercial Drivers' License (CDL) test sites. Driving schools were designated as essential, so while potential new drivers could receive training, those newly trained drivers could not take the CDL road test and become certified. The DMV adapted by expanding online services, encouraging self-service options, and promoting digital transactions. Their website, social media, and press releases communicated changes, closures, and safety protocols. Even after the DMV extended license renewal dates staffing challenges persisted. An interviewee observed, "They would often wait until the day before or day of to issue the extension in renewal date."[253] As a result, businesses were unable to confidently dispatch these drivers who were anticipated to operate under these extensions and were completely unable to onboard newly trained drivers. In turn, this labor shortage amplified the larger supply chain issues.

b. Food Production and Agriculture

New York food-producing farmers were also designated as essential. People still needed to eat, but the nature of the demand radically changed with school, restaurant, and business closures. This greatly impacted the food production sector. Many farmers no longer had outlets for their food when schools and restaurants closed. If they did have food, it was packaged for institutional food service unsuitable for other supply chains. Items

[248] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[249] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[250] New York State COVID-19 Stakeholder Engagement - Stakeholder Survey, 2023 - 2024
[251] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[252] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[253] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

such as milk and pound cheese were packaged in bulk. Attempting to break down these bulk productions would have been costly and required increased manpower that was not available.

This situation led to creative problem-solving within industry and by the State. Some goods were transitioned from bulk to wholesale. Other manufacturers were able to quickly convert their operations to meet other needs created by the pandemic. For example, some distilleries were able create hand sanitizer in response to shrunken demand for their core products.[254]

Additionally, the food industry set up other programs to support sales, including Growing Certified which "promoted local produce and aided in connecting local food operations with independent grocery stores."[255] However, various challenges with this program arose. While some businesses could pivot their efforts, other food processors could not quickly shift operations. A one-size-fits-all approach was insufficient, with one interviewee noting that this program "only worked for smaller businesses. They would never be able to keep up with the volume needed for major food chains.[256]

Nourish New York

Another integral program initiated during the pandemic that supported food production and agriculture was Nourish New York.[257] Launched in May 2020, this program was intended to expand the markets and food supply network for farm products produced in New York and provide food-insecure areas with access to nourishing local food options.[258]

While many farms have traditionally donated excess products to food banks, when the pandemic hit and customers were lost overnight, many farms could not offload their supplies or change processing procedures to accommodate this change. Even though farmers were not making money from Nourish New York, one interviewee noted, "they had already been sending truckloads to NYC on the farmer's dime. Nourish NY offset the cost the farmers were paying during the pandemic."[259]

Through six rounds of funding and a total of $142,096,533 in program spending, Nourish New York was seen as a savior to the farming industry.[260] It was touted as a program that helped put local many farming operations "on equal footing."[261]

Although Nourish NY can be considered a big win for the food producers as well as the beneficiaries of their products, there were some challenges, as one interviewee described: "The problem was with the processing perspective. If you have a factory in Upstate NY producing 50-pound blocks of cheese, it's going to take 6 months and a couple million dollars to retool that to make 1-pound blocks of cheese. The only other solution is giving money, but timing is still an issue that money wouldn't have solved."[262]

Another interviewee noted, "As wholesaling barely pays the bills in blue sky, farmers were not making money off of Nourish New York, they were in a holding pattern at best. Maybe giving tax credits to offset increased costs?"[263]

Due to its success, the State has made Nourish New York a permanent program. Even with some challenges on the supply side, this program produced positive results and should remain a key emergency response tool for future emergencies. The New York State Comptroller's report on the State Fiscal Year 2024-2025 executive budget states that NYS finances appear to have stabilized. Concerns about an imminent national economic downturn have diminished, and inflation has become more manageable.

Financial Relief to NY Businesses

In the face of unprecedented financial challenges to New York's businesses, the state implemented several different relief programs. These programs were designed to bring assistance to businesses that had to close or otherwise reduce their business capacity due to the New York on PAUSE mandates. These measures complemented additional federal, local, and private measures. Although these programs were clearly underfunded, the businesses that could access them saw great benefits. From data available on the State's Use of Federal COVID-19 Relief Funding website, the State received $355,000,000 from the federal government, with $53,000,000 allocated to flow directly through the State Financial Plan and the majority going to fund the CARES Act.[264]

Many of these programs became available during

[254] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[255] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[256] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[257] "Oversight of the Nourish New York Program."
[258] The Nourish New York Audit contains a wealth of information about this program's successes and opportunities for refinement.
[259] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[260] The Nourish New York Audit contains a wealth of information about the successes of this program as well as opportunities to refine.
[261] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[262] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[263] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[264] "Federal Funding Overview."

the recovery phase after businesses were allowed to reopen but were still struggling financially. Sources of relief included loans, grants, tax credits, moratoriums on evictions for non-payment of rent, and incentives to purchase from New York businesses. While helpful to those businesses that were able to access them, these programs were seen by the public as highly underfunded compared to the need. This sentiment was expressed during a stakeholder engagement interview with the statement, "One lasting effect of the pandemic is the uneven recovery. Almost 70% of businesses that applied for grant funding did not receive any. There was a very unfair distribution of funding."[265] While the data from the New York State Comptroller COVID-19 Relief Tracker shows that by December 2023 only 20% of relief funds had been distributed via small business grants, and just over 50% of those funds have been spent.[266]

The NYS comptroller March 2021 Report indicated that four out of five small businesses in the state continued to report negative overall impacts from COVID-19, which was greater than the national average.[267] The Census Bureau reported that 77% of New York's small businesses reported a decrease in sales or receipts and revenues, exclusive of loans or other financial assistance. By 2021, most were no longer seeing a decline, but 65% were reporting no change.[268]

By the end of fiscal year 2022 (OSC FY end 3-2022), the Comptroller reported slow employment recovery.[269] In the calendar year 2021, the state had an increase of 2.6% in employment versus a 5.6% gain nationally. The hardest hit industry during the pandemic was leisure and hospitality. While these industries realized the largest job gains in 2021 total employment was still 25% below 2019 levels, and none of the 10 regions across the state had returned to their 2019 employment levels.[270]

Moratorium on Commercial Evictions

This moratorium was issued via executive order and remained in place from March 2020 through January 2021. It was later extended by the state legislature through May 2021. The moratorium applied to both residential and commercial evictions. Designed to alleviate the crisis faced by vulnerable New Yorkers, the moratorium ensured that tenants were not evicted during the pandemic. This was an important business protection, especially for those businesses that required in-person work and had to close their doors during New York on PAUSE. However, the failure to pair the eviction moratorium with corresponding mortgage relief to property owners has created issues that lingered through the reopening and recovery phase to the present.[271]

Additionally, the eviction moratorium coincided with other challenges facing the commercial real estate industry. As one interviewee described: "Commercial real estate had multi-layered challenges. There were difficulties when tenants moved to hybrid work or to entirely remote work. While this offered flexibility to employees, office owners were finding a reduction in demand and there was less leasing activity. This was compounded by high interest and refinancing rates."[272]

A non-profit offering legal support to businesses observed that terms in commercial leases that render the business uninhabitable have become a major negotiating point after the pandemic.[273] In addition to scenarios such as fire and major flood, questions revolve around whether or not government-ordered shutdowns should be included.

The State has an opportunity to rethink this relief program for future emergencies in a way that mutually benefits businesses and commercial property owners and does not just push the problem down the road, creating negative impacts for the future. It could be productive for the State to engage with the business and commercial real estate communities to develop more creative solutions for emergency-related rent reductions.

New York Forward Small Business Lease Assistance Partnership

In December 2020, Governor Cuomo announced a public-private partnership of Empire State Development (ESD), Start Small Think Big, and the NY Bar Association.[274] The website for this initiative included information on the lease renegotiation process as well as other assistance to help small businesses cope with the financial impacts of the pandemic. Qualified businesses were matched with volunteer attorneys. This website is no longer active, and researchers could not find any assessment of the effectiveness of this program or

[265] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[266] "COVID-19 Relief Program Tracker."
[267] "New York's Economy and Finances in the COVID-19 Era."
[268] Buffington et al., "Small Business Pulse Survey Estimates by Owner Characteristics and Rural/Urban Designation."
[269] "Economic and Demographic Trends."
[270] More information can be found in the ESD State of Small Businesses 2022 and ESD State of Small Businesses 2023
[271] Aponte, "Moratorium on Evictions."
[272] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[273] "CED: Helping Commercial Tenants After the Pandemic."
[274] "COVID-19 Pandemic Small Business Recovery Grant Program Report - December 2022 Update."

metrics for utilization.

New York Forward Loans

New York Forward Loans provided much-needed capital to New York businesses when the pandemic's impacts depleted their funds. It allowed businesses to access loans of up to $150,000 with competitive fixed interest rates. There were 1,700 businesses in 57 counties across the state that received loans. Sixty-three percent of funds went to businesses owned by women and people of color. Ninety percent went to businesses and nonprofits with ten or fewer employees. Fifty-five percent of respondents indicated that this loan changed their employees' quality of life. These impacts included keeping their job, maintaining peace of mind, and increasing salaries. Without this loan, employers indicated they would have faced personal hardships, reduced staff hours, laid off staff, or closed temporarily or permanently. This loan program was essential for those businesses that could access these funds.

Pandemic Small Business Recovery Grant

In the FY 2022 budget, the state legislature, in partnership with the Governor, enacted the $800 million Small Business Pandemic Recovery Grant Program overseen by the ESD. Its mission was to support the small businesses with the least access to resources. To that end, the Program strategically encouraged participation from micro-businesses, socially and economically disadvantaged business owners, minority-owned and women-owned businesses, and small businesses that did not receive adequate federal COVID-19 support."[275]

The program's final report, Pandemic Small Business Recovery Grant Program Report, indicates that these grant funds "are allowing small businesses across the State to cover costs such as payroll, rent or mortgage payments, personal protective equipment (PPE) expenses, utility bills, and any costs associated with compliance with COVID-19 health and safety protocols."[276]

The average award was $18,608 and 98% of grants went to micro-businesses. Minority-owned and women-owned small businesses represent 90% of the awardees. Governor Hochul expanded this program in 2021 and established the Seed Funding Grant and the Capital Costs Tax Credit for those businesses not eligible for the recovery grant. In June 2021, the state legislature passed a law to exempt these funds from certain taxes, including the corporate franchise tax and personal income tax.

NYS Seed Funding Grant

Businesses that did not qualify for the Pandemic Recovery Grant (above) were eligible to apply for an NYS Seed Funding Grant that launched on September 14, 2022. The purpose of this grant was to aid early-stage small businesses in a recovering NYS economy.[277] Those businesses that began operations after September 1, 2018, with annual revenues between $5,000 and $1,000,000 were eligible to apply.

A little more than 10% of the 31,991 completed applications were awarded funds. Almost 30,000 more applications were started but remained incomplete. The average grant was $13,361, per the NY Seed Funding Grant Report. As per the program's mission, 33% of awards have gone to socially and economically disadvantaged small businesses, and 89% have gone to minority-owned and women-owned small businesses.

According to program materials, "Program grants generally represent a significant portion of operating expenses of an awarded small business, and these grants have assisted small businesses as they recover from the pandemic's devastating impacts. Grant awards are allowing small businesses across the state to cover costs such as payroll, rent or mortgage payments, personal protective equipment (PPE) expenses, utility bills, and any costs associated with compliance with pandemic health and safety."[278]

COVID-19 Capital Costs Tax Credit

The State created the Capital Costs Tax Credit to benefit small businesses that incurred expenses during 2021-2022 due to the pandemic.[279] There is a total of $250 million available under this program, administered by ESD. These tax credits cover fifty percent of eligible costs, capped at $50,000. The maximum credit award is $25,000. Funds were awarded on a first come, first served basis through September 30, 2023.

The metrics for the number of businesses that applied for this credit versus the number of awards, average amounts of awards, or demographic information of awardees are not available through open-source searches. Once this information becomes available, it will be important to evaluate the success of this credit

[275] "COVID-19 Pandemic Small Business Recovery Grant Program Report - December 2022 Update."
[276] "COVID-19 Pandemic Small Business Recovery Grant Program Report - December 2022 Update."
[277] "NY State Seed Funding Grant Program."
[278] "NY State Seed Funding Grant Program."
[279] "COVID-19 Capital Costs Tax Credit Program."

and whether it should be made available earlier in a similar future emergency.

Unemployment Insurance Impact on Business

With the New York on PAUSE orders came an unprecedented jump in unemployment claims. The challenges experienced by the State Department of Labor in processing these claims are detailed in the Human Resources and Workforce Management section. From April 1, 2020, through March 31, 2021, the State made 218 million unemployment payments. This was an increase of nearly 3000% over the previous year. The State had to borrow $9.3 billion from the federal government to pay these claims, which must be repaid with interest through a surcharge on employers. In addition, a report from 2022 found that the State improperly paid approximately $11 billion from the fund, which is exclusively funded by employers.

This situation has a lingering negative impact on the state's businesses as they are left to repay this loan at a time when many businesses are still recovering economically from the pandemic. An article from January 2024 details the unemployment deficit and the consequences for the business community. An interviewee specifically called out this situation as detrimental to the continuing recovery of businesses across the state, saying, "Employers pay into the state fund, which is usually paid out for situations when the employer has control over the release of an employee. It was not designed for a mass unemployment event due to government-ordered business shutdowns. New York is the only state that has not provided relief for this debt through accessing federal funds. New York businesses are still trying to repay this debt on top of the money typically paid into the system. This debt repayment continues to place a financial burden on employers who are still recovering from reduced revenues during the pandemic."[280]

There is an average of $4 billion in the unemployment fund, with no state or federal contributions. This is enough to handle the claims paid out in a typical year. During the pandemic, however, these funds were quickly depleted, and the necessary loans to pay all the claims came with interest, which also had to be repaid. "This interest is a significant challenge for businesses that survived the pandemic. After many businesses closed during the pandemic, the surviving organizations are left paying higher taxes.

Image source: Shutterstock

[280] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

2. Findings

New York businesses and industries faced significant disruptions during the initial response to COVID-19. Businesses needed to decide whether they were considered an essential or non-essential business and either alter their business practices to conform with the essential business mandate or close. All businesses that were able to convert their operations to remote work did so. Larger businesses were more likely to be able to make this transition. Approximately 46% of establishments in firms with more than 5,000 employees increased remote work. Additional workplace flexibility, such as flexible or staggered work hours, alternative work schedules, and additional pay, were offered. Some businesses continued paying employees who were told not to work. The trade groups and industry associations helped to interpret, implement, and proceed in navigating New York on PAUSE. Unions also advocated for workers' rights and safety based on industry-specific challenges. Businesses reassessed their supply chain models to become more flexible and resilient and made strategic changes to improve agility.

COVID-19 underscored the necessity of public-private partnerships, especially when addressing challenges that required innovative solutions and expertise from both sectors. Private sector ingenuity, particularly in the technology sector, was crucial in assisting public efforts, from system detection and diagnosis to patient tracking and contamination prevention. Collaboration helped public and private sector stakeholders increase resilience at all levels, highlighting interdependencies among businesses, industries, community organizations, and government agencies.

During the vaccination phase of COVID-19, several funding initiatives were implemented to support businesses and industries. The programs were underfunded but were beneficial to businesses with access. The benefits came in the form of loans, grants, tax credits, moratoriums, and incentives to purchase from NYS businesses, with an emphasis on supporting small businesses. The Pandemic Small Business Recovery Grant Program strategically targeted and encouraged participation from micro-businesses, socially and economically disadvantaged business owners, minority-owned or women-owned businesses, and small businesses that did not receive adequate federal COVID-19 support. As of January 6, 2023, the program had disbursed the entire $760 million in available funding. This program played a significant role in supporting a diverse range of small businesses and promoting economic recovery.

Although NYS lagged behind the rest of the country in recovery, there was a data-driven strategy to gradually and safely reopen businesses guided by public health metrics and regional analysis. The reopening process was phased, starting with construction and manufacturing functions with low risk and followed by other industries based on the decline in hospitalization rates and other health indicators. Best practices had to adhere to physical distancing, reduced occupancy health screening, and vaccination protocols to ensure safety.

3. Conclusion

The pandemic, with its quarantines and business closures, had profound and lasting negative impacts on New York businesses. Even those businesses that were considered "essential" experienced challenges navigating the barrage of Executive Orders and guidance that radically changed how they operated.[281] Trade and industry groups were able to serve as effective two-way conduits to their members, providing timely and accurate information to affected businesses as well as advocating on behalf of those negatively impacted by state directives.

The designation of some businesses and manufacturers as "essential," allowing them to continue operations, was appreciated by those included, but even they had issues with inconsistent regulation, closed government offices, and paperwork. Other businesses and industries were hampered by closures of their traditional customers and outlets, transforming demand and impacting established practices.

Business owners felt immense pressure to "get it right" due to the impacts on their employees, customers and communities, as well as the possibility of fines and other consequences. The challenges created by the pandemic also brought opportunities for public-private partnerships to fill the gaps. These PPPs were developed to assist small businesses in navigating the new -commerce landscape and helped leverage resources to boost the health care sector.

New York businesses experienced significant financial hardship due to the pandemic. Economic recovery lagged behind the rest of the country and, by fiscal year 2021, was still below 2019 levels of employment. The State was able to enact several loan and grant programs, in addition to the moratorium on evictions for nonpayment of rent and the Capital Costs Tax Credit. These programs helped businesses keep their cash at a time when revenues were significantly declined. The programs that have issued reports show great demand for a relatively small amount of funds available. Those businesses that were able to access the loan and grant programs indicate benefits to their business, their employees, and their own lives.

The eviction moratorium is hard to assess, given the lack of information about the number of businesses impacted. The temporary relief afforded the businesses that were able to take advantage of this moratorium came at a cost to the owners who did not receive corresponding mortgage relief. Once the moratorium ended, cash-strapped landlords were much less willing to negotiate repayment of back rent. Businesses able to make repayments were doing so at a time when they were still financially recovering from the pandemic and making higher contributions to the state unemployment insurance fund. Likewise, the tax credits are also hard to assess given the lack of data on this program.

Even though the State created loan and grant funds to help small businesses and other economic relief efforts, businesses were left to shoulder the burden of the enormous increase in unemployment payouts during the pandemic. This placed an economic strain on these businesses at a time when they were trying to recover economically from the pandemic. New York is the only state that has not offered relief from these loan payments.

[281] "Governor Cuomo Issues Guidance on Essential Services Under the 'New York State on PAUSE' Executive Order."

4. Recommendations

a. Increase Preparedness through Training and Pre-Planning

- The State should develop training on all current emergency management statewide plans for external partners and stakeholders to engage with, and exercise communication plans to find gaps.
- The State should continue to empower staff to become experts in emergency response through training and policy reviews.
- NYS should take a functional approach to designating businesses as "essential" and consider everything needed to operate during future emergencies.

b. Include Farmers as Essential Workers

The State should include all farmers in the "emergency" or "essential" category both in both normal times and times of crisis. Food security and resilience should be as important as emergency workers during the state's response for snow storms, road closures, pandemics, etc.

c. Form Lists of Essential Businesses

The State should create lists of "essential businesses" relative to the type of emergency and their geographic impact. These lists should also include associated supports needed to ensure they remain operational, such as sufficient transportation of goods.

d. Create Partnerships Between Public and Private Stakeholders

The State should prioritize support and fund for public-private partnerships modeled after the ones that were successful during the COVID-19 pandemic.

e. Investigate Usefulness of Commercial Eviction Moratorium

1. The State should conduct a thorough investigation and analysis of the impact of the commercial eviction moratorium. This will help determine whether this program was ultimately helpful to most businesses that used this protection and whether it should be considered in future emergencies.
2. Any future moratorium on commercial evictions should have corresponding protections for landlords.

f. Prioritize Allowing Businesses to Maximize Operating Cash During an Emergency

1. The State should generate clear criteria for what makes a business "essential" based on potential emergencies using a hazard vulnerability assessment.
2. The State should proactively develop a list of waivers and accommodations to the collection of sales tax revenues, licensure expenses, and other options that allow businesses to have operating cash on hand during an emergency. For example, one interviewee suggested, "Programs that provide tax waivers and abatements would allow businesses to use their cash for operating expenses and lessen the need for things such as the eviction moratorium. These waivers and abatements should be identified now so they can easily be activated during an emergency. The legislature should act to identify and authorize these prior to an emergency to be triggered upon specific circumstances."[282]

g. Grants and Loans Should be Made Available and Funded in Proportion to the Need

The State should make grant funds available to businesses during widespread emergencies, such as the pandemic.

h. Unemployment Insurance

1. The State needs to find a way to relieve the unemployment insurance burden on that State's business community.
2. The State should also ensure agencies have trained professionals to support remote work and provide procedures that clearly outline the distribution of State resources and allow for remote access to agency-related material.

i. Strengthen Collaboration with State and Federal Agencies and Partners

Announcements of guidance from the State should be disseminated to all state agencies, industry leaders, and associations prior to being announced to the media to allow time for clarification and further guidance to be obtained and understood.

[282] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

j. Improve Communications with Stakeholders

1. The State should develop stakeholder engagement plans for all essential businesses and industries (i.e. transportation).
2. The State should establish straightforward and clearly worded guidance and policies specific to each industry to reduce room for interpretation and ambiguity.
3. The State should create a centralized communication platform that collects and provides all guidance, policies, and procedures to streamline information dissemination and create a one-stop shop that all individuals can access.

k. Enhance Antiquated Technology and Infrastructure

1. The State should invest, maintain, and update all technology and systems to better support an influx in essential services.
2. The State should create an environment that supports innovation and allows for organizational changes, modifications, and updates.

Image source: Shutterstock

G. Vulnerable and Marginalized Populations

The COVID-19 pandemic highlighted and worsened existing inequities and placed a disproportionate burden on vulnerable and marginalized populations. In New York State (NYS), the impact of the pandemic varied widely among its residents, with certain populations facing significantly heightened risks and vulnerabilities. The State's response to the pandemic involved various strategies for distributing essential services and food, disseminating information, and facilitating access to testing and vaccination services. This chapter evaluates these initiatives, using data from multiple sources to understand the overall effectiveness of these efforts.

Through a detailed analysis of available data, this report focuses on the experiences of vulnerable groups during the pandemic, including people with access and functional needs and others with disabilities, individuals over 65 years of age, families with economic disadvantages, and people who speak a primary language other than English. It analyzes the distinct challenges these groups encountered, the systemic factors that magnified their suffering, and the State's efforts to mitigate the impact of COVID-19 in these communities. The report discusses what worked and what did not and makes recommendations to address areas for improvement.

AT A GLANCE

COVID-19 highlighted and exacerbated daily challenges and inequalities experienced by people with disabilities, individuals with access and functional needs, and other disadvantaged, vulnerable, and marginalized populations in NYS. While the State made efforts to address the critical needs of vulnerable populations, more must be done to address the systemic inequalities that compound suffering during public health emergencies.

Image source: Shutterstock

1. Analysis

This section will identify and describe vulnerable and marginalized populations in New York and the specific challenges each group faced during the pandemic.

a. People with Disabilities and Access/Functional Needs

COVID-19 and its impact on society presented a unique set of obstacles for people with disabilities and others with access and functional needs (DAFN) in NYS. Those with DAFN encompass a wide range of individuals, including those who experience limitations due to physical, sensory, cognitive, or mental impairments, a combination of these, and those who require assistance with daily activities.

This also includes people who use wheelchairs, have hearing or vision loss, or require daily ongoing medical care. Beyond the general risks associated with the virus, these individuals faced additional challenges in accessing essential services due to pre-existing equity issues that were worsened by the pandemic.

Key issues the DAFN population in NYS encountered during the pandemic include the following:

Social Distancing and Physical Barriers to Access

Social distancing measures and limitations on public transportation disproportionately impacted individuals who rely on mobility aids or accessible transportation to utilize essential services like grocery stores, pharmacies, and medical appointments. The closure of public facilities and limited home delivery options further restricted their ability to meet basic needs.

Communication Challenges

Many communications and information updates were delivered through online platforms, mobile apps, or phone calls. For millions of New Yorkers, this created a "digital divide" between those who had access to technology, cellular service, and the internet and those who did not. It also negatively impacted individuals with visual impairments, hearing impairments, or cognitive disabilities who rely on alternative communication formats like braille, sign language interpretation, or easy-to-read materials.

Disruptions in Support Services

Many vital support services for people with disabilities, such as personal care assistants, daily wellness checks, physical therapy, and mental health counseling, were disrupted during the pandemic. Lockdowns and social distancing measures limited in-person services, and telehealth options may not have been accessible to everyone due to technological limitations (such as not having a computer with telepresence capabilities), lack of digital literacy, or limited to no access to the internet.

Increased Vulnerability in Congregate Settings

People with disabilities are often overrepresented in congregate settings like group homes and assisted living facilities. Group home settings and assisted living facilities became hotspots for COVID-19 outbreaks in New York, increasing the already heightened vulnerability of residents with DAFN. Shared living spaces, staffing limitations during lockdowns, and difficulty maintaining social distancing all contributed to the virus's rapid spread within these facilities. A report by the New York State Independent Living Council found that congregate settings, including group homes for people with disabilities, struggled during the pandemic due to staffing shortages and limited access to personal protective equipment (PPE).[283] These findings are consistent with a 2023 New York State Comptroller audit which found that the NYS Office for People With Developmental Disabilities, the agency that oversees and regulates services for individuals with disabilities, failed to adequately prepare for a pandemic, proactively oversee congregate settings, and provide guidance during COVID-19.[284]

Worsening of Mental Health Concerns

The social isolation, uncertainty, and fear associated with the pandemic impacted the mental health of people with disabilities, especially those individuals who had difficulty accessing internet-based services, such as telehealth appointments. Limited access to mental health services during lockdowns further complicated existing challenges.

[283] NYSILC. Accessed April 12, 2024. https://nysilc.org/images/NYSILC_COVID-19_Report__New_Yorkers_with_Disabilities_Critical_Needs_Survey_Final_version5.docx.
[284] Pandemic Planning and Care for Vulnerable Population. Accessed April 12, 2024. https://www.osc.state.ny.us/files/state-agencies/audits/pdf/sga-2023-21s-9.pdf.

b. The Elderly and Chronically Ill

The COVID-19 pandemic posed a significant double threat to the elderly (individuals over 65 years of age) and chronically ill who were not only more susceptible to contracting the virus but also potentially faced greater complications. Congregate care settings for the elderly, specifically nursing homes, became focal points for outbreaks. In these facilities, residents with limited mobility and compromised immune systems were exposed to a novel virus. Staff shortages, limited PPE, and difficulty maintaining social distancing within these facilities contributed to both the spread of the virus and tragically high death tolls among residents. A more detailed discussion of the impact of COVID-19 in skilled nursing facilities is provided in the chapter on Skilled Nursing Facilities and Congregate Care.

Below are key challenges encountered by New York's elderly and chronically ill during COVID-19:

Increased Risk of Severe Illness and Mortality

Older adults and those with chronic health conditions like heart disease, diabetes, and lung disease are at a higher risk of developing severe complications from COVID-19, including hospitalization and death. The vast majority of individuals (79%) that suffered serious disease or died from COVID-19 in the US were individuals over 65 years of age and those with at least one pre-existing medical condition (76%).[285]

Social Isolation and Mental Health

As for individuals with DAFN, the social isolation caused by lockdowns also negatively impacted the mental well-being of the elderly.[286] Social distancing measures implemented to curb the spread of the virus often resulted in social isolation for the elderly, particularly those residing in nursing homes or assisted living facilities. This isolation, coupled with limited contact with loved ones, could lead to feelings of loneliness, depression, and anxiety. A report by the American Association of Retired Persons (AARP) highlighted the social isolation and mental health challenges faced by elderly residents during the pandemic with 66% of older adults reporting feeling socially isolated and experiencing mental health challenges.[287]

Matilda's Law

Matilda's Law was enacted with the support of the executive branch to protect NYS' vulnerable populations, specifically those 70 years of age and older, with immune system deficiencies or with pre-existing (chronic) illnesses who were at risk for severe complications or death from COVID-19.[288] This law, while protecting the health of the elderly, also led to their isolation by forcing them to stay indoors and limiting their visitation rights.

Increased Elder Abuse

AARP New York reported a surge in elder abuse and financial exploitation during COVID-19 due to pandemic-fueled social isolation.[289] One study found an 84% increase in elder abuse during the pandemic, resulting from the increased vulnerability of older adults physically separated from loved ones and caretakers.[290] This, coupled with the financial strain experienced by many during COVID-19, created an ideal environment for preying on the elderly.[291]

Disruptions in Healthcare

Many non-emergency medical procedures were postponed or cancelled during the pandemic to dedicate resources to COVID-19 patients. This could have resulted in delayed diagnoses or treatments for chronic conditions for the elderly and chronically ill.[292] Additionally, limited access to healthcare providers due to lockdowns or fear of exposure to the virus could have further compromised their health, as they chose to stay home instead of seeking medical assistance for treatable conditions.

Challenges with Technology

Telehealth services emerged as a crucial tool for remote consultations during the pandemic. However, not all elderly or chronically ill individuals have access to the technology, or possess the digital literacy required to utilize these services effectively. It is reasonable to assert that the digital divide may have worsened healthcare disparities for this vulnerable population.[293]

[285] Characteristics of Persons Who Died with COVID-19 — United States, February 12–May 18, 2020, n.d. Accessed April 12, 2024.
[286] "The Pandemic Effect: A Social Isolation Report." Connect2Affect, December 27, 2021. https://connect2affect.org/the-pandemic-effect/.Accessed April 12, 2024
[287] Davis, M. R. (2022, August 26). Pandemic has created loneliness epidemic, new report shows. AARP. https://www.aarp.org/home-family/friends-family/info-2020/isolation-survey-coronavirus.htm
[288] Diaf, Muna. "New York State Pause Executive Order and Mathilda's Law." Disability Covid Chronicles, February 2, 2024. https://disabilitycovidchronicles.nyu.edu/new-york-state-pause-executive-order-and-mathildas-law-2/. Accessed April 12, 2024
[289] Kriss, Erik. "With Isolation Increasing Elder Abuse during COVID, Organizations Urge Passage of Bill to Strengthen Probes." New York, June 9, 2021. https://states.aarp.org/new-york/with-isolation-increasing-elder-abuse-during-covid-organizations-urge-passage-of-bill-to-strengthen-probes. Accessed April 12, 2024
[290] Hellwig, K. (2023). Elder abuse. Home Healthcare Now, 41(6), 304–308. https://doi.org/10.1097/nhh.0000000000001196
[291] Chang, E-Shien, and Becca R Levy. "High Prevalence of Elder Abuse during the COVID-19 Pandemic: Risk and Resilience Factors." The American journal of geriatric psychiatry : official journal of the American Association for Geriatric Psychiatry, November 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8286979/. Accessed April 12, 2024
[292] Matovelle P, Oliván-Blázquez B, Domínguez-García M, Casado-Vicente V, Pascual de la Pisa B, Magallón-Botaya R. Health Outcomes for Older Patients with Chronic Diseases During the First Pandemic Year. Clin Interv Aging. 2024 Mar 6;19:385-397. doi: 10.2147/CIA.S444716. PMID: 38464598; PMCID: PMC10924748.
[293] Litchfield I, Shukla D, Greenfield S. Impact of COVID-19 on the digital divide: a rapid review. BMJ Open. 2021 Oct 12;11(10):e053440. doi: 10.1136/bmjopen-2021-053440. PMID: 34642200; PMCID: PMC8520586.

c. The Blind and Visually Impaired

At-home rapid COVID-19 test instructions were printed in small font and unavailable in braille. Additionally, the test results were often color-coded and inaccessible to the blind or visually impaired, particularly those who are color-blind.[294] As a result, visually impaired New Yorkers had difficulty testing themselves for COVID-19 and required in-person assistance to administer home tests.[295] This posed issues with social distancing, isolation, and quarantine guidance and made them vulnerable to contracting the disease, abuse, and exploitation.

d. Low-Income Residents in New York State

The pandemic worsened economic hardship for low-income residents and the homeless population. Lack of affordable housing and pre-existing overcrowded living conditions (particularly in the cities) created prime conditions for the spread of COVID-19 among the dense living arrangements. Many low-income individuals in NY reside in illegally converted apartments, basement apartments with little ventilation, and single rooms with multiple occupants.

The following are the specific issues faced by low-income residents living in crowded conditions:

Housing and Food Insecurity

The already precarious living situation for many low-income residents in New York became a significant concern during the COVID-19 pandemic. Crowded housing conditions, a harsh reality for many struggling to afford rent, directly translated to an increased risk of virus transmission and increased challenges in managing the pandemic. The pandemic and subsequent shutdown produced 2 million job losses in 2020 alone in New York, plunging millions of families into financial crisis and subsequent housing and food insecurity nearly overnight.[296] The images of long lines for food pantries and distribution centers are emblematic of the crisis that New Yorkers faced. Before the pandemic, 10% of residents in NYC reported visiting a food pantry. During the pandemic, that number increased to one-third of residents.[297]

> *"About two-thirds of New Yorkers are renters, and many of them are struggling to pay their rent on time. This challenge is even greater for certain groups. Housing affordability has long been an issue in New York City, but it has been exacerbated by the pandemic."*
>
> *- "Life in New York City During COVID"*

Challenges with Quarantine, Isolation, and Increased Transmission Risk

Social distancing, a key strategy in preventing the spread of COVID-19, is nearly impossible in cramped apartments with multiple occupants per room. This close proximity significantly increases the chances of viral transmission between household members. Numerous published studies have found that households with overcrowding (multiple persons per room) were associated with a higher risk of secondary COVID-19 cases.[298, 299] When a member of a crowded household became infected with COVID-19, proper isolation was often impractical, if not impossible. This increased the risk of transmission to other household members and made it difficult to effectively protect those who were at the highest risk of COVID-19, the elderly and chronically ill.

Mental and Physical Health Impacts

Living in crowded or impoverished conditions can impact both mental and physical health. The stress of limited space, lack of privacy, and constant noise can contribute to anxiety, depression, and sleep disturbances. During COVID-19 lockdowns, these issues were further amplified, as residents were forced to spend extended periods indoors with limited opportunities for personal time.

Limited Access to Resources

Low-income New Yorkers experienced limited access to healthcare resources, healthy food options, and transportation during COVID-19.[300] Limited access to online services due to the digital divide created difficulties in obtaining food, medication, and shelter. There was also a decline in health insurance coverage. These factors combined made it difficult for low-income New Yorkers to protect themselves and their families during the pandemic.

[294] COVID-19 tests for people who are blind or have low vision | American Council of the Blind. (n.d.). https://www.acb.org/accessible-COVID-tests
[295] NDRN Letter to White House, January 18, 2022. https://www.ndrn.org/wp-content/uploads/2022/01/NDRN-Letter-to-WH.pdf. Accessed April 12, 2024
[296] "New Yorkers in Need: A Look at Poverty Trends in New York State for the Last Decade." Office of the New York State Comptroller. Accessed April 11, 2024.
[297] Life in New York City during COVID-19. Accessed April 12, 2024. https://static1.squarespace.com/static/610831a16c95260dbd68934a/t/612bf396cb7ec167ed58ca50/1630270359790/NYC-Poverty-Tracker-COVID-Impacts-2021.pdf.
[298] Varshney, Karan, Talia Glodjo, and Jenna Adalbert. "Overcrowded Housing Increases Risk for COVID-19 Mortality: An Ecological Study." BMC research notes, April 5, 2022. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8981184/.
[299] Ahmad, Khansa, Sebhat Erqou, Nishant Shah, Umair Nazir, Alan R Morrison, Gaurav Choudhary, and Wen-Chih Wu. "Association of Poor Housing Conditions with Covid-19 Incidence and Mortality across US Counties." PloS one, November 2, 2020.
[300] Benjamin, Irene Lew Elisabeth Ryden. "Health Inequity Persists in New York City: Impact of Covid-19 on Low-Income New Yorkers' Access to Health Care." Community Service Society of New York. Accessed April 12, 2024. https://www.cssny.org/news/entry/health-inequity-persists-unheard-third.

Image source: Shutterstock

e. New Yorkers Experiencing Homelessness

The COVID-19 pandemic exposed and worsened the existing vulnerabilities faced by individuals experiencing homelessness in New York. While everyone felt the impact of the virus, the challenges were particularly severe for those experiencing homelessness.

Key issues this population endured included the following:

Congregate Shelters and Increased Risk

Many people experiencing homelessness in New York rely on shelters for necessities like food and shelter. However, these shelters are often congregate settings with shared sleeping quarters, bathrooms, and dining areas. This density made social distancing nearly impossible, significantly increasing the risk of COVID-19 transmission.[301]

Lack of Access to Healthcare and Hygiene

Obtaining healthcare services can be challenging for anyone experiencing homelessness, and the pandemic further complicated access. Limited transportation options, coupled with the closure of some clinics during lockdowns, made it difficult for them to receive medical attention or testing.

Vaccine hesitancy among the homeless population is higher than that of the general population, with up to 48% of people experiencing homelessness reporting hesitancy compared to 35% of the general population.[302] While maintaining proper hygiene is crucial for preventing the spread of COVID-19, access to clean water and sanitation facilities on a regular basis is often limited for individuals experiencing homelessness. This was made particularly worse when the locations that these individuals frequented before the pandemic (fast food restaurants, public buildings, and transportation hubs) were closed for social distancing or economic reasons.

Loss of Services and Support Systems

Many soup kitchens, day shelters, and other support services that people experiencing homelessness rely on for meals, clothing, and mental health resources either shut down completely or significantly reduced their operations during the pandemic. This loss of vital support systems created a further sense of isolation and vulnerability for this already marginalized population.

Increased Vulnerability on the Streets

Severe winter weather conditions and the already strained resources available to people experiencing homelessness created a dangerous situation, further worsened by the added risk of COVID-19. Public spaces like emergency department waiting rooms, public libraries, and transportation hubs, which many people experiencing homelessness used for warmth and shelter, often restricted or limited capacity.[303] This, plus fears of contracting COVID-19 in congregate shelters, forced many to remain outdoors in harsh weather conditions, exposing them to the cold and jeopardizing their health.

Mental Health Toll

The social isolation, uncertainty, and fear associated with the pandemic took a significant toll on the mental health of individuals experiencing homelessness. Existing mental health challenges worsened as access to mental health services was further restricted.

[301] COVID-19 AND HOMELESSNESS IN NEW YORK CITY PANDEMIC PANDEMONIUM FOR NEW YORKERS WITHOUT HOMES, n.d. https://www. coalitionforthehomeless.org/wp-content/uploads/2020/06/COVID-19HomelessnessReportJune2020.pdf.
[302] Ahillan, Tharanika, Matthew Emmerson, Bethan Swift, Hadiya Golamgouse, Kaiyang Song, Angela Roxas, Sakina Bano Mendha, Elena Avramović, Jatin Rastogi, and Binta Sultan. "Covid-19 in the Homeless Population: A Scoping Review and Meta-Analysis Examining Differences in Prevalence, Presentation, Vaccine Hesitancy and Government Response in the First Year of the Pandemic." BMC infectious diseases, March 14, 2023. https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC10012317/
[303] Effects of covid-19: Code blue operations in...Accessed April 12, 2024. https://www.coalitionforthehomeless.org/wp-content/uploads/2022/01/DHS-PB-2021-015_Code_Blue_2021_11-3-21.pdf.

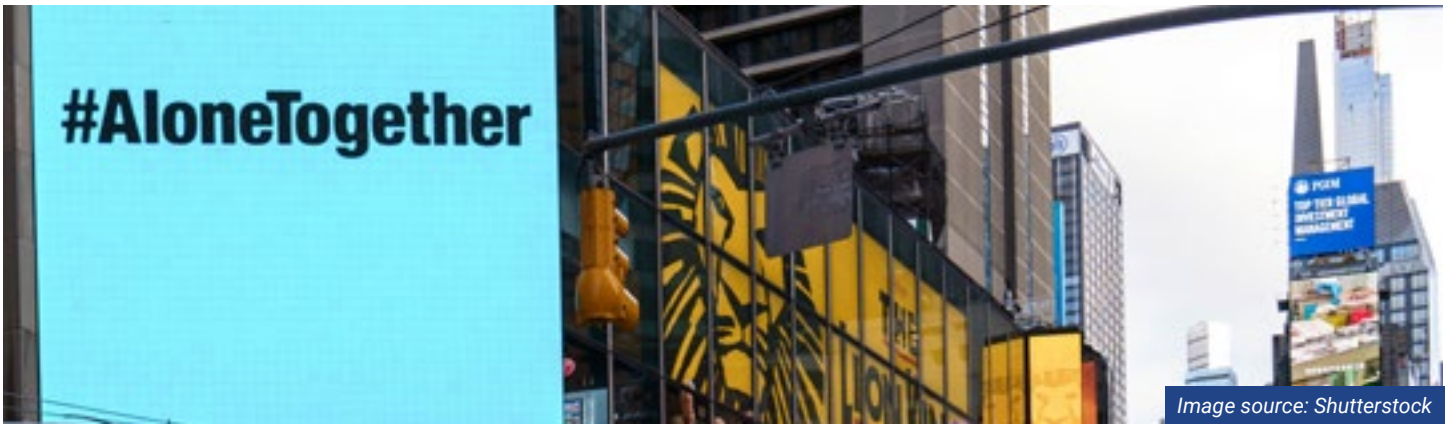


Image source: Shutterstock

f. Non-English Speakers and Undocumented Migrants in New York

New York is home to one of the nation's largest migrant populations with nearly a quarter of the state's population (4.4 million) comprised of individuals born outside the United States, including estimates of over 800,000 being undocumented. Non-English speakers experienced significant language barriers, and undocumented immigrants faced fear of deportation during COVID-19. This created significant challenges in accessing essential information, healthcare services, and government assistance during this critical time.

Below are the specific issues they faced:

Limited Access to Critical Information

Public health advisories, quarantine guidelines, and testing information were often disseminated primarily in English. This left many non-English speakers uninformed and unsure about how to protect themselves and their families from the virus. A study by the New York Immigration Coalition found that "limited-English proficient (LEP) New Yorkers reported lower levels of awareness and knowledge about COVID-19 compared to English-proficient residents".

Fear of Deportation and Healthcare Access

Undocumented immigrants, fearing deportation due to interactions with the healthcare system, may have been hesitant to seek testing or treatment for COVID-19 symptoms, especially since many testing and vaccination sites were staffed with a visible law enforcement presence, national guard presence, or both. This could have led to delayed diagnoses, increased home and community transmission, and worse health outcomes for this population.

Challenges with Social Distancing and Essential Services

Many non-English speakers and undocumented immigrants work in essential service jobs where social distancing may not be easily maintained. Additionally, language barriers could have made it difficult both to navigate social distancing protocols in public spaces or to understand signage regarding mask mandates.

Limited Access to Government Assistance

Undocumented immigrants were often ineligible for federal and state stimulus packages or unemployment benefits offered during the pandemic. This lack of financial support further worsened the economic hardship faced by many in this population.

Increased Vulnerability to Exploitation

Job losses and economic hardship during the pandemic may have made non-English speakers and undocumented immigrants more vulnerable to exploitation by employers or landlords. Fear of reporting such issues due to language barriers or immigration status could have further complicated their difficulties.

Economic Hardships

Undocumented workers in NYS suffered from the shutdown more than their documented counterparts. While many workers were able to access paid time off, disability (for those made ill), or unemployment resources, undocumented workers often work in jobs that do not provide such benefits. In fact, many of the jobs that undocumented workers are employed in are critical to the state's economy and well-being, from farm workers to food manufacturing, trucking, and delivery. However, these individuals were not eligible for federal assistance and relief programs, due to their immigration status.[304] While other low-wage workers had access to various programs to assist them financially, undocumented workers were excluded from most of these programs.

[304] BUILDING IMMIGRANT POWER FROM CALIFORNIA TO NEW YORK. Accessed April 12, 2024. https://www.nyic.org/wp-content/uploads/2017/11/nyic_Blueprint_for_ImmigrantNY_v5.pdf.

2. Findings

The data reveals a mixed response in addressing the needs of vulnerable populations. While there were commendable initiatives, such as providing transportation assistance to vaccination sites and creating accessible vaccination spaces for those with special needs, significant challenges remained. Resource distribution faced hurdles, with particular difficulty reaching rural and homeless populations, as reported by 33% of town hall respondents.[305] Communication gaps also existed, highlighting the need for improved multilingual resources, better information access channels, and more comprehensive support for people with disabilities, according to 27% of town hall participants and 36% of those surveyed.[306] Additionally, systemic failures in the equitable distribution and access to essential services were evident, particularly regarding internet connectivity and bridging the digital divide as reported by 40% of town hall participants.[307] However, as the pandemic progressed, the NYS government developed successful reactive and proactive strategies to mitigate the difficulties faced by vulnerable populations. These challenges and strategies are described here and address resource allocation, communication strategies, and the overall State response to equity challenges.

a. Resource Distribution

Challenges

A critical challenge identified through the data analysis was the uneven distribution of essential resources during the COVID-19 crisis in New York. PPE and vaccines, vital tools for mitigating virus transmission and protecting public health, were not distributed equally across all communities. While some areas received adequate supplies, others, particularly rural and homeless populations, faced significant difficulties in accessing these resources according to 33% of town hall participants.[308] This stark disparity highlights the urgent need for a more robust and adaptable resource distribution system that considers the unique needs and circumstances of diverse communities. The uneven distribution stemmed from several contributing factors.

The decentralized command structure employed during the pandemic response resulted in fragmented efforts. State guidance on resource allocation was often inconsistent, creating confusion and hindering local implementation. This lack of a centralized, coordinated approach hampered the ability of responders to target resources to high-risk areas effectively.

A streamlined and coordinated approach from state agencies is essential for a more successful response in future public health emergencies. This should involve clear communication and collaboration with local stakeholders, including community leaders, healthcare providers, and social service organizations. These local entities deeply understand their communities' specific needs and vulnerabilities, making them invaluable partners in ensuring equitable resource distribution.

Existing logistical hurdles within the State's resource distribution system were further worsened by the pandemic. Bureaucratic red tape, complex application processes, and limited transportation options presented barriers for vulnerable populations seeking critical supplies. Moving forward, a more streamlined and user-friendly approach is recommended. This could include simplification of application procedures, early utilization of mobile clinics and pop-up distribution centers in underserved areas, and partnering with trusted community organizations for outreach and resource delivery. These initiatives were performed and were well received during COVID-19, but not in the initial phase of the pandemic.

The challenges in resource distribution were particularly pronounced for rural and homeless populations. Rural communities often face geographical isolation and limited healthcare infrastructure, making it difficult to access essential services and supplies. Similarly, the transient nature of individuals and families experiencing homelessness and their lack of access to traditional communication channels posed significant challenges in reaching them with critical information and resources.

Targeted strategies were needed to address these specific needs. For rural communities, this involved leveraging telemedicine services to expand access to healthcare providers. However, issues arose with the digital divide. For homeless populations, outreach efforts were generally coordinated with homeless shelters, soup kitchens, and other service providers who have established trust and rapport with this vulnerable group. However, these organizations faced severe pressure from COVID-19, which resulted in increased demand and decreased staffing, resources, and space.

[305] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2024
[306] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, Survey 2024
[307] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2024
[308] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2024

"There was a mix of successful collaborations and significant struggles in distributing resources like PPE and vaccines, with particular difficulty reaching rural and homeless populations."

-Town Hall Participant

Successes

1. Transportation Assistance to Vaccination Sites

Recognizing the transportation challenges vulnerable populations faced, NYS implemented initiatives to ensure equitable access to vaccination sites. The following initiatives were aimed at individuals residing in underserved communities or those with mobility limitations to ensure that they were not excluded from vaccination opportunities due to transportation barriers.

NYS partnered with public transportation authorities and ride-sharing companies to offer free or discounted rides to vaccination appointments. This addressed a significant barrier for individuals with limited financial resources or those lacking access to reliable transportation.

NYS Connects worked with local organizations to mobilize volunteers to provide transportation assistance, particularly in rural areas where public transportation options might be limited. Nonprofit organizations and faith-based groups played a crucial role in coordinating these programs.

2. Food Security Programs for Vulnerable Populations

The pandemic significantly impacted food security, particularly for vulnerable populations. NYS responded with several initiatives.

During the COVID-19 pandemic, NYS took significant steps to support families through the Supplemental Nutrition Assistance Program (SNAP). Expanding SNAP benefits and streamlining the application process ensured wider access to food assistance for low-income individuals and families facing food insecurity due to the pandemic. In response to the pandemic, the State provided a six-month increase in SNAP benefits, providing a 15% increase in monthly SNAP food benefits for eligible households from January through June 2021.[309] NYS also obtained approval from the federal government to extend emergency allotments based on continued public need due to COVID-19.

The NYS Department of Agriculture and Markets established the food program Nourish New York to help both families and farmers during the COVID-19 pandemic. It ensured that food-insecure individuals got the nourishment they needed while also supporting local farmers by purchasing their surplus products.

NYS allocated $147 million to this program, allowing emergency food providers to buy food directly from farmers and deliver it to families in need.[310]

NYS also partnered with Hunger Solutions New York, the Nutrition Consortium of New York State, food banks, and community organizations to establish emergency food distribution sites across the state. Through these trusted agents, the State provided updates on food and nutrition programs to ensure access for those facing food insecurity due to job loss or economic hardship.

3. Collaboration with Local Organizations for Targeted Resource Distribution

New York State recognized the importance of collaborating with local organizations to reach and serve vulnerable populations effectively.

NYS partnered with trusted local community organizations, faith-based groups, and cultural centers to disseminate information about vaccination and address vaccine hesitancy within specific communities. These trusted local leaders were crucial in building trust and ensuring culturally sensitive messaging.

NYS also worked with local organizations to identify specific needs and vulnerabilities within their communities. This allowed for the targeted distribution of resources, such as mobile vaccination clinics and food banks, and culturally relevant outreach materials developed in collaboration with local partners.

Later in the pandemic, NYS launched a campaign to increase vaccination rates among children five and older called #VaxForKids.[311] The campaign emphasized the importance of vaccination for children's health and well-being by providing information to pediatricians, parents, and guardians.

[309] New York State Office of Temporary and Disability Assistance. "New York State Announces Six-Month Increase in Food Benefits for New Yorkers." New York State Office of Temporary and Disability Assistance, January 15, 2021. https://otda.ny.gov/news/2021/2021-01-15.asp.
[310] Governor Hochul Announces $200 Million in Additional Food Assistance for New Yorkers in September." Governor Kathy Hochul. Accessed April 12, 2024. https://www.Governor.ny.gov/news/Governor-hochul-announces-200-million-additional-food-assistance-new-yorkers-september.
[311] "Governor Hochul Announces #VaxForKids Campaign to Increase Vaccination Rates among Children Five and Older." Governor Kathy Hochul. Accessed April 12, 2024. https://www.Governor.ny.gov/news/Governor-hochul-announces-vaxforkids-campaign-increase-vaccination-rates-among-children-five.

4. Equitable Vaccine Distribution

Ensuring vaccine equity, particularly early in the vaccination phase, was a key priority for the health community as federal guidelines for eligibility surpassed actual doses of vaccines available. By January of 2021, seven million New Yorkers were deemed eligible for the vaccine. However, NYS only received approximately 300,000 doses per week from the federal government, requiring the State to limit distribution.[312, 313]

The State took intentional steps to address equity by establishing a multi-disciplinary public and private sector task force charged with the equitable distribution of the vaccine to vulnerable communities across the state and providing information and messaging resources.[314] The task force analyzed a range of factors and data surrounding vaccine equity, including location, demographics, and incorporation of the CDC social vulnerability index (SVI).

NYS deployed pop-up and mobile vaccine resources to target some of the hardest-to-reach New Yorkers with COVID-19 vaccines.[315] These mobile units directly delivered vaccines to targeted communities in need, including priority populations and neighborhoods disproportionately affected by the virus, based on data and information from the vaccine equity task force. Vaccination sites were established in accessible locations such as houses of worship, community centers, and public housing. Some vaccination sites were specifically designated for those 65 years of age or older and provided language services.[316]

5. Language Accessibility and Culturally Sensitive Outreach

Recognizing the challenges faced by non-English speakers, New York worked to implement initiatives.

First, the State developed and disseminated vaccine information materials in multiple languages through live interpretation services. To accomplish this, NYS partnered with community-based organizations to develop culturally sensitive outreach materials and conduct vaccine education sessions tailored to specific communities. NYS also collaborated with community-based organizations, local governments, elected officials, and industry groups to engage communities.

> *"There was significant effort that went into how we could go about meeting the needs of vulnerable and marginalized populations. This includes ensuring individuals had transportation to and from vaccination sites and having spaces within vaccination facilities that we had spaces for individuals who had additional needs in order to receive vaccinations."*
>
> *-Town Hall Participant*

Additionally, NYS established a COVID-19 hotline staffed with interpreters to answer questions and provide support related to COVID-19 treatment available in multiple languages.[317]

b. Communication and Outreach to Vulnerable Communities

This section specifically addresses the issues the State encountered in communicating with those New Yorkers who were most at-risk during the pandemic. For details regarding how the State communicated with the public and key stakeholders, see the Response Communications and Messaging section of this AAR.

[312] Governor Cuomo Announces New York Has Administered 38,000 Doses of COVID-19 Vaccine - Highest Total in the Nation." Governor Kathy Hochul. Accessed April 12, 2024. https://www.Governor.ny.gov/news/Governor-cuomo-announces-new-york-has-administered-38000-doses-covid-19-vaccine-highest-total.
[313] "Governor Cuomo and New York-Presbyterian Announce Launch of New COVID-19 Vaccination Site in Washington Heights." Governor Kathy Hochul. Accessed April 12, 2024. https://www.Governor.ny.gov/news/Governor-cuomo-and-newyork-presbyterian-announce-launch-new-covid-19-vaccination-site.
[314] "Covid-19 Vaccine Equity Task Force." Department of Health. Accessed April 12, 2024. https://COVID-19vaccine.health.ny.gov/covid-19-vaccine-equity-task-force.
[315] "New York State Pop-up Vaccination Data." Department of Health. Accessed April 12, 2024. https://coronavirus.health.ny.gov/new-york-state-pop-vaccination-data.
[316] Governor Cuomo and New York-Presbyterian Announce Launch of New COVID-19 Vaccination Site in Washington Heights." Governor Kathy Hochul. Accessed April 12, 2024. https://www.Governor.ny.gov/news/Governor-cuomo-and-newyork-presbyterian-announce-launch-new-covid-19-vaccination-site.
[317] "Language Access - NYC, Long Island, New York State." New York Immigration Coalition - Revision, January 4, 2024. https://www.nyic.org/our-work/campaigns/language-access/.

Challenges

The pandemic revealed serious communication barriers that hindered effective response measures. More than a quarter (27%) of those who participated in the town halls reported significant issues for service recipients such as inadequate multilingual resources, poor information access, and insufficient support for individuals with disabilities.[318] Early in the pandemic, the reliance on internet-based communications further excluded those without access to digital technologies, particularly impacting rural areas. Despite some effective communication efforts, the lack of a comprehensive and inclusive communication strategy left significant segments of the population without vital health information and resources, worsening the equity gap.[319]

1. Lack of Accessible Communication

Early in the pandemic key issues included inadequate multilingual resources, poor information access, and insufficient guidance for people with DAFN. These shortcomings resulted in significant challenges for non-English speakers, individuals without reliable internet access, and those with disabilities in accessing vital information and services related to COVID-19 testing, vaccination, and essential resources. Immigrant communities faced difficulties understanding early communication due to the lack of translated materials and culturally competent outreach. Other groups, such as those experiencing homelessness, the elderly, and those in rural communities, remained difficult to reach due to logistical, communication, and resource limitations. Interview participants for this AAR described the decentralized command structure and inconsistent guidance from state authorities as compounding these communication challenges, ultimately leading to gaps in service delivery.[320]

2. The Digital Divide and the Lack of Tailored Communication Strategies

Nearly one-quarter of town hall participants (23%) described the digital divide as having significantly hampered outreach efforts during New York's COVID-19 response.[321] While New York ranks high in national internet coverage statistics, a significant portion of the population still lacks access. According to a report issued by the New York State Comptroller, while NYS ranks second in the country for the percentage of the population with broadband, roughly 13% of New Yorkers, translating to approximately one million people, still lack access to high-speed internet at home.[322] At minimum, the reliance on internet and cellular-based communication disenfranchised those without internet access, and at worst, may have denied them critical information to prevent fatalities.

