

## 2020 HINDSIGHT

Rebuilding New York's Public Health Defenses After the Coronavirus Pandemic

by Bill Hammond June 2021



## 2020 Hindsight

# Rebuilding New York's Public Health Defenses After the Coronavirus Pandemic

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#### WHAT YOU WILL LEARN:

- In terms of speed and deadliness, New York's novel coronavirus pandemic ranks among the worst in the world.
- In the decade leading into 2020, state lawmakers reduced funding and staff for public health while putting more resources into Medicaid.
- The state's outbreak likely began in early February but spread undetected for weeks because of problems with CDC-produced test kits.
- Although outbreaks in China and Europe had signaled the danger to come, New York officials initially discouraged the public from taking precautions.
- Officials failed to heed warning signs, such as an early March spike in flu-like illness in New York City emergency rooms.
- When the state's first COVID-19 case was formally confirmed on March 1, officials underestimated how far it had already spread and reacted slowly and ineffectively delays that would contribute to the high death toll.
- In the three weeks between New York's first positive test and the governor's lock-down order, the statewide caseload mushroomed from an estimated 40,000 to 1 million which was likely the peak of the first wave of infections.
- The state's early response was undermined by flawed guidance from the federal government, inadequate planning and stockpiling, limited consultation with experts, exaggerated projections and poor cooperation between federal, state and local officials, among other issues.
- To date, none of the Legislature's pandemic-related hearings has focused on the critical missteps of the state's early response.
- Better-controlled outbreaks in countries such as South Korea demonstrate the value of public health preparedness and could serve as a model for New York.

#### INTRODUCTION

As New York emerges from the worst pandemic in a century, its citizens face a new threat to their lives and economic well-being - the danger that their leaders will fail to learn from a painful experience.

One lesson deserves more attention from Albany: The public health system matters.

The state missed its best chance to save lives not in March or April, when infections soared and hospitals filled up, but in early February, when the virus arrived and started spreading before anyone noticed.

Had officials taken stronger preventive measures back then, they might have contained the outbreak before it spiraled out of control, killed more than 53,000 New Yorkers, threw millions out of session was devoted to how work and disrupted normal life for more than a year.

performed. Based on the limited information available to them at the time, the state's leaders misjudged the scale of what New York faced. With the benefit of hindsight is it clear that waiting was a massive mistake. The challenge for leaders today is to properly benefit from that hard-won hindsight.

In February 2020, the state's first line of defense against the virus should have been its public health system - the branch of health care focused on caring for large populations rather than treating individual patients. It consists largely of scientists in government agencies rather than clinicians in hospitals.

When it works well, the public health system quietly saves lives on a large scale by preventing diseases from spreading instead of treating people after they get sick.

When the system stumbles, as it did in 2020, the consequences can be catastrophic. As led by Governor Cuomo for the past decade, the state's public health infrastructure proved to be underprepared, ill-equipped and fatefully slow to act in a burgeoning crisis.

Understanding what went wrong in those early months - and bolstering the state's defenses against future pandemics - ought to be a top priority in Albany. The goal should be not just holding people responsible for the mistakes that were made, but also learning from them.

It's a goal that should unite New Yorkers of all stripes. The groups who suffered disproportionately during the pandemic - the elderly, the poor, people of color, frontline

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related hearings. Not one

the public health system

workers - would have benefited disproportionately from a more robust pandemic response.

The same goes for those who paid a price in other ways, such as health-care workers,

school children and small businesses. The best way to shorten or avoid a lockdown is to keep viral threats under control.

The preventive approach to pandemics has the further advantage of being far less expensive than other remedies being floated in Albany - such as a permanent expansion of hospital capacity or the adoption of a state-funded "single payer" health plan.

So far, however, the attention of state leaders has focused elsewhere. The Legislature held 123 hours' worth of pandemic-related hearings last summer, examining the virus' impact on everything from hospitals to nursing homes to small businesses to libraries. Not one session was devoted to how the public health system performed or what should be done to fix it.



This year, in a budget that increased overall spending by 10 percent, lawmakers approved a 34 percent cut to the Health Department's Wadsworth Laboratories. This is particularly disheartening, because Wadsworth was a bright spot in New York's response, having quickly devised a workable test in February when the CDC's test failed.

Another obstacle to constructive soulsearching is the Cuomo administration. To date, it has resisted admitting mistakes and withheld much of the relevant data from public review. The governor now faces multiple investigations of pandemic-related wrongdoing, including an impeachment inquiry, which at a minimum is distracting.

All that said, there will be no better moment for state leaders to draw lessons from the coronavirus catastrophe than now, while facts are still findable and memories are fresh. The state also has an influx of billions in federal relief aid to spend – and there is no more appropriate use for that money than bolstering public health defenses.

The next pandemic could strike at any time. For New York to risk repeating the mistakes of 2020 should be unthinkable.

## COUNTDOWN TO CORONAVIRUS

The timeline of events in early 2020 shows how quickly coronavirus outbreaks could escalate, and how readily the virus could spread from place to place around the globe (a summary timeline follows on the next two pages). It makes clear that New York officials had notice of the looming danger and highlights the benefits of preparation and rapid response.

The first public reports of "unexplained pneumonia" emerged from China on Dec. 30, and the first death from COVID-19 was

recorded on Jan. 11.9 Less than two weeks later, on Jan. 23, Chinese authorities took the extraordinary step of banning all travel to and from Wuhan, a city of 11 million people, 10 and the next day launched construction of a temporary hospital to handle an overflow of critically ill patients. 11

Soon, the virus was breaking out across Europe, apparently carried there by tourists. Italy recorded its first coronavirus deaths on Feb. 21,<sup>12</sup> three weeks after Chinese visitors tested positive in Rome.<sup>13</sup> By March 9, the health-care system was overwhelmed, hundreds had died and all of Italy was on lockdown.<sup>14</sup>

Italy showed that a developed nation could go from its first known case to a full-blown crisis in just six weeks. On March 12, as New York remained largely open, a front-page story in the New York Times called the situation "a warning to the world":

Italy's experience has now underscored the need to act decisively – quickly and early – well before case numbers even appear to reach crisis levels. By that point, it may already be too late to prevent a spike in cases that stretches systems beyond their limits. <sup>15</sup>

The first U.S. case was discovered in the state of Washington on Jan. 21. Before the month was over, the virus had been diagnosed in Illinois, California and Arizona, 16 both the World Health Organization and the U.S. had declared public health emergencies, and President Trump had ordered restrictions on travelers from China.

