## Annex 4: Cholera KAP survey findings

- **Demographics**

Location (Upazila): The survey encompassed a total of 661 respondents, 84% from Ukhia and 16% from Teknaf.

Age: The majority of respondents belong to the 30-49 age group (52%), followed by those aged 18-29 years (24%) and individuals aged 50 and above (23.6%).

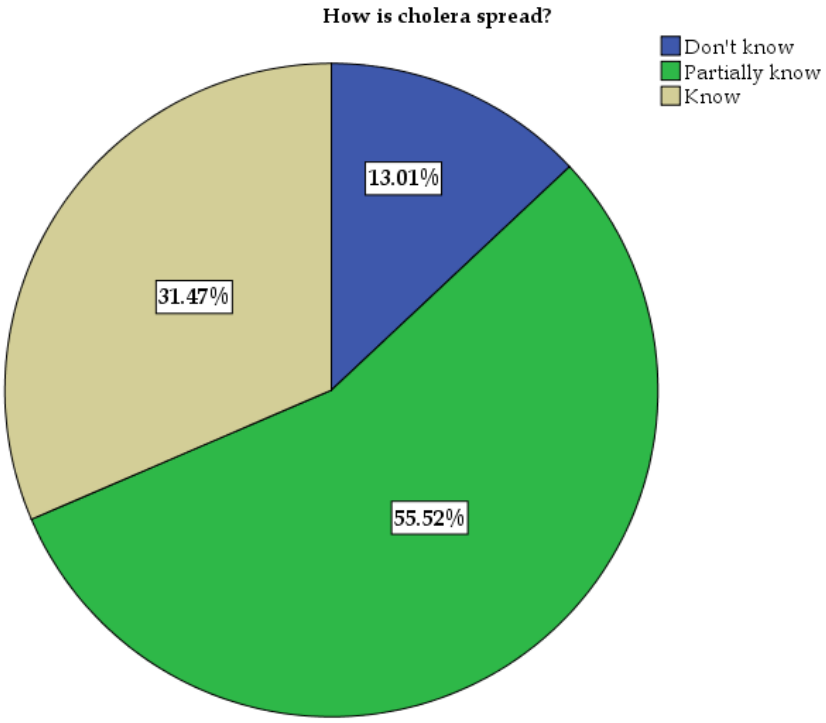
Sex: sex representation is nearly balanced, with 51.7% males and 48.3% females.

Disability: About 18% of the sample had physical or sensory (visual or hearing impairment), and 45.8% were female.

Education: A significant portion of respondents have no formal education (67%). Additionally, 25.7% have completed primary education, 5.7% have attained secondary education, and only a small percentage, 1.5%, hold higher education degrees.

- **Knowledge and awareness about cholera**

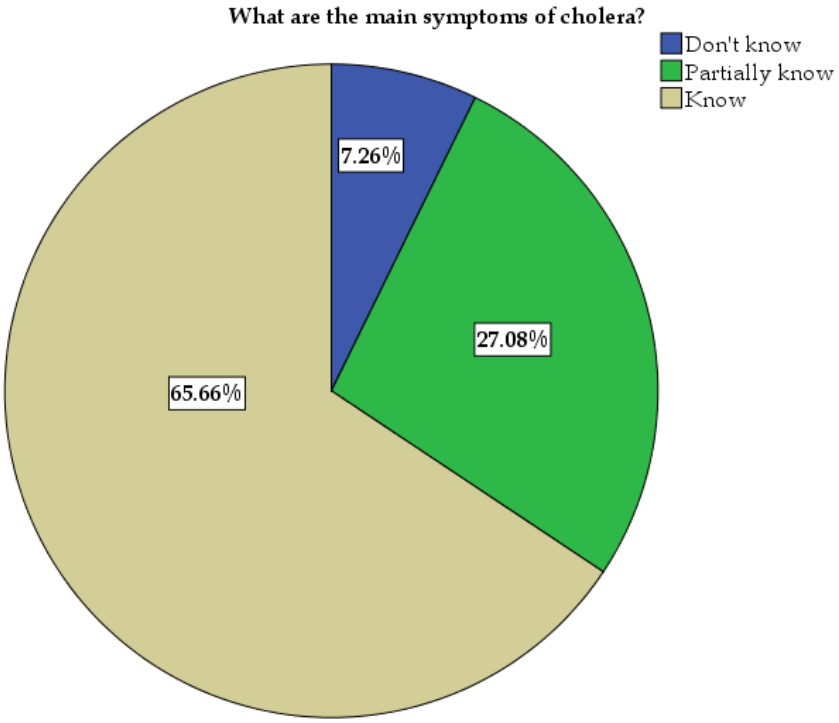
Data analysis revealed that approximately 90% of the sample had **heard** of cholera. However, 59.5% of respondents were unaware of the disease's **cause**. Additionally, only 31.6% provided a complete answer when asked about how cholera **spreads**, 55.5% had a partial understanding, and 12.9% did not know how cholera spreads.



Statistical analysis showed a significant causal relationship ($P < 0.05$) between this variable (awareness of the cholera transmission ways) and education level. Individuals with lower educational attainment are more likely to be unaware of the cholera spread ways.

**Individuals with lower levels of educational attainment are more likely to lack awareness of cholera symptoms and transmission ways.**

Knowledge of cholera **symptoms** is comparatively higher, with 65.6% of respondents able to identify them correctly. 34.4% of respondents either did not know the symptoms of cholera or provided partial correct information.

