COVID-19 Impact on Indigenous Peoples in the U.S.

By Randall Akee
University of California, Los Angeles

The Navajo Nation estimates that up to 30% of the population must haul water because they are not served by piped water systems.

The Issue:

There is emerging evidence that many disadvantaged communities in the United States are being disproportionately impacted by COVID-19. Native American communities share some of the characteristics of other disadvantaged communities that might make them susceptible to greater impacts, but they also face unique challenges. Difficulties inherent in studying small population groups as well as differences in access to testing for COVID-19 present challenges to understanding the full impact of the epidemic on these communities. However, there are indications that some Native American populations are facing a disproportionate brunt of the COVID-19 epidemic with higher infection and mortality rates than the overall U.S. population. Understanding how the disease is

affecting these communities is important to mitigating the damage. Specific measures that address water infrastructure in some reservations and language or communication barriers may be warranted.

> Some Native American populations are facing disproportionately high COVID-19 infection and mortality rates. Water access may play a role.

The Facts:

- **Many disadvantaged communities in the U.S. are at higher risk for COVID-19 infection than the general population, though national race-disaggregated data is lacking.** Analysis from Dr. Lisa A. Cooper at Johns Hopkins University (https://coronavirus.jhu.edu/data/racial-data-transparency), for example, shows that "while Black Americans represent only about 13% of the population in the states reporting racial/ethnic information, they account for about 34% of total COVID-19 deaths in those states." There have been several likely mechanisms identified that may play a role in the disproportionate incidence and high death rates for COVID-19 for these disadvantaged communities. Dr. Hill Golden cites (https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid19-racial-disparities) several conditions and obstacles for African-Americans, including: living in crowded housing conditions, working in essential fields, inconsistent access to health care, chronic health conditions, and higher levels of stress. Especially in the U.S., minority communities have been continually subject to these harms.

- **Historical inequities in public funding, in areas like healthcare and infrastructure, have also contributed to health disparities that put Indigenous peoples and other minorities at higher-risk in the COVID-19 crisis.** For instance, handwashing has been emphasized as an important measure to prevent contagion in the pandemic. However, because of historical imbalances in infrastructure projects, race is an important predictor (https://www.nytimes.com/2020/05/02/opinion/coronavirus-water.html) of indoor plumbing access in the country; Indigenous peoples, African-American and Latinx households are more likely than white households to lack access to complete plumbing. The persistence of health disparities

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1698152/) for American Indians is also evident in ways that could affect their susceptibility to COVID-19, such as the fact that they are three times more likely (https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=33) to be diagnosed with diabetes than whites.

- **There is a wide range of COVID-19 rates among different American Indian reservations, but a handful of reservations have many-fold greater infection rates compared to the general U.S. population.** Verified COVID-19 cases in the U.S. are over 1.3 million (https://www.nytimes.com/interactive/2020/world/coronavirus-maps.html), as of May 12, 2020, which means that the rate of verified COVID-19 infection per 100,000 individuals is around 400. Current verified COVID-19 cases on U.S. American Indian reservations range from 0 to 3,300 per 100,000 individuals; the average rate is about 32 per 100,000. However, the Mississippi Band of Choctaw Indians, the Ho-Chunk Nation, the Navajo Nation, the Pueblo of San Felipe, and the Pueblo of Zia have astonishingly high reservation-based COVID-19 rates per 100,000 at 500, 800, 1100, 1400 and 3300, respectively (according to COVID-19 impact data from Indian Country Today (https://indiancountrytoday.com/news/indian-country-s-covid-19-syllabus-EiN-p5Q-XkW-smnaebJV6Q) and population estimates from the U.S. Census ACS 2018 1-Year Data (https://www.census.gov/programs-surveys/acs/news/data-releases/2018/release.html)). This variation may be attributable to differences in rates of testing, but also likely reflects the differential access to resources of different reservations.