By coincidence, the U.S. and South Korea both approved testing technology on the same day, Feb. 4.<sup>17</sup> South Korea had developed its test in collaboration with manufacturers, which quickly ramped up production and launched testing nationwide three days later.<sup>18</sup> In the U.S., however, the CDC had devised test kits

December		unexplained pne om China's Hube		ses				
January	3 <sup>rd</sup> : The BBC reports on a "mystery virus" outbreak in Wuhan <sup>2</sup>	10 <sup>th</sup> : Chinese health officials post the genetic sequence of the novel coronavirus	11 <sup>th</sup> : China reports its first death from the new virus	designs the key component of		19 <sup>th</sup> : Human- to-human transmission is confirmed by the Chinese		21st: The U.S. records its first case in the state of Washington
February	4 <sup>th</sup> : FDA grants emergency use authorization for a CDC- designed test	Occurs in S	anta Clara CA, as ctively ned by	11 <sup>th</sup> : CDC testing by labs du flaws wi test k	y most e to th its	reco	<sup>t</sup> : Italy ords its deaths	25 <sup>th</sup> : Mardi Gras is celebrated as usual in New Orleans
March	1st: Cuomo announces the state's first confirmed case, says "the general risk remains low"	addition	approve onal authority Cuomo t daily	4 <sup>th</sup> : A West resident works in N' positive, pr Cuomo to de elementary and Yes Univer	who YC tests ompting close an y school shiva	5 <sup>th</sup> : The CDC says people over 60 should "stay at home as much as possible <sup>5</sup>		6 <sup>th</sup> : Trump signs a bill providing \$8.3 billion to fight pandemic
March	14th: Cuomo announces NY's first coronavirus death; CDC recommends against gatherings of 50 or more	15 <sup>th</sup> : Cuomo orders the closure of downstate schools	16 <sup>th</sup> : Cuomo orders the closure of schools; San Francisco directs residents to shelter in place effective March 17		17 <sup>th</sup> : nonesser Mayor de to keep Blasio workford proposes a Comfort "shelter- NY; Tru in-place" \$100 b order First		Cuomo orders Intial businesses Intial business	
April		's seven-day aver leak of just under	_	oll				



23<sup>rd</sup>: China closes off travel to and from Wuhan 24th: First case in Europe is identified in France 30<sup>th</sup>: WHO declares a "public health emergency of international concern" 31st: HHS Secretary Azar declares a health emergency; President Trump restricts travel from China; Chinese tourists test positive in Rome; A German tourist tests positive in Spain

26th: Trump appoints Vice President Pence to lead a coronavirus task force; Dr. Nancy Messonnier, a CDC official, warns "disruption to everyday life may be severe

28th: Trump says alarm about the coronavirus is the Democrats' "new hoax"; The S&P 500 stock index is down 11.5 percent in five days, its worst week since 2008<sup>4</sup> 29th: Washington State reports a nursing home outbreak affecting 27 residents and 25 staff; FDA authorizes testing by hundreds of additional labs, including New York's Wadsworth Center

7th: With 76 confirmed cases statewide, Cuomo declares a state of emergency 9<sup>th</sup>: Cuomo unveils statebottled sanitizer; Italy extends its quarantine to the entire country

10<sup>th</sup>: Cuomo imposes special restrictions on New Rochelle 11th: Tom Hanks and Rita Wilson announce that they have COVID-19 12th: Cuomo bans gatherings of more than 500, limits visitation to nursing homes; Broadway goes dark; NBA suspends all games; A New York Times story calls the impact on Italy's health-care system a "warning to the world"6; Trump suspends travel to the U.S. from 26 European countries

13<sup>th</sup>: Trump declares a national emergency

19<sup>th</sup>: Cuomo orders nonessential businesses to keep 75% of workforce at home; CA Gov. Newsom announces a stayat-home order 20th: Cuomo announces "New York on Pause", directing people to stay home as much as possible and closing non-essential businesses effective March 22 23rd: Construction begins on an emergency hospital at Javits Center; according to retrospective estimates, New York hits a peak of 73,000 infections per day<sup>7</sup>; Trump predicts a possible reopening by Easter on April 12

25th: NYS DOH guidance bans nursing homes from turning away COVIDpositive admissions 27<sup>th</sup>: Trump signs the \$2.2T Coronavirus Aid, Relief and Economic Security Act on its own that turned out to be flawed and had to be scrapped, setting back the national testing effort by weeks.<sup>19</sup>

By Feb. 26, the New York State Health Department's Wadsworth Laboratories had devised an alternative,<sup>20</sup> which received FDA approval on Feb. 29.<sup>21</sup>

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Andrew Cuomo

March 2, 2020

South Korea would go on to have one of the lowest COVID-19 mortality rates of any country; the U.S. would have one of the highest.

Infected individuals continued popping up across the U.S. – in Massachusetts on Feb. 1st, Wisconsin on the

fifth, Texas on the 12th, Nebraska on the 17th, Utah on the 25th and Oregon on the 28th.<sup>22</sup> Most of these confirmed cases involved people who had traveled from China, who were the only ones eligible for testing at the time.

On the last day of February, the U.S. recorded its first documented outbreak, at a nursing home near Seattle, and its first known death, also in the Seattle area. At the nursing home, 27 of 108 residents and 25 of 180 staff had come down sick in a short period – another warning of things to come.<sup>23</sup>

In New York, the situation remained quiet through February – or at least seemed to. In retrospect, the virus probably had arrived early that month and was soon infecting city residents by the thousands.

Unaware of the outbreak, officials released reports of suspected cases that had tested negative. In statements, Governor Cuomo urged basic precautions, such as washing hands and staying home when sick, but he assured New Yorkers that the risk was "low" and ordered no significant restrictions.<sup>24</sup> On Feb. 13, New York City Mayor Bill de Blasio

dined at a Chinese restaurant in Flushing to show support for Asian-owned businesses that had seen a drop-off in customers.<sup>25</sup>

New York saw its first positive test on March 1.26 Although the same virus had overwhelmed European health-care systems,

Governor Cuomo and Mayor de Blasio initially raised little alarm.

At a joint news conference with the mayor on March 2, Cuomo announced new "cleaning protocols" for schools and public transportation and set a goal of processing 1,000 tests per day. That number seemed ambitious at the time, but it

was a fraction of what would be necessary to effectively monitor the outbreak.<sup>27</sup>

Otherwise, Cuomo took no significant steps to limit the virus' spread and avoided raising public alarm. He declared the "general risk remains low" and suggested New York could handle the pandemic better than other places:

Excuse our arrogance as New Yorkers – I speak for the mayor also on this one – we think we have the best health-care system on the planet right here in New York. So, when you're saying what happened in other countries vs. what happened here, we don't even think it's going to be as bad as it was in other countries. We are fully coordinated. We are fully mobilized. This is all about mobilization of a public health system.<sup>28</sup>

That same day, the Legislature granted the governor emergency authority to suspend or impose laws and regulations and appropriated \$40 million for pandemic response.<sup>29</sup>

With the White House taking a hands-off approach and the CDC offering limited guidance, states were left to craft their pandemic responses largely on their own.



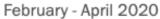
At first, Cuomo used his emergency powers sparingly – to close a Westchester elementary school and Yeshiva University after a Manhattan lawyer came down sick,<sup>30</sup> and later to quarantine New Rochelle after a seemingly isolated outbreak.<sup>31</sup> In between, he pushed to expand testing capacity,<sup>32</sup> cautioned against price gouging on cleaning supplies and rolled out a state-branded hand sanitizer bottled with prison labor.<sup>33</sup>