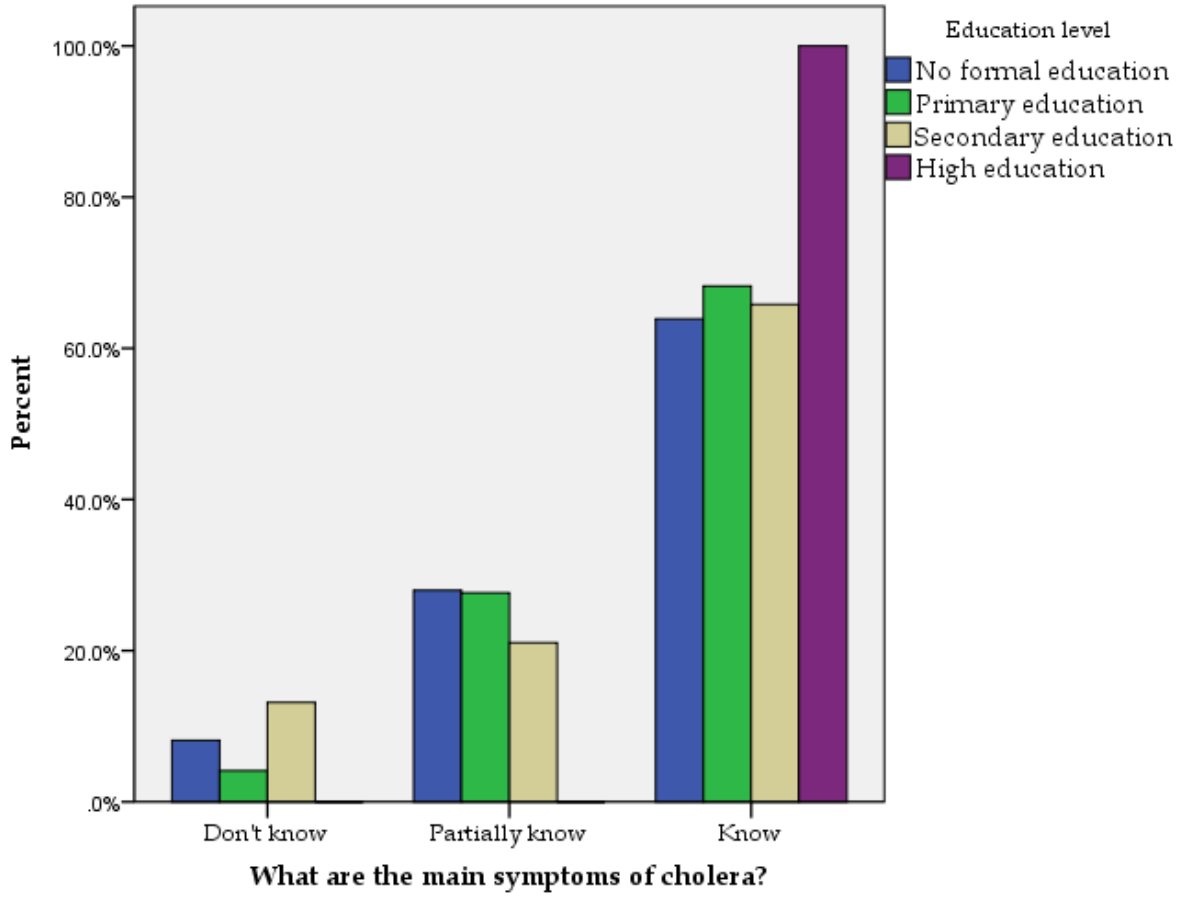



A significant correlation pattern between the variable of knowing cholera symptoms and education was also concluded based on statistical analysis ($P < 0.05$). Individuals with lower educational levels have less information about cholera symptoms.

When inquiring whether cholera can lead to **death** if left untreated, the results indicated that nearly 86% of individuals are aware that cholera can be fatal. Statistical analysis showed that Teknaf respondents are approximately 2.4 times more likely to be uncertain (do not know) about cholera's fatality when untreated, and a higher odds ratio (4.42) was found for Teknaf respondents selecting "No, cholera does not lead to death of not

**People from Teknaf are more likely to be unaware of the consequences of untreated cholera.**

treated" indicates a significant lack of awareness or misunderstanding about the dangers of untreated cholera.




Data showed that 70% of the sample is aware that **ORS** is the first-line treatment for cholera cases. The results indicated that respondents in Ukhia have a notably higher proportion of correct knowledge on cholera treatment compared to those in Teknaf. Significant statistical trends were concluded between Ukhia and Teknaf when the correlation between this variable and location was analyzed. People in Teknaf, in this correlation, were significantly less likely to show knowledge about ORS as a first-line treatment for cholera.

**People from Teknaf are more likely to be unaware of ORS as the first-line treatment for cholera.**

| **Upazila * How is cholera treated? Crosstabulation** | | | | | |
|---|---|---|---|---|---|
| | | | How is cholera treated? | | |
| | | | Not correct | Correct answer (ORS) | Total |
| Upazila | Teknaf | Count | 48 | 58 | 106 |
| | | % within Upazila | 45.3% | 54.7% | 100.0% |

