

Herd immunity approaches to COVID-19 control are a 'dangerous fallacy'

October 15 2020

A group of 80 researchers warn that a so-called herd immunity approach to managing COVID-19 by allowing immunity to develop in low-risk populations while protecting the most vulnerable is "a dangerous fallacy unsupported by the scientific evidence".

Faced with a second wave of COVID-19, and more than a million recorded deaths worldwide, the authors present their view of the scientific consensus on our understanding of COVID-19, and the strategies that need to be put in place to protect our societies and economies.

The <u>open letter</u>, referred to by its authors as the John Snow Memorandum, is published today by *The Lancet*. It is signed by 80 international researchers (as of publication) with expertise spanning <u>public health</u>, epidemiology, medicine, pediatrics, sociology, virology, infectious disease, <u>health systems</u>, psychology, psychiatry, health policy, and mathematical modeling. The letter will also be launched during the 16th World Congress on Public Health program 2020.

They state: "It is critical to act decisively and urgently. Effective measures that suppress and control transmission need to be implemented widely, and they must be supported by financial and social programs that encourage community responses and address the inequities that have been amplified by the pandemic."

"Continuing restrictions will probably be required in the short term, to



reduce transmission and fix ineffective pandemic response systems, in order to prevent future lockdowns. The purpose of these restrictions is to effectively suppress SARS-CoV-2 infections to low levels that allow rapid detection of localized outbreaks and rapid response through efficient and comprehensive find, test, trace, isolate, and support systems so life can return to near-normal without the need for generalized restrictions. Protecting our economies is inextricably tied to controlling COVID-19. We must protect our workforce and avoid longterm uncertainty."

The authors acknowledge that ongoing restrictions have understandably led to widespread demoralization and diminishing trust among the public, and that in the face of a second wave of infection there is renewed interest in so-called natural herd immunity approaches (allowing a large uncontrolled outbreak in the low-risk <u>population</u> while protecting the vulnerable, which some argue could lead to the development of infection-acquired population immunity in the low-risk population, which will eventually protect the vulnerable). They say any pandemic management strategy relying upon immunity from natural infections for COVID-19 is flawed.

They explain that uncontrolled transmission in younger people risks significant ill-health and death across the whole population—with realworld evidence from many countries showing that it is not possible to restrict uncontrolled outbreaks to certain sections of society, and it being practically impossible and highly unethical to isolate large swathes of the population. Instead, they say that special efforts to protect the most vulnerable are essential, but must go hand-in-hand with multi-pronged population-level strategies.

They also state that there is no evidence for lasting protective immunity to SARS-CoV-2 after natural infection, and warn that this waning immunity as a result of natural infection would not end the COVID-19



pandemic but instead result in repeated waves of transmission over several years. They say that this could place <u>vulnerable populations</u> at risk for the indefinite future, as natural infection-based herd immunity strategies would result in recurrent epidemics, as seen with many infectious diseases before mass vaccination. Instead, the authors call for suppression of the virus until the population can be vaccinated.

The authors also warn that natural infection-based herd immunity approaches risk impacting the workforce as a whole and overwhelming the ability of healthcare systems to provide acute and routine care. They note that we still do not understand who might suffer from 'long COVID', and that herd immunity approaches place an unacceptable burden on healthcare workers, many of whom have died from COVID-19 or experienced trauma as a result of having to practice disaster medicine.

The letter concludes: "The evidence is very clear: controlling community spread of COVID-19 is the best way to protect our societies and economies until safe and effective vaccines and therapeutics arrive within the coming months. We cannot afford distractions that undermine an effective response; it is essential that we act urgently based on the evidence."

More information: *The Lancet* (2020). <u>DOI:</u> <u>10.1016/S0140-6736(20)32153-X</u>

Provided by Lancet

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