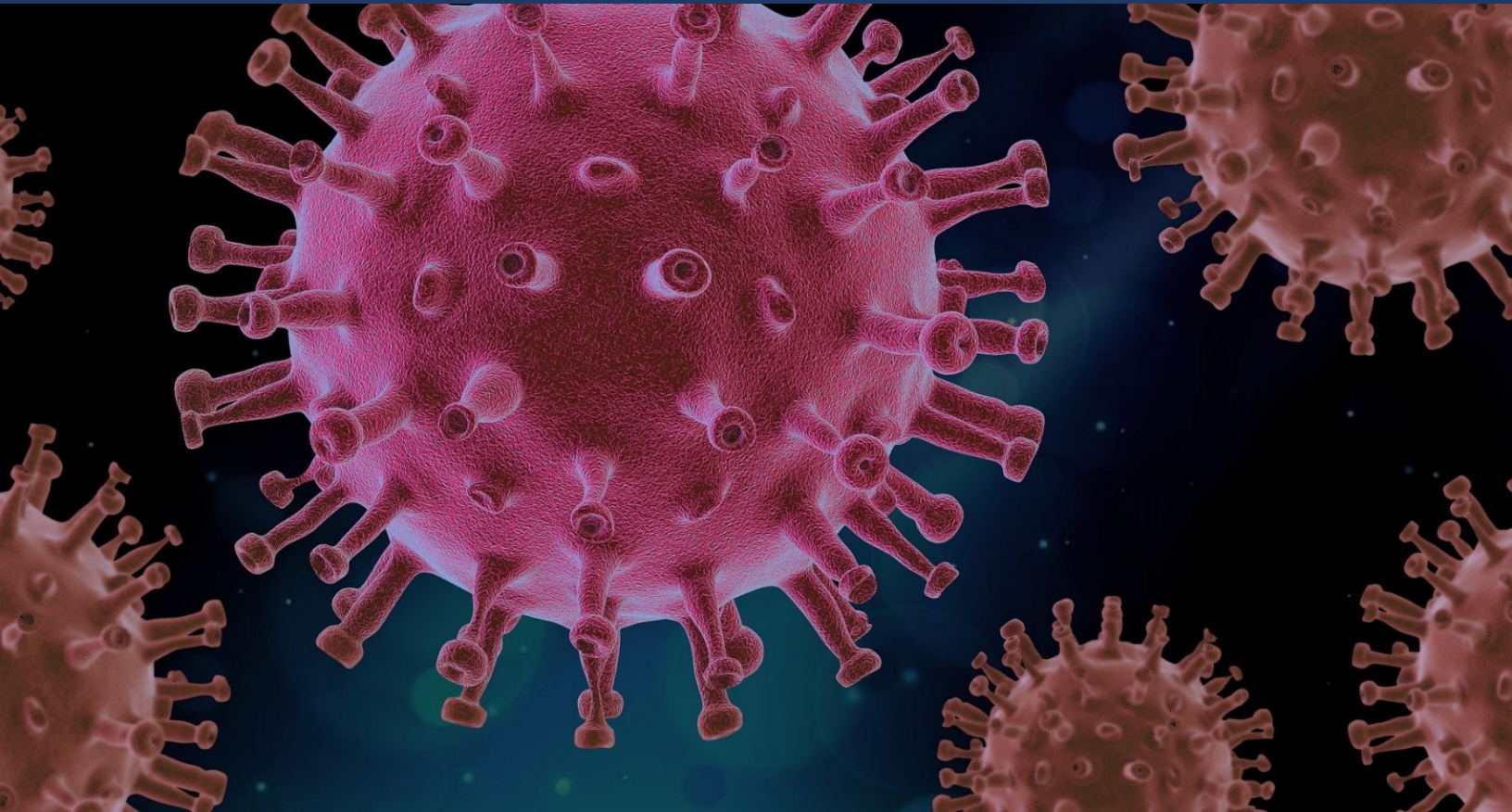




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Interim Findings and Recommendations of the New York City Comptroller's Investigation of the City's COVID-19 Planning, Preparation, and Initial Response



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I. Introduction

On January 9, 2020, New York City officials received an alert from the Centers for Disease Control and Prevention that warned of a novel coronavirus that was rapidly spreading in China. In the months that followed, New York City (the City) became an early epicenter of the COVID-19 pandemic that as of August 2021 has claimed the lives of more than 33,000 New Yorkers and inflicted unprecedented harm to the City's residents, businesses, and finances.¹

To face the impending crisis, the City had at its disposal a substantial public health infrastructure, including a world-class health department, the nation's largest public hospital system, and a budget that exceeds most states.² Moreover, City officials had years earlier foreseen the potential human cost and understood the organizational and fiscal demands a pandemic could impose on New York City.³ However, when COVID-19 hit, the City was caught without a complete citywide operational plan for responding to a pandemic, without essential resources critical to the City's response efforts, and without the organizational structures and management systems needed to effectively respond to COVID-19. The failure of the City to better prepare and plan for a pandemic inevitably impacted its ability to respond to COVID-19.

This interim report is being issued as part of an ongoing investigation by the Office of the New York City Comptroller (Comptroller's Office) into the City's planning and preparation for and response to the COVID-19 pandemic. The goal of this investigation is to identify the problems encountered by the City preparing for and combatting the pandemic and to recommend actions to prevent similar fiscal and operational challenges from arising in future public health emergencies.

The need to respond to a public health emergency quickly and effectively is not an abstract issue. As noted in a recent report addressing New York State's efforts to combat the pandemic, "[w]hen a virus is spreading through the population at an exponential rate, every day that passes without action makes it harder to contain."⁴ The City's experience with COVID-19 bears out the need for quick, effective action: in the 12 days between the first confirmed COVID-19 case and the declaration of a state of emergency in the City, cases increased by 682 percent, and within the next week had increased by nearly 2,000 percent.⁵

The full impact of COVID-19 on the City will not be assessed until some future point in time, but the numbers to date are staggering. As of August 15, 2021, New York City has recorded over 1,000,000 COVID-19 cases, more than 117,000 hospitalizations, and over 33,000 deaths. Some communities have been hit harder than others: Hispanic and Black New Yorkers are 84 percent and 67 percent more likely to die from COVID-19, respectively, than white residents, and fatality rates have been about 66 and 59 percent

higher in the Bronx and Queens respectively than in Manhattan.⁶ While the full economic impact of responding to COVID-19 is not yet known, what is known is significant: the City spent \$2.6 billion responding to COVID-19 in fiscal year (FY) 2020 and has budgeted another \$7.8 billion for COVID-19 in FY 2021, while FY 2020 tax revenues fell \$1.3 billion short of pre-COVID-19 estimates.⁷

The Comptroller's Office is issuing this interim investigative report now to help the City improve its ongoing response to the COVID-19 pandemic and prepare in advance for the next emergency. The investigation has not yet concluded due to the refusal of the City to provide information to the Comptroller's Office. While the City's failure to cooperate with the investigation has been the subject of litigation, the Comptroller's Office has been able to continue the investigation utilizing both the limited information provided by the City, witness interviews, and public source materials.⁸ This interim report is being issued based on the information gathered to date, including contemporaneous emails, internal documents, testimony taken in connection with the investigation, and public records. It reveals ways in which the City's initial response to COVID-19 was hampered by a lack of planning, coordination, and preparedness across City government.⁹

The following are the interim findings of this investigation:

1. **The City never completed a citywide operational plan for responding to a pandemic prior to COVID-19.** The City created a strategic pandemic plan in 2006 setting out goals for responding to a pandemic, but it lacked operational guidance specifying how the City should respond. Subsequent attempts to create an operational pandemic plan were never completed. Earlier close calls with other biological threats, including the 2009 H1N1 swine flu pandemic and the 2014 Ebola epidemic, did not spur the City to finalize a citywide operational pandemic plan that incorporated lessons gleaned from past public health emergency responses. Instead, the City faced COVID-19 with only a plan to make a plan, instead of an updated citywide operational response guide.
2. **Even after New York City specifically became aware of the threat of COVID-19, citywide operational planning for a moderate to severe outbreak was delayed.** The City's efforts to create a citywide operational plan to respond to the potential worst case scenario, a moderate to severe COVID-19 outbreak in the City, did not begin in earnest until mid-to-late February 2020. Indeed, in February, City agencies were discussing whether to *begin* planning for the worst case scenario. Further, notwithstanding lessons supposedly learned from prior crises, substantive inter-agency efforts to develop citywide plans

for the COVID-19 response also did not begin until early March 2020 and were incomplete weeks into the crisis.

3. **The City struggled to identify and locate emergency resources as it prepared for COVID-19.** The City requires people, equipment, supplies, and facilities to respond to an emergency.¹⁰ As the City prepared for COVID-19, however, the City's inadequate planning and preparation contributed to its struggles to identify and locate the resources it had, particularly its supply of personal protective equipment (PPE). City agencies had to be individually surveyed for the City to determine how many N95 masks it owned—and to discover that its entire supply of the N95 masks that provide the highest level of protection, surgical-grade N95 masks, had expired years earlier.
4. **The role and responsibilities of New York City Emergency Management (NYCEM), were insufficiently clear.** NYCEM, the City agency responsible for coordinating the City's planning for and response to emergencies, struggled to perform its City Charter-mandated planning and coordination duties during the run-up and response to COVID-19.¹¹ Although the City Charter and the Citywide Incident Management System set forth specific leadership and support roles for NYCEM, persistent confusion as to the agency's role in the preparation for and response to the pandemic was evident from the City's uncoordinated and sometimes inconsistent preparation and response activities.

As the cost of the pandemic in lives lost and economic hardship to the City, its residents, and its businesses is calculated, it is critical that the City ensure that it is better prepared to respond quickly, completely, and effectively to the next emergency. Acknowledging and resolving the issues identified in this interim report are critical steps in that process.

