5 reasons why we might never reach COVID herd immunity

Long-term prospects for the pandemic probably include [COVID-19 becoming an endemic disease](#), much like influenza. But in the near term, scientists are contemplating a new normal that does not include herd immunity. Here are some of the reasons behind this mindset, and what they mean for the next year of the pandemic.

1. It's unclear whether vaccines prevent transmission

The COVID-19 vaccines developed by Moderna and Pfizer–BioNTech… are extremely effective at preventing symptomatic disease, but it is still unclear whether they protect people from becoming infected, or from spreading the virus to others. That poses a problem for herd immunity.

…

2. Vaccine roll-out is uneven

A perfectly coordinated global campaign could have wiped out COVID-19, [epidemiologist Matt Ferrari] says, at least theoretically. "It's a technically feasible thing, but in reality it's very unlikely that we will achieve that on a global scale," he says.

…

3. New variants change the herd-immunity equation

Even as vaccine roll-out plans face distribution and allocation hurdles, new variants of SARS-CoV-2 are sprouting up that might be more transmissible and resistant to vaccines.

…

4. Immunity might not last forever

Calculations for herd immunity consider two sources of individual immunity — vaccines and natural infection. People who have been infected with SARS-CoV-2 seem to develop some immunity to the virus, but how long that lasts remains a question.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter.
[SIGN UP](#)

5. Vaccines might change human behaviour

The problem is that, as more people are vaccinated, they will increase their interactions, and that changes the herd-immunity equation, which relies in part on how many people are being exposed to the virus. "The

vaccine is not bulletproof," [biomedical data scientist Dvir Aran] says.

Read the original post