

Lessons from Italy's Response to Coronavirus

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As policymakers around the world struggle to combat the rapidly escalating Covid-19 pandemic, they find themselves in uncharted territory. Much has been written about the practices and policies used in countries such as China, South Korea, Singapore, and Taiwan to stifle the pandemic. Unfortunately, throughout much of Europe and the United States, it is already too late to contain Covid-19 in its infancy, and policymakers are struggling to keep up with the spreading pandemic. In doing so, however, they are repeating many of the errors made early on in Italy, where the pandemic has turned into a disaster. The purpose of this article is to help U.S. and European policymakers at all levels learn from Italy's mistakes so they can recognize and address the unprecedented challenges presented by the rapidly expanding crisis.

In a matter of weeks (from February 21 to March 22), Italy went from the discovery of the first official Covid-19 case to a government decree that essentially prohibited all movements of people within the whole territory, and the closure of all non-essential business activities. Within this very short time period, the country has been hit by nothing short of a tsunami of unprecedented force, punctuated by an incessant stream of deaths. It is unquestionably Italy's biggest crisis since World War II.

Some aspects of this crisis — starting with its timing — can undoubtedly be attributed to plain and simple *sfortuna* (“bad luck” in Italian) that were clearly not under the full control of policymakers. Other aspects, however, are emblematic of the profound obstacles that leaders in Italy faced in recognizing the magnitude of the threat posed by Covid-19, organizing a systematic response to it, and learning from early implementation successes — and, most importantly, failures.

It is worth emphasizing that these obstacles emerged even after Covid-19 had already fully impacted in China and some alternative models for the containment of the virus (in China and elsewhere) had already been successfully implemented. What this suggests is a systematic failure to absorb and act upon existing information rapidly and effectively rather than a complete lack of knowledge of what ought to be done.

Here are explanations for that failure — which relate to the difficulties of making decisions in real time, when a crisis is unfolding — and ways to overcome them.

Recognize your cognitive biases. In its early stages, the Covid-19 crisis in Italy looked nothing like a crisis. The initial state-of-emergency declarations were met by skepticism by both the public and many in policy circles — even though several scientists had been warning of the potential for a catastrophe for weeks. Indeed, in late February some notable Italian politicians engaged in public handshaking in Milan to make the point that the economy should not panic and stop because of the virus. (A week later, one of these politicians was diagnosed with Covid-19.)

Similar reactions were repeated across many other countries besides Italy and exemplify what behavioral scientists call **confirmation bias** — a tendency to seize upon information that confirms our preferred position or initial hypothesis. Threats such as pandemics that evolve in a nonlinear fashion (i.e., they start small but exponentially intensify) are especially tricky to confront because of the challenges of rapidly interpreting what is happening in real time. The most effective time to take strong action is extremely early, when the threat appears to be small — or even before there are any cases. But if the intervention actually works, it will appear in retrospect as if the strong actions were an overreaction. This is a game many politicians don't want to play.

The systematic inability to listen to experts highlights the trouble that leaders — and people in general — have figuring out how to act in dire, highly complex situations where there's no easy solution. The desire to act causes leaders to rely on their gut feeling or the opinions of their inner circle. But in a time of uncertainty, it is essential to resist that temptation, and instead take the time to discover, organize, and absorb the partial knowledge that is dispersed across different pockets of expertise.

Avoid partial solutions. A second lesson that can be drawn from the Italian experience is the importance of systematic approaches and the perils of partial solutions. The Italian government dealt with the Covid-19 pandemic by issuing a series of decrees that gradually increased restrictions within lockdown areas (“red zones”), which were then expanded until they ultimately applied to the entire country.

In normal times, this approach would probably be considered prudent and perhaps even wise. In this situation, it backfired for two reasons. First, it was inconsistent with the rapid exponential spread of the virus. The “facts on the ground” at any point in time were simply not predictive of what the situation would be just a few days later. As a result, Italy followed the spread of the virus rather than prevented it. Second, the selective approach might have inadvertently facilitated the spread of the virus. Consider the decision to initially lock down some regions but not others. When the decree announcing the closing of northern Italy became public, it touched off a massive exodus to southern Italy, undoubtedly spreading the virus to regions where it had not been present.