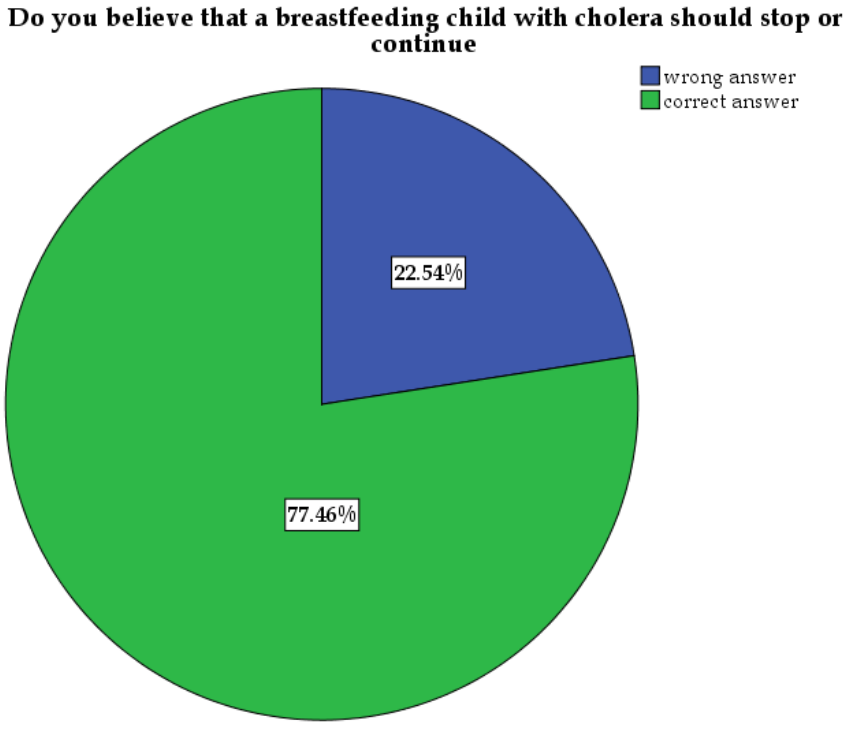
| | | | | | |
|---|---|---|---|---|---|
| | Ukhia | Count | 149 | 406 | 555 |
| | | % within Upazila | 26.8% | 73.2% | 100.0% |
| Total | | Count | 197 | 464 | 661 |
| | | % within Upazila | 29.8% | 70.2% | 100.0% |

When the participants were asked to provide information about ORS, 79.4% of the sample were able to provide at least one correct answer, and 20.6% did not know any information about ORS.

When disaggregating the results based on age groups, it was found that individuals within the age group composed the highest percentage of those who have basic knowledge of ORS. Statistical analysis showed a significant correlation between age and knowledge of ORS. Older populations were less likely to have information about ORS.

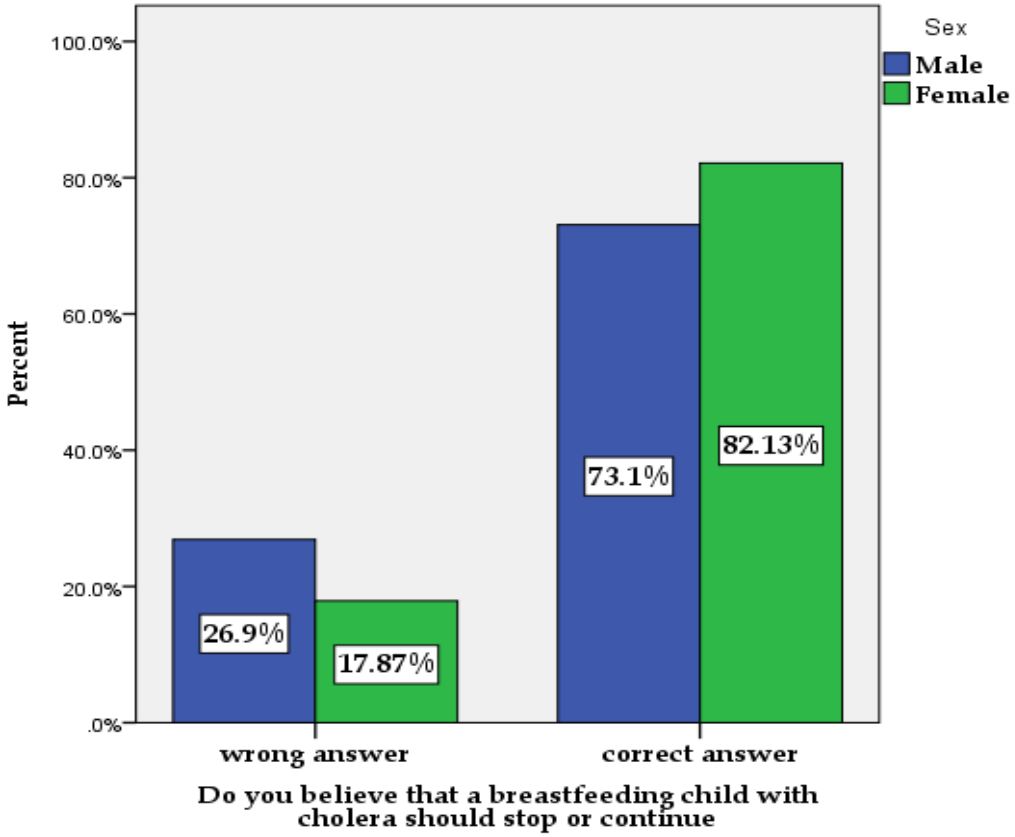
Almost 97% of the sample know they can get ORS from the nearest health facility.

Data about cholera and **breastfeeding** showed that 22.5% of people think that breastfeeding must stop if the infant has cholera.



