Debottlenecking Misinformation-induced barriers for COVID-19 vaccination: Findings from Bihar

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Background

- Safe/effective vaccines were central to the global efforts to combat COVID-19 pandemic.
- Based on our secondary data, it was found that even though majority population had received two doses of the COVID vaccine, there was still a considerable amount of vaccine hesitancy prevailing in the community.
- Factors like inadequate information, lack of trust in government, community belief, etc. majorly determines the acceptance and uptake of the vaccine.
- Misinformation acquired from different sources led to mistrust in government healthcare services, affecting not only COVID vaccination but also routine immunization.

Vaccine Hesitancy...

“A context-specific and behavior-specific phenomenon”

Specific Objectives

- To identify demand-side constraints to vaccine hesitancy in Bihar
- To determine the burden and role of misinformation on vaccine acceptance

Method

Cross-sectional study – A phone-based survey

- Districts categorized into 4 quartiles based on the COVID-19 fully vaccinated population rates
- Random selection of 2 districts belonging to each quartile
- 30% blocks randomly selected from the selected districts
- 30% of panchayats of the selected blocks were randomly selected and all the villages of these panchayats were chosen

A total of 1172 adults were interviewed

Results

~40% Adults presented with:

- Poor Vaccine Acceptability
- Lack of trust on public health services
- Misinformation

Lower vaccine acceptability presented among:

- Lower age group
- Non-Hindus,
- Non-marginalized, males, and who received education till 10th

The higher the misinformation regarding the vaccines, the lower is the vaccine acceptability among lower (aOR=0.5, p=0.0042) and higher (aOR=0.3, p<0.0001) age groups, both sexes and caste, and Hindus (aOR=0.5, p<0.001)

Vaccine Acceptability*

- Religiousness
  - High
  - Moderate
  - Low

- Trust in Government services
  - High
  - Moderate
  - Low

- Misinformation
  - High
  - Moderate
  - Low

Misinformation Index

- Incorrect knowledge about COVID
- Reliance on fake news
- Lack of verification of information before believing/sharing

Trust Index

- Trusted source of information related to healthcare
- Level of trust among different caregivers

Other Indices

- Days of fasting and diet restriction
- Performed religious services for health
- Favoring government efforts

Conclusions

From Smallpox to COVID, vaccine acceptance revolves around a few basic but crucial parameters namely; trust in the public health system, side-effects of vaccines, misinformation, etc. Misinformation regarding the side effects, efficacy, and safety of vaccines has led to skepticism and lack of trust among specific groups of people. This hesitancy has not only impacted the acceptance of Covid-19 vaccines but has also influenced people’s perception towards routine immunizations.

Misinformation was thus found to be a critical deterrent in vaccine acceptance, requiring immediate attention. Trust-building through early involvement of community was suggested as a solution along with media literacy promotion. System preparedness required evidence about the nature and magnitude of the influence of misinformation.

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References