

What we are learning from COVID-19 about being prepared for a public health emergency

LESSONS WE ALREADY KNEW

The novel coronavirus, SARS-CoV-2, the virus that causes COVID-19, emerged in late 2019 and swiftly brought about the worst global public health emergency in a century, inflicting an extraordinary toll on the lives, livelihoods, and well-being of people across the globe. Governments everywhere are now racing to protect their people and contain the damage.

As unimaginable as the crisis feels, it was commonly predicted by infectious disease experts.¹ Indeed, two years ago, the Centers for Disease Control and Prevention (CDC) posed the critical question in a symposium on the 1918 influenza pandemic: “100 Years Since 1918: Are We Ready for the Next Pandemic?”² The presentation prophetically warned of disruptions in medical supplies and services, inadequate ventilator access, high economic costs, and a lengthy vaccine development process.

Eventually, this pandemic will be behind us, and there will surely be examinations of the strengths and weaknesses of the world’s response, including in the United States, and how we can be better prepared for the next pandemic emergency. But public health experts already knew much of what needs to be done long before the outbreak began. The COVID-19 crisis has illuminated the critical need for federal, state, local, tribal, and territorial leaders to take steps to shore up the nation’s preparedness for the long term, even as the current response is ongoing.

This issue brief lays out four major issue areas that need attention: funding and coordination, medical countermeasures, healthcare readiness, and equity and resilience.

This issue brief summarizes themes and recommendations covered in greater depth in two recent Trust for America’s Health (TFAH) reports: *Ready or Not: Protecting the Public’s Health from Diseases, Disasters and Bioterrorism* and *The Impact of Chronic Underfunding on America’s Public Health System: Trends, Risks and Recommendations*, 2020 as well as work by TFAH’s Promoting Health and Cost Control in States (PHACCS) initiative.

FUNDING AND COORDINATION

The COVID-19 pandemic has exposed the impact of chronic underfunding of America's public health and emergency preparedness systems. Only five states have over 50 percent of their population served by a comprehensive public health system, leaving 45 states in which less than half of their residents are served by a comprehensive system.³ Furthermore, more than 56,000 local public health jobs were eliminated between 2008 and 2017 — nearly one quarter of the workforce.⁴ This underfunding has real consequences, as health departments struggle to respond to the biggest public health crisis in a century with archaic technologies and inadequate staffing levels. Building and maintaining a public health system, one capable of effectively protecting and promoting health across the country, requires a significant increase in funding above recent levels, a wise investment considering the much larger costs (in lives, dollars and economic disruption) of responding to uncontrolled epidemics, chronic diseases, environmental dangers, and other crises.

The Public Health Leadership Forum, a group of the nation's top public health thought leaders and practitioners, has called for increasing annual funding by \$4.5 billion⁵ for public health infrastructure in state, territorial, tribal and local public health agencies. Funding increases of this size are necessary to ensure every community is served by a comprehensive public health agency and to enable these agencies to better carry out essential tasks, including disease surveillance and emergency preparedness.

Two federal programs, in particular, play critical roles in preparing the country for disasters: the Public Health Emergency Preparedness (PHEP) program, administered by the CDC, and the Hospital Preparedness Program (HPP), administered by the Office of the Assistant Secretary for Preparedness and Response (ASPR) at the U.S. Department of Health and Human Services (HHS). Both are seriously underfunded. Through grants, the PHEP program is a primary way in which the federal government works with state, territorial and local public health departments to prepare for and respond to emergencies. Created after the terrorist attacks of 2001, the program has seen its funding fall by nearly a third since Fiscal Year 2002 — and nearly one half, adjusting for inflation.⁶ The HPP provides funding and technical assistance to states and territories to help them prepare their hospitals and healthcare systems for disasters. Its funding has fallen by half since FY2003 and over 60 percent when accounting for inflation. The impact of these cuts can be seen throughout the COVID-19 pandemic, as health departments try to track the disease with out-of-date surveillance systems, and hospitals in disease “hot spots” quickly became overwhelmed.

Even as we work to improve public health agencies' baseline readiness, they must also have timely access to additional funding to ramp up operations when emergencies strike without the delays that may accompany congressional deliberations. Two federal programs facilitate this pipeline: the Public Health Emergency Fund and the Infectious Disease Rapid Response Reserve Fund, from which the Secretary of Health and Human Services was able to quickly utilize \$105 million⁷ in the early days of the COVID-19 response. Going forward, these funds should be replenished with new money to maintain balances of at least \$2 billion.

Finally, as the world responds to and recovers from COVID-19, the U.S. should play an active leadership role, including global health security programs at the CDC, the World Health Organization, and the U.S. Agency for International Development, to be a global partner with other countries and to help develop the core health security capacity of other nations. Investing in global health security will help protect Americans by fighting outbreaks where they begin thereby reducing the likelihood of spread to other countries including the U.S.

Funding and Coordination Recommendations:

- Congress should increase annual funding for state, local, tribal, and territorial infrastructure by \$4.5 billion to ensure every community is protected by core components of a comprehensive public health system.
- At least \$ 2 billion should be kept in the Infectious Disease Rapid Response Reserve Fund at all times to enable faster responses to future infectious disease outbreaks.

