Crowdsourcing site collects county-level policy data to inform decisions about easing social-distancing

April 13 2020, by Tom Abate

Visit SocialDistancing.Stanford.edu to provide information about local shelter-in-place policies to help government officials decide when it will be safe to ease such restrictions. Credit: Stocksy/CACTUS Creative Studios

Americans nationwide now have a chance to help government officials decide when to ease social-distancing policies by completing a survey on a new website that compiles information about if and when their counties implemented local shelter-in-place measures to slow the spread of COVID-19.

The website, SocialDistancing.Stanford.edu, is part of a research collaboration that aims to provide accurate, county-level data to epidemiologists who will advise federal agencies—and, ultimately, state and local officials—when to start letting different communities resume daily activities again.

Since it went live on April 6, more than a thousand volunteers have found the site through social media alerts, but now the Stanford team hopes to get many more responses from every part of the country so they can funnel this much-needed information to their partners at the University of Virginia (UVA).

"Epidemiological models need reliable data and we have to collect it quickly," said associate professor of computer science Michael Bernstein.

Bernstein launched the site just 15 days after he got a call from Madhav Marathe, director of UVA's Biocomplexity Institute. Marathe's team, which advises federal authorities on how to deal with disease outbreaks, had just received funding to track COVID-19 with unprecedented county-level accuracy. "We knew Stanford could help us get the data we needed in a hurry," Marathe said.

How local social-distancing measures help fight COVID-19
(Westchester County, New York)
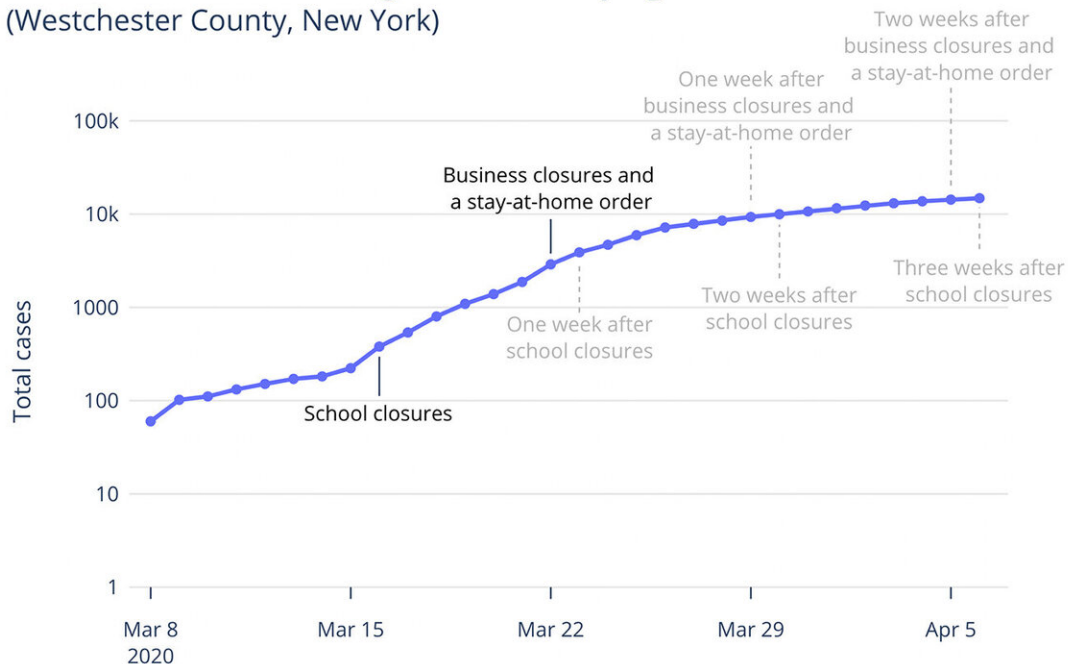
This chart, based on COVID-19 cases reported by health officials in Westchester County, shows how social-distancing measures can flatten the curve of new infections. For this New York suburb, researchers already knew when school and business closures took effect. SocialDistancing.Stanford.edu asks volunteers from roughly 2,800 less-populous counties to supply this crucial information to help epidemiologists make their computational models more effective at predicting when local restrictions can be safely relaxed. Credit: Chart by Tum Chaturapruek

Bernstein is an expert in crowdsourcing—using the internet to coordinate the actions of many volunteers, each of whom is asked to do a little work to finish a huge task quickly. Until now, most COVID-19 data collection efforts focused on states.

This project seeks to dive down to the local jurisdictions that have

purview over health matters. Louisiana calls these parishes. Alaska refers to them as boroughs, but the other 48 states call these local units counties. Delaware has the fewest, with three, and Texas has the most with 254. Even after discounting the 300 or so most populous counties clustered around cities, for which there is already abundant information, epidemiologists still desperately need data from about 2,800 local jurisdictions nationwide.

SocialDistancing.Stanford.edu aims to be that data collection point. Volunteers are asked to answer questions about whether local authorities have ordered schools, stores, and non-essential businesses to close, and if religious gatherings have been suspended. They are also asked to attach a link to a government order, news story or other source, both to verify their answers and, crucially, to date when the restriction took effect. Knowing when social-distancing policies took effect will enable the researchers to determine how those measures affected the trajectory of COVID-19 within each county, and across many counties that took different steps at different times.

The UVA epidemiologists are anxious to begin incorporating this field data into their own models and begin sharing it with other academic and governmental labs that will also help advise government officials at every level about how to ease the current shelter-in-place restrictions. "We're already getting inquiries from other countries about how we're doing this," Marathe said.

For their part, the Stanford computer scientists are glad to answer the call. "When one of the nation's top epidemiological experts contacts you for help, you say 'Yes!'," Bernstein said.

Provided by Stanford University

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