The digital divide disproportionately impacted certain populations. The first impacted group is rural communities since many lack internet infrastructure or selection, such as only one available service provider. Another population greatly impacted was low-income households. For households with annual incomes of $25,000 or less, one-third lack access to broadband internet, and half do not have a computer at home, according to a 2021 report.[323] The elderly was another group impacted in this category. For those aged 65 and over, a 2020 AARP report indicated that 22 million elderly persons in the United States did not have internet at home and have the lowest rates of smart phone usage in the US.[324, 325] With public libraries and many community centers closed due to social distancing and lockdown, these individuals found themselves isolated nearly overnight. In NYS 30% of the elderly do not have a computer.[326]

Beyond these categories, New York also has specific populations with limited internet access, such as the Amish community. While there's no official data on the exact number of Amish residents in New York, estimates suggest there could be roughly 21,000 Amish individuals residing in the state.[327] These communities and similar groups often have religious restrictions on technology use, further contributing to the digital divide.

[318] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[319] "Language Access - NYC, Long Island, New York State." New York Immigration Coalition - Revision, January 4, 2024. https://www.nyic.org/our-work/campaigns/language-access/.
[320] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[321] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[322] "New York's Digital Divide." Benton Foundation, June 7, 2021. https://www.benton.org/headlines/new-yorks-digital-divide.
[323] "New York's Digital Divide." Benton Foundation, June 7, 2021. https://www.benton.org/headlines/new-yorks-digital-divide.
[324] AARP Urges Older Americans Struggling to Access and Afford High-Speed Internet to Enroll in New Emergency Broadband Benefit Program." MediaRoom. Accessed April 12, 2024. https://press.aarp.org/2021-5-12-AARP-Urges-Older-Americans-Struggling-to-Access-and-Afford-High-Speed-Internet-to-Enroll-in-New-Emergency-Broadband-Benefit-Program.
[325] ILSR Broadband Access Challenges. Accessed April 12, 2024. https://cdn.ilsr.org/wp-content/uploads/2022/04/BroadbandAccessChallenges.pdf.
[326] "New York's Digital Divide." Benton Foundation, June 7, 2021. https://www.benton.org/headlines/new-yorks-digital-divide.
[327] Amish population in the United States by state and county, ... Accessed April 12, 2024.

3. Inadequate Information and Communication with Vulnerable Populations

The pandemic's initial stages were characterized by misinformation and rapidly evolving guidance, leading to confusion and potentially hindering the response. Poor data communication with local health departments worsened crisis management challenges. The government of New York City, operating autonomously from the State, recognized the harmful health effects of misinformation, particularly on communities with low vaccination rates. To counter this, NYC established a dedicated misinformation response unit to collaborate with community partners to deliver accurate and culturally appropriate information and improve health and vaccine equity during the pandemic.[328] Early in the pandemic, NYS had no similar program, and false claims about COVID-19 vaccines, treatments, and other issues led to confusion, distrust, and threats against public health workers spread throughout the state. While he did not make himself available for this report, former Governor Cuomo publicly lamented about not doing enough to combat misinformation in a news interview.[329]

> *"I did not aggressively enough – we did not aggressively enough, take on the misinformation that caused people pain and, of course, pain for grieving families and that's what I regret."*
>
> *-Former Governor Cuomo*

The spread of COVID-19 misinformation significantly impacted vulnerable populations in New York. Distrust in mainstream media stoked by political ideology and increased reliance on social media for information fueled hesitancy towards vaccines among some immigrant communities in New York.[330] This, along with misinformation about mask effectiveness and the vaccine likely contributed to higher infection rates in these areas. Examples of COVID-19 misinformation included downplaying the severity of the disease, the pandemic, or both, false transmission claims about how the virus spread, misinformation on treatments, cures, determinants such as hydroxychloroquine, and misinformation about COVID-19 vaccines.

> *"Language access can be an issue. We used the translation services to ensure that folks who perhaps did not speak English were able to understand and communicate what they needed during the vaccination process."*
>
> *-Survey Participant*

While necessary to adapt to new scientific understanding, rapidly shifting guidance and policies created challenges for vulnerable populations in New York. Rapidly changing guidelines about masks, social distancing, quarantine, and isolation is be challenging for residents with limited English proficiency or those who rely on others or caregivers for information. This is especially true for senior citizens and others with DAFN who might struggle to keep up with the latest updates.

One example of evolving guidance was regarding whether to wear a mask. Federal and subsequent state guidance on wearing masks changed from not recommended to recommended and back to not recommended due to evolving understanding of transmission and vaccination status. This shift created confusion for both the public and public officials. Adding to this, confusion around mask-wearing guidelines specifically caused anxiety among caregivers and families with vulnerable relatives.[331]

Quarantine measures also had evolving guidance. Quarantine and isolation periods were modified as new data emerged about the virus's incubation and infectiousness. Social distancing measures, while necessary, also led to isolation for these populations, further highlighting the need for clear and consistent communication. The shifting quarantine and isolation guidance in NYS caused frustration among residents. Moreover, a court decision reversing prior rulings on the constitutionality of isolation and quarantine procedures led to increased misinformation and uncertainty about government overreach and the impact of COVID-19 on citizens' rights.[332]

[328] Combating Misinformation as a Core Function of Public Health, n.d. Accessed April 12, 2024.
[329] Valle, Lauren del. "New York Gov. Cuomo Says He Should Have Been More Aggressive against Covid Death 'misinformation' and Announces Nursing Home Reform Initiative." CNN, February 22, 2021. https://edition.cnn.com/2021/02/19/us/cuomo-covid-19-nursing-home-deaths-misinformation/index.html.
[330] Combating Misinformation as a Core Function of Public Health, n.d. Accessed April 12, 2024.
[331] https://www.nytimes.com/2021/05/14/us/no-masks-cdc.htm
[332] "Court Reverses Previous Ruling on NYS Isolation and Quarantine Procedures." MSN. Accessed April 12, 2024. https://www.msn.com/en-us/news/politics/court-reverses-previous-ruling-on-nys-isolation-and-quarantine-procedures/ar-AA1kjBTU.

Successes

As the pandemic progressed, the data indicates that NYS overcame many of the issues regarding communicating and reaching vulnerable populations, and several initiatives have demonstrated success in these areas. For instance, partnerships with trusted community organizations, such as senior centers and homeless shelters, facilitated targeted outreach and service delivery to vulnerable populations. Building on this approach, over time New York successfully developed and deployed the following:

1. Culturally Specific and Multilingual Messaging

Informational materials were developed in a culturally sensitive way that resonated with diverse communities. This included translating materials into multiple languages and incorporating visuals, such as infographics, and language that aligned with cultural norms.

2. Leveraging Trusted Messengers and Community Organizations

After partnering with the State, faith-based leaders and community influencers spread awareness and addressed vaccine hesitancy within their communities. These trusted voices were crucial in promoting public health measures and dispelling misinformation. Local ethnic media outlets and community-based organizations with multilingual capabilities proved helpful in disseminating translated information within their communities through culturally relevant outreach.

3. Clear Communication

NYS launched the #GetTheVaxFacts campaign to combat vaccine misinformation online. The campaign included a dedicated website and downloadable toolkits addressing common misinformation topics.[333]

4. Data Transparency

Through its COVID-19 data in New York website, NYS provided transparent data on COVID-19 cases, hospitalizations, and vaccination rates.[334] Regular updates helped combat misinformation and allowed the public to make informed decisions.

5. Telehealth Expansion

The expansion of telehealth services during the vaccination and recovery phases of the pandemic emerged as a success story, particularly for individuals with limited mobility or transportation access. Mental health providers across the state transitioned to offering virtual therapy sessions, ensuring continuity of care for patients during lockdowns and periods of social isolation. This innovation proved particularly beneficial for vulnerable populations. More than 80% of New Yorkers surveyed reported that they used telehealth during the two-year period from 2021 to 2023, and nearly 50% reported using telehealth to address mental health issues.[335]

Image source: Shutterstock

[333] "Governor Hochul Announces #getthevaxfacts Campaign to Combat COVID-19 Vaccine Misinformation." Governor Kathy Hochul. Accessed April 12, 2024. https://www.Governor.ny.gov/news/Governor-hochul-announces-getthevaxfacts-campaign-combat-covid-19-vaccine-misinformation.
[334] "Covid-19 Data in New York." Department of Health. Accessed April 12, 2024. https://coronavirus.health.ny.gov/covid-19-data-new-york.
[335] "New York State Department of Health Announces Medicaid Telehealth Coverage Extended Beyond COVID-19 Public Health Emergency." New York State Department of Health. Accessed April 12, 2024. https://www.health.ny.gov/press/releases/2023/2023-07-31_medicaid_telehealth_coverage.htm.

3. Conclusion

COVID-19's impact on vulnerable residents of New York was devastating. This report found that the pandemic brought many challenges for vulnerable groups that the State could have mitigated if it had instituted inclusive policies and procedures early on. That said, New York also made significant progress in these areas. The State proactively reached out to those who needed extra support during the pandemic. Efforts such as helping people get to vaccination sites, increasing food assistance through SNAP, and setting up pop-up and mobile vaccine clinics made an impact in reducing mortality and morbidity from COVID-19.

And yet, many still perished from the disease. These deaths were disproportionately among many of the vulnerable populations this report describes. The data and research collected describe challenges in New York that pre-dated the pandemic. Inequities like the digital divide made accessing essential information online hard for millions of people. Undocumented migrants often had language barriers and fears about their legal status, preventing them from seeking assistance. There were also problems getting resources like masks and vaccines to those who needed them most. Places where many vulnerable people live, like nursing homes and congregate shelters, were hit particularly hard, and the state struggled to communicate effectively with everyone who needed accurate information. In most natural disasters, regardless of the cause, that the vulnerable generally suffer the greatest.

As the pandemic progressed into a second and third wave, the State devised creative solutions to reach and help vulnerable populations, like translating COVID-19 information into different languages and working closely with local organizations. These efforts built a strong infrastructure for improvement as the State recovers and reassesses its preparedness posture.

The lessons learned from the pandemic indicate that partnerships with local governments and community organizations, making information more accessible to everyone, and finding even more ways to support those in need will yield positive results during the next crisis. New York is now in a stronger position to protect and support all its residents than before the pandemic.

4. Recommendations

Despite the challenges the State faced, there were successes that can be built upon to create impactful initiatives to address the needs of vulnerable populations. These recommendations address immediate challenges but also lay the groundwork for a more resilient and equitable healthcare system in the future and position the state to be the disaster preparedness and response center for the country and internationally.

By implementing these recommendations, NYS can significantly enhance its public health preparedness, ensuring that not just vulnerable populations but all New Yorkers receive the protection and support they need during health emergencies. The recommendations for these efforts include:

a. Strengthen Community Engagement and Partnership Before Disaster Strikes

Working with trusted local organizations like religious institutions and NGOs, the State must forge stronger collaborations to address misinformation and disaster-related inequity and improve service access. During stable times, the State should prioritize working more closely with local elected and appointed officials as well as community leaders to leverage their trust and reach, especially in underserved areas. As some residents are more likely to trust local leaders in a crisis, this collaboration would help with communication issues with vulnerable populations.

b. Focus on Vulnerable and High-Risk Groups

The State should implement targeted outreach and resource distribution strategies for children in special education, the elderly, and essential workers. Prioritizing these groups ensures that those at greatest risk receive the support they need promptly.

c. Expand Multilingual and Accessible Communication

The State needs to prioritize early development of information resources in multiple languages and accessible formats. Each state agency should ensure clear, comprehensive communication for non-English speakers and people with disabilities. This is vital for inclusive public health messaging. These resources should be verified independently as accurate and culturally competent by a third party or a DAFN officer within the agency with the autonomy and authority to affect change.

d. Address the Digital Divide and Utilize Data-Driven Approaches

Bridging the digital divide is an ongoing and complicated enterprise, and 23% of town hall respondents noted concern about this. As technology continues to advance, the most vulnerable are left further and further behind. This inequity is only amplified when the government relies on technology to share protective action guidance (like shelter-in-place or evacuation guidance) during a disaster. In addition to leveraging federal programs to increase broadband access, the State should create a digital divide technology office, tasked with staying abreast of technology innovations the State is researching and employing, along with developing and implementing solutions to eliminate or mitigate any inequities the technology may create. This office should be properly resourced, and staff should leverage data to understand and address the needs of vulnerable populations.

e. Empower Local Agencies to Customize Responses

As a rule, the State should encourage and support local flexibility for a more targeted approach to disaster response. This will allow both state and local agencies to tailor their responses to local needs while maintaining coordination.

f. Adapt Service Delivery to Community Needs

Mobile clinics, pop-up sites, home visits, flexible service hours, and innovative delivery models were widely credited for increasing service delivery to the vulnerable. However, these initiatives occurred later in the pandemic. The State should capture the lessons learned from these innovative approaches and codify them into emergency operations plans to enhance service delivery to underserved communities. Advanced preparation will better accommodate the diverse needs of New York's population.

g. Prioritize the Expansion of Support Services to Vulnerable Populations During Emergencies

With a unified effort across state and local government, The State should prioritize targeted vital assistance to vulnerable populations. This should be part of the state's New York State Comprehensive Emergency Management Plan and operationalized as a DAFN function with a defined mission and authority. Many states and jurisdictions used this holistic approach that addresses various needs that may arise among the most vulnerable during a crisis.

h. Provide Special Accommodations and Language Services

Ensure all public health information and services are available in accessible formats for people with disabilities. This promotes inclusion and reduces barriers, which in turn has the potential to reduce mortality and morbidity during a disaster. Create dedicated services for individuals with DAFN and implement translation services to ensure all community members can access vaccination and healthcare services comfortably.

i. Provide Special Accommodations and Language Services

The State should ensure all public health information and services are available in accessible formats for people with disabilities. This promotes inclusion and reduces barriers, which can potentially reduce fatalities during a disaster. The State should also create dedicated services for individuals with DAFN and implement translation services to ensure all community members can access vaccination and healthcare services comfortably.

j. Invest in Disaster Equity Research and Innovation

First, the State should commit resources to research and develop interventions that address the root causes of health disparities during disasters. This can be accomplished by developing a disaster research association that leverages the vast academic network of state and private-run universities and academic centers focused on disaster response and recovery within NYS. Task the association to work with practitioners to develop evidence-based policies and technologies that advance disaster equity across all populations.

H. Human Resources and Workforce Management

On March 7, 2020, Governor Cuomo signed Executive Orders (EOs) 202 and 202.1, declaring COVID-19 a public health emergency and suspending certain laws and regulations to help expedite response efforts. Following these overarching mandates, businesses and industries across the state were dramatically altered. According to a New York State (NYS) report, the "NYSOL [NYS Department of Labor] navigated early adversity to help New Yorkers stay afloat" and "later managed the transition of Department focus from unemployment insurance (UI) delivery to the task of getting New Yorkers back to work."[336] Their contributions were vital for maintaining economic stability and supporting New Yorkers during the pandemic.

The seven-day waiting period for unemployment insurance claims was waived on March 13, 2020, when EO 202.1 went into effect. Between March 16, 2020, and March 20, 2020, various additional orders that directly impacted the New York workforce were signed by the Governor. These orders limited social gatherings, closed schools statewide, suspended on-premises service for restaurants and bars, and closed movie theaters, gyms, and casinos. On March 18, 2020, the federal government passed the Families First Coronavirus Response Act into law, requiring certain employers to provide employees with paid sick leave or expanded family and medical leave. Before these executive orders and acts, the restrictions surrounding UI were rigid. Thus, the legislative easing of these restrictions caused a wave of inexperienced users to the UI system.

On March 18, 2020, EO 202.6 was implemented, modifying previously enacted business restrictions and requiring all employers to reduce their in-person workforce by 50%. It also provided deadlines for businesses to accomplish these tasks. The one caveat to this mandate was that essential businesses or entities providing essential services or functions were not subject to the restrictions. By March 20, 2020, while the NYSDOL was averaging 1,000 new COVID-19 cases a day, the legislation titled 'New York State on PAUSE' was enacted, requiring all non-essential businesses to close and all non-essential gatherings of any size or any reason be postponed. New York on PAUSE did not explicitly designate state workers or specifically those at NYSDOL as essential. Instead, it simply listed those providing "essential government services" as essential workers with the promise of further clarification to come.[337]

AT A GLANCE

During the pandemic, essential businesses were chronically understaffed, while workers designated as nonessential overwhelmed NYS' capacity to process unemployment insurance claims. Vaccination mandates created legal challenges as businesses grappled with the balance between following State mandates and protecting worker privacy. While well-intentioned, some of the State's executive orders did more harm than good in protecting the safety and promoting the resiliency of NYS' workforce.

On March 20, 2020, EO 202.8 was issued directing all non-essential businesses to cease in-person operations and reduce staff by 100%. The guidance for determining which businesses were considered essential was issued by the Empire State Development Corporation (ESDC) and was intended to assist businesses in determining their status during the pandemic. The "Guidance for Determining Whether a Business Enterprise is Subject to a Workforce Reduction Under Recent Executive Orders" included a list of essential business categories and clarified that essential businesses were not subject to the in-person workforce restrictions imposed by the state. Businesses providing both essential and non-essential services could only operate the part of the business that provided essential functions. The essential businesses were originally grouped into 12 categories: health care operations, infrastructure, manufacturing, retail, essential services, news media, financial institutions, providers of basic necessities to economically disadvantaged populations, construction, defense, essential services necessary to maintain the safety, sanitation and essential operations of residences or other essential businesses, and vendors that provide essential services or products, including logistics and technology support, child care and services.

Essential businesses or entities, regardless of their nature, service, or corporate structure, were exempt from ceasing in-person operations and reducing staff. According to ESDC, "Essential Businesses must continue to comply with the guidance and directives for maintaining

[336] DOL, NYS. "NYSDOL and the COVID-19 Pandemic: Leading and Learning Through Crisis" NYS DOL Reports, March 8, 2024. https://nysdolreports.com/nysdol-COVID-19-pandemic/.
[337] Governor Andrew Cuomo. "Governor Cuomo Issues Guidance on Essential Services Under the 'New York State on PAUSE' Executive Order," (2020) https://www.Governor.ny.gov/news/Governor-cuomo-issues-guidance-essential-services-under-new-york-state-pause-executive-order#:~:text=Essential%20Retail%2C%20Including%3A&text=farmer's%20markets,hardware%20and%20building%20material%20storesFORWARD

a clean and safe work environment issued by the Department of Health (DOH) and every business, even if essential, is strongly urged to maintain social distancing measures to the extent possible."[338]

In addition to the guidance provided by ESDC on essential vs. non-essential businesses, the United States Department of Homeland Security's Cybersecurity & Infrastructure Security Agency (CISA) released an advisory emphasizing the difference between essential business and critical infrastructure. In collaboration with other federal agencies and the private sector, CISA developed an initial list of essential critical infrastructure workers "intended to support state, local, and industry partners in identifying the critical infrastructure sectors and the essential workers needed to maintain the services and functions Americans depend on daily."[339] The drastic need to reduce employees by 100%, as per EO 202.8, as well as the layoffs across industries that were previously considered recession-proof, like healthcare and food services, exponentially increased traffic to NYSDOL through their Telephone Claims Center (TCC), main website, and social media spiked. With 140,000 New Yorkers receiving UI during the first week of February 2020, TCC received 25,000 calls.[340] While unemployment claims and communication to the NYSDOL was booming, additional programs were set up to support individuals who were out of work . The Coronavirus Aid, Relief, and Economic Security (CARES) Act created three new unemployment programs with unique eligibility requirements: the Pandemic Unemployment Assistance, Pandemic Emergency Unemployment Compensation, and Federal Pandemic Unemployment Compensation. Additional programming was enacted, including the Excluded Workers Fund and the Tourism Worker Recovery Fund. Once signed into law, these programs took immediate effect, giving states no time to prepare their systems and little guidance on how to implement them, leading to an increase in fraudulent claims on these programs.[341]

The New York State COVID-19 Vaccination Program was rolled out in phases and prioritized vaccination recipients based on science, clinical expertise, and federal guidelines.[342] Phase 1B started on January 11, 2021, with eligibility expanded to individuals. From February through May of 2021, the executive chamber began to modify and rescind EOs which allowed for a gradual reopening. Phased reopening guidance became available from the NYSDOH as infection and hospitalization rates diminished.

In early March, Governor Cuomo announced the launch of the Excelsior Pass to aid in the reopening of businesses. The Excelsior Pass was created to utilize proven, secure technology to confirm an individual's recent negative PCR (polymerase chain reaction) or antigen test result or proof of vaccination to help fast-track the reopening of businesses and event venues in accordance with NYSDOH guidelines.[343, 344] The program was voluntary, and robust privacy protections were woven throughout the digital health pass. Users maintained control of their personal information using an encrypted digital phone wallet or printed credential. This was used at major sports and entertainment venues and played a critical role in fast-tracking the reopening of businesses, stadiums, theaters, and other venues in accordance with State health guidelines.

In early June 2021, the Excelsior Pass app reached over 1 million users. While some entertainment venues and recreational activities had opened prior, on June 8, 2021, guidance was disseminated by the NYSDOH to aid in the reopening of food services activities, commercial building management, and office-based work activities. Conversely, the State's health guidelines continue to be in effect for large-scale indoor event venues, pre-K-12 schools, public transit, homeless shelters, correctional facilities, nursing homes, and health care settings per guidelines from the Centers for Disease Control and Prevention (CDC).[345]

[338] Empire State Development. "Guidance on Executive Order 202.6," January 27, 2022. https://esd.ny.gov/guidance-executive-order-2026.
[339] U.S. Department of Homeland Security, Cybersecurity & Infrastructure Security Agency, and Christopher Krebs, "MEMORANDUM ON IDENTIFICATION OF ESSENTIAL CRITICAL INFRASTRUCTURE WORKERS DURING COVID-19 RESPONSE," report, March 19, 2020, https://www.cisa.gov/sites/default/files/publications/CISA-Guidance-on-Essential-Critical-Infrastructure-Workers-1-20-508c.pdf
[340] DOL, NYS. "NYSDOL and the COVID-19 Pandemic: Leading and Learning Through Crisis" NYS DOL Reports, March 8, 2024. https://nysdolreports.com/nysdol-COVID-19-pandemic
[341] DOL, NYS. "NYSDOL and the COVID-19 Pandemic: Leading and Learning Through Crisis" NYS DOL Reports, March 8, 2024. https://nysdolreports.com/nysdol-COVID-19-pandemic/.
[342] Department of Health, and Andrew M. Cuomo. "NEW YORK STATE'S COVID-19 VACCINATION PROGRAM," 2020. https://www.Governor.ny.gov/sites/default/files/atoms/files/NYS_COVID_Vaccination_Program_Book_10.16.20_FINAL.pdf.
[343] Governor Andrew Cuomo. "Governor Cuomo Announces Launch of Excelsior Pass to Help Fast-Track Reopening of Businesses and Entertainment Venues Statewide," (2021) https://www.Governor.ny.gov/news/Governor-cuomo-announces-launch-excelsior-pass-help-fast-track-reopening-businesses-and#:~:text=Cuomo%20today%20announced%20the%20launch,businesses%20and%20event%20venues%20in.
[344] Governor Andrew Cuomo. "Governor Cuomo Announces Launch of Excelsior Pass to Help Fast-Track Reopening of Businesses and Entertainment Venues Statewide," (2021) https://www.Governor.ny.gov/news/Governor-cuomo-announces-launch-excelsior-pass-help-fast-track-reopening-businesses-and#:~:text=Cuomo%20today%20announced%20the%20launch,businesses%20and%20event%20venues%20in.
[345] Governor Andrew Cuomo. "Governor Cuomo Announces COVID-19 Restrictions Lifted as 70% of Adult New Yorkers Have Received First Dose of COVID-19 Vaccine," 2021. https://www.Governor.ny.gov/news/Governor-cuomo-announces-covid-19-restrictions-lifted-70-adult-new-yorkers-have-receivedfirst#:~:text=The%20State's%20health%20guidance%20and,offices%2C%20gyms%20and%20fitness%20centers%2C.

1. Analysis

The unprecedented outbreak of COVID-19 disrupted nearly every New York workplace, compelling organizations to attempt to modify their human resources (HR) practices and workforce strategies to meet this crisis. HR professionals, both in the private sector and government, juggled multiple challenges – from remote work to transitions to employee well-being and crisis response.

The NYSDOL's response to the pandemic was closely scrutinized by other state agencies, employers, and industry due to its economic impact. In its efforts to manage unemployment claims, prevent fraud, and support New Yorkers, NYSDOL, while also being understaffed and lacking proper equipment, showed resilience and forward thinking in the face of adversity.[346]

According to stakeholders, the Executive Chamber was not fully aware of the multifaceted responsibilities of NYSDOL. As one interviewee put it, "[NYSDOL did not think about the impact shutting down businesses would have on all involved."[347] Despite the need for enhanced communication, the exchange of information between NYSDOL and the Executive Chamber was sporadic, and the lack of consistent coordination amplified these challenges. When the state incident command (IC) took charge, no systems were in place for coordination. As stated by an interviewee, "the IC did not take time to understand what the problems were from the experts." [348] The introduction of the IC eliminated the ability of subject matter experts greater decision-making authority, especially in resource allocation and emergency response strategies.[349]

During the initial response, NYSDOL had to quickly develop policies to meet the evolving situation, including implementing remote work and adjusting unemployment insurance regulations. Ensuring the health and safety of employees was paramount, leading NYSDOL to develop and adopt new protocols for hygiene, social distancing and personal protective equipment. The department focused on supporting the workforce through clear communication, mental health resources, and guidelines for safely returning to work. Remote work brought technology challenges, requiring NYSDOL to facilitate equipment and software access for their employees. The agency also played a critical role in managing the economic impact, particularly in processing an unprecedented number of unemployment claims. The commitment of the NYSDOL was to maintain workforce operations while ensuring safety and compliance with public health directives.

a. Worker Classification

1. Positive outcomes

- Continuity of critical service
- Economic stability
- Employment opportunities
- Public health safety

2. Negative Outcomes

- Higher likelihood of being COVID-19 positive
- Increased risk extended to their household
- Supply and operational changes

Through the classification of essential versus non-essential workers, the following data points were collected:

- Business operations were less likely to be subject to government-mandated closures than non-essential businesses,
- Essential businesses were more likely to hire additional employees, increase hours, and raise salaries. Of these, 6.9% hired more employees, 5.6% increased hours, and 6.5% raised salaries,
- More difficulties were reported acquiring supplies due to shortages in the supply chain,
- Essential workers had a 55% higher likelihood of being positive for COVID-19,
- Dependents cohabitating with essential workers had a 17% higher likelihood of being COVID-19 positive, and
- Roommates had a 38% increase in the likelihood of being COVID-19 positive.

Compounding the problems for remote essential workers, there were significant challenges due to the lack of a remote work culture and infrastructure. Employers had to acquire, develop, and deploy unique telework and telepresence solutions to perform essential functions. Additionally, they needed to provide necessary equipment, such as laptops, monitors, and ergonomic furniture, to facilitate remote work. Increased support was needed to help workers set up and maintain their home offices. Employers assisted with improving internet connectivity or provided stipends for better home internet plans. These actions helped mitigate the challenges essential workers face in adapting to remote work environments.

[346] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[347] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[348] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[349] New York State COVID-19 Stakeholder Engagement - Stakeholder Survey, 2023-2024

b. Staffing Challenges

Prior to the pandemic, NYSDOL was already behind in staffing. Because of the low unemployment rate, in February 2020, the UI division staffing level was the lowest it had been in two decades. The majority of UI division staff members were TCC agents.[350] The hiring freeze compacted this issue, greatly challenging the abilities of the NYSDOL to process claims. The total number of employees was only about one-third of the staff necessary to accommodate pre-pandemic level functions. When the pandemic hit, NYSDOL needed to transform its worker allocations completely. To support UI claims processing, 3,000 employees were pivoted and redeployed to this area from other non-essential job functions. Some of these deployments lasted two years, and many needed to be retrained before they were pulled back to their original positions."[351] Other NYS agencies helped to answer phone calls and assisted with communication efforts. At the height of the pandemic there were more than 5,500 workers – full-time, part-time, and contractors supporting UI functions. For months, staff worked weekends, nights, and holidays to chip away at the number of unemployment claims and get benefits to the millions of individuals in need.

There needed to be a multi-faceted plan to increase the speed of this transformation. NYSDOL needed to hire/acquire employees across multiple divisions with the greatest focus on the TCC. However, as one interviewee pointed out, "without being able to hire, there was a lack of leadership, decision making, and growth."[352]

Even before the CARES Act took effect, phone lines were overwhelmed with inquiries about confusing new federal programs, and NYSDOL started to rethink its approach to communications -- both in the information produced and how it was distributed. New standards were developed to address these issues.

Further challenges included stopping criminals who stole identities and filed fraudulent claims. DOL's technology and telephonic infrastructure were designed to anticipate weekly claims in the tens of thousands if not millions. Existing systems were not sufficiently scalable. When a change was needed in the system, the entire system had to be shut down. This left a huge backlog of claims and inquiries, and staff were always playing catch-up. Help was needed with basic technology, telephone infrastructure, claims processing, contacting customers, and claims adjudication. The urgency required NYSDOL to hire hundreds of people and also find a way to expedite the multi-week training process of new hires. The suspension of the hiring freeze allowed NYSDOL to hire much-needed workers. To address the training bottleneck, new programs and divisions were developed, starting with the Employee Development & Growth Through Education division. These programs were developed and implemented to redefine its standard training protocols and examine the UI training schedule. The training schedule was reduced to a few days, but the new hires had to learn an extremely complex UI system. Thousands of permanent, temporary, and contracted staff were trained, but efficiency and speed lagged, and additional help was needed.

c. Modernization of Technology

Two years before the pandemic, NYSDOL had started replacing and upgrading its antiquated unemployment system and mainframe. However, this top-to-bottom overhaul of the UI division's infrastructure was still years from completion. Most of the modernization upgrades were not yet in place when the pandemic hit.[353]

In coordination with federal technology partners, the State created the NYSDOL Technology and Innovation Office and a Strategic Initiatives for Modernizing System's team to organize and prioritize tech upgrades and worked together with federal technology partners.

The overhaul of the TCC was impactful, receiving more than a million call attempts in a single day. The Interactive Voice Response system was upgraded and handled routing callers. A customer relationship management system was also incorporated. These upgrades allowed millions of calls to be answered from March 2020 to March 2022. Weekly calls increased from 50,000 before the pandemic to 8 million at its height.[354]

Beginning in June 2020, chatbots were used to provide immediate responses to frequently asked questions. This was again upgraded in the summer of 2021 to Perkins, which included a secure e-signature tool and an identity verification tool. A multiplatform contact center, and virtual assistant technology expanded access and improved application processes.

d. Enhancing Communication

While UI technology was being upgraded, it was also essential to do the same with communications infrastructure. Phones and traditional postal delivery service, as the means of communication, were unreliable and did not meet demand. A greater emphasis was needed on digital response for speed and efficiency.

[350] DOL, NYS. "NYSDOL and the COVID-19 Pandemic: Leading and Learning Through Crisis" NYS DOL Reports, March 8, 2024. https://nysdolreports.com/nysdol-COVID-19-pandemic/.
[351] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[352] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[353] DOL, NYS. "NYSDOL and the COVID-19 Pandemic: Leading and Learning Through Crisis" NYS DOL Reports, March 8, 2024. https://nysdolreports.com/nysdol-COVID-19-pandemic/.
[354] DOL, NYS. "NYSDOL and the COVID-19 Pandemic: Leading and Learning Through Crisis" NYS DOL Reports, March 8, 2024. https://nysdolreports.com/nysdol-COVID-19-pandemic/.

There was a need to upgrade the website and focus on the user experience by creating a layout that was streamlined, accessible, and easily understood. The content was re-worked to explain new processes and programs. Factsheets, videos, and web resources were generated along with information about the reapplications process, end of benefits, and protection from fraud. This was all developed in house.

To expand its reach to customers, a digital delivery system was implemented via email and text messages. Information on resources, claim information, additional government assistance, training, and career opportunities were disseminated directly to inquirers and more effectively. For example, correspondence previously restricted to snail mail was now allowed via email. Beginning in May 2020, Perkins was launched, giving customers important information, removing the need for calls to the TCC. Functionality was further enhanced in August 2021.

Social media platforms became an essential communications lifeline as well, providing a constant stream of critical information and, in turn, sharing posts to help organically spread messaging in real-time. Part of enhancing communication and a commitment to transparency included several monthly newsletters each focusing on different stakeholders, including New Yorkers, businesses, elected officials, and internal NYSDOL staff. NYSDOL regularly provided updates to the media via press releases, statements, and responses to media inquiries. The Commissioner of Labor also joined the Governor and other members of the administration to deliver critical updates to the press and the legislature.

e. Policy and Program Changes

NYSDOL had to find the ethical balance between rule compliance and efficiently distributing financial resources to New Yorkers who needed it. The state took several critical steps to ramp up its operations and address the surge in UI claims. To expedite the UI process, wait periods and forfeiture days were waived for claimants. Before the pandemic, a claim needed to be made promptly. However, the policy changes to UI, claims were made effective back to the first day of unemployment, regardless of filing date. Work search requirements were modified or waived. Partial unemployment benefits were introduced based on money earned instead of a day system, encouraging a connection to the workforce.

Although the Shared Work Program had been in place since 1986, it became a lifeline and proved effective for businesses across the state. The Shared Work Program allowed business to retain employees during periods of reduced workload and hours while collecting partial unemployment.

f. Vaccination Mandates

Employers had to navigate a complex legal landscape regarding vaccination mandates, including federal and state laws, court decisions, and guidelines from agencies like the Equal Employment Opportunity Commission. While cases were making their way up from lower courts, being heard on “emergency temporary standard,” the Supreme Court blocked the Occupational Safety and Health Administration from enforcing a vaccine mandate for employees of large companies. However, most private companies could still issue vaccine mandates. The mandates were also met with resistance from some employees who were vaccine-hesitant or opposed to mandates on principle. This led to protests, and in some cases, many employees left their jobs or were placed on leave. Employers had to establish processes for reasonable accommodations for employees who refused vaccinations due to medical or religious reasons. Particularly in healthcare settings, vaccine mandates led to staffing shortages, as unvaccinated staff were let go or placed on leave. Staffing shortages were also significant in sectors like home health care, which saw a notable reduction in the workforce. Communication and enforcement were also a clear challenge. Employers had to balance the need for a safe workplace with respect for individual employee concerns and rights.

The New York State Department of Corrections (NYSDOC) faced significant vaccination challenges with its workforce. The department had to navigate complex situations to maintain operations while adhering to the mandate. Staffing shortages were exacerbated by the vaccine mandates, and while it is possible that some individuals may have used the vaccine mandate as a reason to leave their positions, the department was already facing a staffing crisis. New York was one of the slower states to offer vaccines in prison, with potential causes of vaccine deficiencies attributed to a lack of financial incentives and the failure to include the incarcerated population in Phase 1B of the vaccine rollout.

Several measures were implemented to advance vaccination among NYSDOC staff, but by November 15, 2021, only 63% of the NYSDOC workforce was vaccinated. Some of these measures included:

- **Extended deadlines:** The NYSDOC was given an extended deadline to comply with the vaccine mandate due to staffing shortages.
- **12-hour shifts:** To ensure adequate staffing
- **Vaccination incentives:** A $500 vaccination bonus for uniformed staff to encourage vaccination.
- **Unpaid leave:** Staff without a pending reasonable accommodation request or who did not show proof of receiving the first COVID-19 vaccine by the deadline were placed on unpaid leave.
- **Surrender of equipment:** Officers on unpaid leave had to surrender their firearms, vests, and shields and were not eligible for holiday pay or a uniform allowance.

Vaccinations for inmates posed an additional challenge. The more vaccinated inmates, the safer the work environment for staff. However, there was a distrust in the correctional system by who reported poor quality of care, difficulty accessing medical care, and distrust of prison medical staff. Several incentive programs were implemented to encourage vaccinations among inmates. They included food rewards, care packages, barbeques, and family reunions. These initiatives aimed to boost the vaccination rate within the prison population, which was a critical step in ensuring the health and safety of both inmates and staff.

g. Reopening

The reopening process was a complex and multifaceted challenge that had a direct and significant impact on workforce management. First, workforce development organizations faced operational challenges such as training essential workers and meeting increased community demand. Even with the vaccine rollout and the lifting of business restrictions, reconnecting displaced workers to employment and supporting business hurdles in rehiring skilled employees were major hurdles.

The labor force participation rate of non-college-educated workers declined more than that of college-educated workers. Young workers and noncitizen immigrants also saw greater declines in labor force participation, and certain demographic groups continued to face systemic inequities that the pandemic exacerbated.

Furthermore, the number of full-time local government employees in NYS declined over a 15-year period, contrasting with a 2% increase nationally. This trend likely affected how local governments managed their workforce during the pandemic. The impact of the shrinking NYS labor force was more severe compared to other states with a more rapid decline in workforce size in 2020 continued shrinkage in 2021 when other states were recovering.

NYSDOC employees, corrections officers, and inmates faced specific challenges relating to workforce management. This included ensuring adequate personal protective equipment, robust sanitation practices, infection control, and social distancing efforts. Corrections facilities faced severe staffing shortages, which affected almost every aspect of life in prison for employees and the incarcerated. There were recruitment challenges, and many officers worked extended hours under stressful conditions. The overtime, combined with the violence against both staff and incarcerated persons, led to officers quitting, citing unsafe working conditions, making it even more difficult to retain and recruit staff.

The reopening phases of the NYSDOL involved a comprehensive and gradual approach. The NYSDOC's approach included provisions for non-essential staff to return to work in phases, following the NY FORWARD guidance on a regional basis.[355] This allowed for a tailored approach to reopening based on the specific conditions and needs of each region. This was aligned with the states' broader data-driven strategy which was designed to open as much as possible. The department emphasized the continuation of safety protocols, vaccines, frequent handwashing, social distancing, and mask-wearing.

NYSDOL put in place a strategic and phased approach to resuming operations and managing workforce challenges. The phased reopening plan was aligned with the state's broader strategy. This included specific metrics that regions had to meet to progress through the reopening phases, starting with essential industries like construction and manufacturing. Employers were required to implement safety protocols, including physical distancing, protective measures like face coverings, and limiting workforce presence to a percentage of maximum occupancy.

[355] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

NYSDOL announced a significant number of job openings across the state and provided guidance on how returning to work would impact unemployment benefits. This was crucial in addressing the high unemployment rates resulting from the pandemic. As such, they were focused on connecting job seekers with employment opportunities and supporting business in need of workers. The reopening process included monitoring hospitalizations and infection rates, with regional oversight institutions having the authority to slow down or stop the reopening if necessary. Supportive resources were made available to help address barriers to employment, such as caregiving responsibilities, public transportation, and commuting needs.

Image source: Shutterstock

2. Findings

During the response phase of COVID-19, organizations had to transition to remote work rapidly. This required significant changes in HR policies and workforce management policies and workforce management adjustments to ensure continuity while managing employee engagement and productivity. Departments were tasked with developing and implementing new health and safety protocols to protect employees. This included social distancing measures, workspace modifications, and the provisions of personal protective equipment to prioritize health and safety. There was an increased focus on employee support and communication to address the uncertainties caused by the pandemic. There was communication about procedure changes, mental health resources, and guidelines for safely returning to work. Regulatory compliance was also needed. Understanding new regulations such as the First Coronavirus Response Act, which affected leave and accommodations policies, as well as other local mandates. Addressing layoffs, furloughs, and a surge in unemployment claims was vital for workforce management. Adaptability and resilience ensured the continuity of operations.

HR involvement during the vaccine rollout was key in facilitating the vaccination process for employees. HR personnel were integral in providing information and coordination with health agencies. Workplace policies were continuously updated to reflect the latest health guidelines and vaccination programs. There was a focus on supporting employees by addressing vaccine-related concerns and managing anxieties associated with the return to the workplace. Challenges included managing a hybrid workforce and planning for a phased reintegration into the office as vaccination rates increased. The legal implications of vaccination mandates and ethical considerations related to personal health data privacy required guidelines with some questions going to court for clarity. Trust and compliance were essential, so clear and transparent communication was paramount regarding vaccination policies and workplace safety.

There was a significant decline in employment in the early months of 2021 and recovery was lagging. Many organizations developed a hybrid work model combining remote and in-office work, which required new policies and management strategies. More support programs and resources were implemented with an increased emphasis on mental health and well-being to cope with the ongoing stress of the pandemic.

Maternal employment fell steeply. Hispanic mothers experienced the largest decline in employment rates, and Black mothers had the slowest employment recovery. Factors contributing to these disparities include occupational segregation, unequal pay, and lower access to employment benefits and protections. This brought about a heightened focus on diversity, equity, and inclusion initiatives aimed at creating more inclusivity in the workplace.

NYS implemented several measures to aid in workforce recovery. Under the Rescue Plan, there were various government services, including housing and economic assistance. The State legislation passed an unemployment insurance tax rate adjustment schedule to help reduce the tax obligations for employers and increase the weekly maximum unemployment benefits for workers. Small Business Rescue Plan recovery packages were also introduced to help businesses and workers recover. New programs and resources were established to provide the technical support needed to achieve a skilled and inclusive workforce, which is essential for sustainable business innovation and succession planning.

All these measures were part of a comprehensive strategy to promote equitable outcomes and assist the hardest-hit economic sectors, ensuring a robust recovery for the New York workforce.

3. Conclusion

COVID-19 disrupted the work place and compelled organizations to adapt their HR practices and workforce strategies swiftly. In NYS, HR professionals faced multifaceted challenges. The NYSDOL's response to the pandemic was closely scrutinized due to its impact on workers, businesses, and the economy. The department's efforts to manage unemployment claims, prevent fraud, and support New Yorkers while being understaffed and with out-of-date equipment show NYSDOL's resilience and forward-thinking in the face of adversity.

There was little administrative guidance and an extra level of misunderstanding between NYSDOL and the Executive Chamber. The Chamber was not fully aware of all that NYSDOL did and did not anticipate the impact shutting down business would have on UI functions. There was only sporadic communication with the Executive Chamber but the Chamber placed great demands on NYSDOL.

Although essential businesses and workers played critical roles in maintaining services, they faced increased health risks and supply chain challenges. Non-essential workers benefited from the protective effects of reduced exposure, but the economic impact varied widely. The effectiveness of the classification depends on context, region, and industry. A more nuanced approach, considering risk levels and adaptive measures, could have improved outcomes. A comprehensive rating would consider both benefits and challenges essential and non-essential workers face. While the classifications were pragmatic, alternative approaches could have provided more nuanced and adaptable strategies during the pandemic.

Employers faced several challenges when implementing vaccine mandates. The challenges required careful consideration and management to ensure the health and safety of employees while complying with legal requirements and maintaining operation capacity.

The NYSDOL workforce was vital in ensuring workplace safety, compliance and support for workers. Staff conducted symptom screenings for employees and visitors entering NYSDOL facilities. They formed a COVID-19 Coordination Team and facilitated communication between management, employees, and contractors regarding safety measures and updates.

4. Recommendations

a. Increase Preparedness

1. The State should continue to develop a comprehensive pandemic preparedness plan that includes strategies for rapid response, resource allocation, and communication.
2. The State should require businesses to post a written safety plan outlining COVID-19 prevention measures in the workplace.
3. The State should develop guidelines for workplace safety during an emergency that address issues like social distancing, personal protective equipment and sanitation.
4. The State should advocate for worker rights and protection, including paid sick leave and mental health support.
5. The State should ensure plans include business capacity, which is determined by the space available for patrons to maintain a required social distance.
6. The State should establish cross-functional teams within the agency and other agencies.
7. The State should focus on mitigation measures and place more emphasis on implementing effective mitigation measures which could be evaluated based on their ability to maintain physical distancing, ventilation, hygiene, and protective equipment.
8. Instead of a binary essential/non-essential classification, the State should leverage a risk-based approach to categorizing business activities based on their level of risk for COVID-19 transmission. High-risk activities (large gatherings, indoor dining) could face stricter restrictions, while lower-risk activities (outdoor-work, remote services) could continue with precautions.
9. Rather than a blanket classification of essential/non-essential, the State should craft tailored guidelines for specific sectors. For example, guidelines for healthcare, manufacturing, retail, and education should address the unique challenges and safety measures specific to those sectors.

b. Up to date Systems and Infrastructure

1. The State should oversee the continual upgrade of unemployment systems, enhance online services and improve communication channels.
2. The State should establish a case management tracking system.
3. The State should implement cloud-based solutions to scale up quickly when needed.

c. Outreach and Communication

1. The State should develop clear communication materials for employers, workers, and the public, provide guidance on benefits, safety protocols and available resources, and be able to adjust communications based upon the event.
2. The State should leverage social media, mobile apps and other digital platforms for real time updates.
3. The State should maintain an emphasis on being customer-centric.
4. The State should engage the communities in educating the public about risk reduction and infections in their areas, encouraging responsible behavior and adherence to safety guidelines.
5. The State should enhance educational efforts to address vaccine hesitancy among staff by providing transparent information about vaccine safety, efficacy, and the benefits of vaccination for individuals and community.

d. Expand Remote Work Capabilities

1. The State should prepare for remote work by ensuring staff have the necessary tools and training.
2. The State should establish protocols for remote operations, including secure data access and virtual collaboration.
3. The State should allow a more adaptable work schedule to accommodate staff needs and preferences.
4. The State should leverage tele-mental health services and other remote mental health services to address shortages of mental health professionals.

e. Collaborate with State and Federal Agencies and Partners

1. The State should coordinate with federal and local governments as well as industry associations to share information, best practices, and resources.
2. The State should establish mutual aid agreements to support neighboring states during emergencies.
3. The State should solicit input from a diverse group of stakeholders that reflects an understanding of the different needs of its various constituencies.
4. The State should implement CDC's public health recommendations for fully vaccinated people.

f. Testing and Vaccine Implementation

1. The State should consider providing staff with bonuses, additional leave days or other rewards to reduce vaccine hesitancy.
2. The State should implement mandates in phases to allow time for staff to get vaccinated and to manage operational challenges. This could include setting initial deadlines for a first dose and later deadlines for a full vaccination.
3. For those who remain unvaccinated, The State should implement regular testing protocols to ensure they do not pose a risk to others. This could be combined with other preventive measures like masking and social distancing.
4. The State should schedule options for vaccination appointments that don't conflict with work schedules.
5. The State should use a risk assessment framework to determine when enhanced COVID-19 prevention strategies are necessary, based on community transmission levels and facility-specific risks.
6. The State should adopt quarantine approaches for staff who have been exposed but are asymptomatic, allowing them to continue working under specific conditions while monitoring for symptoms.
7. The State should integrate vaccination into health and wellness programs to emphasize overall health and preventive care.

g. Returning to Work

1. The State should require employers to follow state reopening regulations including hygiene, cleaning, and disinfection requirements.
2. The State should prioritize recruitment.
3. The State should consider hosting large scale recruitment events and using social media for outreach.

h. Evaluate and Learn from Past Experiences

1. The State should conduct post assessments to identify strengths and areas for improvement.
2. The State should document lessons learned and update protocols.

I. Response Communications and Messaging

New York State (NYS) is responsible for providing emergency public information to residents and visitors in order to save lives, protect property, safeguard livelihoods, and preserve the environment.

Emergency public information includes three broad categories of messages:

- Information about the incident itself (e.g., what is happening, who is affected, where, when, and the "why" behind public safety directives),
- Public safety directives, warnings, and protective measures (e.g., executive orders and other policy directives, evacuation notices, boil water orders, mask mandates, etc.), and
- Information about the response including how the incident is being managed and how the community will recover (e.g., the allocation of state resources, the deployment of state personnel, emergency declarations, etc.).

While the second category of messages, public safety directives, warnings, and protective measures, may have the most obvious potential to accomplish response objectives, save lives, protect property, safeguard livelihoods, and preserve the environment, information about the incident and the government's response efforts is crucial for promoting public trust in state leadership. This trust is a critical factor in determining whether the public is likely to comply with life-saving public safety directives, warnings, and protective measures.

Effective emergency public information consistently manifests six core qualities: it is timely, coordinated, accurate, relevant, accessible, and credible. In addition to exhibiting these six qualities, effective public safety directives, warnings, and protective measures must also be actionable – meaning that the public must be capable of complying with the recommended measures.

- **Timely.** In order to be timely, the dissemination of emergency public information must allow ample opportunity for members of the public to access, understand, and comply with public safety messages during the period when compliance can positively impact outcomes. Emergency protective orders or safety precautions issued too late for the public to act on them will fail to help save lives. The timely release of information about the incident and response efforts is also crucial for building public trust. When information is released too slowly or is "leaked" through unofficial channels, not only do the opportunities for misinformation and rumors abound, but also the public's confidence in the competency of incident leadership is likely to erode. This combination potentially compromises the likelihood that the public will comply with public safety directives.
- **Coordinated.** In an emergency, information must be developed and released in cooperation with all responding agencies and partners to ensure accuracy and promote credibility with the public.

  Uncoordinated information will almost always be less complete and accurate than it could be and frequently can lead to both misinformation and disinformation. Poorly coordinated messages result in the need for clarifications and the release of additional information and explanations, all of which erode credibility and can lead to message fatigue on the part of the public.
- **Accurate.** Information disseminated by officials must be accurate. In the worst-case scenario, inaccurate guidance about what the public should do to stay safe can cost lives. At best, inaccuracy erodes public confidence in the competency of responding agencies and leadership.

- **Relevant:** Emergency public information must be responsive to the situation and the needs of the public. Public messages that provide irrelevant or lower- priority information during an emergency can create extra "noise" and make it difficult for members of the public to find and digest higher value information they need. If exposed to too much extraneous information, the public may gradually begin to ignore the perceived "noise" and potentially miss valuable or even life-saving messages.
- **Accessible:** Emergency public information must be available to the whole community of NYS residents and visitors, including individuals with disabilities and others with access and functional needs. This means the public must have access to emergency public information that is clear and consistent in language(s) and at a comprehension level that promotes understanding, internalization, and appropriate responsive action. Messaging should be communicated through widely used media and platforms that ensure the broadest possible opportunity for potential audiences to receive the messages.
- **Credible:** In order to save lives, the public must have confidence that the information they receive is correct, authoritative, consistent, and actionable. This largely depends on the degree of confidence the public has in the competency of leadership and responding organizations to manage the emergency effectively. Even without the public information that is timely, coordinated, accurate, and accessible, if the public does not have confidence in the source, may not take appropriate action or follow the safety precautions necessary to preserve life, protect property, safeguard their livelihoods, or preserve the environment.
- **Actionable:** Members of the public must be capable of complying with public safety directives, warnings, and recommended protective measures. Guidance should be clear and practical. To effectively protect the whole community, protective action recommendations must include modified safety measures for people with disabilities and others with access and functional needs.

Organizations are positioned to provide effective emergency public information when the relevant policies, plans, and practices prioritize, authorize, and support the production and dissemination of information that consistently embodies these six qualities across all three categories of emergency public messaging and the actionability of public safety directives, warnings, and protective measures.

This section of the after-action report analyzes the efficacy of NYS's emergency public information efforts during the pandemic response based on three factors:

- The qualities of disseminated messages (timely, coordinated, etc.),
- The degree to which relevant policies, plans, and practices promoted or inhibited the quality of disseminated messages, and
- The extent to which the public complied with public safety directives, warnings, and protective measures.

Image source: Shutterstock

The analysis addresses the questions on the following matrix:

Table #: (Title)

	Message Category		
Quality	**Incident information**	**Public safety directives, warnings, and protective measures**	**Information about incident response**
Timely	Was incident information disseminated in a timely manner?	Were public safety directives, warnings, and protective measures disseminated in a timely manner?	Was incident response information disseminated in a timely manner?
Coordinated	Was incident information coordinated with relevant agencies and organizations before being disseminated?	Were public safety directives, warnings, and protective measures coordinated with relevant agencies and organizations before being disseminated?	Was incident response information coordinated with relevant agencies and organizations before being disseminated?
Accurate	Was disseminated information about the incident accurate?	Were public safety directives, warnings, and protective measures accurate? (e.g., consistent with public health and science-based recommendations)	Was disseminated information about incident response accurate?
Relevant	Was disseminated information about the incident relevant?	Were public safety directives, warnings, and protective measures relevant?	Was disseminated information about incident response relevant?
Accessible	Was disseminated information about the incident accessible by the whole NY community, including people with disabilities and others with access and functional needs?	Were public safety directives, warnings, and protective measures accessible by the whole NYS community, including people with disabilities and others with access and functional needs?	Was disseminated information about incident response efforts accessible by the whole NY community, including people with disabilities and others with access and functional needs?
Credible	Was disseminated information about the incident credible?	Were public safety directives, warnings, and protective measures credible?	Was disseminated information about incident response efforts credible?
Actionable	N/A	Were public safety directives, warnings, and protective measures actionable and implemented by the whole community, including individuals with disabilities and others with access and functional needs?	N/A
Compliance	N/A	To what extent did the public respond appropriately to state-issued public safety directives, warnings, and protective measures?	N/A
The Impact of Relevant Policies, Plans, and Practices	How did relevant plans, policies, and practices promote or inhibit the State's dissemination of timely, coordinated, accurate, relevant, accessible, and credible messages about the incident?	How did relevant plans, policies, and practices promote or inhibit the State's dissemination of timely, coordinated, accurate, relevant, accessible, and credible public safety directives, warnings, and protective measures?	How did relevant plans, policies, and practices promote or inhibit the State's dissemination of timely, coordinated, accurate, relevant, accessible, and credible messages about incident response efforts?

1. Analysis

Timeliness

NYS disseminated timely information about the pandemic and the State response and issued timely public safety directives, warnings, and protective measures.

Almost immediately at the onset of the COVID-19 pandemic, the NYS Executive Chamber (Chamber) began to disseminate emergency public information at a rapid pace. Over the course of the pandemic, the Chamber would issue more than 1,350 executive orders (EOs) and directives. During the first six months of 2020, the Chamber routinely issued as many as 20 or 30 EOs daily – at one point, releasing a record number of 61 orders in a single day.

In addition to EOs and other policy directives, the Chamber issued more than 2,000 press releases, posted thousands of social media posts, and published multiple daily updates to the official NYS COVID-19 website. In addition, the Chamber held a daily press briefing and more often than not, conducted additional media interviews on a daily basis. The Chamber also had daily phone calls with community leaders to share emergency public information for rapid dissemination within those communities.[355]

As the Chamber issued policy directives and released information to the public, state agencies were responsible for releasing their own press releases, social media posts, website updates, and conducting press interviews. For example, the NYS Department of Health's (NYSDOH) website, which became the primary source of information for COVID-19 testing, featured updated information at least daily.208 The State's 2-1-1 call center was immediately utilized to field public inquiries and provide emergency public information.

Governor Cuomo's daily press briefings and the State's other information releases were essential for informing the public during the rapidly evolving pandemic. Anything less than daily information sharing would have been inadequate and fueled conditions already ripe for public panic, misinformation, and the spread of rumors. For example, while it is difficult to imagine the State issuing information any faster than it did, the Chamber faced intense public pressure to further accelerate the release of new information.[356] This underscores the urgency and desperation with which people were looking for answers, especially at the beginning of the pandemic. In this high-pressure, high-stakes environment, the State was not immune to the intense public clamor for information. Impressively, NYS met this demand by disseminating emergency public information nearly on pace with the rapidly evolving understanding of the scientific community and its ever-maturing recommendations. In many ways, the Chamber led not only the state but also the nation in terms of providing the public with unprecedented access to information.