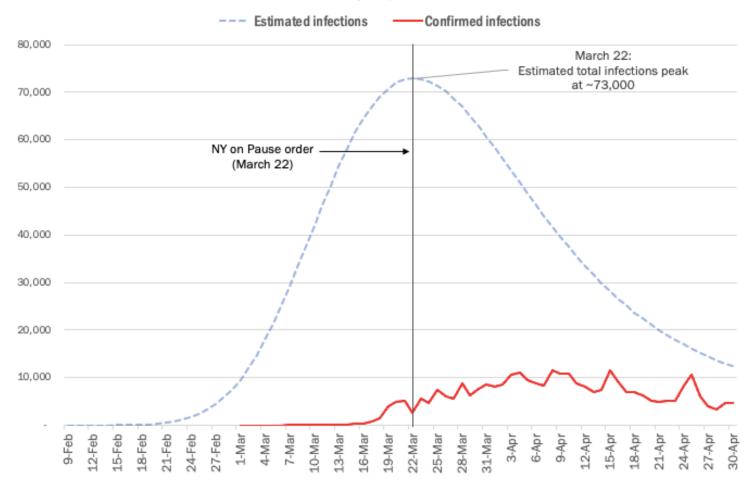
His first statewide restrictions came on March 12, when he banned gatherings of more than 500 and limited visitation in nursing homes.<sup>34</sup> On the 15th, he ordered downstate schools to close.<sup>35</sup> On the 16th, he

extended school closures statewide, told state employees to work from home and directed hospitals to add 9,000 additional beds.<sup>36</sup>

On the 17th, Mayor de Blasio said city residents should prepare for a "shelter-in-place" order<sup>37</sup> – an idea that the governor initially rejected.<sup>38</sup> Three days later, however, Cuomo announced what he called "New York on Pause" – closing all non-essential businesses and banning non-essential gatherings effective March 22. A second measure, named "Matilda's Law" after the governor's mother, urged vulnerable people to stay indoors, wear masks and practice social distancing.<sup>39</sup>

Figure 1: Estimated & confirmed COVID-19 in NYS





Source: Institute for Health Metrics and Evaluation

That announcement marked the beginning of the most harrowing phase of New York's pandemic, as infection and mortality rates soared and hospitals overflowed with critically ill patients, with most of the illness concentrated in the New York City area.

Confronted with projections that the flood of patients would far outstrip the available hospital capacity, Cuomo scrambled to establish and staff thousands of beds and secure hundreds of ventilators – and his Health Department issued a fateful order, on March 25, requiring nursing homes to accept thousands of stable but COVID-positive patients being discharged from hospitals.<sup>40</sup>

In hindsight, however, March 22 marked the beginning of the end of the first wave. Retrospective estimates indicate that New York's outbreak had actually begun in early February. By the time of the first positive test on March 1, almost 10,000 New Yorkers were being infected each day. The estimates indicate that the number of daily infections reached a high of about 73,000 in March 22 – foreshadowing the peak of hospitalizations and deaths about three weeks later (Figure 1, page 9).<sup>41</sup>

Given that timing, it seems likely that the governor's lockdown played a role in bringing the virus under control.

Another factor was voluntary precautions taken by private organizations and individuals. News about the pandemic – including the March 11 announcement that Tom Hanks and his wife Rita Wilson had contracted the disease<sup>42</sup> – contributed to rising public awareness of the danger. Many people responded by avoiding crowds. Businesses started allowing or encouraging employees to work from home, and the NBA suspended all of its games on March 12.<sup>43</sup>

Cell phone metadata indicates that New Yorkers started becoming less mobile than usual around March 7 – a measure that dropped steadily to a low point in early April.<sup>44</sup> Clearer warnings and earlier action by Cuomo and de Blasio likely would have accelerated that beneficial trend and limited the trauma that was to come.

#### WHERE THINGS WENT WRONG

By the measure that matters most – loss of life – New York's pandemic was not a success story, but a cautionary tale, especially for its major population center.

If New York City were its own nation, its COVID-19 mortality rate of almost 3,900 per million would be the highest in the world – 29 percent above the hardest hit country, Hungary (Figure 2).<sup>45</sup>

The statewide death rate of 2,700 per million is the second highest in the U.S., outranked only by New Jersey, much of which falls within New York's metropolitan region.<sup>46</sup>

The speed of New York's outbreak was especially fierce. New York reached a COVID-19 mortality rate of 1,000 per million residents just 39 days after recording its first death – which was the fastest of any state. The other 42 states that have reached that threshold took an average of seven times longer (see Figure 3, page 12).<sup>47</sup>

Worldwide, 48 countries reached a mortality rate of 1,000 per million in an average of 320 days. Only tiny San Marino – pop. 34,000 – hit the threshold faster than New York.<sup>48</sup>

Governor Cuomo and others have blamed those dire statistics on missteps by federal leaders and world leaders as well as bad timing, since the outbreak hit New York earlier than most of the U.S.



There is some truth to those arguments. The World Health Organization was slow to declare an emergency. <sup>49</sup> President Trump frequently downplayed the threat and left states mostly on their own to respond. The CDC made a disastrous error with its test kits, <sup>50</sup> and its experts sent wrong or conflicting messages about masks, asymptomatic transmission and other issues.

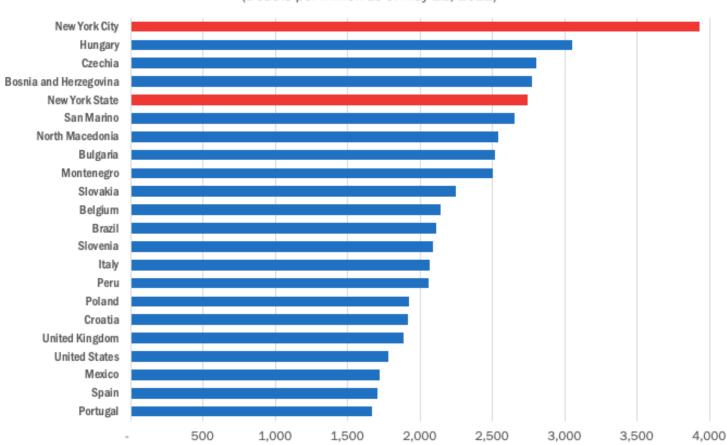
By law and tradition, however, state governments bear primary authority in the realm of public health. The CDC issues guidance, but governors usually have the choice to modify or ignore its advice as they see fit.

As a major destination for international travel and the home of the densest urban area in the U.S., New York is more vulnerable than most to global pandemics.

It's important, therefore, to have a clear-eyed assessment of how and why its state and local coronavirus response fell short.

Figure 2: COVID-19 mortality in NYS and NYC compared to 20 hardest-hit countries

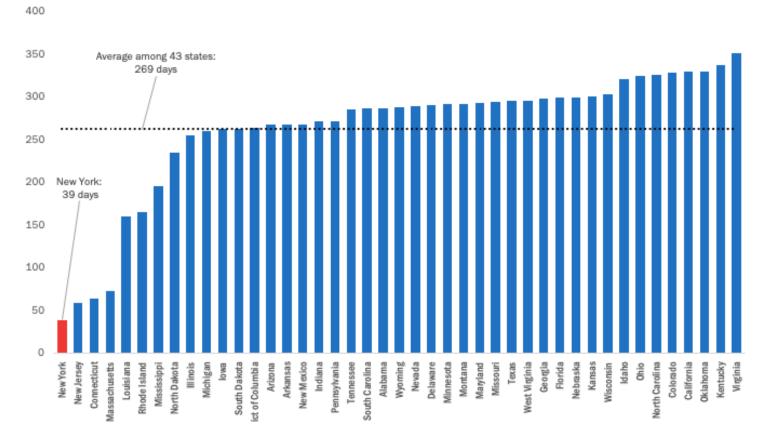




Sources: Our World in Data, New York Times coronavirus data

Figure 3: No. of days to a COVID-19 mortality rate of 1,000 per million among states

(After first recorded death)



Source: New York Times COVID-19 data

#### The Health Department was distracted

For most of its history, the state Health Department was entirely devoted to public health functions, including efforts to control infectious diseases such as tuberculosis and HIV/AIDS.

