US Health Care in the Pandemic

Within a few short weeks in early spring, the COVID-19 pandemic began to unleash its devastation on the health and economic well-being of the American public. With this attack, it challenged the structure and basic foundations of the US health care system. In response to the growing deluge, US health care workers, public health officials, and health care industry leaders were the front line of defense against the virus. The whole country witnessed their extraordinary courage, fortitude, and rapid and unyielding response. A government stagnated by partisan politics joined to swiftly pass unprecedented relief and support legislation, waive regulation, and launch a historic, large-scale vaccine and treatment development effort in collaboration with the private sector.

The US health care system has not collapsed. But as the US emerged from the initial weeks of the swift, unprecedented, and devastating destruction of the COVID-19 global pandemic, several significant shortfalls in the health care system became clear: the ability of the structure of the system to handle the challenge; the nation’s preparedness when the pandemic began; and finally, how the system has performed given the resources we have on hand.

These three problems could be restated as:

1. How should the nation change the fundamental structure of the health care system?
2. What should we do now to respond to the current pandemic?
3. And what should we do, once the smoke clears, to prepare for future pandemics?
1. The Structure of the US Health Care System

It has become almost a cliché to say that the COVID-19 pandemic has exposed preexisting weaknesses in the structure of US health care system, and that is certainly true. But different observers have seen different weaknesses and drawn different conclusions.

Between 12 and 16 percent of Americans reported lacking health insurance over the six years 2014–2019, and many more people have lost jobs and thus employer coverage during the pandemic, testing our system of employer-based insurance. However, our nation’s deficient pandemic response went beyond lack of insurance. Certainly, many uninsured feared the financial consequences of seeing a doctor or going to a hospital, and so may not have received care. But doctors and hospitals were unable to cope with the number and condition of people who did show up.

Certainly damaging to the health care system, and therefore all the people it serves—whether they pay or not—were the layoffs of doctors, nurses, and other health care workers, and the shutdowns of service delivery apart from COVID-19 treatments, because of the financial stresses on hospitals and other institutions. In part that was because COVID-19 and other patients could not be served together to prevent contagion, but regulatory relief allowed the opening of new temporary facilities to facilitate separation of patients. More importantly, the health care system’s fee-for-service core, based on administratively determined reimbursement schedules, did not have predefined reimbursable services for a novel coronavirus with no known cure. The White House had to improvise a response, and there was considerable confusion over the practical effect.

The financial stresses on hospitals while they were filled to capacity illustrate our unsustainable system of cross-subsidization between different groups of people for whom different providers deliver different services, which are reimbursed by the piece—with profitable services covering the costs of other services delivered at a loss. But more profitable procedures have been crowded out by the focus on COVID-19 care.

In short, we have a reimbursement design failure. We need a system that reimburses providers for maintaining health, including such prosaic tasks as badgering patients to be personally responsible, rather than for maneuvering an administrative price list. Such a “population health” approach or focus on “the social determinants of health” could respond to the inequitable outcomes of US health care among vulnerable and disadvantaged groups, which are driven by, for example, unsafe living conditions in the event of contagious disease, or a lack of access to healthful food. However, so investing in a healthy population is antithetical to the fee-for-service system, and will not be driven by it.

The 2020 Solutions Brief entitled A New Path on Health Care describes a comprehensive alternative to the current system that would incentivize the formulation of plans to reward the delivery of quality, affordable care. Such a system would deal better with future pandemics, or merely deliver affordable care to all should we be spared another trial like this one.
2. Addressing the Current Pandemic

The US pandemic is changing constantly. New cases peaked in early April, and thereafter slowly declined. The comparatively large states around the New York international transit hub endured their pandemics first, and incidences there are generally declining. But a resumed rise began in early June. The virus spread slowly, and now, as the economy reopens, parts of the country that at first saw few infections are beginning to see their own aggressive first waves. State economies outside of the initial hot spots reopened quickly, some with insufficient testing data and with confusing and conflicting public health policies and messaging. Hospitalizations are rising, and there is significant risk of breaking hospital systems in the regional hot spots, exceeding their available capacity and going back into “crisis mode,” to the detriment of public health broadly. Death rates have been down, in part because the care response and treatments are improving and, in places, the demographics of the infected have shifted to a younger cohort. But deaths are a lagging indicator.

