



# Cholera Case Investigation - Abyan, Yemen

**Key Findings Presentation**

May 2024



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A light gray world map is centered on the page, overlaid with a faint, light gray geometric pattern of interconnected triangles. The map shows the outlines of continents and countries. The text '01' is positioned above the word 'Introduction'.

01

# Introduction

# Cholera Situation in Yemen



## Current Cholera Outbreak\*

- From October - December 2023, Yemen experienced a **cholera outbreak**, with nearly **1018** cases of AWD recorded.\*
- The outbreak has started among **migrant communities** in Ataq district of Shabwah governorate.\*
- The total number of cases recorded between 1 January and 29 April 2024 across all 22 governorates is now estimated to be around 30,000.\*\*
- At Abyan governorate level, the number of reported cases from the beginning of 2024 until May 17, 2024, was **230**.\*\*\*

\* [Yemen Humanitarian Update: Issue 11, December 2023 \[EN/AR\] | OCHA \(unocha.org\)](#)

\*\* [Yemen Cholera and Acute Malnutrition Situation Report #1 - April 22, 2024 - Yemen | ReliefWeb](#)

\*\*\* [Epidemiological Situation of diseases in free areas in Yemen](#)



## WASH Response

- As part of the response to the cholera outbreak, REACH, in collaboration with the Yemen WASH Cluster, **updated the CIF tool** with a specific focus on cholera. This tool is designed to collect data that helps understand **potential sources**, **risk factors**, and **vulnerabilities** associated with a cholera outbreak.
- Following the recent outbreak, the Yemen WASH Cluster has requested partners to use the CIF tool to **conduct interviews with patients**, especially in the affected areas. The tool is available to all YWC partners for use, and below you can find examples of both the paper and Kobo versions.



## Cholera Investigation Form (CIF)

CIF\_08\_FEB\_2024

► Metadata

\*P1. Were you tested for cholera through a laboratory test of your stool?  
(If response is "results were negative," end the interview)

☒ Yes, results were positive  
☐ Yes, results were negative  
☐ Yes, results have not yet been received  
☐ No  
☐ Don't know  
☐ Refuse to answer

► Positive & The results have not yet been received.

► Patient information

► Risk factors

► Health

\*X1. Was this interview done using a mobile telephone or a paper-form?  
This question is to be answered by the enumerator

☐ Mobile phone  
☐ Paper form

Cholera Case Investigation Form - Yemen

GENERAL

G1. Date of the interview

G2. Enumerator First Name

G2.1 Enumerator Last Name

G3. Enumerator Agency

G3.1 If other, please specify:

G4. Governorate

G5. District

G6. Sub-district

G7. Location name

G8. Type of location (select one)

☐ 1. Urban ☐ 2. Peri-Urban ☐ 3. Rural ☐ 4. IDP Hosting Site

G9. Status of the respondent (select one)

☐ 1. Host community ☐ 3. Migrants ☐ 5. Returnees  
☐ 2. IDPs ☐ 4. Refugees ☐ 6. Don't know

G10. Name of health facility

G10.A What is the GPS coordinates of your current location (N.E. Altitude)?

N: E: Elevation:

G11. Phone number of health facility (Enter integer)

+967 xx xxx xxxxx

G11.A Name of Chief Medical Officer

G12. Hello, my name is [SAY YOUR NAME] and I am working for [SAY NAME OF ORGANIZATION THAT YOU WORK FOR], and we are conducting interviews to inform the cholera response for Yemen. This interview will take around 15 minutes. Information that you provide will not be identifiable and will be anonymous. Participation in this interview is voluntary and you can choose not to answer any or all of the questions. You are free to stop this interview at any time. Are you willing to be interviewed?