This illustrates what is now clear to many observers: An effective response to the virus needs to be orchestrated as a coherent system of actions taken simultaneously. The results of the approaches taken in China and South Korea underscore this point. While the public discussion of the policies followed in these countries often focuses on single elements of their models (such as extensive testing), what truly characterizes their effective responses is the multitude of actions that were taken at once. Testing is effective when it's combined with rigorously contact tracing, and tracing is effective as long as it is combined with an effective communication system that collects and disseminates information on the movements of potentially infected people, and so forth.

These rules also apply to the organization of the health care system itself. Wholesale reorganizations are needed within hospitals (for example, the creation of Covid-19 and non Covid-19 streams of care). In addition, a shift is urgently needed from patient-centered models of care to a community-system approach that offers pandemic solutions for the entire population (with a specific emphasis on home care). The need for coordinated actions is especially acute right now in the United States.

Learning is critical. Finding the right implementation approach requires the ability to quickly learn from both successes and failures and the willingness to change actions accordingly. Certainly, there are valuable lessons to be learned from the approaches of China, South Korea, Taiwan, and Singapore, which were able to contain the contagion fairly early. But sometimes the best practices can be found just next door. Because the Italian health care system is highly decentralized, different regions tried different policy responses. The most notable example is the contrast between the approaches taken by Lombardy and Veneto, two neighboring regions with similar socioeconomic profiles.

Lombardy, one Europe's wealthiest and most productive areas, has been disproportionately hit by Covid-19. As of March 26, it held the grim record of nearly 35,000 novel coronavirus cases and 5,000 deaths in

a population of 10 million. Veneto, by contrast, fared significantly better, with 7,000 cases and 287 deaths in a population of 5 million, despite experiencing sustained community spread early on.

The trajectories of these two regions have been shaped by a multitude of factors outside the control of policymakers, including Lombardy's greater population density and higher number of cases when the crisis erupted. But it's becoming increasingly apparent that different public health choices made early in the cycle of the pandemic also had an impact.

Specifically, while Lombardy and Veneto applied similar approaches to social distancing and retail closures, Veneto took a much more proactive tack towards the containment of the virus. Veneto's strategy was multi-pronged:

- Extensive testing of symptomatic and asymptomatic cases early on.
- Proactive tracing of potential positives. If someone tested positive, everyone in that patient's home as well as their neighbors were tested. If testing kits were unavailable, they were self-quarantined.
- A strong emphasis on home diagnosis and care. Whenever possible, samples were collected directly from a patient's home and then processed in regional and local university labs.
- Specific efforts to monitor and protect health care and other essential workers. They included medical professionals, those in contact with at-risk populations (e.g., caregivers in nursing homes), and workers exposed to the public (e.g., supermarket cashiers, pharmacists, and protective services staff).

Following the guidance from public health authorities in the central government, Lombardy opted instead for a more conservative approach to testing. On a per capita basis, it has so far conducted half of the tests conducted in Veneto and had a much stronger focus only on symptomatic cases — and has so far made limited investments in proactive tracing, home care and monitoring, and protection of health care workers.

The set of policies enacted in Veneto are thought to have considerably reduced the burden on hospitals and minimized the risk of Covid-19 spreading in medical facilities, a problem that has greatly impacted hospitals in Lombardy. The fact that different policies resulted in different outcomes across otherwise similar regions should have been recognized as a powerful learning opportunity from the start. The findings emerging from Veneto could have been used to revisit regional and central policies early on. Yet, it is only in recent days, a full month after the outbreak in Italy, that Lombardy and other regions are taking steps to emulate some of the aspects of the “Veneto approach,” which include pressuring the central government to help them boost their diagnostic capacity.