- **Examining the characteristics of different reservations — such as access to running water and English proficiency — may help explain some of the disparities in COVID-19 rates.** In new research (https://jphmpdirect.com/2020/04/28/identifying-differences-in-covid-19-rates-on-american-indian-reservations/), forthcoming in the Journal of Public Health Management and Practice, we examine average reservation-level characteristics and their association with on-reservation COVID-19 cases as of April 10, 2020. We find that COVID-19 cases were more likely to occur in tribal communities with a higher proportion of homes lacking indoor plumbing, even when taking into account other characteristics like household size, age, and income. Lacking complete plumbing is defined as missing any or all of the following: flush toilet, hot and cold water, and a tub or shower in the American Community survey. While American Indian households on tribal reservations are 3.7 times more likely to lack complete indoor plumbing relative to all other households in the United States, this average obscures differences among

reservations with some experiencing much higher rates of incomplete plumbing facilities, such as the Navajo reservation (18%). We also find (https://jphmpdirect.com/2020/04/28/identifying-differences-in-covid-19-rates-on-american-indian-reservations/) that COVID-19 cases were less likely to occur in tribal communities where households spoke English-only. This was true even after taking into account differences in socioeconomic characteristics. This association suggests that access to relevant public health information in Indigenous languages may play a key role in the spread of COVID-19 in some tribal communities.

- **There are some signs that Native Hawaiian and Pacific Islanders are also disproportionately affected.** In California, Native Hawaiian and Pacific Islanders (NHPI) make up approximately 1% of all cases (https://public.tableau.com/views/COVID-19PublicDashboard/Covid-19Public?:embed=y&:display_count=no&:showVizHome=no) in the state as of May 7, 2020 according to California state data. However, NHPI make up only 0.3% of California's population; this means that their cases are more than three times their population proportion. They also have a disproportionately high mortality rate from COVID-19, which is approximately three times their population proportion (https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Race-Ethnicity.aspx) as of May 8, 2020. The NHPI rates in Hawaii (https://health.hawaii.gov/coronavirusdisease2019/what-you-should-know/current-situation-in-hawaii/), however, are only slightly more than proportionate to the NHPI proportion in the state. In Alaska, American Indians and Alaska Natives are approximately 15% (https://www.census.gov/quickfacts/AK) of the state's population, however, they accounted for 6% of all cases and approximately 20% of all deaths (https://coronavirus-response-alaska-dhss.hub.arcgis.com/datasets/summary-tables-09may2020) related to COVID-19 in the state, as of May 8, 2020. This indicates that while the AIAN population in Alaska is less likely to catch COVID-19, they are more likely to die as a result. Potential explanations for this high mortality rate could be higher pre-existing conditions, lack of testing, or quality of healthcare, but more research is needed in this area.

- **Indigenous peoples throughout the world have been subjected to viral epidemics for centuries.** In the Americas, the rate of population decline was upwards of 90% based on best estimates over the course of the 16th, 17th and 18th centuries. The lack of immunity to novel viruses brought to the Americas decimated these populations. Native Hawaiians experienced similar population decline over the course of the 19th century with imported diseases such as

measles and smallpox. The COVID-19 pandemic is reminiscent of these historical experiences, albeit at much lower rates than those previous eras.

What this Means:

Small population race and ethnic groups must be identified and counted during public health epidemics. There are continuing issues and concerns that American Indian and Alaska Native (AIAN) individuals are being mis-categorized as Latinx or Hispanic based on surnames or appearance in certain state counts. In many state health departments, AIAN individuals are simply classified as "other (https://www.theguardian.com/us-news/2020/apr/24/us-native-americans-left-out-coronavirus-data)." If this is the case, then there will be an undercount of the severity of the COVID-19 pandemic in certain communities. A better understanding of how the pandemic is playing out in these communities might help provide better-targeted, context-specific policies. There is emerging evidence that the lack of complete plumbing facilities is related to disproportionately high COVID-19 cases on American Indian reservations. This may necessitate the provision of water supplies in the future if and when additional waves of infection start again. Effective communication of public health warnings and directives may need to be translated into more languages than simply English.

TOPICS: CLEAN WATER / CORONAVIRUS

Written by The EconoFact Network. To contact with any questions or comments, please email contact@econofact.org.