

Learning From the US COVID-19 Response Toward Creating a Healthier Country

 See also the COVID-19 International Forum, pp. 1792–1804.

The United States was hit harder by the coronavirus disease 2019 (COVID-19) pandemic than nearly every other country in the world. As of this writing, the United States has had about 6 million positive COVID-19 cases and more than 200 000 deaths, with one of the highest death rates in the world. Undoubtedly, some of the scope of the pandemic in the United States is idiosyncratic and some is the result of immutable reasons (e.g., population demographics), but much else can be attributed to particular actions and inactions that the United States took before and during the pandemic. Although we still have quite a bit to understand about the pandemic, we suggest that one can—at this moment—draw inference to inform a stronger public health infrastructure that can mitigate the consequences of another future virus.

We offer five suggestions built on observations about the pandemic.

1. Public health must be able to resist political interference,
2. The national public health infrastructure must be robust to pandemic threats,
3. Our underlying health must improve when it is not under acute threat,
4. Health inequities must be at the forefront of any pandemic response, and

5. Population health science can help public health practice.

RESIST POLITICAL INTERFERENCE

There is little question that politics and political decisions drive actions that shape the health of the public. Politics are, in many ways, a macro determinant of health, shaping policies and regulations that drive much else about our response to any public health question. It is hard to imagine a more catastrophic American political response to the pandemic. From its earliest days, political forces sought to interpret and address the pandemic in a way that maximized political (and mostly partisan) gain, with little tangible heed to actions that had to be undertaken to protect the public's health.

Although much can be written about the political failures that compromised the moment, it is worth reflecting how the public health system could have been better inoculated against political pressures that run counter to the goals of public health. Perhaps, most tangibly, the position of the director of the Centers of Disease Control and Prevention (CDC)—the agency that fundamentally should have been in charge of the

nation's pandemic response—could be strengthened. Senate confirmation for the CDC director would give the position greater standing and stature to buffer against elected politicians and could allow the director to more assertively claim ground in establishing the national terms of engagement with a pandemic.

BE ROBUST TO PANDEMIC THREATS

Despite ample warnings from multiple sectors that we could, one of these days, be faced with a pandemic that would be difficult to contain given our current public health system, the COVID-19 pandemic found the United States remarkably unprepared for the moment. Fundamentally, this was rooted in decades-long underinvestment in the American public health infrastructure.¹ Funding for national, state, and local health departments has long not kept pace with spending in other sectors and in many ways has decreased.² Although occasional infusions of

resources have followed other epidemic scares such as severe acute respiratory syndrome, these resources have not been added to base budgets, prohibiting the growth of stable, effective public health systems that can rise to the current challenge. For example, most jurisdictions were not able to mount comprehensive contact tracing approaches, not to mention adequate testing, both of which should be fundamental functions of public health as means to mitigate a pandemic.

A strong public health system that can adapt to, and mitigate, a future pandemic will need a redoubling of our investment in it and a commitment to increasing core funding that will allow the public health system to build native capacity that can rise to the next pandemic challenge.

IMPROVE UNDERLYING HEALTH

The COVID-19 pandemic brought to light an underlying truth about US health that has long been known but seldom adequately acknowledged: the country's health is far worse than that of peer countries despite investment in health care that exceeds that of all other peer nations.³ This mismatch between spending and health indicators arises principally from an underinvestment in the structures

ABOUT THE AUTHORS

The authors are with the Boston University School of Public Health, Boston, MA. Catherine K. Ettman is also with the Brown University School of Public Health, Providence, RI.

Correspondence should be sent to Sandro Galea, MD, DrPH, School of Public Health, Boston University, 715 Albany St - Talbot 301, Boston, MA 02118 (e-mail: sgalea@bu.edu). Reprints can be ordered at <http://www.ajph.org> by clicking the "Reprints" link.

This editorial was accepted August 8, 2020.

<https://doi.org/10.2105/AJPH.2020.305921>

that generate health—in stable housing, equitable wages, gender equity, quality education, violence prevention, antiracism action, clean air, and drinkable water, to name a few.⁴ This reality has described health in the United States for decades, with American health achievement falling behind that of other peer countries over the past 40 to 50 years. However, in the main, this has been tolerated. COVID-19 showed how unsustainable this health status is.

Risks of incidence and of mortality from COVID-19 were both substantially higher among persons with underlying morbidity than among persons who were healthy. That resulted in the United States being at substantially greater risk for the disease because of its fundamental neglect of its national health before the pandemic. This suggests strongly that a national investment in spending on the foundational determinants of health, to improve health at least to the levels of health demonstrably achievable in other high-income countries, needs to be an essential national goal for the public's health in coming years. This is simply not possible without attention to the health effects of policies across sectors and the appropriate investment across those sectors in health-generating actions.