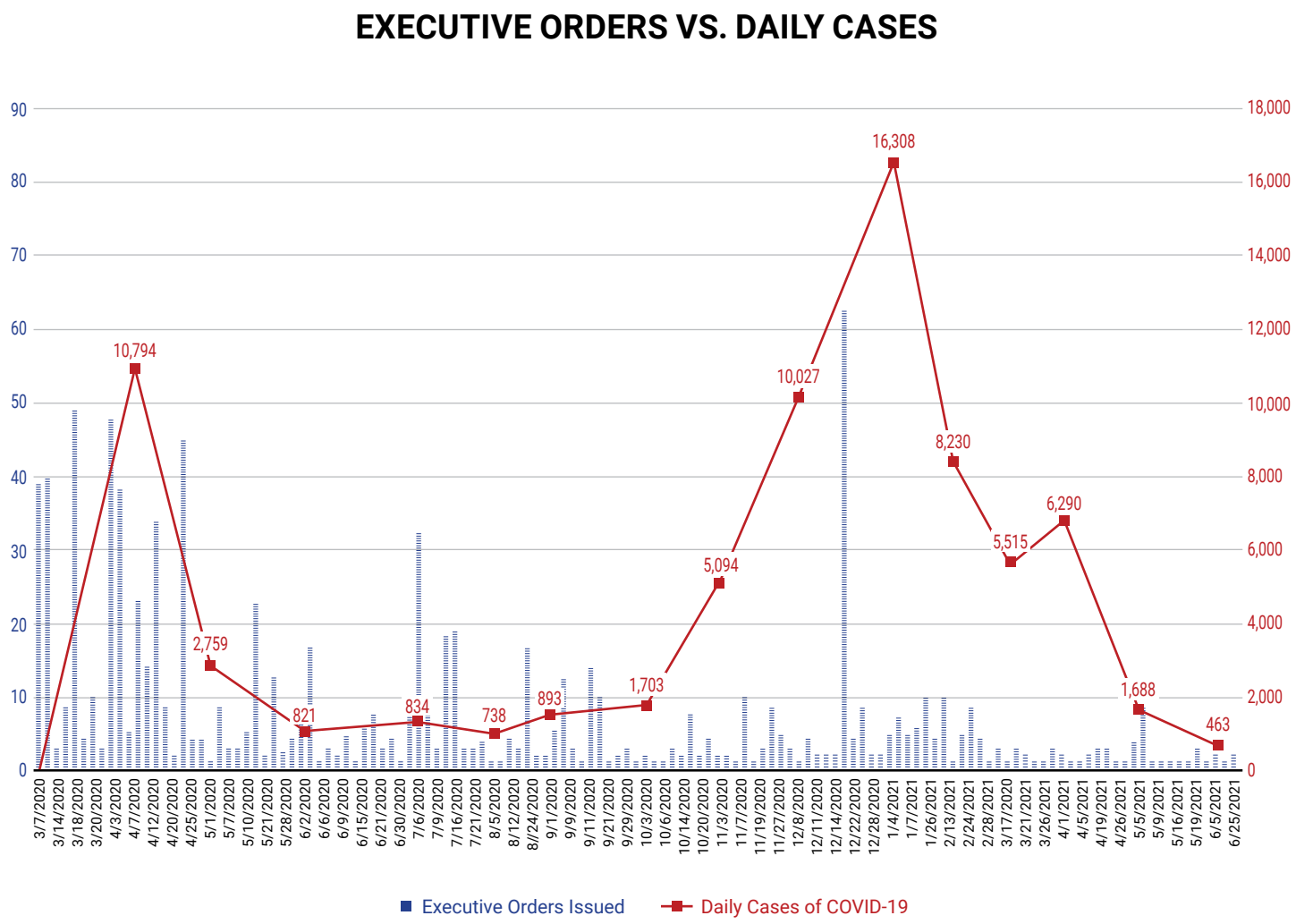
A research paper published by the National Library of Medicine titled "COVID-19 and communication: A sentiment analysis of US state governors' official press releases" found that across the country, emergency public information was released on pace with the evolution of the pandemic: "Correlations between communication sentiment and the evolution in the numbers of COVID-19 cases and deaths suggest that official COVID-19 communications were reactive to the evolution of the pandemic, rather than responsive or preventive."[357]

This nationwide finding is consistent with the ratio of information released to the prevalence of COVID-19 cases in NYS. On the table below, the blue bars represent the number of daily information releases, while the red line illustrates the number of positive COVID-19 cases per day.

As the pandemic progressed, the State continued to release timely information, but a sharp decline in the number of EOs being issued helped to reduce the sheer volume of messages being delivered to the public. By the summer of 2021, the Chamber was issuing an average of only two to three executive orders per month, with most of those providing for the continuation of existing orders approaching expiration dates.

[355] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2024
[356] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[357] Tano, M., Baek, J., Ordonez, A., Bosetti, R., Menser, T., Naufal, G., & Kash, B. (2022). COVID-19 and communication: A sentiment analysis of US state Governors' official press releases. PloS one, 17(8), e0272558. https://doi.org/10.1371/journal.pone.0272558

Figure 6: Executive Orders vs. Daily Cases



Coordination

Emergency public information was unilaterally developed by the Chamber and disseminated with little to no coordination with partner agencies at any level of government to validate or deconflict messages.

To be as complete, accurate, and consistent as possible, emergency public information should be coordinated with all responding state, local, and federal agencies before its release. The NYS Comprehensive Emergency Management Plan (CEMP) calls for the activation of Emergency Support Function #15 (ESF #15) and a Joint Information Center (JIC) operating in the spirit of a Joint Information System. The CEMP provides for activation of a JIC at certain incident response thresholds, and yet, at no time during the State's pandemic response was ESF #15 or a JIC formally activated. Instead, during the entirety of NYS's COVID-19 response efforts, emergency public information was very strictly controlled and executed by the Chamber.[358]

According to many stakeholders who participated in interviews, surveys, and town halls during the research phase for this AAR, the Chamber communications team crafted most messages without the input of NYSDOH subject matter experts or public information officers (PIOs).[359] For example, NYSDOH PIOs and other public health subject matter experts repeatedly tried to voice their significant concerns about the public's ability to comply with the high volume of rapidly changing public safety directives that the Chamber was releasing. An official stated, "The message didn't always get through to the media that 'we are learning as we go. Things will change, and there are many unknowns.' People hated policy changes and were frustrated when we didn't know the answers to their questions. [There was a] lack of [public] understanding [about] the science of science."[360] Still, the Chamber routinely declined opportunities to collaborate on messaging. A town hall participant further summarized the need for subject matter expertise in messaging this way, "Scientific communication is an important skill that all PIOs and other staff who interact with the public should understand – or [if the communicators themselves lack those skills, then those with scientific messaging expertise should be the ones] developing messaging for those without the skill to follow."[361]

Despite these coordination failings, a June 2021 survey of NYS local health departments by the Journal of Public Health Management and Practice showed that among local health departments, their perception of the effectiveness of emergency public information disseminated by the State was relatively strong.[362]

Stakeholders representing other disciplines and state agencies essential to the response also reported the Chamber's lack of coordination. For example, while local officials were working with school superintendents to provide localized emergency public information and messaging about school closures, the State, having decided to close all schools state-wide, began disseminating its own messaging.[363] Neither of these decisions themselves nor the public messaging was first coordinated with local authorities. While the Chamber leveraged the Empire State Development (ESD) regional structure to communicate with county executives in each of the state's 10 regions, ESD commissioners were not afforded the opportunity to collaborate on message development.[364] They were simply directed to deliver the exact messages that the Chamber prepared. Interviewees from the health and human services sector noted that the lack of effective coordination resulted in missed opportunities for message amplification. One interviewee noted, "Primary care providers were largely left out of the response process. [Had] they been included [they] would have amplified messaging among their patient base and potentially been an additional asset for testing and treatment earlier in the pandemic."[365]

To the credit of the county executives and most of the other state and local response partners, the messages from the Chamber were mostly disseminated exactly as they were received. Consistent messaging is an important part of building trust, credibility, and compliance among the public. Within external affairs and emergency public information operations, this is sometimes reflected by the adage, "one message, many messengers." Inconsistent messaging among emergency response partners can be detrimental to emergency public information efforts, so it is important to note that this top-down messaging strategy effectively ensured the

[358] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[359] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023
[360] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Survey, 2023-2024
[361] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[362] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[363] Ravenhall, Sarah MHA, CHES; Levy, Nicole A. MPH, CHES; Simpson, Kathryn MPH, CHES; Fleming, Molly MPH; Arana, Mayela MPH, CHES, CPH; DiManno,Peggy MS; Grijalva, Yesenia MPH, CHES; Murrman, Marita K. EdD, MS, CHES. New York State Local Health Department Preparedness for and Response to the COVID-19 Pandemic: An In-Progress Review. Journal of Public Health Management and Practice 27(3):p 240-245, May/June 2021. | DOI: 10.1097/PHH.0000000000001340
[364] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[365] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2024

universal alignment of messages across the state. State agencies and city and county executives disseminated messages precisely as they were received. However, this is not to say that the messages the Chamber communicated were always consistent with all the other communications being released across the state by state, local, and federal response partners. Because the Chamber declined to fully coordinate information with other parties, these statements, memos, and press releases frequently conflicted with the State's message.[366]

Additionally, by prioritizing the speed with which information was released over message coordination, the Chamber was less effective at disseminating emergency public information about the incident, response efforts, and public safety directives that were as complete and accurate as possible. This should not be confused with the difficulty of releasing timely information in an environment where the scientific understanding of the pandemic was rapidly evolving. Rather, on numerous occasions, the Chamber unnecessarily publicized unconfirmed, incomplete, or inaccurate information, which could have been avoided if there had been coordination with response partners first. For example, the State frequently disseminated directives to the public via press releases and media interviews without first coordinating messaging with the relevant state regulatory and enforcement agencies.

According to one senior health official interviewed, after the decision was made for state employees to work from home, contact with the Chamber became minimal, and the only way for them to receive daily updates on policies and directives was to watch the Governor's daily press briefing. "DOH remained silent while NYSED was looking for guidance. The Executive Chamber would direct orders that did not consider the different barriers specific regions presented."[367]

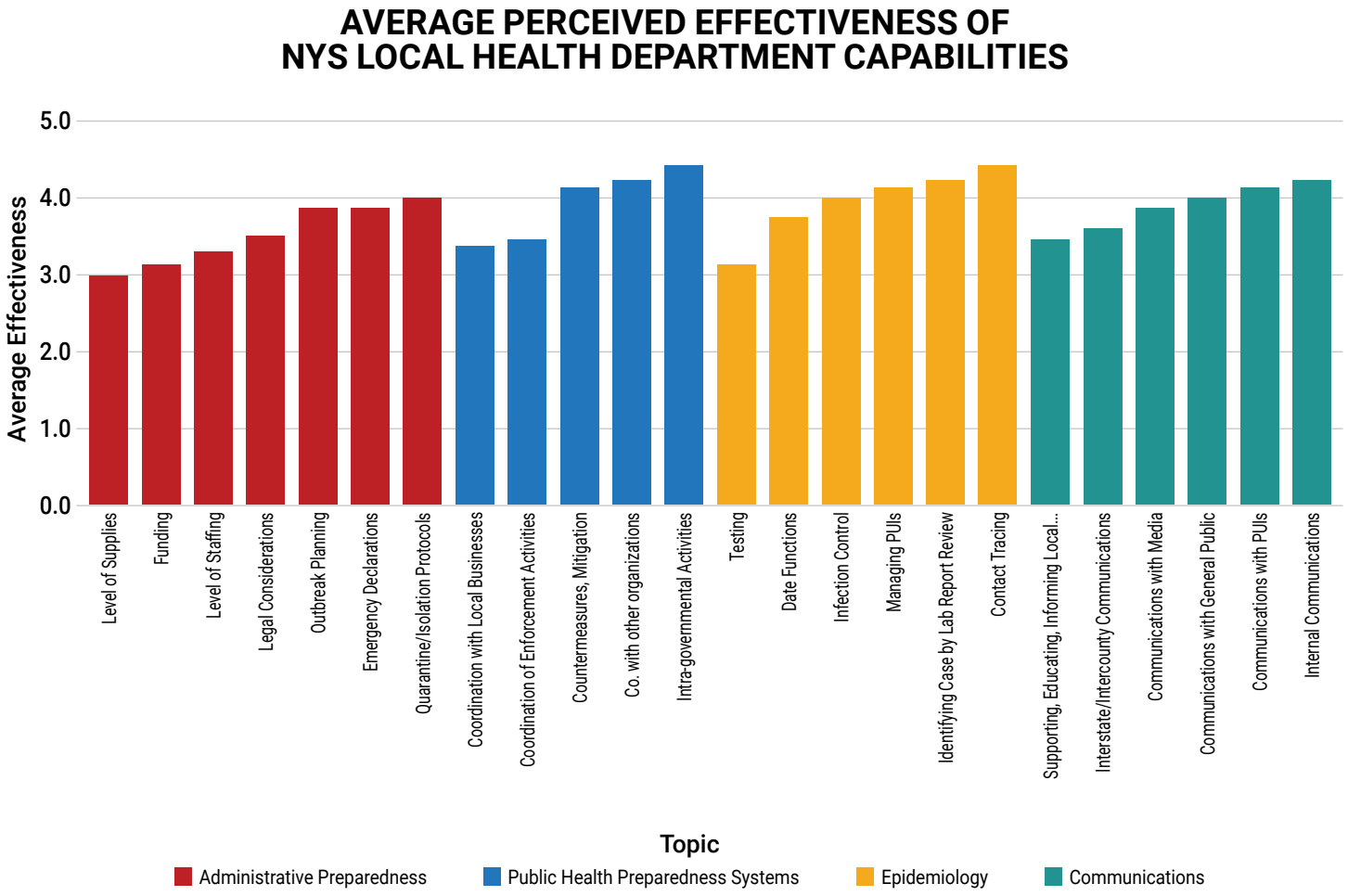
Not only was the messaging about the directives uncoordinated, but the State's assumptions about the capabilities of relevant agencies and organizations to support and enforce the directives were frequently incorrect. In cases where local response partners issued conflicting messaging or were categorically unable to support or comply with the directives, it damaged the public's trust in both state and local response competencies. One local response agency official summarized it this way: "Executive orders would come down with no way to enforce them. For example, mass gatherings or mask mandates, there would be a law made, but the expectation for enforcement was vague… it affected public trust when people called, and we did not answer."[368]

This top-down, unilateral approach to information dissemination also meant that messages frequently conflicted with information distributed by other state, local, and federal agencies. For example, when the State would change the definition of who qualified as an "essential employee," new definitions would be issued without adequately communicating what had changed or what positions either newly or no longer qualified for vaccinations.[369] These rapidly changing definitions frequently resulted in county-level officials relying on outdated definitions to qualify individuals for vaccinations. Furthermore, because the State was not coordinating with local officials on the real-time availability of vaccinations at various locations, the State would announce the availability of vaccinations at locations that had already run out of vaccinations to give. In an interview with the New York Times, Dr. Wafaa El-Sadr, an epidemiologist at the University of Colombia, commented on the confusion surrounding the Governor's messaging about vaccinations, "We lost time and credibility."[370]

These partners were left scrambling to answer questions from the media and public and provide information about guidance they had not themselves had time to absorb. For example, changes in the definition of "essential employee." This approach fostered distrust within communities and among local health departments, which were caught unprepared and in a reactive rather than proactive posture. As such, they struggled to provide clear, timely guidance and services to the public. One state agency representative summarized the difficulty described by many partner agencies saying, "Many of us learned about policy decisions during [Governor Cuomo's] daily press conferences and then immediately had to field questions [to which we didn't know the answers]. It would be helpful to give information to agencies before it is announced publicly so [they] are more prepared."[371]

[366] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[367] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[368] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[369] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[370] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2024
[371] Joseph Goldstein, & Sharon Otterman. (2022, March 17). What New York Got Wrong About the Pandemic, and What It Got Right. New York Times. https://www.nytimes.com/2022/03/17/nyregion/new-york-pandemic-lessons.html

Figure 7: Average perceived effectiveness of NYS local health department capabilities



While it is fair to acknowledge that NYS did not have control over information released by federal or local agencies, without a centralized consolidation point at the State level guided by ESF #15 principles and organized in a physical or virtual JIC, the Chamber missed a critical leadership opportunity to align public messages across all levels of government. As summarized by one interviewee, "We had a plan, but the Chamber didn't follow it."[372]

City and county response partners also faced the incredible challenge of balancing the release of detailed information – that they knew would likely change in the future – all the while attempting to maintain credibility and awaiting revised official directives. Town hall participants frequently noted that a localized approach to communication, including messages from community leaders, often resonates more effectively with the public than information delivered from the State. Implementing an effective strategy for message coordination could have avoided these errors and loss of public trust.

[372] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023

Accuracy

The speed with which the Executive Chamber pushed out information and the lack of message coordination among agencies, staff and stakeholders diminished the accuracy of the State's emergency public information.

As the international scientific community grappled with the complex and unprecedented disease outbreak, rapidly spiking infection rates and fatalities drove intense demand from all quarters for information and guidance.

In this high-pressure, high-stakes environment, scientists, academics, and government officials alike publicly released information almost as soon as it was discovered, frequently without the thorough vetting and coordination processes that typically precede the publicization of such information. The Chamber was not immune to this phenomenon, often racing to release information as quickly as it was received from various sources such as city and county reports and federal agencies. The additional need to have something impactful for the Governor's daily presser was also a factor. Interviewees noted that the Executive Chamber seemed driven to match the daily release of new information by New York City and the White House, even when the state did not necessarily have any pressing new information to publicize.[373]

The messages developed in this environment frequently contained errors or became outdated almost as soon as they were released. For example, the public and media came to expect daily reports on new cases and deaths. This expectation was wholly incompatible with the health data collection capabilities of the responding agencies, especially during the initial months of the pandemic, that found themselves engaged in "real-time epidemiology". As a result of rushed data collection and processing procedures, publicized reports frequently contained factual errors and hastily written, misleading analyses.[374]

In this context, it is somewhat surprising that the State failed to implement a comprehensive strategy for addressing misinformation, rumors, outdated information, inaccurate information from extremists, and guidance that the public perceived as contradictory. For example, certain policies, such as allowing bars to open under specific conditions while keeping schools closed and inconsistent mask-wearing guidelines were viewed as contradictory and difficult to rationalize to the public.

Image source: Shutterstock

State and local agencies struggled to message these inconsistencies effectively, straining the relationships with their communities.

One local response official said, "There was so much misinformation, changing information, and conflicting information from all different sources. It was hard to know what was accurate and what wasn't."[375] In New York City, for example, the Department of Health and Mental Hygiene launched a misinformation response unit to monitor and rapidly respond to rumors and misinformation on various digital platforms to help limit the spread of inaccurate information. In leaving partner agencies to contend with these challenges themselves, the State missed a significant opportunity to provide crucial leadership in combating misinformation.[376]

Additionally, as noted above, the Chamber's decision to control public information and not activate ESF #15 within the Emergency Operations Center (EOC), or otherwise deconflict information or coordinate messaging with state, local, and federal response partners, resulted in numerous factually inaccurate messages about the incident, response efforts, and public safety directives. For example, the State would disseminate information about the availability of public transit, which was frequently inaccurate and in conflict with the correct

[373] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[374] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[375] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[376] Combating Misinformation as a Core Function of Public Health. Knudsen, Janine; Perlman-Gabel, Maddie; Uccelli, Isabella Guerra; Jeavons, Jessica; Chokshi, Dave A. NEJM Catalyst Innovations in Care Delivery ; 4(2):2014/01/01 00:00:00.000, 2023, https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-2231979


Image source: Shutterstock

schedule information disseminated by local transit authorities. Information about infection and casualty rates was also frequently released without proper verification or coordination. Stakeholders interviewed for this report indicated that there was little appetite on the part of the Chamber to correct inaccurate statistics once they were released.[377] County public health officials described how they learned about new cases in their own communities from the Governor's daily press briefings, only to discover that the data reported publicly was inaccurate.[378] This caused significant difficulty for city and county responders who suffered loss of trust from their constituents. The Office of the State Comptroller auditors also determined that "DOH gave the public inaccurate COVID-19 death tallies and under-counted those deaths as the Executive took control of public updates on the pandemic."[379]

The State also frequently announced initiatives involving interagency partners who learned they were responsible for tasks at the exact same time this was announced to the public. Learning about new guidelines and directives simultaneously with the public hindered the ability of state, local, private, and nonprofit partners to either respond appropriately or provide effective emergency public information, which further decreased public trust, especially as the pandemic progressed.

[377] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[378] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[379] DiNapoli finds state needs to do more to address nursing home pandemic issues. (n.d.). Office of the New York State Comptroller. https://www.osc.ny.gov/press/releases/2023/12/dinapoli-finds-state-needs-do-more-address-nursing-home-pandemic-issues

Relevance

NYS regularly disseminated messages of low-to-no relevance to many members of the public by inappropriately using public information channels as the preferred platforms for informing and directing partner agencies; this resulted in sharing information applicable to specific communities with the general public.[380]

As noted previously, the sheer volume of information released by the Executive Chamber with thousands of executive orders, press releases, social media posts, daily website updates, and media interviews, especially during the early phase of the pandemic, was unprecedented. A substantial quantity of this information was neither intended for the public, tailored for general consumption by the public, nor useful to members of the public. Executive orders and other official government documents released into the public domain caused tremendous confusion and eroded public trust and confidence in response leadership. This is especially true as the pandemic progressed and the number of EOs and directives grew dramatically. EOs and other official guidance documents that were often full of technical and legal language not intended for non-specialist audiences were issued publicly. This bred opportunities for public confusion and misinterpretation. The frequent release of updates, revisions, and clarifications that were often contradictory or in conflict with previously released information worsened general confusion and misinterpretation.

Furthermore, using a public forum to direct partner agencies frequently fostered unrealistic public expectations about government response actions and the availability of resources. For example, on numerous occasions, state, city, and county officials reported that the Chamber shared information during the daily press briefing about directives to response partners that had neither been coordinated nor even previously communicated to them.[381] In instances where local or state agencies lacked the workforce or resources to deliver on the promises of the Chamber, these premature disclosures set the public up to expect actions or resources that local, state, and private partner agencies were unable to deliver. These conditions bred mistrust and dissatisfaction with State response efforts and ultimately damaged the credibility of the Chamber as well as the reputations of other state and local response partners. For example, in New York, major metropolitan areas with one million or more residents have jurisdictionally-specific emergency management plans, policies, and protocols guiding emergency public information. When the State disseminated uncoordinated emergency public information, such as vaccination locations and public transit schedules, it was impossible for that information to be accurate in the absence of real-time coordination with the jurisdictions establishing the vaccination sites or transit schedules.

Under immense pressure to release life-saving information as quickly as possible, the State unintentionally flooded the public domain with more information than the public could reasonably be expected to consume, digest, understand, and comply with appropriately. Inundated with documentation and directives that were not intended for general consumption and largely incomprehensible to the average layman, as well as other irrelevant information intended for other communities, an already stressed and vulnerable population was further overwhelmed trying to sift through mountains of frequently conflicting messages to identify what information they should trust and act on.[382]

Accessibility

The State's emergency public information messaging was generally accessible by those who had reliable internet connectivity, and the State made efforts to reach vulnerable populations, including those with limited internet access. However, messages were frequently dense, convoluted, and contradictory.

The accessibility of emergency public information is determined by two factors: the relative ease with which the public can access the channels by which emergency messages are disseminated, and the relative ease by which members of the public can comprehend the messages themselves. Accessibility analysis must also take into consideration the universal imperative of providing equal access to information for all members of the community.

Access to Dissemination Channels

NYS relied almost exclusively on various digital communication channels to convey its messages directly to the public. These channels included television broadcasts, websites, digital streaming platforms, and social media platforms.

While COVID Alert NY (later NYS ENX) was launched in October 2020 as a means to inform individuals about potential exposure events, the State underutilized the app to provide emergency public information by reserving its use for potential exposure events.

[380] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, and Surveys, 2023-2024
[381] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[382] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024

This singular dependency on digital communication platforms had the unintended consequence of creating a significant barrier to access for many vulnerable populations with limited access to the internet. For example, a study analyzing the perceptions of COVID-19 among people of color in Albany, found that "Black or African American respondents [were] more likely to receive COVID-19 updates from television and less likely to get them from social media."[383] One interviewee summarized this communications failure point saying, "Many rural families did/do not have access to the internet, and thus did not have the ability to keep abreast of the opportunities and services. They were left behind."[384] This was especially true at the beginning of the pandemic. By April 2021, the State had activated a hotline for members of the public to inquire about vaccine eligibility and schedule appointments. The State's 2-1-1 call centers were heavily utilized throughout the pandemic, especially in rural areas, to connect vulnerable populations that lacked internet access with information and services.[385] This effort can be seen as a success in the NYS response catering to the needs of New Yorkers without access to digital technology.

The State conveyed information for public distribution to others with the intent of reaching the whole community, including those with limited access to digital channels. For example, the State regularly provided information directly to local and national news outlets, local health departments, local emergency management offices, and other local organizations and community leaders, including local healthcare providers engaged in community outreach.[386] These local partners used creative methods of non-digital communication, like town hall meetings, to provide information and education about public safety measures as well as combat rumors and misinformation to ensure that information reached all areas, including those with limited internet access.[387]

The ESF #15 Annex to the CEMP calls for the distribution of emergency public information via the Integrated Public Alert & Warning System, Everbridge, and nyalert.gov, as well as prepared material (flyers, fact sheets, brochures, etc.), and public service announcements. The State does not appear to have utilized these channels, which do not require the recipients to have ready access to internet-based communication channels.[388]

For those with access to digital communication channels, it is worth restating these individuals had incredible difficulty determining which messages were intended for them. As noted previously, public communication channels were overflowing with information that was not intended for, relevant to, or readily consumable by the general public. This swamped the electronic information landscape and buried the messages most relevant to the general public.[389]

Message Comprehension

In evaluating the comprehensibility of emergency public information messages, it is essential to first assess whether the average reader would find the messages to be clear and consistent. Keeping in mind that average reading comprehension levels of persons under stress decline by several grade levels, best practices recommend drafting emergency public messages that are direct and use plain language.

While state, local, and federal partners were disciplined in consistently sharing messages from the Chamber, most of those messages disseminated on public channels were not clear, concise, or consistent. As previously established in this analysis, publicly disseminated EOs and other official guidance documents were frequently lengthy, contradictory, and used legal, medical, scientific, and other jargon not intended for public interpretation. Stakeholders report that many communications from the Chamber were equally difficult for professionals to interpret. For example, an interviewee engaged in local public communications summarized, "The nuance of policies and plans was extreme and made it challenging to explain [to] the public."[390] Developing and disseminating public messages without the input of state agency subject matter experts and public information officers made the Chamber's messages more convoluted and complex than they might have been. These complicated messages hindered effective public compliance. Rapidly changing guidelines and perceived

[383] Community Perceptions of the City of Albany's COVID-19 Response Among People of Color CHRISTINA WU, MPH, BLOOMBERG HARVARD FELLOW PEATROS HAILE, MPH, DEPUTY CHIEF CITY AUDITOR DR. DORCEY APPLYRS, DrPH, MPH, CHIEF CITY AUDITOR OCTOBER 30, 2020 (Amended December 7, 2020) THE CITY OF ALBANY OFFICE OF AUDIT & CONTROL, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.albanyny.gov/DocumentCenter/View/6065/OAC-COVID-19-Report-_Final-PDF?bidId=
[384] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[385] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[386] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[387] New York State COVID-19 Stakeholder Engagement - Stakeholder Town Hall, 2023
[388] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls 2023-2024
[389] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews, Town Halls, 2023-2024
[390] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023

inconsistencies in communication worked against the State by further eroding public trust.

The State did successfully make efforts to prioritize communications with vulnerable populations, including individuals with disabilities and others with access and functional needs. These efforts intensified as the pandemic progressed. For example, while most messages disseminated by the Chamber were text materials (e.g., press releases and website updates), the State started holding press conference broadcasts and videos to appeal to diverse comprehension abilities. However, multimedia broadcasts were not universally accessible to individuals with disabilities. For example, while the State provided an American Sign Language (ASL) interpreter beginning in late March 2020 to accompany web-based live-streaming broadcasts of Governor Cuomo's daily press conference, it did not provide an ALS interpreter to accompany the televised broadcasts until after Disability Rights New York filed a lawsuit and a federal judge issued an injunction for the Cuomo Administration to provide real-time ALS interpretation on both the broadcast and online streams of the daily press conferences. The federal injunction did not come into effect until May, meaning that deaf and hard-of-hearing New Yorkers had unequal access to lifesaving and life-affirming messages from the Chamber for more than a month.

The State also made considerable efforts to reach individuals who speak a primary language other than English. While early pandemic information was initially only released in English and Spanish (for example, "Coronavirus Response and Prevention" fact sheets issued by the NYS Senate are still only available in English and Spanish), the State did ultimately provide timely translations of emergency public information in numerous other languages likely to be understood throughout NYS.[391]

However, these translations were frequently only available on digital platforms. This was also the case for NYSED's COVID-19 symptom check card developed for people who are deaf or hard-of-hearing. In late November 2021, the state initiated a text messaging campaign to encourage New Yorkers to get vaccinated. These text messages, however, were only disseminated in English and Spanish languages.[392]

Figure 8: Example of emergency public information released in only one language other than English.

[391] "Coronavirus Response and Prevention." n.d. NYSenate.Gov. https://www.nysenate.gov/newsroom/articles/2020/coronavirus-response-and-prevention
[392] "Governor Hochul Announces Direct Messaging Efforts to Increase COVID-19 Vaccination and Booster Rates Among New Yorkers." n.d. Governor Kathy Hochul. https://www.Governor.ny.gov/news/Governor-hochul-announces-direct-messaging-efforts-increase-covid-19-vaccination-and-booster

Credibility

Early in the pandemic, the State built immense credibility among citizens across New York and the entire country. As the crisis went on, public trust diminished, eroded by numerous, lengthy, unclear, inconsistent, and sometimes contradictory messages that were frequently revised or ultimately proven to be inaccurate.

At the outset of the pandemic, Governor Cuomo's daily press briefings established him as one of the most respected authorities among New Yorkers and U.S. citizens alike. These briefings, disseminating the latest known information about the disease and efforts to contain its spread, became "must-see TV" to viewers across New York and the nation.[393] Almost all stakeholders interviewed for this report praised the leadership and credibility displayed and established in the early pandemic response.[394] These briefings were particularly effective in establishing leadership credibility with the public and disseminating actionable public safety directives, warnings, and protective measures.

Ultimately, many viewers even outside New York came to consider these briefings as more authoritative than the daily White House briefings and tuned in regularly. A study published by the National Library of Medicine analyzing public sentiment about the COVID-19 pandemic between March 5 and April 2, 2020, found that New Yorkers had more positive sentiment scores than Californians.[395] This is one of the very few research studies about the public's perception of COVID-19 and the government's crisis communications efforts. As the author of a February 2023 study supported by the Discovery Grants Program and the Emerging Infectious Disease Modeling Program from the Natural Sciences and Engineering Research Council of Canada says, "While the impact of the COVID-19 pandemic has been widely studied, relatively fewer discussions about the sentimental reaction of the public are available."[396] However, as the pandemic progressed, public trust in NYS authorities began to decline, partly due to rapidly changing guidelines, and perceived as well as actual inconsistencies in communication. The politicization of the health response and the lack of clear, consistent messaging led to confusion and skepticism among the public, undermining the effectiveness of the State's messaging. Without thorough message coordination among state, local, and federal response partners, New Yorkers often received information from local and federal counterparts that conflicted with the State's messaging. Several examples of this phenomenon were provided earlier in this analysis.

To provide real-time updates to the public, the State seemed to pursue a policy of releasing a minimum of one new piece of information every day. This strategy occasionally backfired as this release cadence did not afford ample time for new information to be adequately vetted or coordinated with relevant response partners. For example, public pressure driven by the media to release daily reports on new cases and deaths was incompatible with the State's health data collection capabilities, particularly during the initial months of the pandemic. Giving in to this pressure resulted in the publication of errors and misleading analyses that contributed to the erosion of public confidence in response authorities. The perceived unwillingness on the part of the Chamber to correct factual errors regarding public health data also worsened that level of confidence and trust.

Furthermore, by the time mask mandates, social distancing directives, and vaccination policies were disseminated, public trust in public authorities and the scientific community had already begun to decay, at least in part due to the tremendous frequency with which information and public safety directives were changing. For example, when the scientific community's understanding of the disease was still in its infancy, emergency public messaging directed the public to avoid wearing masks. Once the knowledge of the scientific community evolved, the guidance changed appropriately. The public struggled to keep pace with real-time changes in information and frequently misinterpreted maturing scientific knowledge with a lack of competency. This phenomenon worsened as the pandemic progressed and continued to chip away at the public's perception of the State's credibility.

Additionally, emergency public messaging perceived as lacking empathy also impacted the credibility of government officials with the public. For example, in responding to public inquiries about religious exemptions to mask mandates, Governor Hochul told a Brooklyn church congregation, "God wants you to be

[393] Wang, Xueting, Canruo Zou, Zidian Xie, and Dongmei Li. 2020. "Public Opinions Towards COVID-19 in California and New York on Twitter." medRxiv (Cold Spring Harbor Laboratory), July. https://doi.org/10.1101/2020.07.12.20151936
[394] New York State COVID-19 Stakeholder Engagement - Stakeholder Interview, 2023
[395] Wang, X., Zou, C., Xie, Z., & Li, D. (2020). Public Opinions towards COVID-19 in California and New York on Twitter. medRxiv : the preprint server for health sciences, 2020.07.12.20151936. https://doi.org/10.1101/2020.07.12.20151936
[396] Zhang, Qihuang, Grace Y. Yi, Li-Pang Chen, and Wenqing He. 2023. "Sentiment Analysis and Causal Learning of COVID-19 Tweets Prior to the Rollout of Vaccines." PloS One 18 (2): e0277878. https://doi.org/10.1371/journal.pone.0277878.

Image source: Shutterstock

vaccinated."[397] In an information environment where extremists were spreading misinformation and also vying for credibility with the public, the lack of empathy did little to build public trust.[398]

Actionability and Compliance

Some of the State's public safety guidance clearly described actions members of the public could reasonably be expected to take to protect themselves and others. The public ignored other directives that were perceived as either confusing or having the potential to induce more harm.

To be actionable, the public must be reasonably expected to access, understand, and act on the information provided. This report has analyzed the numerous challenges with accessing and understanding the State's public safety directives. For the directives that were reasonably clear and actionable, many in the public acted effectively. In these instances, modified guidance was typically provided when resources were not immediately available or to accommodate people with disabilities and others with access and functional needs. For example, guidance to use N95 respirators was complemented by guidance to use cloth face coverings when N95 respirators were not readily available.

It is well documented that mask mandates, social distancing directives, and vaccination policies were nationally politicized, hotly debated, and became a polarizing force throughout New York and the nation.

While the State was not singularly responsible for communicating these mandates, less than optimal messaging cannot be held entirely responsible for the failure of significant portions of the population to comply with public safety directives. The State may have missed an opportunity to provide leadership in the messaging about these public safety measures. If coordination efforts had been made with public health messaging experts, cultural experts, and subject matter experts from other relevant disciplines, the State could have explored whether more informed, sensitive, and inclusive messaging about these public safety directives could have promoted more acceptance and compliance. As described above, the State missed opportunities to provide leadership around countering rumors and misinformation. The link between misinformation and the lack of COVID-19 vaccine compliance has been well documented. See for example the October National Library of Medicine article titled "Sharing Reliable COVID-19 Information and Countering Misinformation: In-Depth Interviews With Information Advocates."[399] It is

[397] Miller, Matthew, and Matthew Miller. 2021. "New York Gov. Hochul Tells Christian Worshippers: 'God Wants You to Be Vaccinated' - Washington Examiner." Washington Examiner - Political News and Conservative Analysis About Congress, the President, and the Federal Government, September 28, 2021. https://www.washingtonexaminer.com/news/944247/new-york-gov-hochul-tells-christian-worshippers-god-wants-you-to-be-vaccinated/
[398] New York State COVID-19 Stakeholder Engagement - Stakeholder Interviews and Town Halls, 2023-2024
[399] Koskan, Alexis, Shalini Sivanandam, Kristy Roschke, Jonathan Irby, Deborah Helitzer, and Bradley N. Doebbeling. 2023. "Sharing Reliable COVID-19 Information and Countering Misinformation: In-Depth Interviews With Information Advocates." JMIR Infodemiology 3 (October): e47677. https://doi.org/10.2196/47677

conceivable that had the State played a more active role in correcting misinformation that public compliance with vaccination guidance might have been greater.

The overwhelming volume of complicated, irrelevant, and frequently changing information played a direct role in public safety directive compliance. For example, stressed by the pandemic itself and further overwhelmed by the task of sifting through tremendous amounts of incoming emergency messages, stakeholders report that many individuals gave up trying to understand the State's messaging and simply stopped paying attention. In other cases, individuals became confused by the volume of messages that did not pertain to their demographic region and ended up overlooking directives that did apply to them. Others were fatigued by trying to keep up with constantly changing guidance, and simply declined to comply in anticipation of guidance changes.

It is important to evaluate public compliance with emergency safety directives through the lens of public comprehension as well as policy. In many cases, the public understood the emergency public safety directive but declined to comply either because they lacked confidence in the credibility of the directive's source or they were concerned about the negative consequences of compliance – namely, the loss of livelihoods. By as early as July 2020, the State had activated a multi-agency task force to combat violations of COVID-19-related regulations at bars and restaurants. By October 2021, protests were occurring with regularity outside of state facilities. In this context, it is essential to analyze the appropriateness of the emergency public safety directives themselves, not just the messaging about the directives, in order to understand issues of public non-compliance.

Impact of Policies, Plans, and Practices

In a significant deviation from the NYS CEMP, the State operated an isolated information center out of the Executive Chamber rather than establish a JIC in coordination with federal, state, and local partner agencies. The failure to coordinate and deconflict information, jointly craft messages, and otherwise collaborate with subject matter experts and other public information experts from other state, local, federal, private, and nonprofit agencies in a JIC diminished the effectiveness of the State's emergency public information efforts.

When the State completed an annual review of the CEMP in February 2019, the plan called for the activation of ESF #15 and JIC functions in the event of an EOC activation of level four or higher. While the degree to which this portion of the CEMP was exercised prior to the start of the pandemic is unclear, evidence suggests that the activation of ESF #15 and JIC functionality was rarely, if ever, exercised as part of larger emergency operations exercises, drills, or training events. Annual reviews of the CEMP in March 2020, March 2021, and March 2023 did not appear to have altered the CEMP in respect to ESF #15 or JIC activation thresholds or protocols.

Throughout the pandemic, the EOC was activated at a level three or higher, meaning that, according to the CEMP, a JIC should have been activated. However, instead of following the CEMP and activating ESF #15 and a JIC, the Chamber implemented a top-down approach to managing emergency public information efforts which they conducted in relative isolation from state health officials or public information officers from any other state, local, or federal response partners.

Because the State did not follow the CEMP and activate a JIC, the extent to which the State's ESF #15 and JIC plans supported the effective dissemination of emergency public information cannot be evaluated. However, even if the EOC had activated ESF #15, the State's plan lacks specificity about how the JIC will stand up and operate or give guidance for JIC members on how emergency public information is to be coordinated, approved, and disseminated, especially in a distributed, virtual environment. The best way to promote the effective dissemination of emergency public information in a disaster is with an emergency public information management strategy supported by a JIC with clear objectives and operational guidelines, consistent with federal guidelines and national best practices. The JIC exists to support the coordination of timely, coordinated, accurate, relevant, accessible, credible, and actionable emergency public information. It provides critical collaboration points with interagency partners of all relevant disciplines and all levels of government.

In the absence of a JIC, emergency public information disseminated by the State was not coordinated, which had a significant negative effect on the consistency, accuracy, relevance, accessibility, and credibility of its messages. Furthermore, aspects of the State's emergency public information dissemination practices that were effective depended almost exclusively on the charismatic abilities of a single personality to build public confidence and trust. This was true across the spectrum of information NYS released about the incident itself, the State's response to the emergency, and public safety directives, warnings, and protective measures.

That said, in practice, the State did support the timely release of information and consistent state-level messaging. Developed from a singular message point, emergency public information was consistently relayed by the county commissioners, which successfully amplified the messages delivered by the Chamber.

Additionally, the State clearly demonstrated its commitment to reaching the whole community of New Yorkers by distributing information across numerous channels and in multiple languages. While there is always room to provide more inclusive access to emergency public information, the State's efforts in this regard were commendable.

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2. Findings

Although NYS's emergency public information efforts demonstrated several strengths, NYS does have opportunities to learn from its COVID-19 response efforts and prepare for an even more robust response to future disasters and emergencies. The State disseminated timely and credible emergency public information, with credit due in large part to Governor Cuomo's daily press briefings, which instilled confidence in response leadership and curbed widespread public panic, especially early in the pandemic.

On the other hand, the State's failure to formally establish a Joint Information Center and fully activate ESF #15 functionalities was a significant contributing factor in hindering the State's emergency public information efforts.

The State showed considerable leadership in coordinating with city and county commissioners and controlling the delivery of consistent messages that were disseminated throughout the state. The State's commitment to reaching the whole community of New Yorkers was also apparent, as the State issued information about the incident, public safety directives, warnings, protective measures, and information about the State's response in numerous languages and on multiple platforms.

However, the high volume and speed with which information was released, combined with the scientific community's rapidly evolving understanding of the disease and the lack of coordination with state, local, and federal response partners, resulted in the frequent release of factual inaccuracies and misinformation, especially as it related to response efforts.

Because the Chamber used public information channels (e.g., press releases and media interviews) to disseminate executive orders and directives to NYS agencies, local response partners, schools, businesses, and other institutions, the public information realm was inundated with irrelevant information that both created confusion and made it difficult for members of already stressed communities to access and implement the safety measures that applied to them. As a result, much of the public struggled to understand and appropriately implement public safety guidance as it was issued. Additionally, the State relied heavily on digital information dissemination platforms, which unintentionally excluded those with limited access to the internet. Eroding public confidence in the authority and competency of government officials, the public struggled to comply with many of the public safety directives issued, especially related to masking, social distancing, and vaccines.

The following matrix outlines the findings of this analysis relevant to each facet of effective emergency public information:

Quality	Findings	
Did the State disseminate timely emergency public information?	Strength	The State disseminated timely information about the pandemic and the government's response and issued time public safety directives, warnings, and protective measures.
Did the State disseminate emergency public information that had been coordinated?	Opportunity for improvement	The Chamber unilaterally developed and disseminated emergency public information with little to no coordination with partner agencies at any level of government to validate or deconflict messages.
Was emergency public information disseminated by the State accurate?	Opportunity for improvement	The speed with which the State publicized information and the lack of message coordination diminished the accuracy of the State's emergency public information.
Did the State distribute relevant emergency public information?	Opportunity for improvement	The State regularly disseminated messages of low-to-no relevance to many members of the general public by inappropriately using broad public information channels to inform and direct partner agencies and share with the entire public audience information that was only applicable to specific communities.
Did the State disseminate emergency public information that had been coordinated?	Opportunity for improvement	The Chamber unilaterally developed and disseminated emergency public information with little to no coordination with partner agencies at any level of government to validate or deconflict messages.
Was emergency public information disseminated by the State accurate?	Opportunity for improvement	The speed with which the State publicized information and the lack of message coordination diminished the accuracy of the State's emergency public information.
Did the State distribute relevant emergency public information?	Opportunity for improvement	The State regularly disseminated messages of low-to-no relevance to many members of the general public by inappropriately using broad public information channels to inform and direct partner agencies and share with the entire public audience information that was only applicable to specific communities.
Did the State disseminate emergency public information that had been coordinated?	Opportunity for improvement	The Chamber unilaterally developed and disseminated emergency public information with little to no coordination with partner agencies at any level of government to validate or deconflict messages.

3. Conclusion

It is impossible to address NYS's response to the COVID-19 pandemic without examining the shaping and distribution of the tens of thousands of emergency public information messages the State issued. Fueled by the rapid increase in the number of positive cases, hospitalizations, and deaths associated with the disease, the public's demand on the State for information and guidance was voracious and insatiable.

Throughout the pandemic, the State made extensive efforts to communicate with residents, visitors, businesses, healthcare professionals, schools, and other communities about protective measures and protocols intended to contain the spread and mitigate the consequences of COVID-19. In many respects, the State's public communication efforts were exemplary throughout the COVID-19 response. For example:

- During the COVID-19 response, NYS disseminated a high volume of emergency information to the public very rapidly. The dissemination of emergency public safety directives, warnings, and protective measures was in near real-time with the rapidly evolving understanding of the scientific community and its recommendations.
- Governor Cuomo's daily televised briefings disseminating the latest known information about the disease and efforts to contain its spread became "must-see TV" to viewers across New York and the nation. These were particularly effective in establishing leadership credibility with the public and disseminating actionable public safety directives, warnings, and protective measures. Ultimately, many viewers came to consider these briefings as more authoritative than the daily White House briefings.
- The Chamber provided unified messaging, which many communication channels echoed without deviation.
- Throughout the COVID-19 response, NYS embodied its commitment to the dissemination of emergency public information that was accessible by individuals and communities, including those that speak a primary language other than English.
- NYS agencies were robust in their leveraging of government websites, social media channels, traditional media, and community partners to disseminate emergency public information.

However, the State's success in rapidly disseminating emergency public information was, in some respects, a double-edged sword. With the international scientific community playing catch-up, speculation about the disease competed with confirmed fact. In this partial data vacuum, information – both official and unofficial – was released by media, academics, and government experts as soon as it was discovered and often without thorough vetting. This rush to gather and share information with the public created profound challenges during the response in New York and across the nation, including placing immense pressure on the State to release volumes of information on pace with the latest announcements from the scientific community. The sheer volume of information released and the at-times contradictory, inaccurate, and irrelevant nature of the messages created public confusion and produced distrust of the issuing authorities. This was especially true early in the COVID-19 response.

The following paragraphs highlight key examples of NYS policies, plans, or practices that inhibited the dissemination of effective emergency public information. NYS deviated from the existing emergency operations plan by declining to activate ESF #15 or JIC functions to coordinate the dissemination of effective emergency public information. This led to numerous factual errors, inconsistencies, and, ultimately, the loss of significant public trust.

Especially during the early days of the COVID-19 response, emergency public information was primarily released by the Chamber without prior coordination with partner agencies at the state, local, or federal levels. With severely limited opportunities for partner agencies to share and deconflict information with the Chamber, the State sometimes unintentionally issued emergency public information that was inaccurate, irrelevant, or contradictory.

In the rush to immediately disseminate guidance documents and protective orders to the public on-pace with the rapidly evolving recommendations from the scientific community, much of the emergency public messaging proved challenging for recipients to understand and implement. Frequent updates, revisions, and clarifications, often contradictory in substance, further confused an already stressed population seeking guidance.

Public pressure, driven by the media, to release daily reports on new cases and deaths was incompatible with the State's health data collection capabilities, particularly during the initial months of the pandemic. Giving in to this pressure resulted in the publication of errors and misleading analyses that contributed to the loss of public confidence in response authorities.

The State relied on public communication channels to distribute information, guidance, and directives intended for other state, local, and federal agency response partners. The public's immediate knowledge of intra-agency communications eliminated crucial lead time for partner agencies to prepare or effectively field questions from the public. The over-communication of intra-agency directives further increased the already unprecedented volume of emergency information inundating the public.

While many public safety directives were actionable in the sense that the public could comply with them, crucial public compliance was lost as the pandemic progressed. Messaging inconsistencies, complicated guidance, and message fatigue chipped away at public trust in the authority and competency of the agencies setting the public safety policies.

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4. Recommendations

1. Update the ESF #15 and JIC Annex

One of the best ways to effectively prepare for disasters and emergencies is to develop a plan informed by local knowledge and experience, federal guidelines, and national best practices. The existing annex lacks specificity in its guidelines and other key resources for JIC operators, such as communications templates, media distribution lists, PIO phone numbers, and evergreen messages.

The planning process provides valuable opportunities for the individuals responsible for executing the plan to buy into the plan and to build relationships with each other that will be critical during real-world response events. Considering these benefits, all state agencies, as well as local and federal response partners, should be invited to participate in revising the plan.

Since the existing annex is so sparsely populated, plan revisions should be based on a new capabilities assessment. This will help align expectations with available resources and identify gaps in the availability of resources, personnel, training, and policies. An updated capabilities assessment will also help the State develop a plan that is appropriate and actionable under the political, environmental, and socioeconomic conditions unique to NYS.

2. Train on the Revised Plans

Once the ESF #15 Annex and JIC plans have been revised, the State should develop and implement a comprehensive training program. This training program should extend beyond the communication professionals and subject matter experts who are most likely to staff a JIC to include agency-level leadership and Chamber personnel to ensure a comprehensive understanding of the JIC's value, role, and responsibilities during an emergency response across all levels of state leadership. Media and public information training should also be provided to government personnel state- wide to ensure everyone knows about the JIC, its function, and where to direct any public or media inquiries they may receive during an activation. These training and relationship-building opportunities should also be extended to members of the press so that media partners also understand the best ways to access information during an activation.

3. Exercise the JIC and ESF #15 Plans

The public affairs and communications personnel responsible for staffing a JIC should exercise the ESF #15 and JIC plans frequently. Best practices indicate that a full- scale exercise should be conducted at least annually, with smaller drills, tabletop, and functional-level exercises occurring more frequently. The purpose of these exercises is twofold. First, exercises help increase the experience and capability of the individuals executing the plans. They continue to build awareness and relationships between JIC personnel, and other EOC staff, EOC leadership, and executive state leaders. Exercises also help identify training gaps where response personnel may need additional practice. Secondly, exercises are useful for validating the plans and determining whether what looks good on paper works in practice. They identify areas where plans need to be revised or where state policies or resource gaps need to be addressed to support the plan effectively.

4. Update and Revise Plans Regularly

The State should thoroughly review and update its ESF #15 and JIC plans frequently. Prior to the start of the COVID-19 pandemic and continuing until the publication of this report, the State's CEMP appears to be updated only once a year. This is inadequate. Best practices mandate that emergency response plans, including ESF #15 Annex and JIC plans, should be revised and updated after every activation, including exercises and real-world events. Plan change logs should reflect numerous revisions every year.

5. Use Response Communications Lessons Learned from COVID-19

In addition to implementing the comprehensive planning, training, exercise, and plan revision strategy described above, the State should consider the following lessons learned from its COVID-19 response to improve the effectiveness of its emergency public information. These lessons should be considered and reflected in updated ESF #15 and JIC plans.

Timeliness. The State's ability to issue timely emergency public information cannot depend on the availability, willingness, or charisma of a single personality. The State should establish criteria

for balancing the timeliness of emergency public information dissemination with coordination and accuracy to promote credibility, build public trust, and encourage compliance with emergency public safety directives. Numerous effective strategies exist for rapidly releasing emergency public information, including the pre-production of messaging templates and evergreen messages.

Coordination. In addition to planning for and utilizing an emergency public information coordination strategy, like a JIC, the State must develop a comprehensive strategy for addressing misinformation and implement fact-checking protocols to promote the release of accurate information and combat rumors. For example, no state agency should ever release information about the actions of any other state agency or federal or local partner without first coordinating that information with the agency and personnel involved.

Accuracy. Emergency public information dissemination strategies must balance speed and coordination with accuracy. Rapidly releasing uncoordinated and unvalidated information ultimately does more harm to credibility and compliance than good. “Re-Thinking the Role of Government Information Intervention in the COVID-19 Pandemic: An Agent-Based Modeling Analysis”contains an evidence-based approach to weighing the need for speed with accuracy in public health messaging that would benefit NYS for future planning.

Relevance. The State should establish separate communication channels for communicating with state, local, and federal response partners and leave public communication channels free for the exclusive release of emergency public information. Additionally, broad public communication channels, e.g., state-level news briefings, should be reserved for disseminating emergency public information that applies to the entire community of New Yorkers. Information that applies only to New York City or only to more rural areas of the state should be disseminated on appropriate local channels to reduce information overload and public confusion.

Accessibility. The State should establish criteria for ensuring disseminated messages are clear and consistent and not in such a high volume that the public will be overwhelmed. The State should consider implementing guidelines such as writing public information at a third grade reading level and releasing information with no more than three key points at a time. The State should also reassess its non-digital

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emergency public information dissemination channels and develop additional criteria for using these more aggressively to better reach vulnerable populations with limited internet access. Additionally, the State should sustain its commitment to disseminating information in multiple languages and strive to expand on the capabilities already in place.

Credibility. The State's credibility with the public cannot solely depend on any single personality. While strong, popular, authoritative spokespeople are useful for helping to build credibility with the public, public trust in the competence of the response must extend to all the agencies, policies, and response mechanisms. The State should implement an effective strategy for disseminating effective emergency public information to promote public trust and credibility in emergency response efforts. The State can help establish credibility in advance of an emergency by clearly communicating about the policies, plans, and practices in place to effectively manage disasters and emergencies when they occur.

Actionability and Compliance. The actionability and compliance of emergency public safety directives, warnings, and protective measures is the final litmus test in assessing whether emergency public information efforts have been successful. Updated ESF #15 and JIC plans should integrate strategies for continuously evaluating public compliance with emergency public safety directives and using that information to continuously improve both messages and messaging strategies during an emergency response.

VII. Planning Guide

This summary provides an overview of recommendations for improving New York State's (NYS) preparedness to meet the needs of its citizens and other stakeholders in responding to a broad spectrum of emergencies. While it is accurate to view these proposed actions – the product of interviews, workshops, and expert discussions with those who were on the front lines of the pandemic response – as driven by New York's experience with that monumental public health crisis, it is important that the focus of the State's next steps not be concentrated on planning to fight the last war.

Many of the lessons learned from the COVID-19 pandemic response will primarily be of value in preparing for possible future infectious disease-centered emergencies. Others can enhance the State's ability to meet challenges posed by a wider range of potential threats.

A. Public Health Preparedness

a. Maintain a Robust Public Health Infrastructure

1. Invest in comprehensive preparedness plans that outline response protocols for emerging infectious diseases.
2. Schedule and conduct regular training drills for public health staff, healthcare workers, and first responders.
3. Allocate sufficient funding to strengthen local health departments by improving staffing levels, communication technologies, and data analysis capabilities.

b. Enhance Stockpile Management

1. Conduct regular audits and risk assessments to identify potential shortages in critical supplies like personal protective equipment (PPE), ventilators, medications, and diagnostic tests.
2. Implement a just-in-time inventory management system to ensure adequate stockpiles are readily available while minimizing storage costs.
3. Partner with local manufacturers to increase domestic production of essential medical supplies and reduce reliance on overseas sources.

c. Improve Healthcare System Coordination

1. Develop a regionalized approach to healthcare surge capacity that coordinates bed availability, staffing resources, and equipment distribution across different hospitals.
2. Establish clear protocols for patient transfer between facilities during outbreaks to ensure timely and efficient care.
3. Foster communication and collaboration between public health agencies and healthcare providers to share best practices and treatment protocols.

d. Prioritize Data Sharing and Communication

1. Establish a centralized data collection and reporting system that gathers real-time data on case numbers, hospitalizations, and vaccination rates across the state. Ensure transparent and timely communication of this data to the public health community, healthcare providers, and the public.
2. Develop clear and consistent messaging strategies to educate the public about ongoing public health threats, preventive measures, and available resources.

e. Develop Strategies for Mobile Populations

1. Identify and map high-risk mobile populations within the state, such as migrant workers, individuals experiencing homelessness, and seasonal residents.
2. Partner with community organizations to establish targeted outreach programs that provide culturally appropriate healthcare services and education on public health threats.
3. Develop mobile testing units and vaccination clinics to increase accessibility for these populations and address potential healthcare disparities and address potential healthcare disparities.

f. Invest in Public Health Campaigns

1. Allocate resources to develop and disseminate educational materials in multiple languages that are tailored to different demographics and cultural backgrounds.
2. Design public health campaigns to address vaccine hesitancy and promote healthy behaviors like masking and social distancing when necessary.

g. Promote Vaccination and Booster Programs

1. Support comprehensive vaccination programs that ensure equitable access to all communities.
2. Develop strategies to combat vaccine hesitancy by providing evidence-based information and addressing concerns about vaccine safety and efficacy.
3. Promote the importance of booster shots.