We have learned much about the coronavirus, but there is much left to learn. We know with imprecision that many people have been infected and survived, but unfortunately, the results of “serology” or “antibody” tests (which detect past, defeated infections) are erratic and inaccurate. Thus, we do not know the extent of immunity of recovered infected people; there is some evidence of reinfections. So as the pandemic travels the country, leaving the initially hard-hit Northeast and moving elsewhere, we cannot know whether it could circulate indefinitely. Public health officials have raised concerns about a second wave coinciding with flu season overrunning the capacity of our health care systems and infrastructure. And, if the 1918 “Great Influenza” serves as an example, a third wave is also of concern. Therefore, we do not know what continuing level of resources will be needed until the virus is finally defeated. And as the pandemic touches every part of this large country, every part needs adequate resources of all kinds in a timely manner.

SUPPLIES. In the near term, supplies of personal protective equipment (PPE) must be replenished and ample; there must not be a replay of health care professionals putting themselves in harm’s way without proper equipment. And for the infected, all manner of therapeutic supplies and equipment likewise must be readily available. Over time, the health care system is learning how to manage the virus, if not to cure it. Better management can reduce the need for supplies. However, the old adage to “hope for the best and plan for the worst” remains appropriate.

At the outset of the pandemic, there were multiple shortages. Supply shortages anywhere can spark panic buying by hospitals, governments, households, and businesses that provide for their employees. Such rush demand forces individual institutions to bid against each other and drives up prices. Now, the health system is learning to deal better with COVID-19 cases. However, if the current regional upswing continues and spreads, the need for supplies will grow again, and without proper policy, panic buying could recur. The Department of Health and Human Services reported recently that the Strategic National Stockpile has only about 12 million N95 respirators and 30 million surgical masks—about 1 percent of the estimated 3.5 billion masks the nation would need in a severe pandemic. Another 5 million N95 masks in the stockpile are expired. The stockpile has not been substantially replenished since the last virus outbreak in 2009.
The nation needs a serious ongoing assessment of the short-term availability of drugs, sophisticated equipment, and even basic items such as masks, face shields, and surgical gowns. Justifiable market management can include purchase by a single government buyer at fair market prices (which must be agreed to by the sellers), coupled with government allocation among users according to need (which in an emergency will be contentious).\(^\text{17}\) One example of justifiable government market involvement is invocation of the Defense Production Act (DPA).\(^\text{18}\) Among its authorities, this law empowers the federal government to require acceptance and priority performance of contracts or orders and to allocate materials, services, and facilities to promote the national defense, including the public health. Presumably, the prospect of its invocation could lead a private firm to work with the federal government voluntarily. However, the utility of the DPA has its limits. A randomly selected manufacturer, however skilled at its own line of business, might not necessarily be capable of producing a complex, regulated supply or device in quantity and in time during massive emergency demand. Therefore, planning before a critical shortage is important, as is discussed below in the context of preparation for future pandemics.

**TESTING.** There are varying assessments of the need for testing for both active and past infection. After identifying an active infection, necessary follow-up includes tracing recent contacts, given the possibility of asymptomatic spread of the disease, and isolation of the infected, to prevent further spread. Testing of those who frequent “hot spots” and other vulnerable locations is productive. Although different reasonable methodologies prescribe vastly different levels of testing, the US has lagged behind even the lowest.\(^\text{19}\) One benchmark is that a relatively high percentage of positive test results indicates that testing is not broad enough, and that other vulnerable populations have not been tested and should be identified to contain the virus.\(^\text{20}\)

An accomplished test requires specialized swabs, reactants, equipment, and trained personnel. Testing kits are not standardized, and should not be so long as the technology is improving. Different tests might work better for different disease strains and different individuals, and also enable different manufacturers to produce test kits to meet the large need. However, a particular laboratory may or may not be able to analyze the output of a particular testing kit, which can add a bottleneck to testing.\(^\text{21}\) In the short term, cooperation among existing labs should include expanding capacity and adaptability.