That changed in the late 1990s, when then-Governor George Pataki broke up the Department of Social Services and put the Health Department in charge of Medicaid, the government-funded health insurance plan for the low-income and disabled.<sup>51</sup>

That one program instantly became the biggest part of the Health Department, both in terms of spending and personnel, and its share of the agency's resources has gotten steadily larger ever since. The department also runs the state's other government-subsidized insurance programs, such as Child Health Plus, the Essential Plan and Elderly Pharmaceutical Insurance Coverage (EPIC).

Although Medicaid and these other programs are important to the health of their enrollees, and to the financial strength of providers who care for them, they primarily involve managing money and paying claims. Those



tasks call for different skills than traditional public health efforts, such as inspecting nursing homes, discouraging cigarette smoking and fighting pandemics.

As one of the costliest and fastest-growing pieces of the state budget, Medicaid typically dominates the attention of the department's top leaders as well as the governor, his budget team and the Legislature – and overshadows discussions of everything else the Health Department does.

#### Public health was defunded

Since its transfer to the Health Department, Medicaid has claimed an increasingly dominant share of the money available for health-related purposes, to the point of crowding out spending on other department functions.

The administrative costs of Medicaid – excluding what it pays to providers – consumed 71 percent of the department's operating budget in fiscal 2021, up from 59 percent when Cuomo took office in 2011.<sup>52</sup>

The total budget for Medicaid has ballooned by 41 percent during Cuomo's term, to more than \$75 billion in fiscal 2021. During those same years, budgeted spending on key public health functions has either declined or held flat – thereby losing ground to inflation.<sup>53</sup>

As seen in Table 1, budgeted funding for the Wadsworth Laboratories – which developed its own test for the coronavirus and processed thousands of samples – has dropped 40 percent over the past decade. The Office of Health Systems Management, which inspects nursing homes and hospitals, is down 35 percent. The Center for Environmental Health, which regulates drinking water contaminants and other pollution, is down 55 percent. The Center for Community Health, which monitors and manages infectious diseases, is up 3 percent over a decade in which the inflation rate was more than 16 percent.<sup>54</sup>

Publicly reported staffing for all four functions has declined, including a 67 percent reduction in personnel at Wadsworth.<sup>55</sup>

For Medicaid administration, by contrast, funding increased 95 percent, to \$2.5 billion, and staffing was up 145 percent, to almost 1,000 full-time equivalents.<sup>56</sup>

The overall Medicaid budget was \$75 billion in 2021, rising to a projected \$83 billion in 2022. That one-year increase is 22 times the total budgets for the four public health functions combined.<sup>57</sup>

Table 1: Selected Health Department funding and staffing

(funding in millions)

	Funding			Staffing			
	2011	2021	% change	2011	2021	% change	
Community Health	\$171	\$176	+3%	617	499	-19%	
Wadsworth Center	\$129	\$78	-40%	620	205	-67%	
Health Systems Mgmt.	\$89	\$57	-35%	437	249	-43%	
<b>Environmental Health</b>	\$59	\$27	-55%	341	234	-31%	
Medicaid admin.	\$1,271	\$2,484	+95%	403	987	+145%	
Total Medicaid	\$53,423	\$75,180	+41%				

Source: NYS Division of the Budget

The picture is clouded by Health Research Inc. (HRI), a non-profit organization attached to the Health Department and controlled by state officials. HRI collects and spends hundreds of millions of dollars a year in research grants and employs an uncertain number of people who function as Health Department personnel. Yet its operations are not included in the state budget and personnel records are not fully disclosed.

It's possible that officials have shifted de facto employees of Wadsworth and the other public health offices onto the HRI payroll. Based on the limited information available, however, that shift would not have been

enough to fully offset the decline in publicly reported spending.

The downsizing of the state's public health infrastructure has received little if any discussion in the Legislature – even in the wake of a major public health disaster. The recently adopted fiscal 2022 budget cuts no easy or question with the state's its contents or how they were distributed during the pandemic.

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Public health funding at the local level has also been flat or declining recently. Formula-driven state aid to New York City and county health agencies in 2019, which totaled \$174 million, was down seven percent since 2013, according to figures provided by the New York State Association of County Health Officials. Staffing at local health agencies outside New York City dropped by about one-third between 2012 and 2019.

Higher spending on public health by itself would not have guaranteed more effective management of the coronavirus. However, it's reasonable to ask if the Health Department's increasingly dominant focus on Medicaid, coupled with the disinvestment in

what used to be its core functions, contributed to the shortcomings of the state government's pandemic response in 2020.

#### Stockpiling was neglected

What the stockpile

contained is unclear. The

Cuomo administration has

One contributing factor to the severity of New York's outbreak was a shortage of basic supplies such as masks, gloves and gowns, as well as equipment such as ventilators.

The lack of "personal protective equipment" was especially problematic. Just when it became most important for health-care workers to take precautions – to protect themselves, their patients and the population

at large – many workers were left with little choice but to cut corners. This undoubtedly led to a higher infection rate among medical personnel and may have contributed to spread in the community. Because demand for those supplies was surging everywhere at once, there was

no easy or quick way to buy more.

This is a problem that state leaders had seen coming. In 2006 – in the aftermath of avian flu and swine flu outbreaks – Albany lawmakers established a pandemic stockpile and allocated \$29 million a year to amass supplies, equipment and medications.<sup>59</sup>

When the Great Recession hit three years later, however, lawmakers slashed funding to just \$1.2 million a year for storage costs. That amount has stayed flat ever since – even as the economy rebounded and overall state spending surged.<sup>60</sup>

What the stockpile contained early last year is unclear. The Cuomo administration has declined to account for its contents or how they were distributed during the pandemic.



A statement by the Greater New York Hospital Association in early March 2020 described the supply of personal protective equipment as "ample":

New York's hospitals are smartly conserving their supplies, including N95 respirators, surgical masks, and other personal protective equipment. They are also prepared if necessary to draw down supplies from ample State, City, and Federal emergency stockpiles.<sup>61</sup>

As of late that month, a document obtained by the Times Union indicated that one of state stockpile's three warehouses, located in Guilderland, held more than 9 million protective masks and 1.2 million pairs of disposable gloves.<sup>62</sup>

It's unclear why those supplies had not been distributed. After years in storage, some of the material may have passed its expiration date or otherwise become unusable.

A 2015 report from the Health Department said New York had a total of almost 9,000 ventilators, including 7,241 owned by hospitals and other acute-care facilities and 1,750 in its stockpile. At any given time, all but about 2,300 of the state's overall inventory of devices were in use.<sup>63</sup>

At the peak of its spring wave, New York had more than 5,000 COVID-19 patients in intensive care, most requiring ventilators, which outstripped the usual supply. Officials scrambled to acquire more of the devices from the federal stockpile, other states and commercial suppliers, and hospitals resorted to improvised solutions such as attaching two patients to one machine and converting equipment normally used for anesthesia.

The shortage could have been worse. The 2015 report estimated that New York would need almost 19,000 ventilators if it were to

see a repeat of the 1918 flu pandemic. When COVID-19 was first surging last spring, Cuomo cited a projection indicating that as many as 30,000 ventilators would be necessary at the peak.<sup>64</sup>

#### Emergency planning was disregarded

In a fast-moving pandemic, advance planning becomes especially useful. In this case, the state appears to have disregarded some of the provisions of its emergency plan in ways that may have compromised the effectiveness of its response.

