

# The Case of the United States (2)

## Reframing the COVID-19 Crisis as a Problem

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### Abstract

Often when a problem is identified, it is quickly labeled and the process of looking for solutions starts. However, we should spend just as much time thinking about the problem itself. But what exactly should we focus on? Taking the time to think through and reframe problems leads to better problem-solving. The COVID-19 pandemic has been called a global crisis, and rightly so. Yet, there is something to be learned from framing it as a problem, or a series of problems, that provides us with an opportunity to look for different solutions. During the COVID-19 pandemic, many hospitals experienced staff turnover, and some nurses even left their jobs to become travel nurses. Clinical staffing challenges provide an example of how reframing may have led to better problem-solving.

**Keywords:** COVID-19, crisis, hospitals, problems, problem-solving, solutions

If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.

— Albert Einstein

A common saying in healthcare is that “the only constant is change”—and by change, it is often meant that there are constantly new problems requiring attention and a response. Problems take many shapes, and some are crises. Trenton Williams and colleagues (2017), in a review of crisis management literature, identified the key components of a crisis: the event is (1) a threat to high-priority values of the organization; (2) significant; (3) unexpected; (4) rare; (5) has a restricted amount of time in which a response can be made; (6) has an impact on stakeholders; and (7) develops over time. The COVID-19 pandemic appears to meet all the criteria to be a crisis. This pandemic is a rare event that has had a significant impact on all systems in society. Everyone from leaders to healthcare workers to the public has been affected in some capacity and continue to adapt their lives to the evolving situation.

With closer examination, however, mapping the components of a crisis onto hospitals' experiences with COVID-19 is less straightforward than it appears at first glance. At the start of the COVID-19 pandemic, for example, not all hospitals received



COVID-19 patients, and in fact the impact of COVID-19 has not been experienced by all hospitals in the same way. In contrast to a sudden, short-notice event like an explosion or a hurricane, many hospitals experienced a wait before the COVID-19 crisis arrived. Now over a year later, the restricted time component is not as relevant; hospitals over the last year have already gone through a learning curve as to the best ways to organize and care for COVID-19 patients. When we think of different crisis events like natural disasters, we see that these seven aspects of crises look a bit different in each situation.

In the United States, the Centers for Disease Control and Prevention (CDC) confirmed the first case of coronavirus at the end of January 2019. By March, COVID-19 was declared a national emergency by the President. During this time, the details of the response were left up to individual states, and many started to take actions such as issuing statewide stay-at-home orders. Patient care guidelines and isolation recommendations continued to hastily change. Hospitals had to evaluate the rapidly changing information and guidelines from the CDC and the World Health Organization (WHO) and implement changes in the most institution-friendly and resource-conscious way (Gupta and Federman 2020).

To add more nuance to our examination of crisis, we have seen during COVID-19 that some existing problems were amplified and made worse. So, the crisis can have a ripple effect through the system. The complexity and uniqueness of each crisis calls for equally complex and unique solutions. This led us to ask the question: how did hospitals approach problems during COVID-19? We will use nurse staffing during COVID-19 as a case study to explain why hospitals need to rethink how they approach problems.

## Goals

This article proceeds as follows: we start by detailing the components of problems and the need to reframe problems. The Cynefin framework is helpful for making sense of problems as well as being informative on the best approach to a solution (Snowden and Boone 2007). We then present a case study of COVID-19 to examine how systematically applying the Cynefin approach would allow hospitals to better respond. Finally, we discuss how the integration of hospital problem-solving infrastructure can lay the foundation for proper identification and classification. Overall, we argue that organizations need to examine and rethink their structures and processes to improve their organizational problem-solving ability. There is extensive literature examining topics related to change within an organization such as organizational learning, organizational agility, and decision-making, which is informative and has driven decades of change but overlooks the fundamental process of problem-solving.

## Background

### *What Is a Problem?*

To address problems most effectively, we need to understand what they are and their components. To define what a problem is, let us examine a classic “slow elevator” scenario (Wedell-Wedellsborg 2017). In the scenario, tenants are complaining about the elevator to the owner of an office building. The complaints include that the elevator is old and slow, and they must wait a lot. When asked, most tenants quickly identify some solutions: replace the elevator, install a stronger motor, or upgrade the algorithm that runs the elevator. Even though these all seem like reasonable solutions, perhaps there is a simpler solution: put up mirrors next to the elevator. This straightforward act proves to be effective in reducing complaints. People tend to lose track of time when given something of interest to look at—in this case, themselves. The mirror solution is compelling because it is not a solution to the originally stated problem of “the elevator is too slow.” Instead, it is a solution to a reframed version of the problem, “the wait is annoying.” The initial framing of the problem is not necessarily wrong. Installing a new elevator would probably work. The point of reframing is not to find the “real” problem but rather to see whether there is a better one to solve and one with an easier solution to implement.