II. Investigative Findings

A. The City Lacked A Completed Citywide Operational Plan For A Pandemic Prior To COVID-19

The COVID-19 pandemic and its impact on the City have frequently been described as unprecedented.¹² However, despite claims that “there was no foreseeing a crisis of this magnitude,”¹³ the City has long known of the unique risk that a pandemic-level event could pose to its residents, businesses, economy, and governmental operations. New York City has been impacted by multiple pandemics in the past 100 years, including the 1918 Spanish Flu that killed as many as 30,000 New Yorkers.¹⁴ In the 2006 Pandemic Influenza Preparedness and Response Plan (2006 Plan) created by the Department of Health and Mental Hygiene (DOHMH), the City noted that its position as “[t]he most densely populated city in the United States and a major international port of entry for both people and goods” made it “uniquely vulnerable to infectious disease threats” such as pandemics. City officials observed in 2008 that a pandemic outbreak was overdue.¹⁵ In 2012, DOHMH estimated that a severe 10-week pandemic could have an economic impact of \$32.7 billion and lead to over 28,000 deaths in New York City alone.¹⁶ As recently as 2019, NYCEM categorized “respiratory virus[es] with pandemic potential” as a “moderate” risk.¹⁷

With these concerns widely recognized, the City began pandemic planning in the mid-2000s when the threat of pandemic influenza received renewed attention.¹⁸ Yet, the City never *completed* this planning.¹⁹ As a result, when COVID-19 struck, the City had pandemic plans that were incomplete, out of date, and insufficiently operationalized.²⁰

Various types of plans were then, and are now, needed by the City as a whole—and by individual agencies—to respond to emergencies, including public health crises. Such plans are intended to address different aspects of an emergency response and can be generally categorized as either “strategic” or “operational” plans. Strategic plans provide a “broad picture of what must be achieved” to prepare for and respond to a crisis but do not set out specific elements or tasks necessary to ensure that those goals can be achieved.²¹ Operational plans, in contrast, contain details about the resources and actions needed to achieve the objectives set out in a strategic plan. Put simply, strategic plans set out *what* goals the planning party seeks to achieve while operational plans set out *how* to execute those objectives in detail.²²

When the City first learned of COVID-19 and the possibility of a pandemic in early January 2020, City officials began searching for plans for a citywide response to a pandemic.²³ On January 27, 2020, a City Hall senior advisor for health policy emailed a NYCEM official that “the DM [Deputy Mayor] asked me to reach out in relation to a

protocol for a citywide response to a disease outbreak.”²⁴ The NYCEM official identified two documents, the “outdated” H1N1 Playbook and the “not [] complete” BIO Plan, as possibly containing some operational strategies.²⁵ Later in the same email thread, the NYCEM official asked a DOHMH official about “the pandemic plan,” a copy of which NYCEM officials found on an academic website after being unable to locate it from DOHMH’s own site. A DOHMH official thereafter described that document, the 2006 Plan, as “unofficial but appears to be the plan that had been posted publicly on [DOHMH’s] website until about 2010,” and that “it is dated and certainly not a direct match to the current Coronavirus response.”²⁶

This investigation identified 13 plans available to the City as of January 1, 2020, including the H1N1 Handbook, the BIO Plan, and the 2006 Plan, that appear to provide some form of guidance potentially relevant to pandemic response.²⁷ However, most of these plans were neither citywide nor operational and not all were in final form. Of the thirteen plans identified by this investigation as available to City officials in either draft or final form as of the onset of COVID-19 in January 2020, five appear to be strategic plans. The most relevant strategic plan to address the public health emergency of COVID-19 is the 2006 Plan, which describes itself as a plan to “guide the City’s response in the event of a pandemic.” However, while the 2006 Plan provided a broad overview of what the City *should* do in a pandemic, it did not specify *how* to accomplish those goals. Rather, the 2006 Plan repeatedly identified additional planning efforts needed by the City to operationalize the broad pandemic response strategies it outlined. In particular, the 2006 Plan indicated that City officials needed to develop operational guidance for a number of critical areas, including:

- drafting infection control and clinical guidelines for healthcare providers;
- creating continuity of operations plans to maintain essential services;
- developing trainings on pandemic issues for medical personnel;
- creating hospital surge staffing and capacity plans;
- building stockpiles of ventilators and durable medical equipment;
- developing common volunteer databases;
- creating alternate care site plans;
- preparing operational plans for vaccine distribution; and
- identifying and resolving gaps in the 2006 Plan.

In short, the 2006 Plan did not provide City officials with a clear operational guide for responding to COVID-19. Rather, it provided high level overview of what was needed and was, in essence, a plan to plan.

Only one of the remaining plans that this investigation was able to review, the DOHMH Draft Pandemic Influenza Operational Plan, last updated in June of 2013 (the 2013 Plan), is effectively both a citywide and an operational plan.²⁸ DOHMH created the 2013 Plan to direct the agency’s pandemic response efforts. However, because the Citywide Incident Management System (CIMS) designates DOHMH as the primary agency responsible for responding to a citywide health emergency such as a pandemic, DOHMH’s 2013 Plan effectively constitutes a plan for a citywide response.²⁹ Furthermore, although NYCEM indicated the 2013 Plan “defines the operations and protocols for responding to” a pandemic,³⁰ and a DOHMH official confirmed that the 2013 Plan was the “most complete, most up to date plan” for a pandemic available to the City at the time COVID-19 first appeared in the City during this investigation,³¹ the 2013 Plan appears to have provided limited utility to City officials responding to COVID-19. For example, a high level DOHMH official involved with the City’s COVID-19 planning and response described the 2013 Plan as “not particularly useful” because it was incomplete and did not address key issues.³²

On its face, the 2013 Plan was more operationally focused than the prior 2006 Plan, as it included more detailed steps that specific DOHMH bureaus should take prior to, during, and after a pandemic. Some sections, in particular those on pre-pandemic surveillance and vaccine management, indicate specific actions to be taken or describe ones that had already been completed, such as the prior identification of over 3,000 vaccination sites by DOHMH. The 2013 Plan also warned City officials about the risk posed by a pandemic, and the particular challenges that the City would face in responding to a pandemic, noting that “[a] pandemic strain *cannot be kept out of the City*. As it emerges, *we will not have reliable information* about severity, transmissibility, or major risk groups. We must compensate by using risk based methods that *slow* transmission....” (Emphasis added.)

However, the 2013 Plan recognized the need for further operational planning and identified areas that needed to be developed, including the need to:

- plan for the supply chain and distribution of antivirals;
- draft “pandemic-related materials” for the general public and healthcare professionals;
- prepare “‘just-in-time’ infection control training;”
- identify “[t]riggers” for school closures; and
- resolve a wide variety of “major policy issues.”

Other critical components of the 2013 Plan, in particular “annexes” outlining resource and information needs that the 2006 Plan previously identified, were also incomplete. However, the City never expanded, revised, or amended the 2013 Plan after June of 2013, nor did it create another operational pandemic plan prior to COVID-19’s

appearance in the City.³³ Accordingly, when faced with the potential risk from COVID-19 in 2020, the only citywide, operational pandemic-specific plan the City could rely on was incomplete and had not been updated for seven years.

B. Coordinated Citywide Planning For A Moderate To Severe COVID-19 Outbreak Was Delayed

The rapid spread of the COVID-19 virus illustrated the need for the City to have moved quickly and aggressively to combat its spread and to assist those affected by it. City officials knew the critical importance of swift and decisive action as a result of experience from prior public health emergencies, including the 2009 H1N1 flu pandemic and the 2014 Ebola crisis. The Mayor highlighted this lesson in a January 24, 2020 press conference while discussing what the City learned from the Ebola epidemic:

I think the most important thing we learned is, take these things seriously. Never try and explain the problem away, get into a very aggressive stance. And, you know, I remember all the discussions, the planning, the drills, but you – there’s sort of that air of unreality, like we’re planning for something, of course it’s not going to actually happen here. And then suddenly it was... So I think it’s a mindset question first, sort of a cultural question. Are you assuming the worst? Are you in a very active stance? That’s what’s most necessary. And certainly that’s what I learned from Ebola. Take it real, real seriously.³⁴

However, the testimony and documents reviewed by this investigation indicate that the City did not adequately heed these warnings and, as a result, did not begin coordinated citywide planning for the worst case COVID-19 scenario—a moderate to severe outbreak—until mid-to-late February 2020. As a NYCEM official responsible for public health crises noted in a January 23, 2020 email, “at this point the only planning we [NYCEM] have done is in regards to notifications if a suspected case comes here.”³⁵

NYCEM planning expanded in the following months of February and March 2020 to other specific issues, including “potential consequences such as COOP [continuity of operations planning], wrap around services, and supply chain impacts,” while citywide planning for a moderate to severe outbreak did not begin until mid-to-late February 2020.³⁶ On February 25, 2020, City officials learned of revised federal Centers for Disease Control and Prevention (CDC) guidance that the disruption resulting from the novel coronavirus might be severe.³⁷ The next day, February 26, 2020, a high-level Department of Citywide Administrative Services (DCAS) official noted that citywide worst case planning had not yet begun, as DCAS had “been getting requests from City Hall and NYCEM concerning Coronavirus planning and what the City needs to *start planning* for a

potential worst case scenario.”³⁸ (Emphasis added.) In that same email, the DCAS official stated that it was “not that [the City is] really close to that point” of a worst case scenario.³⁹

