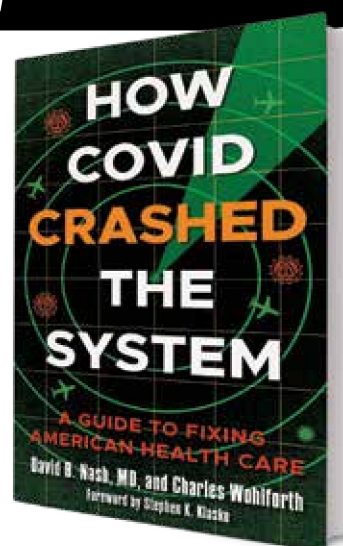


## Making health care a system

*Editor's Note: COVID-19 patients overwhelmed American hospitals. The world's most advanced and expensive healthcare system crumbled, short on supplies and personnel. The U.S. lost more patients than any other nation during the pandemic. How could this happen? And how could this disaster lead to a more resilient, rational, and equitable healthcare system in the future?*

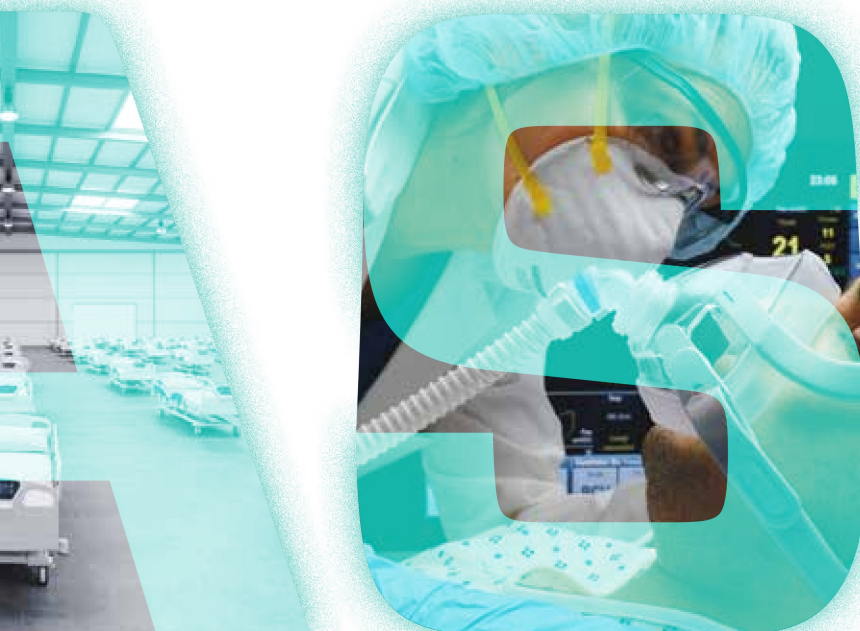
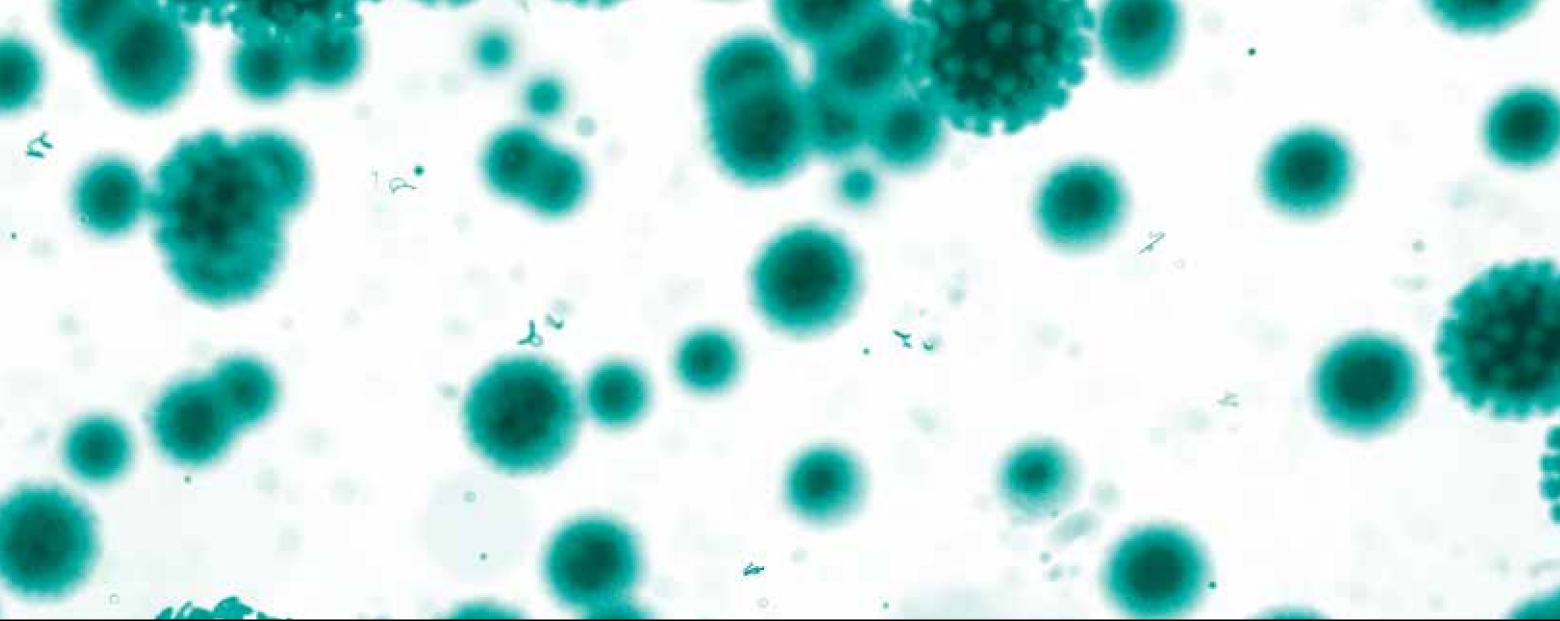
*In their new book, **How COVID Crashed the System**, Dr. David Nash and Charles Wohlforth answer these questions with compelling stories and wide-angle analysis. They pick up the pieces of the COVID disaster, finding the root causes of America's failure to cope and delivering surprising answers that may reorient how you think about your own health. **How COVID Crashed the System** goes beyond analyzing those problems, providing hope for change and fundamental improvement in ways that will transform Americans' health.*