B. Hospitals and Inpatient Facilities

a. Planning

1. Identify key roles and responsibilities for various players in the healthcare delivery system in the event of systemwide health emergencies. Any plan must provide clear chains of command and responsibility for different aspects of incident management.
2. Based on pandemic experience and in conjunction with relevant stakeholders and subject matter experts, develop contingency plans for enhanced hospital surge capacity and for managing infected nursing home residents.
3. Review and update plans for detection and monitoring of disease outbreaks.

b. Staffing

1. State and local assessment of pre-pandemic planning should be done related to staffing and public health infrastructure to support at-risk organizations.
2. Provide enhanced funding as an economic incentive to expand the state's standby workforce (including recent retirees) in strategic categories to ensure a sufficient supply of competent staff.
3. Create and sustain flexible public health crisis response teams that can be deployed to support hospitals and health systems in need of competent staff.
4. Educate and train various managerial level hospital staff for potential future pandemics in areas such as supply chain.

c. Resources and Technology

1. Support wider use and standardization of data reporting, incident management, and collaboration tools that enable effective teamwork and communication within and between healthcare organizations as well as clinical experts (physicians, nurses, and frontline staff).
2. Create an alternate care site (ACS) template and toolbox applications.
3. Create a personal protective equipment (PPE), ventilator, and vaccine allocation process, policy, and regulations.
4. Develop and provide data and dissemination models and tools that are accurate, defined, consistently communicated, and easily understood by the consumer.
5. Identify providers of critical equipment and put contingency contracts in place to ensure supplies are available when and as needed.
6. Stockpiles of PPE, ventilators, etc. should increase and the associated reporting requirements for accessing them should be streamlined.
7. State management of items on allotment should ensure hard-hit areas get needed supplies.

d. Alternate Care Sites

1. If the State desires to continue to plan for ACSs for future emergencies, pre-identify and enter into agreements with possible locations. Exercise establishing an ACS with those facilities.
2. The State should expand ACS plans to include a call center and dispatch capability.
3. Develop collaborative strategies for supporting staffing levels, access to PPE, and testing frequencies in nursing homes.

e. PPE Stockpiling and Reporting

1. Enhance local and regional public health emergency preparedness planning, training, and exercises.
2. Streamline user-friendly reporting and resupply requests procedures to facilitate fulfillment.
3. Reimagine stockpile versus just-in-time resupply strategies to create better, more efficient, and disruption-hardened PPE supply chains.

f. Reporting Strategies

1. Support wider use and standardization of data reporting, incident management, and collaboration tools that enable effective teamwork and communication within and between healthcare organizations as well as clinical experts (physicians, nurses, and frontline staff).
2. Standardize end user-friendly reporting standards for reporting from nursing homes and hospitals to the State, within State agencies, and from the State to the public.
3. Avoid setting unrealistic expectations for how often emerging health data will be released. Communicate the limitations on real-time reporting and epidemiology.

g. Quality Improvement and Anticipating Support

1. Develop a strategy to hold lower-rated facilities accountable, while also supporting their ability to provide effective care during a disaster through training and effective, efficient resource supports.

h. Build on Vaccination Program Successes

1. Examine and compare the successes of vaccination in nursing homes versus programs for other vulnerable populations to identify improved methodologies for serving those in congregate care settings, sheltered populations, and mass care settings.

C. Primary and Secondary Education

a. Expand Access to Technology and Internet Services

1. Develop and implement a statewide initiative to ensure that all students have access to necessary technology and high-speed internet for remote learning.
2. Explore developing partnerships with technology companies and internet service providers to reduce cost and infrastructure barriers to provide all students, especially those in lower income families or rural areas, with the needed access.

b. Strengthen Inter-Agency Collaboration

1. Establish a permanent Crisis Management Joint Task Force between the NYSED and the Department of Education to develop unified guidelines for schools, streamlined communication, and a cohesive approach to coordinate efforts in crisis situations.
2. Regular training sessions and drills for potential scenarios should be conducted to enhance preparedness and response efficiency.

c. Clarify Reporting Guidelines

1. In collaboration with health authorities, develop clear, concise, and consistent reporting guidelines for infectious disease cases within schools.
2. Develop a centralized reporting system and standardized processes for tracking, reporting, and responding to infectious disease cases.

d. Enhance Flexibility in Learning Formats

- Invest in and maintain technology and training to support both remote and hybrid learning models, ensuring that schools can seamlessly transition between formats as needed.

e. Develop Comprehensive Crisis Response Plans

1. Require all school districts to create and regularly update comprehensive crisis response plans.
2. Plans should cover a range of emergencies, including pandemics, and detail protocols for transitioning between in-person and remote learning, ensuring continuity of education and support services.

f. Streamline Collaboration Between Multi-County School Districts and State Agencies

1. Establish a unified education response coordination system to streamline collaboration between multi-county school districts and state agencies.
2. Form inter-agency teams and develop standardized emergency response protocols for complex jurisdictions.

D. Business and Industry

a. Proactive Industry Engagement During Emergencies

1. Formalize a process for communicating with industry and trade groups during emergencies to ensure the exchange of accurate and timely information.
2. Identify "essential businesses" matched to types of potential emergencies and geographic impacts.
3. Identify resources available from priority businesses potentially available to meet state emergency needs.
4. Identify critical resources needed to ensure priority businesses remain operational.

b. Designate Farming an Essential Industry

- The State should ensure farm operations and farmers are designated as "essential" during emergencies. Food security and resilience should be a high priority during the State's response to emergencies (e.g., snow storms, road closures, pandemics, etc.)

c. Develop Strategies to Allow Businesses to Maximize Operating Cash in an Emergency

- Identify emergency options, potentially including waivers, suspension of the collection of sales tax, waiving licensure expenses, etc., that would help businesses to retain operating cash.

E. Vulnerable and Marginalized Populations

a. Strengthen Community Engagement and Partnership Before Disaster Strikes

- The State should work with local elected and appointed officials, community leaders, and trusted local organizations including religious institutions and non-governmental organizations, to promote collaborations to address misinformation, disaster-related equity, and improve service access.

b. Focus on Vulnerable and High-Risk Groups

- Implement targeted outreach and resource distribution strategies for children in special education, the elderly, and essential workers.

c. Expand Multilingual and Accessible Communication

- Continue the State's practice of developing information resources in multiple languages and accessible formats.

d. Address the Digital Divide and Utilize Data-Driven Approaches

- Create a digital divide technology office to understand and address the needs of vulnerable populations.

e. Empower Local Agencies to Customize Responses

- Generally, the State should encourage and support local flexibility by community response agencies in the development of approaches tailored to local needs while maintaining coordination.

f. Adapt Service Delivery to Community Needs

- The lessons learned from innovative delivery models, including mobile clinics, pop-up sites, home visits, and flexible service hours, should be incorporated into various agencies' emergency operations plans to enhance service delivery to underserved communities.

g. Prioritize Services to Vulnerable Populations

- Include targeted assistance to vulnerable populations in the State's emergency operations plan and operationalized as a disabilities, access, and functional needs (DAFN) function with a defined mission and authority.

h. Provide Special Accommodations and Language Services

- Incorporate planning for services for individuals with DAFN and implement translation services to ensure all community members can access services.

i. Invest in Disaster Equity Research and Innovation

- Explore creation of a disaster research consortium that leverages New York's network of state and private-run universities and academic centers focused on disaster response and recovery to develop evidence-based policies and technologies that advance disaster-equity across all populations.

j. Strengthen Legal Protections and Data Analysis

1. Consider expanding family leave policies to encompass situations where employees need to stay home due to at-risk family members.
2. Improve data analysis and sharing to enable effective resource allocation and inform interventions for diverse demographics. Standardize data collection across agencies, streamline reporting and collection policies, and provide real-time data sharing through the establishment of secure platforms between healthcare providers, public health officials, and researchers.

F. Human Resources and Workforce Management

a. Increase Preparedness

1. Be sure plans include business capacity, which is determined by the space available for patrons to maintain a required social distance.
2. Establish cross-functional teams within agencies.
3. Consider use of a risk-based approach which categorizes businesses and activities based on their level of risk for infectious disease transmission. High-risk activities (large gatherings, indoor dining) would face stricter restrictions, while low-risk activities (outdoor-work, remote services) could continue with precaution.

b. Expand Remote Work Capabilities

1. Establish protocols for remote operations, including secure data access and virtual collaboration.
2. Prepare for remote work by ensuring staff have the necessary tools and training.

G. Response Communications and Messaging

a. Update the Emergency Support Function #15 (ESF #15) and JIC Annex

- Update the plans based on a new capabilities assessment to align expectations with available resources and identify gaps in the availability of resources, personnel, training, and policies. An updated capabilities assessment will also help the State develop a plan that is appropriate and actionable under the political, environmental, and socioeconomic conditions unique to NYS.

b. Train on the Revised Plans

1. Develop and implement a comprehensive training program that extends beyond joint information center (JIC) personnel to include agency-level leadership and Chamber personnel.
2. Media and public information training should be provided to government personnel state-wide.
3. Extend training to members of the press.

c. Exercise the JIC and ESF #15 Plans

- Conduct a full-scale exercise of the plans at least annually, with smaller drills, tabletop, and functional-level exercises occurring more frequently.

d. Update and Revise Plans Regularly

- Review and update ESF #15 and JIC plans after every activation, including exercises and real-world events. Plan change logs should reflect numerous revisions every year.

e. Use Response Communications Lessons Learned from COVID-19

1. Formalize criteria for balancing the timeliness of emergency public information dissemination with coordination and accuracy to promote credibility. Streamline production by developing messaging templates and evergreen messages.
2. Develop a comprehensive strategy for addressing misinformation and implement fact-checking protocols to promote the release of accurate information and combat rumors. For example, no state agency should ever release information about the actions of any other state agency or federal or local partner without first coordinating that information with the agency and personnel involved.
3. The State should establish separate communication channels for communicating with state, local, and federal response partners. Information that applies only to New York City or only other specific areas of the state should be disseminated on appropriate local channels to reduce information overload and public confusion.
4. The State should reassess its non-digital emergency public information dissemination channels and develop additional criteria for using these more aggressively to better reach vulnerable populations with limited internet access. Additionally, the State should sustain its commitment to disseminating information in multiple languages and strive to expand on the capabilities already in place.
5. The State's credibility with the public cannot solely depend on any single personality. While strong, popular, authoritative spokespeople are useful for helping to build credibility with the public, public trust in the competence of the response must extend to all the agencies, policies, and response mechanisms.

VIII. Conclusion

This report was written with the very clear purpose of identifying and documenting lessons learned by New York State (NYS) in responding to a real-world disaster that quite literally overwhelmed its planning and capabilities. New York, in parallel with other equally stressed states and the federal government, mounted a comprehensive and multifaceted response, addressing an array of challenges that tested the resilience and agility of governance, the healthcare system, public health preparedness, educational institutions, businesses, nonprofit service providers, and the broader community. This extraordinary health crisis brought to the forefront the essential need for a robust, adaptive, and coordinated approach meeting a new category of threats.

This document was developed to capture the experience of the men and women in so many agencies across the NYS government enterprise, as well as their partners and stakeholders at the local level, who were in the pandemic fight. In setting that purpose, NYS made it clear that this project was to identify lessons with application to meeting the next extraordinary disaster, not to relitigate the decisions, actions, and – inevitably – the mistakes associated with responding to COVID-19. Because this was a public health emergency, the narrative primarily addresses health-centered actions, but these findings should be read more broadly. The single most commonly expressed sentiment was that the State had simply never anticipated being forced to manage an event of this magnitude, duration, and global scope.

There was no mutual aid, there were virtually no pre-positioned resources or equipment, and the numbers of victims overwhelmed the available hospital beds and caregivers. Responders in many instances became victims and mitigation strategies such as lockdowns and remote work had profound and unexpected collateral impacts. Post-Cold War planners and political leaders had largely discounted such a scenario as either unrealistic or too demanding. The take-away is that planning for the worst must never be deemed unrealistic.

From the outset and to its credit, NYS adopted a proactive stance, with early efforts aimed at expanding testing capabilities, establishing contact tracing programs, and disseminating public health guidance. These actions were critical to the initial strategy for management of the pandemic, aiming to curb the spread of the virus and provide timely information to the public. However, the rapid evolution of the COVID-19 crisis exposed critical vulnerabilities within the state's public health infrastructure, including a need for enhanced data analytics and digital health technologies. The pandemic shed true light on the significance of health information systems that can work together, which is essential for real-time decision-making and effective epidemic surveillance.

The healthcare system, particularly hospitals and inpatient facilities in the cites, faced extraordinary challenges as they dealt with surge capacity issues and a strained supply chain for critical items such as personal protective equipment. Healthcare workers and emergency medical system providers, the frontline heroes of the pandemic, exhibited remarkable resilience and adaptability under extreme pressures. The pandemic exposed the need for improving stockpiling and diversification of supply chains to ensure the availability of essential medical supplies. Furthermore, it became evident that mental health support for healthcare personnel is crucial, as they endure immense stress and risk in their dedication to patient care.

Skilled nursing and congregate care facilities emerged as particularly vulnerable settings, with tragic outbreaks that stressed the need for stringent infection control measures and protocols to protect both residents and staff. The pandemic's impact on these facilities has prompted a re-evaluation of practices and policies to better safeguard some of the most at-risk populations.

The educational sector was profoundly affected. The abrupt shift to remote learning posed significant challenges for students, educators, and families, revealing disparities in access to technology and highlighting the social and psychological implications of prolonged virtual education. The experience has prompted discussions on the future of education, emphasizing the need for flexible learning models and the integration of technology to enhance educational resilience.

Businesses and industries across the state faced unprecedented disruptions, with many grappling with operational challenges and financial strains. The pandemic has led to a rethinking of workplace norms, particularly around remote work, and has underscored the importance of business continuity planning as well as the need for policies to support economic recovery and workforce management.

Throughout the pandemic, workforce management and human resources were key factors in navigating the complexities of maintaining essential services while ensuring the safety and well-being of employees. The adaptability and commitment of the workforce across various sectors played a crucial role in sustaining operations and services amid widespread uncertainty.

Vulnerable and marginalized populations were disproportionately affected by the pandemic, revealing deep-seated inequities within the healthcare system and broader societal structures. The crisis highlighted the critical need for targeted public health interventions and support services to address the unique challenges faced by these groups.

The COVID-19 pandemic provided NYS with critical lessons in emergency preparedness and response. Building on these experiences, the State faces the task of strengthening its public health infrastructure, healthcare system, educational resilience, economic stability, and support for vulnerable populations. This involves:

- Investing in digital health technologies and workforce training to enhance public health surveillance and response capabilities,
- Bolstering healthcare surge capacity and supply chain resilience to ensure readiness for future health emergencies,
- Developing comprehensive remote learning strategies and addressing the digital divide to ensure equitable access to education,
- Supporting businesses with clear guidance, financial assistance, and continuity planning to foster economic resilience,
- Prioritizing equity in emergency response efforts to protect and support vulnerable and marginalized populations, and
- Innovating workforce policies and practices to enhance organizational resilience and support workers in times of crisis.

The COVID-19 pandemic was a defining struggle for the state of New York, its counties, and its cities, bringing to light the strengths and weaknesses of preparedness and response capabilities at every level. The lessons learned from the State's response are invaluable, informing future strategies to enhance resilience against emerging threats. Strengthening public health infrastructure, enhancing emergency preparedness, fostering innovation, supporting economic resilience, and addressing the needs of all New York's citizens and communities are paramount as the Empire State looks ahead. Collaborative efforts across governments, industry, healthcare, and other stakeholders and groups are essential in building a more robust and adaptive system that is capable of withstanding future crises while safeguarding the well-being of all New Yorkers.

IX. Appendix

Appendix A: Timeline of Major Events

Appendix B: How Data Was Collected

Appendix C: NYS COVID-19 Executive Order List

Appendix D: Sample Participant Correspondence

Appendix E: Leaders' Intelligence Reports

Appendix F: COVID-19 Data Comparison

Appendix A: Timeline of Major Events

Figure ##: Timeline of Major Events

DATA SOURCE:
- **Leaders Intelligence Report**
- Open-Source

DECEMBER 2019

DEC 31: Wuhan Municipal Health Commission, in China, reported a cluster of cases of pneumonia in Wuhan, Hubei Province. A novel coronavirus was eventually identified.

JANUARY 2020

JAN 17: First two U.S. COVID-19 cases identified in Washington State and Illinois.

JAN 22: The Federal Emergency Management Agency (FEMA) and the Department of Health and Human Services (HHS conducted a joint COVID-19 planning call kickoff.

JAN 24: Gov. Cuomo announced the New York State Health Department (NYSDOH) issued guidance to healthcare providers, healthcare facilities, clinical laboratories and local health departments to provide updated information about the outbreak and ensure the proper protocols are in place if a patient was experiencing symptoms consistent with COVID-19, had a travel history to Wuhan, China, or had come in contact with an individual who was under investigation for COVID-19. The NYSDOH and New York State (NYS) began preparations in response to the outbreak of COVID-19 in China.

JAN 26: NYSDOH held an informational webinar on COVID-19 with over 400 participants from NY's colleges and universities, many of which have international students and faculty. The NYSDOH circulated guidance during this week on messaging to students about the virus, how to prevent it and how it spreads. This was in addition to a series of informational webinars the NYSDOH had already held for hospitals and local healthcare providers. The NYSDOH launched COVID-19 informational webpage.

JAN 28: Gov. Cuomo directed the NYSDOH to closely monitor and continue preparations as confirmed testing brings total COVID-19 cases to 10.

JAN 29: Pres. Trump established the White House COVID-19 task force (WHTF) to coordinate and oversee the executive branch's efforts to monitor, prevent, contain, and mitigate the spread of COVID-19. The WHTF included all federal departments and agencies with roles in the pandemic response such as HHS and FEMA.

JAN 30:
- The World Health Organization (WHO) declared a public health emergency (retroactive to January 27, 2020) of international concern (PHEIC) upon observing that human-to-human transmission of COVID-19 had developed in four countries outside of China.
- The NYSDOH recommended and urged that everyone six months of age or older receive an influenza vaccination. The vaccine was deemed as especially important for people at high risk for complications from influenza, including children under age two, pregnant women and adults over age 65. People with pre-existing conditions, such as asthma and heart disease, were also at greater risk, as were individuals with weakened immune systems due to disease or medications such as chemotherapy or chronic steroid use. Since influenza virus can spread easily by coughing or sneezing, it was also important that family members and people in regular contact with high-risk individuals get an influenza vaccine.

FEBRUARY 2020

JAN 31: The Secretary of HHS declared a public health emergency for the entire United States.

MARCH 2020

FEB 26: Vice President Pence was selected to chair the WHTF.

MAR 1: **First reported case of COVID-19 identified in Manhattan.**

MAR 4: A COVID-19 outbreak was reported in New Rochelle, NY.

MAR 6:
- **Authorization received from the Office of Health Emergency Preparedness Director to activate the statewide mobilization plan at the request of the Bureau of Emergency Medical Services Deputy Director.**
- Statement from the NYSDOH Commissioner Doctor Howard Zucker: "We convened a meeting with county health officials from across the state to hear from them firsthand and get their input before we promulgated state regulations concerning COVID-19. Gov. Cuomo has also been discussing the situation with county executives in affected areas this week. Having received the input of our stakeholders, we are issuing regulations, and thank them all for their input."

MAR 7: Declaration of a state disaster emergency for the entirety of NY (Executive Order (EO) 202.0), effective until September 7, 2020. EO implemented State comprehensive emergency management plan (CEMP) for all state agencies and temporarily suspended (through April 6, 2020) or modified any policy related to: (1) State emergency contracts to allow purchase of necessary commodities, services, technology, and materials as well as purchase necessary goods and services without following standard state procurement processes; (2) non-nursing staff allowed to collect specimens for testing; (3) Commissioner of Health permitted to promulgate emergency regulations concerning state codes and licensed facilities; (4) general hospitals and licensed nursing homes permitted to rapidly discharge, transfer, or receive such patients; (5) emergency medical service contingencies; (6) physicians and certified nurse practitioners permitted to issue non-patient regimen to collect specimens for testing; (7) delivery of "telemental" health services; (8) permit Public Health and Health Planning Council and State Emergency Medical Services Council to take appropriate actions to respond to the COVID-19 outbreak; (9) Governor provided with authority to regulate traffic and movement of vehicles on roads.

MAR 9: The NYSDOH and New York State Education Department (NYSED) provided guidance to update schools on next steps needed to respond to the COVID-19 outbreak as well as recommend non-pharmaceutical interventions and community containment measures that reduce disease transmission in the community. If COVID-19 exhibited greater severity, the NYSDOH and NYSED planned to issue revised guidance. NYSDOH planned to continue assessing the severity of illness caused by COVID-19 and disseminate the results of ongoing assessments. The NYSDOH and NYSED, in collaboration with Centers for Disease Control and Prevention (CDC), local health departments and school districts, planned to consider the need to recommend additional strategies if the WHO or the CDC global or national risk assessments indicated an increased level of severity.

MAR 10:
- Gov. Cuomo announced that New York created a "containment area" with a one-mile radius around New Rochelle to limit the spread of COVID-19 since that area quickly became the state's largest source of COVID-19 infections. Residents were still allowed to move around, but the new policy effectively blocked any large public gatherings in the area to prevent further transmission of the virus. Gov. Cuomo called upon the National Guard to support the containment area.
- New York National Guard deployed 270 members to deliver school lunches and clean public buildings in a one-mile radius containment zone in New Rochelle, NY.

MAR 11:
- The WHO characterized COVID-19 as a pandemic in response to evidence the number of cases outside China had increased 13-fold and the number of affected countries had tripled.
- During a COVID-19 briefing, Gov. Cuomo announced NYS will contract with 28 private labs to increase COVID-19 testing capacity.

MAR 14:
- **First reported COVID-19 death. Gov. Cuomo announced that an 82-year-old woman in New York City (NYC) passed away after contracting COVID-19.**
- **LIR reports State's first drive-through mobile testing center is opened in Rochelle NY.**

MAR 13:
- In response to the National Security Council's request for an updated inter-agency Pandemic Crisis Action Plan (PanCAP) to organize the federal response. A March 13, 2020, version was coordinated with the Emergency Support Function Leadership Group (ESFLG) and was titled the PanCAP Adapted (PANCAP-A), U.S. Government COVID-19 Response Plan, which is not a public document.
- Pres. Trump declared a national emergency concerning the COVID-19 outbreak.
- Gov. Cuomo opened the State's first drive-through COVID-19 mobile testing center in New Rochelle.
- **Federal emergency declaration declared.**
- **Gov. Cuomo limited mass gatherings.**
- **Gov. Cuomo allowed only medically necessary visitors in nursing homes and State required health screenings for all nursing home workers.**

MAR 15: Mayor Bill de Blasio announced new updates on NYC's response to COVID-19. NYC moved towards a remote learning model for all school days until spring recess. Students were told not to report to school buildings for instruction until Monday April 20, 2020 or longer if necessary.

MAR 18:
- The President and Vice President in collaboration with the WHTF informed the FEMA administrator that FEMA would be leading the COVID-19 federal response under the Stafford Act authority and funding. FEMA implemented that direction on March 19, 2020.
- U.S. Army Corps of Engineers assigned to alternate care facilities (ACFs) in New York.
- Gov. Cuomo announced that the 1,000-bed USNS Comfort will be deployed to New York harbor to provide additional hospital capacity.
- Gov. Cuomo signed bill to guarantee paid leave for New Yorkers under mandatory or precautionary quarantine due to COVID-19.
- **All NY counties had declared emergencies.**
- **Non-essential state and local government employees shifted to work from home (work force cut by 50%).**
- **First day non-essential businesses had to be closed.**
- **Restaurants could only do takeaway service.**
- **No gatherings of more than 50 people.**

MAR 16:
- Gov. Cuomo issued EO closing all schools statewide by Wednesday, March 18, for a period of two weeks ending April 1. School districts required to develop a plan for alternative instructional options, including distance learning, distribution and availability of meals, and daycare with an emphasis on children of parents of first responders and healthcare workers.
- Those plans would be submitted to the NYSED, who would amend or modify those plans in consultation with the NYSDOH and the Office of Children and Family Services at any time.
- Starting March 23, NYC planned to move towards a new remote learning model for all school days until spring recess. Students would not report to school buildings for instruction during this time. School buildings were scheduled to reopen to students following spring recess on Monday, April 20, 2020. Grab-and-go meals would be available for students throughout the entirety of the closure.
- Gov. Cuomo partners with New Jersey and Connecticut Governors to institute uniform standards across three states to combat the spread of COVID-19 including limiting recreational and social gatherings to 50 people, closing on-site service to all restaurants and bars, and closing movie theaters, gyms, and casinos.
- Mayor de Blasio signed an Emergency EO requiring all city hospitals to cancel elective surgeries effective March 20, 2020.
- During a COVID-19 briefing, Gov. Cuomo issued EO allowing state to increase hospital capacity.
- **EO: Closed all schools statewide (3/18-4/1) .**

MAR 19:
- First Strategic National Stockpile (SNS) shipment arrived in NY that included respirators, surgical masks, gloves, face shields, surgical gowns, coveralls, and ventilators.
- FEMA's National Response Coordination Center (NRCC) became the center of activity and decision-making for the Unified Coordination Group (UCG), which had four principals: FEMA Administrator Peter Gaynor, HHS Assistant Secretary for Preparedness and Response Dr. Robert Kadlec, Assistant Secretary for Health ADM Brett Giroir, and Director of the Influenza Division in the National Center for Immunization and Respiratory Diseases at the U.S. Centers for Disease Control and Prevention (CDC) Dr. Daniel Jernigan, MPH.
- HHS operational task forces were transferred to FEMA.
- The National Joint Information Center (NJIC) was stood up, co-led by FEMA and HHS.
- FEMA's NRCC activated to level one.
- Gov. Cuomo signed EO mandating businesses that require in-office personnel to decrease in-office workforce by 75%.

MAR 20:

- FEMA and HHS establish a Unified Coordination Group (UCG) for decision-making. The UCG met daily until June 2, 2020.
- FEMA's Chief of the NRCC began daily coordination calls with all FEMA regions, ensuring response leaders across the country were aware of key decisions made the previous day. These daily synchronization meetings also helped the regions track the status of resource requests.
- The NYS disaster declaration for COVID-19 is approved.
- Mayor de Blasio's Emergency EO requiring all city hospitals to cancel elective surgeries goes in effect.
- Gov. Cuomo signs the 'NYS on PAUSE' EO that closes all non-essential businesses and provides guidance on what constitutes "essential services." The order also cancels and bans non-essential gatherings of any size, institutes six-foot social distancing requirements and bans contact recreational activities.
- State-wide stay-at-home order was declared.
- Surge in COVID-19-related deaths overwhelmed NYC's morgues and hospitals, and FEMA sent 85 refrigerated trucks to serve as morgues.
- **EO Effective 3/21 - barbershops, hair salons, tattoo and piercing shops, nail salons and personal care services will be closed. As part of New York on PAUSE–which is a 10 point policy that assures uniform safety for everyone in the state .**
- **Creation of Matilda's Law provided new protections for the most vulnerable populations.**
- **Gov. Cuomo asks personal protective equipment (PPE) providers to sell non-essential products to the State and encourages companies to manufacture similar products.**
- **Gov. Cuomo announces that USNS Comfort (1,000 bed-hospital ship) will come to port in NY in April.**
- **Pres. Trump signed disaster declaration FEMA, giving NYS individual assistance limited to the crisis counseling program, public assistance under category B.**

MAR 21:

- Gov. Cuomo announces four sites identified by Army Corps of Enginners to be used as temporary hospitals including the Jakob K. Javits Convention Center, SUNY Stony Brook, SUNY Old Westbury & Westchester Convention Center. Over the past days, an inspection team led by the Army Corps of Engineers, and including state officials from the Office of General Services, the Dormitory Authority of the State of New York, the NYSDOH and the NYS Division of Military and Naval Affairs has visited more than a dozen sites to review for temporary hospital use. Upon the Governor's determination, the Army Corps is expected to immediately begin work to construct the temporary hospitals. Gov. Cuomo is also requesting that FEMA designate four field hospitals with 250 beds each for the state, intended for use in the Javits Center in addition to the temporary hospital to be constructed by the Army Corps.
- Federal medical stations were deployed to states.
- Gov. Cuomo closed all Department of Motor Vehicles (DMV) in-office transactions.

MAR 22:

- New York began trials of hydroxychloroquine, Zithromax and chloroquine in treating COVID-19. Hospitals were ordered to cancel elective and non-critical surgeries to help expand hospital capacity.
- **Gov. Cuomo issues stay-at-home order.**

MAR 23:

- NYC remote learning launches, with additional guidance provided throughout the week of the March 23.
- The NYSDOH Issues a directive to increase availability of hospital beds and provide necessary staffing and equipment. The directive requires the suspension of all non-essential elective surgeries and non-urgent procedures statewide.
- United States Naval Ship (USNS) Comfort arrives in New York harbor.
- Gov. Cuomo announced an initial delivery of hospital supplies to the Jacob K. Javits Center where FEMA has started to build a 1,000-bed temporary hospital for Phase 1 that will help increase New York's hospital capacity to combat COVID-19 and open next week. This is in addition to the four sites selected by the Army Corps of Engineers that will create temporary hospitals in downstate New York with total capacity up to 4,000.
- **Effective 3/25, all elective surgeries postponed.**
- **FEMA will erect 4 temporary hospitals per the Army Corps of Engineers recommendation.**
- **State Dept of Health Emergency Order requiring all hospitals to develop plans to expand capacity by 50-100%.**

MAR 25:

- Gov. Cuomo announces that to date 40,000 healthcare workers, including retirees and students, have signed up to volunteer to work as part of the State's surge healthcare force during the ongoing COVID-19 pandemic, with more expected to sign up in the coming weeks. Additionally, more than 6,000 mental health professionals have signed up to provide free online mental health services. New Yorkers can call the state's hotline to schedule a free appointment.
- NRCC personnel began allocating resources to affected communities.
- In response to the demands associated with the pandemic, FEMA encouraged tribal governments to work with their respective states for assistance.
- **All elective surgeries are suspended in hospitals and all patients (including those in nursing homes) are to be discharged if able.**

MAR 26: Gov. Cuomo announces more than 52,000 volunteers signed up as healthcare surge staff.

MAR 27:

- Gov. Cuomo announces that the statewide school closure, scheduled to end April 1, was extended through April 15.
- Gov. Cuomo announces that the first 1,000-bed temporary hospital is now complete at the Jacob K. Javits Convention Center. This temporary hospital site is part of the Governor's goal of having a 1,000+ patient overflow facility in each NYC borough as well as Westchester, Rockland, Nassau and Suffolk counties.
- Pres. Trump signed the COVID-19 Aid, Relief, and Economic Security (CARES) Act into law, the largest single spending bill in the nation's history. The CARES Act included stimulus for small businesses through the Paycheck Protection Program (PPP), which provided up to eight weeks of payroll support for eligible businesses. The Federal Reserve used a range of tools to support the economy, including lowering the federal fund rate and encouraging banks to lend money to businesses in need.

MAR 28: Gov. Cuomo postpones the States presidential primary elections from April 28 to June 23, aligning it with the State's congressional and legislative primaries.

MAR 29:
- Gov. Cuomo extends New York on PAUSE and non-essential work from home mandates another two weeks. School closures and other previously mandated business operations closures are also extended until April 15.
- Gov. Cuomo, Assembly Speaker Carl E. Heastie, Senator Jamaal T. Bailey and Assemblyman Michael Benedetto aannounced they have secured a critical new COVID-19 mobile testing site for the Northeast Bronx.
- **965 deaths.**
- **President Trump extends social distancing until 4/30.**
- **Gov. Cuomo announces development of new saliva testing.**
- **EO: Free daycare at schools free of charge.**

MAR 30:
- **Gov. Cuomo announces NYSDOH will work with statewide healthcare system to create command system and share info about supplies among hospitals.**
- **1,000-bed temporary hospital is now open (convention center).**

MAR 31:
- FEMA's Data Analytics Task Force (DATF) began tracking projected ventilator requirements and supply by state and territory.
- NRCC Surge Task Force is established.
- Gov. Cuomo announces a new hospital network central coordinating team that will help facilitate a more coordinated and strategic approach among the state's healthcare system in combating the COVID-19 pandemic.
- Northwell Health, New York's largest healthcare provider, received more than 100 ventilators from the stockpile, some of which were missing hoses that pump air, and others lacked stands that prop up the machines. New York-Presbyterian, a network of 13 hospitals and medical centers in and around the City, received 300 ventilators from the stockpile and all were missing parts or had damaged parts.
- **75,795 positive cases.**
- **1941 deaths.**
- **Gov. Cuomo announces online portal to connect hospitals to volunteers.**
- **Mayor, Fire Dept Commissioner, NYC EM Commissioner and FEMA announced partnership to bring 250 more ambulance aids, 500 EMTs, and paramedics to NYC.**

APRIL 2020

APR 1:
- Second Strategic National Stockpile (SNS) shipment arrives in New York that included respirators, surgical masks, gloves, face shields, surgical gowns, coveralls, and ventilators.
- First FEMA coordinated ACFs open in New York, USNS Mercy and Comfort.
- FEMA adopted a new process to manage federal ventilator resources, requiring states and tribal nations to substantiate their ventilator requests with data showing current supply, current hospital and ICU occupancy data, and the ability to stand up new ICU beds.
- FEMA directed the distribution of 4,000 ventilators from the Strategic National Stockpile (SNS) to New York, with half of these ventilators earmarked for NYC.
- **NYC playgrounds will close to address social distancing protocols that weren't being followed.**
- **Gov. Cuomo announced 500,000 test kits will be getting delivered to New York.**

APR 2:
- Gov. Cuomo issues an EO directing insurance companies for the next 60 days to suspend cancellations for non-payment, suspend non-renewals, and suspend conditional renewals for workers' compensation and disability benefits insurance policies for employers with 100 or fewer employees.
- Pres. Trump approved Gov. Cuomo's request to allow the Javits Center to accept and treat COVID-19 positive patients.

APR 3:
- Gov. Cuomo issues an EO allowing the State to redistribute ventilators and PPE from institutions that don't currently need them and redeploy the equipment to other hospitals with the highest need. The National Guard will be used to transport the ventilators and PPE across the state. The equipment will be returned to the hospital or the hospital will be reimbursed for the equipment in the future.
- Gov. Cuomo announced the temporary hospital facility at the Jacob K. Javits Convention Center will not be used for COVID-19 patients only.
- Gov. Cuomo also announced the launch of www.ny.gov/covid-19tracker, which will provide NYS's comprehensive COVID-19 testing data to the public. The website, which will be updated daily with the latest data, presents visualizations of statewide and county-level testing and results. The public can also access the testing data through Open NY at data.ny.gov, NYS's open data portal, which offers machine readable datasets in downloadable standard formats that can be sorted, searched, analyzed, and applied to new uses.
- **102,863 positive cases.**

APR 4:
- **Tiger tests positive at the Bronx Zoo. (First known case of an animal to test positive in the US.)**
- **NYS sets record for single-day positive cases at 12,000.**

APR 5: The HHS and FEMA signed a memorandum of understanding and reimbursable agreement that required the HHS to cover PPE and associated costs up to $1.5 billion, with no state, local, tribal and territorial (SLTT) cost share.

APR 6:
- Gov. Cuomo announces that the statewide school closure, scheduled to end April 15, was extended through April 29.
- State-wide stay-at-home order and school closures extended to April 29.

APR 8: Elective outpatient treatments are allowed to resume in counties and hospitals without significant risk of a COVID-19 surge.

APR 9:
- It was reported that NYS received (from the National Strategic Stockpile) 493,733 N-95 respirators, 1.2 million surgical masks, 859,486 gloves, 231,534 face shields, 189,264 surgical gowns, 4,233 coveralls, and 2,400 ventilators, based on oversight committee data.
- It was reported that NYC received (from the National Strategic Stockpile) separate stockpile shipments of 603,189 N-95 respirators, 661,713 surgical masks, 575,643 gloves, 133,761 face shields, 109,547 surgical gowns, 3,826 coveralls, and 2,000 ventilators.
- FEMA and the HHS administrators released a letter to hospital administrators outlining 30 data points for hospital networks to report daily.
- Gov. Cuomo announces five new testing facilities downstate, primarily in minority communities. A drive-through mobile testing facility will open at the Sears parking lot at 2307 Beverly Road in Brooklyn tomorrow at 12:30p.m., and a drive-through mobile testing facility opened at the Club House at Aqueduct, in Queens on Monday April 6th. In addition, the State is opening three walk-in facilities at healthcare centers in the South Bronx; (Jamaica and Queens); and in Brownsville, Brooklyn. The walk-in facilities will open next week and will be by appointment only. The State has opened nine testing facilities to date. The sites will prioritize tests for individuals that are among the highest risk population.

APR 16:
- State-wide stay-at-home order and school closures extended through May 15.
- Amid the ongoing COVID-19 pandemic, Gov. Cuomo announces all NYS on Pause restrictions and closures will be extended until May 15th. This action is taken in consultation with other regional states. The states will re-evaluate after this additional closure period.
- The White House releases broad guidelines for how communities could resume aspects of public life, including the reopening of schools, restaurants, and theaters in certain areas of the country, based on evidence that the virus was waning.

APR 21:
- New York reports its lowest single-day death toll (478) in weeks Monday; key metrics have declined for several days across the board and Gov. Cuomo says we have to tread carefully to maintain progress. NYC Mayor de Blasio says city permits for June events, like the Pride March and Puerto Rican Day Parade, have been canceled; they may be held later this year. May's permits were pulled last week. More than 20,000 confirmed lives have been lost to COVID-19 in the tri-state area to date.
- **251,690 positive cases.**

APR 7:
- Gov. Cuomo extends social distancing order as the rate of increase in positive cases and deaths slowed.
- In support of the White House Task Force, FEMA and HHS created a Supply Chain Stabilization Task Force, one of eight COVID-19 focused task forces under the NRCC. This task force is taking a whole-of-America approach to address limited supply of critical protective and life-saving equipment. The task force's primary effort is the sourcing of PPE, ventilators, and other critical resources as requested by states, tribes, and territories.

APR 12:
- Gov. Cuomo announces he will issue an EO directing employers to provide essential workers with cloth or surgical masks free of charge to wear when directly interacting with the public. Gov. Cuomo also announced he will issue an EO to expand eligibility of individuals to conduct antibody tests to help ensure as many New Yorkers as possible have access to antibody testing as the State continues to bring this critical testing to scale. The State previously provided labs with the flexibility to allow more workers to do testing for COVID-19; this EO expands that authority so the same workers can perform antibody tests.
- **State sets record for single-day hospitalization at 18,825.**

APR 13: Number of deaths exceed 10,834.

APR 15: Gov. Cuomo signs an EO requiring individuals to wear face coverings in public.

APR 17: Gov. Cuomo announces he will issue an EO directing all public and private labs in New York to coordinate with the NYSDOH to prioritize COVID-19 diagnostic testing. This action is part of the State's efforts to ramp up testing, a key component of the Governor's blueprint to unpause New York. The EO will help ensure the 301 laboratories and hospitals in the state that are licensed to perform virology operate in a coordinated fashion to overcome the testing challenges that every state in the nation is now facing.

APR 20:
- Gov. Cuomo announces that 1,000 ventilators have been donated to New York by the Joseph and Clara Tsai Foundation. The Joseph and Clara Tsai Foundation and the Jack Ma Foundation have also donated one million surgical masks, one million KN95 masks and more than 100,000 pairs of goggles to the state.
- Secretary to the Governor Melissa DeRosa and the NYS Council on Women and Girls announces the creation of a COVID-19 maternity task force to examine the best approach to authorizing and certifying additional dedicated birthing centers in an effort to provide mothers a safe alternative to already stressed hospitals amid the ongoing COVID-19 pandemic. The task force will make recommendations to Gov. Cuomo by the end of the week.

APR 22:
- Gov. Cuomo and Mike Bloomberg announce a new nation-leading COVID-19 contact tracing program to control the infection rate of the disease. Mike Bloomberg and Bloomberg Philanthropies have committed organizational support and technical assistance to help build and execute this new program. The contact tracing program will be done in coordination with the downstate region as well as New Jersey and Connecticut and will serve as an important resource to gather best practices and as a model that can be replicated across the nation. There has never been a contact tracing program implemented at this scale either in New York or anywhere in the United States. The program will launch immediately. As part of this effort, The Bloomberg School of Public Health at Johns Hopkins University will build an online curriculum and training program for contact tracers. The NYSDOH will work with Bloomberg Philanthropies to help identify and recruit contact tracer candidates for the training program, including staff from the NYSDOH, investigators from various state agencies, hundreds of tracers from downstate counties, and SUNY and CUNY students in medical fields. Bloomberg Philanthropies will also work with NYS to establish an expert panel to review the work of the program, and create a best in class model that other states can use for contact tracing.
- Gov. Cuomo announces that the NYS Department of Financial Services will direct health insurers to provide cash flow relief to and ease administrative burdens on NYS hospitals in response to COVID-19. Relief provided to hospitals during the pandemic includes insurers' immediate payment of outstanding accounts receivables, suspension of pre-authorization requirements for all hospital services, and prohibition of retrospective review of claims.
- **15,740 deaths.**
- **Protesters demand Gov. Cuomo to lift the states NY on PAUSE guidelines and restart the economy.**

APR 23:
- Gov. Cuomo, NY Attorney General, and the NYSDOH started investigating nursing homes who violate EOs that require them to report COVID-19 test results.
- Gov. Cuomo announces the NYS will provide childcare scholarships to essential workers.

APR 24: Voters in New York can vote by absentee ballot for June 23 primaries.

APR 26: Amid the ongoing COVID-19 pandemic, Gov. Cuomo outlines a phased plan to reopen New York and re-imagine a new normal for the state starting with construction and manufacturing. The plan will be implemented in phases and will be based on regional analysis and determinations. Based on CDC recommendations, once a region experiences a 14-day decline in the hospitalization rate they may begin a phased reopening. The State is closely monitoring the hospitalization rate, the infection rate and the number of positive antibody tests, as well as the overall public health impact, and will make adjustments to the plan and other decisions based on these indicators.

APR 27:
- Gov. Cuomo announces a plan for a phased, region-by-region reopening of the state, dubbed "NY Forward." A 14-day decline in hospitalizations would trigger the activation of the plan.
- **Gov. Cuomo announces five new drive-through testing facilities.**

APR 28:
- According to Johns Hopkins, the United States passes one million confirmed cases of COVID-19.
- Gov. Cuomo announces that elective outpatient treatments are allowed to resume in counties and hospitals without significant risks of COVID-19 surge.

APR 30: Positive cases exceed 304,372.

APR 29:
- The NYSED will convene a statewide task force, made up of superintendents, principals, teachers, parents, school board members, and other stakeholders, to devise a guide for reopening schools after the COVID-19 pandemic.
- After Pres. Trump recommends Monday in a call with Governors that states consider reopening school before the end of the school year, Gov. Cuomo said he will announce by Friday whether schools in New York will remain closed past May 15.
- Schools in the state have been closed since mid-March.
- Gov. Cuomo announces the creation of the New York Forward Advisory Board, led by former Cuomo aids and comprised of over 100 state, business, civic, and community leaders.
- USNS Comfort demobilizes as an alternate care site.

MAY 2020

MAY 1: Gov. Cuomo announces all schools and universities ordered to remained closed for in-person the remainder of the academic year.

MAY 2: USNS Mercy demobilizes as an alternate care site.

MAY 3: NY, NJ, PA, DE, RI, and MA formed a multi-state agreement to develop a regional supply chain to obtain PPE and testing equipment.

MAY 4:
- **Gov. Cuomo outlined additional guidelines for regions to reopen in the state. This four phase plan included: new infections, healthcare capacity, diagnostic testing capacity, and contact testing capacity.**
- **NY National Guard made nearly 300,000 testing kits.**

MAY 5: Gov. Cuomo highlights the need to reopen safely in phases.

MAY 9: Gov. Cuomo announces the launch of a new initiative to expand access to testing in low-income communities and communities of color. The state is partnering with Northwell Health to establish an initial 24 temporary testing sites at churches in predominately minority communities in downstate New York to build on the State's network of downstate testing sites.

MAY 11:
- Pres. Trump and his administration announce that the federal government is sending $11 billion to states to expand COVID-19 testing capabilities. The relief package signed on April 24 includes $25 billion for testing, with $11 billion for states, localities, territories and tribes.
- Gov. Cuomo announces that some parts of the state could start to reopen in phases beginning on May 15. Three regions meet the criteria for reopening—Finger Lakes, Southern Tier, and Mohawk Valley. Phase 1 construction, manufacturing and wholesale supply chains, agriculture, forestry, and fishing may resume. Retail establishments can open for curbside pickup.

MAY 12: Gov. Cuomo directs hospitals statewide to prioritize COVID-19 testing for children displaying symptoms similar to an atypical Kawasaki disease and toxic shock-like syndrome.

MAY 13:
- Dr. Mike Ryan, executive director of WHO's health emergencies program, warns that COVID-19 may never go away and may just join the mix of viruses that cause death around the world every year.
- Another 12 counties are now eligible to restart elective surgeries, Gov. Cuomo said during a press conference in Watertown. Cuomo previously announced that hospitals in counties less stressed by the COVID-19 pandemic would be allowed to restart some elective procedures. Onondaga County was among them. The list now includes a total of 47 counties. Those newly added were Albany, Cayuga, Chemung, Columbia, Clinton, Cortland, Montgomery, Orange, Otsego, Rensselaer, Schenectady, and Warren counties.

MAY 14: Gov. Cuomo outlines Phase 1 opening for businesses

MAY 15:
- Phase 1 of reopening: Five Regions (Finger Lakes, Central New York, Mohawk Valley, North County, and the Southern Tier) meet criteria for reopening of some nonessential businesses including construction, manufacturing and wholesale supply chains, agriculture, forestry, and fishing. Retail businesses in these regions can offer curbside pickup. Stay-at-home order is extended for regions, including NYC, for not meeting reopening criteria.
- Drive-in theaters, landscaping/gardening businesses allowed to reopen state-wide (regardless of Phase 1 qualifications).

MAY 19: FEMA releases the COVID-19 Pandemic Operational Guidance for the 2020 hurricane season. This guidance was applicable to all hazards and was designed "to help emergency managers and public health officials best prepare for disasters, while continuing to respond to and recover from COVID-19."

MAY 21: Gatherings of 10, including religious groups and Memorial Day celebrations are now permitted, however, schools will not reopen for in-person summer classes. NYC Mayor de Blasio announces phased reopening of the City during beginning of June.

MAY 26:
- Gov. Cuomo announces that the Mid-Hudson region would begin Phase 1 of the state's reopening plan starting May 26 and Long Island would begin the first phase on May 27.
- Gov. Cuomo announces reopening of campgrounds, sports facilities, and veterinary clinics.
- Gatherings of up to ten people allowed as long as social distancing is practiced.

MAY 28: Gov. Cuomo issues an EO authorizing businesses to deny entry to individuals who do not wear masks or face-coverings. The EO builds on the state's ongoing efforts to protect New Yorkers and slow the spread.

MAY 29:
- Five regions are cleared to reopen to Phase 2 of the Governor's reopening plan. Under Phase 2, the following businesses and activities can resume: offices (50% occupancy), real estate, in-store retail (50% occupancy), vehicle sales, leases and rentals, retail rental, repair and cleaning, commercial building management (50% occupancy), and salons and barbershops (50% occupancy). NYC is the only region in the state not meeting benchmarks for Phase 1 reopening.
- Gov. Cuomo extended New York's stay-at-home order until June 27. It will only apply to regions that have not met the state's criteria to enter Phase 1 of reopening. NYC is the only region that has not advanced to the first phase, but Cuomo announced the city was on track to begin reopening starting June 8. The Finger Lakes, Mohawk Valley, Southern Tier, North Country, and Central New York regions were all cleared to enter Phase 2 of reopening on May 29.

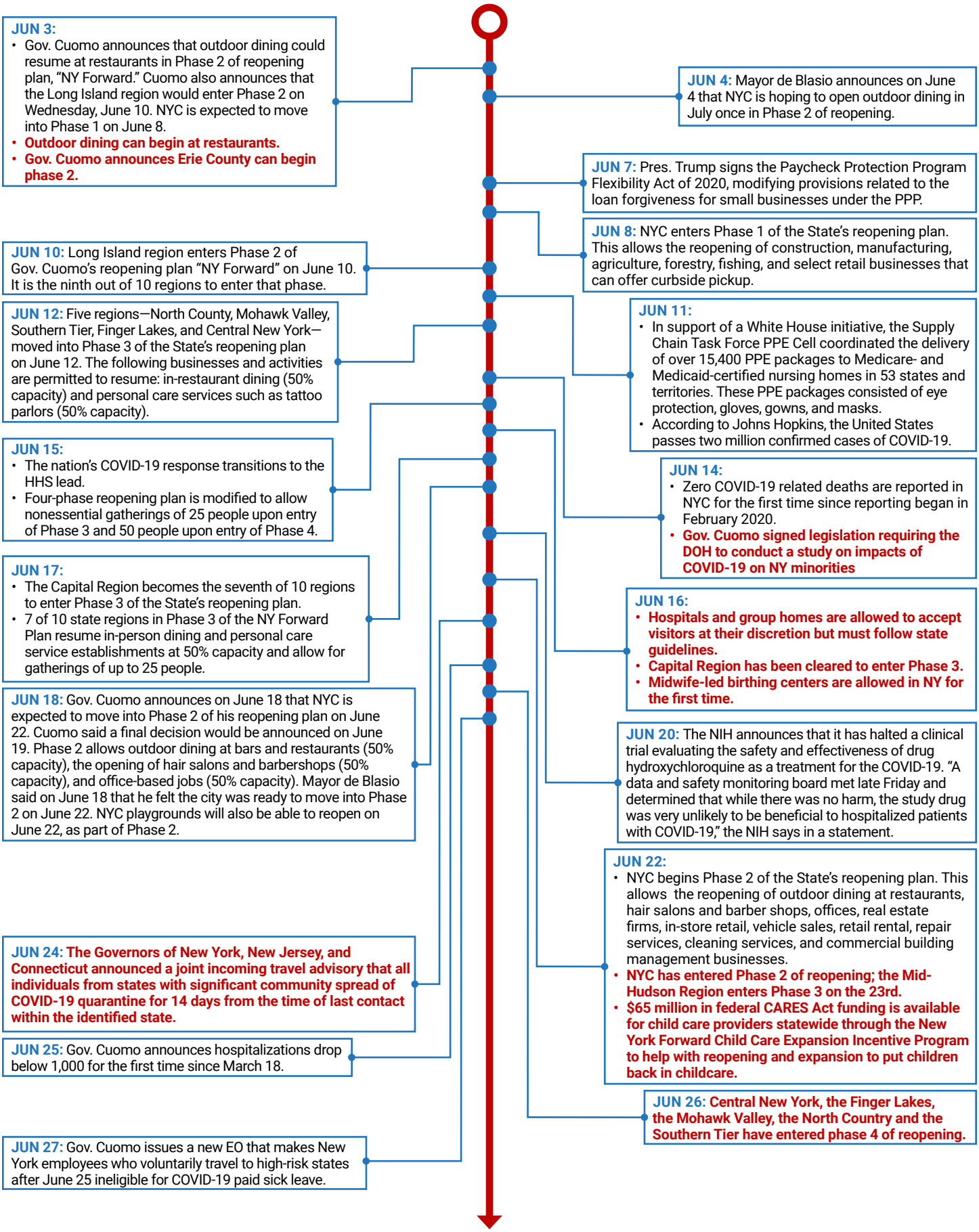
MAY 30: Gov. Cuomo signs into law a new measure providing death benefits to the families of front-line workers who lost their lives fighting the COVID-19 pandemic in New York. The bill, S.8427/A.10528, establishes a COVID-19 death benefit for the families of state and local government employees who have been on the front lines of response to this public health emergency.

MAY 31: Gov. Cuomo announced that dentists can reopen statewide.

JUNE 2020

JUN 1:
- Gov. Cuomo announces NYC was on track to begin reopening on June 8. He also announced that two regions, Western New York and Capital, are expected to move into Phase 2 of his reopening plan in the coming days. On May 31, Cuomo announced that dentists could reopen on June 1.
- **Gov. Cuomo announced western NY is expected to enter Phase 2.**

JUN 2:
- Gov. Cuomo announced summer day camps can reopen on June 29. The Capital Region entered Phase 2 of Gov. Cuomo's Reopening plan, "NY Forward," on June 3. It is the seventh region to move into that phase, out of 10 regions in the state.
- **EO: Low-risk outdoor recreational activities can begin again.**


JUN 3:
• Gov. Cuomo announces that outdoor dining could resume at restaurants in Phase 2 of reopening plan, "NY Forward." Cuomo also announces that the Long Island region would enter Phase 2 on Wednesday, June 10. NYC is expected to move into Phase 1 on June 8.
• Outdoor dining can begin at restaurants.
• Gov. Cuomo announces Erie County can begin phase 2.
JUN 4: Mayor de Blasio announces on June 4 that NYC is hoping to open outdoor dining in July once in Phase 2 of reopening.
JUN 7: Pres. Trump signs the Paycheck Protection Program Flexibility Act of 2020, modifying provisions related to the loan forgiveness for small businesses under the PPP.
JUN 8: NYC enters Phase 1 of the State's reopening plan. This allows the reopening of construction, manufacturing, agriculture, forestry, fishing, and select retail businesses that can offer curbside pickup.
JUN 10: Long Island region enters Phase 2 of Gov. Cuomo's reopening plan "NY Forward" on June 10. It is the ninth out of 10 regions to enter that phase.
JUN 11:
• In support of a White House initiative, the Supply Chain Task Force PPE Cell coordinated the delivery of over 15,400 PPE packages to Medicare- and Medicaid-certified nursing homes in 53 states and territories. These PPE packages consisted of eye protection, gloves, gowns, and masks.
• According to Johns Hopkins, the United States passes two million confirmed cases of COVID-19.
JUN 12: Five regions—North County, Mohawk Valley, Southern Tier, Finger Lakes, and Central New York—moved into Phase 3 of the State's reopening plan on June 12. The following businesses and activities are permitted to resume: in-restaurant dining (50% capacity) and personal care services such as tattoo parlors (50% capacity).
JUN 14:
• Zero COVID-19 related deaths are reported in NYC for the first time since reporting began in February 2020.
• Gov. Cuomo signed legislation requiring the DOH to conduct a study on impacts of COVID-19 on NY minorities
JUN 15:
• The nation's COVID-19 response transitions to the HHS lead.
• Four-phase reopening plan is modified to allow nonessential gatherings of 25 people upon entry of Phase 3 and 50 people upon entry of Phase 4.
JUN 16:
• Hospitals and group homes are allowed to accept visitors at their discretion but must follow state guidelines.
• Capital Region has been cleared to enter Phase 3.
• Midwife-led birthing centers are allowed in NY for the first time.
JUN 17:
• The Capital Region becomes the seventh of 10 regions to enter Phase 3 of the State's reopening plan.
• 7 of 10 state regions in Phase 3 of the NY Forward Plan resume in-person dining and personal care service establishments at 50% capacity and allow for gatherings of up to 25 people.
JUN 18: Gov. Cuomo announces on June 18 that NYC is expected to move into Phase 2 of his reopening plan on June 22. Cuomo said a final decision would be announced on June 19. Phase 2 allows outdoor dining at bars and restaurants (50% capacity), the opening of hair salons and barbershops (50% capacity), and office-based jobs (50% capacity). Mayor de Blasio said on June 18 that he felt the city was ready to move into Phase 2 on June 22. NYC playgrounds will also be able to reopen on June 22, as part of Phase 2.
JUN 20: The NIH announces that it has halted a clinical trial evaluating the safety and effectiveness of drug hydroxychloroquine as a treatment for the COVID-19. "A data and safety monitoring board met late Friday and determined that while there was no harm, the study drug was very unlikely to be beneficial to hospitalized patients with COVID-19," the NIH says in a statement.
JUN 22:
• NYC begins Phase 2 of the State's reopening plan. This allows the reopening of outdoor dining at restaurants, hair salons and barber shops, offices, real estate firms, in-store retail, vehicle sales, retail rental, repair services, cleaning services, and commercial building management businesses.
• NYC has entered Phase 2 of reopening; the Mid-Hudson Region enters Phase 3 on the 23rd.
• $65 million in federal CARES Act funding is available for child care providers statewide through the New York Forward Child Care Expansion Incentive Program to help with reopening and expansion to put children back in childcare.
JUN 24: The Governors of New York, New Jersey, and Connecticut announced a joint incoming travel advisory that all individuals from states with significant community spread of COVID-19 quarantine for 14 days from the time of last contact within the identified state.
JUN 25: Gov. Cuomo announces hospitalizations drop below 1,000 for the first time since March 18.
JUN 26: Central New York, the Finger Lakes, the Mohawk Valley, the North Country and the Southern Tier have entered phase 4 of reopening.
JUN 27: Gov. Cuomo issues a new EO that makes New York employees who voluntarily travel to high-risk states after June 25 ineligible for COVID-19 paid sick leave.