- The Public Health Emergency Preparedness (PHEP) program should receive annual funding of at least \$824 million and the Hospital Preparedness Program (HPP) should receive at least \$474 million in annual funding to rebuild these programs going forward.
- The White House should create a health security directorate, including senior advisors to the President with public health expertise to advise on health security issues and oversee the national biodefense strategy and interagency responses.
- The White House should ensure senior advisors to the President have a strong background in public health and/or biodefense and that senior-level interagency cooperation is progressing before, during, and after public health emergencies, including through regular meetings of the Biodefense Steering Committee and Biodefense Coordination Team. The White House, HHS, CDC ASPR, Department of Homeland Security, Federal Emergency Management Administration and the Food and Drug Administration should work together to clarify roles and responsibilities to improve the nation's emergency preparedness and response capacity.
- Science needs to govern the nation's COVID-19 response, led by federal public health experts — including leadership at CDC and the National Institutes of Health. Policy decisions from the federal to the local level should be based on the best available science.

MEDICAL COUNTERMEASURES

The COVID-19 pandemic has made crystal clear the importance of a well-resourced and well-run medical countermeasure enterprise. A robust medical countermeasures program consists of the research, development, stockpiling and distribution of medical supplies, drugs, devices, vaccines and other products for use in emergencies. The U.S. must have the surge capacity to be able to facilitate the rapid development and procurement of diagnostic tests and personal protective equipment (e.g., gloves, respirators, goggles, face shields, and gowns), therapeutics, and vaccines—and then distribute them strategically and equitably.

Sustained, long-term funding must be made available to support the Public Health Emergency Medical Countermeasures Enterprise, including greater funding for the Biomedical Advanced Research and Development Authority (BARDA), the Strategic National Stockpile (SNS), and the nation's vaccine infrastructure. Together, these programs help build the pipeline of countermeasures for health security purposes. The Stockpile must be sufficiently equipped to operate when global supply chains are disrupted and just-in-time delivery schedules that work well in normal times cease to function adequately. The shortages of supplies from the SNS during the COVID-19 outbreak are in part due to long-term underfunding of the program.⁸ Private sector manufacturing surge capacity should be incorporated into proactive public sector planning.

Much work needs to be done to foster better coordination between federal, state, local, tribal and territorial governments, as well as with private sector suppliers and healthcare providers. To prevent states from competing with one another to procure vital supplies amid a global emergency, federal agencies must be prepared to proactively assess, and project states' needs and then leverage their superior purchasing power and logistical capabilities to efficiently deliver needed tools and prevent shortages that cost lives.

Medical Countermeasures Recommendations:

- The federal government should provide significant and long-term funding for the entire medical countermeasures enterprise including research, manufacturing, procurement, and distribution.
- Congress should invest now in shoring up the systems that will be leveraged for distribution and dispensing of a potential COVID-19 vaccine, including immunization information systems, reporting and surveillance structures, training, outreach and education, and ultimately, distribution.
- The federal government should coordinate between states and supply chain partners to provide situational awareness on needs and supplies during an emergency and offer the option of using the federal government's buying power to procure supplies and distribute them to states, if needed.

HEALTHCARE READINESS

In a pandemic, particularly one in which a significant number of people who become infected require hospitalization, a top-level concern is healthcare capacity. As we have seen with COVID-19, it is essential that health care systems not become overwhelmed, that healthcare workers and patients are protected from infection, and that health care systems can continue to provide essential non-COVID-19 care.

When care facilities become overwhelmed, providers are stretched thin and at greater risk of infection, patients perish who could have been saved and chronic health conditions become acute or fatal due to lack of care. Ensuring that an area's healthcare system can manage its influx of patients is an essential part of limiting transmission and keeping case fatality rates as low as possible. This requires coordination across the healthcare system to ensure an adequate supply of staff; hospital beds, including intensive care beds; personal protective equipment; medicines; and, ventilators. While preparedness standards exist for individual facilities through the Centers for Medicare and Medicaid Services (CMS)⁹ and The Joint Commission, systemwide readiness requires external coordination and planning.

Healthcare Readiness Recommendations

- In addition to increasing funding for the Hospital Preparedness Program to promote cooperation between competing healthcare entities and public health, Congress and CMS, in coordination with ASPR, should provide payment incentives and reward facilities that maintain specialized disaster care capabilities.
- Congress and HHS should work to build surge capacity across the system by establishing an external regulatory body to set, validate, and enforce standards for healthcare facility readiness, stratified by facility type, with authority to impose financial penalties.
- States should engage healthcare providers, supply chain leaders and coalitions in emergency planning efforts. Local health care systems and public health leaders should coordinate through healthcare coalitions or other mechanisms to improve situational awareness and enable strategic movement of patients, personnel, and supplies. In addition, states should review credentialing standards to ensure facilities are able and ready to receive providers from other states during a surge response. States should adopt policies that promote readiness and surge capacity, such as the Nurse Licensure Compact and the Interstate Medical License Compact.