*Here, we provide a brief excerpt from Chapter 11 of the book.*



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■ **By David B. Nash, M.D., and Charles Wohlforth**

Excerpt from their latest book, *How COVID Crashed the System*

**T**he word “system” is ill suited to the fragmented and conflicting group of organizations, institutions, and individuals responsible for our health. The word implies a mechanism that works according to some design or intention, but the U.S. health system grew up organically in an environment of market and political competition, educational traditions, and expediency. Even within a single hospital, tensions pull along different axes, with varying economic forces; the wills of independent physicians and insurance companies; the factors of worker gender and class; and patients’ racial, spiritual, and social backgrounds. Rather than a system, health care often looks more like an arena.

The shock of COVID forced hospitals and health care as a whole to become more of an actual system. Virtually every hospital activated an incident command structure during the

pandemic. The incident command system is an organizational response to crisis originated by California firefighters in the 1970s. It became commonplace in all emergency management agencies even before it was mandated by the federal government in 2004. The concept brings together the headquarters of every organization managing an incident into a single command post with unified responsibilities and immediate communication and coordination among players. In essence, incident command forces a unified system into existence.<sup>1</sup>

In 2005, Hurricane Katrina demonstrated how bad disaster response could be. We learned about the public health aspects of the chaos from Karen DeSalvo in Chapter 5, who stepped in as a doctor to improvise care on the streets of New Orleans. A 2006 National Research Council documented the organizational pathologies from Katrina that are common

in disasters—the maladies an incident command system is intended to address. The failings included insufficient response, confusion regarding authority, resource shortages and misallocation, poor communication among organizations and with the public, failures in leadership, and inequities in providing assistance.<sup>2</sup> For our purposes, it is interesting to note that all these same problems afflict the health system—they are the same issues we have discussed throughout the book. During COVID, faced with crisis, health care organizations adopted the incident command system and performed as more rationally coordinated units.

In chapter 6, Northwell Health CEO Mike Dowling described how his doctors also formed a system-wide medical committee to make all clinical decisions during the COVID crisis. Jonathan Gleason said Jefferson Health set up a similar task force in Philadelphia. A clinical committee is a leadership and communication tool to create standards of care and to reduce variations in how patients with the same diagnosis are treated. It has the potential to improve quality and reduce unnecessary treatment by narrowing physicians' choices in similar circumstances. Clinical committees do have limitations, as experts may disagree on treatment standards. And patients should be at the committee table, too, bringing community values to the discussion. These committees are an important step in creating a true system of health care.

The COVID response also benefited from what hospitals had learned over the past decade from other industries with high-reliability practices, including aviation, nuclear energy, and amusement parks, said Mary Reich Cooper, M.D., J.D., director of the Health Care Quality and Safety Program at the Jefferson College of Population Health. They used huddles, which give small teams a chance to quickly share information and make decisions collaboratively on the floor. And they had hand-off structures to make sure that information would be given accurately and completely when responsibility for a patient was transferred between caregivers. These skills reduce the risk of errors at any time. During the crisis, they probably expanded teams' capabilities to handle heavy loads of patients.

Beyond the realm of what was already known, Cooper said the global health system showed qualities in the COVID response that originally

had been described by complexity science. As clinicians shared experiences, new insights emerged from many people's ideas. Discovery went into overdrive. Traditionally, understanding and developing treatments for a disease takes many years, as individual researchers devise hypotheses, write grants for studies, perform clinical trials, and publish their work in peer-reviewed journals. Faced with a crisis causing thousands of deaths a day, doctors short-cut that process, sharing their observations on blogs and floating their ideas on pre-press servers. Doctors in the United States treated overseas colleagues on the internet as equals in these exchanges, as they often had failed to do in the past, Cooper said. Helpful treatments emerged rapidly from this process that kept patients alive and conserved resources. Cooper saw this emergence as similar to a feature of complex systems, a phenomenon in nature in which order can arise without individual design, such as the gathering of a weather system or schooling of a group of fish.