☐ 1. Yes ☐ 2. No

PATIENT INFORMATION

P1. Were you tested for cholera through a laboratory test of your stool? (If response is "results were negative," end the interview) (select one)

☐ 1. Yes, results were positive  
☐ 2. Yes, results were negative  
☐ 3. Yes, results have not yet been received

☐ 4. No  
☐ 5. Don't know  
☐ 6. Refuse to answer

# Methodology Overview



## CIF tool – the basics

- In-person patient-level surveys with an adult member (18 years or older) who is waiting for the results or tested positive for cholera.
- The CIF includes a section to collect data on each household member who might be sick, as well as details on **potential exposure** to cholera within the household and community.
- The CIF examines the patients' recent travels to identify **potential routes of cholera transmission**.
- Patient **Access to WASH services and behaviors** were assessed to monitor associated risk factors.
- Data collection with the patient **ideally** within **two weeks of health facility discharge** of the patient



## DATA COLLECTION

- With the support of the Health Cluster, Data collection was carried out in **Health facilities** that provide contact information for positive and potential cholera patients.
- Following coordination with the Yemen WASH Cluster, **WASH partners volunteer to collect CIF data** to inquire about positive and potential cases.



## POPULATION OF INTEREST

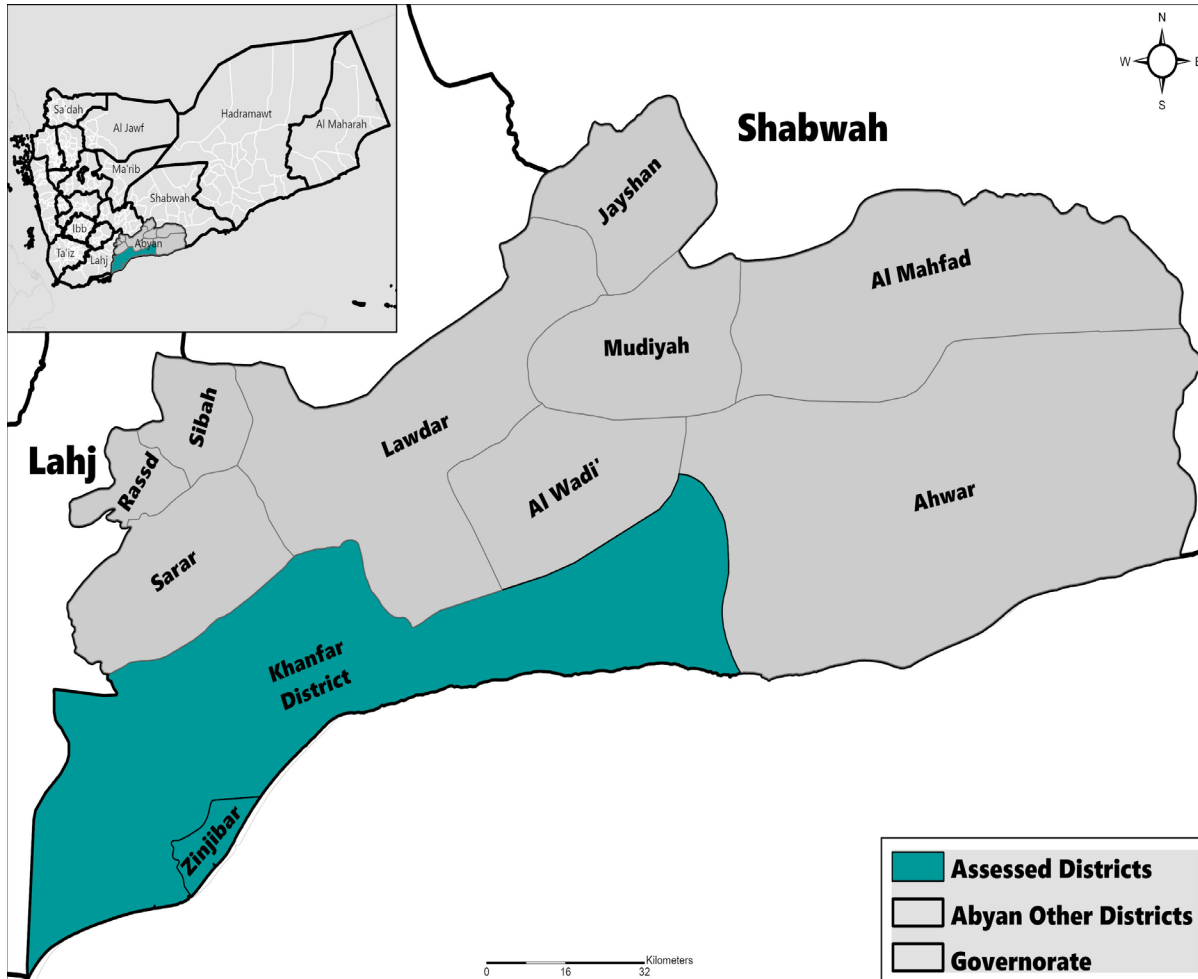
- **All households (HH) members**, people from host communities, displaced populations, refugees, and migrants who are suspected of having cholera and have visited a medical centre due to illness.
- Ideally, and if there are enough resources available, the **form should be used for all people** who seek treatment for Acute Watery Diarrhea (AWD) at the health center / Diarrhea Treatment Center (DTC) when a cholera outbreak is suspected in the area.



