



Graphic detail

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Footprints of the invisible enemy

Why a study showing that covid-19 is everywhere is good news

If millions of people were infected weeks ago without dying, the virus must be less deadly than official data suggest

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ONE OF THE few things known for sure about covid-19 is that it has spread faster than official data imply. Most countries have tested sparingly, focusing on the sick. Just 0.1% of Americans and 0.2% of Italians have been tested and come up positive. In contrast, a study of the entire population of the Italian town of Vò found a rate of 3%.

The lack of testing has set off a hunt for proxies for covid-19 infection, from smart-thermometer readings to Google searches for “I can’t smell”. A new paper by Justin Silverman and Alex Washburne uses data on influenza-like illness (ILI) to show that SARS-CoV-2 is now widespread in

influenza-like illness (ILI) to show that SARS-CoV-2 is now widespread in America.

Every week, 2,600 American clinicians report the share of their patients who have ILI—a fever of at least 37.8°C (100°F) and a cough or sore throat, without a known non-flu reason. Unsurprisingly, ILI is often caused by flu. But many other ailments also produce ILI, such as common colds, strep throat and, now, covid-19. The authors assume that the share of these providers' patients with ILI who do have the flu matches the rate of flu tests that are positive in the same state and week. This lets them estimate how many people have ILI seriously enough to call a doctor, but do not have the flu—and how many more people have had non-flu ILI in 2020 than in prior years.

They find that non-flu ILI has surged. Its rise has the same geographic pattern as covid-19 cases: modest in states with few positive tests, like Kentucky, and steep in ones with big outbreaks, such as New Jersey. In total, estimated non-flu ILI from March 8th to 28th exceeded a historical baseline by 23m cases—200 times the number of positive covid-19 tests in that period. This may overstate the spread of covid-19, since non-flu ILI has other causes. It could also be too low, because people with asymptomatic or mild covid-19 would not report non-flu ILI.

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This sounds alarming, but should be reassuring. Covid-19 takes 20-25 days to kill victims. The paper reckons that 7m Americans were infected from March 8th to 14th, and official data show 7,000 deaths three weeks later. The resulting fatality rate is 0.1%, similar to that of flu. That is amazingly low, just a tenth of some other estimates. Perhaps it is just wrong, possibly because the death toll has been under-reported. Perhaps, though, New York's hospitals are overflowing because the virus is so contagious that it has crammed the equivalent of a year's worth of flu cases into one week. ■

Sources: "Using ILI surveillance to estimate state-specific case detection rates", by J. Silverman & A. Washburne; Johns Hopkins CSSE

This article appeared in the Graphic detail section of the print edition under the headline "Footprints of the invisible enemy"

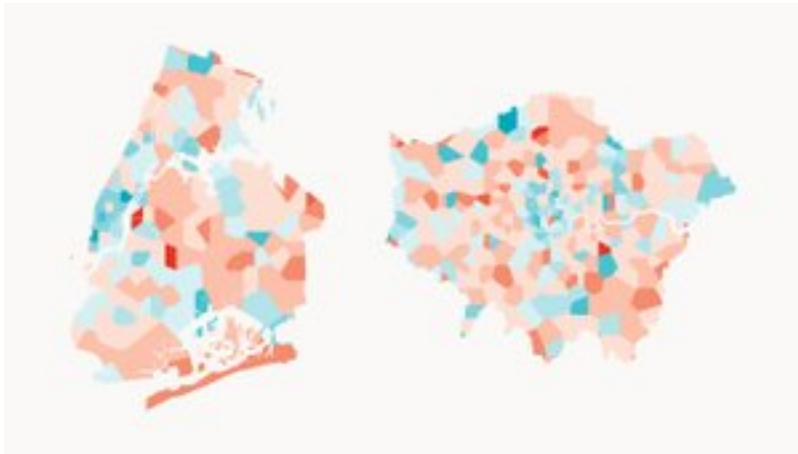


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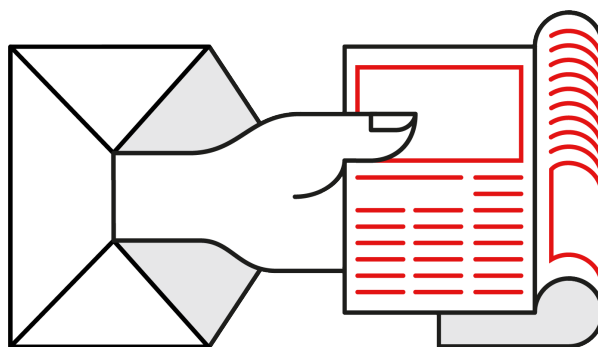
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