"An example," Cooper said, "is the notion that rather than putting everybody on ventilators as their oxygen levels dropped, to keep them on external oxygen at a high level and to essentially rotate them, 'prone them,' it's called. Turn them so that they were on their knees and essentially their lungs were draining from the back. And that, plus high levels of oxygen, kept a lot of people off of ventilators. There were no randomized clinical trials done on that. People started talking about it, people started using it. They saw results. They started spreading it to other colleagues around the country and within probably two months, three months, it became standard of care."<sup>3</sup>

An influential 2001 paper by two well-known health quality scientists advanced the idea of health as a complex, self-organized system. Paul Plsek and Trisha Greenhalgh argued against a mechanistic concept of health or top-down systemic control of the health care enterprise, saying those were outmoded metaphors for a field with unmanageable

complexity controlled by many groups of autonomous practitioners. Instead, they called on models from physics, biology, and financial markets, in which self-organizing systems develop and find solutions, often in unexpected ways, and sometimes with results superior to the ability of any individual within the system.

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**How COVID Crashed the System is available for purchase on Amazon at [amzn.to/3Mdp1EF](https://amzn.to/3Mdp1EF).**



**"I think it'll be a shame if everybody goes back to the way we were doing it. I'm out talking to people and really encouraging them to learn from their experiences this past year and a half and do something new. Don't go back."**

**—Mary Reich Cooper, M.D., J.D., Director of the Health Care Quality and Safety Program at the Jefferson College of Population Health**

"There is an insoluble paradox between the need for consistent and evidence-based standards of care and the unique predicament, context, priorities, and choices of the individual patient," Plsek and Greenhalgh wrote. "Whereas conventional reductionist scientific thinking assumes that we shall eventually figure it all out and resolve all the unresolved R&L Quality, Safety, and Investigation 237 issues, complexity theory is comfortable with and even values such inherent tension between different parts of the system."<sup>4</sup>

These ideas bring us across the spectrum of thought on how to "fix" health care. Engineers would find ways to build machines based on deep, detailed research about how we work in the hospital to make errors impossible, working within health systems managed for error detection and clinical standardization, and with leadership accountable to patients for safety and quality. At the other end of the spectrum, complexity theorists—and doctors sharing ideas with distant colleagues on the internet—would explode the whole idea of standards with a fluid system that advances through constant communication and innovation.

In fact, we see the need for both. We can imagine a health system in which the minds of brilliant clinicians are freed to develop innovative treatments in cooperation with distant colleagues, partnering with nurses and patients. And we can also imagine how the tools of quality and safety would empower those great minds, by protecting them from avoidable errors and from situations in which technology would overrun their mental capability to safely provide care. We can further imagine economic incentives that would encourage both those goods, an educational system that would provide the skills and values needed, the technology that would enable it with communication and artificial intelligence, and the employers who would gladly pay the bills for a safer and more efficient system that results.

Nothing in this vision is in conflict. All the strands tie together. They go back to the just culture, in which

every member of the health care team can speak up freely, and to the values of the patient who is respected and honored as the center of the entire enterprise. We will trace each of those connections in the final chapter, along with how the strands themselves extend far beyond hospital walls to the entire society that is the context for our health.

COVID devastated the health system. Through immeasurable grief and loss, we saw clearly what was wrong and how the flaws we already knew about had become the seeds of disaster. This was our catastrophic airplane crash.

But we also learned a lot about how to do better. We should keep the way clinicians communicated freely across disciplines and international borders to find treatments. We should keep the insights about unifying oversight of clinical decisions. And we should keep the remote care technology that allowed doctors to triage patients before they filled the emergency room.

"I think it'll be a shame if everybody goes back to the way we were doing it," Cooper said. "I'm out talking to people and really encouraging them to learn from their experiences this past year and a half and do something new. Don't go back."

We are counting on that advice. In the final chapter, we will consider how that new, better system will look—and the tools to get us there. [GPJ](#)

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**David B. Nash, M.D.,** is among the world's most respected experts on healthcare accountability, quality, and leadership. He founded the Jefferson College of Population Health in Philadelphia and

remains its founding dean emeritus, continuing as full-time faculty as the Dr. Raymond C. and Doris N. Grandon Professor of Health Policy. Dr. Nash is a recognized subject matter expert for the biotech, pharma, and health information technology industries. **Charles Wohlforth** is the award-winning author of more than 10 books and numerous articles and columns, a former elected official, and a nonprofit leader. His work primarily explores the intersections of science and technology with culture. He won the Los Angeles Times Book Prize for science and technology and the Best of the West award for the best newspaper columnist in the western United States.

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