

FIRST WAVE OF THE 2016-17 CHOLERA OUTBREAK IN HODEIDAH CITY, YEMEN – ACF EXPERIENCE

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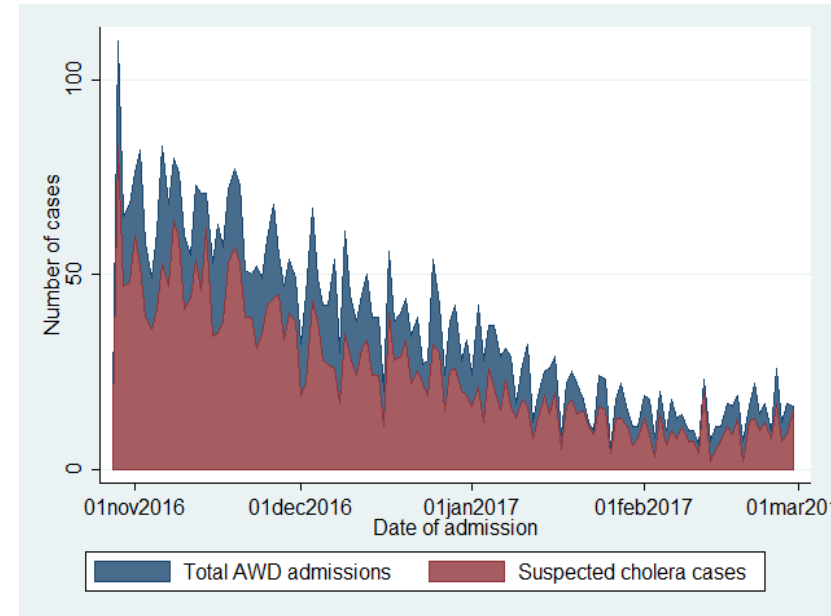
INTRODUCTION

- In the context of a civil war, the first wave of a cholera outbreak was declared in different parts of Yemen in beginning-October, 2016. Some days after, the first suspected cholera cases in the Governorate of Hodeidah, a Northern, coastal, region of the country were reported.
- ACF started its outbreak response in Hodeidah city on October 28th 2016 and officially ended on April 20th, 2017 when its CTC was handed over. It was implemented in partnership with the Yemen Ministry of Public Health & Population (MoPHP) and WHO.
- We describe here some ACF response activities, and data about our results up to February 28th 2017. We provide, besides, some data indicating the capacity building impact of our actions, during the 2nd wave in 2017.



OUTBREAK CHARACTERISTICS

- **Attack Rate (AR).** Overall country AR up to March 2017: 8 per 10,000 people (22,456 suspected cholera cases).
- *Hodeidah City* AR: about 130 cases per 10,000 (5,210/400,000) based on our statistics. This figure might be different due to Case definition issues.
- Trend seems showing a peak in November at the beginning of the outbreak (Based on CTC statistics).
- **Case Fatality Ratio (CFR).** *Hodeidah City* low (<1%). Similar to the overall CFR in the country.
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- **SAM and Cholera:** High SAM levels in Yemen. Not general data, but at the CTC children presented with both dehydration and SAM (by MUAC, only) was 8%.



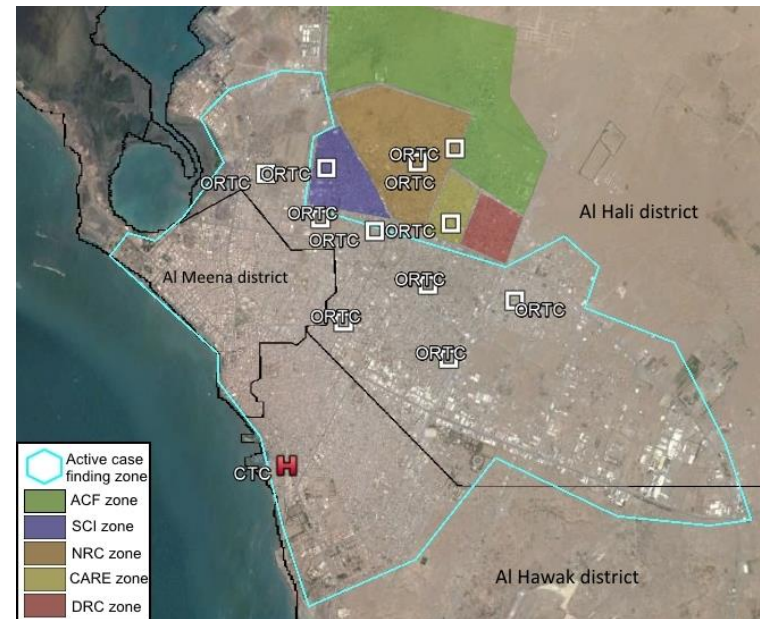
COMPONENTS OF OUR RESPONSE

- ***Preventive measures***
- Access to safe water
- Hygiene promotion
- **Case management**
- This included interventions at three levels:
- Secondary health care level intervention: Cholera Treatment Center (CTC)
- Primary health care level intervention: Oral rehydration therapy corners (ORTCs)
- Community level intervention: active case finding