The nation has not yet capitalized on the information that testing yields. Contact tracing requires many skilled and trained personnel. Furthermore, people who test positive can be unwilling to reveal their contacts.\(^\text{22}\) Cell phone apps that could identify contacts of people who test positive are powerless if people do not have cell phones, fail to install the apps, or refuse to self-identify as having tested positive. Isolation facilities are needed for people whose home situations do not provide adequate isolation.

Meanwhile, assuming that it can be made reliable, serology (antibody) testing can help to assess community spread, which can in turn help to assess the safety of reopening schools and other vulnerable locations. However, the US Food and Drug Administration and the Centers for Disease Control and Prevention have cautioned against using serology test results for public policy decisions. Serology tests for COVID-19 are new and of questionable reliability. Furthermore, testing in populations with generally low infection rates can yield a high percentage of false positive results, and even if positive test results are accurate, infection with this coronavirus may not yield the expected immunity.\(^\text{23}\) Thus, antibody testing
that suggested either individual or “herd” immunity could instill a false sense of security for a particular individual. However, as the technology improves and good tests drive out bad, results from large populations can contribute to the ultimate defeat of the virus.

**PHARMACEUTICALS.** Many firms struggle to develop vaccines and therapeutic drugs. This coronavirus may not yield an effective vaccine. Assuming it does, the challenge remains monumental. The highest priority is safety. The US public is unprecedentedly skeptical of expertise in general, science in particular, and vaccines specifically. Widespread adverse reactions to a vaccine could set back public health dangerously. And localities will face a fraught decision over whether to add a COVID-19 vaccine to any list of vaccines required for school attendance.

Assuming that a vaccine is safe, its efficacy requires that it stimulate specific physiological reactions rather than many possible ineffective alternative reactions. There is some evidence of reinfections among recovered COVID-19 patients, which clouds whether such efficacy is attainable, and if so, how long it would last. If vaccinated individuals subsequently contract the disease, the renewed outbreak and the loss of public trust would be devastating.

Vaccine development has been accelerated because of the widespread public harm. The scientific community insists that not the science, but the production process, is being accelerated. At financial risk, which is being subsidized by government, vaccines that show initial promise will be manufactured before they are proven effective. If the trials are ultimately unfavorable, the vaccines will be thrown away, and the cost of production will have been wasted, but policymakers have accepted this risk. However, the scientific task is not trivial. Production facilities are limited. Only so many among the well over 100 candidates can be chosen for early production. Given that several vaccines will be needed to suit different patients and circumstances as well as to facilitate high production, the early choices based on only limited information will be critical. Additional bottlenecks in the process include high-quality glass and stoppers for the vials to distribute the vaccine.

Prospects for therapeutic drugs are somewhat more favorable. Whereas a vaccine must be developed specifically for this virus, preexisting antiviral and antisymptom treatments may work. Searches of the pharmaceutical industry’s preexisting inventory found remdesivir, for example, which shortens the duration of moderate COVID-19 cases (although it may not reduce mortality). And the steroid dexamethasone reduces mortality in severe cases (but is of no benefit in more moderate infections). Other existing therapeutic drugs may be identified, and new ones may be developed.