Inter-agency planning efforts, where agencies jointly worked to develop citywide plans for the COVID-19 response, did not begin in earnest until an inter-agency kickoff meeting on March 3, 2020,⁴⁰ and did not start to focus on a severe outbreak until the following day, March 4, 2020.⁴¹ Efforts to create citywide operational procedures appear to have been still incomplete as late as March 11, 2020.⁴² Key planning activities—to address the need for additional hospital capacity,⁴³ sheltering vulnerable populations,⁴⁴ and preparing for a potential citywide shutdown⁴⁵—continued weeks into the crisis,⁴⁶ by which time the City had thousands of confirmed COVID-19 cases.⁴⁷

C. Emergency Resource Management Weaknesses Were Apparent In The City’s Initial COVID-19 Response Efforts

In preparing for COVID-19, the DOHMH Commissioner noted that the City was “marshalling all of [its] public health resources” to respond to the crisis.⁴⁸ Such resources include entities ranging from DOHMH, the City’s public health agency, to the Health and Hospitals Corporation (H+H), its public hospital system, as well as the broad variety of resources—personnel, facilities, equipment, and supplies—that the City must procure, store, and distribute in the case of an emergency.⁴⁹ However, several weaknesses in the City’s management of resources needed for emergencies were apparent from the outset.⁵⁰

First, the City had not adequately collected data regarding available emergency resources prior to the onset of the pandemic. As a result, when the first case of COVID-19 was diagnosed in the City, authorities did not have current, reliable information about those resources, including the number of available hospital beds in the City at any given time,⁵¹ the total amount of usable PPE that City agencies possessed in the City’s stock,⁵² or even the City agencies that used PPE as part of their regular operations.⁵³

For example, information about hospital bed availability was incomplete and not timely. Prior to COVID-19, hospital bed availability data was tracked in at least some form: DOHMH maintained a database of all staffed beds in the City as of 2013 according to the 2013 Plan, and New York State tracked the availability of hospital beds and other critical information through the New York State Department of Health Hospital Emergency Response Data System (HERDS).⁵⁴ However, up-to-date daily information about hospital and ICU beds was not initially available. While aggregate hospital bed information was available from HERDS, it was of little value at the start of the pandemic because it was “only updated twice weekly.”⁵⁵ It does not appear that the City had available to it any real time hospital bed data when COVID-19 cases began to overwhelm area hospitals. On March 14, 2020, in response to a question about “Metrics and Modeling for Healthcare

systems,” including “total beds available,” the NYCEM Commissioner reported to multiple City Hall officials that “information [is] needed that we are currently not getting.”⁵⁶ Documents provided by the City suggest that one reason for the lack of this information is that the City’s hospital system, H+H, did not centrally maintain hospital bed information: in an email in mid-March, a NYCEM official expressed the understanding that “H+H does not have bed availability available centrally or in real time.”⁵⁷

In addition, resource management issues also were apparent from the City’s attempts to identify the PPE supplies in the possession of City agencies. As of March 2020, at least thirteen City agencies utilized some form of face mask in support of their regular operations.⁵⁸ Certain City agencies, including NYCEM, DCAS, and DOHMH, maintained individual caches or stockpiles of PPE as of March 2020.⁵⁹

Of particular importance, the DOHMH PPE stockpile (the DOHMH Stockpile) was, according to the 2006 Plan, created by DOHMH specifically “for use during a pandemic.” According to the 2013 Plan, it included multiple types of face masks for different purposes. In early February 2020, the DOHMH Stockpile contained as many as 19 million standard ear-loop face masks, commonly referred to as surgical masks or face masks (Ear-Loop Masks)⁶⁰ that had been stockpiled beginning as early as 2006. Because they do not filter out airborne pathogens, DOHMH stockpiled Ear-Loop Masks for use by members of the public to minimize community spread of a pandemic strain, not to protect healthcare workers from infection.⁶¹ The DOHMH Stockpile also included N95 masks (N95s), which, unlike Ear-Loop Masks, filter out airborne particles.⁶² The N95s stockpiled were a specific type, surgical N95 masks (Surgical N95s), which are fluid-resistant to protect their wearers from potentially infected liquids as well, and thus provide the highest level of protection.⁶³ The DOHMH Stockpile contained 101,255 Surgical N95s intended for healthcare workers in the case of a pandemic.⁶⁴ However, these were not the only type of N95s in the City’s possession: other agencies also maintained stockpiles of the type of N95s that only filter out airborne particulate matter but that are *not* fluid-resistant (Non-Medical Grade N95s). As a result of their lower level of protection, Non-Medical Grade N95s were not approved for use in healthcare-related settings absent emergency approval by the federal Food and Drug Administration.⁶⁵

As it prepared for COVID-19, the City encountered problems in determining exactly how many masks it owned and the condition of those masks. Beginning in January 2020, when demand for all forms of PPE began to rise and worldwide shortages were reported, City Hall officials inquired about the City’s mask supply, particularly its N95s.⁶⁶ On February 6, 2020, a NYCEM official wrote:

[City Hall] reached out re: masks . . . a couple of questions:

*How many N95 masks do we have in our stockpile? <expired vs. not expired>

*How many . . . [Ear-Loop M]asks do we have in our stockpile? <expired vs. not expired>

*Can we order more? Or is there a national shortage?

NYCEM was able to provide quick answers about its own supply, noting that it had 93,200 Non-Medical Grade N95s in its inventory.⁶⁷ However, determining the remainder of the citywide mask supply was not as simple.

Since centralized information was unavailable, as the COVID-19 crisis progressed NYCEM had to survey City agencies for basic information about their mask supplies. On February 10, 2020, a NYCEM official sent an email to a DOHMH official seeking information about the masks and N95s in DOHMH's possession. The NYCEM official noted that NYCEM was "trying to get a citywide inventory picture together and will be asking the same of other agencies" and capturing inventory information in a "central location."⁶⁸ By February 13, 2020, NYCEM had obtained only a partial view of the City's mask supplies, having compiled information from just four agencies.⁶⁹ Two weeks after this initial inquiry, NYCEM was still seeking information about the City's mask supplies. On March 3, 2020, a NYCEM official sent an additional inquiry to all City agencies seeking information "needed to support NYCs [sic] COVID-19 planning," and requested the agencies inform NYCEM if their agency used PPE, the type of masks used, and their daily mask usage, or "burn rate."⁷⁰

During its agency-wide mask survey, NYCEM determined that the DOHMH Stockpile of Surgical N95s—the highly protective masks intended for use by medical personnel—had expired years earlier. Mask expiration is critical because masks may degrade over time and if they do, they may not function as intended.⁷¹ On February 13, 2020, a NYCEM official provided a DOHMH official with preliminary results of NYCEM's mask survey, noting that "[u]nfortunately the overall picture is that New York City doesn't have any non-expired medical grade [Surgical N95] masks in its stockpiles."⁷² A spreadsheet attached to that email showed that DOHMH had 101,255 Surgical N95s, that those Surgical N95s were the only ones in the City's possession, and that all of those Surgical N95s had expired at least two years earlier.⁷³ NYCEM had come to this conclusion days earlier: a February 10, 2020 briefing document for the NYCEM Commissioner states that "[t]here are no non-expired N-95 surgical grade masks in any City stockpile."⁷⁴ Subsequent surveys conducted by NYCEM confirmed this fact: a March 3, 2020 NYCEM spreadsheet indicated that, except for the expired ones owned by DOHMH, no other City agency possessed Surgical N95s.⁷⁵ Put plainly, the City allowed its entire stockpile of Surgical N95s set aside for public health emergencies to expire, with

at least NYCEM, the City's lead agency for the coordination of resources for a public health incident, unaware of that fact until mid-February 2020.⁷⁶

D. Confusion Existed As To The Role And Responsibilities Of NYCEM, The City's Emergency Management Agency

Section 497 of the New York City Charter sets out NYCEM's responsibilities, which include planning for emergencies and coordinating response efforts when emergencies impact the City. Among other duties, NYCEM is responsible for "prepar[ing] plans for responding to emergency conditions and potential incidents, including but not limited to plans for the implementation of such emergency orders as may be approved by the mayor to protect public safety and facilitate the rapid response and mobilization of agencies and resources."⁷⁷ NYCEM is also responsible for "coordinat[ing] the City's response to all emergency conditions and potential incidents which require a multi-agency response," including "incidents which affect public health and safety" and for "coordinat[ing] with all city agencies to ensure that all such agencies develop and implement emergency response plans."⁷⁸ According to Section 498 of the City Charter, NYCEM also serves as "the lead agency in the coordination and facilitation of resources in incidents involving public safety and health."

NYCEM and other City agencies worked and continue to work tirelessly under extremely difficult circumstances to combat the impact of the pandemic. Despite its laudable work, NYCEM encountered difficulties performing aspects of its City Charter-mandated planning and coordination duties during the run up and initial response to COVID-19.⁷⁹ The struggles identified raise questions about the resources, staffing, and expertise available to NYCEM, and about the tasks assigned to or assumed by NYCEM, particularly in the context of the responsibilities given to other agencies with subject-matter expertise such as DOHMH.