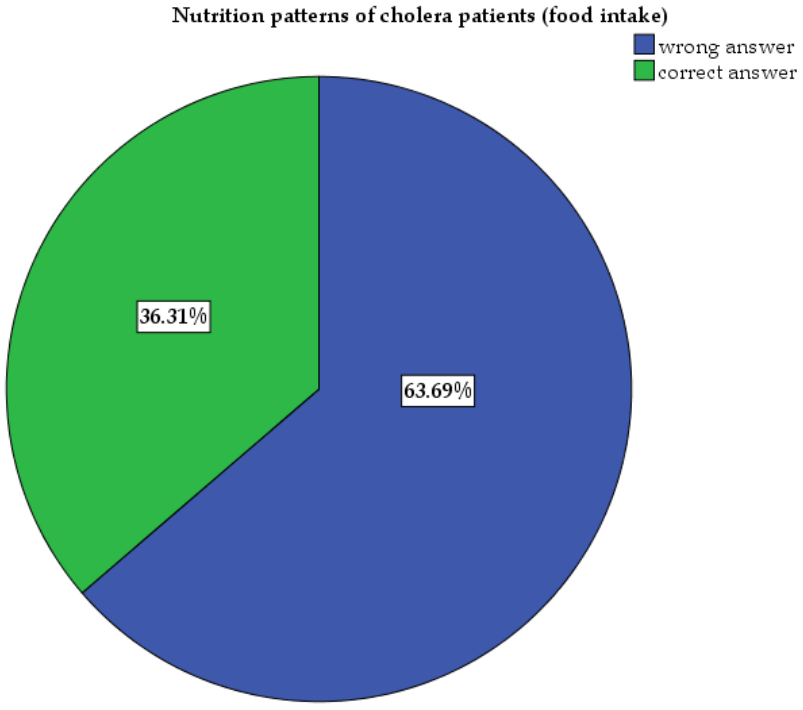

**Males are more likely to believe that mothers must stop breastfeeding infants who have cholera.**

In fact, most of those who hold an incorrect belief about breastfeeding for infants with cholera were males (61.7%), and statistical analysis showed that males were 1.69 more likely to believe




that lactating mothers must stop breastfeeding their infants if they have cholera.

A question about **food intake** patterns among cholera patients revealed that the majority of individuals in the camps hold wrong beliefs. In fact, 63.7% of the individuals said that cholera patients must eat less food (55% were male).



The analysis reveals a significant association between sex and beliefs about dietary and food intake recommendations for cholera patients, with males being more likely than females to hold incorrect beliefs.

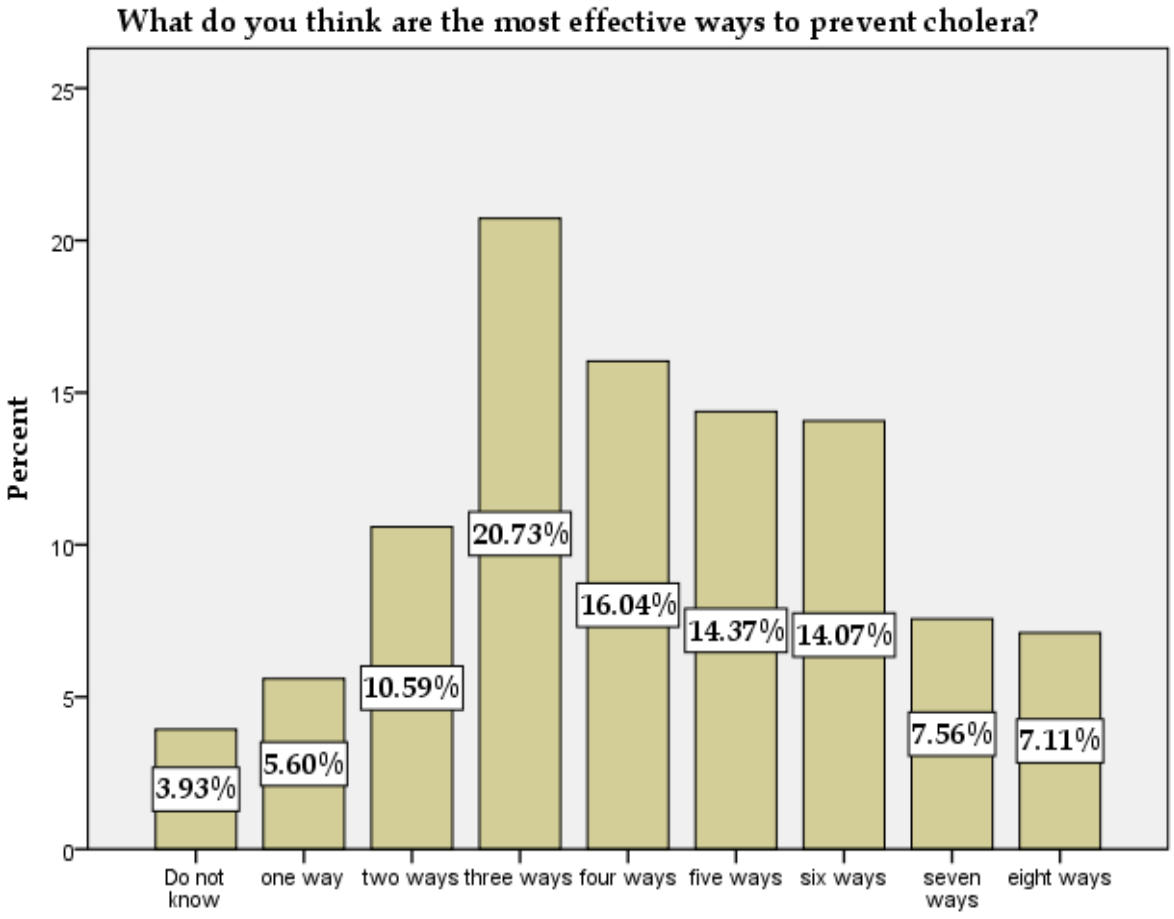
Additionally, data showed that a remarkable portion of people (36.24%) do not have precise information about who is at **risk** of cholera. Actually, 32.5% of people think that only children are at risk of cholera.