Unless this virus subsides more quickly and quietly than it appears willing to do, the nation faces a significant challenge. If the apparent current surge in cases should continue and spread, all progress to date is at risk. Public policy faces a painful and frustrating slog against widespread frustration with self-quarantining and enormous economic loss. However, progress against the disease could yield enormous benefits, both human and economic, that would well justify the cost.
HOSPITALS. Techniques used in the initial outbreak of the virus may well be needed in the continuation of a nationwide rolling first wave, or in a second or third wave in the fall or beyond. Over such short time frames when conventional construction is not possible, temporary facilities that would not normally pass regulatory muster can be essential. These can include new temporary structures where local conditions permit, or repurposing of existing vacant buildings. Military hospital ships were deployed near the initial hot spots. Existing hospitals can operate jointly to concentrate contagious people away from other emergency patients. Regulatory relief is necessary for many such emergency adaptations.24

To defeat the current outbreak, difficult necessary steps include:

1. Restock and maintain the Strategic National Stockpile with both sophisticated materials, such as pharmaceuticals and ventilators, and everyday supplies, including masks, gloves, and surgical gowns, against the prospect of a reinvigorated pandemic or a second wave in the fall. Sound management includes ensuring that long-lived materials are usable, and renewing expired items before they are needed. Develop protocols for allocation where supplies are most needed.

2. Increase testing, which is demonstrably insufficient to identify affected populations and track outbreaks. Improve the quality and reliability of serology testing. Invest in tracking and tracing confirmed victims and their contacts, and in isolation capacity where needed.

3. Develop vaccines and therapeutic drugs robustly, first maintaining safety, and then achieving efficacy. In particular, multiple vaccines will be needed for adaptability and rapid manufacture, and the best scientific judgment will be needed to choose among the many candidates. The cost will be considerable, but the benefit could be orders of magnitude greater.

4. Engage in regional contingency planning to provide adequate hospital capacity, and provide emergency regulatory relief as necessary.

3. Prepare for the Next Pandemic

If the nation is to be ready for future outbreaks, a purposeful and self-critical evaluation of the response to the current pandemic, with experts from all relevant disciplines, will be essential. Many aspects of contemporary life (rapid international travel; ecotourism and the expansion of densely populated urban areas that increase human-to-animal contact, which can spread viruses; climate change that causes animal migration to new human-inhabited locations; conflict that creates refugee populations and stresses water supplies and sanitation systems) could make pandemics more frequent. Notably, the world has seen three coronavirus outbreaks in the last 20 years, and the earlier two (SARS and MERS) were more frequently fatal than COVID-19; mankind was saved from worse outcomes only by their lesser transmissibility.
In no way prejudging what an ultimate review will show, several challenges are already apparent.

**International cooperation** will be essential. The current pandemic is extraordinary because of the latency of the disease before symptoms emerge and the likelihood of presymptomatic contagion. However, the same or even worse could recur. Without constant information flow around the world, the next pathogen could again arrive on our shores before the email. After this painful experience, a substantive review should yield not finger-pointing, but rather intense self-interested cooperation.

The **Strategic National Stockpile of PPE** and other essential supplies was inadequate for this pandemic. The stockpile should cover immediate emergency national needs, before surge production can begin, and beyond what private institutions and states can be asked to fund, store, and maintain. Scenario plans must be shared so that states, localities, and health care providers can plan accordingly. Cooperation among states and institutions should be encouraged, but public investment must provide for low-resource institutions that serve poor and vulnerable populations. Decisions regarding the division of responsibility between private and public institutions raise fundamental questions about the nature of our market-driven economic system and the role of government, which this planning process should recognize and address head on.

The stockpile has been addressed in legislation, but a long-term response requires both money and smart management. Part of the current failing was misjudged priorities. Quantities of basic supplies like masks, gloves, and surgical gowns were not sufficient. And though experts have maintained (accurately) that the greatest pandemic threat is a virus, and future science should prioritize the development of multipathogen vaccines and therapeutics for viruses, those drugs do not exist at this time. Thus, for the pandemic contingency, there should have been less emphasis on drugs (which could not address a virus), and more on simple supplies to treat patients with the limited available therapeutics. Furthermore, among those supplies, masks proved the hardest to obtain and should have been given higher priority in the stockpile beforehand.