02

# Demographics

# Cholera Cases Demographics



- The following key findings were derived from 34 patient-level interviews conducted through the CIF tool in May 2024, collected by CARE International.
- 11 patients tested positive for cholera, while the rest of the 23 have not received their cholera test results yet.
- Locations of the 34 cases are in 2 districts in Abyan governorate, and the districts are: **Khanfar and Zinjibar**.
- 30 patients live within 2 km of the medical center visited for treatment, while the other 4 patients did not know the distance.

Male cases:  
11 cases

Female cases:  
23 cases

- All cases have between 1-12 members living in their household.
- 27 out of the 34 patients reported being unaware of other confirmed/suspected cases in the same neighborhood.
- Three confirmed case indicated the presence of cholera symptoms in a one-year-old female (n=2) and one-year-old male (n=1) household member.
- Only one patient reported travelling to different locations while having symptoms.

A light gray world map is centered in the background. Overlaid on the map is a complex, light gray geometric pattern of interconnected lines forming various sized triangles and polygons. The number '03' is printed in a bold, red, sans-serif font, positioned centrally over the map's landmasses.

03

# Main Findings



A light gray world map is centered in the background. Overlaid on the map is a complex, light gray geometric pattern of interconnected lines forming various sized triangles and polygons. The text '03.1' is positioned in the upper center, over the European continent.

**03.1**

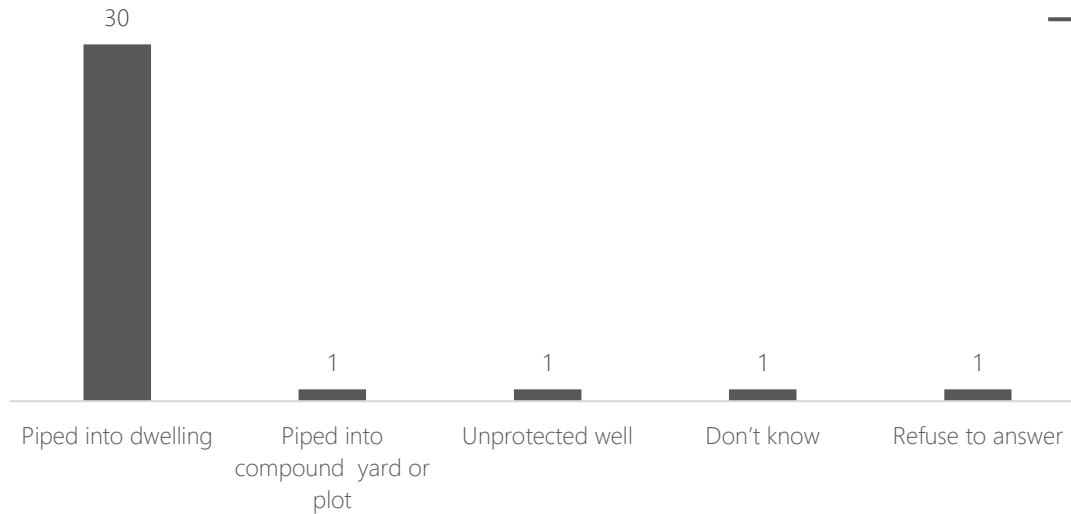
# Risk Factors

# WASH Practices



## Key Findings

Main source of drinking water reported by patients.  
(n=34)



The majority (31 out of 34 patients) reported using **Improved water sources** as their main source of drinking water. Also, 7 patients reported using secondary source of drinking water such as: **piped water into compound** (n=5), **borehole** (n=1), **bottled water** (n=1), **cart with small tank** (n=1), and **public tap or standpipe** (n=1).