PUT HEALTH INEQUITIES AT THE FOREFRONT

One of the most important narratives of the COVID-19 era is health inequity.⁵ As severe acute respiratory syndrome coronavirus 2 swept across the United States, it became clear relatively early on in the pandemic that the burdens of the

virus would not be experienced equally and that persons who were socioeconomically marginalized and persons of color would experience a disproportionate burden of infection and death. This has been reinforced as more data have emerged showing, for example, that Black Americans have COVID-19 mortality rates that are twice as high as in White Americans.⁶ The reasons for this differential burden and mortality rate are many, including different exposure to the virus because of limited opportunities to work while preserving social distance and greater preexisting morbidity that puts these persons at greater risk for the effects of COVID-19.

That socioeconomic and racial/ethnic health inequities would influence the consequences of a pandemic should be unacceptable. However, these inequities will persist unless public health systems are oriented toward minimizing health gaps as an overriding priority. This means not treating all groups equally but rather working to implement efforts that protect vulnerable groups. This is an orientation shift from the general public health mindset that focuses on the collective—with saving as many lives as possible—to one that focuses on building systems that are responsive to lives that are most at risk to begin with.

SCIENCE CAN HELP PUBLIC HEALTH PRACTICE

The US COVID-19 response has been characterized, from the outset, by a disregard—at the highest political levels—for insight that emerged from the science. This has, for example,

informed very public discussions about drugs that may help, even if no evidence indicated that they had utility in combating the novel coronavirus, and about the efficacy of wearing masks in public, even as the scientific evidence became incontrovertible that masks could play a critical role in mitigating the spread of the virus.

Ultimately, the public health response to this pandemic—and to future pandemics—must be rooted in the science much more intimately than it has been in the past few months.⁶ This will require optimizing our science to practice linkages on two fronts. First, it will require public health practice to become more adaptive and flexible as science evolves and to resist political pressures to bend science to meet political objectives. This must be part of a stronger public health practice, consistent with a more prominent and politically powerful role for public health leadership in the United States. Second, it will require science to change to some extent. Although science has rushed in admirably to produce articles about COVID-19 in record-breaking time, a disproportionate amount of scientific contribution has been expository rather than data driven, and science has worked idiosyncratically to its own ends that are congruent with, but not necessarily aligned with, the needs of public health practice.⁷ Better communication between science and public health practice and alignment to meet the needs of the moment would help serve us collectively well and help build a strong and responsive public health system ahead of future pandemics.

CONCLUSIONS

The US COVID-19 response was as poor as it was for many reasons, but a stronger public

health system and infrastructure can control such failures in the future. These five potential approaches stand to transform the US capacity to be responsive to a future pandemic. We realize that these are ambitious in scope, requiring a much stronger public health infrastructure than currently exists in the United States and one that extends beyond the current public health constraints. The COVID-19 pandemic has shown that these approaches are nondiscretionary and that absent such fundamental changes, a next pandemic—one that may be more contagious and more lethal—stands to bring about incalculable damage to the health of the US population. *AJPH*

Sandro Galea, MD, DrPH
Catherine K. Ettman, AB
Salma M. Abdalla, MBBS, MPH

CONTRIBUTORS

S. Galea drafted the original editorial. All authors contributed to critical revisions and approved the final version of the editorial.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

REFERENCES

1. Maani N, Galea S. COVID-19 and underinvestment in the public health infrastructure of the United States. *Milbank Q*. 2020;98(2):250–259. <https://doi.org/10.1111/1468-0009.12463>
2. Leider JP, Resnick B, Bishai D, Scutchfield FD. How much do we spend? Creating historical estimates of public health expenditures in the United States at the federal, state, and local levels. *Annu Rev Public Health*. 2018;39(1):471–487. <https://doi.org/10.1146/annurev-publhealth-040617-013455>
3. Institute of Medicine, National Research Council. *US Health in International Perspective: Shorter Lives, Poorer Health*. Washington, DC: National Academies Press; 2013.
4. Himmelstein DU, Woolhandler S. Public health's falling share of US health spending. *Am J Public Health*. 2016;106(1):56–57. <https://doi.org/10.2105/AJPH.2015.302908>
5. Galea S, Abdalla SM. COVID-19 pandemic, unemployment, and civil unrest: underlying deep racial and

socioeconomic divides. *JAMA*. 2020; 324(3):227–228. <https://doi.org/10.1001/jama.2020.11132>

6. Galea S, Keyes K. Understanding the Covid-19 pandemic through the lens of population health science [E-pub ahead of print July 15, 2020]. *Am J Epidemiol*. 2020; kwaa142. <https://doi.org/10.1093/aje/kwaa142>

7. Elgendy AY, Barakat AF, Ibrahim J, Alkukhun L, Mamas MA, Elgendy IY. The landscape of medical literature in the era of COVID-19: original research versus opinion pieces. *J Gen Intern Med*. 2020; E-pub ahead of print. <https://doi.org/10.1007/s11606-020-06021-8>