Notwithstanding the City Charter provisions that clearly define NYCEM's authority and responsibilities, confusion as to NYCEM's role was evident from certain inter-agency communications and uncoordinated, and at times inconsistent, activities. In internal documents and in communications with other agencies, NYCEM repeatedly—and incorrectly—asserted that it was leading the City's COVID-19 preparation and response efforts with DOHMH.⁸⁰ In late February 2020, for example, NYCEM officials prepared a draft organizational chart for COVID-19 "Interagency Forward Planning Work Group[s]" that were being established.⁸¹ In the draft chart, NYCEM listed itself as a member of the unified command element responsible for leading the City's public health emergency response efforts.⁸² Agency roles in emergency response are defined by the Citywide Incident Management System (CIMS), which specifies that DOHMH, FDNY, and the Police Department (NYPD)—not NYCEM—are the primary City agencies for citywide public health emergencies and should serve as the COVID-19 command element.⁸³ CIMS

identifies NYCEM's role as a primary agency only for responses to natural disasters or weather emergencies unless otherwise specifically designated. Consistent with the designations set forth in CIMS, DOHMH officials corrected the organizational chart to reflect that the role of NYCEM was as "Citywide Coordination Lead."⁸⁴ DOHMH officials found themselves repeatedly correcting NYCEM to make it clear that "DOHMH is the lead agency for [the COVID-19] response."⁸⁵ Nonetheless, in internal emails, NYCEM officials indicated that the NYCEM Commissioner directed the exclusion of NYPD and FDNY from the COVID-19 command element, despite CIMS designating both as primary agencies for public health emergencies.⁸⁶ Both FDNY and NYPD officials, in contrast, understood that they were part of the command element, indicating at minimum significant confusion among City agencies about responsibilities in the COVID-19 response.⁸⁷

Despite being responsible for coordinating emergency response efforts, NYCEM did not appear to consistently coordinate response efforts with DOHMH. In an internal email, NYCEM officials described DOHMH as having "been shut out" of the City's COVID-19 response efforts.⁸⁸ Consistent with this observation, NYCEM excluded DOHMH from response efforts by making requests for medical equipment to the federal Strategic National Stockpile (SNS) without consulting DOHMH officials, despite DOHMH's "understanding that these requests [for medical equipment] would be generated by the Health Department."⁸⁹ However, when asking to discuss federal resource requests with NYCEM, a DOHMH official asserted that "at a minimum [DOHMH] should be part of the decision-making" for SNS requests.⁹⁰

NYCEM also conducted response activities in contravention of DOHMH guidance. For example, NYCEM circulated information about confirmed COVID-19 cases within City agencies to an email mailing list, despite DOHMH's assertion that doing so was inappropriate.⁹¹ When DOHMH attempted to stop NYCEM from continuing to disseminate the case information, one NYCEM official, instead of adhering to DOHMH's direction, sought to remove DOHMH from such future emails.⁹² Similarly, NYCEM officials pursued an effort to set up community-based testing sites (CBTS) in coordination with the federal government, despite DOHMH's opposition on the grounds that it would "take resources away from healthcare facilities, encourage[] crowds, risk those who are + [positive] infecting others as they transit back and forth, and will waste precious PPE."⁹³

NYCEM officials also identified problems with the agency's planning efforts. On one occasion, a NYCEM official noted that NYCEM-created incident action plans were "cut and paste[d] from the [Incident Command System] book," and that organizational charts prepared by the agency were "confusing" and did not make sense in the context of COVID-19.⁹⁴ In addition, an official cross-designated with both FDNY and NYCEM stated that the NYCEM Commissioner requested support from FDNY's internal emergency management unit, the Incident Management Team (IMT), because she was allegedly "not satisfied with the progress of her staff and sees the necessity of brin[g]ing

in the FDNY IMT.”⁹⁵ FDNY officials also noted a lack of knowledge among NYCEM staff regarding basic emergency management concepts: the same cross-designated FDNY and NYCEM official noted on March 5, 2020 that FDNY officials were “trying to teach [Incident Command System] and IMT models” to NYCEM staff at the same time they were trying to develop plans for COVID-19 response efforts.⁹⁶

NYCEM also struggled to fulfill its role of providing support to other agencies. For example, on March 12, 2020, the Office of the Chief Medical Examiner (OCME) notified NYCEM that it was running out of space for body collection and requested that NYCEM assist it in obtaining additional space for those operations at a location previously used for the same purpose following September 11, 2001.⁹⁷ Over a week later, when hospitals were running out of morgue capacity and, as a result, further straining OCME’s operations, a senior OCME official contacted the NYCEM Commissioner:

We spoke about this the morning of 3-13 and I subsequently urgently asked [a NYCEM official] for [the] memorial park. It was 7 precious days later that OCME negotiated its own access to the site. We are scrambling now to catch up. I am not asking but pleading that you reinforce to NYCEM the urgency of all our requests.⁹⁸

Beyond its difficulties supporting other agencies and in contrast to its Charter mandate and CIMS-identified responsibility to support City agencies responding to emergencies, NYCEM requested that other agencies support its own response efforts. In particular, NYCEM looked to other agencies to conduct logistical work, despite resource management ostensibly being a central component of NYCEM’s support role.⁹⁹ NYCEM, for example, requested that DOHMH perform intake for, filter, and evaluate certain PPE requests.¹⁰⁰ Internal NYCEM emails indicate that NYCEM officials wanted DOHMH to handle PPE due to a concern about the volume of potential requests - as one NYCEM official stated, “[i]f there is a way to have DOHMH collect and prioritize and handl[e] allocation I would highly recommend it. It could get too crazy for NYCEM alone to handle.”¹⁰¹ This concern, along with the issues noted above, raises significant questions regarding whether NYCEM had the resources and capacity to fulfill its support mission.

III. Interim Conclusion And Recommendations

As COVID-19 began to spread, the absence of a completed citywide operational plan for a pandemic meant that the City lacked sufficient direction for its response, that its agencies' actions were insufficiently coordinated, that its officials struggled to obtain accurate information about available resources, and that its responses to demands for essential municipal resources and supplies were compromised. Critical time was devoted to gathering information and to making plans that could have been drafted and finalized in advance.

In anticipation of the next public health crisis, lessons can be learned from and improvements can be made to the City's preparation, planning, and response. Based on its interim findings, the Comptroller's Office recommends that the City:

1. **Create, complete, and regularly update a citywide operational plan for future pandemics.** Although the City recognized that it needed a citywide operational pandemic plan, it did not have such a plan at its disposal when COVID-19 struck. Such a citywide operational pandemic plan should be created setting forth clear operational duties and organizational structures, with an appropriate level of detail. The plan must specifically identify what tasks will need to be done, who will be responsible for each task, how each task is to be completed, and what resources are required to complete each task, relying on appropriate authoritative guidance, such as from FEMA or other subject matter experts.¹⁰² The citywide operational pandemic plan should be readily accessible to key decision makers and any others responsible for its implementation, and be regularly updated. Further, the City must ensure that procedures are established to frequently review and regularly update the City's operational pandemic plan.
2. **Promptly conduct a thorough review of the City's emergency planning to develop and update citywide operational plans for potential threats other than pandemics.** The pandemic planning issues identified in this investigation raise questions about the state of the City's operational planning for other possible emergencies requiring a coordinated citywide response. The City should promptly conduct a thorough review of its emergency planning to ensure that it has complete, up-to-date, operational plans for any threats other than pandemics that may require a citywide response. Consistent with the drafting of an updated pandemic plan, any plans created or updated pursuant to this review should include clear

operational tasks and organizational structures based on appropriate authoritative guidance and be easily available to relevant stakeholders. In addition, procedures should be established to ensure that all plans are regularly reviewed and updated as necessary.

3. **Identify and maintain stockpiles of critical supplies, and implement controls to timely identify, procure, and replace stocks.** The City must identify and maintain stockpiles of critical supplies that are likely to be otherwise unavailable, either due to supply or demand, in the case of potential emergencies. Systems and controls should be implemented and documented in formal written procedures to ensure that stockpiles remain available and usable in case of an emergency. The determination of what critical supplies must be maintained and decisions concerning the management of those stockpiles should be made in consultation with the commissioners of each agency that would be called on to respond to an emergency. Decisions to cease maintaining stockpiles of specific supplies or to reduce the level of supplies in City stockpiles should be made in consultation with and notice to the commissioners of each of the agencies identified at the time the stockpile is established as likely to draw on the stockpile in the event of an emergency.
4. **Improve the data collection, management, and dissemination of information needed by decision makers and emergency response agencies.** The City should improve its systems for collecting, managing, and disseminating critical data related to resources needed to respond to emergencies. The City must also develop processes to ensure that critical information is shared quickly and widely to all potential agency stakeholders. The City should consult with the commissioners of each agency that would be called on to respond to an emergency to determine what information constitutes critical data requiring collection and dissemination.
5. **Review NYCEM's capability to fulfill its Charter-mandated planning, coordination, information sharing, and support roles, clarify NYCEM's role in emergency responses, and provide the resources and authority needed for NYCEM to fulfill its roles.** The City should review NYCEM, including its structure, resources, and budget, to determine its abilities to plan for emergencies, to coordinate and support emergency response efforts, and to facilitate information sharing among City agencies. In addition, consistent with the City Charter and CIMS, the City should clarify NYCEM's emergency response roles, in particular in relation to emergencies where NYCEM is not designated as a primary agency. Based

on that review and clarification, the City should ensure that NYCEM has sufficient resources and authority to fulfill its roles.

Emergencies are by definition unpredictable. However, what is predictable is that New York City will someday face another emergency. It is thus critical that the City consider these initial recommendations so that when—not if—the next emergency arises, the City will be prepared with an operational plan and will be better equipped to respond.

Endnotes

¹ Email from DOHMH Alert System dated Jan. 9, 2020; email from DOHMH official to FDNY officials dated Jan. 10, 2020; *Covid-19 Data*, Department of Health and Mental Hygiene (DOHMH), <https://www1.nyc.gov/site/doh/covid/covid-19-data-totals.page#summary> (last accessed Aug. 16, 2021).