Finally, it is worth mentioning that data disaggregation based on disability status showed significantly better figures among PwD compared to non-disabled.

**PwD have significantly more knowledge about cholera compared to non-disabled persons.**

- **Attitudes toward Cholera Prevention and Treatment**

The majority of people (95.6%) consider cholera a serious **health concern** that must be considered seriously. Additionally, almost 90% of people are willing to **adhere** to cholera awareness messages and precautions measures. When participants were asked about their



awareness of cholera as a **preventable** disease, 84% responded correctly. Besides, the majority of the participants showed a positive attitude in adhering to cholera preventive measures and were able to mention more than one or two ways to prevent cholera.

However, 35% of the individuals indicated that they are uncertain about **using ORS** for cholera or diarrhea patients. The analysis reveals a significant correlation between education level and individuals' attitudes and knowledge of ORS as a response to diarrhea. Respondents with higher education levels are more likely to have the correct information and follow recommended actions.

**Individuals with low education attainment are more likely to avoid or do not know that ORS must be given to diarrhea patients.**

- **Section D: Practices Related to Hygiene and Sanitation**

Most people said they frequently **wash** their hands with soap and water, especially before preparing food or contacting sick persons. However, 12.1% of respondents indicated that they do not have **access to latrines** for defecation, while nearly 5% reported having occasional access to latrines for this purpose. Among those who have no access to latrines, 61.3% were female. The analysis indicates a significant association between gender and access to latrines, with females more likely to report no access and males more likely to report inconsistent access. Women are 1.75 more likely to have no access to latrines than men.

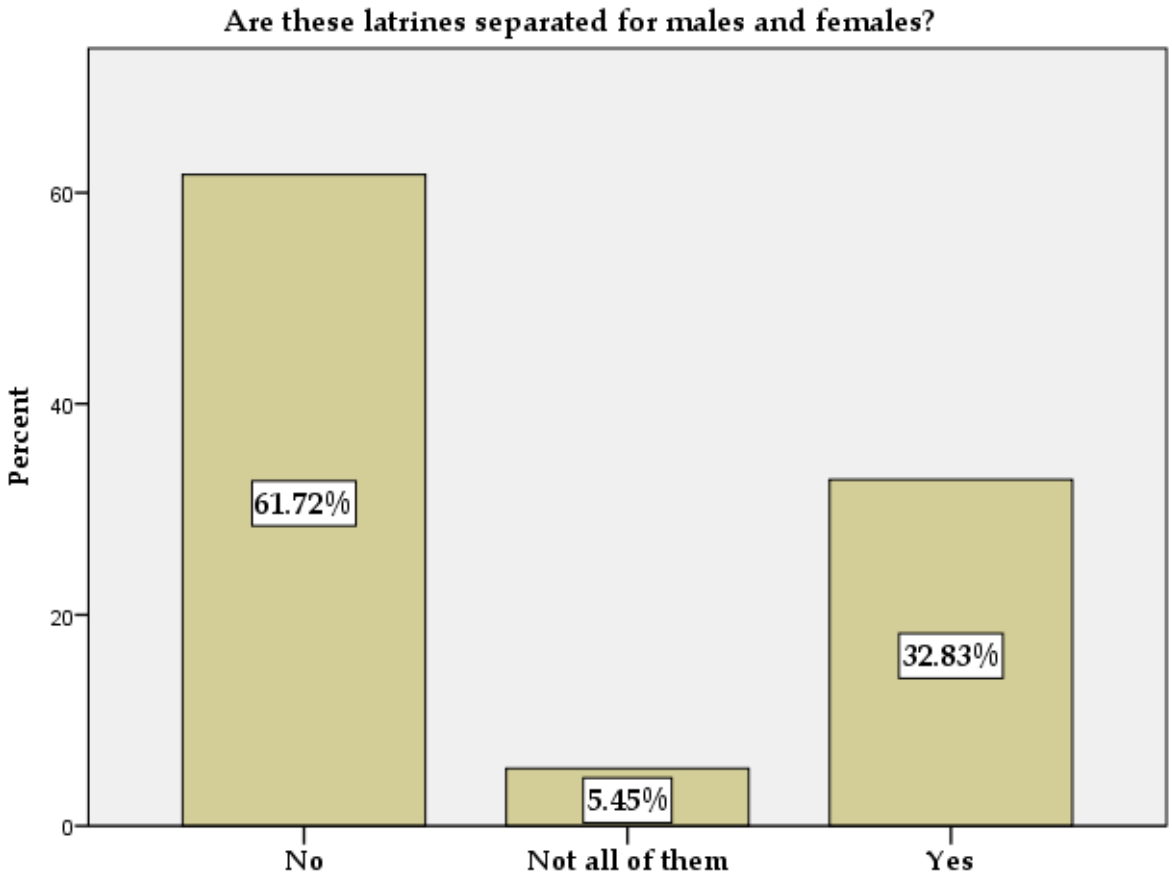
**Women in camps are more likely to have no access to latrines compared to men.**

Furthermore, 61.7% of respondents indicated that the latrines are not **separated by sex**. Among participants from Ukhia, 59.3% reported that the latrines are not separated, while 74.5% of those from Teknaf stated the same.