**Supply chains** need a detailed assessment. Global pandemics tend to be exactly that—global—so sole or major sources of essential supplies overseas can be expected to be unavailable in an emergency as production is slowed by the pandemic, the home countries demand that necessary items be kept at home, or transportation is interrupted. The US can certainly use global supply chains to achieve adequate and affordable stockpiles before an emergency, but must have supply-chain redundancy and flexibility during an emergency that demands additional surge capacity.

To be so prepared, the US should have contingent contracts with domestic producers, just as we have contingent personal commitments from the National Guard and military reserves. These contingent contracts will entail costs, which are necessary for the public safety. Similarly, achieving adequacy in the Strategic National Stockpile is not a one-time expense; the stockpile must be maintained, and items must be replaced as they exceed their useful lives.
Physical facilities for treatment are needed, including surge hospital space—which must allow separating potentially contagious pandemic victims from other patients—and isolation capacity for people who have contacted the infected. US regulation has waived restrictions on temporary repurposing of vacant buildings and permitted construction of temporary facilities that would not normally be allowed.25 Those regulations should be parsed, perfected, and perhaps made contingent for future emergencies. However, the nation should be better prepared, including plans and locations for temporary facilities, and inventories of usable active and inactive hospital facilities. Military hospital ships could again be deployed. Such surplus facilities must be maintained, at an ongoing cost which should be borne by the public through government, not as part of the cost of ongoing private health care.26 Contingency planning should include and involve all medical facilities and their managements, so that they can cooperate to (for example) separate contagious patients in separate facilities while continuing treatment of others with nonpandemic health problems, and respond in regionally differentiated ways based on the incidence of the pandemic. At the same time, nursing home standards must be evaluated in light of the contagions that occurred in this outbreak.

Telehealth has proved invaluable in facilitating treatment with less risk of contagion. Some recent successful regulatory easings and extensions of insurance coverage might be continued indefinitely, while others should be suspended when the pandemic ends, but be ready in the event of another outbreak.27 Providers need consistency in insurance coverage so that they can make sound treatment decisions.

Testing, tracing, and isolation must be better in the next pandemic. Any novel coronavirus will require some new testing materials that cannot be stockpiled. However, as pharmaceutical science sorts out the current testing innovations, stockpiling of components that could be used in different types of test kits should be undertaken.

Public health infrastructure and workforce development needed for the labor-intensive testing and tracing, and public health generally, must be strengthened. In the public debate, when substantial increases in testing and tracing are proposed, the lack of skilled personnel is as worrisome as the lack of supplies and hardware. (And although technology could facilitate tracing, privacy concerns and the lack of deployment of cyber tools must be resolved.) More broadly, emergency regulatory easing to allow personnel to practice outside of their areas of primary expertise should include liability protection.

Vaccines and therapeutic drugs can be developed ahead of a pandemic, but the task is challenging. For both, the nature of viruses has hitherto required a unique response to each pathogen—“one bug, one drug.” However, science is pursuing drugs that could treat multiple types of viruses and so could be stockpiled in advance.28 Notably, however, there is little market incentive for advance development of such wide-ranging antiviral vaccines or therapeutics; with no early outbreak, there is no financial return. Therefore, the taxpayer must demand and fund pharmaceutical preparation for the next pandemic.
In sum, after the current pandemic is vanquished but well before the next one arrives, the nation must achieve:

1. True international cooperation and openness for worldwide early warnings.
2. A well-thought-out and well-funded stockpiling policy.
3. Possession of, or ability to obtain on short notice, physical facilities for treatment and separation of the infected, the symptomatic, and their contacts.
4. Capacity (including skilled personnel) to develop and deploy massive testing, and to trace and isolate the infected.
6. Trust in government as a source of reliable and sound guidance.