² *About NYC Health + Hospitals*, Health and Hospitals Corp. (H+H), <https://www.nychealthandhospitals.org/about-nyc-health-hospitals/> (last accessed Aug. 16, 2021); *Understanding New York City's Budget: A Guide*, New York City Indep. Budget Off. (July 2017), <https://www.ibo.nyc.ny.us/iboreports/understandingthebudget.pdf>; *The City of New York Executive Budget Fiscal Year 2022 Financial Plan Summary*, Mayor's Office of Mgmt. and Budget (Apr. 26, 2021), <https://www1.nyc.gov/assets/omb/downloads/pdf/sum4-21.pdf>; *Summary of Fiscal Year 2022 Proposed Budgets*, Nat'l Assn. of State Budget Officers (Apr. 30, 2021), [https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/Issue%20Briefs%20/Fiscal 2022 Proposed Budgets - Summary.pdf](https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/Issue%20Briefs%20/Fiscal%202022%20Proposed%20Budgets%20Summary.pdf)

³ DOHMH, *Pandemic Influenza Preparedness and Response Plan (July 2006) (2006 Plan)*, <https://biotech.law.lsu.edu/blaw/flu/cd-panflu-plan.pdf>.

⁴ Bill Hammond, Empire Center, *2020 HINDSIGHT: Rebuilding New York's Public Health Defenses After the Coronavirus Pandemic* (June 2021), <https://www.empirecenter.org/wp-content/uploads/2021/06/2020Hindsight.pdf>.

⁵ *Statement from Mayor Bill de Blasio and Commissioner Barbot On First Coronavirus Case*, Office of the Mayor (Mar. 1, 2020), <https://www1.nyc.gov/office-of-the-mayor/news/107-20/statement-mayor-bill-de-blasio-commissioner-barbot-first-coronavirus-case>; Emergency Exec. Order No. 98 (Mar. 12, 2020), <https://www1.nyc.gov/assets/home/downloads/pdf/executive-orders/2020/eeo-98.pdf>; *NYC Coronavirus Disease 2019 (COVID-19) Data – Coronavirus-data/archive*, DOHMH, <https://github.com/nychealth/coronavirus-data/blob/master/archive/case-hosp-death.csv> (last updated Dec. 13, 2020).

⁶ *Covid-19 Data*, DOHMH, <https://www1.nyc.gov/site/doh/covid/covid-19-data-totals.page#summary> (last accessed Aug. 16, 2021). All statistics in the preceding sentences are based on this DOHMH data. See also Comptroller's Office, *Protecting NYC's Most Vulnerable Populations During COVID-19* (Apr. 15, 2020), <https://comptroller.nyc.gov/wp-content/uploads/documents/Protecting-NYCs-Most-Vulnerable-Populations-During-COVID-19.pdf>; Comptroller's Office, *New York City's Frontline Workers* (Mar. 26, 2020), [https://comptroller.nyc.gov/wp-content/uploads/documents/Frontline Workers 032020.pdf](https://comptroller.nyc.gov/wp-content/uploads/documents/Frontline_Workers_032020.pdf); Sebastian D. Romano et al., *Trends in Racial and Ethnic Disparities in COVID-19 Hospitalizations, by Region – United States, March – December 2020*, 70(15) *Morbidity and*

Mortality Weekly Rept. (MMWR) 560-65 (Apr. 16, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/mm7015e2.htm?s_cid=mm7015e2_w.

⁷ Comptroller's Office, New York by the Numbers Weekly Economic and Fiscal Outlook (New York by the Numbers) (No. 53, July 12, 2021), <https://comptroller.nyc.gov/newsroom/new-york-by-the-numbers-weekly-economic-and-fiscal-outlook-no-53-july-12th-2021/>; Comptroller's Office, New York by the Numbers (No. 45, May 3, 2021), <https://comptroller.nyc.gov/newsroom/new-york-by-the-numbers-weekly-economic-and-fiscal-outlook-no-45-may-3rd-2021/>; Comptroller's Office, New York by the Numbers (No. 23, Nov. 2, 2020), <https://comptroller.nyc.gov/newsroom/new-york-by-the-numbers-weekly-economic-and-fiscal-outlook-no-23-november-2-2020/>; The City of New York Comprehensive Annual Financial Report of the Comptroller of the City of New York for the Fiscal Year Ended June 30, 2020, <https://comptroller.nyc.gov/wp-content/uploads/documents/CAFR2020.pdf> (last accessed Aug. 16, 2021); The City of New York January 2020 Financial Plan Detail Fiscal Years 2020-2024, <https://www1.nyc.gov/assets/omb/downloads/pdf/tech1-20.pdf> (last accessed Aug. 16, 2021). Final audited expenditures and revenues data for FY 2021 will not be available until October 2021.

⁸ The authority of the Comptroller's Office to conduct the investigation and to issue its subpoenas in connection with its investigation was upheld by order of the Supreme Court on December 16, 2020. See *Comptroller v. City of New York*, No. 452285/2020, 2020 N.Y. Slip Op. 34303 (Sup. Ct. N.Y. Cty. Dec. 16, 2020), https://www.nycourts.gov/reporter/pdfs/2020/2020_34303.pdf. On August 12, 2021, the Appellate Division, First Department, unanimously affirmed the Supreme Court decision upholding the authority of the Comptroller's Office to conduct the investigation and issue its subpoenas. *Matter of Comptroller v. City of New York*, No. 2020-05045, 2021 N.Y. Slip. Op. 04685 (1st Dep't Aug. 12, 2021), https://www.nycourts.gov/reporter/3dseries/2021/2021_04685.htm. The Comptroller's Office anticipates supplementing this report upon the City's production of additional documents and witnesses and will amend its findings as necessary based on the documents and witnesses that the City has yet to provide.

⁹ The City provided what it represented were all documents responsive to the Comptroller's subpoena for documents from November 2019 through March 2020 from only two agencies—New York City Emergency Management (NYCEM) and the Fire Department (FDNY)—as well as a limited number of witnesses. Eventually, it ceased cooperating with this investigation altogether. Pending determination of the appeal, the City still has not produced additional witnesses requested from NYCEM, documents and witnesses requested from City Hall, the Health and Hospitals Corporation (H+H), or, other than a single document, documents and witnesses requested from the Department of Health and Mental Hygiene (DOHMH).

¹⁰ As noted in the Comptroller's Office review of H+H's COVID-19 response, four general basic elements of public health emergency response planning and efforts are space, staff, stuff, and

systems. See Letter from Comptroller Scott Stringer to Governor Andrew M. Cuomo regarding Review of H+H's Response to COVID-19 dated July 17, 2020, <https://comptroller.nyc.gov/wp-content/uploads/2020/07/7.17.20-HH-Response-to-COVID-19.docx.pdf>; see also *Space, Staff, Stuff: Identifying Your Community's Resources*, Centers for Disease Control and Prevention (CDC) (Mar. 2019), https://www.cdc.gov/cpr/readiness/healthcare/documents/SpaceStaffStuff_UserGuide_final.pdf.

¹¹ While NYCEM is the focus of this finding, other agencies may have faced similar challenges. Until documents are provided, and additional witnesses are made available from agencies such as DOHMH, H+H, and City Hall, no determination can be made about whether similar issues at those and possibly other agencies existed.

¹² See, e.g., Mayor Bill de Blasio (@NYCMayor), Twitter (Mar. 26, 2020), <https://twitter.com/NYCMayor/status/1243317145364238336?s=20>; Transcript, *Hearing on Sourcing Local Personal Protective Equipment for the Next COVID-19 Wave or a Future Pandemic before the Committee on Contracts Jointly With the Committee on Governmental Operations and the Committee on Economic Development*, T2020-6651, New York City Council (Oct. 22, 2020), (statement of First Deputy Commissioner, Department of Design and Construction), <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4647856&GUID=1AA0E2D6-DFC8-4EBD-8340-7AD28BCB539A&Options=&Search=>.

¹³ *Statement from spokeswoman for Bill de Blasio* (Apr. 6, 2020), <https://www.documentcloud.org/documents/6825749-Statement-From-Spokeswoman-for-Bill-De-Blasio.html>.

¹⁴ Francesco Aimone, *The 1918 Influenza Epidemic in New York City: A Review of the Public Health Response*, 125 *Pub. Health Rep.* 71 (2010), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2862336/>; Noah Sheidlower, *12 Prior Epidemics That Plagued New York*, *Untapped New York* (Mar. 20, 2020), <https://untappedcities.com/2020/03/20/12-epidemics-that-plagued-new-york/?displayall=true>.

¹⁵ Anemona Hartocollis, *Workshop on Preparing for Calamities Focuses on the Flu*, *N.Y. Times* (June 18, 2008), <https://www.nytimes.com/2008/06/18/nyregion/18flu.html>.

¹⁶ DOHMH Draft Pandemic Influenza Operational Plan, last updated in June of 2013.

¹⁷ NYCEM, *Respiratory Virus With Pandemic Potential*, NYC Hazard Mitigation, <https://nychazardmitigation.com/hazard-specific/respiratory-virus-with-pandemic-potential/what-is-the-hazard/> (last accessed Aug. 16, 2021). According to a NYCEM official, a moderate risk is one that can happen and that needs to be considered by City emergency planners. Nov. 20, 2020 Interview.

¹⁸ See generally Matthew Mosk, *George W. Bush in 2005: 'If we wait for a pandemic to appear, it will be too late to prepare'*, *ABC News* (Apr. 5, 2020), <https://abcnews.go.com/Politics/george->

[bush-2005-wait-pandemic-late-prepare/story?id=69979013](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1283304/); Fred Charatan, *Bush announces US plan for flu pandemic*, 331 *BMJ* 1103 (Nov. 12, 2005), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1283304/>; Homeland Security Council, National Strategy for Pandemic Influenza (Nov. 2005), <https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-strategy-2005.pdf>.

¹⁹ As used in this report, “planning” refers to the development of specific, written plans used to guide a response to an emergency situation at a point in the future. See Federal Emergency Management Agency (FEMA), National Planning System (Feb. 2016), https://www.fema.gov/sites/default/files/2020-04/National_Planning_System_20151029.pdf. The City has not produced or identified any citywide COVID-19 response plan. See email thread among NYCEM officials dated Mar. 5, 2020; email thread among NYCEM officials and New York State Department of Homeland Security & Emergency Services officials dated Feb. 28, 2020.

