

Pandemic Protocols, Native Conditions: The Effects of COVID-19 Related Restrictions on Native American Lands

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The COVID-19 Epidemic and Native Communities

- About 2.4 million individuals identify as Native American only, and close to 5 million identify as Native American in combination with another race
- A little over 20 percent of those identifying as Native American live on reservations and tribal lands
- Native Americans experience some of the highest poverty rates (at 23 percent); they also have some of the highest rates of chronic disease, and their life expectancy is approximately five years shorter

The COVID-19 Epidemic and Native Communities

- The COVID-19 epidemic has been particularly devastating for Native American Communities
- Infection rates have been about 3.5 times higher than non-Hispanic whites and death rates have been about 1.5 times higher.
- COVID-19 infection rates have been highest on reservations with low infrastructure and integration (non-English speaking) (Rodriguez-Lonebear, et al, 2020).

Non-Pharmaceutical Interventions

- In order to slow down the spread of COVID-19, local authorities adopted restrictions on mobility and social interactions, commonly known as Non-Pharmaceutical Interventions (NPIs).
- The US has been criticized for implementing a staggered adoption of NPIs; the decisions to shut down mobility were done by states or counties.
- Native communities are self-governed as long as they live on reservations. Thus, the decision to adopt restrictions lies with the tribal governments
- In many cases, the tribal governments followed the policies adopted by the state (e.g. California)

Secondary Impacts of NPIs – Mobility Measures

- The down side of NPIs is that they severely affect local economies
- The effects are not well understood for minority groups, and for Native Americans in particular
- This is particularly acute on tribal lands with gaming operations, where a disproportionate share of economic activity is driven by tribal casinos
- There are 524 American Indian gaming operations in the United States. They are owned by 245 of the nation's 574 federally-recognized tribes. These gaming tribes operate in 29 of the 50 states. The annual revenue from all Indian gaming exceeds \$32 billion and represents 43% of all casino gaming revenue in the U.S.
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- Many tribes shut down casino operations in compliance with recommendations from experts to reduce the amount of social contact

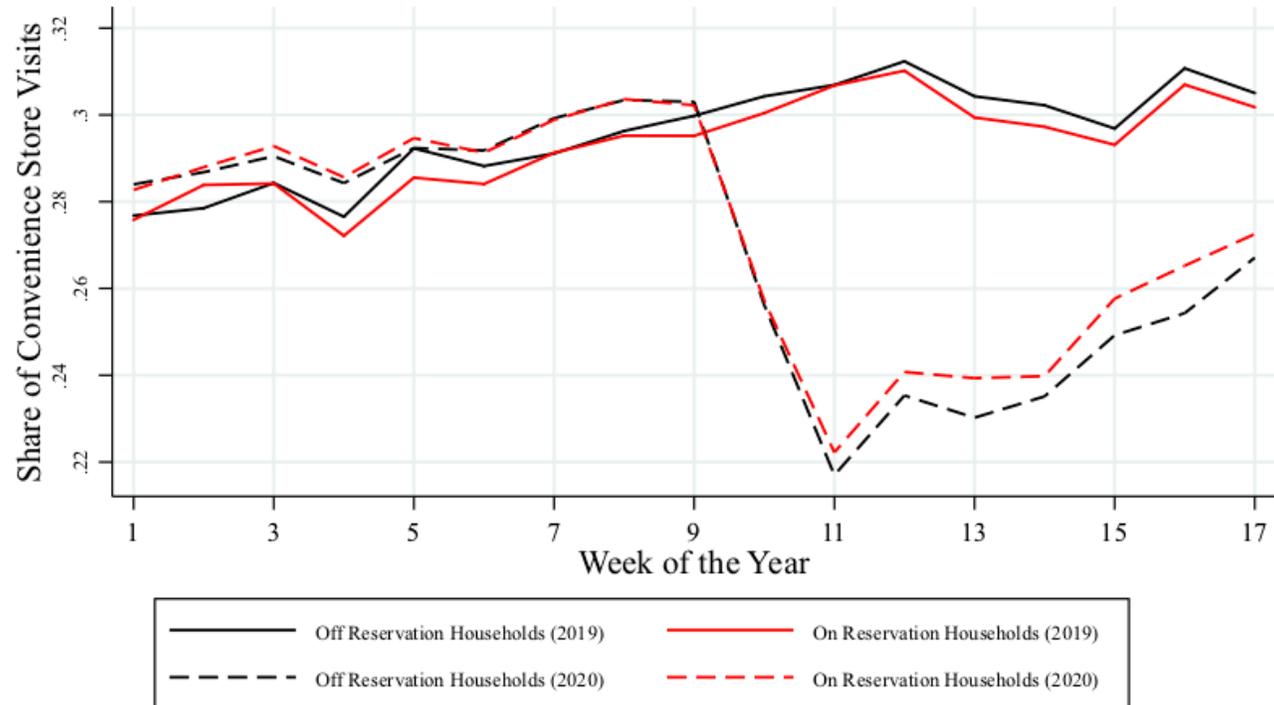
NPIs and Mobility – Food Stuffs

- Native Americans residing on reservation on average travel more than 20 miles to the nearest supermarket.
- In Akee, Quintero and Simeonova (2021) we study how the imposition of NPIs affected grocery shopping for Native communities.
- We use mobility data from Safegraph to track cell phone “pings” from different locations as a function of residing on a reservation and casino operation status
- 328 Native American reservations in our data
- 189 of them have at least on tribal casino on their lands
- 167 of these casinos closed to slow the spread of COVID-19

NPIs and Mobility – Food Stuffs

- First, we find that the average distance traveled for grocery shopping after NPIs are implemented decreases by a relatively larger amount for those living on reservations.
- Reservation households increase their share of grocery shopping at convenience stores relative to supermarkets during the pandemic. Thus, the relative difference in distance traveled under social distancing policies arises from visits to different food sources for the on- and off-reservation households.
- Those living off reservations are traveling to *closer* supermarkets, while those on reservations are switching *from* supermarkets *to closer* convenience stores

Share of Convenience Stores in Total Grocery Visits



NPIs and Mobility – Health Utilization

- We studied the effects of mobility restrictions on visits to dialysis centers, hospitals and outpatient facilities
- NPIs reduced visits to all facilities for both reservation and non-reservation residents
- We found similar reductions in visits to dialysis centers
- However, the reduction was about half the size for reservation dwellers when we considered hospital visits and outpatient visits
- We believe this is because health care utilization is lower among those living on the reservation, so the marginal visit is more necessary (less likely to be elective)

NPIs and Economic Activity on Tribal Lands

- General lack of data and analysis on the primary (mostly health-related) and secondary effects of COVID-19 containment policies on Native Americans; mobility data are useful to address this gap
- Casino closures are likely to have had positive effects on disease spread and transmission both on reservations and among patrons who live elsewhere
- But they are also very likely to have caused economic pain in the local communities
- In light of the health and socio-economic disparities already in place pre-pandemic, the impacts of NPIs are likely to differ both across race and geographic locations
- Studies that help assess the immediate and long-term effects of public health policies are important for future policy design