



A Data Driven Approach to Mitigate Economic Inequities of the Pandemic

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Health and social inequities experienced by racially and economically marginalized individuals are exponentiated in times of public health crises. To mitigate inequities and resultant long-term adverse health outcomes, it is critical to incorporate timely, relevant, and multi-modal data from marginalized communities into policy efforts. The overall goal of this brief is to present a novel model for data collection and analysis to contextualize our understanding of structural and social determinants of health as experienced by residents in their communities. Due to the dynamic nature of resource needs during a pandemic, we tested the feasibility of this novel data model to (1) rapidly monitor and assess shifting needs in goods, resources, and services, and to (2) uncover programs, services, and networks which have emerged in response to gaps in existing services.

Data and Methods

- Multi-modal and community-based data collection was feasible during the COVID-19 pandemic. All individuals who responded to our baseline survey provided their residential address and approximately half provided both quantitative and qualitative data. Our research/community partnership successfully engaged participants from racially and economically marginalized communities – 87% of participants were non-White, and 75% reported receiving income support.
- Integration of participant-generated qualitative data, survey data, and geospatial data allowed us to identify unique and specific needs based on individual circumstance.

Findings

- Using our integrated data model, Figure 1 shows individuals who had ever experienced food insecurity (before/after the pandemic) were overwhelmingly more likely to describe access to goods and services (e.g., quality of goods) compared to those who were never food insecure.
- Additionally, Figure 2 shows a high overlap in the spatial distribution of qualitative reports mentioning food resources and census tracts with lower socioeconomic status.
- Finally, in Figure 3, we found overlap in food resources mentioned via open ended responses in quantitative surveys and proportion of food resources published on community-based and government websites.

Implications for Policy

- We demonstrated the feasibility of this novel data model for monitoring social determinants in real time by engaging individuals in their communities.
- Policy makers, community organizations or informal networks for resource and social support (e.g., informal mutual aid groups and goods trading markets) are encouraged to connect with us for further information or to discuss the use of our or data model to generate topic-specific, real-time, actionable evidence for their own efforts to reduce inequities in the social determinants of health.

Figure 1. Distribution of codes related to ACCESS based on whether individuals reported food insecurity

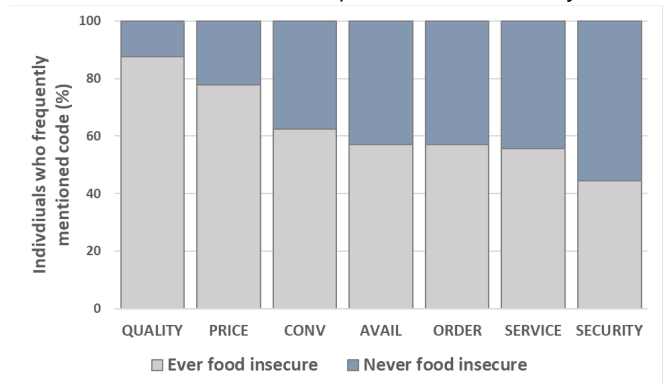


Figure 2: Geospatial distribution of mentions of neighborhood SES and food resources (Left). Figure 3: Geospatial distribution of organizations providing food resources (Right)