²⁰ The Comptroller’s Office has long warned of the impact of the City’s failure to plan and prepare. Previously issued reports have made multiple recommendations regarding the City’s emergency preparedness and response efforts, including concerning COVID-19. See Comptroller’s Office, Nothing Gained: Report of the New York City Comptroller’s Investigation of the City’s \$8.26 Million Payment to Global Medical Supply Group (Apr. 27, 2021), <https://comptroller.nyc.gov/reports/nothing-gained-report-of-the-new-york-city-comptrollers-investigation-of-the-citys-8-26-million-payment-to-global-medical-supply-group/>; Letter from Comptroller Scott Stringer to Governor Andrew M. Cuomo regarding Review of H+H’s Response to COVID-19 dated July 17, 2020, <https://comptroller.nyc.gov/wp-content/uploads/2020/07/7.17.20-HH-Response-to-COVID-19.docx.pdf>; Comptroller’s Office, Fiscal Resiliency: Reforming New York City’s Emergency Procurement System before the Next Storm (Oct. 2017), https://comptroller.nyc.gov/wp-content/uploads/documents/Fiscal_Resiliency.pdf; Comptroller’s Office, Audit Report on the New York City Housing Authority’s Emergency Preparedness (Dec. 14, 2015) (SR14-113A), https://comptroller.nyc.gov/wp-content/uploads/documents/SR14_113A.pdf; and Comptroller’s Office, Audit Report on the Administration of the New York City Build It Back Single Family Program by the Mayor’s Office of Housing Recovery Operations (Mar. 31, 2015) (FM14-115A), https://comptroller.nyc.gov/wp-content/uploads/documents/MJ13_117A.pdf.

²¹ FEMA, National Planning System (Feb. 2016), https://www.fema.gov/sites/default/files/2020-04/National_Planning_System_20151029.pdf. See also *Strategic Planning*, 42 *Scandinavian J. Pub. Health* 106 (2014).

²² See FEMA, National Planning System (Feb. 2016), https://www.fema.gov/sites/default/files/2020-04/National_Planning_System_20151029.pdf. There is a third type of plan, tactical plans. However, as tactical plans “show[] how to apply resources in order to complete the operational tasks within a given timeline,” they can be considered subordinate to and a part of operational planning. *Ibid.*, see also *Strategic Planning*,

42 Scandinavian J. Pub. Health 106 (2014). For the purposes of this report, tactical planning is understood to be a component of operational planning. “Hazard Mitigation” plans are a form of strategic planning, as they are designed to identify risks and “develop long-term strategies” for protecting against those risks. *Hazard Mitigation Planning*, FEMA, <https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning> (last updated Apr. 9, 2021). Hazard mitigation planning is mandated by the Federal Emergency Management Agency as a condition of federal emergency grant funds. FEMA, Hazard Mitigation Grant Program Administrative Plan Checklist (Mar. 29, 2019), https://www.fema.gov/sites/default/files/2020-10/fema_hazard_mitigation_grant_program_admin_plan_checklist_03-29-19.pdf. For the purposes of this report, hazard mitigation planning is understood to be a component of or synonymous with strategic planning.

²³ Nov. 20, 2020 Interview; Agenda of the H+H Medical and Professional Affairs Committee (Mar. 12, 2020), <https://hhinternet.blob.core.windows.net/uploads/2020/03/202003-mpa.pdf>.

²⁴ Email thread among NYCEM, DOHMH, and City Hall officials dated Jan. 29, 2020.

²⁵ *Ibid.* Later in the same email thread, the DOHMH official notes that the BIO Plan was “still technically in draft form,” that several sections of it had “been worked through the large planning process over the past 5 years,” and that only the “‘Command Element’ and information-sharing portion[s]” had been sufficiently drafted to be shared with City Hall. *Ibid.* Although it has represented that it has completed all productions from NYCEM, the City has not produced either the “BIO Plan” or the H1N1 Handbook.

²⁶ *Ibid.* The 2006 Plan was available on the DOHMH website until at least March 2016, and was removed on or before January 18, 2017. See Internet Archive Wayback Machine, https://web.archive.org/web/20160415000000*/www.nyc.gov/html/doh/downloads/pdf/cd/cd-panflu-plan.pdf (last accessed Aug. 16, 2021). The 2006 Plan was not provided by the City during this investigation but was located on an academic website. See <https://biotech.law.lsu.edu/blaw/flu/cd-panflu-plan.pdf> (last accessed Aug. 16, 2021).

²⁷ The thirteen plans identified are materials either referenced, discussed, or available in materials publicly available or produced by the City in response to a subpoena which discuss or appear to relate to planning or guidance for a potential pandemic or other communicable disease threat. Because the City ceased cooperation with and has not completed producing documents sought by this investigation, other documents may exist that could not be reviewed for this interim report, including the H1N1 Handbook and the BIO Plan. Specifically, the thirteen plans identified are: 1) the 2006 Plan; 2) the October 2009 FDNY Continuity of Operations Plan; 3) the October 2009 Office of the Chief Medical Advisor (OCME) Pandemic Influenza Surge Plan for In and Out of Hospital Deaths; 4) the 2013 Plan; 5) the April 2014 New York City Hazard Mitigation Plan; 6) the November 2014 “NYC’s Risk Landscape: A Guide to Hazard Mitigation;” 7) the May 2018 Public Health Emergency Initial Notification for Command Element

Agencies; 8) the JFK Multi Agency Airport Communicable Disease Response Plan; 9) the May 2019 “NYC’s Risk Landscape: A Guide to Hazard Mitigation;” 10) the June 2019 H+H Frontline Hospital Planning Guide for Special Pathogens; 11) the BIO Plan; 12) the H1N1 Playbook; and 13) the Citywide Health and Safety Plan. In addition to the 2006 Plan, five are publicly available. See OCME, Pandemic Influenza Surge Plan For Managing In- and Out-of Hospital Deaths (Oct. 2008), http://www.nyc.gov/html/ocme/downloads/pdf/pandemic_influenza_surge_plan.pdf;

City of New York, 2014 New York City Hazard Mitigation Plan (Apr. 17, 2014), https://www1.nyc.gov/assets/em/downloads/pdf/hazard_mitigation/plan_update_2014/final_nyc_hmp.pdf;

NYCEM, NYC’s Risk Landscape, A Guide to Hazard Mitigation (Nov. 2014), https://www1.nyc.gov/assets/em/downloads/pdf/hazard_mitigation/nycs_risk_landscape_a_guide_to_hazard_mitigation_final.pdf; NYCEM, NYC’S Risk Landscape: A Guide to Hazard Mitigation (May 2019), https://nychazardmitigation.com/wp-content/uploads/2019/06/risklandscape2.0_2019_r2_v1_digital_highres.pdf;

H+H, Frontline Hospital Planning Guide: Special Pathogens (June 2019)

<https://hhinternet.blob.core.windows.net/uploads/2019/07/NYCHH-Frontline-Hospital-Planning-Guide.pdf>.

²⁸ The other eight plans were either operational or citywide but were not both. Of those plans, four were agency-specific, and thus did not provide the citywide plan that was sought. The City did not provide three other plans, the “BIO Plan,” the “H1N1 Playbook,” and the “Citywide Health and Safety Plan,” to the Comptroller’s Office, and they are not publicly available. Beyond limited strategies relating to command element organization and notification, the City provided no information indicating that the BIO Plan, the H1N1 Playbook, or the Citywide Health and Safety Plan constituted the City’s plan for a pandemic. Rather, the City confirmed that the 2013 Plan was the most up-to-date pandemic plan available to City officials and was the one in effect as of the beginning of COVID-19. See email from Law Department official to Comptroller’s Office dated Nov. 16, 2020; see also Nov. 24, 2020 Interview.

²⁹ CIMS, which the City created in connection with to requirements for federal emergency preparedness funding, “establishes roles and responsibilities and designates authority for City, state, other government entities, and nonprofit and private sector organizations performing and supporting emergency response.” *Citywide Incident Management System*, NYCEM, <https://www1.nyc.gov/site/em/about/citywide-incident-management-system.page> (last accessed Aug. 16, 2021). The City uses CIMS to organize a citywide response to emergencies, and as such, CIMS identifies the primary agencies in command of response efforts in different kinds of emergencies such as natural disasters, terrorist attacks, and public health crises.

³⁰ NYCEM, NYC’s Risk Landscape, A Guide to Hazard Mitigation (Nov. 2014), https://www1.nyc.gov/assets/em/downloads/pdf/hazard_mitigation/nycs_risk_landscape_a_guide_to_hazard_mitigation_final.pdf.

³¹ Nov. 24, 2020 Interview.

³² Nov. 16, 2020 Interview.

³³ City officials did work on the BIO Plan for at least five years before COVID-19, which was intended to “identif[y] potential operational strategies to support a response to a biological incident of citywide importance.” Email among NYCEM officials dated Jan. 30, 2020. However, as of January 2020, the BIO plan was far from complete, allegedly containing “operational drafts” for a limited number of strategies, with others under development. *Ibid.*; *see also* email among NYCEM officials dated Feb. 10, 2020. The City confirmed that the 2013 Plan was the most up-to-date pandemic plan available to City officials. See email from Law Department official to Comptroller’s Office dated Nov. 16, 2020. A DOHMH official confirmed that the 2013 Plan was the one in force as of the beginning of COVID-19. See Nov. 24, 2020 Interview.

³⁴ *Transcript: Mayor de Blasio Holds Media Availability on the City’s Response to the Novel Coronavirus*, Office of the Mayor (Jan. 24, 2020), <https://www1.nyc.gov/office-of-the-mayor/news/039-20/transcript-mayor-de-blasio-holds-media-availability-the-city-s-response-the-novel-coronavirus>.