Therefore, it begs the question “what is a problem?” As the elevator scenario demonstrates, a problem is the difference between a desired and an actual state, or is an “unsatisfactory situation.” Once an unsatisfactory situation is identified, such as a slow elevator causing boredom, it gets complicated: what part of the “unsatisfactory situation” should we focus on? Maurice Landry (1995) proposes the following four criteria for events to be considered a problem:

1. A past, present, or future occurrence, which is judged as negative by an individual or a group.
2. A felt sense of minimal control over the situation or event by the individual or a group.
3. There is an interest in doing something about the problem and committing resources to it.
4. There is uncertainty as to the appropriate action and how to implement said action.

The first criterion aligns with the general definition of a problem as an unsatisfactory situation. The other components of this definition weave in criteria for identifying when an unsatisfactory situation needs to be addressed through a process. In the “slow elevator” scenario, the group collectively feels that they can address the situation (criterion 2), they want to address the situation (criterion 3), and it is unclear what action should be taken initially (criterion 4). For the purpose of this article, we will

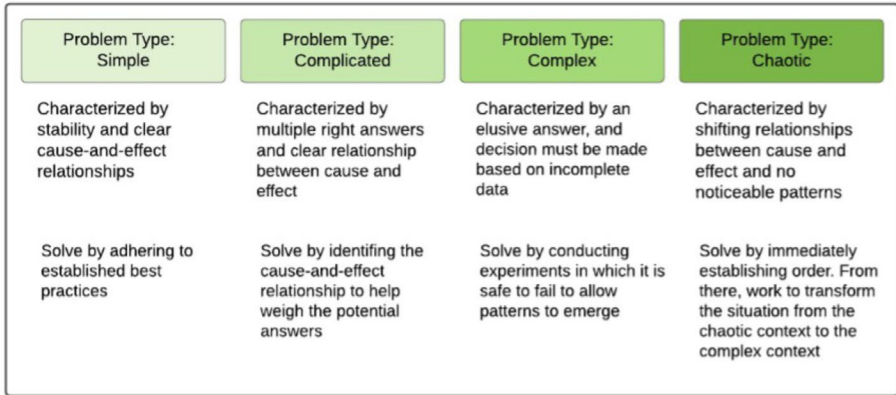
adhere to the definition proposed by Landry (1995) and focus on problems where the solution is not abundantly clear, and the organization deems the problem to be solvable and worth solving. However, even with this definition as a guide, it is still unclear how to frame a problem and/or which problem to focus on. The “slow elevator” scenario shows that two problems—a slow elevator and annoying waits—can both be components of an unsatisfactory situation. By prioritizing one’s focus on the “annoying waits,” people no longer had an interest in solving the slow elevator problem (criterion 3). The scenario shows how an unsatisfactory situation can oftentimes be broken down into multiple components, each of which can be an individual problem. The idea that a single problem exists may be misleading; unsatisfactory situations are typically multicausal, and the different causes need to be prioritized and perhaps addressed. Once a problem is identified and broken down, the “sub-problems” need to be prioritized so that the problem can be reframed. However, often before a problem can be broken down or reframed, it is prematurely and unhelpfully labeled as a crisis.

### *How to Classify and Solve a Problem*

Knowing the definition of a problem does not make it any easier to identify the right one to address. However, as the slow elevator demonstrated, taking the time to identify and to prioritize the different components can allow us to reframe problems. Identifying problems correctly is just as important as finding the right solution. Identifying the proper problem—identifying the multiple components and the correct framing—will help identify the best solution.

Once an event is deemed a problem, the problem can be further classified, which can be done simultaneously with reframing. As you identify the cause and effect, you will discover different components to the problem. Oftentimes, we view problems as a dichotomy: it is a crisis when the problem must be addressed now, or it is a routine when the problem is an opportunity for improvement. The definition of crisis that is most frequently cited in the literature today is “a low-probability, high-impact situation that is perceived by critical stakeholders to threaten the viability of the organization” (Pearson and Clair 1998). There is a focus on characteristics of this special type of problem being different than those of an everyday problem, yet the definition does not inform how solving a crisis is different from solving a routine problem. A more nuanced framework to classify problems that goes beyond the “crisis versus routine” framework informs us about how to solve the problems as well.

