Working to Improve Healthcare Equity: Learning from the COVID-19 Vaccine Rollout and the Risk Factors of IFDs in the Philippines

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Introduction

The COVID-19 vaccine distribution in the Philippines highlights inequities between households of different geographical areas, age groups, income levels, and others. ICM’s Transform 15-week program works to teach health, livelihood, and social values to ultra-poor communities.

Objective

At ICM, I aimed to assist the research team in a variety of projects in order to assess:
1. What factors affect vaccine acceptance and uptake in ultra-poor communities
2. Which changes in health (e.g. serious health events) are most correlated with the appearance of infectious diseases (IFDs) in children of ultra-poor households

Methods

Vaccine Acceptance
- Creating a codebook for data collected from the Transform program in the CHAMP app used by “Community Health Champions”
- Analyzing CHAMP data to observe patterns in vaccine hesitancy in Transform participants
- Conducting interviews with stakeholders, government officials, and Transform participants to understand the Philippines’ vaccine rollout

Serious Health Events
- Running univariate and multivariate models and chi-squared tests to observe differences between different risk factors
- Differences found between the likelihood of IFDs in rural versus urban households suggests that testing through means outside of stratification will allow us to see how serious health events differ across geotypes as opposed to within different geotypes.

Results

Vaccine Acceptance (Quantitative Results)
- We can note a steady decline in vaccine hesitancy from 2021 to 2022
- When limiting the results to only unvaccinated individuals, we can observe that vaccination rates, in fact, do not improve over time

Serious Health Events
- “Geotype2” (urban vs rural) is a much greater predictor than behavior based on the difference in density population –this is a limitation to the data

Discussion

Vaccine Acceptance
- Aside from vaccine acceptance, vaccine access – particularly in the beginning of the COVID-19 vaccine rollout– also has impacted the vaccine uptake in different geographical areas
- This is suggested by the increase of vaccine uptake in those who had already planned to vaccinate in the CHAMP data
- This is supported by the testimonies on interviewees as well

Serious Health Events
- While the final draft of this research paper is still a work in-progress, we’ve determined that a household’s geographical location, toilet location, educational level, and accessibility to drinking water hold significant associations with the likelihood of one or more IFDs being found in household members

Conclusion

Vaccine Acceptance
- Particularly for when choice comes into play on who in the Philippines gets vaccinated, health literacy is essential in ensuring that the highest-risk populations of the country are making educated decisions on their safety from COVID-19. With an increase of vaccine hesitancy in the Philippines since the dengue vaccine controversy, it is important for government and health organization statements to align so that the population can trust these figures in providing correct information.

Serious Health Events
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