³⁵ Email thread among NYCEM and Department of Social Services officials dated Jan. 23, 2020.

³⁶ Email thread among NYCEM officials dated Feb. 26, 2020; email thread among NYCEM officials dated Feb. 26, 2020.

³⁷ Email thread among NYCEM officials dated Feb. 25, 2020.

³⁸ Email thread among NYCEM officials dated Feb. 27, 2020.

³⁹ *Ibid.* Similarly, NYCEM officials indicated that planning efforts began to increase on or about February 24, 2020. See email thread among NYCEM officials dated Feb. 24, 2020.

⁴⁰ Email from NYCEM dated Mar. 4, 2020.

⁴¹ Email among NYCEM officials dated Mar. 4, 2020.

⁴² Email among NYCEM officials dated Mar. 11, 2020; email among NYCEM officials dated Mar. 11, 2020.

⁴³ NYC Senior Leadership Brief – COVID-19 (Mar. 16, 2020).

⁴⁴ NYC Senior Leadership Brief – COVID-19 (Mar. 17, 2020).

⁴⁵ Email from NYCEM dated Mar. 16, 2020; email thread from Mayor’s Office of Operations official to various agency officials dated Mar. 14, 2020.

⁴⁶ NYC Senior Leadership Brief – COVID-19 (Mar. 17, 2020); NYC Senior Leadership Brief – COVID-19 (Mar. 16, 2020); email from NYCEM dated Mar. 16, 2020.

⁴⁷ By March 23, 2020, the City had over 27,000 COVID-19 cases according to archived DOHMH case rate data. See *NYC Coronavirus Disease 2019 (COVID-19) Data – Coronavirus-*

data/archive, DOHMH (last updated Dec. 13, 2020), <https://github.com/nychealth/coronavirus-data/blob/master/archive/case-hosp-death.csv> (last accessed Aug. 16, 2021).

⁴⁸ *Transcript: Mayor de Blasio Updates New Yorkers on City's COVID-19 Response*, Office of the Mayor (Mar. 9, 2020), <https://www1.nyc.gov/office-of-the-mayor/news/129-20/transcript-mayor-de-blasio-new-yorkers-city-s-covid-19-response>. See also *Transcript: Mayor de Blasio Holds Media Availability on COVID-19*, Office of the Mayor (Mar. 8, 2020), <https://www1.nyc.gov/office-of-the-mayor/news/125-20/transcript-mayor-de-blasio-holds-media-availability-covid-19>.

⁴⁹ FEMA defines resources as “[p]ersonnel and major items of equipment, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained.” *Glossary*, FEMA, <https://training.fema.gov/programs/emischool/el361/toolkit/glossary.htm> (last accessed Aug. 16, 2021).

⁵⁰ FEMA defines resource management as “standard mechanisms to systematically manage resources, including personnel, equipment, supplies, teams, and facilities, both before and during incidents in order to allow organizations to more effectively share resources when needed.” FEMA, IS-0703.b NIMS Resource Management (Apr. 2020), <https://training.fema.gov/emiweb/is/is703b/studentmanual/is0703%20sm.pdf>; FEMA, National Incident Management System (3d ed. Oct. 2017), https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf.

⁵¹ Email from NYCEM official to DOHMH officials dated Mar. 15, 2020; email between NYCEM officials dated Mar. 15, 2020; email between NYCEM officials dated Mar. 14, 2020.

⁵² Email thread among NYCEM and City Hall officials dated March 3, 2020; email thread among OCME and NYCEM officials dated March 3, 2020; email thread among Greater New York Hospital Association and NYCEM officials dated March 3, 2020; email thread among NYCEM officials dated Mar. 2, 2020; email among NYCEM officials dated Feb. 25, 2020; email thread among NYCEM and DOHMH officials dated Feb. 13, 2020; email thread among NYCEM officials dated Feb. 8, 2020.

⁵³ Email thread among NYCEM and Department of Social Services officials dated Mar. 4, 2020.

⁵⁴ HERDS Survey (Mar. 5, 2020); email thread among NYCEM and DOHMH officials dated Mar. 17, 2020.

⁵⁵ Email between NYCEM officials dated Mar. 14, 2020; email thread among NYCEM officials dated Mar. 2, 2020.

⁵⁶ Email between NYCEM officials dated Mar. 14, 2020.

⁵⁷ *Ibid.* However, as caseloads surged, H+H ultimately created an email portal that at least allowed internal users to view need and capacity at H+H facilities and request transfers

centrally. Letter from Comptroller Scott Stringer to Governor Andrew M. Cuomo regarding Review of H+H's Response to COVID-19 dated July 17, 2020, <https://comptroller.nyc.gov/wp-content/uploads/2020/07/7.17.20-HH-Response-to-COVID-19.docx.pdf>.

⁵⁸ As of March 3, 2020, the City agencies utilizing masks in support of their daily operations included OCME, H+H, FDNY, the Department of Social Services (DSS), the Department of Transportation (DOT), the Department of Corrections (DOC), Housing Preservation and Development (HPD), the Department of Buildings (DOB), the Police Department (NYPD), the Department of Environmental Protection (DEP), the Housing Authority (NYCHA), the Parks Department (Parks), and the Sanitation Department (DSNY). Spreadsheet created by NYCEM official dated Mar. 22, 2020; email between NYCEM and DSS officials dated Mar. 4, 2020; email between NYCEM and DOT officials dated Mar. 3, 2020; email between NYCEM and DOC officials dated Mar. 3, 2020; email between NYCEM and HPD officials dated Mar. 3, 2020; email between NYCEM and DEP officials dated Mar. 3, 2020; email between NYCEM and DOB officials dated Mar. 3, 2020; email between NYCEM and Parks officials dated Mar. 3, 2020; email between NYCEM and OCME officials dated Mar. 3, 2020; email between NYCEM and DSNY officials dated Mar. 3, 2020.

⁵⁹ Spreadsheet created by NYCEM official dated Mar. 22, 2020; email among NYCEM officials dated Feb. 7, 2020; email among NYCEM officials dated Feb. 6, 2020. According to the City Charter, DCAS is responsible for the procurement and disposal of goods owned by the City, and is required to establish rules for City agencies governing the purchase, storage, and disposal of such goods. See Charter § 823.

⁶⁰ The different types of face masks were referred to by witnesses and in emails and other documents in a variety of ways. For the purpose of this report, each of the three types of masks discussed herein is referred to consistently by the name defined in the text of the report.

⁶¹ While the Ear Loop Masks provide some protection against “large-particle droplets,” such masks do not filter or block small particles and airborne contaminants, such as viral particles transmitted through coughs or sneezes, so are of limited use to healthcare workers responding to COVID-19. *N95 Respirators, Surgical Masks, and Face Masks*, Food and Drug Administration (FDA), <https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/n95-respirators-surgical-masks-and-face-masks#s2> (last updated Apr. 9, 2021). Due to these limitations, DOHMH intended the Ear Loop Mask stockpile to be used by sick persons in the case of a pandemic “to prevent spread to well persons,” not to protect healthcare workers. See 2013 Plan; see also 2006 Plan at 107 (“Symptomatic individuals who [] must go out in public will be encouraged to wear facemasks DOHMH plans to purchase and stockpile a supply of facemasks that may be used by the general public as recommended in circumstances described above.”); email thread among NYCEM officials dated Mar. 13, 2020; email thread among NYCEM officials dated Feb. 6, 2020; email thread among NYCEM officials dated Feb. 6, 2020.

⁶² 2013 Plan; email thread among NYCEM and DOHMH officials dated Feb. 13, 2020.

⁶³ All forms of N95 masks filter out airborne particles including viral and bacterial pathogens, but only Surgical N95s are fluid-resistant to protect the wearer from liquids such as potentially infected bodily fluids and provide the highest level of protection from pathogens. *Personal Protective Equipment: Questions and Answers*, CDC (Apr. 9, 2021), <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html>.

⁶⁴ Spreadsheet attached to email between NYCEM and DOHMH officials dated Feb. 13, 2020.

⁶⁵ Non-Medical Grade N95s were not approved for medical use until March 2, 2020—making them, at least initially, of little use to the City’s COVID-19 response. Email thread among NYCEM officials dated Feb. 6, 2020; email thread among NYCEM officials dated Feb. 6, 2020; *see also Coronavirus (COVID-19) Update: FDA and CDC take action to increase access to respirators, including N95s, for health care personnel*, FDA (Mar. 2, 2020), <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-and-cdc-take-action-increase-access-respirators-including-n95s>.

⁶⁶ Email between NYCEM officials dated Jan. 25, 2020; Lulu Yilun Chen, *China’s Virus Outbreak Triggers a Global Run on Face Masks*, Bloomberg (Jan. 29, 2020), <https://www.bloomberg.com/news/articles/2020-01-29/china-s-virus-outbreak-triggers-a-global-run-on-face-masks>.

⁶⁷ Email between NYCEM officials dated Feb. 6, 2020.

⁶⁸ Email between NYCEM and DOHMH officials dated Feb. 13, 2020.

⁶⁹ *Ibid.*

⁷⁰ Email between NYCEM and DOB officials dated Mar. 3, 2020

⁷¹ *See Strategies for Optimizing the Supply of N95 Respirators*, CDC (Apr. 9, 2021), <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html> (“[E]xpired [masks] might not perform to the requirements for which they were certified” and should be “prioritized for situations where [health care providers] are NOT exposed to pathogens, such as training, fit testing, and source control”); *Frequently Asked Questions: 3M Health Care Particulate Respirator and Surgical Masks Storage Conditions and Shelf Life*, 3M (Feb. 5, 2020), <https://multimedia.3m.com/mws/media/869238O/3m-health-care-particulate-respirator-and-surgical-masks-storage-conditions-and-shelf-life-faq.pdf> (N95s stored for longer than shelf life may not meet “performance requirements” and recommends masks “be disposed of after the stated use by date”).