In 1999, while working at International Business Machines Corporation (IBM), Dave Snowden conceptualized a way of viewing problems by developing the Cynefin framework (Figure 1). The framework sorts the issues facing leaders into four main problem types defined by the relationship between cause and effect. The four problem types are (1) simple; (2) complicated; (3) complex; and (4) chaotic, as seen in Figure 1 (Snowden and Boone 2007). Simple problems are characterized by stability and clear cause-and-effect relationships that are easily noticeable by the average employee. In



**Figure 1.** Cynefin Framework

complicated contexts, unlike in simple ones, there is a clear relationship between cause and effect, but not everyone can see it and expertise is needed. When the right answer is elusive, and a decision must be made based on incomplete data, the situation is complex rather than complicated (Snowden and Boone 2007). For the fourth problem type, chaotic, searching for right answers is pointless: the relationships between cause and effect are impossible to determine because they shift constantly, and no noticeable patterns exist.

To solve a problem is akin to a search for the appropriate means for moving from the unsatisfactory reality to the desired one. To help identify how to solve a problem, it can be helpful to identify the cause-and-effect relationships within a problem. Based on the Cynefin framework of problem types, simple problems can be solved by adhering to established best practices (Snowden and Boone 2007). In complicated contexts, unlike in simple ones, there may be multiple right answers and, frequently, experts need to be consulted to help identify the cause-and-effect relationship and to help weigh the potential answers. Similarly in complex cases, experts need to be utilized, but in this context, patterns will only emerge from conducting experiments, in which it is safe to fail. Most situations and decisions fall into this camp, and in this event, one must patiently allow the path forward to reveal itself. In the chaotic problem type, one’s immediate job is not to discover patterns but to establish order. From there, they can then sense where stability is present and work to transform the situation from the chaotic context to the complex context (Snowden and Boone 2007). At the end of the day, problems are more nuanced, and are better described from simple to chaotic, which is more indicative of how to solve the problem versus just labeling it as an opportunity or a crisis.

Within the literature, there is a lot of discussion about which processes to use to solve problems and about evidence-based solutions. For the scope of this article, we

will focus on the importance and difficulty of problem identification and classification. We will use the case of COVID-19 to highlight the role of infrastructure in helping with the initial steps of the problem-solving process.

## Methods

To answer the question “how did hospitals approach problems during COVID-19?” we developed a retrospective case study from a large research study and from the literature. The following is a vignette of a situation that many hospitals encountered in COVID-19 that is a compilation based on the literature and our experience with a small quality improvement (QI) collaborative, which consists of multiple hospitals implementing a multifaceted intervention under the guidance of mentors.

## The Case

From 1 March 2020, through 15 May 2021 in the United States, there has been 32.93 million confirmed cases of COVID-19 and 585,754 confirmed deaths (a case fatality rate of 1.78 percent). As of 15 May 2021, 36.14 percent of the United States population has been fully vaccinated (Data Reporter 2021). At the start of the COVID-19 pandemic, there were many unknowns and information kept changing. It was chaotic. Allowing the chaotic problem of the pandemic to be broken down into complex, complicated, or simple problems per the Cynefin framework leads to parts of the pandemic being addressed and helps the pandemic feel more manageable. To classify the problem, it is best to try to identify the cause-and-effect relationship. Specifically, what are the key causes of this unsatisfactory situation? Asking this question also allows you to check that how you have broken down the problem is aligned with the root causes.

Businesses, including hospitals, were able to identify the complicated and complex problems within the chaotic situation and start problem-solving. Because many of the problems were complex, the cause-and-effect relationships were not clear and required trial and error to find a good solution. Hospitals and the scientific community started solving the core problems related to cost, disease spread, treatment, and patient volumes. Even though, in general, business problems are complex, due to the high stakes and the need for a rapid response to COVID-19 the trial-and-error problem-solving process added to the magnitude of changes occurring around healthcare workers.

We used a vignette to help explain the importance of thinking through problems, similarly to how the hypothetical, yet realistic, “slow elevator problem” is used to highlight the importance of reframing problems. We recognized that hospitals faced multiple evolving, interconnected problems and that there were many great examples of hospitals engaging in problem-solving during COVID. We have chosen a problem where perhaps reframing could have helped. We acknowledge that we are discussing

this problem in hindsight and that as a result the opportunity to reframe may seem more obvious now.