One issue is the public availability of the plan. The most current plan as of early 2020, which was updated in 2014, is not readily findable on the internet. An earlier version, written in 2006, was found on the website of the Questar III Board of Cooperative Education Services in Rensselaer County, but not on the site of the Health Department.<sup>65</sup>

The 2006 plan calls for pandemic response to be coordinated by an interagency task force, which is meant to be activated during the "alert period," when it becomes clear that a novel virus is spreading among humans in small or large clusters. Although the novel coronavirus was known to be transmitted among humans by mid-January 2020 – and had spread widely to other countries by February – the Cuomo administration's first public mention of the interagency task force came on March 6.67 That was five days after the state's first case was confirmed and five days before the World Health Organization formally declared a global pandemic.

Also during the alert period, the plan calls for activating "enhanced surveillance" to help spot an outbreak when it occurs. This would include using the state's Health Emergency Response Data System, or HERDS, to query hospitals and other providers about possible infections. The Health Department first

incorporated questions about coronavirus in its HERDS survey of hospitals on Feb. 10, but on a weekly basis. The department didn't require daily reports from hospitals until March 15. It started using HERDS to query nursing homes about COVID-19 cases on April 19 – after thousands of infected residents had already died.<sup>68</sup>

Perhaps the clearest departure from pandemic planning came later in 2020, when the time came to administer vaccines. Local public health agencies in New York City and other counties had spent years rehearsing for the task with the help of federal grants.

Yet when the COVID-19 vaccines became available, the governor bypassed local officials, putting hospitals in charge of distribution – effectively developing an alternative.<sup>69</sup> That choice was widely blamed for slowing the state's roll-out.

#### The threat was underestimated

Because of New York City's status as a major destination for tourists and business travelers and as an entry point for immigrants, it is especially vulnerable to the spread of diseases from around the world.

At a February 2021 forum, epidemiologist Isaac Weisfuse of Cornell University, a former deputy commissioner of the city's Department of Health and Mental Hygiene, put it this way:

My personal panic button went off at the end of January, when it became really evident that there were tens of thousands of cases in Wuhan. We realize in New York City we can get any infection within 24 to 48 hours. That meant it was probably in New York City at that point.<sup>70</sup>

In later February, outbreaks in South Korea, Italy and Iran confirmed that the virus

had moved outside of China and would be difficult to contain.

In a Feb. 26 briefing, a CDC official, Dr. Nancy Messonnier, said she had warned her own family over the breakfast table that "disruption to everyday life may be severe."<sup>71</sup>

Despite these omens, city and state leaders initially described the risk to New Yorkers as low and held off imposing restrictions on public movement or preparing extra hospital capacity until middle and late March.

Retrospective analysis of blood samples shows that the virus appeared in the state in early February and was likely spreading rapidly by the middle of that month.<sup>72</sup>

#### Testing was limited

Testing kits devised by the CDC received FDA authorization on Feb. 4. Within a few days, however, clinical laboratories using the kits reported getting positive results for control samples that were known to be negative, a sign that components of the kits were contaminated. On Feb. 11, the CDC halted testing by most labs.<sup>73</sup>

This deprived health officials of a critical tool for detecting and tracking the virus at the same time that it was gaining a foothold.

As the state health commissioner, Dr. Howard Zucker, testified to the Legislature on Aug. 3:

Mount Sinai recently published the results of their antibody study, which showed that COVID was in New York as early as February first. But back then, we could not test for it. ... Back then we were not even screening for symptoms yet.<sup>74</sup>

Through most of February, CDC guidelines restricted testing to a narrow group of suspected cases – people who both showed



symptoms of a respiratory illness *and* had recently traveled from China's Hubei Province (home to Wuhan) or come into close contact with laboratory-confirmed COVID-19 patient. Travelers from other parts of China were also eligible for testing, but only if they were sick enough to be hospitalized.

These criteria effectively discounted the possibility that the virus would travel from other parts of the world, such as Europe. They also blinded state officials to evidence that transmission was occurring within New York.

During those early weeks, officials would periodically report on the handful of suspected cases who had been tested and say that all results had come back negative. Those announcements may have contributed to a false sense of reassurance, both for members of the public and officials. In retrospect, the acute shortage of testing should have been cause for more caution, not less.

After the CDC's test kits failed, the state's Wadsworth Laboratories in Albany quickly developed an alternative – but it didn't obtain FDA approval until Feb. 29. Within 24 hours of that decision, Wadsworth diagnosed the state's first confirmed case.

#### Warnings were missed

Given the lack of laboratory testing, alternative methods of detecting and tracking the virus became more important. Several warnings of a hidden outbreak did emerge in February and early March, yet they were missed or discounted by top officials.

In an interview with PBS' "Frontline," Dr. Daniel Griffin of NewYork-Presbyterian Hospital recalled seeing signs of what he suspected to be COVID-19 in mid-February:

We started to hear that there were a lot of viral illnesses that we were not able to identify. I

started hearing conversations, suggestions from a lot of the community doctors in our area, that maybe we were seeing early spread here. ... It was tough, because as clinicians, when you get the sense something is going on, you're waiting for the ability to confirm that. But most of the response was, "You know what? Until we see a large number of cases, we don't want to overrespond. We don't want to be the boy who cried wolf." ... I reached out to one of the other infectious disease physicians in the area, and I said, "Hey, we really should start communicating and preparing." And, yeah, his response to one of my partners was, "What's wrong with Dr. Griffin? Why is he getting so worked up about this?"75

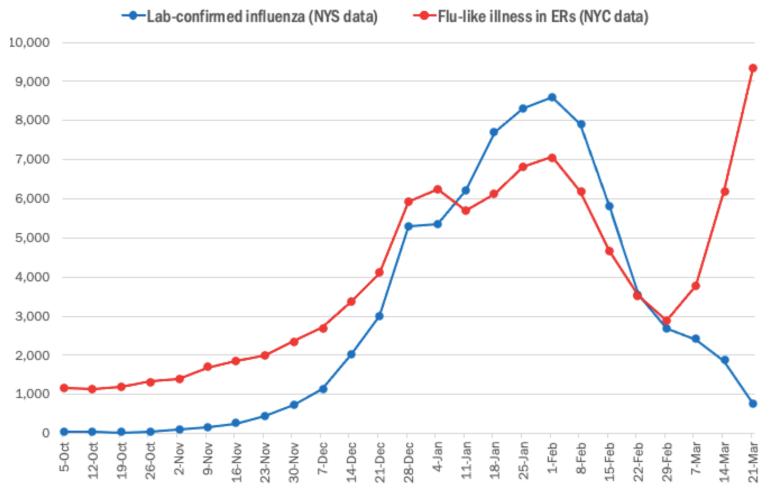
On Feb. 26, a school district in Westchester County asked health officials whether families returning from spring break trips abroad – including South Korea, Iran and the Lombardy region of Italy, where outbreaks had been reported – should be quarantined or otherwise restricted. In response, an official with the state Health Department cited CDC guidance: "Asymptomatic individuals returning from countries other than China are allowed to attend work and school."