⁷² Email between NYCEM and DOHMH officials dated Feb. 13, 2020. A DOHMH official informed one NYCEM official on February 6, 2020 that “DOHMH’s inventory of N95 masks is past expiration.” Email between NYCEM official and DOHMH officials dated Feb. 6, 2020.

⁷³ 14,280 Surgical N95s expired in June 2017, 43,435 expired August of 2017, and 43,540 expired in August 2018. Spreadsheet attached to email between NYCEM and DOHMH officials dated Feb. 13, 2020.

⁷⁴ Email thread among NYCEM officials dated Feb. 10, 2020.

⁷⁵ Email among NYCEM officials dated Mar. 8, 2020 (listing N95 inventory by agency; only fluid resistant models in stock are the DOHMH expired Surgical N95s). The maintenance of any stockpile requires expending limited City resources that may be needed for competing and crucial expenditures. However, the failure to maintain critical resource stockpiles itself also has a significant cost, as became apparent during this pandemic. The cost of critical resources such as PPE being unavailable in an emergency situation cannot be calculated only in dollars and cents, but must also take into consideration the lives lost. See, e.g., Jessica Glenza, *New York nurses hold vigil for colleagues who have died amid pandemic*, *The Guardian* (Apr. 15, 2020), <https://www.theguardian.com/us-news/2020/apr/15/new-york-nurses-deaths-coronavirus-vigil-ppe>; Andrew Jacobs et al., *'At War With No Ammo': Doctors Say Shortage of Protective Gear Is Dire*, *N.Y. Times* (Mar. 19, 2020), <https://www.nytimes.com/2020/03/19/health/coronavirus-masks-shortage.html>; Melanie Evans and Khadeeja Safdar, *Hospitals Facing Coronavirus Are Running Out of Masks, Other Key Equipment*, *Wall St. J.* (Mar. 18, 2020), <https://www.wsj.com/articles/hospitals-facing-coronavirus-are-running-out-of-masks-other-key-equipment-11584525604>; *Shortage of personal protective equipment endangering health workers worldwide*, *World Health Org.* (Mar. 3, 2020), <https://www.who.int/news/item/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide>.

⁷⁶ Charter § 498. Beyond its own supplies, the City relied on being able to obtain whatever supplies it needed from federal stockpiles, even though the City recognized as early as 2006 that the federal government could be an unreliable emergency partner. See 2006 Plan (“Since the pandemic will be widespread in the United States, the supplies from the Federal Strategic National Stockpile (SNS) may not be available and local caches will need to be relied upon.”); *Transcript: Mayor de Blasio, Governor Cuomo Hold Media Availability on the First Confirmed Case of Coronavirus in New York State*, *Office of the Mayor* (Mar. 2, 2020) <https://www1.nyc.gov/office-of-the-mayor/news/108-20/transcript-mayor-de-blasio-governor-cuomo-hold-media-availability-the-first-confirmed-case-of>). As predicted, the federal government ultimately proved to be an unreliable partner in the City’s fight against COVID-19 with the SNS providing a mere fraction of the supplies the City sought. The City requested 2.2 million N95 masks from the SNS, but the SNS provided approximately 78,000, only 3.5 percent of what was sought, and all had expired. Email thread among DOHMH, NYCEM, and City Hall officials dated Mar. 13, 2020; email thread among NYCEM officials dated Mar. 17, 2020. The failure of the federal government as a partner was in part by design, as the SNS did not plan for a concurrent 50-state emergency, and in part due to the failure to maintain the SNS but also due in part to an unexpected policy change: its new claim that the SNS was for federal, not state or local, response efforts. See Amy Goldstein et al., *Desperate for medical equipment, states encounter a beleaguered national stockpile*, *Wash. Post* (Mar. 28, 2020),

https://www.washingtonpost.com/national/health-science/desperate-for-medical-equipment-states-encounter-a-beleaguered-national-stockpile/2020/03/28/1f4f9a0a-6f82-11ea-aa80-c2470c6b2034_story.html; see also email thread among DOHMH, NYCEM, and City Hall officials dated Mar. 13, 2020.

⁷⁷ Charter § 497(d).

⁷⁸ Charter §§ 497(a), 497(j).

⁷⁹ As noted, NYCEM was one of two agencies for which the City represented that it had provided the Comptroller's Office a complete set of documents in response to an investigative subpoena before the City stopped cooperating with the investigation altogether. Accordingly, for the purposes of this interim report, the investigation obtained more information about NYCEM's activities than other key agencies. Once additional information about the actions of other key agencies such as DOHMH and H+H is provided, subsequent reporting of investigative findings concerning additional agencies is anticipated.

⁸⁰ Email among NYCEM officials dated Mar. 4, 2020; email thread among NYCEM officials dated Mar. 4, 2020.

⁸¹ Email from NYCEM to DOHMH and NYCEM officials dated Feb. 28, 2020; email among NYCEM officials dated Mar. 4, 2020.

⁸² *Ibid.* A command element consists of one or more pre-specified primary agencies with subject matter expertise best suited to address specific kinds of emergencies, and is established and responsible for overall incident management and directing response efforts. NYCEM, Citywide Incident Management System Charts https://www1.nyc.gov/assets/em/downloads/pdf/Appendix_cims_charts.pdf (last accessed Aug. 16, 2021).

⁸³ *Citywide Incident Management System*, NYCEM, <https://www1.nyc.gov/site/em/about/citywide-incident-management-system.page> (last accessed Aug. 16, 2021); NYCEM, Citywide Incident Management System Charts, https://www1.nyc.gov/assets/em/downloads/pdf/Appendix_cims_charts.pdf (last accessed Aug. 16, 2021).

⁸⁴ Email thread among DOHMH and NYCEM officials dated Feb. 28, 2020. Section 498 of the City Charter establishes that NYCEM is “the lead agency in the *coordination and facilitation of resources*” in public health emergencies.

⁸⁵ Email thread among NYCEM and DOHMH officials dated Mar. 10, 2020.

⁸⁶ Email thread among NYCEM officials dated Mar. 20, 2020.

⁸⁷ Email thread among NYPD and NYCEM officials dated Feb. 3, 2020.

⁸⁸ Email thread among NYCEM officials dated Mar. 19, 2020. In addition, NYCEM did not

always share information in its possession. While some information sharing issues appear unintentional and can be attributed to the inherent difficulty in ensuring information is shared to all emergency responders, others appear intentional. In particular, NYCEM provided more information internally and to City Hall, while providing less information to other agencies involved in the response. For example, NYCEM officials acknowledged that they produced “two versions” of a daily “Senior Leadership Brief” sent to City Hall and agencies involved in the response: “an internal [version] that goes to OEM [NYCEM] only and C/H [City Hall] senior staff + a redacted version that goes to partners.” *Ibid.*

⁸⁹ Email thread among DOHMH and NYCEM officials dated Mar. 19, 2020.

⁹⁰ Email thread among DOHMH and NYCEM officials dated Mar. 19, 2020.

⁹¹ Email thread among City Hall and NYCEM officials dated Mar. 19, 2020. It is unclear from the documents produced by the City whether DOHMH objected to the reporting of specific City employee COVID-19 cases or the role of NYCEM in alerting other agencies.

⁹² *Ibid.*

⁹³ Email thread among DOHMH and NYCEM officials dated Mar. 20, 2020. When the federal government shipped a limited amount of PPE designated for the CBTS, NYCEM officials directed the PPE to DOHMH despite DOHMH’s objections to the CBTS program, with one NYCEM official stating: “I still want it to go to DOHMH, I want out of the PPE biz[.]” Email thread among NYCEM and federal government officials dated Mar. 22, 2020. The PPE provided by the federal government in this shipment consisted of shoe and boot covers, pant protectors, pedal covers and protectors, and jumpsuits. No masks were included. *Ibid.*

⁹⁴ Email thread among NYCEM officials dated Feb. 29, 2020. The Incident Command System, or ICS, is a standardized structure for the “command, control, and coordination” of emergencies. FEMA, National Incident Management System (3d ed. Oct. 2017), https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf. CIMS establishes that ICS is the City’s “incident management system” and defines the City’s ICS organizational structure. *Citywide Incident Management System*, NYCEM, <https://www1.nyc.gov/site/em/about/citywide-incident-management-system.page> (last accessed Aug. 16, 2021).

⁹⁵ Email thread among NYCEM and FDNY officials dated Mar. 3, 2020; see *also* email among NYCEM officials dated Mar. 4, 2020.

⁹⁶ Email thread among FDNY and NYCEM officials dated Mar. 5, 2020.

⁹⁷ Email thread among NYCEM officials dated Mar. 12, 2020.

⁹⁸ Email thread among OCME and NYCEM officials dated Mar. 21, 2020.

⁹⁹ The City Charter specifies that NYCEM is responsible for the “coordination and facilitation of

resources in incidents involving public safety and health.” Charter § 498 (emphasis added).

¹⁰⁰ Email thread among DOHMH and NYCEM officials dated Mar. 5, 2020.

¹⁰¹ Email thread among NYCEM officials dated Mar. 4, 2020. DOHMH refused this request, noting that it lacked the capacity to handle such requests, and that, given its role as the lead City agency for the City’s COVID-19 response, DOHMH would not be in a position to support an agency, NYCEM, that is itself supposed to be providing logistical support to DOHMH. Email thread among DOHMH and NYCEM officials dated Mar. 5, 2020.

¹⁰² See, e.g., FEMA, Developing and Maintaining Emergency Operations Plans (Nov. 2010), https://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf.





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