

University of Massachusetts Amherst

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COVID19-Survey 8-2020-04-08

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Available at: <https://works.bepress.com/mcandrew/5/>

Preliminary Report on Aggregated Expert Predictions on COVID-19

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Executive Summary

We have conducted eight weekly surveys that asked infectious disease modeling researchers to assess their collective expert opinion on the trajectory of the COVID-19 outbreak in the US. The following page is a brief summary of the results from the eighth survey, administered on April 6th and 7th, 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. Experts expect 660K cases of COVID-19 by next week, that hospitalizations are most likely to peak in April or May, and new hospitalizations will drop below 200 in NYC between May 1st and May 15th. Data on the questions asked and expert consensus distributions are available at https://github.com/tomcm39/COVID19_expert_survey In addition to experts, we teamed up with [Good Judgment Inc](#) to evaluate whether crowd-sourced forecasts would add valuable insights. 109 forecasters on Good Judgment Open—a forecasting platform that is open to any interested member of the public worldwide—responded with their predictions and rationales about the number of COVID-19 cases next week.

Results from Survey 8 (administered April 6-7, 2020)

1. **Experts predict 660,000 total cases (80% uncertainty interval (UI): 525,000-1,010,000 cases) of COVID-19 will be reported by [COVID Tracker](#) on Sunday April 12th.**

Predicted number of cases (range)	Predicted probability	GJ Open predictions**
0 – 500K	0.05	0.03
500K – 600K	0.28	0.58
600K – 700K	0.27	0.27
700K – 800K	0.17	0.02
800K – 900K	0.08	0.02
900K – 1M	0.05	0.02
1M – 1.1M	0.03	0.02
1.1M – 1.2M	0.02	0.02
1.2M+	0.06	0.02

*Numbers do not sum to 1 due to rounding.

** Predictions made as of April 7th at 7:00PM

2. **The consensus among experts was that COVID-19 hospitalizations in the US between March and August were most likely to peak in April or May, although with significant chance of a later peak.**

Month of peak hospitalization	Predicted probability
March	0.02
April	0.28
May	0.28
June	0.22
July	0.13
August	0.08

3. **Experts believe that there are a total of 2,557,000 SARS-CoV-2 infections (80% UI: 986,500-7,930,500) in the US as of April 5th.**
4. **Experts believe that in New York City state the number of new daily hospital admissions for COVID-19 are mostly likely to drop below 200 between May 1st and May 15th.**

Month of peak hospitalization	Predicted probability
Before April 15 th	0.10
Between April 15 th and April 30 th	0.24
Between May 1 st and May 15 th	0.27
Between May 16 th and May 31 st	0.25
Not before June 1 st	0.14

5. **The above results include answers from 20 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
Benjamin M. Althouse	Institute for Disease Modeling, University of Washington, New Mexico State University
Andrew Azman	Johns Hopkins University
Dr. Caroline Buckee	Harvard TH Chan School of Public Health
Donald S. Burke, MD	Graduate School of Public Health
Mary Bushman	Harvard T.H. Chan School of Public Health
Lauren A Castro	Los Alamos National Laboratory
Sarah Cobey	University of Chicago
Sara Del Valle	Los Alamos National Laboratory
John M. Drake	University of Georgia
Stephen Eubank	University of Virginia
Sebastian Funk	London School of Hygiene & Tropical Medicine
Lauren Gardner	Johns Hopkins University
Dylan George	In-Q-Tel
William P. Hanage	Harvard T. H. Chan School of Public Health
Andreas Handel	University of Georgia
Michael L. Jackson	Kaiser Permanente Washington
Stephen Kissler	Harvard School of Public Health
Justin Lessler	Johns Hopkins Bloomberg School of Public Health
Bryan Lewis	University of Virginia
Marc Lipsitch	Harvard T.H. Chan School of Public Health
Andrew A. Lover	University of Massachusetts- Amherst
Maimuna Majumder	Harvard Medical School
Nicholas Reich	University of Massachusetts at Amherst
Steven Riley	Imperial College
Caitlin Rivers	Johns Hopkins Center for Health Security
Roni Rosenfeld	Carnegie Mellon University
Aaron Rumack	Carnegie Mellon University
Samuel V. Scarpino	Northeastern University
Shaun Truelove	Johns Hopkins Bloomberg School of Public health
Srini Venkatramanan	University of Virginia
Cecile Viboud	Fogarty International Center, NIH