



FACT CHECK

Fact check: Herd immunity would not fully stop the spread of coronavirus

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The claim: Herd immunity, not social distancing, would stop COVID-19

Although most experts encourage the public to practice social distancing to “flatten the curve” – a phrase to describe the attempt to distribute the span of the outbreak more gradually over time so as not to overwhelm the health care system – some people disagree with that tactic.

Knut Wittkowski, a former biostatistician at the Rockefeller University, claimed in the interview social distancing is not the right way to handle the pandemic.

Wittkowski was quoted in a WND article – which cited an interview transcript posted to ratical.org and YouTube video, and was shared extensively on Facebook – as saying that achieving herd immunity is the only thing that stops respiratory diseases such as COVID-19. He advocated for schools to be opened because within weeks, enough people will have been exposed to the virus and achieved immunity to stop the spread of the virus.

The Rockefeller University released a statement April 13 saying Wittkowski’s views “do not represent the views of the Rockefeller University, its leadership, or its faculty.”

British Prime Minister Boris Johnson, who was hospitalized with COVID-19, endorsed a similar idea, although his chief scientific adviser revoked the statement. Johnson initially justified the herd immunity tactic by explaining that strict behavioral restrictions might fatigue people so much that they would stop following the social distancing protocol.

More than 500 behavioral scientists published a letter that criticized Johnson's justification, citing a lack of evidence.

Similar herd immunity strategies have been adopted in Sweden, under considerable criticism.

Wittkowski stands by his claim, citing the difficulty of contact tracing and the lack of a vaccine.

"We have to let nature do what otherwise the vaccine would do, and that is create people who are immune because they went through a very mild form of the disease," he said.

Uncertainty over herd immunity

Herd immunity occurs when a large portion of the population becomes immune to a disease or virus, stopping its spread because there are so few people who can contract it.

It is typically attained through vaccination, not widespread infection. For example, herd immunity for the measles is achieved when 19 out of 20 people receive the vaccination.

Wittkowski supported herd immunity through infection.

Although it is possible to achieve herd immunity through infection, "you don't rely on the very deadly infectious agent to create an immune population," Akiko Iwasaki, a virologist at the Yale School of Medicine, told *The Atlantic*.

Dan Barouch, director of the Center for Virology and Vaccine Research at Harvard University, said between the two options of achieving herd immunity through infection versus vaccination, "I would certainly advocate for the latter."

Relying solely on herd immunity through widespread exposure to combat COVID-19 would overwhelm hospitals and put the elderly and people with preexisting conditions at risk, he said.

The need for hospital beds varies from state to state. A USA TODAY analysis in March of data from the Census Bureau and the American Hospital Association found some states may need eight times as many beds to appropriately care for coronavirus patients if infection spreads at the rate of a mild flu. (The exact infection rate of COVID-19 is still unknown.) This estimate assumes all infections would occur at once and all hospital beds would be empty, both of which are not the case amid the pandemic.

Graham Medley leads a group of scientists who model the spread of infectious diseases at the London School of Hygiene and Tropical Medicine. He told *The Atlantic* that herd immunity to the coronavirus may come as a consequence, but it should not be an aim.

Margaret Harris, a spokesperson for the World Health Organization, said in an interview with the BBC she has doubts about achieving herd immunity through infection because too little is known about the virus to determine whether it would be effective.

The letter signed by more than 500 scientists in the U.K. said, “Going for ‘herd immunity’ at this point does not seem a viable option, as this will put (Britain's National Health Service) at an even stronger level of stress, risking many more lives than necessary.”

Little is known about natural protective immunity to the virus after it has been contracted. Exposing people to the virus in an attempt to reach herd immunity could be counterproductive if they could become infected again shortly after testing negative.

“With most viral infections, when someone gets infected and then recovers, they develop immunity at least for a period of time and cannot be reinfected. That’s true for most viruses. It’s not true for all viruses,” Barouch said. “For COVID-19, we don’t know yet. We don’t yet have definitive proof whether there’s natural protective immunity.”

James Whitney, principal investigator at the Center for Virology and Vaccine Research, said COVID-19’s unknown mutation rate poses uncertainty for reaching herd immunity.

“The short answer is we don’t know enough right now to say if infection will offer complete protection,” Whitney said. “Everyone walking around hoping to engender herd immunity is probably not the best scenario. I would say a vaccine is probably the best way and the most durable way to engender herd immunity.”

Our ruling: Partly false

We find the claim that herd immunity would stop COVID-19 rather than flattening the curve to be partly false. While it is true that herd immunity may eventually be achieved as a result of vaccination or widespread infection, it is false to say that infection is the best way to achieve herd immunity or that it definitively would achieve it, based on our research. Other factors such as access to testing and medical equipment, social distancing and quarantining help stop respiratory diseases like COVID-19. Further, experts say too little is known about the novel coronavirus to ensure herd immunity would offer complete protection from infection.

Our fact-check sources:

WND article, April 7, 2020

Statement from Rockefeller University, April 13, 2020

The Atlantic, March 16, 2020

Open letter to the U.K. government regarding COVID-19

Al-Jazeera article, April 14, 2020

University of Oxford's Vaccine Knowledge Project

USA TODAY article, March 13, 2020

The Guardian article, March 14, 2020

Public request to take stronger measures of social distancing across the U.K. with immediate effect, March 14, 2020

Interview, Dan Barouch, director of the Center for Virology and Vaccine Research at Harvard University, April 16, 2020

Interview, James Whitney, principal Investigator for the Center for Virology and Vaccine Research, April 16, 2020

Interview, Knut Wittkowski, former biostatistician at the Rockefeller University, April 17, 2020

Sweden's government has tried a risky coronavirus strategy. It could backfire, Vox, April 16

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