PREVENTIVE MEASURES

- **Access to safe water**
- Water trucking in Al Hali district (green area in Figure)
- 7.5 liters/person/day of safe water to 2,430 households (17,010 individuals).
- **Hygiene promotion**
- 81 Community Health Worker were identified and intensively trained to further provide hygiene education in the targeted communities.
- 12 hygiene promoters conducted group sensitization (2,097 people) and home visits (25,704 people)
- Mass sensitization was organized at water points during water trucking (22,439 people).

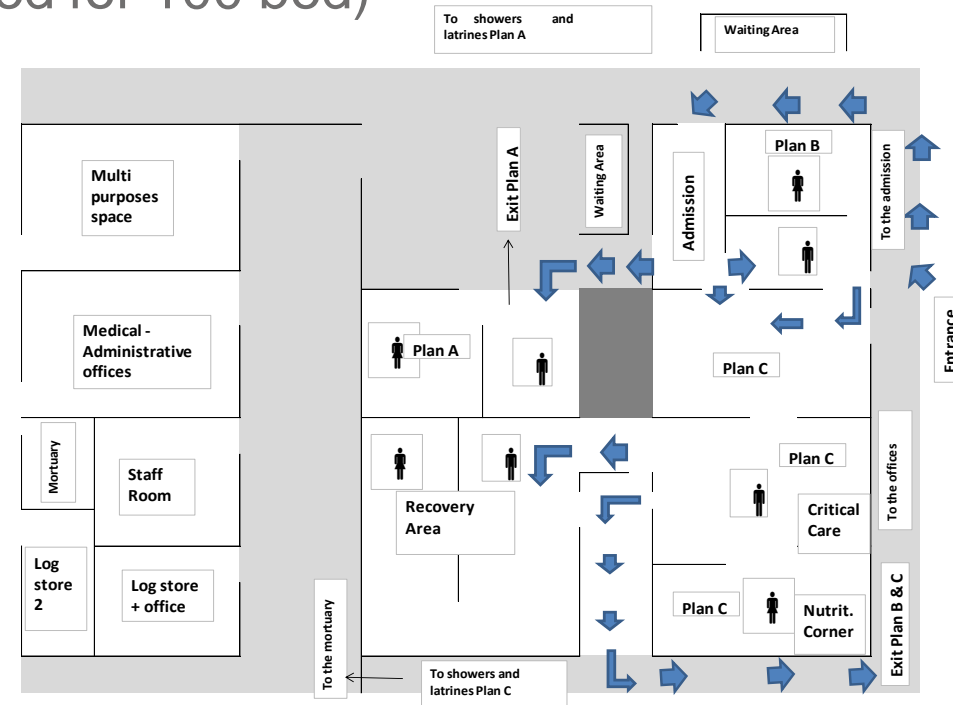


CHOLERA TREATMENT CENTER

- In Al Thowra hospital, the biggest hospital of the city, ACF set up a CTC with a 60 bed capacity (planned for 100 bed)
- Regular IPC protocols were implemented with 3 areas: Clean Area, Contaminated Area, Neutral Area. Outstanding Log/WASH support was necessary.

Different treatment areas:

- Plan A for no/mild dehydration: 2 hours observation –ORS at home
- Plan B for moderate dehydration: ORS at the CTC – Discharge
- Plan C for severe dehydration: Intravenous (IV) solution. Recovery Area for observation.
- Nutrition Corner with ORS, ReSoMal and milk, was set up for SAM children rehydration.
- Intensive Care Space: For critical care.



CHOLERA TREATMENT CENTER

- From October 28th, 2016 until February 28th, 2017, 4,517 cases were admitted at the CTC. 32.1% of cases under 5 years old.
- Four deaths, which corresponds to a CFR at the CTC of about 0.1.
- 3,768 (83.4%) cases were cured, 53 (1.2%) were transferred to other wards of the hospital after diarrhea stopped, and 691 (15.3%) defaulted.
- Main reasons of defaulting were: 1) Mothers of sick children had to go back home at evening due to cultural reasons and 2) Insecurity or fear that airstrikes would target the hospital.
- Not only a health facility but also a capacity building center, providing intensive training to our teams in order to get them autonomous after our hand over (ACF is not a traditional medical emergency NGO)