JULY 2020

JUL 1:
- Gov. Cuomo announces the Capital Region of the state is entering Phase 4 of reopening starting July 1.
- NYC beaches reopen.
- **The creation of an enforcement department to supplement local enforcement of COVID-19 guidance and restrictions has been announced.**
- **The Capital Region has entered phase 4 of reopening.**
- **Phase 3 indoor dining is postponed in NYC.**

JUL 2:
- Gov. Cuomo announces $4.3 million in federal funding is being made available to county emergency management agencies and the City of New York to support COVID-19 planning and operational readiness.
- Gov. Cuomo announces NYC would not be allowed to reopen indoor dining as part of Phase 3, which is scheduled to begin on July 6 in the city. NYC Mayor de Blasio announced public schools would begin reopening in September.
- **$4.3 million in federal funding is available to county emergency management agencies and NYC to support COVID-19 planning and operational readiness.**

JUL 6: NYC entered phase 3 of reopening without indoor dining.

JUL 7:
- Pres. Trump and his administration notify Congress and the United Nations that the United States is formally withdrawing from the WHO. The withdrawal goes into effect on July 6, 2021.
- **The Mid-Hudson region entered Phase 4 of reopening.**

JUL 8: Long Island entered Phase 4 of reopening.

JUL 9: Federal Mass Care/Emergency Assistance Pandemic Planning Considerations are released.

JUL 10: Malls allowed to open at 25% capacity for regions in Phase 4, with all patrons required to wear masks.

JUL 13: The State Department of Education released a framework for school reopening plans. Each school district will be required to submit a district-specific reopening plan based on the template between July 17 and July 31. Formal guidance for reopening is expected later this week.

JUL 14: Gov. Cuomo announces an emergency rental assistance program for low-income families, funded through the COVID-19 Relief Fund/CARES Act.

JUL 16:
- **Gov. Cuomo announces new regulations and requirements for all bars and restaurants in NYC and Statewide. NYC new regulations include the "Three Strikes and You're Out" initiative; any establishment receiving three violations will be closed for business. Restaurants and bars statewide must only serve alcohol to people ordering and eating food; all service bar tops must have patrons distanced bysix feet or a physical barrier.**
- **"Mask Up America" campaign is launched.**
- **Travel form compliance increased to 92% after announcement of fines for failure to complete them.**

JUL 17:
- **Gov. Cuomo announces $1.5 million in funding for "Feeding NYS" in response to increased need for food bank services.**
- **Every region in NYS is now in Phase 4 of reopening.**

JUL 20: NYC is the final region to enter into Phase 4 of the NY Forward reopen plan.

JUL 23:
- **A multi-agency task force is created to crack down on social distancing violations at restaurants and bars across the state.**
- **A new ad campaign to decrease the spread is launched aimed at younger people due to increase of COVID-19 rate in 21 – 30-year-olds from 9.9% to 13.2%**

JUL 25:
- **Gov. Cuomo calls on Republican members of NY Congressional Delegation to fight for state and local aid in federal stimulus package.**
- **Empire State Development has identified 20 companies that will receive State investment to make supplies to address COVID-19.**
- **There are now 19 pro bono projects in the Technology SWAT Partnership, which allows the State to surge tech resources.**

JUL 27:
A vaccine being developed by the Vaccine Research Center at the National Institutes of Health's National Institute of Allergy and Infectious Diseases, in partnership with the biotechnology company Moderna, enters Phase 3 testing. The trial is expected to enroll about 30,000 adult volunteers and evaluates the safety of the vaccine and whether it can prevent symptomatic COVID-19 after two doses, among other outcomes.

JUL 30:
- **Gov. Cuomo announces more than $30 million in the form of grants, mainly available to counties, to enhance COVID-19 contact tracing and flu prevention in advance of flu season.**
- **12 NY companies have received support from the State to produce needed supplies to help combat COVID-19.**

JUL 31:
- **New lows in hospitalization, ICU patients, and intubations since March 15th.**
- **Tropical Storm Isaias is now a Category 1 Hurricane; state agencies were directed to prepare and pre-deploy emergency response assets.**

AUGUST 2020

AUG 3: Pres. Trump issues memoranda extending his authorization of Federal Title 32 status for NG deployments in support of COVID-19 pandemic response through the end of the year. These extensions came with updated guidance reducing the federal cost share from 100% to 75% from August 22, 2020, through December 31, 2020.

AUG 7:
- Gov. Cuomo announces schools will reopen to in-person instruction for the beginning of the school year. Masks will be required and parents have the option to keep their children at home. Gov. Cuomo also announces the reopening of gyms and some cultural attractions (museums, aquariums) for later in the month. Lower-risk high school sports activities may also resume in September.
- **Gov. Cuomo announced that based on each region's infection rate, schools across the state are permitted to open this fall. Every region's infection rate is below the threshold necessary by the State's standards to open schools.**

AUG 12:
- FEMA established a 708 Voluntary Agreement under the Defense Production Act (DPA) with manufacturers of PPE and other healthcare resources to facilitate communication between the government and private sector and improve distribution and allocation of these items. New DPA processes created additional administrative steps, but still allowed the DPA to be used in novel ways that could prove useful for future catastrophic incidents.
- Gov. Cuomo announces $15.1 million in federal funding is being made available to NYS and county emergency management agencies to support planning and operational readiness for any type of disaster New York may experience.

AUG 13: Gov. Cuomo announces over $17 million from the Lake Ontario Business Resilience Program has been awarded to more than 140 businesses in shoreline communities to assist with restoration and resilience efforts from prior flooding events and to strengthen businesses against future flooding.

AUG 14: Gov. Cuomo announces that low-risk cultural activities, including museums and aquariums, could reopen beginning Aug. 24. Such locations may reopen at 25% capacity with timed ticketing, staggered entry, and mandatory face coverings.

AUG 17:
- FEMA/DHS completes a "Voluntary Agreement for the Manufacture and Distribution of Critical Healthcare Resources Necessary to Respond to a Pandemic."
- Gov. Cuomo announces gyms in the state can reopen starting Aug. 24.
- FEMA completes a voluntary agreement that allows the government to coordinate and share information with the private sector in ways which would normally be prohibited by antitrust laws toward the long-term engagement with suppliers and distributors to support federal pandemic response through a series of plans of action.

AUG 19: In anticipation of flu season, Gov. Cuomo directed the NYSDOH to send a letter to county health departments to ensure localities have plans in place to perform flu and COVID-19 tests simultaneously.

AUG 20: Gov. Cuomo signed an EO extending the State's moratorium on COVID-19-related commercial evictions and foreclosures an additional month, until September 20th.

AUG 23: The FDA issues an emergency use authorization for the use of convalescent plasma to treat Covid-19. It is made using the blood of people who have recovered from COVID-19 infections.

AUG 24: Gov. Cuomo announces high school sports classified as lower-risk (including soccer, tennis, field hockey, and swimming) will be able to resume practice and play starting on Sept. 21. Teams will only be allowed to travel to play against schools in neighboring regions and counties. School sports the state considers higher-risk (including football, wrestling, and ice hockey) can begin practices at the same time as lower-risk sports but cannot resume play.

AUG 25: Gyms and state-defined low-risk cultural institutions (like museums and aquariums) began reopening on Aug. 24.

AUG 27:
- The CDC notifies public health officials around the United States to prepare to distribute a potential COVID-19 vaccine as soon as late October. In the documents, posted by The New York Times, the CDC provides planning scenarios to help states prepare along with advice for who should get vaccinated first – healthcare professionals, essential workers, national security "populations" and long-term care facility residents and staff.
- **Gov. Cuomo announces that NYS's rate of positive COVID-19 tests has been less than 1% for 20 straight days.**
- **Last Report for ESF 3 (Public Works and Engineering).**

SEPTEMBER 2020

SEP 1:
- Gov. Cuomo reminds New Yorkers of the availability of free COVID-19 testing in Oneonta and Western New York.
- Gov. Cuomo announced new guidelines for agri-tourism businesses and activities like corn mazes, hayrides, and pick-your-own produce farms.

SEP 3: Gov. Cuomo announces malls in NYC and casinos statewide will be able to reopen starting Sept. 9.

SEP 4: The CDC announces a temporary halt on residential evictions effective through December 31, 2020, citing this action as a public health measure to prevent the further spread of the disease.

SEP 9: Gov. Cuomo announces NYC restaurants will be able to reopen at 25% capacity starting Sept. 30.

SEP 10: At the beginning of the school year, Burbio reported about half of schools were in-person in New York.

SEP 11: Gov. Cuomo announces the state will spend $88.6 million of its CARES Act funding to help childcare providers reopen. Cuomo said an application for the funding will be available to childcare centers later in September and will remain open through Dec. 31.

SEP 17: NYC Mayor de Blasio announced a phased reopening plan for schools to begin September 21.

SEP 18: Gov. Cuomo: "Our numbers continue to remain steady and our infection rate is again below one percent, which is great news. We went from the highest infection rate in the nation to one of the lowest."

OCTOBER 2020

OCT 2: The Commissioner of Health will send an order to COVID-19 hot spots to establish a framework for reporting their enforcement activities and setting specific consequences for failure to enforce the NYSDOH emergency Regulations and the Governor's EOs related to social distancing, mask compliance, and capacity limitations.

OCT 5: Gov. Cuomo implements a 3 color coded (red, orange, yellow) zoning system to identify hot spots in the City and determine levels of restrictions to gatherings and businesses. Due to a rise of COVID-19 case numbers in NYC, Gov. Cuomo announces the closing of schools in neighborhoods with higher positivity rates starting October 6. Further restrictions in areas designated as "Red Zones"(including closures of nonessential businesses) are implemented and enforced.

OCT 7: Gov. Cuomo announces the State will impose new restrictions on areas of NYC where COVID-19 cases are rising, starting no later than Oct. 9. Mayor de Blasio said enforcement of these restrictions will start on Oct. 8. In areas designated as red zones, state-defined non-essential businesses will have to close, religious gatherings will be limited to 10 people, and restaurants will only be able to offer takeout service.

OCT 15: Mask requirements for vaccinated and unvaccinated individuals in several settings, such as state-regulated childcare facilities and congregate facilities, such as shelter programs for youths experiencing homelessness.

OCT 16: Mask enforcement initiatives are currently being conducted by various state agencies in the Catskill, Eastern Hudson Valley, and NYC regions.

OCT 19: Gov. Cuomo announces movie theaters can reopen at 25% capacity everywhere except NYC if a county's positivity rate is below 2% on a 14-day rolling average, starting Oct. 23. Cuomo also said ski resorts can reopen starting Nov. 6.

OCT 20: Governors Lamont (Conn.), Murphy (N.J.), and Cuomo (N.Y.) announce that Arizona and Maryland were added to the tristate self-quarantine list. The Governors advised against traveling between their three states but agreed not to mandate self-quarantines for travel between Connecticut, New York, and New Jersey.

OCT 22:
- Gov. Cuomo announces some schools in NYC's state-defined hot spots are allowed to reopen. He also said the State will consider loosening restrictions in hot spot zones and drawing the zones on a block-by-block basis instead of using zip codes.
- **The NYSDOH has partnered with Cortland County and SUNY to open new rapid testing sites, starting tomorrow, in Cortland County for free community testing.**

OCT 30: Gov. Cuomo announces schools in the state's red and orange mitigation zones could reopen after all of a school's students and teachers got tested. Cuomo did not give a timeline for the reopening but said the State would provide the tests.

OCT 31: Gov. Cuomo announces a new testing requirement for incoming travelers. The policy, which replaces the joint quarantine list previously maintained alongside Connecticut and New Jersey, requires visitors and returning residents to take a COVID-19 test within three days of arriving in New York. Visitors will need to quarantine for three days and take another test on the fourth day. If both tests come back negative, the quarantine can end. The policy was scheduled to take effect on Wednesday, November 4 and does not apply to travelers from states that border New York.

NOVEMBER 2020

NOV 3: Gov. Cuomo announces state will provide testing to school students and staff in red and orange mitigation zones to help facilitate safe future school reopenings.

NOV 10: Gov. Cuomo announces Brooklyn's red zone is transitioning to an orange zone, which will allow social gatherings of up to 10 people, religious gatherings of up to 25 people, and limited outdoor dining. Schools are still closed to in-person instruction. Gov. Cuomo also announced yellow zone restrictions in parts of Erie, Monroe, and Onondaga counties, limiting social gatherings to 25 people and religious gatherings to 50% capacity.

NOV 12: Bars, gyms, and any other business with a liquor license must close by 10 p.m. (restaurants as well, except for curbside pickup). Household gatherings limited to 10 people.

NOV 16: Gov. Cuomo announced that an emergency summit was to be held with the governors of northeastern states to discuss aligning policy in light of rising COVID-19 cases in the region and throughout the country.

NOV 19: Public schools in NYC are closed indefinitely.

NOV 20: Gov. Cuomo designates areas in Westchester, Rockland, and Orange counties as yellow mitigation zones. The yellow level limits indoor dining to four customers at a table and religious services to 50% capacity.

NOV 23: 207,907 test results were reported to NYS, which was the new record high.

NOV 30: Gov. Cuomo announces new "Orange Warning Zones" on parts of Staten Island and in areas of Monroe and Onondaga Counties. Gov. Cuomo announced new "Yellow Precautionary Zones" in Upper Manhattan and in parts of Nassau and Suffolk Counties. The changes were effective Nov. 25 for affected businesses and Nov. 26 for public and private schools.

DECEMBER 2020

DEC 1:
- Gov. Cuomo and a coalition of groups issue a letter to the Department for Health and Human Services Secretary Alex Azar urging the federal administration to support under-served communities and protect undocumented immigrants in the federal COVID-19 vaccination program. The current federal program lacks funding to bolster States' efforts to distribute the vaccine to Black, Brown, Asian, and low-income communities which are under-served by private healthcare facilities. It also requires states to execute a data sharing agreement which includes providing identification data that could be shared with multiple federal agencies, including immigration agencies, which could dissuade undocumented immigrants from taking the vaccine. Under the leadership of Gov. Cuomo, NYS has proposed a modified system which would protect residents' personal information and help ensure confidence in the vaccine and its distribution program.
- NYS adds hospital capacity to its color-coded zone mitigation system.

DEC 7:
- **The NYSDOH implements the state's "surge and flex" protocol and mandated all hospitals begin expanding their bed capacity by 25% to further prepare for a future COVID-19 surge.**
- **Gov. Cuomo announced if the hospitalization rate does not stabilize in NYC in the next five days, indoor dining will be suspended; if the rate does not stabilize in regions outside NYC, capacity restrictions will be reduced to 25%.**

DEC 10:
- Vaccine advisors to the FDA vote to recommend the agency grant emergency use authorization to Pfizer and BioNTech's COVID-19 vaccine.
- A new statewide mask requirement would take effect starting Dec. 13. Masks were required regardless of vaccination status at indoor public settings, unless the business or venue required proof of vaccination.

DEC 11: The NYSDOH is issuing a directive for hospitals to take steps to remain below 85% capacity by either adding an additional 25% of capacity, eliminating elective surgeries, or by taking a combination of both steps.

DEC 14:
- US officials announce the first doses of the FDA authorized Pfizer vaccine have been delivered to all 50 states, the District of Columbia and Puerto Rico.
- First COVID-19 vaccines are administered in the United States to healthcare workers in a NYC hospital.
- Gov. Cuomo orders indoor dining to close in NYC, Gov. Cuomo announces an expansion of the "Yellow Precautionary Zone" in Niagara County and added yellow zones in Genesee and Oneida counties.
- **Gov. Cuomo virtually joined Northwell Health President and CEO Michael Dowling, Northwell Health Director of Employee Health Services Dr. Michelle Chester and Long Island Jewish Medical Center ICU Nurse Sandra Lindsay for the first administration of the COVID-19 vaccine in the United States.**

DEC 18: FDA authorizes a second COVID-19 vaccine made by Moderna for emergency use. "The emergency use authorization allows the vaccine to be distributed in the US for use in individuals 18 years and older."

DEC 21:
- Gov. Cuomo announces New York has administered 38,000 doses of COVID-19 vaccine, the highest in the nation.
- New York is developing community vaccination kits to provide communities, particularly those located within healthcare deserts, with the supplies and resources needed for standing up vaccination sites.

DEC 29:
- **Gov. Cuomo announces updated quarantine guidelines for New York which are consistent with the latest CDC guidance.**
- **Unemployed New Yorkers will begin receiving extended and expanded federal unemployment benefits next week.**
- **New Yorkers can begin using sick leave benefits under the state's nation leading paid sick leave law starting January 1, 2021.**

DEC 30: Gov. Cuomo announces updated requirements for individuals with known exposure to COVID-19. Exposed individuals have to self- quarantine for 10 days if they do not experience any symptoms, down from 14 days under the previous rule.

JANUARY 2021

JAN 4:
- Gov. Cuomo announces schools could remain open in communities with 9% or greater positivity rates if positivity among students and school staff was lower than positivity in the surrounding community. Previously, the State had required schools to close in communities where the positivity rate was 9% or greater.
- Gov. Cuomo announces expanded vaccine availability, effective Jan. 4. All front-line healthcare workers who provided in-person care (regardless of age) became eligible to receive the vaccine. Home care providers, hospice workers, and nursing home workers who had not previously been vaccinated under the CDC's Pharmacy Partnership for Long-Term Care Program also became eligible for vaccinations.

The following populations became eligible for the COVID-19 vaccination:
- **All Outpatient/Ambulatory front-line, high-risk healthcare workers of any age who provide direct in-person patient care.**
- **All staff who are in direct contact with patients (i.e., intake staff).**
- **All front-line, high-risk public health workers who have direct contact with patients, including those conducting COVID-19 tests, handling COVID-19 specimens, and COVID-19 vaccinations.**
- **Staff of nursing homes and skilled nursing facilities who did not receive COVID-19 vaccination through the Pharmacy Partnership for Long-Term Care Program.**

JAN 11: Gov. Cuomo announces all individuals in Phase 1b of the State's vaccine distribution plan could begin scheduling appointments starting Jan. 11. Phase 1b was scheduled to include individuals age 75 and older, first responders who were not included in Phase 1a, school staff, and correctional and congregate living facility staff and residents. Cuomo said the State was still prioritizing members of Phase 1a (including front-line healthcare workers and nursing home staff and residents), so individuals in Phase 1b should expect appointments up to 14 weeks out from the day they scheduled an appointment.

JAN 12: Gov. Cuomo announces state vaccination sites to begin opening on January 13.

JAN 13:
- New York opens a mass COVID-19 vaccination site with the assistance of the New York National Guard at the Javits Convention Center. All vaccines are by appointment only.
- **The first three state-run vaccination sites are now open and vaccinating eligible New Yorkers against the COVID-19 virus. The sites are the Jacob K. Javits Center, Westchester County Center and NYS Fair Expo Center.**
- **Sites at Jones Beach and SUNY Albany will also open on January 14th and 15th**

JAN 14:
- New York Supreme Court Justice Henry Nowak issued a preliminary injunction allowing 90 restaurants that were part of a lawsuit against the indoor dining ban in Orange Zones to resume indoor dining at 50% capacity. The preliminary injunction is effective through Jan. 19, when Nowak will decide whether the injunction should be made permanent. New York Supreme Courts are the highest trial courts in NYS, not New York's courts of last resort.
- State COVID-19 vaccination site open at Jones Beach. All vaccines are by appointment only.

JAN 15:
- State COVID-19 vaccination site opens at SUNY Albany. All vaccines are by appointment only.
- First COVID-19 drive-through mass vaccination site begins operations at Jones Beach in Long Island.

JAN 19 : New COVID-19 Vaccine Tracker Dashboard was launched.

JAN 24: Nassau County Supreme Court Justice Thomas Rademaker issued an injunction pausing enforcement of the State's mask requirement, ruling that Gov. Cuomo did not have authority to enforce it. Justice Robert J. Miller of the New York Supreme Court Appellate Division 2nd Department granted a stay against the injunction.

JAN 27:
- **Launch of a new hotline focused on vaccine-related fraud.**
- **Extension of a partnership between the NYS and leading meal kit company, HelloFresh, focused on delivering free meal kits to veterans and military families in New York.**

FEBRUARY 2021

JAN 28:
- Gov. Cuomo announces all Orange Zone restrictions were lifted statewide, and some parts of the state qualified to move out of Yellow Zone classification. Yellow Zones still exist in parts of NYC, Newburgh, and New Windsor.
- Indoor mask requirement extended through Feb. 10, 2022.
- **Gov. Cuomo announces that following a decline in new cases and hospitalization rates over the past weeks. All orange zone restrictions, and some yellow zone restrictions, have been lifted statewide. NYC, the Bronx, Queens, and Washington Heights remain in yellow zones. Existing statewide restrictions remain in place for areas no longer in orange and yellow zones, including capacity limits for certain businesses and restrictions on mass gatherings.**
- **The NYSDOH is setting up 20 mass distribution sites throughout the State over the next several weeks to support all categories of eligibility.**
- **Cases of the UK variant have been found in Long Island, NYC, Westchester, Saratoga, Tompkins, Niagara, Onondaga, Essex, and Warren Counties bringing the statewide total to 42 cases.**

JAN 29: Gov. Cuomo announces a mass vaccination site at Yankee Stadium is under development through a partnership between NYS, NYC, SOMOS Community Care, the New York National Guard and the New York Yankees.

FEB 1: Gov. Cuomo announced if the state's infection rate stays on its current trajectory, indoor dining in NYC can reopen at 25% capacity starting Feb. 14. Gov. Cuomo also said marriage receptions can resume statewide starting March 15.

FEB 2: ESF 6 Mass Care stops reporting.

FEB 4: NYS Health Commissioner Dr. Howard A. Zucker responded to Mayor de Blasio's request to use second COVID-19 vaccine doses as first doses and did not recommend doing so.

FEB 5: Yankee Stadium mass vaccination site is beginning to administer vaccines to Bronx residents who meet the State's Phase 1a and 1b eligibility requirements starting Feb. 5. The site will offer 15,000 appointments during the first week.

FEB 9: Indoor dining will be able to reopen at 25% capacity in NYC starting Feb.12.

FEB 10:
- Gov. Cuomo joins with White House COVID-19 Response Coordinator Jeffrey Zients and White House COVID-19 Health Equity Task Force Chair Dr. Marcella Nunez-Smith to announce that at the Governor's request, FEMA will establish two community-based mass-vaccination sites at Medgar Evers College in Brooklyn and York College in Queens – which will serve as a national model for the equitable distribution of the COVID-19 vaccine. These two major mass vaccination sites in NYC will vaccinate approximately 3,000 New Yorkers each day over an eight-week period and, like the State and City operated the Yankee Stadium site in the Bronx, will be reserved only for the residents of the borough where the site is located. NYS is working with FEMA and the CDC to identify additional sites outside of NYC to launch special targeted efforts focused on vaccine equity and improving access to socially vulnerable populations, each to vaccinate 1,000 New Yorkers per day. These sites will target communities and populations historically underserved by the traditional healthcare system that were disproportionately impacted by COVID-19. Increasing vaccine access in communities where vaccine hesitancy and vaccination rates are lower than other parts of the state will build on the focus of NYS and the Biden Administration to vaccinate as many people as possible fairly and equitably by creating vaccination venues in settings that people trust through partnerships with community leaders and organizations.
- Large capacity areas reopen at 10% capacity, effective February 24, with a negative PCR test within 72 hours or full COVID-19 vaccination status required to attend.

FEB 11:
- **Gov. Cuomo releases a list of comorbidities and underlying conditions that NYS will use to determine eligibility for the COVID-19 vaccine. New Yorkers who have one of the comorbidities on the list will be eligible for the vaccine beginning February 15th.**
- **The NYSDOH is collaborating with the DHSES, ITS and other state agencies in the establishment of community vaccine (POD) kits to support vaccine dispensing efforts across NY.**

FEB 14: Gov. Cuomo signs an EO extending closing times for State Liquor Authority-licensed establishments from 10 p.m. to 11 p.m. statewide.

FEB 15: All adults with certain underlying conditions eligible for vaccination in NY. Qualifying conditions include cancer, moderate to severe asthma, obesity, and hypertension.

FEB 17:
- Gov. Cuomo announces 13 community-based pop-up vaccination sites coming online this week at community centers, public housing complexes, and cultural centers. These sites are expected to vaccinate 3,850 people throughout the week, with more sites coming online every week. Since January 15, more than 90 community-based pop-up sites have enabled approximately 42,500 New Yorkers to receive their first COVID-19 vaccine dose. As has been the case with previous pop-up sites, these sites will be re-established in three weeks to administer second doses. Moving forward as the federal vaccine supply increases, NYS will continue to establish these sites at all 33 NYCHA Senior Housing Developments, which house more than 7,600 seniors. Pop-up locations will also continue to be established at other public housing complexes statewide, as well as at more than 300 churches and cultural centers which have volunteered to house these sites through Gov. Cuomo's Vaccine Equity Task Force.
- Gov. Cuomo announce that FEMA will establish four additional (for a total of six) community-based vaccination sites in Buffalo, Rochester, Albany and Yonkers. These four major vaccination sites outside of NYC will vaccinate approximately 1,000 New Yorkers each day beginning the first week of March, and appointments will be initially reserved for members of the community in which the sites are located. The establishment of these sites follows the announcement Governor Cuomo made on Wednesday, February 10 when he joined with White House COVID-19 Response Coordinator Jeffrey Zients and White House COVID-19 Health Equity Task Force Chair Dr. Marcella Nunez-Smith to announce similar sites at Medgar Evers College in Brooklyn and York College in Queens.

FEB 18:
- Indoor family entertainment centers and places of amusement will be able to reopen at 25% capacity starting March 26. Cuomo also said outdoor amusement parks can reopen at 33% capacity on April 9.
- As infection rates decrease, Gov. Cuomo announces adjustments to previous restrictions on businesses, increasing capacity and reopenings for indoor places of entertainment, restaurants, and large gatherings.
- **Twelve additional cases of the UK variant were identified in NY. Eleven were in NYC and one was in Broome County. To date, 82 known cases of the UK variant exists in NYS.**
- **New York's healthcare distribution sites have administered 96% of first doses received for week 1-9 of first doses.**

FEB 19:
- Gov. Cuomo announces the opening dates and scheduling information for the six community-based vaccination sites being established through a partnership with FEMA.
- Gov. Cuomo announces sweeping nursing home reform legislation to increase transparency, hold nursing home operators accountable for misconduct and help ensure facilities are prioritizing patient care over profits as part of the 30-day amendments.

MARCH 2021

FEB 22:
- The death toll from Covid-19 exceeds 500,000 in the United States.
- Guidance regarding nursing home visitation is released by State Health Commissioner, Dr. Howard Zucker.
- Gov. Cuomo announces nursing home visits can resume the CMS and CDC guidelines. Cuomo also said restaurants can expand from 25% to 35% capacity starting Feb. 26.

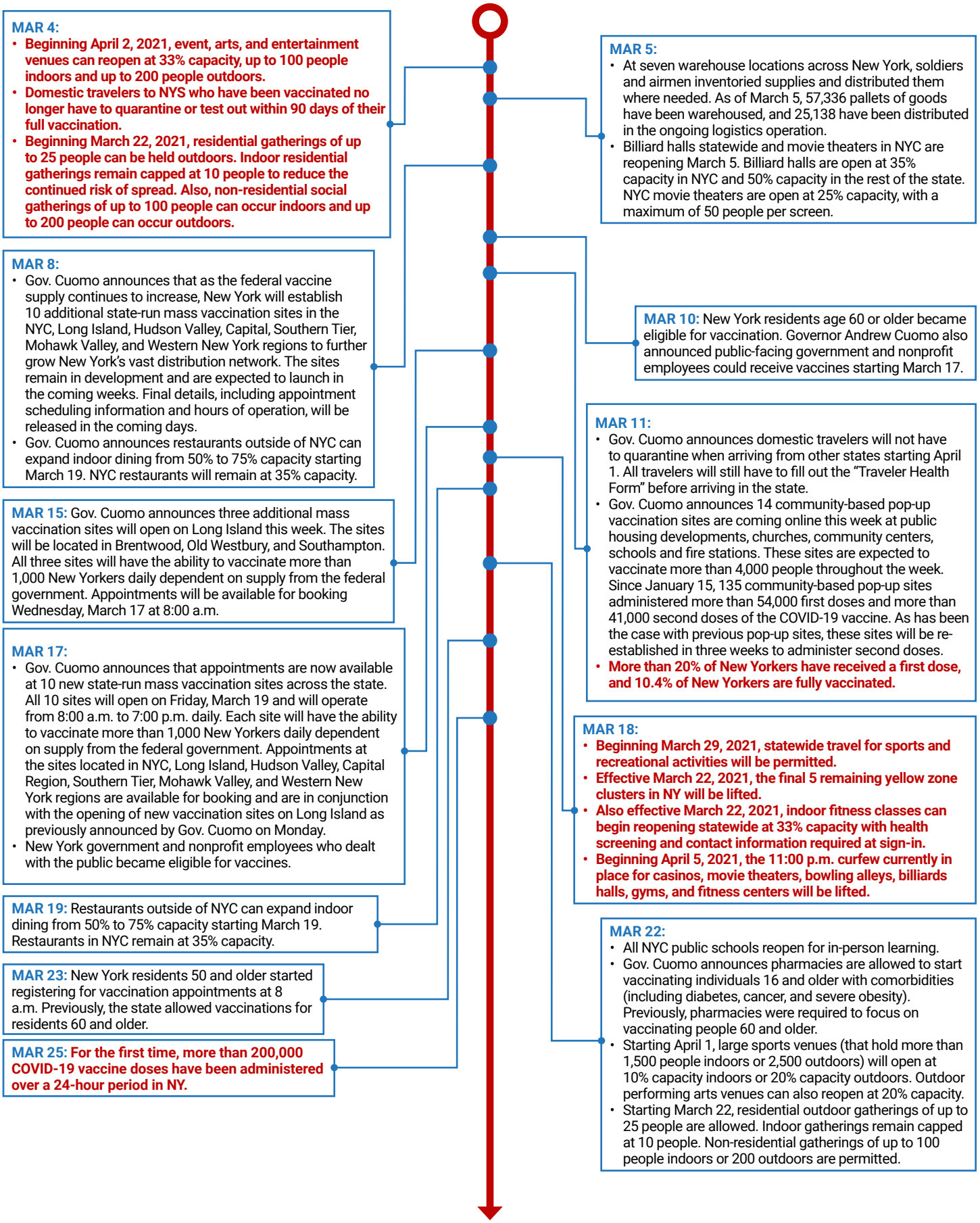
FEB 23:
- Gov. Cuomo also said the State will release detailed guidance for weddings and other catered events, which are scheduled to resume on March 15. Venues will be restricted to the lesser of 50% capacity or 150 people.
- Gov. Cuomo announces billiard halls statewide and movie theaters in NYC will be allowed to reopen starting March 5. Billiard halls will open at 35% capacity in NYC and 50% capacity in the rest of the state. NYC movie theaters will open at 25% capacity, with a maximum of 50 people per screen.

FEB 24: Gov. Cuomo announces eligible New Yorkers in Buffalo, Rochester, Albany area and Yonkers area can begin making appointments to receive the COVID-19 vaccine at the State-FEMA community-based vaccination sites scheduled to open on Wednesday, March 3 in the four cities. The four vaccination sites will operate between 8 a.m. and 8 p.m. daily, and each site has the capacity to administer 1,000 doses per day. These sites are part of NYS's ongoing efforts to fight vaccine hesitancy and bring the vaccine to communities underserved by traditional healthcare institutions.

FEB 26:
- Nursing homes expand visitation permissions and ease restrictions, based on the state guidance released by the State Health Commissioner. Additionally, twelve community based vaccination sites open to ensure vaccine distribution equity and access to the potentially underserved residents at public housing complexes, community and cultural centers.
- **Gov. Cuomo announces expanded eligibility for the COVID-19 vaccine to hotel workers.**
- **First mention of the "AM I ELIGIBLE" website.**

FEB 27: The FDA grants emergency use authorization to Johnson & Johnson's COVID-19 vaccine, the first single dose COVID-19 vaccine available in the US.

MAR 3:
- Gov. Cuomo announced that domestic travelers would no longer need to quarantine upon arrival in the state if they have been fully vaccinated within the last 90 days.
- Gov. Cuomo announced the opening of the State-FEMA mass vaccination sites in Albany, Buffalo, Rochester, and Yonkers.



MAR 4:
- **Beginning April 2, 2021, event, arts, and entertainment venues can reopen at 33% capacity, up to 100 people indoors and up to 200 people outdoors.**
- **Domestic travelers to NYS who have been vaccinated no longer have to quarantine or test out within 90 days of their full vaccination.**
- **Beginning March 22, 2021, residential gatherings of up to 25 people can be held outdoors. Indoor residential gatherings remain capped at 10 people to reduce the continued risk of spread. Also, non-residential social gatherings of up to 100 people can occur indoors and up to 200 people can occur outdoors.**

MAR 5:
- At seven warehouse locations across New York, soldiers and airmen inventoried supplies and distributed them where needed. As of March 5, 57,336 pallets of goods have been warehoused, and 25,138 have been distributed in the ongoing logistics operation.
- Billiard halls statewide and movie theaters in NYC are reopening March 5. Billiard halls are open at 35% capacity in NYC and 50% capacity in the rest of the state. NYC movie theaters are open at 25% capacity, with a maximum of 50 people per screen.

MAR 8:
- Gov. Cuomo announces that as the federal vaccine supply continues to increase, New York will establish 10 additional state-run mass vaccination sites in the NYC, Long Island, Hudson Valley, Capital, Southern Tier, Mohawk Valley, and Western New York regions to further grow New York's vast distribution network. The sites remain in development and are expected to launch in the coming weeks. Final details, including appointment scheduling information and hours of operation, will be released in the coming days.
- Gov. Cuomo announces restaurants outside of NYC can expand indoor dining from 50% to 75% capacity starting March 19. NYC restaurants will remain at 35% capacity.

MAR 10: New York residents age 60 or older became eligible for vaccination. Governor Andrew Cuomo also announced public-facing government and nonprofit employees could receive vaccines starting March 17.

MAR 11:
- Gov. Cuomo announces domestic travelers will not have to quarantine when arriving from other states starting April 1. All travelers will still have to fill out the "Traveler Health Form" before arriving in the state.
- Gov. Cuomo announces 14 community-based pop-up vaccination sites are coming online this week at public housing developments, churches, community centers, schools and fire stations. These sites are expected to vaccinate more than 4,000 people throughout the week. Since January 15, 135 community-based pop-up sites administered more than 54,000 first doses and more than 41,000 second doses of the COVID-19 vaccine. As has been the case with previous pop-up sites, these sites will be re-established in three weeks to administer second doses.
- **More than 20% of New Yorkers have received a first dose, and 10.4% of New Yorkers are fully vaccinated.**

MAR 15: Gov. Cuomo announces three additional mass vaccination sites will open on Long Island this week. The sites will be located in Brentwood, Old Westbury, and Southampton. All three sites will have the ability to vaccinate more than 1,000 New Yorkers daily dependent on supply from the federal government. Appointments will be available for booking Wednesday, March 17 at 8:00 a.m.

MAR 17:
- Gov. Cuomo announces that appointments are now available at 10 new state-run mass vaccination sites across the state. All 10 sites will open on Friday, March 19 and will operate from 8:00 a.m. to 7:00 p.m. daily. Each site will have the ability to vaccinate more than 1,000 New Yorkers daily dependent on supply from the federal government. Appointments at the sites located in NYC, Long Island, Hudson Valley, Capital Region, Southern Tier, Mohawk Valley, and Western New York regions are available for booking and are in conjunction with the opening of new vaccination sites on Long Island as previously announced by Gov. Cuomo on Monday.
- New York government and nonprofit employees who dealt with the public became eligible for vaccines.

MAR 18:
- **Beginning March 29, 2021, statewide travel for sports and recreational activities will be permitted.**
- **Effective March 22, 2021, the final 5 remaining yellow zone clusters in NY will be lifted.**
- **Also effective March 22, 2021, indoor fitness classes can begin reopening statewide at 33% capacity with health screening and contact information required at sign-in.**
- **Beginning April 5, 2021, the 11:00 p.m. curfew currently in place for casinos, movie theaters, bowling alleys, billiards halls, gyms, and fitness centers will be lifted.**

MAR 19: Restaurants outside of NYC can expand indoor dining from 50% to 75% capacity starting March 19. Restaurants in NYC remain at 35% capacity.

MAR 22:
- All NYC public schools reopen for in-person learning.
- Gov. Cuomo announces pharmacies are allowed to start vaccinating individuals 16 and older with comorbidities (including diabetes, cancer, and severe obesity). Previously, pharmacies were required to focus on vaccinating people 60 and older.
- Starting April 1, large sports venues (that hold more than 1,500 people indoors or 2,500 outdoors) will open at 10% capacity indoors or 20% capacity outdoors. Outdoor performing arts venues can also reopen at 20% capacity.
- Starting March 22, residential outdoor gatherings of up to 25 people are allowed. Indoor gatherings remain capped at 10 people. Non-residential gatherings of up to 100 people indoors or 200 outdoors are permitted.

MAR 23: New York residents 50 and older started registering for vaccination appointments at 8 a.m. Previously, the state allowed vaccinations for residents 60 and older.

MAR 25: For the first time, more than 200,000 COVID-19 vaccine doses have been administered over a 24-hour period in NY.

APRIL 2021

MAR 26:
- Gov. Cuomo announces the launch of Excelsior Pass, an app that provides digital proof of vaccination or a negative COVID-19 test. The app is optional for individuals and businesses that require such proof to allow people to enter (like wedding reception, concert, or sports venues). Individuals can download the app now, and businesses will be able to start using it to verify vaccinations and negative tests starting April 2. Individuals can still provide other documents as proof of vaccination.
- Gov. Cuomo announces new nursing home visitation guidelines, effective immediately. The guidance allows visits for all residents at all facilities. Previously, facilities had to be free of COVID-19 cases for 14 days before visits were permitted.

MAR 27: Gov. Cuomo praised the soldiers for their efforts in setting up and operating the field hospital at the Javits Center when it was ready and waiting for its first patients.

MAR 29: Gov. Cuomo announces all residents age 30 and older are eligible for vaccination starting March 30. Cuomo also said residents 16 and older will be eligible for vaccination starting April 6. Previously, people age 50 and older were eligible.

MAR 30: New Yorkers age 30 and older are eligible for vaccine.

APR 1: Travelers to New York are no longer required to self-quarantine upon arrival or display a negative COVID-19 test. The NYSDOH recommends all travelers self-quarantine. Travelers are still required to fill out an online traveler health form.

APR 2: Gov. Cuomo announces 18 community-based pop-up vaccination sites are coming online over the next week at houses of worship, community centers, and gathering spaces as well as local businesses.

APR 3: First public performance on Broadway occurred since all 41 theaters closed on March 12, 2020. Dancer Savion Glover and actor Nathan Lane performed one at a time before a socially distanced and masked audience of 150.

APR 6:
- All New York residents age 16 and older became eligible for a COVID-19 vaccine.
- Gov. Cuomo lifts the 11 p.m. curfew for casinos, movie theaters, bowling alleys, billiard halls, and gyms on April 5. The 11 p.m. curfew for restaurants and bars and the 12 a.m. curfew for catered events remain in effect.

APR 10: The NYSDOH issues an updated travel advisory that removes the testing and quarantine requirements for asymptomatic international travelers. However, the advisory recommends all unvaccinated travelers follow the CDC's guidance to quarantine for at least seven days upon arrival. The advisory recommends that fully vaccinated international travelers get tested three to five days after arrival in New York and that unvaccinated international travelers—or those who haven't recovered from COVID-19 within the last three months consider self-quarantining while waiting for a test result. Additionally, the advisory includes new requirements for healthcare workers. Domestic and international healthcare workers who work in nursing homes or assisted living residences must not return to work for 14 days upon arrival. Healthcare workers in other settings must not return to work for 10 days after international travel, unless they receive a negative COVID-19 test within three to five days of arrival, in which case the furlough can end after seven days.

APR 13:
- Gov. Cuomo announces graduation and commencement ceremonies will be permitted with capacity restrictions starting May 1.
- Gov. Cuomo also announced the state is allocating 35,000 vaccines for college students. Vaccines are reserved for State University of New York 21,000 system students, and 14,000 are reserved for students at private institutions.
- Federal government halts Johnson & Johnson COVID-19 vaccine roll out after "extremely rare" blood clot cases.

APR 15: Gov. Cuomo announces spectators will be allowed at horse and auto races at 20% capacity starting April 22.

APR 22:
- **South Beach Psychiatric Center, a new but unopened office of mental health facility on Staten Island, discharged their final COVID-19 patient.**
- **Spectators allowed at horse and auto races at 20% capacity**

APR 23:
- FDA and CDC lift recommended pause on Johnson & Johnson (Janssen) COVID-19 vaccine use following thorough safety review.
- In New York, 16 mass vaccination sites started accepting walk-ins for adults age 60 and older.

APR 26:
- **Spectator capacity at large-scale outdoor event venues, including professional and collegiate sports and live performing arts and entertainment, will increase from 20% to 33% beginning May 19, 2021.**
- **Gyms and fitness centers outside of NYC will increase from 33% to 50% capacity. Casinos and gaming facilities will increase from 25% to 50% capacity.**
- **Offices will increase from 50% to 75% capacity.**

APR 27:
- State-defined large outdoor event venues (like professional sports stadiums and performing arts venues) can expand spectator capacity from 20% to 33% starting May 19.
- Gov. Cuomo announces the State will ease mitigation restrictions effective May 15. Casinos and gaming facilities will be allowed to expand from 25% to 50% capacity. Office spaces will expand from 50% to 75% capacity. Capacity limits on gyms and fitness centers outside of NYC will expand from 33% to 50%.

MAY 2021

APR 28:
- **The 12 a.m. food and beverage service curfew will be lifted for outdoor dining areas beginning May 17 and for indoor dining areas beginning May 31.**
- **Starting May 3, seating at bars will be allowed in NYC, consistent with the food services guidance that is in effect statewide.**

APR 29:
- Gov. Cuomo announces people who are fully vaccinated no longer have to wear masks in public outdoor spaces, effective April 27. Previously, everyone had to wear masks outdoors when social distancing could not be maintained.
- All state-run mass vaccination sites opened for walk-in appointments for everyone 16 and older. The walk-in appointments only became available for people receiving a first dose. Appointments for second doses still had to be scheduled automatically for recipients of a first dose.
- Mayor de Blasio announces that NYC will fully reopen on July 1, 2021.
- **Walk in vaccinations accepted.**

MAY 3:
- Catered events can resume at private residences May 3. Bar seating is also resuming in NYC.
- Graduation and commencement ceremonies were permitted to resume with capacity restrictions on May 1.
- Gov. Cuomo announces barbershops, salons, and other personal care service businesses can expand from 50% to 75% capacity starting May 7. Cuomo also said indoor dining will expand to 75% capacity in NYC on May 7. Gyms in the city will expand to 50% capacity May 15.

MAY 4:
- Gov. Cuomo announces capacity restrictions on most businesses (including restaurants, retailers, and personal care service businesses) will end May 19. The businesses will still have to leave space for social distancing.
- Cuomo announces the state will loosen gathering restrictions. On May 10, the outdoor social gathering limit (which applies to organized social events like weddings) will expand from 200 to 500 people. On May 19, the indoor social gathering limit will expand from 100 to 250 people. The 25-person outdoor residential gathering limit (for events like cookouts) will also be replaced by a 500-person outdoor social gathering limit on May 19. The indoor residential gathering limit will increase from 10 to 50 people on the same day. Commercial social events can exceed the 500-person outdoor and 250-person indoor limits if everyone has proof of vaccination or a recent negative test and social distancing is possible.

MAY 7:
- Gov. Cuomo announces Broadway theaters will fully open at 100% capacity starting Sept. 14.
- Gov. Cuomo announces percentage capacity restrictions for state-defined large-scale outdoor event venues (like sports stadiums) will end May 19. Those venues will only be limited by six-foot social distancing requirements. Large outdoor event venues will also be able to create sections reserved for fully vaccinated individuals where socially distanced seating between separate parties is not required.

MAY 10: Outdoor social gathering limit (which applies to organized social events like weddings) is expanding from 200 to 500 people.

MAY 12:
- Eight pop-up vaccination sites offering Johnson & Johnson vaccines opened at MTA stations. The sites were scheduled to be open from May 12-16. Locations included Penn Station, Grand Central Terminal, and Broadway Junction. Each site had capacity to accept up to 300 walk-ups per day and offered free seven-day metro cards, Long Island Railroad tickets, or Metro-North tickets to recipients.
- Gov. Cuomo announces pools and beaches will be able to operate with six-foot social distancing and no percentage capacity limits by Memorial Day. Gov. Cuomo also said the state is targeting July 4 to fully reopen pools and beaches without restrictions.
- **Beginning June 1, 2021, Sahlen Field will have a fully vaccinated fan section for the return of the Blue Jays to Buffalo for the remainder of their Major League Baseball season. Approximately 50 percent of the stadium's available seating will be used for fully vaccinated fans.**

MAY 17:
- NYS follows CDC guidance on masks for fully vaccinated people, effective May 19.
- Gov. Cuomo is lifting the midnight curfew on bars and restaurants starting May 17 for outdoor dining areas. The 1 a.m. curfew for catered events is also ending May 17 for events where all attendees are fully vaccinated or provide proof of a recent negative test to event organizers.

MAY 19:
- Vaccinated people do not have to wear masks in most indoor public settings starting May 19, aligning the state's policy with recent CDC guidance.
- Capacity restrictions on most businesses (including restaurants, retailers, and personal care service businesses) are ending May 19. The businesses still have to leave space for social distancing.
- Percentage capacity restrictions for state-defined large-scale outdoor event venues (like sports stadiums) are ending May 19. Those venues are only limited by six-foot social distancing requirements. Large outdoor event venues can also create sections reserved for fully vaccinated individuals where socially distanced seating between separate parties is not required.
- On May 19, the indoor social gathering limit is expanding from 100 to 250 people. The indoor residential gathering limit is increasing from 10 to 50 people on the same day. The 25-person outdoor residential gathering limit (for events like cookouts) is replaced by the 500-person outdoor social gathering limit. Commercial social events can exceed the 500-person outdoor and 250-person indoor limits if everyone has proof of vaccination or a recent negative test, and social distancing is possible.
- Large indoor event venues (like sports stadiums) can operate at 30% capacity starting May 19.

MAY 24: Gov. Cuomo announces 10 mass vaccination sites open from May 24-28 will offer free $20 scratch-off lottery tickets to first-dose recipients age 18 and older. The grand prize will be $5 million.

MAY 26:
- Gov. Cuomo announces a vaccine incentive program for minors between the ages of 12 and 17 that would enter them into a random drawing to receive a full scholarship to any NY public college or university. Starting May 27, 10 winners a week would be selected over five weeks for a total of 50 winners.
- Gov. Cuomo also said schools will reopen statewide for full-time instruction in September, based on current data.
- Gov. Cuomo announced children between the ages of two and five no longer need to wear masks. The state still recommends mask-wearing for children who are able.
- Gov. Cuomo announced businesses can open to full capacity for vaccinated individuals. Businesses can also open to 50% vaccinated and 50% unvaccinated individuals, with social distancing required among unvaccinated people.

MAY 27:
- Gov. Cuomo announced a week-long extension of the MTA pop-up vaccination and MetroCard incentive program at Grand Central Terminal and Penn Station.
- **The NYSDOL is issuing guidance to all employers that any necessary recovery period from the COVID-19 vaccine is covered under the State's Paid Sick Leave Law.**

MAY 31: The midnight curfew on indoor dining facilities and catered events ended for vaccinated and unvaccinated customers and attendees. The curfew for catered events ended May 17 for events where all attendees are fully vaccinated or provide proof of a recent negative test to event organizers but remained in place for unvaccinated people.

JUNE 2021

JUN 1: Delta variant becomes a concern.

JUN 4: **NYS informs the CDC that on Monday the State intends to allow school districts to waive the mask mandate for students outside the building unless the CDC advises the State before Monday of contrary data or science.**

JUN 8:
- Gov. Cuomo announces school districts can choose to end the indoor mask requirement.
- Gov. Cuomo announces most COVID-19 restrictions will end once 70% of adults age 18 and older receive at least one dose of a vaccine. New York Forward guidance will be optional for businesses like restaurants, retailers, and gyms. Masks will still be required for unvaccinated residents, and restrictions will remain in place for large event venues, correctional facilities, and healthcare facilities.

JUN 14: Gov. Cuomo announces six upstate public transportation providers would offer free seven-day transportation passes for anyone who received at least one dose of a vaccine between June 15 and July 14.

JUN 15: Gov. Cuomo announces COVID-19 restrictions lifted as 70% of adult New Yorkers have received first dose of COVID-19 vaccine.

JUN 16: Gov. Cuomo ended New York Forward industry-specific requirements (including social distancing requirements, gathering limits, capacity restrictions, and cleaning protocols) for most businesses. Restaurants, bars, gyms, retailers, and personal care service providers are among the businesses that no longer have restrictions. Unvaccinated people still have to wear masks statewide. Requirements did not change for state-defined large-scale event venues, K-12 schools, public transit, nursing homes, or correctional facilities.

JUN 18: **State-run mass vaccination sites will begin to downscale and shift their resources for localized vaccination efforts.**

JUN 23:
- **First mention of vaccines.gov.**
- **Gov. Cuomo: "New York went from one of the worst infection rates to the lowest infection rate in the country."**

JUN 24: Gov. Cuomo is ending the state's COVID-19 emergency order June 24. Masks are still required statewide for unvaccinated individuals.

JUN 25: **The NYS state of emergency is rescinded as of 6/24/2021.**

JULY 2021

JUL 7: Interim guidance for in-person instruction at pre-K to 12 schools during the covid-19 public health emergency ("interim covid-19 guidance for schools") was originally created in August 2020 to provide all elementary (including pre-kindergarten), middle, and high schools, as well as their employees, contractors, students, and parents/legal guardians of students, with precautions to help protect against the spread of COVID-19 for schools that are authorized to provide in-person instruction in the 2020-2021 school year. This June 2021 update is intended to align this guidance with the most recent recommendations from the CDC on how to prioritize safe in-person learning in schools while adhering to layered mitigation strategies. This guidance is intended to address all types of public and private (both secular and non-secular) elementary (including pre-kindergarten), middle, and high schools. Each school/district must meet the minimum standards set forth in this guidance and reflect engagement with school stakeholders and community members, including but not limited to administrators, faculty, staff, students, parents/legal guardians of students, local health departments, local healthcare providers, and, where appropriate, affiliated organizations (e.g., union, alumni, and community-based groups). Specifically, each school district, BOCES, charter school, and private school must develop (in conjunction with opportunities for local community feedback from parents, community members, teachers, staff, and local health departments) and post online a plan that, at minimum, covers: (1) Reopening of school facilities for in-person instruction, (2) Monitoring of health conditions, (3) Containment of potential transmission of COVID-19, and (4) Closure of school facilities and in-person instruction, if necessitated by widespread virus transmission.

JUL 14: COVID-19 cases in NYC climb again.

JUL 15: Saratoga Race Course reopens to fans at near full capacity.

JUL 21: The Canadian border will be opened to fully vaccinated U.S. citizens on August 9.

JUL 26:
- NYC announces that starting mid-September all government employees will be required to provide proof of vaccination or be tested weekly for COVID-19.
- **Gov. Cuomo announces the allocation of $15 million from the NYS budget to promote vaccination in communities across the state that were hardest hit by the pandemic.**

JUL 28: Mandated vaccination for patient-facing healthcare workers at State-run hospitals and 130,000 NYS employees with the deadline of Labor Day.

JUL 29:
- At the end of the school year, Burbio reported most schools were in-person in New York.
- **Launch of Return to Work Tax Credit Program.**
- **Gov. Cuomo announces the launch of NYS's $35 million Restaurant Return to Work Tax Credit Program to help expand employment opportunities for workers and provide relief to COVID-19 impacted restaurants. Qualifying restaurants could receive a $5,000 tax credit per net new hire and up to $50,000 in tax credit per business.**

JUL 30: NYS to administer $1.1 Billion in federal funding to childcare providers to enable parents to return to work full time. This was the largest investment in childcare in NYS history.

AUGUST 2021

AUG 2:
- **Gov. Cuomo announces that MTA and Port Authority employees working in New York facilities will be required to be vaccinated for COVID-19 or tested weekly, starting Labor Day.**
- **Moved to only one ESF activated (ESF #8.)**
- **Went from 5 EOC activations down to 4; Chemung County deactivated.**

AUG 3:
- According to figures published by the CDC, the more contagious Delta variant accounts for an estimated 93.4% of COVID-19 circulating in the United States during the last two weeks of July. The figures show a rapid increase over the past two months, up from around 3% in the two weeks ending May 22.
- Mayor de Blasio announces that proof of vaccination will be required for patrons and staff at indoor businesses, such as restaurants, gyms, and entertainment venues, starting on Sept. 13.

AUG 12: The FDA authorizes an additional COVID-19 vaccine dose for certain immuno-compromised people.

AUG 16:
- **All Healthcare Workers in NY are required to be vaccinated for COVID-19 by September 27, 2021.**
- **The NYSDOH issues Section 16 orders to implement the policy.**

AUG 23:
- Gov. Cuomo resigns.
- The FDA grants full approval to the Pfizer/BioNTech Covid-19 vaccine for people age 16 and older, making it the first COVID-19 vaccine approved by the FDA.

AUG 24:
- Kathy Hochul was sworn in as the 57th Governor of NYS, joined by immediate family members.
- **Governor Kathy Hochul takes over.**
- **Gov. Hochul directs the NYSDOH to institute a universal mask requirement in all schools (pubic and private) as determined necessary at the discretion of the Commissioner.**
- **Gov. Hochul announces changes to the COVID-19 Pandemic Small Business Recovery Grant Program, allowing businesses with revenues up to $2.5 million to apply for grants. The limitation for businesses that received Federal Paycheck Protection Program loans increased from $100,000 to $250,000 as well.**

AUG 27: Gov. Hochul and the NYSDOH institute a universal mask mandate for all public and private schools for students, staff, and faculty in response to the emerging Delta variant.

SEPTEMBER 2021

SEP 2:
- Broadway is back. "Hadestown" and "Waitress" are the first Broadway musicals to reopen.
- **Gov. Hochul signs into law a new moratorium on COVID-19 related residential and commercial evictions for NY, enabling all protections of the Tenant Safe Harbor Act for residential tenants suffering financial hardship as a result from the pandemic, in effect until January 15, 2022.**
- **Gov. Hochul signed legislation extending virtual access to public meetings, allowing New Yorkers to virtually participate in local government meetings during the pandemic (NYS's Open Meetings Law).**

SEP 3:
- **Public Health and Health Planning Council issue a determination requiring all teachers, administrators, and other school employees to submit to weekly COVID-19 testing unless they show proof of vaccination.**
- **The NYSDOH finalized and released official guidance for classroom instruction (recommendations and requirements for vaccinations, face masks, physical distancing, and testing) for in-person learning.**

SEP 7: Commissioner of Health designates COVID-19 a highly contagious communicable disease under the NY's HERO Act, requiring all employers to implement workplace safety plans in the event of an airborne infectious disease.

SEP 8:
- **Gov. Hochul launches #Vaxtoschool campaign.**
- **Opening of NYS $40 million Biodefense Commercialization Fund.**

SEP 14:
- **Over $1.05 billion in Excluded Workers Program funds have been approved for distribution.**
- **The amount of pandemic-related emergency rental assistance paid out has nearly doubled in the past three weeks, up to $399 million.**

SEP 15: The NYSDOH authorizes basic EMT's to administer COVID-19 vaccine.

SEP 16:
- Gov. Hochul announces $200 million in additional food assistance for New Yorkers enrolled in the Supplemental Nutrition Assistance Program, or SNAP, will receive the maximum allowable level of food benefits for September.
- Gov. Hochul welcomes the Afghans who will be resettling in New York communities in the coming months and pledged to offer them assistance via state-supported resettlement agencies as they rebuild their lives.
- Gov. Hochul announces the suspension of the state hiring freeze through the end of the fiscal year, supporting COVID-19 recovery efforts.