Although the governor would later assert that transmission from Europe had caught the state by surprise, this email exchange makes clear that the risk from Italy was understood within the state Health Department. Officials there chose not to take precautions beyond those established in Washington.

The state's clearest warning yet came in early March from the city and state's systems for tracking influenza. The city's system showed the number of patients seeking emergencyroom care for flu-like symptoms, which previously had been declining, started spiking upward at the end of February – an unusual pattern for late in the flu season.<sup>77</sup> Meanwhile, the state-tracked number of lab-confirmed influenza cases continued going down, a

Figure 4: Flu-like illness and lab-confirmed flu in NYC

October 2019 to March 2020



Source: NYS Department of Health, NYC Department of Health and Mental Hygiene

strong indication that the surge in flu-like cases reflected the spread of COVID-19 (see Figure 4). $^{78}$ 

These trends raised alarms with officials in the city health department. But Mayor de Blasio resisted their call for broad precautions, such as closing schools and non-essential businesses and urging residents to stay home. In frustration, according to a report in the Financial Times, one high-ranking official brought his concerns to City Council Speaker Corey Johnson and Brooklyn Council Member Stephen Levin:

Late on March 13, Mr. Johnson and Mr. Levin held a call with Demetre Daskalakis, deputy public health commissioner, and Michael Donnelly, a tech data analyst who had published dire forecasts online. Mr. Donnelly says Mr. Daskalakis was considering resigning on CNN after advising a lockdown only for the mayor's office to respond that his models were inconclusive.<sup>79</sup>

The governor would order a lockdown similar to what Daskalakis was advocating, but only after another nine days' delay.



#### Messaging was flawed

In his 2020 memoir, "American Crisis," Governor Cuomo describes the sense of dread he felt after being notified of New York's first positive test – a health-care worker who had just flown back to New York City from Iran:

[I]t seemed as though white noise washed over the line. I couldn't prove it, but I knew this wasn't New York's first coronavirus case. And I knew the country wasn't prepared. ... Even this single case in the state of New York presented complications and foreshadowed what was to come. What flight did she take? Could she have infected people on the plane? Who was responsible for contacting all the passengers on the flight? How about the Uber driver? Were the proper precautions taken at the hospital? These were the operational issues that we would need to figure out and standardize quickly, and they were mind-boggling when we considered the volume of cases we could anticipate given what we already knew about the virus.80

At a press conference the next day, however, the governor shared none of these forebodings with the public. Instead, his tone was confident and upbeat:

I want to make sure I tell the people of New York what I told my daughter: In this situation, the facts defeat fear. Because the reality is reassuring. It is deep breath time. ... Once you know the facts, once you know the reality, it is reassuring. And we should relax because that's what is dictated by the reality of the situation.<sup>81</sup>

He declared that the state was fully prepared for the virus, downplayed the risk of death and predicted New York's outbreak would be less severe than those in other parts of the world – all of which would soon prove to be tragically wrong.

That sense of overconfidence was shared by other officials through the early part of March.

On March 5, Mayor de Blasio and City Council Speaker Corey Johnson each made a show of riding the subway and declaring it to be safe.<sup>82</sup>

"We have the best public health professionals in the world protecting you," de Blasio said at the time. "Right now, all over the city, there are doctors and nurses and disease detectives and all sorts of other folks out there trying to make sure everyone is safe. So far, we've had really good results."<sup>83</sup>

The demeanor of officials at all levels grew grimmer as time went on. The governor later was widely praised for televised briefings in which he gave daily updates on key statistics, explained new policies, expressed empathy for those who were suffering and rallied the public through a harrowing struggle.

#### Experts were sidelined

Although the governor emphasized that his decision-making was guided by science, publicly available records of his schedules for February, March and April of 2020 show limited meetings with public health experts other than Commissioner Zucker.

Zucker – who has degrees in medicine, law and public health<sup>84</sup> – was one of the governor's most frequent contacts, participating in 120 meetings over the three-month period. That was second only to the governor's top aide, Melissa DeRosa (see Table 2, p. 21).<sup>85</sup>

Cuomo's interactions with lower-ranking officials in the Health Department appear to have been infrequent. Twelve DOH officials other than Zucker are listed in the schedules a total of 31 times, <sup>86</sup> and some people within the agency told the New York Times that they felt shut out of decision-making.

State health officials said they often found out about major changes in pandemic policy only after Mr. Cuomo announced them at news conferences — and then asked them to match their health guidance to the announcements.<sup>87</sup>

The schedules show three phone calls with Dr. Anthony Fauci of the National Institute of Allergy and Infectious Diseases – two for 15 minutes each on March 9 and March 12, and one for as much as 30 minutes on April 13.88 Cuomo also met once with Dr. Robert

Redfield, the CDC director, and Dr. Deborah Birx, the Trump administration's coronavirus coordinator, and four times with Dr. Stephen Hahn, the commissioner of the Food and Drug Administration.<sup>89</sup>

In his memoir, Cuomo said he received guidance from researchers at the World Health Organization, Drexel University, the State University at Albany, Imperial College in England and Dr. Michael Osterholm of the University of Minnesota.<sup>90</sup>

However, his schedules for the first three months of the pandemic make no reference to Drexel, UAlbany, Imperial College or Osterholm. They show one phone call with Bruce Aylward of WHO on April 27, after New York's first wave had peaked.<sup>91</sup>

#### Decision-making was politicized

One health-related group Cuomo consulted regularly in the early months of the pandemic was hospital officials. The words "hospital," "medical center" and "health system" appear 288 times in his schedules for March and April – reflecting a series of large-group conference calls and smaller meetings.<sup>92</sup>

Several meetings involved leaders of the Greater New York Hospital Association, one of Albany's wealthiest and most powerful lobbying forces and a major donor and political ally of the governor.

Kenneth Raske, the president of the GNYHA, participated in seven meetings with Cuomo between March 2 and March 30. Northwell Health chief Michael Dowling, a GNYHA board member and longtime Cuomo associate, was listed at six meetings in March and three in April.<sup>93</sup>

Those contacts led to some of the Cuomo administration's more controversial decisions. It was GNYHA that first proposed granting broad legal immunity to hospitals and other providers against coronavirus-related malpractice suits<sup>94</sup> – an idea that quietly found its way into the state budget that was enacted during the thick of the first wave.

GNYHA also pushed for the Health Department's ill-advised March 25 order compelling nursing homes to accept coronavirus-positive patients being discharged from hospitals.<sup>95</sup> Nursing homes, by contrast, have said they were not consulted about the order before it was issued.<sup>96</sup>

During the six weeks that the policy was in force, more than 9,000 infected patients were moved into nursing homes. Some 15,000 residents of the facilities ultimately died, and many families have vocally blamed the governor for the losses of their loved ones. 97

Although the exact impact of the March 25 order is unknown, a statistical analysis by the Empire Center found a correlation between the number of COVID-positive patients transferred into nursing homes under the policy and higher mortality rates in the facilities that admitted them.<sup>98</sup>

#### Effective intervention was delayed

When a virus is spreading through the population at an exponential rate, every day that passes without action makes it harder to contain.



In this case – due to a lack of testing – New York's coronavirus outbreak grew unchecked for three weeks before officials found a first confirmed case.

Then, because officials misjudged the situation, it took three more weeks before they took the large-scale and disruptive action necessary to "bend the curve."

