Abstract

- Rotavirus is spread by the fecal-oral route. It causes severe diarrhea, vomiting, and abdominal pain which in children, can lead to death [5].
- This virus accounts for about 20,000 deaths each year in Bangladesh and is responsible for nearly 5% of all deaths and 16% of potentially vaccine-preventable deaths in children [1].
- There are 2 vaccines on the market for preventing Rotavirus [2,3].
- The first vaccination is given when the child is 6 weeks old and the second dose is administered 4 weeks later [2,3].

Project Goals and Objectives

- Lower child mortality in Bangladesh where children face extremely low odds of survival to age five due to the Rotavirus, which causes extreme diarrhea and dehydration.
- Prevent the Rotavirus in Bangladesh by administering vaccinations, over time.

Predicted Results and Outcomes

- Participants recruited 1286 participants.
- Interviews conducted to check on status of patients.
- 780 diarrhea episodes were reported
  - 624 of the patients in the placebo group
  - 132 of the patients in the vaccination group
- The response to the rotavirus vaccine was 79.3%

Incidence

![Figure 1. Age distribution for Rotavirus-positive patients in Bangladesh over a four year period [4].](image)

Methods and Process

Acquire Funding → meet with UNICEF and Merck
Recruit Staff → get volunteers from the village
Organize Storage → speak to local hospitals
Dispense → give oral vaccines to the infants
Monitor Population → observe decrease in mortality

Reference


Conclusion

- Introduction of the Rotavirus vaccine in Bangladesh will result in a significant decrease of childhood diarrheal cases and deaths.
- Expanding the study to other cities in Bangladesh would be the next step to eradicating Rotavirus completely as shown in Figure 3.

![Figure 2. Rotavirus Vaccine Study Area [6].](image)

![Figure 3. Eradication of Rotavirus 6 Years After Vaccine Introduction [7].](image)