SEP 23:
- **Gov. Hochul announces the launch of a pilot program to provide nurses and other critical patient-facing healthcare professionals and hospital employees at State University of New York hospitals with up to two and a half times overtime.**
- **Breakthrough data shows the NYSDOH confirms 78,416 breakthrough cases of COVID-19 among fully vaccinated people (0.7% of fully vaccinated people 12 or older). There were 5,555 hospitalizations with COVID-19 among fully vaccinated people (0.05% of fully vaccinated people 12 or older).**

SEP 24: CDC Director Dr. Rochelle Walensky diverges from the agency's independent vaccine advisers to recommend boosters for a broader group of people – those ages between 18 and 64 who are at increased risk of COVID-19 because of their workplaces or institutional settings – in addition to older adults, long-term care facility residents, and some people with underlying health conditions.

SEP 27: Deadline for healthcare workers to receive at least one dose of the COVID-19 vaccine as mandated by the governor.

SEP 28:
- **All schools are required to submit a daily report to the NYSDOH on each operational day of the school year, including information on cases reported to the school.**
- **Gov. Hochul signed an EO to alleviate potential staffing shortages in hospitals and other healthcare facilities statewide.**

OCTOBER 2021

OCT 2: The Commissioner of Health will send an order to COVID-19 hot spot local governments establishing a framework for reporting their enforcement activities and setting specific consequences for failure to enforce the NYSDOH Emergency Regulations and the Governor's EOs related to social distancing, mask compliance, and capacity limitations.

OCT 6: Gov. Hochul announces a plan to expand the healthcare worker vaccine mandate to include employees in facilities offering healthcare to individuals served by the Office of Mental Health and Office for People with Developmental Disabilities.

OCT 27: Gov. Hochul announces the NYS's Excelsior Pass blueprint. This is a national framework serving as a guide to assist other states, territories, and entities in the expansion of compatible COVID-19 vaccine credential systems.

OCT 28: The #GetTheVax Facts campaign is launches, ensuring New Yorkers have facts when making decisions about their health.

NOVEMBER 2021

NOV 2: CDC Director Walensky says she is endorsing a recommendation to vaccinate children between the ages of 5 and 11 against Covid-19, clearing the way for immediate vaccination of the youngest age group yet in the US.

NOV 5: The FDA authorizes Pfizer for emergency use.

NOV 19: The FDA authorizes boosters of the Pfizer/ BioNTech and Moderna Covid-19 vaccines for all adults. The CDC also endorses boosters for all adults.

NOV 27: New variant Omicron becomes a concern. A new pre-emptive state of emergency is declared for the Omicron variant.

DECEMBER 2021

DEC 1: Sixty National Guard medical teams are deployed to various long-term care facility locations to assist where additional resources needs have been identified.

DEC 5: NYSDOH updates return-to-work protocols for healthcare personnel and adopts CDC recommendations.

DEC 9: NY National Guard announces Wednesday that it had deployed 120 medics and medical technicians to a dozen long-term care facilities statewide. This was a result of Gov. Hochul issuing an order last week in response to staffing shortages. The National Guard said in a statement that service members were deployed to facilities in Syracuse, Rochester, Albany, Buffalo, Utica, Plattsburgh, Uniondale, Liberty, Vestal, Olean, Lyons and Goshen. Hochul has indicated that she may deploy the Guard to hospitals as well. As of last week, some 50 hospitals in northern New York had less than 10% bed capacity in large part due to lack of staff.

DEC 10: Gov. Hochul announces a mask mandate for all indoor public places unless they implement a vaccine requirement, effective December 13.

DEC 16: The CDC changes its recommendations for Covid-19 vaccines to make clear that shots made by Moderna and Pfizer/BioNTech are preferred over Johnson & Johnson's vaccine.

DEC 20: Gov. Hochul announces the Comprehensive Winter Surge Plan, which includes streamlined school testing regulations, new test sites, mask and home test distribution, and $65 million to compensate county governments for vaccination efforts and enforcing Hochul's mask-or-vaccine mandate.

DEC 22: The FDA authorizes Pfizer's antiviral pill, Paxlovid, to treat COVID-19, the first antiviral COVID-19 pill authorized in the United States for ill people to take at home before they get sick enough to be hospitalized. The following day, the FDA authorizes Merck's antiviral pill, molnupiravir.

DEC 23: Broadway shows close as Omicron takes a toll. "Waitress" and "Thoughts of a Colored Man" close permanently, while other shows like "Hamilton" are forced to shut down temporarily because of cast and crew infections.

DEC 27: The CDC shortens the recommended times that people should isolate when they've tested positive for COVID-19 from 10 days to five days if they don't have symptoms and if they wear a mask around others for at least five more days. The CDC also shortens the recommended time for people to quarantine if they are exposed to the virus five days if they are vaccinated.

DEC 31: Gov. Hochul announces "Winter Surge Plan 2.0", which includes a requirement for SUNY and CUNY students to be vaccinated and boosted by January 15 in order to return to campus, and an extension of the mask or vax mandate to February 1.

JANUARY 2022

JAN 1: The weekly positivity rate hits a pandemic high. More than one-third (34.8%) - of all COVID-19 tests during this week are positive.

JAN 4: NYC averages nearly 44,000 cases a day.

JAN 13: Gov. Hocul announces additional support from federal government to combat Omicron surge in NY. Gov. Hochul announces additional resources from the federal government will arrive in NY as early as next Monday, providing relief to hospitals and emergency services through patient load balancing and responding to 911 calls during the COVID-19 winter surge. Two U.S. Department of Defense military medical teams (MMT) will support NYC Health & Hospital Facilities beginning Monday, January 24, at Coney Island and a second on Friday, January 28, at North Central Bronx. These teams are estimated to have more than 20 members, including physicians, nurses, respiratory technicians, and command staff. They will assist in offsetting patient capacity and be mobilized for approximately 30 days. In addition to the MMTs, Gov. Hochul also announced another 30 national ambulance contract teams will be arriving in upstate regions beginning Sunday, January 16, to provide backfill for local emergency services and hospital transports.

JAN 21: Sen. Schumer launches major push calling on the federal government to deploy military medical personnel to combat Omicron surge. FEMA, DHHS, and military medical teams can provide essential staffing relief, and support needed on the frontlines to beat back recent the COVID-19 wave and keep Upstate New York communities safe.

JAN 28: The mask-or-vaccine mandate for businesses and venues is extended to February 10. The school mask mandate expiration remains indefinite.

JAN 31: The FDA grants full approval to Moderna's COVID-19 vaccine for adults age 18 and older. This is the second COVID-19 vaccine given full approval by the FDA.

FEBRUARY 2022

FEB 9: Gov. Hochul announces the lifting of the mask-or-vax mandate, effective February 10. Masks are still required in schools, healthcare settings, nursing homes, correctional facilities, and public transportation.

FEB 10: Gov. Hochul announces $230 million in additional food assistance for New Yorkers. The Office of Children and Family Services issued the following in a press release: "The pandemic continues to exacerbate food insecurity throughout NYS, which is reflected by the large number of households that continue to rely on the lifeline that is the Supplemental Nutrition Assistance Program," Gov. Hochul said. "These vital food benefits are playing an integral role in helping New Yorkers put food on the table, providing much-needed relief as we continue to take aggressive measures in our fight against COVID-19."

FEB 24: Statement from Gov. Hochul welcoming Ukrainians to New York.

FEB 27: Gov. Hochul announces the rescinding of the universal mask mandate for schools, effective March 2. Individual school districts, towns, and localities can use their discretion to determine masking protocols based on their specific needs.

MARCH 2022

MAR 2: NYS counties allowed to lift local school mask mandates.

MAR 7:
- Gov. Hochul announces the availability of more than $14 million in annual funding for 14 new assertive community treatment (ACT) teams across the state. ACT is an innovative and highly effective community-based mental health program that serves individuals who have serious mental illness and have not been successfully engaged by the traditional mental health treatment and rehabilitation system.
- Mayor Eric Adams lifts proof of vaccination to enter NYC restaurants, bars, and gyms.

MAR 11: Gov. Hochul announces the Division of Consumer Protection has helped New York consumers recoup nearly $3 million in 2021.

MAR 14: NY courthouses begin rolling back COVID-19 restrictions.

MAR 24: Report provides the public and state officials the first look at how the COVID-19 pandemic's onset in March 2020 influenced populations in each of NY's 62 counties and 10 economic development regions, at least temporarily.

MAR 29: The FDA authorizes a second booster of the Pfizer/BioNTech and Moderna COVID-19 vaccines for adults age 50 and older. That same day, the CDC also endorses a second booster for the same age group.

APRIL 2022

APR 19: Gov. Hochul keeps the mask mandate for public transportation and transit hubs in effect despite a judge lifting the federal mandate.

APR 21: Gov. Hochul announces $232 million in additional food assistance.

APR 25: The FDA expands approval of the drug remdesivir to treat patients as young as 28 days and weighing about seven pounds.

MAY 2022

MAY 13: Gov. Hochul announces $28 million in assistance for struggling families with children.

MAR 17: The FDA authorizes a booster dose of Pfizer/BioNTech's Covid-19 vaccine for children ages 5 to 11 at least five months after completion of the primary vaccine series. On May 19, the CDC also endorses a booster dose for the same age group.

MAY 20: Gov. Hochul announces a historic $2 billion in childcare subsidies to help support low-income and working families and child care providers.

MAR 31:
- NYS Office of Children and Family Services provided updates to masks, isolation, and quarantine guidance for children and providers in child care settings.
- NYS Department of Public Health: releases revised isolation and quarantine guidance.

JUNE 2022

JUN 15: Gov. Hochul highlights the progress toward federal authorization for COVID-19 vaccines for children under the age of five.

JUN 18: The CDC recommends Covid-19 vaccines for children as young as 6 months.

JULY 2022

JUL 1: NY National Guard wraps up their federally funded COVID-19 mission. The initial COVID-19 mission required NY National Guard troops to provide school lunches to New Rochelle school district students. The school had been closed, and the goal was to ensure kids who relied on school lunches got them. The mission extended to cleaning and disinfecting surfaces in 22 public buildings to destroy the virus. Then, the mission expanded to testing people for COVID-19. Once the pandemic became a national emergency, every state stood up Guard forces with federal funding. Between March 8, 2020, and July 1, 2022, 5,420 NY Army National Guard Soldiers participated in the COVID-19 mission out of a force of 10,700. Out of the 6,000 NY Air National Guard members, 1,080 participated in the mission. New York's state defense forces—the NY Naval Militia and the NY Guard—contributed 392 and 182 personnel to the COVID-19 mission. The task of the troops changed as the pandemic changed. Guardsmen worked in call centers, distributed over 50 million meals in NYC, collected healthcare forms from travelers at airports, and assembled millions of COVID-19 test sets. NY National Guard Soldiers put up a field hospital in the Jacob Javits Convention Center in NYC and helped care for 1,094 COVID-19 patients. Then, they turned the site into the largest vaccination clinic in the country and administered 647,973 shots. The NY National Guard provided 485 Army Guard medics and Air Guard medical technicians to work in nursing homes to solve a staffing shortage. The state-funded training of 400 military personnel as emergency medical technicians increases that pool of personnel. All but 66 of them became EMT certified. By June 1, 2022, the New York National Guard had provided 747 personnel at 94 nursing homes.

JUL 5: Gov. Hochul announces that applications opened for $343 million in childcare provider grants that targeted the workforce.

AUGUST 2022

AUG 22: School (pre K-12) Guidance: COVID-19.

AUG 24: The FDA authorizes updated COVID-19 vaccine booster shots from Moderna and Pfizer. Both are bivalent vaccines that combine the companies' original vaccine with one that targets the BA.4 and BA.5 Omicron sub-lineages. The CDC signs off on the updated booster shots the following day.

SEPTEMBER 2022

SEP 7: Gov. Hochul announces the lifting of the mask mandate on public transportation and transit hubs, effective immediately.

SEP 23: NYS School-based health centers provide medicaid coverage policy and billing guidance for the administration of COVID-19 vaccines and COVID-19 vaccine counseling.

DECEMBER 2022

DEC 1: NYS Office of Children and Family Service announces an extension of the application deadline for $343 million in childcare provider grants for workforce assistance.

DEC 8: NYS Medicaid Coverage Policy and Billing Guidance for the Administration of COVID-19 Vaccines and COVID-19 Vaccine Counseling provided by School Based Health Centers.

DEC 9: Rockland County, one of the first epicenters in the state in March 2020, is shutting down their COVID-19 dashboard on their county website. "As we approach 2023, there is significantly less case and risk of severe illness thanks to the wide availability of COVID-19 vaccines and treatments, allowing the County to retire this dashboard," the county said in a press release.

DEC 21: CDC Public Health Emergency Preparedness Program Guidance.

DEC 22:

- The Tompkins County Health Department (TCHD) is alerting the community to upcoming changes to the COVID-19 daily data table and reporting system.
- TCHD will publish a new COVID-19 data dashboard on their website and move to a weekly reporting system. The updated data dashboard will include active hospitalizations, new hospital admissions, total resident deaths, weekly case rate per 100K, positive cases over the last 7 days, percent positive over the last 7 days, vaccination rates, and the CDC community level. TCHD data reporting will pull directly from datasets maintained by the NYSDOH and CDC. The dashboard will update automatically as data becomes available during the week. TCHD will provide a weekly data update on social media on Fridays or if a holiday, on the next business day. The dashboard will no longer be displayed on the website's homepage.

DEC 28: The NYSDOH releases guidance for NY COVID-19 vaccination program for vaccination of individuals for age 6 or older.

Appendix B: How Data was Collected

To conduct the COVID-19 After Action Report for the New York State (NYS), the AAR team collected, organized and sorted through data from a multitude of sources. Sources included multiple town hall sessions, one-on-one and group interviews, surveys, open-source research, and documents supplied by the NYS and participating stakeholders. Once collected, the data was organized into spreadsheets and charts for easier access and usage. Interview, town hall and survey participants were engaged from a variety of disciplines and organizations representing the whole community involved in responding to the pandemic in New York. The data sources used by the AAR team are listed below to help illustrate the various methods used to collect data, as well as the amount of participation and outreach involved.

Document review:

The AAR team collected, reviewed, and analyzed thousands of publicly-available documents including media reports, press releases, press conference transcripts, research studies, agency web sites, and more. Additionally, the team collected, reviewed and analyzed documents provided by participating agencies including comprehensive emergency plans, operational plans, incident reports, leaders' intelligence reports, and more.

Interviews:

The AAR team used data and information collected by in person or telecommunicated interviews. 102 interviews were conducted with a total of 120 participants. Most Interviews were one on one, but a few had multiple attendees. Disciplines interviewed included:

- Infrastructure
- Health and Human Services
- Legal and Ethics
- Public Safety
- Industry and Business
- Infrastructure
- Executive Chamber
- NGO's, Non-Profits, and Faith Based Organizations
- Finance, Budget and Insurance
- Education

Surveys:

The use of surveys provided another outlet for stakeholders and state employees to give input regarding the COVID-19 response. More than 450 respondents completed the state partner survey. 1259 state employees responded to the employee survey. Participating agencies included, but are not limited to:

- NYS DHSES (New York State Division of Homeland Security and Emergency Services)
- NYS DOH (New York State Department of Health)
- NYNG (New York National Guard)
- HANYS (Hospital Association of New York State)
- Various County Executives
- Fire, EMS, Police and Sheriff's Office Leadership
- NYS ED (New York State Education Department)
- NYS DOL (New York State Department of Labor)
- NYSP (New York State Police)
- Various County BOCES (Board of Cooperative Educational Services) Superintendents
- Rural School Association of New York
- Higher Education Services Corporation
- Professors and Executives from various New York State Universities
- NYS DTF (New York State Department of Finance and Taxation)
- New York State Insurance Fund
- Various County DOH (Department of Health) Officials
- NYS OPWDD (New York State Office for People with Developmental Disabilities)
- NYS DHR (New York State Division of Human Rights)
- New York State Office of the Medical Inspector
- New York State Office of Mental Health
- NYS DOH Bureau of EMS (Emergency Medical Services)
- NYS Office of Temporary Disability Assistance
- NYS IT (Information Technology Services)
- NYS MTA (Metropolitan Transit Authority)
- New York State District Attorney's Association
- NY Unified Court System Office of Court Administration
- Commission on Judicial Ethics
- NYS Attorney General's Office
- Feeding New York
- NYS VOAD (Volunteer Organizations Active in Disasters)
- NYS Non-Profit Unit
- Food bank of Central New York
- American Red Cross

Town Halls:

Town halls were a valuable resource in which participants were able to anonymously provide feedback to discipline specific discussions. The AAR team conducted 19 Town Halls with 294 participants.

Groups and number of town halls included:

- Industry/Businesses/Professional Associations/Trade Groups (1 Town Hall with 5 Participants)
- Nursing Home and Congregate Care Centers (1 Town Hall with 11 Participants)
- Education (2 Town Halls with 8 Participants)
- Infrastructure (3 Town Halls with 63 Participants)
- Finance and Budget (1 Town Hall with 5 Participants)
- Health and Human Services (3 Town Halls with 112 Participants)
- Legal (2 Town Halls with 37 Participants)
- NGO's and Non-Profits (3 Town Halls with 20 Participants)
- Public Safety (3 Town Halls with 24 Participants)
- Hospitals (1 Town Hall with 9 Participants)

Appendix C: NYS COVID-19 Executive Order List

Throughout the COVID-19 Pandemic there were many Executive orders written. Executive Orders were used to enact restrictions, set up guidelines, provide guidance and enforce protective measures. These orders reflect the constant changing pace and opinions, during the pandemic, that helped to influence decisions that were made. The list below demonstrates the number of Executive orders as they were released daily and even monthly.

March 2020			
EO #	**Effective Date**	**Title**	**Section**
202	03/07/20	Economic Development La	Article 4-C
202	03/07/20	State Finance Law	Section 163
202	03/07/20	Public Health Law	Section 2510, Subdivision 6 of and section 2511
202	03/07/20	Public Health Law	Section 273, Subdivision 3
202	03/07/20	Social Services Law	Section 364-j, subdivisions 25 and 25-a
202	03/07/20	Executive Law	Section 24
202	03/07/20	Public Authorities Law	Section 359-a, Section 2879, and 2879-a
202	03/07/20	State Finance Law	Section 97-G
202	03/07/20	NYCRR Title 10	Section 405
202	03/07/20	NYCRR Title 10	Section 800.3, Subdivision d and u
202	03/07/20	NYCRR Title 10	Section 58-1.5
202	03/07/20	NYCRR Title 14	Section 596
202	03/07/20	NYCRR Title 18	Section 505.14, subdivision f, Paragraph 3
202	03/07/20	NYCRR Title 8	Section 64.7
202	03/07/20	Public Health Law	Section 3002
202	03/07/20	Public Health Law	Section 224-b and section 225, subdivision 4
202	03/07/20	Public Health Law	Section 6909, subdivision 4
202	03/07/20	General City Law	Section 20(32)
202	03/07/20	General Construction Law	Section 41
202	03/07/20	Highway Law	Sections 104 and 346
202	03/07/20	New York City Administrative Code	Section 19-107(ii)
202	03/07/20	NYCRR Title 21	Section 107.1
202	03/07/20	Public Officers Law	Article 7
202	03/07/20	Second Class Cities Law	Section 91
202	03/07/20	State Finance Law	Section 112
202	03/07/20	Transportation Law	Section 14(16)
202	03/07/20	Vehicle and Traffic Law	Sections 1602, 1630, 1640, 1650, and 1660
202	03/07/20	Village Law	Sections 6-602 and 17-1706
202	03/07/20	Vehicle and Traffic Law	Sections 375, 385 and 401
202	03/07/20	Executive Order	No. 2

EO #	Effective Date	Title	Section
202	03/07/20	Education Law	Section 409-i
202	03/07/20	Education Law	Sections 6521 and 6902
202	03/07/20	Education Law	Sections 8602 and 8603
202	03/07/20	General Municipal Law	Sections 103 and 104-b
202	03/07/20	State Finance Law	Section 163-b & associated OGS guidance
202	03/07/20	Education Law	Section 6527, subdivision 6
202	03/07/20	NYCRR Title 10	Section 400.11
202	03/07/20	NYCRR Title 10	Section 400.9 and section 405.9, subdivision f, paragraph 7
202	03/07/20	Public Health Law	Section 2803, Subdivision 2
202.1	03/12/20	Mental Hygiene Law	Section 33.17 & associated regulations
202.1	03/12/20	Mental Hygiene Law	Sections 29.11 and 29.15
202.1	03/12/20	Mental Hygiene Law	Section 29.13 & associated regulations
202.1	03/12/20	Mental Hygiene law	Section 41.34
202.1	03/12/20	NYCRR Title 10	Section 400.9 and section 405.9, subdivision h, paragraph 7
202.1	03/12/20	NYCRR Title 10	Section 401.3, Subdivisions (a) and (e); and section 710.1
202.1	03/12/20	NYCRR Title 10	Section 600.1
202.1	03/12/20	NYCRR Title 10	Sections 34-2.6 and 58-1.7
202.1	03/12/20	NYCRR Title 10	Part 709 and 710
202.1	03/12/20	NYCRR Title 14	section 517
202.1	03/12/20	NYCRR Title 14	Part 620 and section 686.3
202.1	03/12/20	NYCRR Title 18	Sections 414.7, 416.7, 417.7, 418-1.7, 418-2.7, 414.8, 416.8, 417.8, 418-1.8, and 418-2.8
202.1	03/12/20	NYCRR Title 18	Sections 404.1, 404.7, 415.2, 415.3, 415.6
202.1	03/12/20	NYCRR Title 18	Sections 414.13, 416.13, 417.13, 418-1.13, 418-2.13
202.1	03/12/20	NYCRR Title 8	Section 64.7
202.1	03/12/20	NYCRR Title 9	Section 6654.16, subdivision (n)
202.1	03/12/20	NYCRR Title 9	Section 6654.16, subdivision (x)
202.1	03/12/20	NYCRR Title 9	Section 6654.16, Subdivision (h)
202.1	03/12/20	NYCRR Title 9	Section 6654.10, subdivision (a), paragraph (3), subparagraph (ii), Clause (d)
202.1	03/12/20	Public Health Law	Section 2801-a, Subdivision 3
202.1	03/12/20	Public Health Law	Sections 2510 and 2511
202.1	03/12/20	Public Health Law	Section 2999-cc & associated regulations
202.1	03/12/20	Social Services Law	Sections 131, 132 and 349-a
202.1	03/12/20	Social Services Law	Section 424-a
202.1	03/12/20	Social Services Law	Section 410-w
202.1	03/12/20		Cancelling gatherings >500 people [Reduced to >50 in EO 202.3] [Reduced to no non-essential gatherings in EO 202.10]
202.1	03/12/20		Venues with capacity <500 operating at 50% capacity
202.1	03/12/20	NYCRR Title 21	Part 1002

EO #	Effective Date	Title	Section
202.1	03/12/20	Public Authorities Law	Sections 553(22), 559, 1209, and 1265-a
202.1	03/12/20	Public Officers Law	Article 7
202.1	03/12/20	Labor Law	Section 590, Subdivision 7
202.1	03/12/20	n/a	n/a
202.1	03/12/20	Education Law	Section 3604(7)
202.1	03/12/20	Education Law	Section 6909, Subdivision 4; and Section 6527, subdivision 6
202.1	03/12/20	NYCRR Title 18	Sections 413(g), 414.14, 415.13, 416.14, 417.14, 418-1.14, 418-2.14
202.1	03/12/20	Social Services Law	Sections 390(3) and 390-a
202.1	03/12/20	Social Services law	Section 390
202.1	03/12/20		DOH guidance on nursing and adult care facilities has immediate effect, supersedes all inconsistent state and local guidance [Expanded to all guidance on COVID-19 in EO 202.11]
202.1	03/12/20		Exceptions to 500-person cap
202.1	03/12/20	Election Law	Section 8-407, Subdivision 8
202.2	03/14/20	Election Law	Section 8-400
202.2	03/14/20	Election Law	Article 6
202.2	03/14/20		School closings -- consult with DOH, use available excused days; State Education to create guidance on supporting in-need students/distance learning
202.3	03/16/20		Prohibiting and suspending local emergency orders inconsistent with state orders
202.3	03/16/20		Closing casinos [Opening per EO 202.60]
202.3	03/16/20		Prohibiting dine-in at bars and restaurant [Outdoor service permitted in EO 202.38]
202.3	03/16/20		Closing gyms and movie theaters [Does not apply to drive-in movie theatres per EO 202.31] [Gyms open per EO 202.57, 202.98] [Movie theaters can operate at an occupancy level determined by DOH, per EO 202.104] [Movie theaters in all regions can be open at 25% capacity, 50 people max per screen, starting 3/5/21, per EO 202.96]
202.3	03/16/20		Cancelling gatherings >50 people [Replaced by ban on non-essential gatherings in EO 202.10]
202.4	03/16/20		Local governments to allow non-essential employees to work from home or take leave without charging accrual starting 3/17; at least 50% of workforce to be treated as non-essential [Limited to regions not qualifying for Phase Two Reopening in EO 202.39]
202.4	03/16/20		Postponing 3/17 village elections
202.4	03/16/20		Statewide limitation on which state workers are to report to work
202.4	03/16/20		Closing all schools in NYS until 4/1; districts to create plans for support of remote instruction/meals/childcare [Extended through end of school year by EO 202.28]
202.5	03/18/20	Public Health Law	Sections 2999-h and 2999-j
202.5	03/18/20	Mental Hygiene Law	Section 16.17
202.5	03/18/20	Mental Hygiene law	Sections 33.02 and 33.05
202.5	03/18/20	n/a	n/a
202.5	03/18/20	NYCRR Title 10	Part 405
202.5	03/18/20	NYCRR Title 10	sections 405.4, 405.5, 405.9, 405.14, 405.19, and 405.22
202.5	03/18/20	NYCRR Title 10	Section 400.12

EO #	Effective Date	Title	Section
202.5	03/18/20	NYCRR Title 14	Section 633.17
202.5	03/18/20	NYCRR Title 14	Sections 633.8 and 633.1
202.5	03/18/20	NYCRR Title 14	Sections 633.12 and 636-1
202.5	03/18/20	NYCRR Title 14	Sections 633.4, 636-1.4 and 633.16
202.5	03/18/20	NYCRR Title 18	Sections 358-4.3, 358-5.12 and 358-5.13
202.5	03/18/20	NYCRR Title 8	Part 60.8
202.5	03/18/20	NYCRR Title 8	Part 60
202.5	03/18/20	NYCRR Title 8	Part 59.8
202.5	03/18/20	NYCRR Title 8	Part 64
202.5	03/18/20	Public Health Law	Section 2805-k
202.5	03/18/20		Closing indoor shopping mall concourses
202.5	03/18/20		Closing places of public amusement [Indoor opening at 25% capacity on 3/26/21, outdoor at 33% capacity on 4/9/21, per EO 202.96] [No capacity limitation, subject to DOH guidance, per EO 202.108]
202.5	03/18/20	Business Corporation Law	Section 708, Subdivision b
202.5	03/18/20	Labor Law	Section 590, Subdivision 7 and section 607, subdivision 2
202.5	03/18/20	Public Service Law	Sections 65(13)(b) and 66(12)(f)
202.5	03/18/20	Public Service Law	Section 123(1)
202.5	03/18/20	Public Service Law	Section 165(1)
202.5	03/18/20		Localities need DOH approval to issue emergency orders
202.5	03/18/20		Postponing 3/18 village elections
202.5	03/18/20	Education Law	Sections 6512 through 6516, and 6541
202.5	03/18/20	Education Law	Sections 6512 through 6516, and 6524
202.5	03/18/20	Education Law	Section 6502
202.5	03/18/20	Education Law	Sections 6512 through 6516, and 6905, 6906 and 6910
202.5	03/18/20	NYCRR Title 18	Sections 413.4 and 415.15
202.5	03/18/20	Social Services Law	Section 390
202.5	03/18/20	Social Services Law	Section 390-b
202.5	03/18/20	NYCRR Title 10	Section 415.26, Subdivision i
202.5	03/18/20	NYCRR Title 10	Section 415.15, Subdivision b
202.5	03/18/20	NYCRR Title 10	Section 415.11
202.5	03/18/20	NYCRR Title 10	Part 425
202.5	03/18/20	NYCRR Title 10	Sections 403.3 and 403.5
202.5	03/18/20	NYCRR Title 10	Section 763.4, subdivision g, Paragraph; Section 763.4, subdivision h, paragraphs 7 and 8; Section 766.5, subdivision a, paragraph 2; and section 766.5, subdivision d, paragraph 1 of
202.5	03/18/20	NYCRR Title 10	Section 763.5, Subdivision a
202.5	03/18/20	Social Services Law	Section 461-k
202.6	03/18/20	Legislative Law	Section 1-M
202.6	03/18/20	State Finance Law	Section 11
202.6	03/18/20	Public Officers Law	Section 73, Subparagraph 8; and section 74

EO #	Effective Date	Title	Section
202.6	03/18/20	Public Officers Law	Section 73, Subparagraph 5
202.6	03/18/20	Public Officers Law	Section 3
202.6	03/18/20	Public Officers Law	Section 73, subdivision l, Subparagraph (i)
202.6	03/18/20		ESD to review requests to be designated as essential, allowing entity to operate with full in-person workforce
202.6	03/18/20		Businesses/non-profits which are non-essential are limited to 50% in-person workforce [Reduced to 0% in EO 202.8] [Construction limited to ESD designated projects on EO 202.13] [Exception for opening Phase One businesses in qualifying regions added in EO 202.31, EO 202.34] [Exception for opening Phase Two businesses in qualifying regions added in EO 202.35]
202.7	03/19/20	Public Officers Law	Previous suspensions of Public Officers Law, including Sections 73 and 74
202.7	03/19/20		Closing barbershops, hair salons, tattoo/piercing parlors, and related personal care services [Modified for Phase Two/Three reopening]
202.7	03/19/20		Notary services may be conducted remotely via video conference and faxing
202.7	03/19/20		Businesses/non-profits which are non-essential are limited to 25% in-person workforce [Reduced to 0% in EO 202.8] [Exception for opening Phase One businesses in qualifying regions added in EO 202.31]
202.8	03/20/20	Business Corporation Law	Section 602, Subsection (a); and Section 605, subsections (a) and (b)
202.8	03/20/20	n/a	n/a
202.8	03/20/20	Vehicle and Traffic Law	Section 503, Subdivision 1
202.8	03/20/20	Vehicle and Traffic Law	Section 491, Subdivision 1
202.8	03/20/20	Vehicle and Traffic Law	Sections 401, 410, 2222, 2251, 2261, and 2282(4)
202.8	03/20/20	Vehicle and Traffic Law	Section 420-a
202.8	03/20/20		90-day suspension of residential and commercial evictions and foreclosures
202.8	03/20/20		Allowing Tax and Finance to waive interest on late remittance of sales and use taxes this quarter
202.8	03/20/20		Prohibiting in-person DMV transactions, permitting only online DMV transactions [Appointment-only in Phase Three Reopening regions in EO 202.43]
202.8	03/20/20		Businesses/non-profits which are non-essential must have no in-person workforce; Violations of this directive are to be enforced as a violation of an order pursuant to Public Health Law Section 12 [Exception for opening Phase One businesses in qualifying regions added in EO 202.31, EO 202.34] [Exception for opening Phase Two businesses in qualifying regions added in EO 202.35]
202.9	03/21/20	Banking Law	Section 39, Subdivision 2
202.9	03/21/20		DFS permitted to issue regulations limiting ATM fees, overdraft fee, and credit card late fees for duration of emergency
202.9	03/21/20		Entities licensed or regulated by DFS to offer a forbearance of mortgage payments to any person experiencing financial hardship due to COVID-19 for duration of emergency; DFS to issue implementing regulations
202.1	03/23/20	NYCRR Title 10	Sections 800.3, 800.8, 800.9, 800.10, 800.12, 800.17, 800.18, 800.23, 800.24, and 800.26
202.1	03/23/20		Insurance companies to provide state with list of medical professionals; DFS to poll such individuals for service in response
202.1	03/23/20	NYCRR Title 10	Section 405.45
202.1	03/23/20	NYCRR Title 10	Section 3001, Subdivision (15); and Sections 800.3, 800.15 and 800.16
202.1	03/23/20	NYCRR Title 10	Parts 400, 401, 405, 409, 710, 711 and 712

EO #	Effective Date	Title	Section
202.1	03/23/20	NYCRR Title 10	Section 405.4, subdivision (g), paragraph (2), Subparagraph (ii)
202.1	03/23/20	NYCRR Title 10	Section 64.5
202.1	03/23/20	NYCRR Title 10	Section 94.2, Subdivisions (a) and (b)
202.1	03/23/20	NYCRR Title 10	Section 94.2, Subdivisions (a) and (b)
202.1	03/23/20	NYCRR Title 10	Sections 405.13 and 755.4
202.1	03/23/20	NYCRR Title 10	Part 89
202.1	03/23/20	NYCRR Title 10	Part 89
202.1	03/23/20	NYCRR Title 10	Sections 58-1.11, 405.10, and 415.22
202.1	03/23/20	NYCRR Title 10	Section 405.2, Subdivision (e)
202.1	03/23/20	NYCRR Title 10	Subparts 19 and 58
202.1	03/23/20	NYCRR Title 10	Section 58-1.7
202.1	03/23/20	NYCRR Title 10	Section 405.3, Subdivision (b)
202.1	03/23/20	NYCRR Title 10	Part 405.4, subdivision (b), Paragraph (6)
202.1	03/23/20	NYCRR Title 8	Section 29.2, Subdivision (a), Paragraph (3)
202.1	03/23/20	NYCRR Title 8	Section 59.8
202.1	03/23/20	NYCRR Title 8	Section 59.8
202.1	03/23/20	NYCRR Title 8	Subpart 79-4
202.1	03/23/20	NYCRR Title 8	Section 29.7(a)(21)(ii)(b)(4)
202.1	03/23/20	Public Health Law	Section 3001, 3005-a, 3008, and 3010
202.1	03/23/20	Public Health Law	Section 3002, 3002-a, 3003, and 3004-a
202.1	03/23/20	Public Health Law	Section 2803
202.1	03/23/20	Public Health Law	Sections 3502 and 3505
202.1	03/23/20	Public Health Law	Section 3507
202.1	03/23/20	Public Health Law	Article 5, Title V
202.1	03/23/20	Public Health Law	Section 576-b
202.1	03/23/20		Directing healthcare facilities to increase available beds by cancelling elective procedures; Hospitals to submits plans to DOH [Modified by EO 202.25]
202.1	03/23/20		Limiting hydroxychloroquine or chloroquine prescriptions to FDA approved indications or state COVID-19 trial; No other experimental or prophylactic use permitted [Limitations amended in EO 202.11]
202.1	03/23/20		Allowing medical students to work in healthcare facilities
202.1	03/23/20		Prohibition on non-essential gatherings of any size [Gatherings of up to 10 allowed in EO 202.33, up to 25 in Phase Three regions in EO 202.42, up to 50 in Phase Four regions in 202.45; private gatherings limited to 10 in EO 202.74] [Non-essential outdoor gatherings of up to 25 permitted; events, arts, and entertainment venues open at lessor of 33% capacity, 100 indoors or 200 people outdoors, or with negative COVID-19 tests 150 indoors or 500 people outdoors; per EO 202.98]
202.1	03/23/20	n/a	n/a
202.1	03/23/20		Hospitals that fail to comply with capacity directives may have operating certificate revoked and be placed under receiver operation
202.1	03/23/20	Education Law	Section 6542, Paragraph 1
202.1	03/23/20	Education Law	Section 6549, Paragraph 1

EO #	Effective Date	Title	Section
202.1	03/23/20	n/a	n/a
202.1	03/23/20	Education Law	Section 6502
202.1	03/23/20	Education Law	Section 6502
202.1	03/23/20	Education Law	Sections 8502, 8504, 8504-a, 8505, and 8507
202.1	03/23/20	Education Law	Section 6801, Subdivision (1) and Section 6832
202.1	03/23/20	Education Law	Section 6902, Subdivision (3) & associated regulations
202.1	03/23/20	Education Law	Article 139
202.1	03/23/20	Education Law	Section 6527, Subdivision (2); Section 6545; and Section 6909, Subdivision (1)
202.1	03/23/20	Education Law	Section 6530, Subdivision 32
202.1	03/23/20	Public Health Law	Section 4002, Subdivision (2-b)
202.11	03/27/20	Executive Law	Section 94
202.11	03/27/20	Public Officers Law	Section 17, Subdivision 11 & associated regulations
202.11	03/27/20	Vehicle and Traffic Law	Section 301, Subdivision (a)
202.11	03/27/20	General Municipal Law	Section 103(2)
202.11	03/27/20	Public Authorities Law	Sections 2800(1)(a) and (2)(a); 2801(1) and (2); 2802(1) and (2); 2824(2)
202.11	03/27/20	Public Authorities Law	Section 359(1)
202.11	03/27/20	Retirement and Social Security Law	Section 212
202.11	03/27/20	State Finance Law	Section 144(1)
202.11	03/27/20	Mental Hygiene Law	Sections 16.03 and 16.05
202.11	03/27/20	NYCRR Title 14	Part 619
202.11	03/27/20	NYCRR Title 14	Section 633.16
202.11	03/27/20	NYCRR Title 18	Sections 408.6, 408.7 and 408.8
202.11	03/27/20	NYCRR Title 8	Parts 29.7(10) and 63.6
202.11	03/27/20	Public Officers Law	Section 17, subdivision 1, Paragraph a & associated regulations
202.11	03/27/20	Social Services Law	Sections 131-u and 459(b)
202.11	03/27/20		DOH guidance on COVID-19 has immediate effect, supersedes all inconsistent state and local guidance
202.11	03/27/20		Restrictions on dispensing hydroxychloroquine or chloroquine modified to FDA-approved indications, indications from approved compendia, inpatient/acute use, subacute skilled nursing facility use, approved study use
202.11	03/27/20	General Business Law	Section 352-e (2)
202.11	03/27/20	NYCRR Title 19	Section 1210.13
202.11	03/27/20	Urban Development Corporation Act	Title 16
202.11	03/27/20	Environmental Conservation Law	Section 24-0801 & associated regulations
202.11	03/27/20	Executive Law	Sections 806, 808, 809, and 814 & associated regulations
202.11	03/27/20	State Technology Law	Section 307(1)
202.11	03/27/20	Transportation Law	Section 140(3)
202.11	03/27/20		Operation or occupancy a facility above the limits imposed in EOs shall be deemed a violation of the Uniform Code or local building code; state and local authorities may enforce violation by removing persons from the facility and issuing relevant code compliance orders; this does not preclude other means of enforcing EO limitations

EO #	Effective Date	Title	Section
202.11	03/27/20	Arts and Cultural Affairs Law	Article 25
202.11	03/27/20	Executive Law	Articles 6-F, 6-H, and Sections 130-131
202.11	03/27/20	General Business Law	Articles 6-D, 7, 7-A, 8-B, 8-C, 27, 28, 35-B, 35-C, 37-A, 39-E, 39-G, 41, and Section 399-pp
202.11	03/27/20	Real Property Law	Articles 12-A, 12-B, and 12-C
202.11	03/27/20	Education Law	Section 6305, Subdivision (3)
202.11	03/27/20	n/a	n/a
202.11	03/27/20	NYCRR Title 8	Section 602.12, and subdivision (c)
202.11	03/27/20		Closing schools until 4/15; no reduction in aid due to <180 days instruction; districts to continue plans for support of remote instruction/meals/childcare [Extended through end of school year by EO 202.28]
202.11	03/27/20	Education Law	Section 376(8)(a)
202.11	03/27/20	Education Law	Sections 6951, 6952, 6953 and 6955
202.11	03/27/20	Education Law	Section 6907, Subdivision 5 & associated regulations
202.11	03/27/20	Education Law	Sections 6802, 6808, and 6841
202.11	03/27/20	Education Law	Section 6808(1) & associated regulations
202.12	03/28/20	Tax Law	Section 171, Paragraph 28
202.12	03/28/20		Hospitals to allow one support person to be present during births [Expanded by EOs 202.13, 202.25]
202.12	03/28/20	Election law	Section 4-117, Subdivision (1)
202.12	03/28/20		Presidential primaries moved to 6/23
202.12	03/28/20		Special elections moved to 6/23 [No additional candidates, per EO 202.13]
202.13	03/29/20	Banking Law	Section 576
202.13	03/29/20	Insurance Law	Section 1116 and Articles 34, 53, 54, and 55
202.13	03/29/20	Insurance Law	Sections 3203 and 4510
202.13	03/29/20	Insurance Law	Sections 3203, 3219, and 3220
202.13	03/29/20	Workers' Compensation Law	Sections 54 and 226
202.13	03/29/20	Mental Hygiene law	Sections 16.33, 16.34, 31.35 and 19.20
202.13	03/29/20	Mental Hygiene Law	Sections 16.03 and 16.05
202.13	03/29/20	NYCRR Title 14	Sections 550, 633.5, 633.24 and 805
202.13	03/29/20	NYCRR Title 14	Part 619
202.13	03/29/20	NYCRR Title 18	Article 3, sections 442.18, 447.2, 448.3, 449.4, 450.9, 451.6
202.13	03/29/20	NYCRR Title 9	Sections 166-1.2, 180-1.5, 180-3.4, 182-1.5, 182-1.9, 182-1.11, 182-2.5, 182-2.9 and 6051.1
202.13	03/29/20	Social Services law	Sections 378-a, 424-a and 495
202.13	03/29/20		Presence of support person at birth includes labor, delivery, and shortly thereafter [Expanded by EO 202.25]
202.13	03/29/20		Non-essential state workers to work from home or stay home until 4/16 [Extended]
202.13	03/29/20		Continuing occupancy / operation / workforce restrictions; aligning expiration of restrictions to midnight of 4/15 [Extended]
202.13	03/29/20		ESD to determine which construction projects are essential; only such designated projects are exempt from in-person workforce limitations
202.13	03/29/20	Public Officers Law	Section 42, Subdivisions three and four

EO #	Effective Date	Title	Section
202.13	03/29/20		No additional candidates for rescheduled special elections
202.13	03/29/20		Postponing election petition circulation [Partially rescinded in EO 202.46]
202.13	03/29/20		Queens Borough President election moved to 6/23; no additional candidates
202.13	03/29/20		Allowing electronic submission of verified or acknowledged documents sent to DFS
202.13	03/29/20	Education Law	Section 414, Subdivision (i)
202.13	03/29/20		School board, library board, and village elections postponed to at least 6/1

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EO #	**Effective Date**	**Title**	**Section**
202.14	04/07/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.14	04/07/20		Continuing existing directives until 5/7/2020
202.14	04/07/20	Insurance Law	Sections 3216(d)(1)(C) and 4306(g)
202.14	04/07/20		Extending health insurance payment periods to at least 6/1/2020, without loss of coverage
202.14	04/07/20		DFS permitted to issue regulations restricting late fees and reporting of negative data to credit bureaus
202.14	04/07/20	NYCRR Title 10	Section 405.4, subdivision (g), paragraph (1)
202.14	04/07/20	NYCRR Title 8	Section 60.7
202.14	04/07/20		Medical equipment in NYS to be reported to DOH. DOH can shift currently unneeded equipment where needed. Equipment to be later returned or paid for.
202.14	04/07/20		Continuing restrictions on public/private businesses, in-person workforces, and gatherings of any size through 4/29/2020 [Extended]
202.14	04/07/20		Violations of restrictions on businesses, workforces, or gatherings shall be a violation of Public Health Law Section 12-b (2); participants in such violations, or individuals violating other social distancing restrictions, may be fined up to $1000
202.14	04/07/20		Process for witnessing signature via video conference
202.14	04/07/20		Continuing closure of schools to 4/29/2020; alternate support plans to continue [Extended to 5/15 in EO 202.18] [Extended through end of school year by EO 202.28]
202.14	04/07/20	Education Law	Section 6524
202.14	04/07/20	Surrogate's Court Procedure Act	Section 1726, Subdivisions 1, 2, 4, 5, 8 and 9
202.15	04/09/20	State Administrative Procedures Act	Section 202(2)(a)
202.15	04/09/20		Allowing Tax and Finance to accept digital signatures on tax documents [Extended for duration of emergency in EO 202.31]
202.15	04/09/20	Not for Profit Corporation Law	Section 1517
202.15	04/09/20	NYCRR Title 10	Section 77.7(a)(1) and (a)(4)
202.15	04/09/20	NYCRR Title 19	Sections 203.3, 203.6 and 203.13
202.15	04/09/20	NYCRR Title 8	Part 60
202.15	04/09/20	NYCRR Title 8	Sub Parts 79-9, 79-10, 79-11 and 79-12
202.15	04/09/20	NYCRR Title 8	Subpart 79-4

EO #	Effective Date	Title	Section
202.15	04/09/20	Public Health Law	Section 2801-a, subdivision (4), paragraph (b)(ii) and (iii), and paragraph (c); Section 3611-a, subdivision (1) paragraph (c), subparagraph (ii) and subdivision (2), paragraph (c)
202.15	04/09/20	Public Health Law	Section 3428 of the
202.15	04/09/20	Public Health Law	Sections 3400, 3420 through 3423, and 3450 through 3457
202.15	04/09/20	Education Law	Section 6808
202.15	04/09/20	Education Law	Section 6808 & associated regulations
202.15	04/09/20	NYCRR Title	Article 137
202.15	04/09/20	NYCRR Title 10	Section 5-6.12, subdivision (a), Paragraph (4)
202.15	04/09/20	Election Law	Section 8-400
202.15	04/09/20	Environmental Conservation Law	Article 70 and 17
202.15	04/09/20	Environmental Conservation Law	Article 27
202.15	04/09/20	Environmental Conservation Law	Articles 3, 8, 9, 13, 15, 17, 19, 23, 24, 25, 27, 33, 34, 35, 37, and 75
202.15	04/09/20	Not for Profit Corporation Law	Sections 1502, 1517
202.15	04/09/20	NYCRR Title 10	Section 13.1
202.15	04/09/20	NYCRR Title 19	Sections 203.1, 203.4, 203.8 and 203.13
202.15	04/09/20	NYCRR Title 6	Parts 621, 624, 704 and 750
202.15	04/09/20	NYCRR Title 6	Parts 552, 550, 601, and 609
202.15	04/09/20	NYCRR Title 6	Part 375
202.15	04/09/20	Public Health Law	Sections 4140 and 4144
202.15	04/09/20		Allowing absentee ballots to be granted on the basis of the risk of contracting COVID-19
202.15	04/09/20		Allowing electronic applications for absentee ballots
202.15	04/09/20	Religious Corporations Law	Sections 43 and 45
202.15	04/09/20	Education law	Section 3635
202.15	04/09/20	Education Law	Sections 6512 through 6516, and 6524
202.15	04/09/20	Education Law	Sections 6512 through 6516, 8402, 8403, 8404, 8405
202.15	04/09/20	Education Law	Sections 6512 through 6516 and 8510
202.15	04/09/20		Postponing public hearings until 6/1/2020, unless hearing is conducted via remote conference
202.16	04/12/20		[Attorney General] to issue no-action or no-filing letters for essential projects involving affordable housing and homeless shelters; NYC to process and record condominium declarations for essential projects involving hospitals or health care facilities, affordable housing, and homeless shelters [Modified by EO 202.17]
202.16	04/12/20	NYCRR Title 10	Section 58-1.5
202.16	04/12/20	Real Property and Proceedings Law	Section 711
202.16	04/12/20		Essential businesses to provide, at their own expense, face coverings to employees who will wear such coverings while in direct contact with customers/public, starting 8pm 4/15; To be enforced as if it were an order pursuant to section 12 or 12-b of the Public Health Law
202.16	04/12/20		Postponing caucuses until 6/1, unless held via remote conference with proper notice
202.16	04/12/20	Multiple Dwelling Law	Section 4, subdivisions 8 and 9
202.16	04/12/20	n/a	n/a

EO #	Effective Date	Title	Section
202.16	04/12/20	Real Property Law	Section 232-a
202.16	04/12/20	Education Law	Sections 8602 and 8603
202.17	04/15/20		General face covering requirement when not maintaining social distance, starting 8pm 4/17 [Fully vaccinated allowed to not wear masks in outdoor, uncrowded settings, per EO 202.105; our indoors, per EO 202.108]
202.17	04/15/20		Modifying EO 202.16 so that Attorney General issues no-action and no-filing letters
202.18	04/16/20	NYCRR Title 9	Section 6654.10, subdivision (a), Paragraph (4) and subdivision (b), paragraph (14), subparagraph (ii)
202.18	04/16/20	NYCRR Title 9	Section 6654.10, subdivision (a), Paragraph (6)
202.18	04/16/20	NYCRR Title 9	Section 6654.10, subdivision (a), Paragraph (5) and subdivision (b), paragraph (6)
202.18	04/16/20	NYCRR Title 9	Section 6654.10, subdivision (a), paragraph (3), subparagraph (i), Clause (a) and subdivision (b), paragraph (2), subparagraph (ii)
202.18	04/16/20	NYCRR Title 9	Section 6654.10, subdivision (a), paragraph (3), subparagraph (ii), clause (a), Sub-clauses (1), (2), and (3)
202.18	04/16/20	NYCRR Title 13	Section 20.3(o)(12) & associated orders, rules, or regulations
202.18	04/16/20	NYCRR Title 13	Sections 18.3(g)(1), 20.3(h)(1), 23.3(h)(1) & associated orders, rules, or regulations
202.18	04/16/20	NYCRR Title 10	Part 89
202.18	04/16/20	NYCRR Title 10	Section 58-1.3
202.18	04/16/20	NYCRR Title 8	Sections 60.11 and 64.8
202.18	04/16/20	NYCRR Title 8	Part 74
202.18	04/16/20	NYCRR Title 8	Part 60.8
202.18	04/16/20	NYCRR Title 8	Part 60
202.18	04/16/20	NYCRR Title 8	Part 64
202.18	04/16/20	NYCRR Title 8	Section 59.8
202.18	04/16/20	NYCRR Title 9	Section 6654.6
202.18	04/16/20	NYCRR Title 9	Section 6654.17, subdivision (s), Paragraph (2)
202.18	04/16/20	NYCRR Title 9	Section 6654.16, Subdivision (r)
202.18	04/16/20	Public Health Law	Sections 3502 and 3505
202.18	04/16/20		Continuing restrictions on public/private businesses, in-person workforces, and gatherings of any size through 5/15/2020 [Extended]
202.18	04/16/20		Masks to be worn while in a public or private transportation carrier, starting 4/17 8pm
202.18	04/16/20	Education Law	Section 6808
202.18	04/16/20	Education Law	Sections 6802, 6808, and 6841
202.18	04/16/20	NYCRR Title 8	Sections 63.6 and 63.8
202.18	04/16/20	NYCRR Title 8	Parts 29.7(10) and 63.6
202.18	04/16/20	Business Corporation Law	Sections 1514 and 1531
202.18	04/16/20	General Business law	Section 352-e(7)(a) & associated orders, rules, or regulations
202.18	04/16/20	General Business Law	Section 352-eeee(2)(a) & associated orders, rules, or regulations
202.18	04/16/20	Not for Profit Corporation Law	Section 603(b)
202.18	04/16/20	Partnership Law	Section 121-1500(g)
202.18	04/16/20	Retirement and Social Security Law	Section 70, Subdivision (a) and section 370, subdivision (a)

EO #	Effective Date	Title	Section
202.18	04/16/20	Education Law	Section 6503-b
202.18	04/16/20	Education Law	Section 8609 & associated regulations
202.18	04/16/20	Education Law	Section 6908 & associated regulations
202.18	04/16/20	NYCRR Title 8	Section 59.15
202.18	04/16/20		Continuing closure of schools to 5/15/2020; alternate support plans to continue [Extended through end of school year by EO 202.28]
202.18	04/16/20	Education Law	Article 165
202.18	04/16/20	Education Law	Sections 6512 through 6516, 6548 and 6911
202.18	04/16/20	Education Law	Sections 6512 through 6516, and 7704
202.18	04/16/20	Education Law	Sections 6512 through 6516, and 6541
202.18	04/16/20	Education Law	Sections 6512 through 6516, and 6524
202.18	04/16/20	Education Law	Sections 6512 through 6516, and 6905, 6906 and 6910
202.18	04/16/20	Education Law	Section 6502
202.18	04/16/20	Education Law	Section 7210
202.18	04/16/20		Nursing and adult care facilities to notify family members within 24 hours if any resident contracts or dies of COVID-19 [Enforcement mechanisms added in EO 202.19]
202.19	04/17/20	Labor Law	Section 860-b, Subdivision 1
202.19	04/17/20		Local governments and health departments to consult with DOH before taking actions that could affect public health; No local actions impeding or conflicting with other state or local COVID-19 actions
202.19	04/17/20		DOH to establish mandatory, statewide COVID-19 testing prioritizations for all labs in NYS. Inconsistent agreements prohibited without DOH exemption; fines and license revocation for violations
202.19	04/17/20		Adding enforcement mechanisms to nursing facility reporting directive; $2000 fine per violation per day, subsequent violations treated as violation of Public Health Law section 12-b
202.2	04/18/20	Domestic Relations Law	Section 15
202.2	04/18/20	Domestic Relations Law	Section 13
202.2	04/18/20		Establishing legal process for remote marriage ceremonies [Officiants added in EO 202.21]
202.2	04/18/20		Establishing legal process for remote marriage ceremonies [Officiants added in EO 202.21]
202.21	04/19/20		Adding valid officiants to the process for remote marriage ceremonies
202.22	04/20/20	Laws of Westchester County	Sections 283.291 and 283.221
202.22	04/20/20	Laws of Westchester County	Section 283.221
202.22	04/20/20	n/a	n/a
202.22	04/20/20	Real Property Tax Law	Section 1212
202.22	04/20/20	Real Property Tax Law	Section 1512(1)
202.22	04/20/20	Real Property Tax Law	Section 1512(1)
202.22	04/20/20	n/a	n/a
202.22	04/20/20	Real Property Tax Law	Article 5
202.22	04/20/20	Nassau County Administrative Code	Section 5-18.0(2)
202.23	04/24/20	Election Law	Section 8-400 and Article 9
202.23	04/24/20		Cancelling state senate, state assembly, Queens Borough President special elections

EO #	Effective Date	Title	Section
202.23	04/24/20		Allowing the Commissioner of Health to revoke the operating certificate of out-of-compliance nursing / care facilities and appoint a receiver
202.24	04/25/20	Public Health Law	Section 571, Subdivision (6)
202.24	04/25/20	Education Law	Section 6801
202.24	04/25/20		Cancelling City Council special election
202.25	04/29/20	NYCRR Title	Part 709 and 710 & associated regulations
202.25	04/29/20	NYCRR Title 10	Section 401.3, Subdivisions (a) and (e); section 710.1; & associated regulations
202.25	04/29/20		Expanding requirement that hospitals allow one support person to be present during births and hospital stay thereafter
202.25	04/29/20		Allowing hospitals to resume elective surgeries on COVID-19 negative patients, provided there is 30% available bed capacity in the county and the hospital, and provided that the change in the number of hospitalized COVID-19 patients from 4/17 to 4/27 is fewer than ten. Alternatively, hospitals may seek a waiver from DOH allowing resumption. Commissioner of Health to issue implementing guidance.
202.25	04/29/20		Allowing hospitals to resume elective surgeries on COVID-19 negative patients, provided there is 30% available bed capacity in the county and the hospital, and provided that the change in the number of hospitalized COVID-19 patients from 4/17 to 4/27 is fewer than ten. Alternatively, hospitals may seek a waiver from DOH allowing resumption. Commissioner of Health to issue implementing guidance.