22 patients reported using **Jerrycan** as a common **water storage method** in the HH. In addition to that, 7 patients reported using **underground water tank** to store water, and 3 patients reported using **roof water tanks**. The last 3 patients reported that they **didn't know** what type of water storage do they use (n=2) and **no water storage** in the HH (n=1).

## Water Treatment Practices:

# 4/34

Patients reported treating their water using any method to make it safer to drink.

## Handwashing Practices



- Patients who reported washing their hands reported doing so usually before eating (n=30) using a **fixed facility tap in their dwelling or fixed facility in the plot**. Of these patients, 24 reported that they **never / occasionally** had soap in the houses due to the following reasons: \*
  - 15 Patients reported that soap is expensive
  - 11 Patients reported that they run out of soap
  - 5 Patients reported that soap is unnecessary.
  - 4 Patients reported that market is too far
- One patient reported **rarely** washing their hands and lacked a dedicated handwashing device.

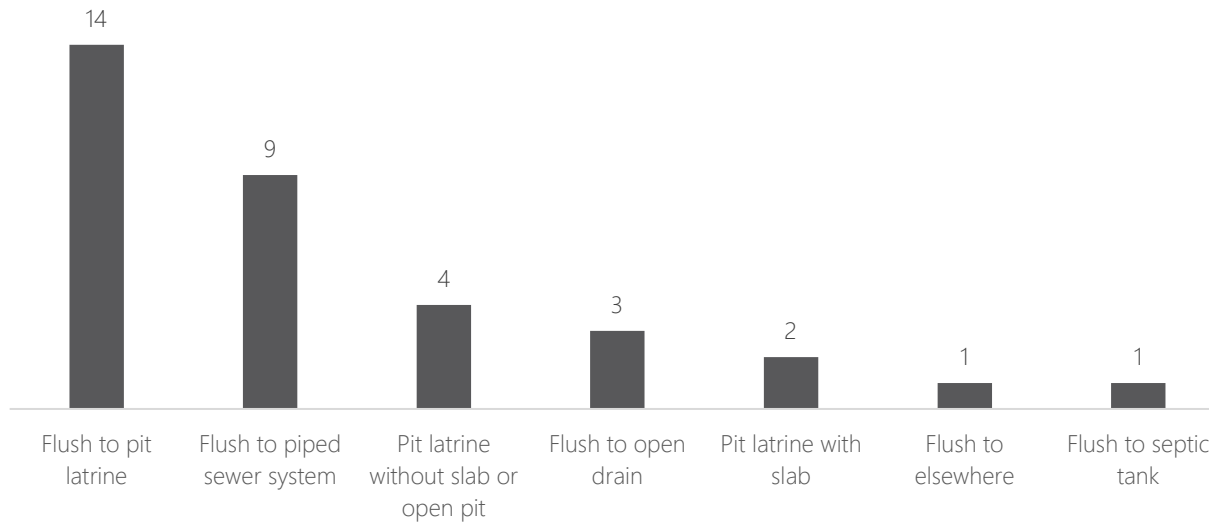
\*Multiple answers could be selected

# WASH Practices



## Key Findings

Type of sanitation facility reported being used by the patient. (n=34)



26 patients reported using Improved sanitation facilities for their household. 16 Patients mentioned doing open defecation and the most common type of sewage system that is connected to the house was open latrine (N=6) and public network (n=6).

In the past 30 days, solid waste/trash was frequently (n=11) and sometimes (n=17) observed by the patients, while human faeces were frequently (n=10) and sometimes (n=14) visible. Additionally, stagnant water was frequently (n=10) and sometimes (n=16) observed in the vicinity of their accommodation.

### Environmental Sanitation Systems:

## 28/34

Patients reported that there is occasional/ frequent overflowing sewage in the vicinity of the accommodation in the last 30 days, most reported a sewer pit as the source of the sewage.