### **Staffing Shortages in Hospitals**

*Riverside Hospital is a 250-bed community hospital in the mid-western part of the United States. As the COVID-19 pandemic continued to sweep across the country, Riverside started to face staffing shortages. Although travel nurses are more expensive, the leadership at Riverside resorted to hiring travel nurses because this was a quick way to meet the need and keep beds open.*

To help us better understand Riverside's decision, we examined what led hospitals to hire travel nurses. From the hospital's perspective, at the start of COVID-19 they were challenged financially and there was insufficient revenue. The pandemic had led to finances being tight at Riverside Hospital. Even though hospitals were at the center of the pandemic by caring for COVID patients, many revenue-generating parts of hospitals were reduced. On 18 March 2020 in the United States, the Centers for Medicare & Medicaid Services (CMS) also released guidance to limit "non-essential adult elective surgery and medical and surgical procedures, including all dental procedures" (Center for Medicare & Medicaid Services 2020). In response, elective surgeries at most hospitals were postponed, which was a financial strike on hospitals. Due to the fear of contracting COVID-19, many patients chose not to go to the hospital. The volumes of non-COVID-19 patients plummeted initially. Many hospitals responded by reducing cost: they furloughed unnecessary staff and reduced compensation.

As the pandemic continued, there was increased nursing turnover and Riverside Hospital needed to hire nurses quickly to fill those positions. Further, Riverside Hospital needed more staff, since they were caring for a larger volume of very sick patients. With this framing of the problem, the solution landscape was related to cost, but that is only one way to frame the problem. The perspective from a nurse leads to a different solution. Let's return to the case and learn from the perspective of Sally, a seasoned nurse who worked on a medical-surgical floor.

In March 2020, Riverside hospital received their first COVID-19 patient. Sally and her fellow nurses were scared. There were so many unknowns: How does this virus transmit? What do I need to do to be safe? What is the risk to myself and my family? There was a shortage of PPE, and masks were being rationed, which made Sally even more nervous because she and her colleagues were not able to follow recommended practices for droplet or airborne precautions.

Sally's hospital furloughed surgical staff and decided to stop matching contributions to retirement accounts. Over the next few months, COVID patient volumes rose, and her hospital decided that there would be no annual raise for employees. Sally was working on the designated COVID unit in her hospital and felt that she was putting herself at higher risk for contracting COVID than other nurses on non-COVID units. However, her hospital decided there would be no hazard pay or additional pay

to the healthcare workers on the COVID unit. Sally was very frustrated and felt that her hospital did not value her. She was receiving many emails from staffing agencies recruiting nurses like her to work for rates that were double of what she was making currently at Riverside Hospital. She decided that since she was already working with COVID patients, she might as well get paid a lot more for it as a travel nurse. The irony is that her first assignment was at Riverside Hospital.

Classifying and breaking down a problem is an iterative process: identifying the cause-and-effect relationship can lead to identifying new components, and when new components of a problem are identified, they need to be labeled. To break down the problem, first we should ask "what about this situation is unsatisfactory?" The cost is high. At a first glance, we see that the cost of hiring travel nurses is a complex problem because the cause-and-effect relationship is not clear. So, by recognizing that there is complexity, it signals to Riverside Hospital that they need to think through this problem, talk to the stakeholders in the organization, and be willing to reframe the problem in order to get to the best solution.

## Discussion

### *Cost or Retention*

As illustrated in the case study, thinking through the problem and its components allows one to identify additional problems and to prioritize which problems to solve first. Furthermore, the process of identifying the problem allows leaders to pause, slow down, and think thoroughly about what is going on and assess the situation. Taking the time to actively identify the problem helps a team consider alternative views that can help them identify the right problem to solve.

The Riverside Hospital case shows an all-to-common problem; changing patient volumes and canceled surgeries had a negative impact on hospital revenue. In addition, there were staff in areas like the operating room who were not working. At the same time, there was a staffing shortage on the inpatient floors. Entering COVID, most hospitals were staffed at a minimum and had a baseline of high staff turnover. During COVID, there continued to be turnover: staff quit for less stressful jobs, to go back to school, to retire, to leave the profession, and to be travel nurses. Turnover, especially due to the cost of hiring and training staff, is expensive. Furthermore, hiring travel nurses is expensive, especially during COVID, when their pay was two to three times the cost of the wages of a staff nurse. Thus, the issues of cost and staffing shortages intersect as a problem. By examining the components of the root causes of reduced revenue, as we briefly did in the case, we started to see that there was an overlap between cost and staff, specifically related to travel nurses. This points to the need to reframe problems with cost as problems involving staff retention. The solution landscape for costs includes reducing wages, furloughs, and cutting staff. However,



these solutions do not make staff feel valued, which can lead to turnover. Reframing the problem to be about retention helps one to focus the solution landscape on ways to help retain staff so that the hospital does not have high costs related to high staff turnover in the future.