May 2020

EO #	Effective Date	Title	Section
202.26	05/01/20	Election Law	Article 6 and 15
202.26	05/01/20	Election Law	Section 16-108
202.26	05/01/20	Election Law	Article 6 and 15
202.26	05/01/20	Election Law	Section 9-209
202.26	05/01/20	Election Law	Section 5-204
202.26	05/01/20	Election Law	Section 8-410
202.26	05/01/20	Election Law	Section 8-407
202.26	05/01/20	Election Law	Section 8-406
202.26	05/01/20	General Municipal Law	Sections 103 and 104-b
202.26	05/01/20		Rescheduling district and special district elections and budget votes to 9/15/2020; suspending signature collection for nominating petitions
202.26	05/01/20		Rescheduling village elections to 9/15/2020
202.26	05/01/20		Postponing circulation of nominating petitions [Partially rescinded in EO 202.46]
202.26	05/01/20		Eligible voters for the 6/23/2020 election may request an absentee ballot by phone without completing an application beforehand or concurrently; board of elections to keep record of such requests
202.26	05/01/20	Education Law	Sections 1804, 1906, 2002, 2022, 2601-a
202.26	05/01/20	Education Law	Sections 2003, 2004, 2022 2601-a
202.26	05/01/20	Education Law	Sections 1608 and 1716
202.26	05/01/20	Education Law	Sections 2018-a and 2018-b
202.26	05/01/20	Education Law	Sections 2018, 2032, and 2608

EO #	Effective Date	Title	Section
202.26	05/01/20	Education Law	Section 259 (1)
202.26	05/01/20	Education Law	Section 260
202.26	05/01/20	Education Law	Sections 2018 and 2608
202.26	05/01/20	Education Law	Sections 259 and 260
202.26	05/01/20	Education Law	Sections 2018-a and 2018-b
202.27	05/05/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.27	05/05/20		Suspensions and modifications of law related to practice of professions in NYS extended 30 days
202.28	05/07/20		Continuing a subset of existing directives until 6/6/2020
202.28	05/07/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.28	05/07/20	General Obligations Law	Sections 7-103, 7-107 and 7-108
202.28	05/07/20	General Obligations Law	Sections 7-103, 7-107 and 7-108
202.28	05/07/20	Real Property Law	Section 238-a, Subdivision 2
202.28	05/07/20	Election Law	Section 8-400
202.28	05/07/20		No eviction proceedings for nonpayment for 60 days, starting 6/20/20, against those facing financial hardship due to COVID-19 [Continued through 1/31/21 per EO 202.81]
202.28	05/07/20	Criminal Procedure Law	Section 182.30
202.28	05/07/20	Criminal Procedure Law	Section 180.60
202.28	05/07/20	Criminal Procedure Law	Section 180.80
202.28	05/07/20	Criminal Procedure Law	Section 190.80
202.28	05/07/20		Continuing closure of schools through remainder of school year; alternate support plans to continue
202.28	05/07/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.29	05/08/20		Continuing a subset of existing directives until 6/7/2020
202.29	05/08/20	Civil Practice Law and Rules	Section 214-g
202.29	05/08/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.3	05/10/20	NYCRR Title 18	Section 415.26, subdivision (c), paragraph (1), subparagraph (v), Clause (b); section 487.9, subdivision (a), paragraph (8); and section 488.9, subdivision (a), paragraph (5)
202.3	05/10/20	Public Health Law	Section 4656, subdivision (7)
202.3	05/10/20		Nursing and adult care facilities to certify compliance EOs and DOH directives. Commissioner of Health may revoke certificate of non-complying facilities and appoint receiver to operate facility. Monetary penalties imposed for non-compliance. Staff who refuse to be tested may not work in such facilities
202.3	05/10/20		Hospitals not to discharge patients to nursing facilities unless facility certifies it can care for patient and patient tests negative for COVID-19 [or beyond infectious period and going to COVID-positive facility, per EO 202.81] [And administer vaccine, per EO 202.100 & 202.101]
202.3	05/10/20		Nursing and adult care facilities to certify compliance EOs and DOH directives. Commissioner of Health may revoke certificate of non-complying facilities and appoint receiver to operate facility. Monetary penalties imposed for non-compliance. Staff who refuse to be tested may not work in such facilities
202.31	05/14/20		Extending NY On Pause restrictions until 5/28/2020, except for Phase One Industries in qualifying regions [Extended]

EO #	Effective Date	Title	Section
202.31	05/14/20		Extending state and local enforcement measures for directives until 6/13/2020
202.31	05/14/20	Labor Law	Section 594, Subdivisions (1), (2), and (3)
202.31	05/14/20	Penal Law	Section 240.35
202.31	05/14/20		Extending directive allowing digital signatures on tax documents through duration of emergency
202.31	05/14/20		Listing of regions currently qualifying for Phase One reopening; Additional regions to be deemed as included upon meeting qualification metrics
202.31	05/14/20		Drive-in movie theatres to be subject to general NY On Pause restrictions on businesses, rather than specifically required to be closed
202.32	05/21/20		Continuing a subset of existing directives until 6/20/2020
202.32	05/21/20	Laws of Westchester County	Sections 283.291 and 283.221
202.32	05/21/20	Laws of Westchester County	Section 283.221
202.32	05/21/20	n/a	n/a
202.32	05/21/20	Real Property Tax Law	Section 1212
202.32	05/21/20	Real Property Tax Law	Section 1512(1)
202.32	05/21/20	Real Property Tax Law	Section 1512(1)
202.32	05/21/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.32	05/21/20	n/a	n/a
202.32	05/21/20	Real Property Tax Law	Article 5
202.32	05/21/20		Expanding Commissioner of Tax and Finance's ability to abate interest and penalties related to sales taxes
202.32	05/21/20		Allowing non-essential gatherings of up to 10 people for religious ceremonies and Memorial Day commemorations [Up to 10 people permitted for any purpose in EO 202.33]
202.32	05/21/20		"Allowing racetracks to operate without visitors or fans starting 6/1/2020 [Auto racetracks added in EO 202.36]"
202.32	05/21/20	Nassau County Administrative Code	Section 5-18.0(2)
202.32	05/21/20	Education Law	Section 6530
202.32	05/21/20	NYCRR Title 10	Section 58-1.7 and 58-1.8
202.32	05/21/20	Public Health Law	Section 576-b, Subdivision (1)
202.33	05/22/20		Allowing non-essential gatherings of up to 10 people for any purpose
202.34	05/28/20		Extending NY On Pause restrictions for duration of executive order; Department of Health determines qualification for Phase One reopening; Opening entities must comply with Department of Health guidance
202.34	05/28/20		Businesses and building owners permitted to deny entry or remove individuals not complying with mask requirements
202.34	05/28/20		Listing of regions currently qualifying for Phase One reopening; Additional regions to be deemed as included upon meeting qualification metrics
202.35	05/29/20		Listing of regions currently qualifying for Phase Two reopening; Additional regions to be deemed as included upon meeting qualification metrics
202.35	05/29/20		Extending NY On Pause restrictions for duration of executive order; Defines Phase Two industries that will become exempt from restrictions on in-person workforce; Opening entities must comply with Department of Health guidance

June 2020			
EO #	**Effective Date**	**Title**	**Section**
202.36	06/02/20	Public Health Law	n/a
202.36	06/02/20		Allowing auto racetracks to operate without visitors or fans starting 6/3/2020
202.36	06/02/20		Expanding Phase One reopening to include outdoor, low-risk recreational activities and businesses, as determined by Empire State Development
202.36	06/02/20		Allowing barbershops and hair salons to reopen in compliance with DOH guidance in qualifying Phase Two regions
202.36	06/02/20	Education Law	Section 6530
202.37	06/05/20		In-person special education services and instruction may be provided in the summer term
202.38	06/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.38	06/06/20		Continuing a subset of existing directives until 7/6/2020
202.38	06/06/20		Retail stores and commercial building owners may require temperature checks prior to admittance
202.38	06/06/20		Bars and restaurants permitted to serve food and beverages in outdoor spaces [In Phase Two regions per EO 202.39]
202.38	06/06/20		For outdoor food and beverage service, expanding the premises licensed by the State Liquor Authority to include contiguous public space (subject to local approval) or contiguous private spaces under the control of the bar or restaurant
202.38	06/06/20		Expanding Phase Two reopening to include non-essential gatherings for houses of worship at 25% indoor capacity [No capacity limitation, subject to DOH guidance, per EO 202.108] [Indoor capacity limits discontinued per EO 202.111]
202.39	06/07/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.39	06/07/20		Continuing a subset of existing directives until 7/7/2020
202.39	06/07/20		Directive requiring local governments to allow non-essential employees to work from home or take leave without accrual is limited to regions not yet qualifying for Phase Two reopening; Employees may be brought back two weeks after qualifying
202.39	06/07/20		Outdoor service of food and beverages limited to regions qualifying for Phase Two re-opening
202.39	06/07/20	Education Law	Sections 2509, 2573, 3012 and 3014
202.39	06/07/20	Education Law	Section 3012(d)
202.39	06/07/20	NYCRR Title 8	Subpart 30-3
202.39	06/07/20	Education Law	Sections 2018-a and 2018-b
202.4	06/09/20	Education Law	Section 2022, Subdivision 4 and Section 2007, Subdivision 3
202.4	06/09/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.4	06/09/20		Continuing a subset of existing directives until 7/9/2020
202.41	06/13/20		Continuing a subset of existing directives
202.41	06/13/20		Continuing NY On Pause directives
202.41	06/13/20		Defines Phase Three industries that will become exempt from restrictions on in-person workforce; Listing of regions currently qualifying for Phase Three reopening; Additional regions to be deemed as included upon meeting qualification metrics
202.41	06/13/20		Allowing salons, tattoo parlors, piercing parlors, and related personal care services to open in Phase Three

EO #	Effective Date	Title	Section
202.42	06/15/20		Non-essential gatherings of up to 25 people permitted in Phase Three reopening regions [Further revised in EO 202.107] [Indoor capacity limits discontinued per EO 202.111]
202.43	06/18/20	Executive Law	Section 631, Subdivision 1
202.43	06/18/20	Executive Law	Section 621, Subdivision 23
202.43	06/18/20	Executive Law	Section 627 & associated regulations
202.43	06/18/20		Businesses engaged in the retail sale of alcohol must supervise the area within 100 feet of licensed premises for compliance with open-container, social-distancing, and mask-wearing rules; discontinue sale of alcohol if unable to comply
202.43	06/18/20		Allowing in-person appointment-only transactions at DMV offices in Phase Three reopening regions
202.43	06/18/20	Nassau County Administrative Code	Section 5-18.0(2)
202.44	06/21/20		Expanding requirement that hospitals allow one support person to be present during births and hospital stay thereafter
202.44	06/21/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.44	06/21/20	Real Property Tax Law	Article 5
202.44	06/21/20	Real Property Tax Law	Section 1212
202.44	06/21/20	NYCRR Title 10	Sections 401.3(a), (e), 709, 710, 710.1 & any other applicable regulation
202.44	06/21/20	Public Health Law	Section 571(6)
202.44	06/21/20	Election Law	Article 6 and 15
202.44	06/21/20	Election Law	Article 6 and 15
202.44	06/21/20	Election Law	Section 5-204
202.44	06/21/20	Election Law	Article 6 and 15
202.44	06/21/20	Election Law	Section 8-407
202.44	06/21/20	Election Law	Section 9-209
202.44	06/21/20	Election Law	Section 16-108
202.44	06/21/20	Election Law	Section 8-410
202.44	06/21/20	Town Law	Article 6
202.44	06/21/20	Town Law	Article 6
202.44	06/21/20	Town Law	Article 6
202.44	06/21/20		Rescheduling district and special district elections and budget votes to 9/15/2020; suspending signature collection for nominating petitions
202.44	06/21/20		Rescheduling village elections to 9/15/2020
202.44	06/21/20		Postponing circulation of nominating petitions [Partially rescinded in EO 202.46]
202.44	06/21/20		Eligible voters for the 6/23/2020 election may request an absentee ballot by phone without completing an application beforehand or concurrently; board of elections to keep record of such requests
202.44	06/21/20		Cancelling City Council special election
202.44	06/21/20		Cancelling state senate, state assembly, Queens Borough President special elections, with positions to be filled during general election
202.44	06/21/20		Suspensions and modifications of law related to practice of professions in NYS extended 30 days
202.44	06/21/20		Expanding Commissioner of Tax and Finance's ability to abate interest and penalties related to sales taxes

EO #	Effective Date	Title	Section
202.44	06/21/20		Allowing hospitals to resume elective surgeries on COVID-19 negative patients, provided there is 30% available bed capacity in the county and the hospital, and provided that the change in the number of hospitalized COVID-19 patients from 4/17 to 4/27 is fewer than ten. Alternatively, hospitals may seek a waiver from DOH allowing resumption. Commissioner of Health to issue implementing guidance. [Date range for criteria removed in EO 202.45]
202.44	06/21/20		Allowing racetracks to operate without visitors or fans starting 6/1/2020
202.44	06/21/20	Education Law	Section 680 [sic -- 680 concerns student loans, suspension likely meant to be in 6800s]
202.44	06/21/20	Education Law	Section 6530
202.44	06/21/20		Allowing the Commissioner of Health to revoke the operating certificate of out-of-compliance nursing / care facilities and appoint a receiver
202.44	06/21/20	Public Health Law	Section 576-b (1)
202.44	06/21/20	NYCRR Title 10	Section 58-1.7, 58-1.9
202.45	06/26/20	Labor Law	Section 581, subdivision 1, Paragraph (e)
202.45	06/26/20	Laws of New York, 2020	Chapter 25, Section 1, Subdivision 4
202.45	06/26/20		Continuing a subset of existing directives
202.45	06/26/20	Charter of the City of Buffalo	Section 28-66
202.45	06/26/20		Non-essential gatherings of up to 50 people permitted in Phase Four reopening regions, provided indoor capacity kept below 50% [Modified by EOs 202.74, 202.98, 202.107]
202.45	06/26/20		Allowing hospitals to resume elective surgeries provided they currently meet established criteria
202.45	06/26/20		Listing of regions currently qualifying for Phase Four reopening; Additional regions to be deemed as included upon meeting qualification metrics
202.45	06/26/20		Continuing NY On Pause directives; Defines Phase Four industries that will become exempt from restrictions on in-person workforce
202.45	06/26/20		Continuing closure of schools except for special education services; Schools to ensure availability of meals and childcare, especially for essential workers; Meals may be provided by alternate entity
202.46	06/30/20	Election Law	Sections 6-138, 6-142, 6-158, 6-210, 6-206, and 15-108
202.46	06/30/20	Election Law	Sections 6-138, 6-142, 6-158, 6-210, 6-206, and 15-108
202.46	06/30/20		Allowing circulation of independent nominating petitions starting July 1

July 2020

EO #	Effective Date	Title	Section
202.47	07/03/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.47	07/03/20		Continuing a subset of existing directives
202.47	07/03/20	Alcoholic Beverage Control Law	Sections 105 and 106
202.47	07/03/20	Public Health Law	n/a
202.47	07/03/20		Political party caucuses, meetings, and conventions in 2020 may be held partially or entirely via telephone or video conference
202.47	07/03/20		Proxy voting to be permitted at political party caucuses, meetings, and conventions
202.47	07/03/20		Use of fireworks during the disaster emergency in a manner that violates NYS Penal Law shall also be punishable as a violation of Public Health Law; DOH to issue implementing regulations; impermissible use of fireworks to be a basis for suspending or revoking licenses issued by state entities

EO #	Effective Date	Title	Section
202.47	07/03/20		Allowing auto racetracks to operate without visitors or fans
202.47	07/03/20		Phase One reopening to include outdoor, low-risk recreational activities and businesses, as determined by Empire State Development
202.47	07/03/20		Allowing barbershops and hair salons to reopen in compliance with DOH guidance in qualifying Phase Two regions
202.47	07/03/20		Remote caucuses or conventions may be held for town or village offices that are filled via November general elections
202.47	07/03/20	Criminal Procedure Law	Section 2.20
202.47	07/03/20	Education Law	Sections 1608 and 1716
202.47	07/03/20	Education Law	Section 2007, subdivision 3, paragraph a
202.47	07/03/20	Education Law	Section 2022, Subdivision 4 and section 2007, subdivision 3
202.47	07/03/20	Education Law	Section 6530
202.47	07/03/20	Education Law	Sections 2018-a and 2018-b
202.47	07/03/20	Education Law	Section 2022, Subdivision 2-a
202.48	07/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.48	07/06/20	State Finance Law	Articles 11-A and 11-B & associated regulations
202.48	07/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.48	07/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.48	07/06/20		Continuing a subset of existing directives and allowing specified directives to expire
202.48	07/06/20		Indoor food services and dining prohibited in New York City [Modified to 75% capacity per EO 202.106]
202.48	07/06/20		Directives closing specific categories of businesses to remain in effect until such time as a future Executive Order opens them
202.48	07/06/20	Criminal Procedure Law	Sections 190.45 and 190.50
202.48	07/06/20	Criminal Procedure Law	Section 180.80 and 190.80
202.48	07/06/20	Criminal Procedure Law	Sections 180.60 and 245.70
202.48	07/06/20	Criminal Procedure Law	Sections 182.20 and 182.30
202.48	07/06/20	Criminal Procedure Law	Section 30.30
202.48	07/06/20	Criminal Procedure Law	Article 195
202.48	07/06/20	Criminal Procedure Law	Section 150.40
202.48	07/06/20	Criminal Procedure Law	Section 190.80
202.48	07/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.48	07/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.48	07/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.48	07/06/20		Continuing a subset of existing directives and allowing specified directives to expire
202.49	07/07/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.49	07/07/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.49	07/07/20		Continuing a subset of existing directives

EO #	Effective Date	Title	Section
202.5	07/09/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.5	07/09/20		Continuing a subset of existing directives
202.5	07/09/20		Indoor common portions of malls can reopen in Phase Four regions while adhering to DOH guidance
202.51	07/13/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.51	07/13/20	n/a	n/a
202.51	07/13/20		Continuing a subset of existing directives
202.51	07/13/20	Education Law	Section 259, Subdivision 1
202.52	07/16/20		For businesses with an SLA license for on premises service of alcohol with a requirement to make food available, purchases of alcohol must also include a purchase of a food item for each individual being served alcohol. SLA to issue guidance.
202.52	07/17/20	Alcoholic Beverage Control Law	n/a
202.53	07/21/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.53	07/21/20		Continuing a subset of existing directives
202.53	07/21/20		Indoor common portions of malls to remain closed in NYC [Opening per EO 202.60]
202.53	07/21/20		Continuing NY On Pause directives; NYC deemed to meet Phase 4 metrics; Indoor common portions of shopping malls and places of low-risk indoor arts and entertainment to remain closed in NYC
202.54	07/30/20		Continuing a subset of existing directives
202.54	07/30/20		At political party caucuses, meetings, and conventions, any prior rule allowing more than ten proxy votes by one person remains in effect
202.54	07/30/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.44	06/21/20		Cancelling state senate, state assembly, Queens Borough President special elections, with positions to be filled during general election
202.44	06/21/20		Suspensions and modifications of law related to practice of professions in NYS extended 30 days
202.44	06/21/20		Expanding Commissioner of Tax and Finance's ability to abate interest and penalties related to sales taxes
202.44	06/21/20		Allowing hospitals to resume elective surgeries on COVID-19 negative patients, provided there is 30% available bed capacity in the county and the hospital, and provided that the change in the number of hospitalized COVID-19 patients from 4/17 to 4/27 is fewer than ten. Alternatively, hospitals may seek a waiver from DOH allowing resumption. Commissioner of Health to issue implementing guidance. [Date range for criteria removed in EO 202.45]
202.44	06/21/20		Allowing racetracks to operate without visitors or fans starting 6/1/2020
202.44	06/21/20	Education Law	Section 680 [sic -- 680 concerns student loans, suspension likely meant to be in 6800s]
202.44	06/21/20	Education Law	Section 6530
202.44	06/21/20		Allowing the Commissioner of Health to revoke the operating certificate of out-of-compliance nursing / care facilities and appoint a receiver
202.44	06/21/20	Public Health Law	Section 576-b (1)
202.44	06/21/20	NYCRR Title 10	Section 58-1.7, 58-1.9
202.45	06/26/20	Labor Law	Section 581, subdivision 1, Paragraph (e)
202.45	06/26/20	Laws of New York, 2020	Chapter 25, Section 1, Subdivision 4
202.45	06/26/20		Continuing a subset of existing directives

EO #	Effective Date	Title	Section
202.45	06/26/20	Charter of the City of Buffalo	Section 28-66
202.45	06/26/20		Non-essential gatherings of up to 50 people permitted in Phase Four reopening regions, provided indoor capacity kept below 50% [Modified by EOs 202.74, 202.98, 202.107]
202.45	06/26/20		Allowing hospitals to resume elective surgeries provided they currently meet established criteria
202.45	06/26/20		Listing of regions currently qualifying for Phase Four reopening; Additional regions to be deemed as included upon meeting qualification metrics
202.45	06/26/20		Continuing NY On Pause directives; Defines Phase Four industries that will become exempt from restrictions on in-person workforce
202.45	06/26/20		Continuing closure of schools except for special education services; Schools to ensure availability of meals and childcare, especially for essential workers; Meals may be provided by alternate entity
202.46	06/30/20	Election Law	Sections 6-138, 6-142, 6-158, 6-210, 6-206, and 15-108
202.46	06/30/20	Election Law	Sections 6-138, 6-142, 6-158, 6-210, 6-206, and 15-108
202.46	06/30/20		Allowing circulation of independent nominating petitions starting July 1

August 2020

EO #	Effective Date	Title	Section
202.55	08/05/20	NYCRR Title 13	Sections 18.3(g)(1), 20.3(h)(1), 21.3(g), 22.3(g)(1), 23.3(h)(1), 24.3(j)(1), and 25.3(h)(1) & associated orders, rules, or regulations
202.55	08/05/20	General Business Law	Sections 352-eeee & associated orders, rules, or regulations
202.55	08/05/20	General Business Law	Sections 352-eeee & associated orders, rules, or regulations
202.55	08/05/20	General Business Law	Sections 352-eeee & associated orders, rules, or regulations
202.55	08/05/20	General Business Law	Sections 352-eeee & associated orders, rules, or regulations
202.55	08/05/20	n/a	n/a
202.55	08/05/20	NYCRR Title 13	Section 22.3(k)(10) & associated orders, rules, or regulations
202.55	08/05/20	NYCRR Title 13	Section 20.3(o)(12) & associated orders, rules, or regulations
202.55	08/05/20	NYCRR Title 13	Section 25.3(l)(12) & associated orders, rules, or regulations
202.55	08/05/20	Real Property Law	Section 339-ee (2) & associated orders, rules, or regulations
202.55	08/05/20	Real Property Tax Law	Section 730(3)
202.55	08/05/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.55	08/05/20		Continuing a subset of existing directives
202.55	08/05/20	Multiple Dwelling Law	Section 4, subdivisions 8 and 9
202.55	08/05/20	Real Property and Proceedings Law	Section 711
202.55	08/05/20	Real Property Law	Section 232-a of the
202.55	08/05/20	Nassau County Administrative Code	Sections 5-11.0(a), 5-16.0(a) 5-18.0(1) and 6-22.0
202.55.1	08/06/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.55.1	08/06/20		Continuing a subset of existing directives
202.56	08/12/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.56	08/12/20		Continuing a subset of existing directives
202.57	08/20/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications

EO #	Effective Date	Title	Section
202.57	08/20/20		Continuing a subset of existing directives
202.57	08/20/20		Continues prohibition on eviction or foreclosure of commercial properties through 9/20 [Continued through 1/31/2021 per EO 202.81]
202.57	08/20/20		Allowing gyms, fitness centers and classes to open subject to DOH guidance [Indoor fitness classes shall be permitted, per EO 202.98]
202.57	08/20/20		Allowing bowling alleys to open subject to DOH guidance
202.57	08/20/20		Allowing low-risk indoor arts and cultural activities to open in NYC
202.58	08/24/20	Election Law	Section 8-400 and any relevant provision of Article 9
202.58	08/24/20	Election Law	Article 16
202.58	08/24/20	Election Law	Section 9-209(3)
202.58	08/24/20	Election Law	Sections 15-120 and 15-122
202.58	08/24/20	General Municipal Law	Sections 103 and 104-b
202.58	08/24/20	n/a	n/a
202.58	08/24/20	Town Law	Section 84-a of the
202.58	08/24/20		Boards of Elections must submit staffing plans and needs to State Board of Elections by 9/20
202.58	08/24/20		Boards of Elections must send voting information to registered voters by 9/8
202.58	08/24/20		Boards of Elections to facilitate prompt counting of ballots, establish objections to ballot envelops prior to election day, report affidavit ballots within 48 hours
202.58	08/24/20		State Board of Elections to develop uniform absentee ballot envelope; all Boards of Elections to use such envelope
202.58	08/24/20	Education Law	Sections 2018-a and 2018-b
202.59	08/27/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.59	08/27/20		Continuing a subset of existing directives
202.59	08/27/20		Commissioner of Health to develop statewide testing protocol for COVID-19 and Influenza

September 2020			
EO #	**Effective Date**	**Title**	**Section**
202.6	09/01/20		Authorizing schools to open 9/1 subject to DOH guidance; Schools operating remotely to ensure availability of meals and childcare for essential workers
202.6	09/04/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.6	09/04/20		Continuing a subset of existing directives
202.6	09/04/20	Public Authorities Law	Section 2804
202.6	09/04/20	Nassau County Administrative Code	Section 5-17.0(2)
202.6	09/04/20	Laws of New York, 2020	Chapter 25, Section 1, Subdivision 4
202.6	09/04/20	Rural Electric Cooperatives Law	Section 17(d)
202.6	09/04/20	Real Property Tax Law	Article 11, Title 5
202.6	09/04/20		Indoor common portions of malls in NYC opening subject to DOH guidance
202.6	09/04/20	[unclear]	[unclear]
202.6	09/04/20	n/a	n/a
202.6	09/04/20	Criminal Procedure Law	Section 170.70
202.6	09/04/20	Criminal Procedure Law	Section 30.30
202.6	09/04/20	Nassau County Administrative Code	Section 5-16.0(b)
202.6	09/04/20		Coroners to perform tests where COVID-19 or influenza is suspected cause of death; DOH to assist [Influenza test no longer required per EO 202.106]
202.6	09/09/20		Allowing casinos to open starting 9/9, subject to DOH guidance
202.61	09/09/20		Existing authorizations concerning administration and processing of COVID-19 tests expanded to include other FDA approved methods
202.61	09/09/20	Laws of New York, 2020	Chapter 91 and Chapter 138
202.61	09/09/20		Boards of elections shall not send absentee ballot applications to nor require completed applications from voters who requested an absentee ballot by other means
202.61	09/09/20		Higher education institutions are to report to DOH daily with COVID-19 tests and diagnoses of on-campus students, teachers, employees, and volunteers; Additional notification required once institution reaches 100 positive cases
202.61	09/09/20		Schools and school districts are to report to DOH daily with COVID-19 tests and diagnosis of students, teachers, employees, and volunteers
202.61	09/09/20	Public Health Law	Section 579, Subdivision 1
202.61	09/09/20		Licensed professionals administering COVID-19 and influenza tests are to report individuals' test results, school attendance, place of employment, and local address to DOH
202.61	09/09/20		Local health departments are to report to DOH daily with COVID-19 tests and diagnoses of students, teachers, employees, and volunteers at education institutions
202.61	09/09/20		Licensed labs processing COVID-19 tests must collect and report to DOH tested individuals' school attendance and place of employment
202.62	09/10/20		MTA to create enforcement plan for coronavirus orders/guidelines and can implement the plan via emergency rules
202.63	09/11/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.63	09/11/20		Continuing a subset of existing directives

EO #	Effective Date	Title	Section
202.64	09/18/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.64	09/18/20		Continuing a subset of existing directives
202.64	09/18/20	Labor Law	Section 522
202.64	09/18/20		Continues prohibition on eviction or foreclosure of commercial properties through 10/20 [Continued through 1/31/2021 per EO 202.81]
202.61	09/21/20		Boards of elections to develop contactless voting plans by 9/21, submit plans to State Board of Elections, and publish plan on website
202.65	09/23/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.65	09/23/20		Continuing a subset of existing directives
202.66	09/29/20	Laws of New York, 2020	Chapter 127
202.61	09/30/20		Allowing indoor food services in NYC, subject to applicable guidance, starting 9/30 [Indoor dining in NYC permitted at 75% capacity, per EO 202.106]

October 2020

EO #	Effective Date	Title	Section
202.67	10/03/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.67	10/03/20		Continuing a subset of existing directives
202.67	10/03/20	n/a	n/a
202.67	10/03/20	Criminal Procedure Law	Section 30.30
202.68	10/05/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.68	10/05/20		Continuing a subset of existing directives
202.68	10/06/20	Public Health Law	Sections 12 and 206
202.68	10/06/20	Public Health Law	Sections 12-a and 206(4)
202.68	10/06/20		DOH to determine COIVD-19 cluster areas in which enhanced public health restrictions will apply; three levels of restriction zones to be used
202.68	10/06/20		DOH enhanced public health restriction zones effective upon notice to affected areas [Ambiguous wording may allow additional effects]
202.68	10/06/20		Red zone restrictions: no nonessential gatherings or businesses; houses of worship at lessor of 25% capacity or ten people; restaurants to offer takeout or delivery only; local DOH to cease in-person instruction at schools [In-person instruction permitted per EO 202.79] [No house of worship restriction per EO 202.93]
202.68	10/06/20		Orange zone restrictions: nonessential gatherings limited to 10 people; no nonessential businesses identified as being higher risk; houses of worship at lessor of 35% capacity or 25 people; restaurants to offer outdoor service (4 per table max), takeout, or delivery only; local DOH to cease in-person instruction at schools [In-person instruction permitted per EO 202.79] [Gyms and personal care services permitted per EO 202.81] [No house of worship restriction per EO 202.93]
202.68	10/06/20		Yellow zone restrictions: nonessential gatherings limited to 25 people; houses of worship at 50% capacity; restaurants to serve 4 per table max; schools to adhere to DOH testing guidance [No house of worship restriction per EO 202.93]
202.69	10/13/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.69	10/13/20		Continuing a subset of existing directives

EO #	Effective Date	Title	Section
202.69	10/14/20	NYCRR Title 8	Section 64.7
202.69	10/14/20	Public Health Law	Section 6909, subdivision 4
202.69	10/14/20		Director of Budget authorized to withhold funds appropriated for schools and localities while they are in violation of EO 202.68 & associated DOH orders [zone restrictions]
202.69	10/14/20	Education Law	Section 6527, subdivision 6
202.7	10/19/20		Continuing a subset of existing directives
202.7	10/19/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.7	10/20/20		Continues prohibition on eviction or foreclosure of commercial properties through 1/1/2021 [Continued through 1/31/2021 per EO 202.81]
202.7	10/20/20		Allowing movie theaters to open at the lower of 25% capacity or 50 people per screen, subject to DOH guidance, outside of NYC or counties with either 2% infection-rates or red zones [All regions can open at indicated capacity limits, per EO 202.96] [Occupancy level determined by DOH, per EO 202.104]
202.71	10/28/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications

November 2020

EO #	Effective Date	Title	Section
202.72	11/03/20		Continuing a subset of existing directives
202.72	11/03/20	Vehicle and Traffic law	Section 420-a
202.72	11/03/20	Vehicle and Traffic law	Sections 401, 410, 2222, 2251, 2261, and 2282(4)
202.72	11/03/20	Vehicle and Traffic Law	Section 301, Subdivision (a)
202.72	11/03/20	Vehicle and Traffic law	Section 491, Subdivision 1
202.72	11/03/20	Public Health Law	Section 579, Subdivision 1
202.72	11/03/20		Labs and licensed professionals administering COVID-19 and influenza tests are to report results to DOH within 24 hours or as required by DOH
202.72	11/03/20	Real Property Actions and Proceedings Law	Sections 732 and 743
202.72	11/03/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.72	11/03/20	n/a	n/a
202.72	11/04/20	n/a	n/a
202.73	11/09/20	NYCRR Title 18	Section 415.26, subdivision (c), paragraph (1), subparagraph (v), Clause (b); section 487.9, subdivision (a), paragraph (8); and section 488.9, subdivision (a), paragraph (5)
202.73	11/09/20	Public Health Law	Section 4656, subdivision (7)
202.73	11/09/20		Nursing homes in red, orange, and yellow zones to test all personnel as directed by DOH
202.74	11/13/20	Alcoholic Beverage Control Law	Sections 105 and 106
202.74	11/13/20		EO 202.74 takes effect at 10pm 11/13/2020
202.74	11/13/20		Restaurants to cease in-person dining for at least 10pm [11pm per EO 202.94] to 5am; to-go and delivery may continue
202.74	11/13/20		Gyms and fitness centers to close 10pm [11pm per EO 202.94] to 5am

EO #	Effective Date	Title	Section
202.74	11/13/20		SLA licensed liquor and wine stores to close at 10pm [11pm per EO 202.94]; SLA licensed bars and restaurants to cease on-premises food and beverage service/consumption for at least 10pm [12am per EO 202.102] to 5am; to-go and delivery of food and non-alcoholic beverages may continue; SLA to establish limitations and procedures
202.74	11/13/20		Non-essential private residential gatherings limited to 10 or fewer people [Up to 25 outdoors; events, arts, and entertainment venues open at lessor of 33% capacity, 100 indoors or 200 people outdoors, or with negative COVID-19 tests 150 indoors or 500 people outdoors; per EO 202.98] [Further revised in EO 202.107] [Indoor capacity limits discontinued per EO 202.111]
202.75	11/13/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.75	11/13/20		Continuing a subset of existing directives
202.76	11/19/20		Continuing a subset of existing directives
202.76	11/19/20	Public Authorities Law	Sections 1205, 1263 and 1266
202.76	11/19/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.76	11/19/20	Family Court Act	n/a
202.76	11/19/20	Criminal Procedure Law	n/a
202.77	11/23/20	NYCRR Title 10	Sections 415.3(i) and 1001.7(a)
202.77	11/23/20	NYCRR Title 18	Sections 487.4(c), 488.4(c), and 494.4(e)
202.77	11/23/20		DOH to establish mandatory guidelines for acceptance of nursing home and adult care facility patients after external social visits
202.78	11/27/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications

December 2020

EO #	Effective Date	Title	Section
202.79	12/01/20		Continuing a subset of existing directives
202.79	12/01/20	NYCRR Title 10	Section 405.9, subdivision h, paragraph 7
202.79	12/01/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.79	12/01/20		Permitting in-person instruction at schools in red and orange zones, in compliance with DOH guidance and directives
202.8	12/08/20		Continuing a subset of existing directives
202.8	12/08/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.81	12/10/20		Continuing a subset of existing directives
202.81	12/10/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.81	12/11/20	Racing, Pari-mutuel Wagering and Breeding Law	Section 221-a
202.81	12/11/20		Continues prohibition on eviction or foreclosure of commercial properties through 1/31/2021
202.82	12/13/20	NYCRR Title 10	Section 800.3, subdivision (p)
202.82	12/13/20	NYCRR Title 10	Section 800.3, subdivisions o and p; and Section 800.15
202.82	12/13/20	NYCRR Title 10	Section 800.3, subdivisions o and p; and Section 800.15
202.82	12/13/20	Insurance Law	Sections 3216(i)(17)(E), 3221(l)(8)(E) and (F), and 4303(j)(3)

EO #	Effective Date	Title	Section
202.82	12/13/20	NYCRR Title 10	Section 58-1.5
202.82	12/13/20	NYCRR Title 10	Section 66-1.2
202.82	12/13/20	NYCRR Title 10	Parts 19 and 58
202.82	12/13/20	NYCRR Title 8	Section 64.7 and section 63.9
202.82	12/13/20	NYCRR Title 8	Section 79-5.5
202.82	12/13/20	NYCRR Title 8	Section 61.9
202.82	12/13/20	NYCRR Title 8	Section 64.7, subdivision a, paragraph 3, subparagraph ii, clause d
202.82	12/13/20	NYCRR Title 8	Section 64.7, subdivision a, paragraph 2, subparagraph i
202.82	12/13/20	NYCRR Title 8	Section 64.7, subdivision a, paragraph 3, subparagraph ii
202.82	12/13/20	NYCRR Title 8	Section 79-5.5
202.82	12/13/20	NYCRR Title 8	Section 63.9, subdivision b, and paragraph 5
202.82	12/13/20	NYCRR Title 8	Section 61.9
202.82	12/13/20	NYCRR Title 8	Section 63.9
202.82	12/13/20	NYCRR Title 8	Section 63.9
202.82	12/13/20	NYCRR Title 8	Section 63.9
202.82	12/13/20	NYCRR Title 8	Section 64.7
202.82	12/13/20	NYCRR Title 8	Section 63.9
202.82	12/13/20	NYCRR Title 8	Section 64.7 and section 63.9
202.82	12/13/20	NYCRR Title 8	Section 29.2, subdivision a, paragraph 5
202.82	12/13/20	NYCRR Title 8	Section 29.2, subdivision a, paragraph 3
202.82	12/13/20	NYCRR Title 8	Section 63.9, subdivision b, paragraph 5, subparagraph xi
202.82	12/13/20	Public Health Law	Section 3001, subdivisions 6 and 7
202.82	12/13/20	Public Health Law	Section 2168
202.82	12/13/20	Public Health Law	Section 3001, subdivisions 6 and 7
202.82	12/13/20	Public Health Law	Section 3001, subdivision (7)
202.82	12/13/20	Public Health Law	Title V of Article 5
202.82	12/13/20	NYCRR Title 10	Parts 709 and 710
202.82	12/13/20	Laws of New York, 2020	Chapter 110
202.82	12/13/20		Requiring clinical labs permitted by DOH and larger than 25 employees to join SHIN-NY system and allow access to patient information
202.82	12/13/20		Requiring medical supervisors of POD sites to have CPR certification
202.82	12/13/20	Education Law	Section 6527, subdivisions 6 and 7; section 6902, subdivision 1; section 6909, subdivisions 4, 5, and 7;
202.82	12/13/20	Education Law	Section 6951
202.82	12/13/20	Education Law	6521 and 6902
202.82	12/13/20	Education Law	Section 6601
202.82	12/13/20	Education Law	Section 6606, subdivision 1
202.82	12/13/20	Education Law	Section 6601
202.82	12/13/20	Education Law	Section 7001, subdivisions 1 and 2
202.82	12/13/20	Education Law	Section 6951

EO #	Effective Date	Title	Section
202.82	12/13/20	Education Law	Section 6801, subdivision 2, paragraphs a, b, and c
202.82	12/13/20	Education Law	Section 6606, subdivision 1
202.82	12/13/20	Education Law	Section 6808 & associated regulations
202.82	12/13/20	Education Law	Section 6801, subdivision 2; and Section 6802, subdivision 22
202.82	12/13/20	Education Law	Section 6801, subdivisions 2 and 3; Section 6527, subdivision 7; Section 6909, subdivision 7; Section 6802, subdivision 22; and Section 6828, subdivision 1
202.82	12/13/20	Education Law	Section 6902
202.82	12/13/20	Education Law	Section 6801, Subdivisions 2 and 3; section 6527, subdivision 7; Section 6909, subdivision 7; Section 6802, subdivision 22; and Section 6828, subdivision 1
202.82	12/13/20	Education Law	Section 6527, subdivision 6; section 6909, subdivisions 4 and 5
202.82	12/13/20	Education Law	Section 6801, subdivisions 2 and 3
202.82	12/13/20	Education Law	6521 and 6902
202.82	12/13/20	Education Law	Section 6527, subdivisions 6 and 7; section 6902, subdivision 1; section 6909, subdivisions 4, 5, and 7;
202.82	12/13/20	Education Law	Section 6542, paragraph 1 & associated regulations
202.82	12/13/20	Education Law	Section 6902, subdivision (3) & associated regulations
202.82	12/13/20	Education Law	Section 6801
202.82	12/13/20	Education Law	Sections 8602 and 8603
202.82	12/13/20	NYCRR Title 10	Section 94.2, subdivisions (a) and (b)
202.82	12/13/20	NYCRR Title 10	Sections 29.2, 29.14, and 64.5
202.82	12/13/20		Allowing individuals enrolled in specified education programs to administer vaccinations against influenza and COVID-19
202.82	12/13/20		Allowing individuals enrolled in specified education programs to administer vaccinations against influenza and COVID-19
202.82	12/13/20		Allowing individuals enrolled in specified education programs to administer vaccinations against influenza and COVID-19
202.81	12/14/20		No indoor dining in NYC as of 12/14/2020 [Modified to 75% capacity per EO 202.106]
202.81	12/14/20		Modifying "orange zone" restrictions: gyms and fitness centers open at 25% capacity; personal care services open with weekly employee COVID-19 testing
202.81	12/14/20	Education Law	Section 2018-a; section 2018-b; and section 1951, subdivision 2, paragraph s
202.81	12/14/20		Hospitals may discharge patients to COVID-positive nursing facilities without negative test for COVID-19 if beyond infectious period and facility certifies as able to care
202.83	12/18/20	Tax Law	Section 1145
202.83	12/18/20	n/a	n/a
202.83	12/18/20	Real Property Tax Law	Section 459-c, Subdivisions 7, 7-a and 8; Section 467, subdivisions 5, 5-a, 5-b, 5-c and 6
202.83	12/18/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.83	12/18/20	Family Court Act	n/a
202.83	12/18/20	Laws of New York, 2020	Chapter 125
202.83	12/18/20		Continuing a subset of existing directives
202.83	12/18/20		Allowing Commissioner of Tax and Finance to abate some late filing and payment penalties for sales and use taxes for restaurants closed by executive order or "orange zone" designations

EO #	Effective Date	Title	Section
202.84	12/22/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.84	12/22/20		Continuing a subset of existing directives
202.85	12/26/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.85	12/26/20		Continuing a subset of existing directives
202.86	12/28/20		No salary raises for commissioners or statewide elected officials
202.86	12/28/20	NYCRR Title 8	Part 59.8
202.86	12/28/20	Public Health Law	Section 12
202.86	12/28/20		Vaccine recipients to provide information and attestation of being in a specific priority group on DOH form; penalties for health care providers that knowingly administer vaccine to non-priority group members
202.86	12/28/20	Education Law	Sections 6502, 6524, 6905, 6906 and 6910
202.87	12/29/20		Continuing a subset of existing directives
202.87	12/29/20	Arts and Cultural Affairs Law	Section 25.30(1)(c)
202.87	12/29/20	NYCRR Title 10	Part 405.4, subdivision (b), paragraph (6)
202.87	12/29/20	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.87	12/29/20	Laws of New York, 2020	Chapter 91, Chapter 138
202.87	12/29/20	Laws of New York, 2020	Chapter 89
202.87	12/29/20	Criminal Procedure Law	Section 30.30 and Section 190.80

January 2021

EO #	Effective Date	Title	Section
202.88	01/04/21	NYCRR Title 10	Section 66-1.2
202.88	01/04/21	Public Health Law	Section 12
202.88	01/04/21	Public Health Law	Section 2168
202.88	01/04/21		Healthcare entities must administer all allocated vaccines within one week of receipt and notify Department of Health if not on pace 5 days after receipt; possible fine if not all administered, possible reduction of future vaccine allocation if not all administered or fail to notify Department of Health as required
202.88	01/04/21		Commissioner of Health can require testing of nursing home personnel in any area of the state
202.89	01/06/21		Continuing a subset of existing directives
202.89	01/06/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.89	01/06/21	n/a	n/a
202.89	01/06/21	Town Law	Section 84-a
202.89	01/06/21		Vaccine administration deadline from EO 202.88 applies only to vaccine on-hand as of 1/4/21, which is to be administered by 1/8/21 or by extended deadline that can be requested with good cause
202.89	01/06/21		NYC election petitions that are to be filed before 2/6/21 require 315 signatures; Signature requirements for independent nominating petitions for non-statewide town or village general elections occurring before 7/1/21 are the lessor of 3.3% previous local gubernatorial votes or 70% of statutory requirement

EO #	Effective Date	Title	Section
202.89	01/07/21		Allowing expiration of directives that were specific to conduct of elections in 2020
202.89	01/07/21	NYCRR Title 10	Section 405.3, Subdivision (f)
202.89	01/07/21	NYCRR Title 10	Section 66-1.2
202.89	01/07/21	Public Health Law	Section 2168
202.89	01/07/21	Labor Law	Section 522
202.89	01/07/21	Election Law	Section 8-407
202.89	01/07/21	Election Law	Section 6-142, subdivision 2; Section 15-108, subdivision 6; and section 6-206, subdivision 4
202.89	01/07/21	Election Law	Article 6 and 15
202.89	01/07/21	Election Law	Sections 15-120 and 15-122
202.89	01/07/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.91	01/22/21		Continuing existing directives
202.91	01/22/21		Vaccination providers to not schedule appointments in excess of actual received allocation
202.91	01/22/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.91	01/22/21		Based on vaccination provider types, sets vaccination prioritization for subsets of eligible population [Modified by EO 202.97, 202.99]
202.92	01/26/21		At any congregate facility supervised or licensed by OMH; OASAS; DOCCS; OPWDD; or DOH, DOH can require staff COVID-19 testing or modify/eliminate visitation/leave for residents
202.92	01/26/21		Continuing existing directives
202.92	01/26/21	Nassau County Administrative Code	Section 5-17.0(1)
202.92	01/26/21	NYCRR Title 10	Section 58-1.7 and 58-1.8
202.92	01/26/21	NYCRR Title 10	Section 58-1.7 and 58-1.8
202.92	01/26/21	Public Health Law	Section 571, Subdivision (6)
202.92	01/26/21	Public Health Law	Section 576-b, Subdivision (1)
202.92	01/26/21	Public Health Law	Section 576-b, Subdivision (1)
202.92	01/26/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.92	01/26/21	Education Law	Section 6801

February 2021

EO #	Effective Date	Title	Section
202.93	02/12/21		Indoor dining in NYC permitted at 25% capacity starting 2/12/2021 [Modified to 75% capacity per EO 202.106]
202.93	02/13/21		Continuing existing directives
202.93	02/13/21		Party caucuses, meetings, and conventions in 2021 may be held remotely
202.93	02/13/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.93	02/13/21	n/a	n/a
202.93	02/13/21		No capacity restrictions on houses of worship in red/orange/yellow zones beyond DOH guidance
202.94	02/16/21		Continuing existing directives

EO #	Effective Date	Title	Section
202.94	02/16/21		SLA licensed bars and restaurants to cease on-premises food and beverage service/consumption by 11pm [12am per EO 202.102]; SLA licensed bowling alleys and casinos to close by 11pm
202.94	02/16/21		SLA licensed liquor and wine stores to close by 11pm
202.94	02/16/21		Restaurant in-person dining allowed until 11pm
202.94	02/16/21		Gyms and fitness centers to close by 11pm
202.94	02/16/21	Election Law	Section 5-304, subdivision 3
202.94	02/16/21	Eminent Domain Procedure Law	Sections 201, 202, and 203
202.94	02/16/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.95	02/24/21		Continuing existing directives
202.95	02/24/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.95	02/24/21		Teachers at P-12 schools must report receipt of COVID-19 vaccination to employing school upon request
202.95	02/24/21		Schools and school districts are to report to DOH weekly on the number of COVID-19 vaccinations, number and percentage of teachers instructing in-person, and other data determined by DOH
202.96	02/26/21		Indoor dining in NYC permitted at 35% capacity starting 2/26/21 [Modified to 75% capacity per EO 202.106]
202.96	02/28/21		Continuing existing directives
202.96	02/28/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.96	02/28/21		Local Health Departments to report to DOH the number of eligible and number of vaccinated P-12 school staff upon request

March 2021			
EO #	**Effective Date**	**Title**	**Section**
202.96	03/05/21		Movie theaters in all regions can be open at 25% capacity, 50 people max per screen, starting 3/5/21 [Occupancy level determined by DOH, per EO 202.104]
202.97	03/17/21	Tax Law	Section 171-w
202.97	03/17/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.97	03/17/21		Modifies vaccination prioritization: pharmacies to focus on age 60+ and P-12 teachers; all other providers to vaccinate all eligible [Modified to all age eligible, teachers, and those with comorbidities, per EO 202.99]
202.97	03/19/21		Indoor dining outside NYC permitted at 75% capacity starting 3/19/21 [No capacity limitation, subject to DOH guidance, per EO 202.108]
202.97	03/19/21		Indoor dining in NYC permitted at 50% capacity starting 3/19/21 [No capacity limitation, subject to DOH guidance, per EO 202.108]
202.98	03/21/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.98	03/22/21		Indoor fitness classes shall be permitted to operate, starting 3/22/21
202.96	03/26/21		Indoor places of amusement opening at 25% capacity on 3/26/21, outdoor amusement parks opening at 33% capacity on 4/9/21 [No capacity limitation, subject to DOH guidance, per EO 202.108]
202.99	03/26/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.99	03/26/21		Modifies vaccination prioritization: pharmacies to focus on those eligible by age, P-12 teachers, and those with comorbidities

EO #	Effective Date	Title	Section
202.1	03/31/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.1	03/31/21		Prior to discharging a patient to a nursing home, hospitals to offer and administer COVID-19 vaccine

April 2020			
EO #	**Effective Date**	**Title**	**Section**
202.101	04/01/21		Outdoor stadiums and performing arts venues that hold 2500+ permitted to operate at 20% capacity; indoor stadiums that hold 1500+ permitted to operate at 10% capacity; all attendees must show negative COVID-19 test or completed vaccination [No capacity limitation for outdoor venues, subject to DOH guidance; indoor venue capacity to be determined by DOH, per EO 202.108]
202.98	04/02/21		Non-essential outdoor private residential gatherings of up to 25 permitted starting 3/22/2021 [No limit outdoors; 50 people indoors starting 5/19]; events, arts, and entertainment venues open at lessor of 33% capacity, 100 [250 starting 5/19] indoors or 200 [now 500] people outdoors, or with negative COVID-19 tests 150 indoors or 500 people outdoors, starting 4/2/2021 [Indoor capacity limits discontinued per EO 202.111]
202.101	04/05/21		Permitted activities at SLA licensed businesses may continue past the ending time for food and beverage service
202.101	04/05/21		Gyms and fitness centers no longer have required closing time
202.101	04/06/21		Continuing existing directives
202.101	04/06/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.101	04/06/21		Prior to discharging a patient to a nursing home, adult care facility, or long-term care facility, hospitals to offer and administer COVID-19 vaccine
202.102	04/19/21		Revokes directive that required all allocated vaccines to be administered within one week
202.102	04/19/21		SLA licensed food and beverage establishments to cease on-premises food and beverage service/consumption by 12am [No required outdoor end-of-service time; indoor required end-of-service time to cease on 5/31, per EO 202.108]
202.102	04/19/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.103	04/25/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.104	04/26/21		Movie theaters can operate at an occupancy level determined by DOH
202.105	04/27/21		Fully vaccinated individuals no longer required to wear face masks while outdoors and not in a crowded setting or venue [Nor indoors, except where required by DOH guidance, per EO 202.108]
202.105	04/27/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.105	04/27/21		Revokes directive that imposed penalties for health care providers who knowingly administered vaccine to non-priority group members
202.105	04/27/21		Revokes directives that set vaccination prioritizations of eligible populations for vaccine providers

May 2021			
EO #	**Effective Date**	**Title**	**Section**
202.106	05/05/21		Continuing existing directives
202.106	05/05/21		DOH to no longer determine COIVD-19 cluster areas in which enhanced public health restrictions will apply
202.106	05/05/21		Coroners no longer required to perform influenza tests when COVID-19 or influenza is suspected cause of death
202.106	05/05/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.106	05/05/21	Criminal Procedure Law	Article 182
202.106	05/05/21	Criminal Procedure Law	Existing Suspensions and Modifications
202.106	05/05/21	Criminal Procedure Law	Section 150.40
202.106	05/05/21	Criminal Procedure Law	Sections 30.30 and 190.80
202.106	05/07/21		Indoor dining in NYC permitted at 75% capacity [No capacity limitation, subject to DOH guidance, per EO 202.108]
202.107	05/09/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.108	05/16/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.108	05/19/21		Fully vaccinated individuals no longer required to wear face masks while indoors, except where required by DOH guidance, aligned with CDC guidance, starting 5/19
202.108	05/19/21		No more capacity limitations based on maximum occupancy for large outdoor venues or racing venues, subject to DOH guidance, starting 5/19; DOH to determine indoor venue capacity limitations
202.108	05/19/21		No more capacity limitations based on maximum occupancy in houses of worship, places of amusement, or restaurants, subject to DOH guidance, starting 5/19
202.109	05/21/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications

June 2021			
EO #	**Effective Date**	**Title**	**Section**
202.11	06/05/21		Continuing existing directives
202.11	06/05/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
202.111	06/15/21		Removes capacity limits on residential indoor gatherings and on social gatherings at indoor events, arts, and entertainment venues
210	06/25/21	Existing Suspensions and Modifications	Existing Suspensions and Modifications
210	06/25/21		Rescinds all EOs

Appendix D: Sample Participant Correspondence

Participants in the town halls, surveys and interviews were contacted mainly through email correspondence. Participants were also contacted by telephone when appropriate. All correspondence were pre-approved, prior to being sent, for language and content. Depending on the type of interaction, (survey, town hall, or interview) participants received the exact same email with exception of participant name and title. This allowed for more consistent and uniform communication between OGL and the perspective participants.

Town Halls

Below is a sample of the letter sent to various stakeholders across New York State requesting participation in the town hall sessions.

Dear Colleague,

We are currently conducting town hall sessions for State employees to solicit our input and feedback about the NYS pandemic response. Your insights will contribute to a better understanding of the policies, procedures, and challenges faced by New York State while responding to this crisis and help inform the recommendations contained in the AAR.

Your responses will be absolutely anonymous. The town hall online platform tool (EasyRetro) does not capture any identifying information from town hall participants. The goal of the town hall is to capture your honest, open and candid feedback about the strengths and weaknesses of New York State's pandemic response. We have attached a Town Hall Participant Guide to help introduce the EasyRetro platform and its functions.

At various points in the town hall discussion, you will be asked for your professional perspectives on your organization's role in COVID, as well as New York State ("the State"), representing an overall "whole of government" response. This town hall seeks to gain your professional insights as a State employee and will not ask for your perspectives as a private citizen. The town hall discussion will be framed around your experiences during the AAR reporting period of March 2020 through December 2022.

If you have any questions, comments or concerns regarding the town hall feel free to contact me, ***town hall facilitator****, Olson Group project manager, at* ***facilitator's email.***

In advance, thank you for your insights. Your participation will help to make New York State stronger and more resilient, improving the State's ability to respond effectively to future crises.

Sincerely,

Town Hall Facilitator

Furthermore, prospective participants received a meeting invite to each town hall with the following verbiage attached.

TOWN HALL MEETING REMINDER:

*Please join us for tomorrow's virtual town hall meeting on **Date and Time of Town Hall** to solicit your input and feedback about New York State's pandemic response from non-profit and non-governmental professionals and organizations.*

*The Olson Group Ltd. has been retained by the Executive Chamber, to research and prepare an After-Action Report (AAR) addressing New York State's (NYS) response to the COVID-19 pandemic. Please join us for a town hall meeting on **Date and Time of Town Hall** to solicit input and feedback about the State's pandemic response from non-profit and non-governmental organizations. Your insights will contribute to a better understanding of the policies, procedures, and challenges faced by New York State while responding to this crisis and help inform the recommendations contained in the AAR. This project is intended to help improve New York State's disaster readiness. Please use the link below to join the town hall session and see below for information about the NEW YORK STATE COVID-19 AAR EASYRETRO PARTICIPANT GUIDE. Easy Retro works best using Google Chrome.*

Sincerely,

Town Hall Facilitator

Surveys

Participants in NYS COVID-19 AAR Surveys were sent emails requesting their participation. Emails were a generic letter tailored to the NYS AAR project. Below is an example of the email that was generated.

Dear Colleague,

The Olson Group, Ltd. has been retained by the Executive Chamber to research and prepare an After-Action Report (AAR) addressing New York State's (NYS) response to the COVID-19 pandemic. This project is intended to help improve New York's readiness for the largest disasters of all kinds. You may have received previous requests for your participation in an interview to provide you the opportunity to share your experiences and insights into the strengths and areas of weakness or areas for improvement you observed as a State agency leader. If you're now available and interested in participating in an interview, please let me know.

The next step in our stakeholder engagement process is to distribute a survey to State employees to solicit their input and feedback about the NYS pandemic response. We request your support in distributing this survey to the appropriate people within your organization. During the first phase of our stakeholder engagement effort, we interviewed key leadership from State organizations to solicit qualitative data that would then guide survey development. This survey is designed to solicit insights in a quantitative manner from members of your organization who had a role in developing and executing State and organizational pandemic response policy, strategy and protocol. For most organizations, appropriate respondents would reside organizationally in the tiers directly below executive leadership. Depending on the organization, this may include division directors, deputy directors, and the branch chiefs or supervisors that support them.

