

Team 46: COVID-19's Impact on Immigrant Populations in Minneapolis by Race and Gender

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Objective

The COVID-19 pandemic has disproportionately affected vulnerable populations, with immigrant communities experiencing heightened challenges in food insecurity, mental health, and housing stability. Studies highlight that immigrants have faced greater health and socioeconomic burdens due to structural inequalities and limited access to resources, leading to disparities in pandemic outcomes [1,2,4]. This study examines the impact of COVID-19 on key well-being indicators, specifically food insecurity, mental health, and housing stability, within the immigrant population in Minneapolis. The research question centers on how these impacts vary across racial and gender groups within the immigrant community, with the goal of providing insights to inform targeted public health interventions addressing these intersecting disparities.

Data and Methods

The data analyzed in this study is sourced from the SHAPE 2022 dataset, which includes responses from 8,591 individuals in Minneapolis. The survey collected extensive information on health, economic status, and demographic variables. For this analysis, variables of primary interest included food insecurity (FI), mental health, housing stability, race (EthRace5_2022), and gender (G1), with the COVID-19 impact variable (AdultImpact5) serving as the outcome. Logistic regression models were used to explore associations between COVID-19's impact and food insecurity, with additional stratifications by race and gender to assess disparities within immigrant groups. Excel and SAS software were used to manage data, conduct statistical analysis, and generate graphical representations to disseminate key findings.

Key Findings

The analysis indicates that immigrants affected by COVID-19 had significantly higher odds of experiencing food insecurity, with an odds ratio of 5.908 (95% CI: 3.915 - 8.917), suggesting that COVID-19 impacted nearly six times the likelihood of food insecurity among immigrants. Racial disparities were evident within the immigrant population, with Black and Hispanic immigrants experiencing disproportionately higher levels of food insecurity and mental health challenges compared to White immigrants. Gender also influenced the extent of COVID-19's impact, with female immigrants demonstrating a higher likelihood of experiencing food insecurity than male immigrants. Additional analysis revealed that certain racial groups faced more severe physical and mental health consequences of COVID-19, highlighting racial and

gender identity as influential factors in immigrants' experiences with social determinants of health during the pandemic.

Interpretation

These findings underscore the complex intersectionality in how COVID-19 has affected food security and health outcomes among Minneapolis immigrants. The analysis reveals that both race and gender not only shape the likelihood of experiencing food insecurity but also influence broader health impacts of the pandemic. This intersectional perspective highlights the importance of addressing specific racial and gender barriers when designing public health interventions for immigrant populations. Furthermore, the significant increase in food insecurity among immigrants impacted by COVID-19 points to the need for targeted support systems, especially in food assistance and mental health services, to alleviate disparities intensified by the pandemic.

Limitations

This study has several limitations. The SHAPE 2022 data collection, which utilized both mail and in-person methods, may be subject to self-selection bias. With a response rate of only 20.2%, the results may not fully represent the immigrant population of Minneapolis. Additionally, limited data availability for certain racial and ethnic subgroups constrained the analysis in some cases, potentially affecting the reliability of prevalence estimates. As a cross-sectional study, these findings reflect associations rather than causal relationships, and the results are time-specific, potentially missing the long-term effects of the pandemic on immigrant communities. Nonetheless, this study highlights significant disparities within immigrant communities and underscores the importance of targeted, intersectional public health responses to build resilience among vulnerable populations in times of crisis.

References

1. Cadenas, G. A., Cerezo, A., Carlos Chavez, F. L., Capielo Rosario, C., Torres, L., Suro, B., Fuentes, M., & Sanchez, D. (2023). The Citizenship Shield: Mediated and Moderated Links between Immigration Status, Discrimination, Food Insecurity, and Negative Health Outcomes for Latinx Immigrants during the COVID-19 Pandemic. *Journal of Community Psychology*, 51(6), 2355–71. <https://doi.org/10.1002/jcop.22831>.
2. Gaynor, T. S., & Wilson, M. E. (2020). Social Vulnerability and Equity: The Disproportionate Impact of COVID-19. *Public Administration Review*, 80(5), 832–38. <https://doi.org/10.1111/puar.13264>.
3. Hennepin County Public Health, SHAPE 2022 Dashboard, Survey of the Health of All the Population and the Environment, Minneapolis, Minnesota www.hennepin.us/your-government/research-data/shape-surveys
4. Leung, D. Y. L., Guruge, S., Wang, A. H., & Lee, C. (2024). Health Citizenship Reveals ‘Extra’ Work Managing Biopolitical Risk for Immigrants in Canada during COVID-19: A Qualitative Study. *Journal of Community & Applied Social Psychology*, 34(4), e2840. <https://doi.org/10.1002/casp.2840>.