Global COVID-19 Symptom Survey. A Facebook partnership
Responding to the Need for Syndromic Surveillance

Syndromic surveillance enables policymakers and public health systems to make decisions before diagnosis data are available, especially in low resource areas with limited testing capabilities.

Facebook can reach large segments of the target population daily with the technical infrastructure to provide bias correction. And, the speed and scale of the symptom surveys allow them to act as early warning systems.
Agenda

1. Project Structure
2. Survey Instrument and Weights
3. Early Insights
4. Reflections on Data Collection Challenges
5. Data Access
Project Structure
Project Overview

1. Who’s Taking the Survey

Facebook invites a new, random sample of users to participate each day.

2. How the Survey Works

Users are sent to the survey hosted by UMD or CMU using Qualtrics. Facebook does not receive responses, but does calculate weights to correct for non-response bias and sampling frame coverage bias using internal Facebook data for 115 countries or territories.

3. Using the Survey Data

Using the aggregated data, Facebook created a map visualization to help policymakers and public health systems make decisions.

The non-aggregate data are available to eligible academic and nonprofit researchers by request.
Survey Instrument and Weights
UMD Global Survey Instrument

Available in 50+ languages

Survey Instrument has 5 Sections:

- Consent
- Health symptoms
- Contacts with others
- Mental health and economic security
- Demographic characteristics
CMU US Survey Instrument

Available in 6 languages
Survey Instrument has 5 Sections:

- Consent
- Household symptoms
- Personal symptoms
- Contacts with others and other risk factors
- Demographic characteristics
20.3 million
Completed the UMD global survey launched in 200+ countries or territories, including 114 for which we provide weights

10.6 million
Completed the CMU survey launched in the United States

Note: sample size as of 9/7
Adjusting for Sample Bias

Facebook calculates analytic weights to correct for random sampling, non-response, and coverage errors. This ensures that the sample more accurately reflects the characteristics of the target population represented.

Survey weights are available for 115 countries but may be revised as Facebook and partners assess sample coverage.

The weight value does not identify the survey respondent.
Early Insights
CMU Delphi Research Center is developing short term hospitalization forecasts in the US and deepening its partnerships with public health agencies.

The symptom survey also shows noticeable correlation with confirmed case numbers, though the correlation varies across geographies.
15 institutions are working with the non-aggregate data from at least one of the surveys.

IHME is mapping the prevalence of regular mask wearing, using the global Symptom Survey in conjunction with data from Premise.
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**IHME** is mapping the prevalence of regular mask wearing, using the global Symptom Survey in conjunction with data from Premise.

**SoDa** has produced an interactive dashboard of mask-wearing behavior.

From April 2020 to present, we asked, “In the last 7 days, how often did you wear a mask when in public?”
Data Collection Challenges
Challenges of Syndromic Surveillance at Scale

There are numerous challenges to a global daily tracking survey, which requires broad support and coordination across partners as well as with the survey platform itself.

For example, pretesting is difficult due to translation needs, changes to sampling pipelines, and the wide variety of device types used to complete the survey across contexts.
Data Access
Publicly Available, Aggregate Data

Global Survey Data: https://covidmap.umd.edu/api.html


Non-Aggregate Data for Research

Researchers from academic and non-profit institutions can request access.

Signed Data Use Agreements are required.

Central portal for project documentation and data access requests is on Facebook’s Data for Good website: dataforgood.fb.com.
Other Complimentary Data Sources Through Data for Good

Population Density Maps

Social Connectedness Index

Movement Range Maps

More information on Facebook’s Data for Good website: dataforgood.fb.com.

COVID-19 Symptom Data Challenge: symptomchallenge.org/.
About Us

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