

## Preliminary Report on Aggregated Expert Predictions on COVID-19

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### Executive Summary

We have conducted four weekly surveys that asked a group of infectious disease modeling researchers to assess their collective expert opinion on the trajectory of the COVID-19 outbreak in the US. The following page provides a brief summary of the results from the fourth survey, administered on March 9<sup>th</sup> and 10<sup>th</sup>, 2020. Participants are modeling experts and researchers who have spent a substantial amount of time in their professional career designing, building, and/or interpreting models to explain and understand infectious disease dynamics and/or the associated policy implications in human populations. In general, we see a consensus among the experts that the outbreak will continue to escalate in the US in coming weeks, and that only 13% of all COVID-19 infections have been confirmed as cases so far. Experts expect hospitalizations for COVID-19 to peak in May.

### Results from Survey 4 (administered March 9-10, 2020)

1. **Experts predict a four-fold rise in reported cases in the US over the next week. They predict 1819 total cases (80% uncertainty interval: 823-6204 cases) of COVID-19 will be reported by the CDC on Monday March 16<sup>th</sup>, more than 4 times the CDC reported number of cases as of Monday, March 9<sup>th</sup>.**
2. **The majority of experts (20/21, 95%) expect COVID-19 will reach community-level spread in the US**
3. **Experts expect that community-level spread will occur in the US within 3 weeks (80% uncertainty interval: 0-10 weeks).**
4. **Experts anticipate 44 US states will report cases of COVID-19 within one week (80% uncertainty interval: 39-48 states).**
5. **Experts believe that only 13% (80% uncertainty interval: 4-30%) of all COVID-19 infections (symptomatic and asymptomatic) in the US were reported to the CDC as of Monday, March 9<sup>th</sup>.** This implies that as of the beginning of this week there were between 1410 and 10575 undiagnosed infections with COVID-19 in the US.
6. **Experts believe that nationwide hospitalizations for COVID-19 will peak in May.**
7. **The above results include answers from 21 experts.** Experts who have participated in the survey twice are listed in the table below. The names of those who participated this week are in bold.

Expert name	Affiliation
<b>Benjamin M Althouse</b>	Institute for Disease Modeling, University of Washington, New Mexico State University
<b>Dr. Caroline Buckee</b>	Harvard TH Chan School of Public Health
Donald S. Burke, MD	Graduate School of Public Health
<b>Lauren A Castro</b>	Los Alamos National Laboratory
<b>Sara Del Valle</b>	Los Alamos National Laboratory
<b>John M. Drake</b>	University of Georgia
<b>Stephen Eubank</b>	University of Virginia
<b>Lauren Gardner</b>	Johns Hopkins University
<b>Dylan George</b>	In-Q-Tel
<b>Michael L. Jackson</b>	Kaiser Permanente Washington
Justin Lessler	Johns Hopkins Bloomberg School of Public Health
<b>Bryan Lewis, PhD, MPH</b>	University of Virginia
Marc Lipsitch	Harvard T.H. Chan School of Public Health
<b>Andrew A. Lover</b>	University of Massachusetts- Amherst
Steven Riley	Imperial College
<b>Caitlin Rivers</b>	Johns Hopkins Center for Health Security
Roni Rosenfeld	Carnegie Mellon University
<b>Samuel V. Scarpino</b>	Northeastern University
<b>Shaun Truelove</b>	Johns Hopkins Bloomberg School of Public health
<b>Cecile Viboud</b>	Fogarty International Center, NIH