EQUITY AND RESILIENCE

The impact that COVID-19 has on a community depends in part on the underlying health and socio-economic status of its people, two markers that tend to be correlated. While anyone can be at risk for infection from the novel coronavirus, COVID-19 has had a disproportionate impact on communities of color and low-income communities, where factors such as structural inequities, limited economic opportunity and substandard housing have contributed to underlying health, social and economic disparities that put these communities at higher risk for infection and severe outcomes.¹⁰ People with chronic lung disease, diabetes, heart disease, and severe obesity, among other characteristics — all of which are correlated with socioeconomic factors — are at particular risk for severe health impact if infected.¹¹ In addition, people of color and lower income Americans have also been disproportionately designated as essential workers during the pandemic, with fewer job protections, placing them at increased risk for COVID-19 exposure.¹²

These realities illustrate that a vital element of preparedness—and a key defense against any epidemic—is investing in programs that prevent chronic illness and promote health equity. Therefore, efforts to address social determinants of health; reduce health disparities; and improve economic conditions, housing and education—to name a few, need to be part of the efforts to make our country more resilient in the face of a disease outbreak.

A major challenge highlighted by the COVID-19 crisis is inadequate collection and reporting of data on the degree to which different population groups are being affected during a disease outbreak. Although early data showed disproportionate rates of hospitalization and death among African-American,¹³ Latino¹⁴ and American Indian¹⁵ populations, racial and ethnic data was missing in most cases reported to CDC as of April 30.¹⁶ HHS, states, healthcare providers and facilities, and public health officials must identify and address barriers to the collection, analysis and regular reporting of detailed demographic data on individuals with COVID-19 in order to equitably respond to this crisis. Without timely data, our public health system cannot effectively understand the pandemic, focus the response on communities most in need, and address the national emergency.

To help control the spread of infection, especially during a pandemic, it is important that people who are feeling ill be able to limit their exposure to others, including to co-workers. Paid sick leave policies allow employees to take time off from work to recover from illness, visit a health care provider, or care for a family member, without fear of lost wages or termination. Without these protections, workers are more likely to come to work when they are sick,¹⁷ endangering others and delaying or forgoing medical care. During the H1N1 pandemic of 2009, up to an estimated 7 million individuals were infected as a result of contagious co-workers not staying home from work when ill.¹⁸ Further exacerbating employee pressure to report to work is the fact that only three out of every 10 American adults have emergency savings that they could tap if forced to stay home without paid leave.¹⁹

Equity and Resilience Recommendations

- The collection and regular public reporting of demographic data by race, ethnicity, sex, gender identity, age, primary language, socioeconomic status, disability status, county, and other demographic information of cases, hospitalizations, and deaths is essential during all health emergencies. This disaggregated data is vital to identifying impacted areas and partnering with communities on outreach, prevention, and access to care. Congress should provide additional resources to fully modernize public health data surveillance including, enabling electronic case reporting to state health agencies, education of providers on data collection and reporting, and reduction of duplicate reporting systems to the federal government.
- Congress and the President should provide new and ongoing public health and prevention-focused funding to community-based organizations working in and representative of populations disproportionately impacted by COVID-19, especially in low-income communities and communities of color.
- Congress and the President should enact a federal law to allow workers to earn at least seven days of job-protected paid sick days per year; during a public health emergency more may be necessary. In the absence of congressional action, states and localities should enact laws to provide paid sick days to their employed residents.
- The Federal government should ensure access to affordable, high quality and comprehensive healthcare for all Americans, including access to COVID-19 testing, treatment and vaccines.
- Government at all levels should target funding for programs that address the social determinants of health. Congress should fund CDC and health departments to address social determinants through cross-sector collaboration, policy change, and creating community-clinical linkages. Federal agencies should also strengthen and expand programs that create and preserve affordable housing, improve access to nutrition, expand access to quality education, provide job training opportunities and improve transportation systems — all factors that improve the conditions in people's lives that impact their health and make communities more resilient during an emergency.

Conclusion:

FUNDING, COORDINATION AND VIGILANCE ARE ALL CRITICAL COMPONENTS OF NATIONAL READINESS

The COVID-19 pandemic is a defining event that will shape the lives of billions of people. After the current threat is controlled, it is inevitable that the country's leaders will awake sometime in the future to early reports of another emerging public health emergency somewhere in the world. It could be weather-related, a terrorist act, or a mysterious disease outbreak.

Will we have learned from the COVID-19 pandemic and be better prepared to prevent or mitigate the impact? That is the question we must grapple with even while still in the midst of the current crisis.

The COVID-19 crisis must teach us the indelible lesson that preparing for what will inevitably happen is essential, and that core public health capacities and resources must be adequately funded. We must organize our federal government to treat pandemics and other global health emergencies as top-level threats necessitating constant monitoring and preparation—just as we do with wars. This will require a whole-of-government focus and prioritization.

When a crisis emerges, every hour carries extraordinarily high stakes measured by the preservation of lives and livelihoods. We must be prepared.

Endnotes

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