## Social Behaviors

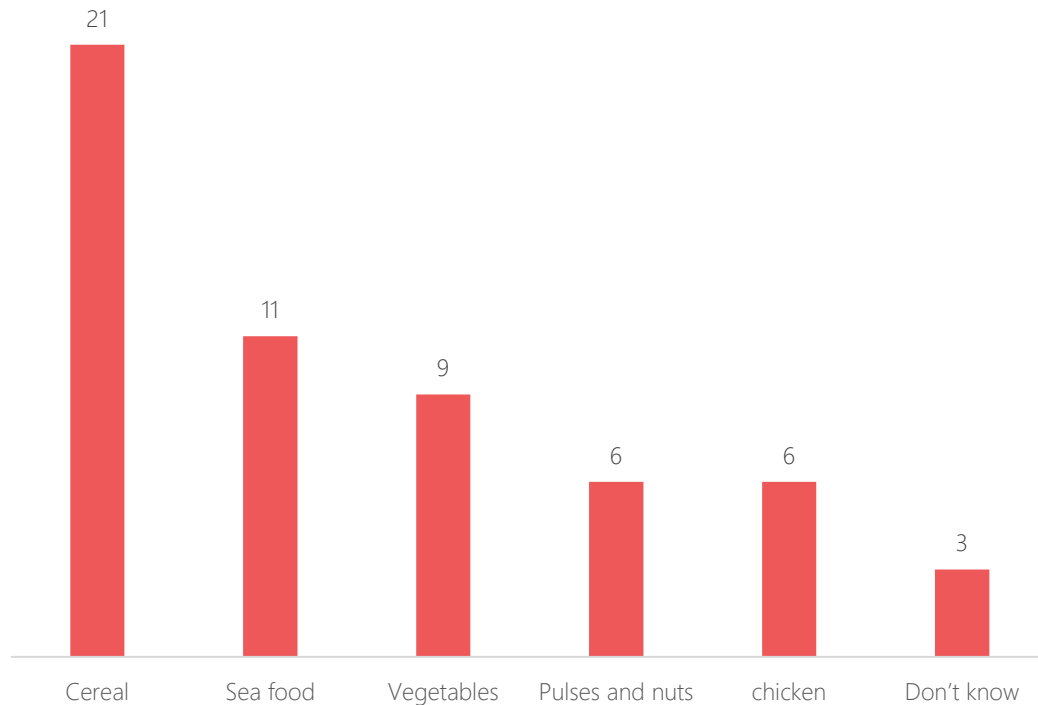
1 patient out of 34 patient reported visiting a sick person in a health facility the week before experiencing symptoms.

3 patients out of 34 patients reportedly attended a funeral ceremony in the week before experiencing symptoms. 2 of the patients reported that the deceased has die from cholera.

# Food Consumption

## Key Findings

Types of foods consumed by patients in the week before the start of symptoms (n=34)\*



\*Multiple answers could be selected

### Hygiene Practices:

**18/31**

Patients reported washing fruits and vegetables before consumption, using untreated water.

- 1 patient out of 34 patients reported buying food from a restaurant in the week before the first symptoms.
- 1 patient out of 34 patients reported buying food from a street kiosk in the week before first experiencing symptoms.

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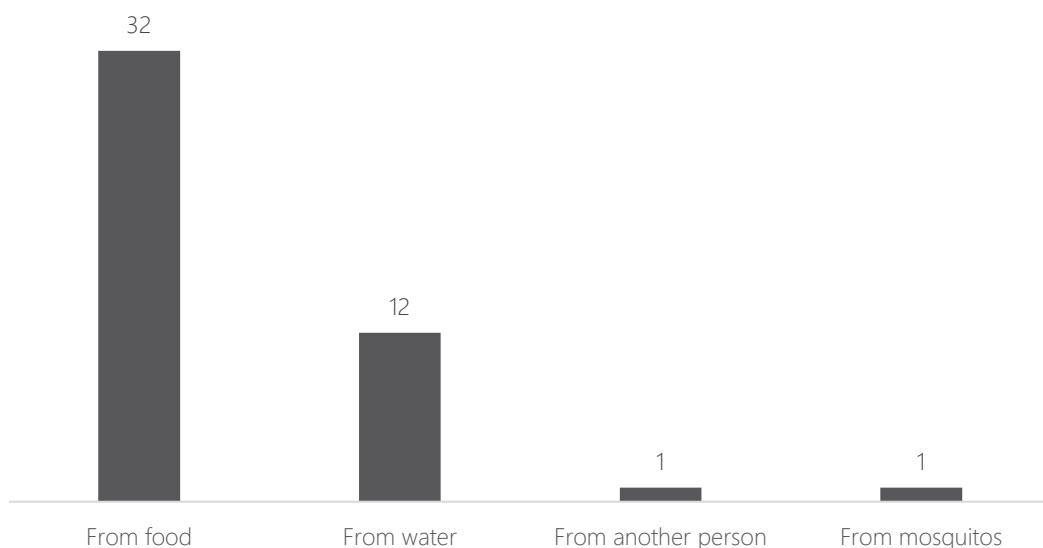
**03.2**