Through early March, the state's response consisted primarily of trying to quarantine confirmed cases, trace social contacts, encourage good hygiene, scale up testing capability and disinfect public spaces. These

strategies might have worked for a smallerscale outbreak, but not one that had already infected an estimated 40,000 people during the month of February.<sup>99</sup>

It wasn't until March 12 that the governor began restricting public activity with a ban on gatherings of more than 500. It was another four days before he started closing schools and another 10 days before he imposed what he called "New York on Pause," shutting non-essential businesses and ordering New Yorkers to leave their homes only when necessary.

Table 2: Appearances in Gov. Cuomo's schedules, Feb.-April 2020

Name	Title	Feb.	March	April	FebApril
Melissa DeRosa*	Secretary to the governor	39	84	64	187
Howard Zucker*	Health commissioner	7	73	40	120
Gareth Rhodes*	Deputy superintendent of financial services	0	51	68	119
Jim Malatras	President of Empire State College	4	20	73	97
Rob Mujica	Budget director	24	29	31	84
Elizabeth Garvey*	Special counsel	39	37	5	81
Dani Lever	Communications director	25	33	7	65
Simonida Subotic*	Deputy secretary for economic development	16	33	0	49
Jill DesRosiers	Chief of staff	25	13	0	38
Linda Lacewell*	Superintendent of financial services	2	32	3	37
Rich Azzopardi	Senior adviser	22	12	1	35
Peter Ajemian	Senior deputy communications director	22	11	0	33
Stephanie Benton	Director of governor's offices	22	6	1	29
Annabel Walsh	Director of scheduling	20	8	0	28
Dana Carotenuto	Deputy secretary for legislative affairs & policy	20	5	0	25
Kelly Cummings*	Director of state operations & infrastructure	9	15	0	24
Larry Schwartz	Special adviser	0	12	9	21
Thomas Feeney	Assistant secretary for executive operations	16	5	0	21
Patrick Murphy*	Comm. of homeland security & emergency svces.	5	14	1	20
Matthew Saal	Senior adviser for communications	20	0	0	20

<sup>\*</sup>Member of the governor's COVID Task Force

Source: Governor Cuomo's public schedules

The step appears to have had the desired effect. The number of estimated infections peaked on March 23, prefiguring the high point of hospitalizations and deaths about three weeks later.

During those 22 days between the first positive

test and the lockdown, the number of infected New Yorkers exploded by an estimated 2,600 percent – from about 40,000 to more than 1 million.<sup>100</sup>

A Columbia University study estimated that if the state had shut down one week earlier, 17,500 deaths could have been avoided.

The ultimate death toll likely grew by a similar proportion. A Columbia University study estimated that if the state had shut down one week earlier, 17,500 deaths could have been avoided.<sup>101</sup>

"New York City as a whole was late in social measures," Weisfuse told The New York Times. "Any after-action review of the pandemic in New York City will focus on that issue. It has become the major issue in the transmission of the virus." 102

#### Contingency planning was lacking

As the worst of the crisis unfolded, officials repeatedly confronted contingencies that emergency planners had not fully anticipated.

In late March, outside consultants warned that demand for hospital beds would crest at 140,000 or more – in a state with a total of fewer than 60,000 beds, many of which were already occupied. This should not have come as a complete surprise. The state's 2006 pandemic response plan had envisioned a scenario in which hospitalizations would reach 200,000 per week. 104

Yet the state apparently had no specific plan for creating additional hospital space in an emergency. Officials had to scramble to identify suitable facilities, find supplies and personnel and obtain logistical help from the Army Corps of Engineers, which set up beds at the Javits Center in Manhattan.<sup>105</sup>

Earlier in March, as officials debated whether to close schools, they realized that this would force many parents to stay home with their

children – including critically needed health-care workers and first responders. Officials had to improvise a plan to provide day-care for children of essential workers – something that could have been done months or years before.<sup>106</sup>

Another example was the March 25 order transferring COVID-positive hospital patients into nursing homes. Anticipating a rush of additional cases, hospitals were eager to discharge stabilized but still-infected patients, including those who were elderly or disabled enough to need nursing care. But many nursing homes resisted the idea of knowingly bringing a dangerous virus into facilities full of acutely vulnerable people.

It would have been useful to have a plan for that situation – by perhaps designating certain facilities to be COVID-only, as some private operators did on their own.

#### Projections were inaccurate

The state's response was guided in part by statistical projections from outside organizations, including the consulting firm McKinsey & Co. and the Institute for Health Metrics and Evaluation, a branch of the University of Washington sponsored by the Bill & Melinda Gates Foundation.

Their models predicted that the number of coronavirus patients needing hospitalization in New York would peak at 140,000 or more – approximately three times the total number of hospital beds in the state. <sup>107</sup>



Responding to those estimates, the Cuomo administration rushed to head off what appeared to be a looming catastrophe. Officials canceled elective procedures, ordered hospitals to add beds, commandeered vacant nursing homes, converted the Javits Center, spent hundreds of millions of dollars on ventilators and other supplies and – fatefully – ordered nursing homes to accept COVID-positive hospital discharges.

All of these measures were applied statewide, even though the first wave was overwhelmingly concentrated in New York City and its surrounding suburbs. The estimates that drove those decisions – although presumably provided in good faith based on limited information – turned out to be wildly overstated. Hospitalizations peaked at 18,000.<sup>108</sup> Although some New York City facilities became overcrowded at the height of the first wave, the overall system never came close to running out of beds. Most facilities upstate were emptier than usual, and many laid off staff.<sup>109</sup>

#### State-local cooperation was poor

The two officials most responsible for New York City – the mayor and the governor – repeatedly clashed over the timing and nature of the response. This undermined confidence in their decision-making and added to confusion for residents and businesses.

On some occasions, the governor overruled an order by the mayor only to issue a similar one shortly after – indicating that the disagreement was about something other than substance.

The highest-profile example came on March 17, the day after San Francisco and its neighboring counties had ordered a lockdown. Without prior agreement from the governor, Mayor de Blasio announced that New York City residents should expect something similar:

Even though a decision has not yet been made by the city or by the state, I think New Yorkers should be prepared right now for the possibility of a shelter-in-place order. ... I believe the decision should be made in the next 48 hours. ... We will be communicating closely with the state. Obviously, it is a decision we want to make in common. And I think it's just right to let people know that there is that possibility.<sup>110</sup>

Over the next two days, the governor repeatedly rejected the idea. He argued that restrictions already in place at that time had virtually the same effect as San Francisco's order. He also criticized the phrase "shelter-in-place" as unnecessarily alarming:

Words matter. "Quarantine." "Lockdown." These words are scary words and nobody is talking about those things. ... Why do you scare me and then I have to get unwound, right? There's not an active shooter shelter-in-place. It's not a nuclear Holocaust shelter-in-place.

The following day, however, Cuomo announced his so-called "New York on Pause" plan. 112 As of the following Sunday, he directed New Yorkers to remain indoors as much as possible and ordered non-essential businesses to close – effectively the same as what San Francisco had done and what de Blasio had described three days earlier.

#### Information was hidden

For all the data the governor shared at his daily briefings, some facts were held back or manipulated.

Before issuing the March 25 order on nursing home admissions, state officials failed to consult nursing home operators – or even warn them that the change was coming.

The industry would have alerted the Health Department to the dangers of the move and might also have proposed safer alternatives. At the very least, the homes needed time to prepare for handling infected admissions.