Since you know your organization, we will rely on you to decide who fulfills those criteria. We ask that you distribute the survey directly to those colleagues. Based on our knowledge of your organization, we estimate that would include roughly 17 individuals. We ask that not only you confirm receipt of this email and the survey's distribution to your team, but also that you let us know how many people individuals you ask to participate in the survey.

Attached to this message is a document containing a draft email. It's designed to make it easy for you to copy, paste, and send to the identified respondents. Please review, and if you have any questions about the survey, the process, or the AAR effort please do not hesitate to contact me.

Again, thank you for your participation in the AAR process thus far, and for helping the AAR team with this next phase of research. Your support is helping to make New York State stronger and more resilient, improving the State's ability to respond effectively to future crises.

Sincerely,

Interview Facilitator

Interviews

The Interview process was long and extensive. Prospective Interviewees would receive an email correspondence requesting participation. The email was a generic request and was used to explain the interview process and purpose. This email is shown here.

Dear. Prospective Interviewee

The Olson Group, Ltd. has been retained by the Executive Chamber to research and prepare an After-Action Report (AAR) addressing the State of New York's response to the COVID-19 pandemic. This project is intended to help improve New York's readiness for the largest disasters of all kinds. We would like to invite you to share your experiences and insights into the strengths and areas of weakness or areas for improvement he observed as a member of an organization involved in the response.

We would appreciate your participation in a not-for-attribution interview conducted by members of our research team. This one-hour interview will address his thoughts regarding the State of New York pandemic plans, policies, and response operations during the pandemic. If you agree to take part in this project, we will schedule either a virtual or in-person interview at a time and place of your convenience. An agenda and a list of proposed questions will be provided to you in advance. Again, we want to stress that all responses and comments will be anonymized to ensure non-attribution.

If you are willing to be interviewed, please reply to this email, and let us know. We will work with you to coordinate interview scheduling availability.

Our charge from the Executive Chamber is to gather the lessons learned from the State's response to ensure New York is better prepared to protect its residents during future events. We are hoping to schedule interviews with several hundred experts like yourself over the next few weeks. Your timely assistance will be a major contribution to that goal.

Should you have any questions concerning our requests, please feel free to contact me at the number and email address below.

Best regards and stay well,

Interview Facilitator

Once an interview was agreed to and set up, the interviewee would then receive a follow-up email with a read ahead guide attached so they could prepare for the interview. Each guide had generic questions as well as several questions tailored to the interviewee or their corresponding agency. This is a sample of the generic questions within the read ahead guide that was sent to the interviewees.

The Executive Chamber has engaged The Olson Group, Ltd. to write an After-Action Report (AAR) addressing the State of New York's response to the COVID-19 pandemic. The report aims to identify strengths, innovative actions, and opportunities for improvement across the State from March 2020 through December 2022.

As someone integral to New York's COVID-19 response, your and your agency's participation is requested in two major areas: interviews and document gathering. Provided in this guide are questions that will be used for conducting the interview session for your review before your scheduled session. In addition, we would also appreciate your help sharing documentation related to your agency's COVID-19 response actions, including Plans, Policies, and Procedures that served to guide or otherwise impacted your office's internal and external COVID-19 response activities. Also, please share any other documentation you feel should be included in telling the story of the State's response.

Interview Agenda

- Welcome and Introductions
- Overview of the AAR and how the interview supports the effort
- Interview Questions
- Closing and Next Steps

General Interview Questions

Plans, Policies, and Procedures

a. Were your department/agency plans, policies, and procedures sufficient to support the COVID-19 response? If not, what were the major gaps or issues?

b. Were the State's plans, policies, and procedures sufficient to support the COVID-19 response? If not, what were the major gaps or issues?

Personnel, Organization, Coordination, and Communication

a. Was your department/agency staffed properly to respond to COVID-19? If not, please explain.

b. Was the State staffed properly to respond to COVID-19? If not, please explain.

c. Did your department/agency organization adequately support the COVID-19 response requirements? If not, please explain.

d. Did the State's organization support the COVID-19 response requirements? If not, please explain.

e. Please rate the following on a scale of effective or not effective. If not effective, please explain:

Coordination between your department and your customers and stakeholders	**Effective or Not Effective** (Circle one)	Comments:
Coordination between departments/agencies	**Effective or Not Effective** (Circle one)	Comments:
Coordination between the Executive Chamber and your department/agency	**Effective or Not Effective** (Circle one)	Comments:

f. Please rate the following on a scale of effective or not effective. If not effective, please explain:

Coordination between your department and your customers and stakeholders	**Effective or Not Effective** (Circle one)	Comments:
Coordination between departments/agencies	**Effective or Not Effective** (Circle one)	Comments:
Coordination between the Executive Chamber and your department/agency	**Effective or Not Effective** (Circle one)	Comments:

Resources (Equipment and Supplies)

a. Did your department/agency have sufficient equipment and supplies to support the COVID-19 Response? If not, what gaps existed? No agency in the world can answer this one "yes."

b. Did the State have sufficient equipment and supplies to support the COVID-19 Response? If not, what gaps existed?

Training

c. Did you have sufficient training in your assigned role(s) to support the COVID-19 Response? If not, what gaps existed?

d. Did your department/agency personnel have sufficient training to support their role(s) in the COVID-19 Response? If not, what gaps existed?

Agency-Specific Interview Questions

******These Questions Were Tailored, by the Interview Facilitators, to the Specific Interviewee or Their Corresponding Agency******

Closing Questions and Next Steps

a. What are the top two or three strengths or innovations your department/agency exhibited during the COVID-19 response?

b. What are the top two or three strengths or innovations the State (as a whole) exhibited during the COVID-19 response?

c. What are the top two or three areas for improvement or lessons learned from the COVID-19 response that you think should be carried forward by your department/agency?

d. What are the top two or three areas for improvement or lessons learned from the COVID-19 response that you think should be carried forward by the State as a whole?

e. Are there any specific stakeholders you recommend we talk to or engage as part of this AAR process?

Thank you for your time and input. As a reminder, your feedback and our conversation during the interview will remain confidential and not be used for attribution. In the weeks ahead, we will distribute leadership and staff surveys and schedule town hall-style listening sessions to collect additional stakeholder feedback for analysis and incorporation in the After-Action Report. We ask for your support in encouraging the participation of your staff.

Appendix E: Leadership Intelligence Reports

The Leadership intelligence reports (LIR) were a daily situational report supplied to the Governor and agency heads. They were comprised of statistics including hospitalizations, COVID-19 deaths, vaccination reports, and positive cases. It also contained the emergency support function (ESF) mission reports and Emergency Operation Center (EOC) activations. Review of the LIR's provided a real time look at the statistical data from COVID-19 as well as motivations for decision making as the pandemic progressed. Each LIR contained a personal quote from the Governor which lent further insight into the strategy of NYS executive leadership.

Leadership Intelligence Report Number	LIR Date/Time/File Type
1	03.03.2020.1400(COVID-19) LIR _1.pdf
2	03.04.2020.0800 (COVID-19) LIR_2.pdf
3	03.04.2020.2000 (COVID-19) LIR_3.pdf
4	03.05.2020.0800 (COVID-19) LIR_4.pdf
5	03.05.2020.2000 (COVID-19) LIR_5.pdf
6	03.05.2020.2000 (COVID-19) LIR_6.pdf
7	03.06.2020.2000 (COVID-19) LIR_7.pdf
8	03.07.2020.2000 (COVID-19) LIR_8.pdf
9	03.07.2020.2000 (COVID-19) LIR_9.pdf
10	03.08.2020.0800 (COVID-19) LIR_10.pdf
11	03.08.2020.2000 (COVID-19) LIR_11.pdf
12	03.08.2020.2000 (COVID-19) LIR_12 .pdf
13	03.09.2020.2000 (COVID-19) LIR_13 .pdf
14	03.09.2020.2000 (COVID-19) LIR_14 .pdf
15	03.10.2020.2000 (COVID-19) LIR_15 .pdf
16	03.10.2020.2000 (COVID-19) LIR_16 .pdf
17	03.11.2020.2000 (COVID-19) LIR_17.pdf
18	03.12.2020.0800 (COVID-19) LIR_18.pdf
19	03.12.2020.0800 (COVID-19) LIR_20.pdf
20	03.12.2020.2000 (COVID-19) LIR_19.pdf
21	03.13.2020.2000 (COVID-19) LIR_21.pdf
22	03.14.2020.0800 (COVID-19) LIR_22.pdf
23	03.14.2020.2000 (COVID-19) LIR_23.pdf
24	03.15.2020.0800 (COVID-19) LIR_24.pdf
25	03.15.2020.2000 (COVID-19) LIR_25.pdf
26	03.16.2020.0800 (COVID-19) LIR_26.pdf
27	03.16.2020.2000 (COVID-19) LIR_27.pdf
28	03.17.2020.0800 (COVID-19) LIR_28.pdf
29	03.17.2020.2000 (COVID-19) LIR_29.pdf
30	03.18.2020.0800 (COVID-19) LIR_30.pdf
31	03.18.2020.2000 (COVID-19) LIR_31.pdf
32	03.19.2020.0800 (COVID-19) LIR_32.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
33	03.19.2020.2000 (COVID-19) LIR_33.pdf
34	03.20.2020.0800 (COVID-19) LIR_34.pdf
35	03.20.2020.2000 (COVID-19) LIR_35.pdf
36	03.21.2020.0800 (COVID-19) LIR_36.pdf
37	03.21.2020 2000 (COVID-19) LIR_37.pdf
38	03.22.2020.0800 (COVID-19) LIR_38.pdf
39	03.22.2020.2000 (COVID-19) LIR_39.pdf
40	03.23.2020 0800 (COVID-19) LIR_40.pdf
41	03.23.2020 2000 (COVID-19) LIR_41.pdf
42	03.24.2020. 0800 (COVID-19) LIR_42.pdf
43	03.24.2020. 2000 (COVID-19) LIR_43.pdf
44	03.25.2020. 0800 (COVID-19) LIR_44.pdf
45	03.25.2020. 2000 (COVID-19) LIR_45.pdf
46	03.26.2020. 0800 (COVID-19) LIR_46.pdf
47	03.26.2020. 2000 (COVID-19) LIR_47.pdf
48	03.27.2020. 0800 (COVID-19) LIR_48.pdf
49	03.27.2020. 2000 (COVID-19) LIR_49.pdf
50	03.28.2020. 0800 (COVID-19) LIR_50.pdf
51	03.28.2020. 2000 (COVID-19) LIR_51.pdf
52	03.29.2020. 0800 (COVID-19) LIR_52.pdf
53	03.29.2020. 2000 (COVID-19) LIR_53.pdf
54	03.30.2020. 0800 (COVID-19) LIR_54.pdf
55	03.30.2020. 2000 (COVID-19) LIR_55.pdf
56	03.31.2020. 0800 (COVID-19) LIR_56.pdf
57	03.31.2020. 2000 (COVID-19) LIR_57.pdf
58	04.01.2020. 0800 (COVID-19) LIR_58.pdf
59	04.01.2020. 2000 (COVID-19) LIR_59.pdf
60	04.02.2020. 0800 (COVID-19) LIR_60.pdf
61	04.02.2020. 2000 (COVID-19) LIR_61.pdf
62	04.03.2020. 0800 (COVID-19) LIR_62.pdf
63	04.03.2020. 2000 (COVID-19) LIR_63.pdf
64	04.04.2020. 0800 (COVID-19) LIR_64.pdf
65	04.04.2020. 2000 (COVID-19) LIR_65.pdf
66	04.05.2020 0800 (COVID-19) LIR_66.pdf
67	04.05.2020 2000 (COVID-19) LIR _67.pdf
68	04.06.2020 0800 (COVID-19) LIR _68.pdf
69	04.06.2020 2000 (COVID-19) LIR _69.pdf
70	04.07.2020 0800 (COVID-19) LIR _70.pdf
71	04.07.2020 2000 (COVID-19) LIR 71.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
72	04.08.2020 0800 (COVID-19) LIR 72.pdf
73	04.08.2020 2000 (COVID-19) LIR 73.pdf
74	04.09.2020 0800 (COVID-19) LIR 74.pdf
75	04.09.2020 2000 (COVID-19) LIR _75.pdf
76	04.10.2020 0800 (COVID-19) LIR 76.pdf
77	04.10.2020 2000 (COVID-19) LIR 77.pdf
78	04.11.2020 0800 (COVID-19) LIR 78.pdf
79	04.11.2020 2000 (COVID-19) LIR 79.pdf
80	04.12.2020 0800 (COVID-19) LIR 80.pdf
81	04.12.2020 0800 (COVID-19) LIR 81.pdf
82	04.13.2020 0800 (COVID-19) LIR 82.pdf
83	04.13.2020 2000 (COVID-19) LIR 83.pdf
84	04.14.2020 2000 (COVID-19) LIR 84.pdf
85	04.14.2020 2000 (COVID-19) LIR 85.pdf
86	04.15.2020 0800 (COVID-19) LIR 86.pdf
87	04.15.2020 2000 (COVID-19) LIR 87.pdf
88	04.16.2020 0800 (COVID-19) LIR 88.pdf
89	Word Document out of Order
90	04.17.2020 0800 (COVID-19) LIR 90.pdf
91	04.17.2020 2000 (COVID-19) LIR 91.pdf
92	04.18.2020 0800 (COVID-19) LIR 92.pdf
93	04.18.2020 2000 (COVID-19) LIR 93.pdf
94	04.19.2020 0800 (COVID-19) LIR 94.pdf
95	04.19.2020 2000 (COVID-19) LIR 95.pdf
96	04.20.2020 0800 (COVID-19) LIR 96.pdf
97	04.20.2020 2000 (COVID-19) LIR 97.pdf
98	04.21.2020 0800 (COVID-19) LIR 98.pdf
99	04.21.2020 2000 (COVID-19) LIR 99.pdf
100	04.22.2020 0800 (COVID-19) LIR 100.pdf
101	04.22.2020 2000 (COVID-19) LIR 101.pdf
102	04.23.2020 0800 (COVID-19) LIR 102.pdf
103	04.23.2020 2000 (COVID-19) LIR 103.pdf
104	04.24.2020 0800 (COVID-19) LIR 104.pdf
105	04.24.2020 2000 (COVID-19) LIR 105.pdf
106	04.25.2020 0800 (COVID-19) LIR 106.pdf
107	04.25.2020 2000 (COVID-19) LIR 107.pdf
108	04.26.2020 0800 (COVID-19) LIR 108.pdf
109	04.26.2020 2000 (COVID-19) LIR 109.pdf
110	04.27.2020 0800 (COVID-19) LIR 110.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
111	04.27.2020 2000 (COVID-19) LIR 111.pdf
112	04.28.2020 0800 (COVID-19) LIR 112.pdf
113	04.28.2020 2000 (COVID-19) LIR 113.pdf
114	04.29.2020 0800 (COVID-19) LIR 114.pdf
115	04.29.2020 2000 (COID-19) LIR 115.pdf
116	04.30.2020 0800 (COVID-19) LIR 116.pdf
117	04.30.2020 2000 (COVID-19) LIR 117.pdf
118	05.01.2020 0800 (COVID-19) LIR 118.pdf
119	05.01.2020 2000 (COVID-19) LIR 119 .pdf
120	05.02.2020 0800 (COVID-19) LIR 120.pdf
121	05.02.2020 2000 (COVID-19) LIR 121.pdf
122	05.03.2020 0800 (COVID-19) LIR 122.pdf
123	05.03.2020 2000(COVID-19) LIR 123.pdf
124	05.04.2020 0800(COVID-19) LIR 124.pdf
125	05.04.2020 2000 (COVID-19) LIR 125.pdf
126	05.05.2020 0800 (COVID-19) LIR 126.pdf
127	05.05.2020 2000 (COVID-19) LIR 127.pdf
128	05.06.2020 0800 (COVID-19) LIR 128.pdf
129	05.06.2020 2000 (COVID-19) LIR 129.pdf
130	05.07.2020 0800 (COVID-19) LIR 130.pdf
131	05.07.2020 2000 (COVID-19) LIR 131.pdf
132	05.08.2020 0800 (COVID-19) LIR 132.pdf
133	05.08.2020 2000 (COVID-19) LIR 133.pdf
134	05.09.2020 0800 (COVID-19) LIR 134.pdf
135	05.09.2020 2000 (COVID-19) LIR 135.pdf
136	05.10.2020 0800 (COVID-19) LIR 136.pdf
137	05.10.2020 2000 (COVID-19) LIR 137.pdf
138	05.11.2020 0800 (COVID-19) LIR 138.pdf
139	05.11.2020 2000 (COVID-19) LIR 139.pdf
140	05.12.2020 0800 (COVID-19) LIR 140.pdf
141	05.12.2020 2000 (COVID-19) LIR 141.pdf
142	05.13.2020 0800 (COVID-19) LIR 142.pdf
143	05.13.2020 2000 (COVID-19) LIR 143.pdf
144	05.14.2020 0800 (COVID-19) LIR 144.pdf
145	05.14.2020 2000 (COVID-19) LIR 145.pdf
146	05.15.2020 0800 (COVID-19) LIR 146.pdf
147	05.15.2020 2000 (COVID-19) LIR 147.pdf
148	05.16.2020 0800 (COVID-19) LIR 148.pdf
149	05.16.2020 2000 (COVID-19) LIR 149.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
150	05.17.2020 0800 (COVID-19) LIR 150.pdf
151	05.17.2020 2000 (COVID-19) LIR 151.pdf
152	05.18.2020 2000 (COVID-19) LIR 152.pdf
153	05.18.2020 2000 (COVID-19) LIR 153.pdf
154	05.19.2020 0800 (COVID-19) LIR 154.pdf
155	05.19.2020 2000 (COVID-19) LIR 155.pdf
156	05.20.2020 0800 (COVID-19) LIR 156.pdf
157	05.20.2020 2000 (COVID-19) LIR 157.pdf
158	05.21.2020 0800 (COVID-19) LIR 158.pdf
159	05.21.2020 2000 (COVID-19) LIR 159.pdf
160	05.22.2020 0800 (COVID-19) LIR 160.pdf
161	05.22.2020 2000 (COVID-19) LIR 161.pdf
162	05.23.2020 0800 (COVID-19) LIR 162.pdf
163	05.23.2020 2000 (COVID-19) LIR 163.pdf
164	05.24.2020 0800 (COVID-19) LIR 164 (Revised).pdf
165	05.24.2020 2000 (COVID-19) LIR 165.pdf
166	05.25.2020 0800 (COVID-19) LIR 166.pdf
167	05.25.2020 2000 (COVID-19) LIR 167.pdf
168	05.26.2020 0800 (COVID-19) LIR 168.pdf
169	05.26.2020 2000 (COVID-19) LIR 169.pdf
170	05.27.2020 0800 (COVID-19) LIR 170.pdf
171	05.27.2020 2000 (COVID-19) LIR 171.pdf
172	05.28.2020 0800 (COVID-19) LIR 172.pdf
173	05.28.2020 2000 (COVID-19) LIR 173.pdf
174	05.29.2020 0800 (COVID-19) LIR 174.pdf
175	05.29.2020 2000 (COVID-19) LIR 175.pdf
176	05.30.2020 0800 (COVID-19) LIR 176.pdf
177	05.30.2020 2000 (COVID-19) LIR 177.pdf
178	05.31.2020 0800 (COVID-19) LIR 178.pdf
179	05.31.2020 2000 (COVID-19) LIR 179.pdf
180	06.01.2020 0800 (COVID-19) LIR 180.pdf
181	06.01.2020 2000 (COVID-19) LIR 181.pdf
182	06.02.2020 0800 (COVID-19) LIR 182.pdf
183	06.02.2020 2000 (COVID-19) LIR 183.pdf
184	06.03.2020 0800 (COVID-19) LIR 184.pdf
185	06.03.2020 2000 (COVID-19) LIR 185.pdf
186	06.04.2020 0800 (COVID-19) LIR 186.pdf
187	06.04.2020 2000 (COVID-19) LIR 187.pdf
188	06.05.2020 0800 (COVID-19) LIR 188.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
189	06.05.2020 2000 (COVID-19) LIR 189.pdf
190	06.06.2020 0800 (COVID-19) LIR 190.pdf
191	06.06.2020 2000 (COVID-19) LIR 191.pdf
192	06.07.2020 0800 (COVID-19) LIR 192.pdf
193	06.07.2020 2000 (COVID-19) LIR 193.pdf
194	06.08.2020 0800 (COVID-19) LIR 194.pdf
195	06.08.2020 2000 (COVID-19) LIR 195.pdf
196	06.09.2020 2000 (COVID-19) LIR 196.pdf
197	06.10.2020 2000 (COVID-19) LIR 197.pdf
198	06.11.2020 2000 (COVID-19) LIR 198.pdf
199	06.12.2020 2000 (COVID-19) LIR 199 .pdf
200	06.13.2020 2000 (COVID-19) LIR 200.pdf
201	06.14.2020 2000 (COVID-19) LIR 201.pdf
202	06.15.2020 2000 (COVID-19) LIR 202.pdf
203	06.16.2020 2000 (COVID-19) LIR 203.pdf
204	06.17.2020 2000 (COVID-19) LIR 204 .pdf
205	06.18.2020 2000 (COVID-19) LIR 205.pdf
206	06.19.2020 2000 (COVID-19) LIR 206.pdf
207	06.20.2020 2000 (COVID-19) LIR 207.pdf
208	06.21.2020 2000 (COVID-19) LIR 208.pdf
209	06.22.2020 2000 (COVID-19) LIR 209.pdf
210	06.23.2020 2000 (COVID-19) LIR 210.pdf
211	06.24.2020 2000 (COVID-19) LIR 211.pdf
212	06.25.2020 2000 (COVID-19) LIR 212.pdf
213	06.26.2020 2000 (COVID-19) LIR 213.pdf
214	06.27.2020 2000 (COVID-19) LIR 214.pdf
215	06.28.2020 2000 (COVID-19) LIR 215.pdf
216	06.29.2020 2000 (COVID-19) LIR 216.pdf
217	06.30.2020 2000 (COVID-19) LIR 217.pdf
218	07.01.2020 2000 (COVID-19) LIR 218.pdf
219	07.02.2020 2000 (COVID-19) LIR 219.pdf
220	07.03.2020 2000 (COVID-19) LIR 220.pdf
221	07.06.2020 2000 (COVID-19) LIR 221.pdf
222	07.07.2020 2000 (COVID-19) LIR 222.pdf
223	07.08.2020 2000 (COVID-19) LIR 223.pdf
224	07.09.2020 2000 (COVID-19) LIR 224.pdf
225	07.10.2020 2000 (COVID-19) LIR 225.pdf
226	07.13.2020 2000 (COVID-19) LIR 226.pdf
227	07.14.2020 2000 (COVID-19) LIR 227.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
228	07.15.2020 2000 (COVID-19) LIR 228.pdf
229	07.16.2020 2000 (COVID-19) LIR 229.pdf
230	07.17.2020 2000 (COVID-19) LIR 230.pdf
231	07.20.2020 2000 (COVID-19) LIR 231.pdf
232	07.21.2020 1800 (COVID-19) LIR 232.pdf
233	07.22.2020 1800 (COVID-19) LIR 233.pdf
234	07.23.2020 1800 (COVID-19) LIR 234.pdf
235	07.24.2020 1800 (COVID-19) LIR 235.pdf
236	07.25.2020 1800 (COVID-19) LIR 236.pdf
237	07.28.2020 1800 (COVID-19) LIR 237.pdf
238	07.29.2020 1800 (COVID-19) LIR 238.pdf
239	07.30.2020 1800 (COVID-19) LIR 239.pdf
240	07.31.2020 1800 (COVID-19) LIR 240.pdf
241	08.03.2020 1800 (COVID-19) LIR 241.pdf
242	08.04.2020 1800 (COVID-19) LIR 242.pdf
243	08.05.2020 0600 (COVID-19) LIR 243.pdf
244	08.05.2020 1800 (COVID-19) LIR 244.pdf
245	08.05.2020 1800 (COVID-19) LIR 245.docx
246	08.06.2020 1800 (COVID-19) LIR 246.pdf
247	08.07.2020 1800 (COVID-19) LIR 247.pdf
248	08.08.2020 1800 (COVID-19) LIR 248.pdf
249	08.09.2020 1800 (COVID-19) LIR 249.pdf
250	08.10.2020 1800 (COVID-19) LIR 250.pdf
251	08.11.2020 1800 (COVID-19) LIR 251.pdf
252	08.12.2020 1800 (COVID-19) LIR 252.pdf
253	08.13.2020 1800 (COVID-19) LIR 253.pdf
254	08.14.2020 1800 (COVID-19) LIR 254.pdf
255	08.17.2020 1800 (COVID-19) LIR 255.pdf
256	08.18.2020 1800 (COVID-19) LIR 256 (1).pdf
257	08.19.2020 1800 (COVID-19) LIR 257.pdf
258	08.20.2020 1800 (COVID-19) LIR 258.pdf
259	08.21.2020 1800 (COVID-19) LIR 259.pdf
260	08.24.2020 1800 (COVID-19) LIR 260.pdf
261	08.25.2020 1800 (COVID-19) LIR 261.pdf
262	08.26.2020 1800 (COVID-19) LIR 262.pdf
263	08.27.2020 1800 (COVID-19) LIR 263.pdf
264	08.28.2020 1800 (COVID-19) LIR 264.pdf
265	08.31.2020 1800 (COVID-19) LIR 265.pdf
266	09.01.2020 1800 (COVID-19) LIR 266.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
267	09.02.2020 1800 (COVID-19) LIR 267.pdf
268	09.03.2020 1800 (COVID-19) LIR 268 (1).pdf
269	09.04.2020 1800 (COVID-19) LIR 269.pdf
270	09.08.2020 1800 (COVID-19) LIR 270.pdf
271	09.09.2020 1800 (COVID-19) LIR 271.pdf
272	09.10.2020 1800 (COVID-19) LIR 272.pdf
273	09.11.2020 1800 (COVID-19) LIR 273.pdf
274	09.14.2020 1800 (COVID-19) LIR 274.pdf
275	09.15.2020 1800 (COVID-19) LIR 275.pdf
276	09.16.2020 1800 (COVID-19) LIR 276.pdf
277	09.17.2020 1800 (COVID-19) LIR 277.pdf
278	09.18.2020 1800 (COVID-19) LIR 278.pdf
279	09.21.2020 1800 (COVID-19) LIR 279.pdf
280	09.22.2020 1800 (COVID-19) LIR 280.pdf
281	09.23.2020 1800 (COVID-19) LIR 281.pdf
282	09.24.2020 1800 (COVID-19) LIR 282.pdf
283	09.25.2020 1800 (COVID-19) LIR 283.pdf
284	09.28.2020 1800 (COVID-19) LIR 284.pdf
285	09.29.2020 1800 (COVID-19) LIR 285.pdf
286	09.30.2020 1800 (COVID-19) LIR 286.pdf
287	10.01.2020 1800 (COVID-19) LIR 287.pdf
288	10.02.2020 1800 (COVID-19) LIR 288.pdf
289	10.05.2020 1800 (COVID-19) LIR 289.pdf
290	10.06.2020 1800 (COVID-19) LIR 290.pdf
291	10.07.2020 1800 (COVID-19) LIR 291.pdf
292	10.08.2020 1800 (COVID-19) LIR 292.pdf
293	10.09.2020 1800 (COVID-19) LIR 293.pdf
294	10.12.2020 1800 (COVID-19) LIR 294.pdf
295	10.13.2020 1630 (COVID-19) LIR 295.pdf
296	10.14.2020 1630 (COVID-19) LIR 296.pdf
297	10.15.2020 1630 (COVID-19) LIR 297.pdf
298	10.16.2020 1630 (COVID-19) LIR 298.pdf
299	10.19.2020 1630 (COVID-19) LIR 299.pdf
300	10.20.2020 1630 (COVID-19) LIR 300.pdf
301	10.21.2020 1630 (COVID-19) LIR 301.pdf
302	10.22.2020 1630 (COVID-19) LIR 302.pdf
303	No Data
304	10.26.2020 1630 (COVID-19) LIR 304.pdf
305	10.27.2020 1630 (COVID-19) LIR 305.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
306	10.28.2020 1630 (COVID-19) LIR 306.pdf
307	10.29.2020 1630 (COVID-19) LIR 307.pdf
308	10.30.2020 1630 (COVID-19) LIR 308.pdf
309	11.02.2020 1630 (COVID-19) LIR 309.pdf
310	11.03.2020 1630 (COVID-19) LIR 310.pdf
311	11.04.2020 1630 (COVID-19) LIR 311.pdf
312	11.05.2020 1630 (COVID-19) LIR 312.pdf
313	11.06.2020 1630 (COVID-19) LIR 313.pdf
314	11.09.2020 1630 (COVID-19) LIR 314.pdf
315	11.10.2020 1630 (COVID-19) LIR 315.pdf
316	11.11.2020 1630 (COVID-19) LIR 316.pdf
317	11.12.2020 1630 (COVID-19) LIR 317.pdf
318	11.16.2020 1630 (COVID-19) LIR 318.pdf
319	11.17.2020 1630 (COVID-19) LIR 319.pdf
320	11.18.2020 1630 (COVID-19) LIR 320.pdf
321	11.19.2020 1630 (COVID-19) LIR 321.pdf
322	11.20.2020 1630 (COVID-19) LIR 322.pdf
323	11.23.2020 1630 (COVID-19) LIR 323.pdf
324	11.24.2020 1630 (COVID-19) LIR 324.pdf
325	11.25.2020 1630 (COVID-19) LIR 325.pdf
326	No Data
327	11.27.2020 1630 (COVID-19) LIR 327.pdf
328	No Data
329	12.01.2020 1630 (COVID-19) LIR 329.pdf
330	12.02.2020 1630 (COVID-19) LIR 330.pdf
331	12.03.2020 1630 (COVID-19) LIR 331.pdf
332	No Data
333	No Data
334	12.08.2020 1630 (COVID-19) LIR 334.pdf
335	12.09.2020 1630 (COVID-19) LIR 335.pdf
336	12.10.2020 1630 (COVID-19) LIR 336.pdf
337	12.11.2020 1630 (COVID-19) LIR 337.pdf
338	12.14.2020 1630 (COVID-19) LIR 338.pdf
339	12.15.2020 1630 (COVID-19) LIR 339.pdf
340	12.16.2020 1630 (COVID-19) LIR 340.pdf
341	12.17.2020 1630 (COVID-19) LIR 341.pdf
342	12.18.2020 1630 (COVID-19) LIR 342.pdf
343	12.21.2020 1630 (COVID-19) LIR 343.pdf
344	12.22.2020 1630 (COVID-19) LIR 344.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
345	12.23.2020 1630 (COVID-19) LIR 345.pdf
346	No Data
347	12.28.2020 1630 (COVID-19) LIR 347.pdf
348	12.29.2020 1630 (COVID-19) LIR 348.pdf
349	12.30.2020 1630 (COVID-19) LIR 349.pdf
350	12.31.2020 1630 (COVID-19) LIR 350.pdf
351	1.04.2021 1630 (COVID-19) LIR 351.pdf
352	1.05.2021 1630 (COVID-19) LIR 352.pdf
353	1.06.2021 1630 (COVID-19) LIR 353.pdf
354	1.07.2021 1630 (COVID-19) LIR 354.pdf
355	1.08.2021 1630 (COVID-19) LIR 355.pdf
356	1.11.2021 1630 (COVID-19) LIR 356.pdf
357	1.12.2021 1630 (COVID-19) LIR 357.pdf
358	1.13.2021 1630 (COVID-19) LIR 358.pdf
359	1.14.2021 1630 (COVID-19) LIR 359.pdf
360	1.15.2021 1630 (COVID-19) LIR 360.pdf
361	1.18.2021 1630 (COVID-19) LIR 361.pdf
362	1.19.2021 1630 (COVID-19) LIR 362.pdf
363	1.20.2021 1630 (COVID-19) LIR 363.pdf
364	1.21.2021 1630 (COVID-19) LIR 364.pdf
365	1.22.2021 1630 (COVID-19) LIR 365.pdf
366	1.25.2021 1630 (COVID-19) LIR 366 .pdf
367	1.26.2021 1630 (COVID-19) LIR 367.pdf
368	1.27.2021 1630 (COVID-19) LIR 368.pdf
369	1.28.2021 1630 (COVID-19) LIR 369.pdf
370	1.29.2021 1630 (COVID-19) LIR 370.pdf
371	2.01.2021 1630 (COVID-19) LIR 371.pdf
372	2.02.2021 1630 (COVID-19) LIR 372.pdf
373	2.03.2021 1630 (COVID-19) LIR 373.pdf
374	2.04.2021 1630 (COVID-19) LIR 374.pdf
375	2.05.2021 1630 (COVID-19) LIR 375.pdf
376	2.08.2021 1630 (COVID-19) LIR 376.pdf
377	2.09.2021 1630 (COVID-19) LIR 377.pdf
378	2.10.2021 1630 (COVID-19) LIR 378.pdf
379	2.11.2021 1630 (COVID-19) LIR 379.pdf
380	2.12.2021 1630 (COVID-19) LIR 380.pdf
381	2.15.2021 1630 (COVID-19) LIR 381.pdf
382	2.16.2021 1630 (COVID-19) LIR 382.pdf
383	2.17.2021 1630 (COVID-19) LIR 383.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
384	2.18.2021 1630 (COVID-19) LIR 384.pdf
385	2.19.2021 1630 (COVID-19) LIR 385.pdf
386	2.22.2021 1630 (COVID-19) LIR 386.pdf
387	2.23.2021 1630 (COVID-19) LIR 387.pdf
388	2.24.2021 1630 (COVID-19) LIR 388.pdf
389	2.25.2021 1630 (COVID-19) LIR 389.pdf
390	2.26.2021 1630 (COVID-19) LIR 390.pdf
391	3.01.2021 1630 (COVID-19) LIR 391.pdf
392	3.02.2021 1630 (COVID-19) LIR 392.pdf
393	3.03.2021 1630 (COVID-19) LIR 393.pdf
394	3.04.2021 1630 (COVID-19) LIR 394.pdf
395	3.05.2021 1630 (COVID-19) LIR 395.pdf
396	3.08.2021 1630 (COVID-19) LIR 396.pdf
397	3.09.2021 1630 (COVID-19) LIR 397.pdf
398	3.10.2021 1630 (COVID-19) LIR 398.pdf
399	3.11.2021 1630 (COVID-19) LIR 399.pdf
400	3.12.2021 1630 (COVID-19) LIR 400.pdf
401	3.15.2021 1630 (COVID-19) LIR 401.pdf
402	3.16.2021 1630 (COVID-19) LIR 402.pdf
403	3.17.2021 1630 (COVID-19) LIR 403.pdf
404	3.18.2021 1630 (COVID-19) LIR 404.pdf
405	3.19.2021 1630 (COVID-19) LIR 405.pdf
406	3.22.2021 1630 (COVID-19) LIR 406.pdf
407	3.23.2021 1630 (COVID-19) LIR 407.pdf
408	3.24.2021 1630 (COVID-19) LIR 408.pdf
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411	3.29.2021 1630 (COVID-19) LIR 411.pdf
412	3.30.2021 1630 (COVID-19) LIR 412.pdf
413	3.31.2021 1630 (COVID-19) LIR 413.pdf
414	4.01.2021 1630 (COVID-19) LIR 414.pdf
415	4.02.2021 1630 (COVID-19) LIR 415.pdf
416	4.05.2021 1630 (COVID-19) LIR 416.pdf
417	4.06.2021 1630 (COVID-19) LIR 417.pdf
418	4.07.2021 1630 (COVID-19) LIR 418.pdf
419	4.08.2021 1630 (COVID-19) LIR 419.pdf
420	4.09.2021 1630 (COVID-19) LIR 420.pdf
421	4.12.2021 1630 (COVID-19) LIR 421.pdf
422	4.13.2021 1630 (COVID-19) LIR 422.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
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425	4.16.2021 1630 (COVID-19) LIR 425.pdf
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427	4.20.2021 1630 (COVID-19) LIR 427.pdf
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429	4.22.2021 1630 (COVID-19) LIR 429.pdf
430	4.23.2021 1630 (COVID-19) LIR 430.pdf
431	4.24.2021 1630 (COVID-19) LIR 431.pdf
432	4.27.2021 1630 (COVID-19) LIR 432.pdf
433	4.28.2021 1630 (COVID-19) LIR 433.pdf
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435	4.30.2021 1630 (COVID-19) LIR 435.pdf
436	5.03.2021 1630 (COVID-19) LIR 436.pdf
437	5.04.2021 1630 (COVID-19) LIR 437.pdf
438	5.05.2021 1630 (COVID-19) LIR 438.pdf
439	5.06.2021 1630 (COVID-19) LIR 439.pdf
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441	5.10.2021 1630 (COVID-19) LIR 441.pdf
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444	5.13.2021 1630 (COVID-19) LIR 444.pdf
445	5.14.2021 1630 (COVID-19) LIR 445.pdf
446	5.17.2021 1630 (COVID-19) LIR 446.pdf
447	5.18.2021 1630 (COVID-19) LIR 447.pdf
448	5.19.2021 1630 (COVID-19) LIR 448.pdf
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450	5.21.2021 1630 (COVID-19) LIR 450.pdf
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452	5.25.2021 1630 (COVID-19) LIR 452.pdf
453	5.26.2021 1630 (COVID-19) LIR 453.pdf
454	5.27.2021 1630 (COVID-19) LIR 454.pdf
455	5.28.2021 1630 (COVID-19) LIR 455.pdf
456	6.01.2021 1630 (COVID-19) LIR 456.pdf
457	6.02.2021 1630 (COVID-19) LIR 457.pdf
458	6.03.2021 1630 (COVID-19) LIR 458.pdf
459	6.04.2021 1630 (COVID-19) LIR 459.docx
460	6.07.2021 1630 (COVID-19) LIR 460.pdf
461	6.08.2021 1630 (COVID-19) LIR 461.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
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464	6.11.2021 1630 (COVID-19) LIR 464.pdf
465	6.14.2021 1630 (COVID-19) LIR 465.pdf
466	6.15.2021 1630 (COVID-19) LIR 466.pdf
467	6.16.2021 1630 (COVID-19) LIR 467.pdf
468	6.17.2021 1630 (COVID-19) LIR 468.pdf
469	6.18.2021 1630 (COVID-19) LIR 469.pdf
470	6.21.2021 1630 (COVID-19) LIR 470.pdf
471	6.22.2021 1630 (COVID-19) LIR 471.pdf
472	6.23.2021 1600 (COVID-19) LIR 472.pdf
473	6.24.2021 1600 (COVID-19) LIR 473.pdf
474	6.25.2021 1600 (COVID-19) LIR 474.pdf
475	6.28.2021 1630 (COVID-19) LIR 475.pdf
476	6.29.2021 1630 (COVID-19) LIR 476.pdf
477	6.30.2021 1630 (COVID-19) LIR 477.pdf
478	7.01.2021 1630 (COVID-19) LIR 478.pdf
479	7.02.2021 1630 (COVID-19) LIR 479.pdf
480	7.06.2021 1630 (COVID-19) LIR 480.pdf
481	7.07.2021 1630 (COVID-19) LIR 481.pdf
482	7.08.2021 1630 (COVID-19) LIR 482.pdf
483	7.09.2021 1630 (COVID-19) LIR 483.pdf
484	7.12.2021 1630 (COVID-19) LIR 484.pdf
485	7.13.2021 1630 (COVID-19) LIR 485.pdf
486	7.14.2021 1630 (COVID-19) LIR 486.pdf
487	7.15.2021 1630 (COVID-19) LIR 487.pdf
488	7.16.2021 1630 (COVID-19) LIR 488.pdf
489	7.19.2021 1630 (COVID-19) LIR 489.pdf
490	7.20.2021 1630 (COVID-19) LIR 490.pdf
491	7.21.2021 1630 (COVID-19) LIR 491.pdf
492	7.22.2021 1600 (COVID-19) LIR 492.pdf
493	7.23.2021 1600 (COVID-19) LIR 493.pdf
494	7.26.2021 1600 (COVID-19) LIR 494.pdf
495	7.27.2021 1600 (COVID-19) LIR 495.pdf
496	7.28.2021 1600 (COVID-19) LIR 496.pdf
497	7.29.2021 1600 (COVID-19) LIR 497.pdf
498	7.30.2021 1600 (COVID-19) LIR 498.pdf
499	8.02.2021 1600 (COVID-19) LIR 499.pdf
500	8.03.2021 1600 (COVID-19) LIR 500.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
501	8.04.2021 1600 (COVID-19) LIR 501.pdf
502	8.05.2021 1600 (COVID-19) LIR 502.pdf
503	8.06.2021 1600 (COVID-19) LIR 503.pdf
504	8.09.2021 1600 (COVID-19) LIR 504.pdf
505	8.10.2021 1600 (COVID-19) LIR 505.pdf
506	8.11.2021 1600 (COVID-19) LIR 506.pdf
507	8.12.2021 1600 (COVID-19) LIR 507.pdf
508	8.13.2021 1600 (COVID-19) LIR 508.pdf
509	8.16.2021 1600 (COVID-19) LIR 509.pdf
510	8.17.2021 1600 (COVID-19) LIR 510.pdf
511	8.18.2021 1600 (COVID-19) LIR 511.pdf
512	8.19.2021 1600 (COVID-19) LIR 512.pdf
513	8.20.2021 1600 (COVID-19) LIR 513.pdf
514	8.23.2021 1600 (COVID-19) LIR 514.pdf
515	8.24.2021 1600 (COVID-19) LIR 515.pdf
516	8.25.2021 1600 (COVID-19) LIR 516.pdf
517	8.26.2021 1600 (COVID-19) LIR 517.pdf
518	8.27.2021 1600 (COVID-19) LIR 518.pdf
519	8.30.2021 1600 (COVID-19) LIR 519.pdf
520	8.31.2021 1600 (COVID-19) LIR 520.pdf
521	9.01.2021 1600 (COVID-19) LIR 521.pdf
522	9.02.2021 1600 (COVID-19) LIR 522.pdf
523	9.03.2021 1600 (COVID-19) LIR 523.pdf
524	9.07.2021 1600 (COVID-19) LIR 524.pdf
525	9.08.2021 1600 (COVID-19) LIR 525.pdf
526	9.09.2021 1600 (COVID-19) LIR 526.pdf
527	9.10.2021 1600 (COVID-19) LIR 527.pdf
528	9.13.2021 1600 (COVID-19) LIR 528.pdf
529	9.14.2021 1600 (COVID-19) LIR 529.pdf
530	9.15.2021 1600 (COVID-19) LIR 530.pdf
531	9.16.2021 1600 (COVID-19) LIR 531.pdf
532	9.17.2021 1600 (COVID-19) LIR 532.pdf
533	9.20.2021 1600 (COVID-19) LIR 533.pdf
534	9.21.2021 1600 (COVID-19) LIR 534.pdf
535	9.22.2021 1600 (COVID-19) LIR 535.pdf
536	9.23.2021 1600 (COVID-19) LIR 536.pdf
537	9.24.2021 1600 (COVID-19) LIR 537.pdf
538	9.27.2021 1600 (COVID-19) LIR 538.pdf
539	9.28.2021 1600 (COVID-19) LIR 539.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
540	9.29.2021 1600 (COVID-19) LIR 540.pdf
541	9.30.2021 1600 (COVID-19) LIR 541.pdf
542	10.01.2021 1600 (COVID-19) LIR 542.pdf
543	10.04.2021 1600 (COVID-19) LIR 543.pdf
544	10.05.2021 1600 (COVID-19) LIR 544.pdf
545	10.06.2021 1600 (COVID-19) LIR 545.pdf
546	10.07.2021 1600 (COVID-19) LIR 546.pdf
547	10.08.2021 1600 (COVID-19) LIR 547.pdf
548	10.12.2021 1600 (COVID-19) LIR 548.pdf
549	10.13.2021 1600 (COVID-19) LIR 549.pdf
550	10.14.2021 1600 (COVID-19) LIR 550.pdf
551	10.15.2021 1600 (COVID-19) LIR 551.pdf
552	10.18.2021 1600 (COVID-19) LIR 552.pdf
553	10.19.2021 1600 (COVID-19) LIR 553.pdf
554	10.20.2021 1600 (COVID-19) LIR 554.pdf
555	10.21.2021 1600 (COVID-19) LIR 555.pdf
556	10.22.2021 1600 (COVID-19) LIR 556.pdf
557	10.25.2021 1600 (COVID-19) LIR 557.pdf
558	10.26.2021 1600 (COVID-19) LIR 558.pdf
559	10.27.2021 1600 (COVID-19) LIR 559.pdf
560	10.28.2021 1600 (COVID-19) LIR 560.pdf
561	10.29.2021 1600 (COVID-19) LIR 561.pdf
562	11.01.2021 1600 (COVID-19) LIR 562.pdf
563	11.02.2021 1600 (COVID-19) LIR 563.pdf
564	11.03.2021 1600 (COVID-19) LIR 564.pdf
565	11.04.2021 1600 (COVID-19) LIR 565.pdf
566	11.05.2021 1600 (COVID-19) LIR 566.pdf
567	11.08.2021 1600 (COVID-19) LIR 567.pdf
568	11.09.2021 1600 (COVID-19) LIR 568.pdf
569	11.10.2021 1600 (COVID-19) LIR 569.pdf
570	11.12.2021 1600 (COVID-19) LIR 570.pdf
571	11.15.2021 1600 (COVID-19) LIR 571.pdf
572	11.16.2021 1600 (COVID-19) LIR 572.pdf
573	11.17.2021 1600 (COVID-19) LIR 573.pdf
574	11.18.2021 1600 (COVID-19) LIR 574.pdf
575	11.19.2021 1600 (COVID-19) LIR 575.pdf
576	11.22.2021 1600 (COVID-19) LIR 576.pdf
577	11.23.2021 1600 (COVID-19) LIR 577.pdf
578	11.24.2021 1600 (COVID-19) LIR 578.pdf

Leadership Intelligence Report Number	LIR Date/Time/File Type
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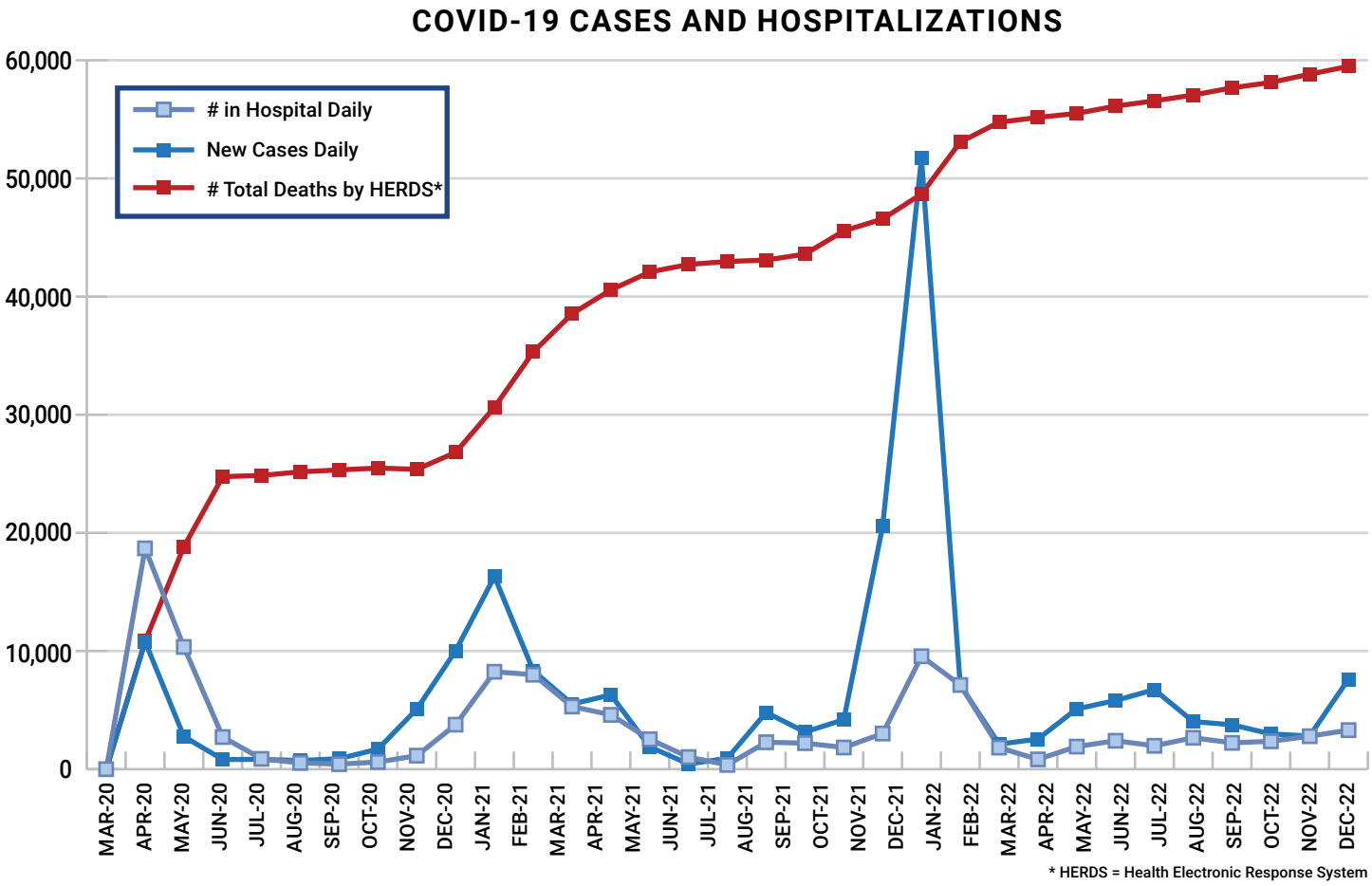
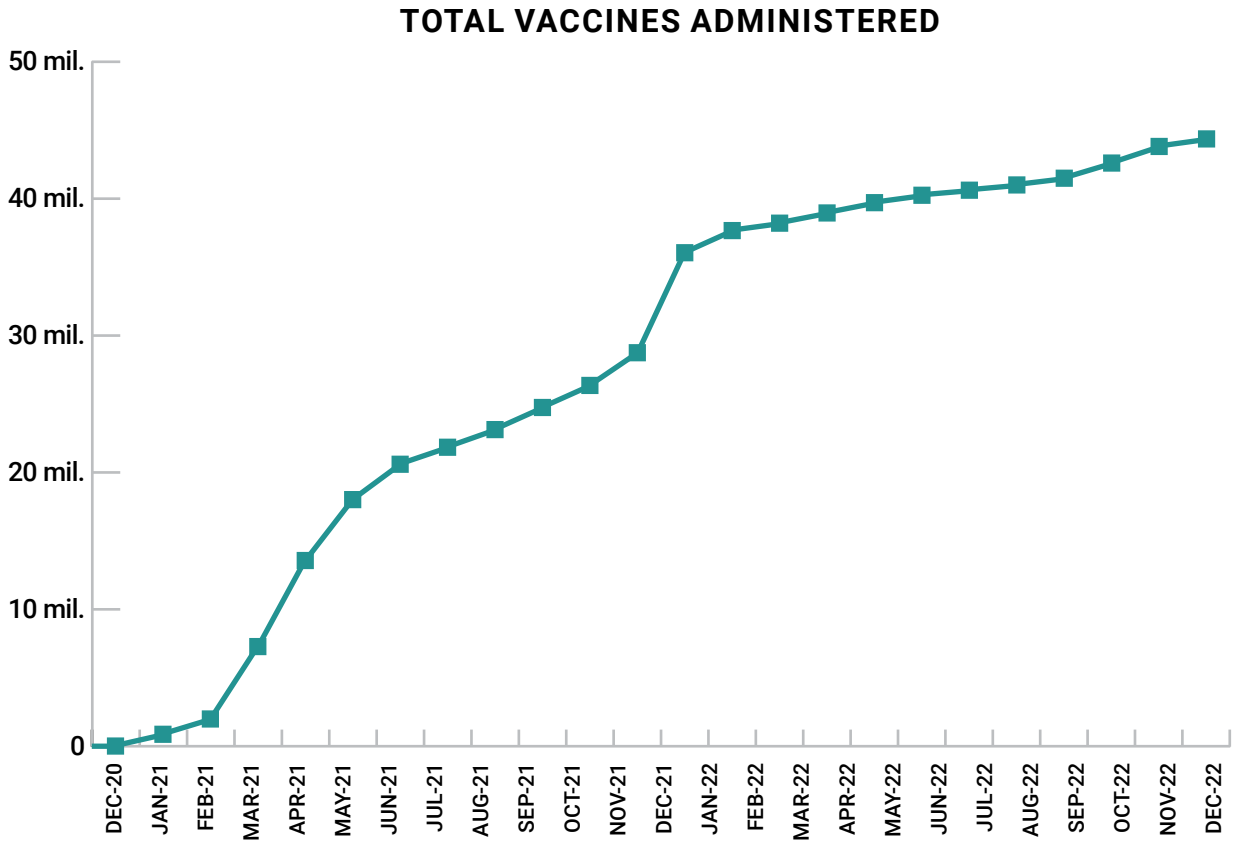
580	11.29.2021 1600 (COVID-19) LIR 580.pdf
581	11.30.2021 1600 (COVID-19) LIR 581.pdf
582	12.01.2021 1600 (COVID-19) LIR 582.pdf
583	12.02.2021 1600 (COVID-19) LIR 583.pdf
584	12.03.2021 1600 (COVID-19) LIR 584.pdf
585	12.06.2021 1600 (COVID-19) LIR 585.pdf
586	12.07.2021 1600 (COVID-19) LIR 586.pdf
587	12.08.2021 1600 (COVID-19) LIR 587.pdf
588	12.09.2021 1600 (COVID-19) LIR 588.pdf
589	12.10.2021 1600 (COVID-19) LIR 589.pdf
590	12.13.2021 1600 (COVID-19) LIR 590.pdf
591	12.14.2021 1600 (COVID-19) LIR 591.pdf
592	12.15.2021 1600 (COVID-19) LIR 592.pdf
593	12.16.2021 1600 (COVID-19) LIR 593.pdf
594	12.20.2021 1600 (COVID-19) LIR 594.pdf
595	12.21.2021 1600 (COVID-19) LIR 595.pdf
596	12.22.2021 1600 (COVID-19) LIR 596.pdf
597	12.23.2021 1600 (COVID-19) LIR 597.pdf
598	12.24.2021 1600 (COVID-19) LIR 598.pdf
599	12.27.2021 1600 (COVID-19) LIR 599.pdf
600	12.28.2021 1600 (COVID-19) LIR 600.pdf
601	12.29.2021 1600 (COVID-19) LIR 601.pdf
602	12.30.2021 1600 (COVID-19) LIR 602.pdf
603	12.31.2021 1600 (COVID-19) LIR 603.pdf
604	01.03.2022 1600 (COVID-19) LIR 604.pdf
605	01.04.2022 1600 (COVID-19) LIR 605.pdf
606	01.05.2022 1600 (COVID-19) LIR 606.pdf
607	01.06.2022 1600 (COVID-19) LIR 607.pdf
608	01.07.2022 1600 (COVID-19) LIR 608.pdf
609	01.10.2022 1600 (COVID-19) LIR 609.pdf
610	01.11.2022 1600 (COVID-19) LIR 610.pdf
611	01.12.2022 1600 (COVID-19) LIR 611.pdf
612	01.13.2022 1600 (COVID-19) LIR 612.pdf
613	01.14.2022 1600 (COVID-19) LIR 613.pdf
614	01.18.2022 1600 (COVID-19) LIR 614.pdf

Appendix F: COVID-19 Data Comparison




TOTAL VACCINES ADMINISTERED
50 mil.
40 mil.
30 mil.
20 mil.
10 mil.
0
DEC-20
JAN-21
FEB-21
MAR-21
APR-21
MAY-21
JUN-21
JUL-21
AUG-21
SEP-21
OCT-21
NOV-21
DEC-21
JAN-22
FEB-22
MAR-22
APR-22
MAY-22
JUN-22
JUL-22
AUG-22
SEP-22
OCT-22
NOV-22
DEC-22

DAILY DEATHS