

# Preliminary Report on Aggregated Expert Predictions on COVID-19

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## Executive Summary

For the last two weeks in February 2020, we conducted two pilot surveys of 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 second survey. In future weeks, we intend to recruit additional experts to participate and to provide additional brief reports such as this in real-time. Our current anticipated schedule is that surveys will be released on Mondays and reports will be sent out on Wednesdays. Additional questions and formats may be added as the outbreak evolves.

## Results from Survey 2 (administered February 24-25, 2020)

### 1. Experts showed a strong consensus that the confirmed case count of COVID-19 in the US reported by WHO on April 1, 2020 will exceed 100.

93% of polled experts (13/14) believed there will be over 100 confirmed COVID-19 cases by April 1, 2020. They assigned an average probability of 81% that this event will occur.

### 2. Experts showed a moderate consensus that by Sunday March 1<sup>st</sup>, 2020 the number of confirmed cases in the US due to person-to-person transmission within the US would be greater than 5.

71% of polled experts (10/14) said that they believed the number of cumulative confirmed cases in the US with likely place of exposure in the US will exceed 5 by March 1, 2020. They assigned an average probability of 61% to this event occurring.

### 3. Experts anticipated the WHO to report between 27 and 92 cumulative confirmed cases in the US by March 1<sup>st</sup>, 2020

When this question was asked, the most recent WHO situation report showed 35 total confirmed cases of COVID-19 in the US. The consensus distribution for the number of cumulative, confirmed COVID-19 in the US reported by the WHO as of March 1, 2020 had a median 39 and 25<sup>th</sup> and 75<sup>th</sup> percentiles of 27 and 92 cases respectively.

*[We note that the phrasing of this question may have been confusing to some participants, and which totals we were referring to may not have been clear. This will be updated in subsequent surveys.]*

### 4. Experts anticipated between 6 and 12 countries will report 100 or more cumulative confirmed cases by March 1<sup>st</sup>

On February 24, 2020, when this question was asked, three countries (China, Japan, and the Republic of Korea) had reported 100+ cases. At this time, experts predicted the most likely number of countries to report 100+ cases by March 1, 2020 will be 6. The median of the consensus distribution is 7 countries, with 25<sup>th</sup> and 75<sup>th</sup> percentiles of 6 and 12 countries, respectively.

### 5. A total of 25 experts answered at least one survey and 8 experts answered both surveys.

Experts who participated twice are listed below. Future reports will also listed experts who participate in at least two surveys.

Expert name	Affiliation
Donald S. Burke	Graduate School of Public Health, University of Pittsburgh
John M. Drake	University of Georgia
Stephen Eubank	University of Virginia
Bryan Lewis	University of Virginia
Marc Lipsitch	Harvard T.H. Chan School of Public Health
Andrew A. Lover	University of Massachusetts at Amherst
Caitlin Rivers	Johns Hopkins Center for Health Security
Samuel V. Scarpino	Northeastern University