Countries around the world have taken different pathways in responding to coronavirus. We can learn from their experiences– sometimes what to avoid, sometimes what we might do in the next phase of disease response.

We should be starting to get a sense of what works, although a lot of rigorous study will be necessary to draw firm conclusions. Here's a quick survey, limited to democratic countries because of their comparability to the United States.

Britain – A Policy U-Turn

The U.K. is a really interesting case. The government initially adopted an innovative strategy. Rather than adopting social distancing, the goal was to encourage the most vulnerable individuals to self-isolate, while encouraging the remaining population to continue normal life. The idea was to expose many people at low risk of death to the disease, in order to render a large share of the population immune. Once the percentage with immunity reached 60% or more, the theory was that "herd immunity" would take hold. If many people are immune, the virus finds it hard to find new victims and dies out. (As an extreme case, if everyone but one person in the population is immune, that person is safe because there's no way of becoming infected.)

The British government had apparently underestimated that severe strain on the country's medical system would ensue. They may also have failed to consider the difficulties of protecting the more vulnerable when so many others are infected. The government switched strategies after a report from the Imperial College of London estimated that "an uncontrolled spread of the disease could cause as many as 510,000 deaths in Britain." The report also estimated 2.2 million deaths in the U.S. without stringent social controls.

The government has now come around to adopting an aggressive approach, with the country under a "shelter at home" order. So far, there have over four thousand deaths. The population of the U.K. is about one-fifth that of the U.S., so on a per capita basis they seem to be doing a bit worse than we are. at this point. One reason may be that in the U.S., states like Washington, California, and New York were able to take action without waiting for the federal government. As far as I can tell, that wasn't true of places like London in the U.K.

Germany- Disease Control in a Federalist System

I have found it difficult to find information about the German response to the virus. In Germany, epidemic control is largely the responsibility of state governments, with the federal government playing largely a supportive role. This decentralized authority has reportedly caused some confusion and delay. It may also account for some of my problems in finding information.

By March 22, there were almost 24,000 confirmed cases, with more than 90 deaths. That day, after consultation with all the state governors, the German government announced one of the most stringent sets of social distancing rules in the world. Groups of more than two people were banned, except for families. A description of the restrictions also makes it clear that previous rules were rather lax:

> "Under the new restrictions, restaurants, which were previously allowed to seat customers during the day at a safe distance from each other, will be allowed to stay open but provide only delivery and takeout services.
>
> "Other businesses that had previously been allowed to stay open, among them hairdressers, massage studios and tattoo parlors, must now close their doors."

The death rate in Germany has been remarkably low. Part of this may be due to statistical issues, but other factors are at play. according to epidemiologists, "chief among them early and widespread testing and treatment, plenty of intensive care beds and a trusted government whose social distancing guidelines are widely observed."

Italy– The Perils of Denial

In Italy, the initial response by the government was to deny the seriousness of the problem. Much like President Trump, Italian leaders minimized the threat posed by the disease. According to the Washington Post:

"In the critical early days of the outbreak, Italian Premier Giuseppe Conte and top officials sought to downplay the threat, creating confusion and a false sense of security that allowed the virus to spread.

> “They blamed Italy’s high number of infections on aggressive testing of people without symptoms in the north, which they argued only created hysteria and tarnished the country’s image abroad.”

The government ultimately imposed a lockdown, but the execution was flawed:

> “Even once the Italian government considered a universal lockdown necessary to defeat the virus, it failed to communicate the threat powerfully enough to persuade Italians to abide by the rules, which seemed riddled with loopholes.”

The epidemic raged out of control. There have been fifteen thousand deaths to date. The government is attempting to clamp down with restrictions in the hope of stemming the tide. The percentage of new cases daily is started to slowly decline , and now seems to be stabilizing, providing room for hope that Italy has begun to bend the curve downward.

South Korea– A Model for Phase 2?

Because the government’s response to SARS had been sharply criticized, it ramped up its disease control infrastructure prior to the coronavirus. When the virus was reported in China, South Korea moved quickly to develop a test. South Korea’s response has been based on massive testing, contact tracing, and quarantine of exposed individuals. The country has the highest per capita testing rate in the world. According to Wired:

> “To carry out testing at this scale requires extraordinary coordination. The Wall Street Journal reports that the country can test more than 20,000 people a day at 633 testing sites nationwide. A smartphone app provides GPS maps to track the infection’s spread. Medics pitch massive white tents on roadsides, where citizens receive free drive through testing, reducing the need to clean infected hazmat suits. Results are swift, too, coming by text within 24 hours.”

One of the goals is to identify people who are infected but do not have symptoms,

so they can be quarantined.

At present, this strategy seems to have been successful in slowing the spread of the disease. Perhaps because the Korean healthcare system is more able to cope with this reduced number of new cases, the mortality rate has reportedly been lower than elsewhere, though that may also be the result of including mild and non-symptomatic cases in the total count.

I don't think anyone has any illusions about the feasibility of indefinitely maintaining stringent controls, and at some point the cost could become too much for society to bear. Hopefully, the South Korean strategy will pan out. That would offer other countries where the disease has already spread widely a pathway forward after social distancing gets the spread of the disease under control.

****

Some of these countries may be cautionary cases, with Italy as a prime example. Others like South Korea may offer hints of future strategies we might adopt. The one thing that's clear is that we're all in this together.