**Are these latrines separated for males and females? * Upazila Crosstabulation**

| | | | Upazila | | |
|---|---|---|---|---|---|
| | | | Teknaf | Ukhia | Total |
| Are these latrines separated for males and females? | No | Count | 79 | 329 | 408 |
| | | % within Upazila | 74.5% | 59.3% | 61.7% |
| | Not all of them | Count | 4 | 32 | 36 |
| | | % within Upazila | 3.8% | 5.8% | 5.4% |
| | Yes | Count | 23 | 194 | 217 |
| | | % within Upazila | 21.7% | 35.0% | 32.8% |

| | | | | |
|---|---|---|---|---|
| Total | Count | 106 | 555 | 661 |
| | % within Upazila | 100.0% | 100.0% | 100.0% |

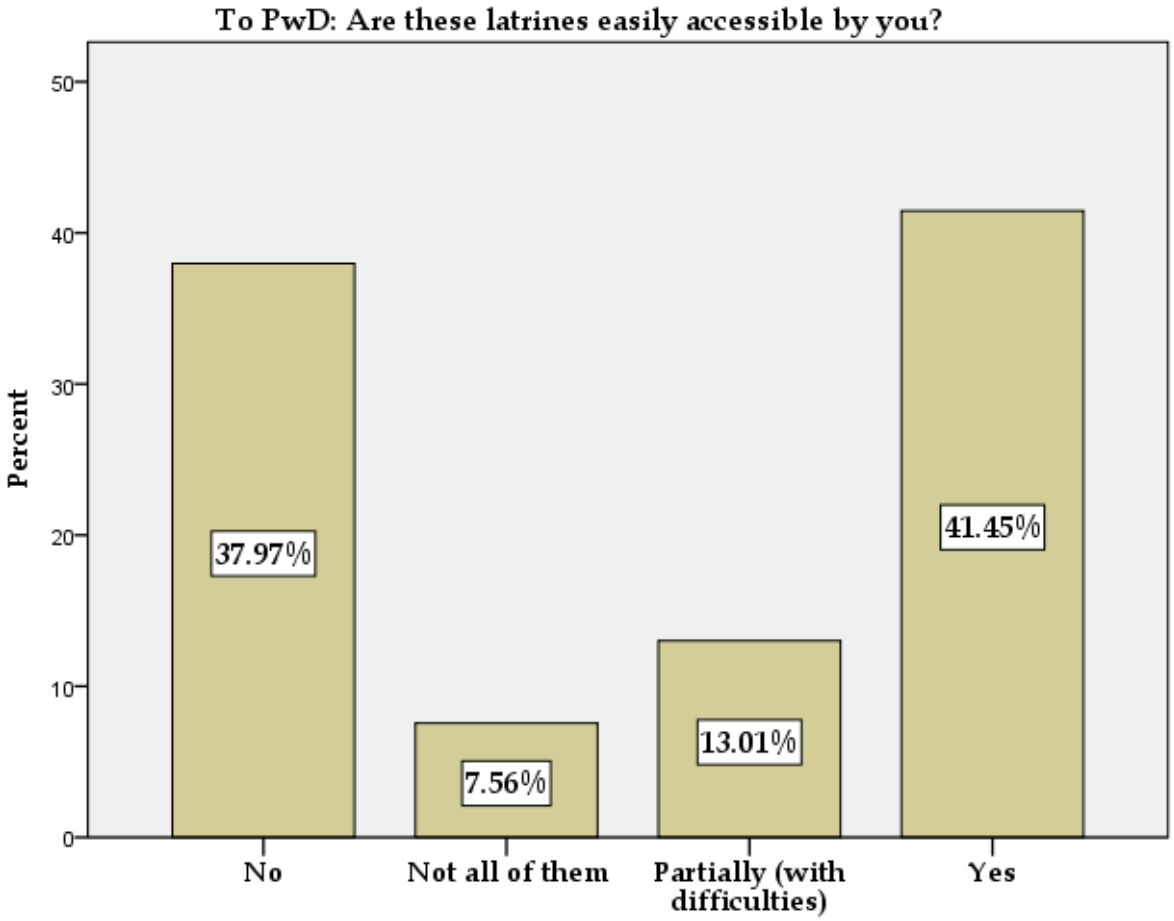



**Residents in Teknaf are more likely to state that latrines are not separated for males and females.**

Statistical analysis showed that a person from Teknaf is twice as likely to state that the latrines are not separated for males and females. Data showed no significant difference in this variable between males and females, meaning that none of the two groups has less or more access to sex-separated latrines, even when disaggregating the results based on location (upazila) as well.

Among PwD, 38% said that latrines are inaccessible by them, 7.5% said that not all latrines are accessible, 13% said that not all latrines are **accessible**, and 41.5% said that latrines are accessible.

Almost 64% of the participants said that latrines in camps are **accessible for children**. Additionally, 31.47% of the participants said that they do not follow hygienic practices in **disposing of children's feces**.




Participants were asked about ways they follow to ensure the drinking **water is safe**, and 32.5% mentioned unsafe ways or had no information. Additionally, while 88.5% of the participants said they **store water** in covered containers, 11.5% do not follow the hygienic ways of storing water. Data showed that 83.8% of the respondents use safe ways to **prepare and cook food,** and almost 10% use safe and unsafe ways. PwD practices to ensure safe drinking water were significantly better than others based on statistical analysis.

