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, and sociologists), with federal funding from agencies like the National Institutes of Health (NIH) and National Science Foundation (NSF) bring scientific rigor to the collection, analysis, and dissemination of data on population dynamics and have much to contribute to efforts to battle the pandemic and accelerate our recovery.

These are some examples of the ways in which population scientists are helping shape our understanding of the health, economic, and societal impacts of COVID-19 and our response:

Surveys and Data collection

- The Understanding America Study is a panel survey of households directed by the University of Southern California of approximately 8,500 respondents representing the entire United States. The UAS began tracking the American experience of pandemic through the *Understanding Coronavirus in America* tracking survey, which has generated valuable data and insights with eight waves now available for public use.

- The Detroit Metro Area Communities Study (DMACS) at the University of Michigan is a panel study of households in and around Detroit that tracks multiple topics, from economics and employment to education and health. When Detroit emerged as a COVID-19 "hot spot" early in the pandemic, DMACS launched a series of rapid response surveys about Detroiters' experiences with COVID-19, fielding four surveys involving 1,880 panelists between late March and late July.

- The National Health and Aging Trends Study (NHATS), which gathers information from a nationally representative sample of Medicare recipients, has launched a COVID-19 supplement to track the impact of the pandemic on older Americans and their family caregivers. NHATS studies factors such as cognitive and physical capacity, use of rehabilitation services, help with daily activities and overall well-being. The supplement will allow researchers to study and compare how the pandemic has affected different segments of the population ages 70 and older across the U.S.

- The Health and Retirement Study (HRS) is a longitudinal panel study that surveys approximately 20,000 Americans with in-depth interviews that has yielded an invaluable body of multidisciplinary data to probe the challenges and opportunities of aging. HRS and its sister studies in the HRS International Network have launched several COVID-19 research initiatives and HRS has made available a linkable COVID-19 US State Policies Database created by researchers at Boston University to enable comparisons of the consequences of the outbreak.

- The Inter-University Consortium for Political and Social Research (ICPSR) housed at the University of Michigan, created a COVID-19 Data Repository, an open access resource and self-publishing platform that will serve as an archive for data examining the social, behavioral, public health, and economic impact of the novel coronavirus global pandemic. The guiding principle of the site is to ensure the data are FAIR – Findable, Accessible, Interoperable and Reusable.

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.

Research Projects

- **U.S. COVID Deaths likely Undercounted by 36%; Disproportionate Impact on Poor & Minority Populations**. Demographers Irma Elo and Samuel Preston (University of Pennsylvania) and Andrew Stokes (Boston University), analyzed county-level mortality data across the U.S. and found a pattern of excess deaths in high-COVID-19 mortality areas indicating that the number of deaths attributed to COVID-19 have been underestimated by approximately 36%. Areas with the highest excess mortality had populations with greater income inequality, more non-Hispanic Black residents and less home ownership, pointing to a pattern of socioeconomic disadvantage.

- **Effects of COVID-19 on Older, Diverse Populations**. Researchers Kathleen Cagney (University of Chicago), Erin York Cornwell (Cornell University), Christopher Browning (Ohio State University), and Louise Hawkley (NORC) are studying the spatial implications of COVID-19. Focusing on older adults, they examine whether those living in disadvantaged neighborhoods, who are racial and ethnic minorities, or from lower SES households, are less able to comply with social distancing guidelines. Three waves of data, geotagged and smartphone-based, from ten racially and economically diverse neighborhoods, will be collected and compared to pre-pandemic patterns.

- **Studying Changes in Time Use During COVID-19** Sarah Flood (University of Minnesota) and Liana Sayer (University of Maryland) are conducting a large-scale, rigorous study that will measure and examine how the COVID-19 pandemic has affected time use across geography, race, gender, age, and socio-economic strata—providing evidence that can inform myriad policy decisions.

- **What's Working in Remote Working** Wen Fan (Boston College) and Phyllis Moen (University of Minnesota) are investigating the experiences of remote work and the technologies that support it, probing disparities by age, race/ethnicity, gender and socioeconomic status; examining how workers juggle and adapt to competing demands and variations in resources; and exploring the sustainability of remote work in a post-pandemic world. The findings will inform how we develop and implement new work designs for the 21st century.

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.