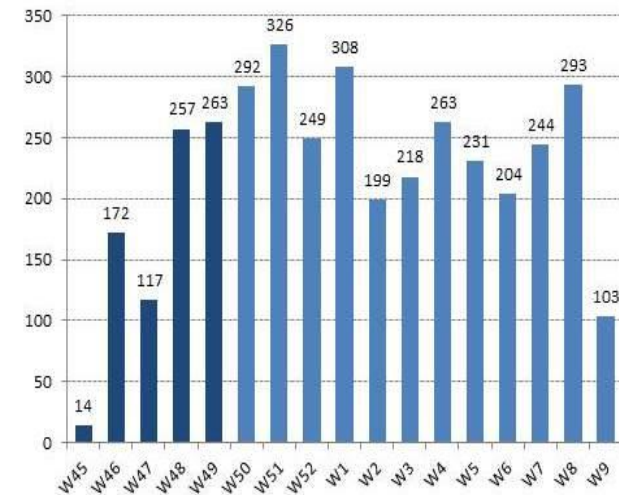
CHOLERA AND SAM CHILDREN

- Among children less than 5 years old, 8% had also severe acute malnutrition. Among SAM children, 33.9% were under 1 year old.
- A special protocol (already presented at the GTFCC meeting 2017) based on our long experience rehydrating SAM Children with severe dehydration due to AW Viral Diarrhea across the world, was implemented
- Over 200 SAM cholera cases were managed with this protocol in Hodeidah during 1st wave of cholera.
- Only 1 death in a child with SAM and septic shock.
- 2 cases developed over-hydration → detected early and rehydration was immediately stopped. Both cases improved after observation with no need for Furosemide or other complementary treatment.



COMPLEMENTARY CASE MANAGEMENT ACTIVITIES

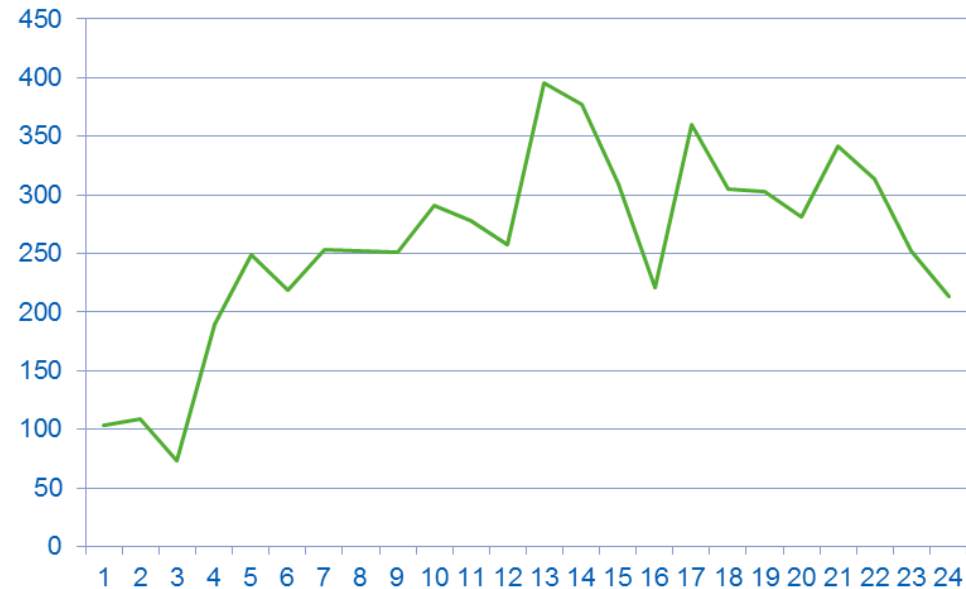
- **Oral Rehydration Treatment Corners (ORTCs)**
- 11 ORTCs (one in a hospital and 10 in health centers) in Al Hali district, starting on November 13th, 2016. 3,753 admissions, of which 57% were children under 5 years old. 1% of referrals to the CTC due to severe dehydration or SAM.
- ORTCs significantly decreased Plan A at the CTC
- **Active Case Finding**
- Four field teams visited systematically areas with new cases, based on lists collected at the CTC, in order to identify and provide ORS or referral to new cholera cases.
- Since December 2016, over 7,598 households were visited, over 700 AWD cases with dehydration were identified, of which over 90 were referred to the CTC.



CAPACITY BUILDING IMPACT

- On April 20th 2017 the ACF-MoH CTC at Al Thowra hospital was officially handed over to the MoH. In end-April started the 2nd wave of the cholera outbreak in Yemen. On May 12th the CTC was re-opened, being completely in charge of the Al Thowra hospital. Almost all our former team was recruited as volunteers on the same positions they have worked for us.

Number of patients at the CTC, from May 12th to June 4th, 2017. 2nd Wave



- 1st week of June ACF took in charge HR and log support, and ICRC the technical supervision.
- In this period, before receiving complementary support our staff treated 6198 cases, an average of 250 patients per day, just replicating what they have learned with us. Until mid-July when the 2nd wave started to decline, they have treated 17,000 cases, with 51 deaths, which corresponds to a CFR of 0.3.



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