**Conclusion**

The COVID-19 pandemic has imposed an enormous cost. US preparation can be improved. The nation must manage its current situation intelligently and learn to minimize the costs of likely future pandemics. Today's experience was hard earned and must not be squandered. US leadership is truly on the line as we react now and plan for tomorrow.
Endnotes


2 Those who lose their jobs and their coverage may be able to purchase continued COBRA coverage (at a price), find new coverage through the Affordable Care Act exchange (again at a cost), or qualify for Medicaid. See: Juliette Cubanski, Tricia Neuman, and Wyatt Koma, “Older Adults Are Hit Hard by COVID-19 – and Also Losing Jobs,” Kaiser Family Foundation, May 13, 2020.

3 This was true even before the pandemic. See: “Adults Who Report Not Seeing a Doctor in the Past 12 Months Because of Cost by Gender,” Kaiser Family Foundation, accessed on July 16, 2020.

4 The reimbursable diagnoses most closely associated with a COVID-19 case generally have an associated length of hospital stay of four or five days. The average actual COVID-19 stay is more than 15 days and thus entails higher hospital costs.

5 This process evolved over time, and some insurers offered more help than others. See: Nicole Wetsman, “US insurance companies will cover costs of COVID-19 testing and treatment,” The Verge, March 10, 2020.


7 Washington state endured an early but smaller outbreak, concentrated in nursing homes.


12 For example, the number of deaths per hospitalization is declining. This could be due to multiple factors, but the identification of therapeutic drugs such as remdesivir and dexamethasone could indicate improvements in treatment. See: Maggie Fox, “Report: Covid-19 patients recovering quickly after getting experimental drug remdesivir,” CNN, April 17, 2020; and Benjamin Mueller and Roni Caryn Rabin, “Common Drug Reduces Coronavirus Deaths, Scientists Report,” New York Times, June 16, 2020.


14 Basic economics would hold that rising prices in the face of strong demand directs resources to demanders for whom those resources have the highest value—their “best use.” However, virtually all economists would recognize that the pandemic is an exception to this general rule. Life-saving commodities are “merit goods” or “public goods” that should not be subject to contracts of desperation, and whose markets can justifiably be managed or subsidized.

15 Fox; Mueller and Rabin.


23 Note that while exposure to some viruses (and preventive vaccines) can yield substantial and lasting immunity, other viruses (such as the annual flu and the common cold) do not. See: Amanda Shendruk and Tim McDonnell, “Coronavirus antibody tests aren’t as accurate as they seem,” Quartz, May 1, 2020; Anand Shah and Jeff Shure, “Insight into FDA’s Revised Policy on Antibody Tests: Prioritizing Access and Accuracy,” US Food and Drug Administration, May 4, 2020.


26 Much of private health care cost is paid through the cost of insurance, which does not vary with ability to pay (that is, income), but rather is approximately equal across households, like a head tax, which would be inappropriate and unfair. Also, the private health care system should aim for maximum efficiency to hold costs down, rather than to bear such overhead costs that will in normal times not be applied to care delivery. Some might consider asking private health care plans and providers to pick up the cost of a pandemic to be similar to expecting them to bear the cost of a chemical or biological attack by a foreign power.

27 CED.

SUSTAINING CAPITALISM
Achieving prosperity for all Americans could not be more urgent. Although the United States remains the most prosperous nation on earth, millions of our citizens are losing faith in the American dream of upward mobility, and in American-style capitalism itself. This crisis of confidence has widened the divide afflicting American politics and cries out for reasoned solutions in the nation’s interest to provide prosperity for all Americans and make capitalism sustainable for generations to come. In 1942, the founders of the Committee for Economic Development (CED), our nation’s leading CEOs, took on the immense challenge of creating a rules-based post-war economic order. Their leadership and selfless efforts helped give the United States and the world the Marshall Plan, the Bretton Woods Agreement, and the Employment Act of 1946. The challenges to our economic principles and democratic institutions now are equally important. So, in the spirit of its founding, CED, the public policy center of The Conference Board, will release a series of 2020 Solutions Briefs. These briefs will address today’s critical issues, including health care, the future of work, education, technology and innovation, regulation, China and trade, infrastructure, inequality, and taxation.