Herd Immunity Will Not Defeat COVID-19

di William A. Haseltine

During a September 15 ABC News "town hall"-style event, US President Donald Trump told host George Stephanopoulos that without a vaccine, COVID-19 would still "go away." Over time, Trump said, "You'll develop herd – like a herd mentality. It's going to be – it's going to be herd-developed, and that's going to happen."

What Trump was referring to, and misnamed, is herd *immunity*, which a population develops when so many of its members are infected by or vaccinated against a given contagion that a bulwark of resistance counters the contagion's spread. But to base a pandemic-response strategy on the assumption that herd immunity is inevitable – vaccine or no vaccine – is to afford a virus a path of least resistance. That was the case in Sweden, where policymakers <u>decided to forego</u> lockdowns and business closures in favor of more lenient advisories on mask-wearing and social distancing.

Unsurprisingly, Sweden's subsequent <u>COVID-19</u> infection and <u>fatality rates</u> were among the world's highest. Moreover, the Swedish economy <u>contracted by 8.6%</u> in the second quarter of 2020 compared to the previous three months – an important outcome to note given the emphasis that many proponents of herd immunity place on reviving economic growth. One such supporter is Scott Atlas, a recently appointed pandemic adviser to Trump who has advocated for the so-called Swedish model on Fox News.

"We like the fact that there's a lot of cases," Atlas said in <u>one interview</u>. "That's exactly how we're going to get herd immunity, population immunity." Although Atlas has no epidemiological credentials or experience, he does seem to have the ear of the president – as evidenced by the latter's remarks on "herd mentality." On August 31, Trump made similarly pointed – yet evasive – <u>comments</u> to Fox News's Laura Ingraham. "Once you get to a certain number, we use the word herd, right?" he said. "Once you get to a certain number, it's going to go away."

There's just one problem: When it comes to coronaviruses, that "certain number" doesn't exist. Research in recent decades has established time and time again that certain cold-causing coronaviruses <u>can infect a person more than once</u> – and even as many as three or four times, according to <u>a six-year study</u> conducted in Kenya.3

With SARS-CoV and MERS-CoV, the culprits of the last two lethal coronavirus epidemics, long-term research was too sparse and underfunded to verify their capacity for reinfection. But two scientific case studies – one on a patient in Hong Kong, and another (still undergoing peer review) on a patient in Nevada – have already confirmed that the SARS-CoV-2 virus that causes COVID-19 can reinfect an individual.

These studies show that our immunity to coronaviruses is alarmingly short-lived and quick to fade – a disappearing act that makes building protection to SARS-CoV-2 difficult enough for an individual, much less an entire population.

The day after Trump's ABC News town hall, MSNBC's Rachel Maddow <u>ran the numbers</u> on how herd immunity would play out in the United States, which has a population of roughly 330 million. If reaching herd immunity requires a minimum of 65% of people to be infected, as the World Health Organization's chief scientist, <u>Soumya Swaminathan</u>, has <u>said</u>, that would mean 215 million cases of COVID-19 countrywide. If the US fatality rate remained what it is now – close to 3% – it would also mean 6,385,500 deaths. I have previously called herd immunity a "<u>reckless and ineffective strategy</u>." Now that COVID-19 reinfections are not just a possibility, but a reality, I would add "lethal" to my description.

"The White House is no longer even recommending that states do things to stop the spread of this virus – things that just weeks ago they were telling the states they needed to do," Maddow said. "When it's not just what [Trump] is saying, but what he's doing, we have to recognize this as a huge deal."

White House Press Secretary <u>Kayleigh McEnany</u> and <u>Atlas himself</u> have both categorically denied that the Trump administration has adopted herd immunity as a strategy. But the words and actions of their boss, who continued to eschew and mock preventive measures as basic as wearing a face mask – and who tested positive for COVID-19 this week – tell a different story. Whether you call it herd immunity or "herd mentality," the science remains the same. With coronaviruses, such an approach is not and never should be an option.