- **Vaccination**

Data analysis showed that 21.18% of the respondents are not **aware of a cholera vaccine**. Of participants from Teknaf, 33% were unaware of the cholera vaccine compared to 19% from Ukhia. In fact, people from Teknaf were 2.1 more likely to be unaware of the cholera vaccine. Additionally, almost 34% of the sample said they had not **received a cholera vaccine** before. Almost 42.5% of the participants from Teknaf said they had not received the cholera vaccine, compared to 32.3% from Ukhia. Statistical analysis showed a significant correlation between upazila and receiving the cholera vaccine before (P = 0.029). People from Teknaf are 1.5 more likely to be never vaccinated against cholera compared to Ukhia residents. Additionally, data

showed that 11.5% of the respondents said they would not take the cholera vaccine. It was found that the likelihood of rejecting the cholera vaccine increased with age.

**Elderly people are more likely to be hesitant to accept the cholera vaccine.**

## Recommendations

1- Enhance community health education programs on cholera transmission and treatment.

Target Group: Individuals with lower education levels, particularly those without formal education.

Action: Develop simple, visually engaging, and culturally appropriate health education materials focusing on how cholera spreads and the importance of ORS as a treatment.

Rationale: Given that 67% of respondents lack formal education, health messages should use simple language and include visual aids, such as pictures or videos, to clearly illustrate cholera symptoms, transmission routes, and the preparation of ORS.

2- Community awareness campaigns on ORS knowledge and usage.

Target Group: All HHs, especially residents of Teknaf, males, and older adults.

Action: Implement a group education and HH campaign that demonstrates ORS preparation and usage.

Rationale: Since 30% of respondents from Teknaf lack knowledge of ORS as a first-line treatment, specific attention should be given to this group.

3. Increase awareness of cholera's fatal risks if untreated.

Target Group: All HHs, especially residents in Teknaf.

Action: The community health technical working groups should impede awareness messages focusing on the risks of untreated cholera in the cholera awareness campaign.

Rationale: With Teknaf residents 2.4 times more likely to misunderstand cholera's severity, these interventions could raise awareness about the disease's fatality and highlight the urgency of seeking treatment.

4- Address misconceptions about breastfeeding and cholera.

Target Group: Pregnant and lactating women and males who are more likely to hold incorrect beliefs about stopping breastfeeding.

Action: Integrate specific messaging about the importance of continued breastfeeding during cholera into broader health education, especially through male-focused outreach.

Rationale: Educating men on this topic can be essential since they play a role in health decisions within families.

5- Promote accurate dietary guidance for cholera patients.

Target Group: All HHs focusing on males.

Action: Deliver refresher training to community health workers on communicating correct dietary practices for cholera patients.

Rationale: Misconceptions about food restrictions during cholera are more prevalent among men than women.

6- Improve access to sanitation facilities, especially for women.

Target Group: female camp residents.

Action: To communicate with the WaSH sector.

Rationale: Since women are 1.75 times more likely to lack access to latrines, improving infrastructure and access is essential in reducing open defecation, enhancing dignity, and reducing cholera spread in camps.

7- Ensure cholera vaccination awareness and uptake.

Target Group: All HHs focusing on residents of Teknaf and elderly individuals.

Action: Tailor the social mobilization and awareness message about vaccination to address vaccine safety and efficacy, especially for elderly community members.

Rationale: With a 2.1 times higher likelihood of vaccine unawareness in Teknaf, combined with elderly individuals' greater vaccine hesitancy.

8- Implement safe water storage and hygiene practices.

Target Group: all HHs.

Action: To communicate with the WaSH sector.

Rationale: With 11.5% of respondents not following hygienic water storage practices, proper intervention is important to prevent contamination and improve water safety, thus reducing the risk of waterborne diseases.

9- Increase Accessibility of Sex-Separated and Disability-Friendly Latrines

Target Group: PwD and all camp residents, especially in Teknaf, where facilities are less often separated by gender.

Action: Construct or modify latrines to meet the needs of PwD and ensure sex-segregated facilities to improve safety and usability.

Rationale: 38% of PwD reported inaccessible latrines, and 61.7% of respondents overall indicated no sex separation in latrines. Accessible and segregated facilities are important to promote inclusivity, safety, and hygiene, especially in densely populated camp areas.

# Knowledge, Attitudes, and Practices KAP Survey Plan for Cholera among Rohingya Refugees, Cox's Bazar

**Objectives:**

- To assess the **knowledge**, **attitudes**, and **practices** (KAP) regarding cholera prevention and treatment among Rohingya refugees in identified hot spots within the camps.
- To determine the level of awareness about available cholera treatment facilities and prevention strategies.
- To identify gaps in knowledge and behavior that could lead to cholera outbreaks and provide recommendations for the implementation of future interventions.

**Timeline:**

- **Planning and tool design**: 2 weeks
- **HR recruitment and training**: 1 week
- **Data collection**: 2 weeks
- **Data analysis**: 2 weeks
- **Report preparation and dissemination**: 1 week.

**Total Timeline**: 6 weeks

**Sampling:**

- **Population**: Rohingya refugees in cholera hotspot areas within the camps.
- **Sampling method**: Stratified random sampling will be used to ensure representation from different demographic groups (age, gender, location within the camps).

| Age | Gender | location |
|---|---|---|
| 18 -29 | Male, female, and other | All the camps in Ukhia and Teknaf |
| 30-49 | | |
| 50 and above | | |

- **Sample size**: aim for a sample that provides statistically significant results (e.g., 400-600 participants).

