



Population Scientists' Response to the COVID-19 Pandemic

The COVID-19 crisis has demonstrated how a pandemic can quickly evolve from a medical and infectious disease emergency to a broad-scale economic and public health disaster. Population scientists (including demographers, economists, sociologists and statisticians) bring scientific rigor to the collection, analysis, and dissemination of data regarding population dynamics and thus have much to contribute toward battling the pandemic and accelerating our recovery.

Here are some examples of the ways in which population scientists are helping shape our understanding of the impact of COVID-19 and our response:

Surveys and Data collection

- [Understanding America Study \(UAS\)](#) is a panel survey of households directed by the University of Southern California (USC) of approximately 8,500 respondents representing the entire United States. The UAS was quickly leveraged to create the *Understanding Coronavirus in America* tracking survey, which is already generating valuable data and insights. <https://uasdata.usc.edu/index.php>
- The [Detroit Metro Area Communities Study](#) (DMACS) at the University of Michigan is a panel study of households in and around Detroit, MI that tracks myriad topics, from economics and employment to education and health. DMACS has added COVID-19 questions to its survey and is currently “in the field” collecting data. The site includes a comprehensive (24-page) [resource guide](#) for Michigan residents—a one-stop compilation of information and resources (state, local and federal) related to COVID-19 response.
- International: Johns Hopkins University researcher Philip Anglewicz is directing COVID-19 survey content in a Gates Foundation funded project ([Performance, Monitoring, and Accountability 2020 Project, PMA2020](#)), a 5-year public health panel survey data collection project in Africa and India. PMA2020 is pivoting to add a COVID-19 module to track knowledge, attitudes and practices in these under-resourced countries.
- The seminal, authoritative and indispensable Johns Hopkins University COVID-19 tracking web site, The *JHU Coronavirus Resource Center* was launched through an interdisciplinary collaboration among the Bloomberg School of Public Health, the Whiting School of Engineering, and the Applied Physics Laboratory. JHU has marshalled its experts in global public health, infectious disease, and emergency preparedness—including population scientists—to inform and guide the response to COVID-19. The data collection and visualization are open access and have catalyzed research and response across the country and the globe.

Tracking and Modeling the Spread of Disease and Mortality

- The Institute for Health Metrics and Evaluation (IHME) at the University of Washington has been providing COVID-19 transmission, mortality, and recovery projections since the beginning of the outbreak in the US. IHME projections have provided one of the most widely

used benchmarks and informed policy debates and decisions relating to Stay-at-Home mandates in states and localities across the country.

- Researcher David Swanson (U of Washington) is developing modeling tools and providing local area tracking and forecasting in several counties in Washington, where the first community transmission hot spot of COVID-19 occurred. Dr. Swanson's work is uncovering the gaps in data collection and standardization at the local and regional level that in turn hamper efforts to predict the progression of the disease and thus the ability to plan which resources need to be deployed where.
- Adrian Raftery, a statistician at the University of Washington, has been developing models and engaging other demographers in a discourse on methodological and analytical issues—[using Twitter](#) among other platforms.
- Dr. Yoonjung Choi, formerly of Johns Hopkins, is analyzing [COVID-19 transmission patterns](#) and tracking COVID-19 cases at the county level in Maryland—a state with a comparatively high incidence rate.

Research Projects and Dissemination

- The Berkeley Population Center at the University of California-Berkeley used its own resources to issue a special round of seed grant funding of up to \$10,000 to support COVID-19-related research. The Center has awarded nine projects, including one focused on antibody testing.
- The Hopkins Population Center has similarly awarded funding for seed grants on COVID-19 projects, including the development of a data hub that will feature more detailed demographic data (i.e., age, sex, race, etc.) to enable scientists to systematically examine questions such as disparate impacts of disease on specific populations.
- The Berkeley Population Center (BPC) has sponsored a series of virtual “brownbag” briefings and discussions to foster dissemination of findings and support collaboration. A recent example was a briefing by Dr. Ron Lee and BPC Director Josh Goldstein on COVID-19 mortality. These briefings have attracted national and international audiences.
- The Center for Studies in Demography and Ecology (CSDE) at the University of Washington is launching an “open science forum” to accelerate population dynamics research related to better understanding the impact of COVID-19; it will engage scientists around the world.

PAA and APC have urged Congress to provide additional funding for COVID-19-related population research. Funding could augment existing data collection platforms and support research that can more fully measure the pandemic's immediate and long-term socioeconomic and health effects on different populations and produce insights that will aid in securing a robust and broad-scale recovery.

The Population Association of America is a scientific society that promotes and supports high quality research on the individual, societal and environmental implications of population dynamics whose 3,000 members include demographers, sociologists, economists and statisticians. The Association of Population Centers represents 40 federally funded, interdisciplinary centers that sponsor, coordinate and disseminate research on population dynamics and aging.