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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:

- What factors affect **vaccine acceptance and uptake** in ultra-poor communities
- 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

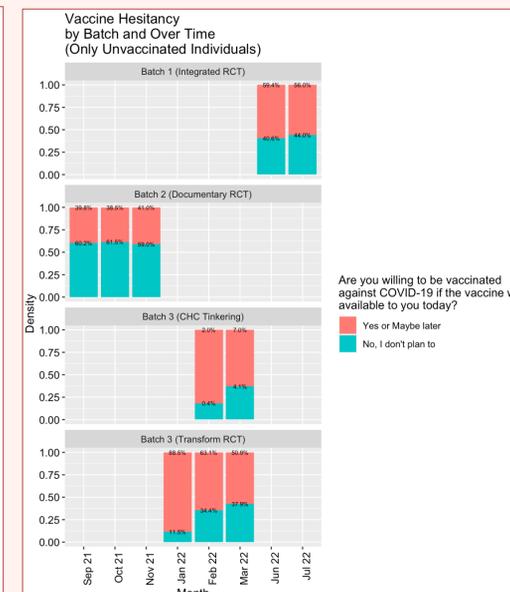
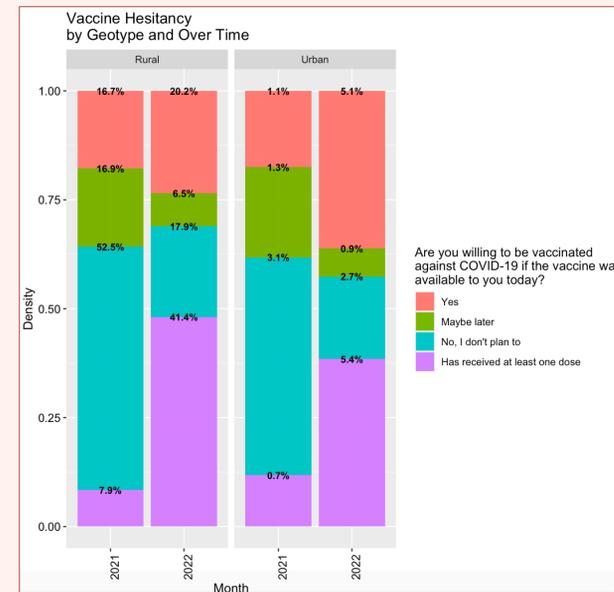
### Serious Health Events

- Running univariate and multivariate models and chi-squared tests to observe differences between different risk factors

## 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



### Vaccine Acceptance (Qualitative Results)

- In-person interviews proved to express inconsistencies in vaccine access and the level of vaccine hesitancy in different barangays
- Generally, it seems that while local government intervention was helpful, many sought stronger intervention from the international government



### 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

Variable (against geotype2)	X-squared	df	p-value
infect.disease	7.3067	1	0.0007
respondent.gender	0.1677	1	0.6822
edu	11.5490	2	0.0031
geotype	3326	5	0.0000
poverty.grp.pre.new2	0.1396	1	0.7086
povscore.fuel	0.5113	1	0.4746
health.prepare.ors.home	9.5578	1	0.0020
health.wash.hands.often	15.271	1	0.0001
health.drinking.water.safer.method	1.1776	1	0.2778
health.location.toilet	2.8058	1	0.0939
povscore.toilet	3	1	0.1016

## 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

- "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

## 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

- 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.

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