**Data Collection Plan:**

**Data Collection Tool:**

- **Questionnaire**: Structured survey designed to assess:
    - Knowledge of cholera transmission, symptoms, and prevention measures.
    - Attitudes towards cholera risk and response to outbreaks.
    - Practices related to water, sanitation, and health-seeking behaviors.
    - Awareness of available treatment facilities and willingness to seek care.
    - Sources of information on cholera (health workers, community leaders, etc.).
- The tool will be used in both English and Bengali and tested in a pilot survey for clarity and cultural appropriateness.

**HR and Training:**

- **Human Resources**: Community health workers will perform as local data collectors, those who are most familiar with the language and culture.
- **Training**: 1–2-day training on survey objectives, data collection techniques, ethical considerations, and cholera knowledge.
- **Supervision**: Community health workers' field supervisors will monitor data collectors for quality control and troubleshooting.

**Data Analysis:**

- **Quantitative analysis**: Use statistical software (*as applicable*) to analyze:
    - Percentage of participants with correct knowledge of cholera prevention and available treatment.
    - Correlation between knowledge, attitudes, and practices.
    - Identification of demographic or geographic factors associated with poor KAP.

**Reporting**: Findings will be summarized in a report with recommendations for targeted cholera prevention and awareness campaigns within the camps.

**KAP Survey: questionnaire**

Date: yyyy-mm-dd

Upazila: Ukhia – Teknaf

Camp:

**Section A: Demographic Information**

A.1. Age:

- 18-29
- 30-49
- 50 and above

A.2. Gender:

- Male
- Female
- Other

A.3. Number of people in the household:

- 1-3
- 4-6
- 7 and above

A.4. Education level:

- No formal education
- Primary education
- Secondary education
- High education

A.5. Does the person have observable sensory or physical disability? (This question must be answered by the CHW)?

- No
- Yes

**Section B: Knowledge about Cholera**

B.1. Have you ever heard of cholera?

- No
- Yes

B.2. What causes cholera?

- Virus
- Bacteria
- Parasite
- Don't know

B.3. How is cholera spread? (Select all that apply)

- Through contaminated food or water
- Through direct contact with an infected person

- Through mosquito bites
- Don't know

B.4. What are the main symptoms of cholera? (Select all that apply)

- Severe watery diarrhea
- Vomiting
- Fever
- Skin rash
- Don't know

B.5. Can cholera cause death if not treated?

- Yes
- No
- Don't know

B6. How is cholera treated?

- ORS
- Antibiotics
- Other

B7. What do you know about ORS?

- Nothing
- Any correct information about ORS

B8. Where can you get ORS?

- I do not know
- The nearest health facility

B9. Do you believe that a breastfeeding child with cholera should:

- Stop breastfeeding
- Continue breastfeeding

B10. Do you believe that a case of cholera should (food intake):

- Stop eating food until the diarrhea stops
- Eat less food until the diarrhea stops
- Eat the usual same quantity of food
- Eat more food

B11. Who is at risk of contracting AWD or cholera?

- Children
- Adults
- Everyone
- No one

**Section C: Attitudes toward Cholera Prevention and Treatment**

C1. How serious do you think cholera is as a health problem?

- Don't know
- Not serious
- Somewhat serious

- Very serious

C.2. To what extent are you willing to adhere to all the cholera awareness and information awareness messages? For example, preventing your children from swimming in open canals, boiling row vegetables, water chlorination … etc.

- Not willing at all.
- Somehow willing
- Willing

C.3. Do you believe that cholera can be prevented?

- Yes
- No
- Don't know

C4. What do you think are the most effective ways to prevent cholera? (Select all that apply)

- Personal hygiene (e.g., handwashing)
- Washing food
- Safe drinking water
- Covering water containers
- Cleaning storage
- Vaccination
- Proper sanitation facilities
- Proper waste disposal
- Don't know

C.5. What would you do first if someone in your household had diarrhea?

- Give them an Oral Rehydration Solution (ORS)
- Take them to a health center
- Wait to see if they get better on their own
- Don't know

**Section D: Practices Related to Hygiene and Sanitation**

D.1. How often do you wash your hands with soap and water?

- Before cooking
- Before eating
- After using the latrine
- After taking care of a sick person
- Rarely/Never

D.2. Do you have access to a latrine for defecation?

- Yes
- No
- Sometimes

D.3. Are these latrines separated for males and females?

- Yes
- No
- Not all of them

D.4. *This question is only for persons who have a sensory or physical disability*: Are these latrines easily accessible by you?

- Yes
- No
- Partially (with difficulties)
- Not all of them

D5. Can your children (except babies) go to the latrine by themselves?

- Yes
- No
- Not all of them

D.6. How do you dispose of children's feces?

- In the latrine
- Bury them
- Leave them in open areas
- Private bathing space
- Don't know

D.7. How do you ensure the water you drink is safe? (Select all that apply)

- Boil the water
- Use chlorine drops or tablets
- Drink directly from the source
- Don't take any precautions

D.8. How do you store drinking water at home?

- In a covered container
- In an uncovered container
- Don't know

D.9. When you prepare food, what do you do to ensure it is safe to eat? (Select all that apply)

- Cook food thoroughly
- Wash vegetables with soap and safe water
- Eat raw food without preparation
- Don't know

D.10. If you take care of someone sick with cholera, what do you do to protect yourself and others? (Select all that apply)

- Wash hands after contact with the sick person
- Disinfect the sick person's clothing and bedding
- Avoid contact with their vomit or stools
- Don't take any specific precautions
- I do not know.

**Section E: Community Perspectives on Vaccination**

E1. Are you aware of the cholera vaccine?

- Yes
- No

E2. Have you been vaccinated before?

- Yes
- No

E3. Would you take it again?

- Yes
- No