Herd Immunity: Saving Lives and Saving the Economy at the Same Time

We often hear that there’s a tradeoff between saving lives and economic performance. In this case of COVID-19, there’s not. They go together.

Lockdowns and hiding behind doors and masks have just delayed the inevitable—reaching herd immunity. It’s better to protect the old and sick while exposing the rest of us to possible infection, allowing us to get to herd immunity more quickly.

Herd immunity is that threshold—likely 60-70 percent—at which enough people are immune to infection that the virus can no longer move easily throughout the population. People who have been infected or vaccinated serve as a barrier to those who haven’t, effectively surrounding and protecting them. Once herd immunity is reached, the virus will slide into the background. Americans will continue to be infected with SARS-CoV-2 until herd immunity is reached. (Note: SARS-CoV-2 is the name of the coronavirus; COVID-19 is the name of the ugly disease that it can cause.)

Your body has an immune system with multiple layers for fighting off known and unknown assailants. For instance, you might be exposed to the SARS-CoV-2 virus but avoid COVID-19 due to any number of systems: the mucosal lining of your nose, virus-fighting T cells, general antibodies from past coronavirus infections—think common cold—or specific antibodies developed from a past SARS-CoV-2 infection. Studies suggest that approximately 50 percent of us have innate immunity to a SARS-CoV-2 infection.

Herd immunity and our innate immune systems help explain why, even in congested circumstances, such as cruise ships, homeless shelters, and an aircraft carrier, not everyone succumbs to COVID-19. The proportion of infected individuals has not exceeded 45 percent. Those are worst-case scenarios; you probably don’t live in such an environment.

Don’t rely on a vaccine; it’s still a long way off. The fastest vaccine development in history was four years for Merck’s MumpsVax in the 1960s. Even if a vaccine for SARS-CoV-2 could be developed in half that time, we are still looking at the summer of 2022 before
the vaccine would be developed, approved, manufactured, and distributed for widespread use. Thanks, FDA.

As those in the field well know, viruses mutate and perhaps for that reason vaccines for the flu are effective less than half the time. Also, some viruses have been difficult to restrain with vaccines because the desired vaccines have so far not been developed despite lots of investment. U.S. Health and Human Services Secretary Margaret Heckler hoped for a vaccine for HIV/AIDS by 1986. We’re still waiting.

Ironically, while the lockdown might have prevented some deaths because of fewer infections, it may have led to increased deaths from other causes. Doctors report that the number of patients presenting with serious conditions, such as heart attacks, appendicitis, and strokes, has dropped by 50 to 90 percent. The National Cancer Institute estimates that there will be tens of thousands of excess cancer deaths over the next decade due to reduced screening, diagnosis, and treatments.

Here’s the ultimate irony. Our reasoning above says that ultimately lockdowns and social distancing save few, if any, lives on net. It was never a question of economic activity or lives. It was economic activity and lives. Yet by shutting down large swathes of economic activity, we have prevented the immunity that we must have as long as we don’t have a vaccine.

John Ioannidis of Stanford estimates that the overall infection fatality rate (IFR) of COVID-19 is 0.25 percent (one of 400 infected will die), about 2.5 times that of the seasonal flu. But COVID-19 is not an equal opportunity killer. In people under 70 years old, the IFR is 0.04 percent. In New York City, 99.4 percent of people who died from COVID-19 were 65 or older and had major underlying medical conditions. This is a nursing home problem, not a grade school or college problem.

Absent a highly effective vaccine or some other cure, only two policy questions are relevant: how quickly should we reach herd immunity and whom should we protect during that period? The answers are obvious. We should achieve herd immunity as quickly as is prudent, while protecting the vulnerable, including the elderly, sick, and frail. Let the young and healthy become infected in the natural course of their lives to help create a protective layer around the old and sick. The first step is reopening schools and businesses.

No one wants to become infected with the novel coronavirus. But those who do can know that their private cost confers a public benefit, moving us one step closer to herd immunity. The good news is that we might already be close to herd immunity.

Our strategy may sound counterintuitive, but it is the only path that will extricate us from this mess.