

The Coronavirus Curve vs. the Social Trust Curve

To see why, run some numbers. Adam Kucharski, an expert on the mathematics of contagion, calculates that if each Covid-19 case leads to 2.5 more infections over five days, then a single case leads to 244 more cases over the course of a month. But if social distancing measures hold that to 1.25 new infections for every case, that's only four new cases over the course of a month — which also means the cases that do emerge will be less lethal because health systems won't be as overwhelmed.

Let's play this out. As of Monday (April 16) afternoon, there were 4,115 confirmed cases in the US, though testing failures ensure **the true number** is much higher. Still, let's use 4,115 as a base. If you keep the assumption that each case creates 2.5 more cases over 5 days, then after 30 days we'll have 7,564,000 cases. With a 1 percent death rate, that means more than 75,000 deaths — the equivalent of 25 9/11s — in 30 days.

But if social behavior cuts the replication rate to 1.25 and — due to higher health system capacity and more effective quarantining of the elderly — the case fatality rate to 0.5 percent, then after 30 days there will only be a bit more than 533,000 cases and 2,665 deaths. That loss of life would remain tragic, but more than 72,000 lives would be saved.

Full Article:

<https://www.vox.com/coronavirus-covid19/2020/3/17/21180645/covid-19-coronavirus-social-solidarity-epidemic-pandemic-paid-leave-health-care>