VIEWPOINT

Suboptimal US Response to COVID-19 Despite Robust Capabilities and Resources

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Global Biological Policy and Programs, Nuclear Threat Initiative, Washington, DC. The coronavirus disease 2019 (COVID-19) pandemic may have caught governments by surprise, but medical and publish as the coronavirus design and publish as the coronavirus design.

cal and public health communities have long warned of the potential for a high-consequence pandemic. Most recently, in September 2019, a report by the independent Global Preparedness Monitoring Board urged political leaders to take steps in their countries to improve preparedness for such events. One month later, the Global Health Security (GHS) Index, a framework for benchmarking health security in 195 countries, found that no country was fully prepared for a major health emergency.² The Index identified serious weaknesses in many countries that could undermine their ability to respond to a pandemic, but it did not anticipate the poor response to the pandemic by high-scoring countries such as the US where major gaps in federal leadership resulted in a failure to mobilize the country's substantial capacity.

With the largest number of COVID-19 cases to date and one of the highest per-capita case fatality rates in the world, the US has experienced greater consequences from COVID-19 than many other countries.

Despite its top overall ranking on the index, the US received a low score on a key factor that can determine how well a country is able to react to a pandemic: public confidence in the government.

The US accounts for less than 5% of the world's population but more than 25% of total COVID-19 cases reported across the globe, and it currently ranks among the top 10 countries in COVID-19-related deaths per capita.^{3,4}

These outcomes were not inevitable. As measured by the GHS Index, the US was better positioned than most other countries to respond to COVID-19. The Index includes 140 questions that assess national capacities or abilities among 6 categories: (1) prevention of the emergence, release, or spread of pathogens; (2) early detection and reporting for epidemics of potential international concern; (3) rapid response to and mitigation of the spread of an epidemic; (4) sufficient and robust health system to treat affected patients and protect health workers; (5) commitments to improving national capacity, financing plans to address gaps, and adhering to global norms; and (6) overall risk environment and country vulnerability to biological threats. The Index is scored on a 0- to 100-point scale, with 100 representing the highest possible score a country can receive. However, although the Index is useful in identifying gaps in pandemic preparedness, the GHS Index rankings and scores are not correlated with COVID-19 death rates.⁵

The US outranked the other 194 countries assessed by the GHS Index because it has more capacities and fewer identified risks than other countries. The US has high-quality laboratories, trained epidemiologists, and a stockpile along with plans to distribute personal protective equipment in public health emergencies. The US also has an emergency operations center and risk communication plans. In addition, there is the world-renowned US Centers for Disease Control and Prevention (CDC) that works across the globe to improve the ability of other countries to detect and respond to infectious disease threats.

Each of these capacities is necessary for responding to a pandemic, and other countries used them in their own response. For example, South Korea, which experienced the largest outbreak of Middle East respiratory syndrome outside the Middle East as a result of slow detection of the virus and nosocomial spread, learned from

its experience and built surveillance programs and strengthened its health care infrastructure. Developing these capacities helped South Korea rank ninth in the GHS Index.

Wealthy countries like South Korea are not the only ones that ranked high in the Index and also had an effective response to COVID-19. Thailand, which was the first country outside China to report

a COVID-19 case, conducted epidemiological investigations that helped to demonstrate the ability for sustained human-to-human transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and has reported fewer than 20 cases per day since mid-April. ^{3,7} Ranked at No. 6 in the Index, Thailand earned top scores for its laboratory and specimen transportation systems, risk communication plans, and integrated disease surveillance systems. Thailand also ranked second for health care access and is 1 of only 5 countries to publicly commit to giving priority access to health care workers who develop illness while responding to public health emergencies.

Several factors may help explain why the US has struggled more than many other countries to suppress COVID-19, and the GHS Index may provide some possible insights. Despite its top overall ranking on the index, the US received a low score on a key factor that can determine how well a country is able to react to a pandemic: public confidence in the government. The US is one of only a small number of high-income countries in

Corresponding Author: Jennifer B. Nuzzo, DrPH, SM, Johns Hopkins University Bloomberg School of Public Health, 621 E Pratt St, Ste 210, Baltimore, MD 21202 (jnuzzo1@jhu.edu). the Index that received the lowest possible score on public confidence in the government. Poor confidence in the government can undermine the public's adherence with disease-control measures, such as wearing masks or stay-at-home recommendations, and has been reported among the existing challenges to the US COVID-19 response.

In addition, the US received low scores on important indicators pertaining to the strength of its health system and the ability of its people to access health care without barriers. For example, among the 60 high-income countries in the GHS Index, the US ranked 38th for its number of physicians per capita and 40th for its number of hospital beds per capita. On access to health care, the US was ranked 175th globally due to its absence of laws mandating universal health care coverage and large numbers of underinsured and uninsured individuals. A lack of guaranteed access to health care for all citizens leaves many individuals vulnerable during times of emergency. In 2020, the US Congress passed legislation to remove cost barriers for SARS-CoV-2 testing, but testing costs remain and have been cited as a barrier to expanding the number of tests performed in the US.⁸

Overall, the US was well poised to respond to COVID-19, but it has lacked strength in key areas. Although the US established a national stockpile of medicines, personal protective equipment, and ventilators, when signs of a new outbreak surfaced, calls by federal officials to replenish and augment these supplies were ignored. The US also failed to harness its own technical expertise, such as that within the CDC. Although the US has a world-class network of public health and clinical laboratories that had the capacity to develop their own assays to test for SARS-CoV-2, federal restrictions initially prevented these laboratories from doing so. This severely con-

strained the number of tests the US could conduct (and likely allowed the virus to spread around the country undetected) until these restrictions were eventually lifted. Even now, the lack of a national testing strategy and unaddressed shortages in testing supplies continue to limit the country's ability to suppress SARS-CoV-2.

What is most puzzling is that the US has been significantly involved in helping other countries to amass their own capacities to prepare for events like COVID-19. During the Obama administration, the US launched the Global Health Security Agenda and has contributed financial and technical support to help countries develop public health capacities to prevent, detect, and respond to infectious disease outbreaks. Thailand's epidemiological capabilities were developed with large contributions of funding and expertise from the US. Even though the US lacks a national strategy for testing and conducting surveillance for COVID-19, it has previously helped other countries develop such strategies for other diseases.

International experts agree that the COVID-19 pandemic as a test case of the capacities as assessed by the GHS Index remains highly relevant. However, going forward, the Index should include new or stronger metrics about additional capacities, such as medical supply chains and a better understanding of national leadership. The strength of a country's leadership and the confidence of its people in their government and their leaders is just as important (if not more important) than technical capacities. Future versions of the Index will give greater weight to these factors.

During the years to come, the US undoubtedly will undergo national-level reviews to understand how its strong capabilities were squandered when the country needed them the most. In the meantime, the country's health and economic security will continue to be adversely affected until national leaders change course.

ARTICLE INFORMATION

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