The solution for one problem will affect the other. COVID-19 shows how problems within hospitals are interconnected and are affected by forces outside the hospital's boundaries such as governmental policy. So seemingly simple problems like "how can we reduce cost?" that have simple answers, such as to reduce compensation, need to be reframed to consider other problems such as staffing retention. "What is the best way to retain staff while being financially solvent?" is a more helpful reframing, even though it makes it a complicated problem but one that better addresses the crisis. By taking the time to reframe and break down problems in an iterative manner, the hospital is able to develop a response to COVID-19.

### *System Perspective*

Ludwig von Bertalanffy (1969) defines a system as a complex of interacting elements. Problems are similar, in the sense that they interact with each other. By focusing on interactions, systems theory sheds light on the fact that the behavior of a single autonomous element is different from its behavior when the element interacts with other elements (Mele et al. 2010). Systems theory illustrates why many problems are classified as complex. The cause-and-effect relationships are not obvious, and experimentation is often required to assess effects on the system. A systems lens helps inform the identification and classification of problems.

A systems perspective allows us to examine the multiple forces at play that led to the high cost of travel nursing during COVID-19. Before COVID, hospitals were known for having thin staffing models. Staffing is the largest expense for hospitals (Herman 2013) and thus they had incentive to minimize staffing. The reduced staffing has come with a cost; there is a relationship between nurse staffing and patient outcomes (Blegen et al. 2011). Even with appropriate nurse-to-patient ratios for safe, quality care, hospitals had to balance the number of nurses on the payroll to staff the units due to vacation time, sick leave, and turnover. To help fill in gaps, nurses would be paid extra to work overtime. However, there are ample reasons for using travel nurses to cover overtime when many gaps exist in the schedule. Research into the effects of excessive overtime hours on nurses reveals that long work hours can contribute to higher costs due to errors, nurse injuries, patient dissatisfaction, and turnover (Wheatley 2017). The cost for using travel nurses can differ depending on the healthcare organization's specific pay practices, the value of the entire benefits program, and local and state taxes. However, in many cases the cost of travel nurses is less than overtime pay for staff. Further, some hospitals have seasonal ebbs and flows to their census (Faller et al. 2018). So, it is costly to employ full-time staff for a high census period that only occurs for part of the year.

During COVID-19, the demand for travel nurses increased. Even hospitals which had historically not used travel nurses were looking to hire travel nurses. There was high turnover. Some nurses did not want to take the risk of contracting COVID. Others had kids who were now home and virtually attending school. So, the increased childcare demands led them to leave the workforce (Luthra and Carrazana 2021). Further, there was an increased demand for nurses with advanced skillsets and experience to take care of these high-acuity COVID patients. Thus, newly graduated nurses did not fill the shortage of nurses that hospitals needed.

## *Structure*

Hospitals are structured, like most other organizations, with an organizational hierarchy. Many hospitals have an established department for quality and/or safety designated to lead quality improvement initiatives and projects within the hospital. In addition, these departments can offer guidance on the process for undertaking an improvement project. To solve problems, we often focus on the process of finding a solution. Being systematic in one's approach has to be taught as well as reinforced. Further, hospitals have incident command centers to respond to disasters. Having dedicated infrastructure to solving problems allows a systematic methodology for problem solving to be established, learned, and reinforced. The presence of these departments and the involvement of these departments helps create a culture around problem solving.

## *How This Process Helps*

A systematic approach to problem-solving not only leads to better-quality and more robust solutions under a wide variety of situations, but also requires no more time than do more intuitive approaches (Tyre et al. 1995). Rather than solving the specific problems related to COVID-19, these problems are illustrative of how hospitals can improve outcomes by reframing and breaking down problems. Going through the process of identifying and classifying a problem helps to identify the correct problems as well as prioritize which problems to solve. As we discussed above, thinking through the different situations of staffing could help hospitals plan for cost. By seeing that the problem was not just cost related to COVID-19, but rather staffing overall, hospitals can have a more comprehensive approach when planning for and responding to their financial needs. Taking the time to identify and classify problems allows an organization to break down a disaster like COVID-19 into solvable parts ("sub-problems"). The recognition of problems being part of a system while still being broken down into parts allows hospitals to address problems.

## Conclusion

Problem identification and problem classification are needed to problem solve well. The common dichotomy of routine versus crisis prevents organizations from seeing the nuance in problems. The Cynefin framework is helpful for classifying problems as well as being informative on the best approach to a solution. The COVID-19 pandemic highlights the importance of hospitals' being able to identify and solve problems well so that they can have an appropriate response to best help their community. The integration of hospital problem-solving infrastructure needs to lay the foundation for proper identification and classification. Policymakers and healthcare organizations can benefit from prioritizing problem identification and classification to correctly identify problems as a means to create better responses within healthcare delivery organizations.

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