The difficulty in diffusing newly acquired knowledge is a well-known phenomenon in both private- and the public-sector organizations. But, in our view, accelerating the diffusion of knowledge that is emerging from different policy choices (in Italy and elsewhere) should be considered a top priority at a time when “every country is reinventing the wheel,” as several scientists told us. For that to happen, especially at this time of heightened uncertainty, it is essential to consider different policies as if they were “experiments,” rather than personal or political battles, and to adopt a mindset (as well as systems and processes) that facilitates learning from past and current experiences in dealing with Covid-19 as effectively and rapidly as possible.

It is especially important to understand what does not work. While successes easily surface thanks to leaders eager to publicize progress, problems often are hidden due to fear of retribution, or, when they do emerge, they are interpreted as individual — rather than systemic — failures. For example, it emerged that at the very early onset of the pandemic in Italy (February 25), the contagion in a specific area in Lombardy could have been accelerated through a local hospital, where a Covid-19 patient was not been properly diagnosed and isolated. In talking to the media, the Italian prime minister referred to this incident as evidence of managerial inadequacy at the specific hospital. However, a month later it became clearer that the episode might have been emblematic of a much deeper issue: that hospitals

traditionally organized to deliver patient-centric care are ill-equipped to deliver the type of community-focused care needed during a pandemic.

Collecting and disseminating data is important. Italy seems to have suffered from two data-related problems. In the early onset of the pandemic, the problem was data paucity. More specifically, it has been suggested that the widespread and unnoticed diffusion of the virus in the early months of 2020 may have been facilitated by the lack of epidemiological capabilities and the inability to systematically record anomalous infection peaks in some hospitals.

More recently, the problem appears to be one of data precision. In particular, in spite of the remarkable effort that the Italian government has shown in regularly updating statistics relative to the pandemic on a publicly available website, some commentators have advanced the hypothesis that the striking discrepancy in mortality rates between Italy and other countries and within Italian regions may (at least in part) be driven by different testing approaches. These discrepancies complicate the management of the pandemic in significant ways, because in absence of truly comparable data (within and across countries) it is harder to allocate resources and understand what's working where (for example, what's inhibiting the effective tracing of the population).

In an ideal scenario, data documenting the spread and effects of the virus should be as standardized as possible across regions and countries and follow the progression of the virus and its containment at both a macro (state) and micro (hospital) level. The need for micro-level data cannot be underestimated. While the discussion of health care quality is often made in terms of macro entities (countries or states), it is well known that health care facilities vary dramatically in terms of the quality and quantity of the services they provide and their managerial capabilities, even within the same states and regions. Rather than hiding these underlying differences, we should be fully aware of them and plan the allocation of our limited resources accordingly. Only by having good data at the right level of analysis can policymakers and health care practitioners draw proper inferences about which approaches are working and which are not.

A Different Decision-Making Approach

There is still tremendous uncertainty on what exactly needs to be done to stop the virus. Several key aspects of the virus are still unknown and hotly debated, and are likely to remain so for a considerable amount of time. Furthermore, significant lags occur between the time of action (or, in many cases, inaction) and outcomes (both infections and mortality). We need to accept that an unequivocal understanding of what solutions work is likely to take several months, if not years.

However, two aspects of this crisis appear to be clear from the Italian experience. First, there is no time to waste, given the exponential progression of the virus. As the head of the Italian Protezione Civile (the Italian equivalent of FEMA) put it, “The virus is faster than our bureaucracy.” Second, an effective approach towards Covid-19 will require a war-like mobilization — both in terms of the entity of human and economic resources that will need to be deployed as well as the extreme coordination that will be required across different parts of the health care system (testing facilities, hospitals, primary care physicians, etc.), between different entities in both the public and the private sector, and society at large.

Together, the need for immediate action and for massive mobilization imply that an effective response to this crisis will require a decision-making approach that is far from business as usual. If policymakers want to win the war against Covid-19, it is essential to adopt one that is systemic, prioritizes learning, and is able to quickly scale successful experiments and identify and shut down the ineffective ones. Yes, this a tall order — especially in the midst of such an enormous crisis. But given the stakes, it has to be done.

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