Later, as the death toll in nursing homes rose, the state changed its reporting to omit residents who had become sick enough to be transferred to a hospital before dying – an arbitrary distinction that disguised the true impact on a vulnerable population.<sup>113</sup>

The governor and other officials then used their artificially low count to make misleading comparisons to other states and push back against criticism of their March 25 policy.<sup>114</sup> They withheld the true count and other relevant facts from a Health Department report.<sup>115</sup> And they continued stonewalling requests for the complete data until February 2021, when the Empire Center won a court order under the Freedom of Information Law.<sup>116</sup>

This series of events is the focus of multiple inquiries, including an investigation by federal prosecutors<sup>117</sup> and an impeachment probe by the Assembly.<sup>118</sup>

#### Resources were misdirected

During the early weeks of the crisis, when testing capacity was critically short, friends and family of the governor and other VIPs were given privileged access.<sup>119</sup>

A high-ranking official of the Health Department reportedly visited the homes of the governor's brother and others to collect samples, which were transported by state police back to Wadsworth Lab and given expedited processing.<sup>120</sup> These events, too, are the subject of investigations.

#### Public communication was weak

Despite the importance of public awareness and cooperation during the crisis, the state

put seemingly little effort or resources into advertising and social media early on.

The Health Department's Twitter account didn't mention the coronavirus or highlight recommended precautions until March 17.<sup>121</sup>

On March 24, four days after the governor issued an order encouraging everyone to stay home as much as possible – the Health Department broadcast an outdated public service advertisement in which Commissioner Zucker emphasized frequent hand-washing and encouraged the elderly to avoid crowds.<sup>122</sup>

In a subsequent spot, Zucker put more emphasis on praising the heroism of health-care workers than instructing viewers how to comply with safety guidelines or get help if they fell sick.<sup>123</sup>

#### RECOMMENDATIONS

Even with the benefit of hindsight, much remains to be learned about the pandemic and New York's public health response. That said, basic components of a reform plan are clear.

### Convene an NTSB-style investigative commission

The most important step toward strengthening New York's defenses against the next pandemic is to fully explore what happened – and what went wrong – during this one.

This requires a full-fledged public investigation by a commission insulated from political influence – especially that of the governor and other officials who have been credibly accused of withholding and manipulating facts.

At the same time, all officials involved must cooperate by providing their records and testimony, under subpoena if necessary.



The commission's primary mandate should not be to punish wrongdoing, but to identify shortcomings and areas in need of improvement. It should start from an assumption that everyone involved was acting in good faith under difficult circumstances.

The effort should follow the model of the National Transportation Safety Board, whose careful investigations focus on the failures of systems rather than individuals – and consistently improve transportation safety as a result.

As part of its investigation, the commission should closely study the tactics of densely populated, economically developed places that managed the pandemic most effectively, such as South Korea, Japan and Hong Kong.

#### Proactively publish COVID records

The Health Department and other agencies have amassed troves of data on the pandemic's progress and records of official deliberation and actions – only a fraction of which has been shared with the public who are the rightful owners.

Everything legally publishable should be published on the web, in spreadsheet or database format, to provide maximum access for public health researchers and citizens.

As a start, the state should release the more than 120 data sets identified in a joint letter by Reinvent Albany and eight other watchdog groups, including the Empire Center. 124

#### Restructure the Health Department

The Health Department should be divided or otherwise restructured to elevate the importance of public health protection and prevent those functions from being overshadowed by Medicaid. Public health infrastructure should have the first claim on federal relief aid currently flowing to the state. In the longer term, public health functions within the state Health Department and local health agencies – especially those related to pandemic defense – should be given higher priority for funding and staff.

Spending and hiring by Health Research Inc. should be moved onto the state budget or, at a minimum, fully subject to the Freedom of Information Law.

### Establish routine monitoring and reporting on worldwide viral threats

The Health Department should routinely gather data from hospital emergency rooms, similar to the city's syndromic surveillance system, that would allow officials to spot dangerous signs and monitor trends.

It should also systematically track outbreaks of infectious diseases in other parts of the U.S. and the world and regularly publish reports on the level of threat they pose to New York.

In general, the state should seek to become less dependent on the CDC. It should be prepared to provide a backstop when the federal agency falters and to form its own judgments about the best interests of New Yorkers.

#### Rethink stockpiling

State lawmakers should reassess which supplies and equipment can be usefully stockpiled and what quantities would be prudent and feasible.

The Health Department or other appropriate agency should devise plans for keeping stockpiled materials in good operating condition, replacing or replenishing them as necessary, setting standards for distribution

and assuring an adequate level of funding over the long-term.

#### Strengthen infection control

The state should seek to improve routine infection-control procedures, an area in which many of the state's health-care providers receive poor ratings from independent watchdogs.<sup>125</sup>

As a step in this direction, the state should improve its monitoring and public reporting of preventable infections that occur in hospitals, nursing homes and other healthcare settings.

#### Professionalize pandemic response

The governor, the mayor and other officials had access to expert advice within their own health departments, but sometimes failed to seek it out or disregarded what they were told.

To professionalize policymaking, qualified officials within the Health Department should be empowered to take certain pandemic-related actions on their own, such as issuing advisories and recommending precautions. They should be encouraged to communicate with the public about infectious disease and other public health threats, and shielded from political reprisal when they do.

When a major emergency arises, centralizing authority in the governor may be a practical necessity. However, public health officials, the Legislature and key stakeholder groups should be given more input, perhaps by statutorily establishing an advisory council that would review and comment on key executive decisions.

#### Update emergency plans

The state's emergency pandemic plan should be rewritten to reflect the lessons of the last year – and expanded to include detailed contingency plans for creating emergency hospital capacity and safe handling of infectious nursing home residents.

#### Improve public communication

The Health Department should strengthen its ability to communicate directly with New Yorkers, including those who do not closely follow traditional news media.

It should develop the capacity during public health emergencies to distribute accurate and timely information through public service announcements in all available outlets, including TV, radio, newspapers, the internet, billboards and social media.

#### **CONCLUSION**

One of the countries that managed the coronavirus pandemic most successfully was South Korea.

A neighbor of China, South Korea was among the first to be hit, recording its first case on Jan. 20, 2020, 126 and its first death on Feb. 20. 127

It moved quickly to ramp up large scale testing, then used quarantining, contacttracing and targeted lockdowns to keep the virus under relatively tight control.

As a result, its national mortality rate as of May 24 was 38 per million, or 1.4 percent of New York's rate of 2,748 per million.

Some of South Korea's strategies – such as using telephone metadata to track people's movements – might run afoul of U.S. laws and expectations of privacy. But one of its practices should be a model for New York: learning from experience.

In 2015, South Korea suffered the worst outbreak of Middle East Respiratory



Syndrome outside of the Middle East, with thousands of suspected cases and 38 deaths, which became a political embarrassment for the country's leaders.

They responded by passing a package of 48 reforms to further boost their public health defenses – focusing on testing, tracing, isolation of infected individuals and improved infection control in health-care settings. Those efforts paid off in 2020 with a mortality rate as of May 24 of 38 per million, about 2 percent of the U.S. toll.

New York, by contrast, has just suffered one of the worst coronavirus outbreaks in the world, and one of the biggest public health disasters of its own history.

In its cruel and mindless way, the virus pinpointed every weakness that Albany needs to fix. The clues left behind offer a roadmap to a safer state. It's up to New York's leaders to follow it.

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