

Herd immunity alone isn't enough to save us. Why a vaccine is critical

[G]etting to herd immunity without a vaccine isn't as simple as the idea itself. A number of variables can affect when herd immunity is reached — and what it costs to get there — and they vary depending on the disease. How infectious is the disease? How deadly is it? And how long do people stay immune once they've gotten it? Adjusting any of these variables can drastically change the outcome of this equation. You can probably sense where this is heading.

We've built a very simplified version of how those variables interact.

...

To be clear, this is not about COVID-19 itself — instead, our calculator shows how a theoretical disease we're calling Fictionitis would play out in a population that has never encountered it before and does nothing to try to stop it.

...

For COVID-19, of course, we can't change these variables, and we still haven't nailed down their exact values, anyway. What we do know so far paints a stark picture: This disease is too deadly, too contagious and too new to depend on post-infection immunity (as opposed to immunity via vaccination) as a solution. Naturally acquired herd immunity is not the answer.

[Read the original post](#)