# Health Education

# Health Education

## Key Findings

### Patient perceived source of illness (n=34)\*

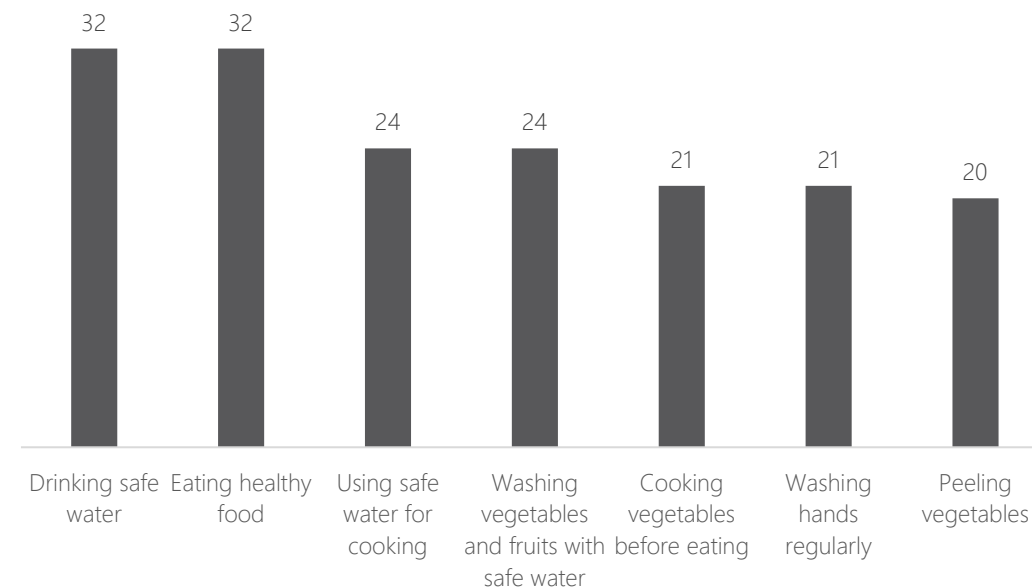


19 out of 34 patients reported having received education about cholera in the past 12 months. The most reported sources of information reported were family or friends, health facility, or from a community volunteer.

\*Multiple answers could be selected

32 patients out of 34 reported that drinking safe water and eating healthy food would help to prevent cholera. Other ways to prevent cholera or acute water diarrhea were reported by the patients as shown in the chart below.

### Patient perceived methods of cholera prevention (n=34)\*



# Limitations

- Data collection partners raised some concerns regarding **difficulties in accessing patient lists** from health facilities to facilitate interviews. This challenge, coupled with reliance on health center data, poses obstacles to effectively conducting interviews.
- In December 2023, a joint report on cholera by the WASH and Health Cluster revealed that approximately 36% (1,262) of suspected cholera cases involved children under the age of five. However, the CIF tool restricts partners to interviewing only individuals aged 18 and older. Consequently, cases involving **individuals under 18 may be overlooked**, potentially impacting coverage and comprehension of the total suspected cases within the assessed areas.
- Patients might encounter **challenges in recalling specific details** about locations visited or individuals encountered.
- Respondents might be reluctant to disclose personal information or details regarding their illness or sick family members due to privacy concerns, **cultural or traditional sensitivities**.
- There might be constraints on following up with patients for clarifications or additional information (especially migrants/refugees) , which could result in having **incomplete data**.
- The **timeframe** between sharing the patient's name to the WASH partner and actually reaching the patient could be substantial, potentially resulting in the patient being in a different location upon arrival of the partner/enumerators. Additionally, since the WASH partner should conduct the interview within **two weeks** of the patient's discharge from the health facility, any delays could impact the accuracy and reliability of the information collected.
- Given the constraints **of limited resources and funding allocation**, coupled with the unexpected nature of the cholera outbreak outside partners' response planning strategy, we encounter **challenges in expanding the coverage** and assessing additional locations

# Thank you for your attention



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