

Rohingya crisis

Diphtheria

As of 6 December, 110 clinically diagnosed cases of diphtheria, including six deaths have been reported, with most cases in the Balukhali makeshift settlement (BMS), located in the larger Kutupalong–Balukhali expansion site. Other cases have been detected in Jamtoli and Thangkhali settlements. Low vaccination coverage amongst the camp population increases their vulnerability to the disease, which is particularly deadly for children. Congestion in sites, unevenly distributed health facilities and poor WASH infrastructure facilitate the spread of the disease, particularly during winter. An emergency vaccination campaign targeting 250,000 children is to begin on December 10. Difficult terrain and lack of access to some areas in expansion sites are likely to hamper health services provision. Awareness raising will be important to ensure as many children as possible access immunisations.

Crisis impact

110 clinically diagnosed cases of diphtheria, including six deaths as of 6 December – this figure may have increased (WHO 06/12/2017). A first suspected case was identified on 10 November, but health workers were unable to trace the patient. Another suspected case was found on 19 November.

Diphtheria is a respiratory tract illness, which spreads through air droplets (i.e. sneezing or coughing), or hand-to-hand and hand-to-mouth contact (WHO, WHO 06/12/2017). First symptoms include a sore throat, fever, and a loss of appetite. Membrane may form on the throat and tonsils. Diphtheria is endemic in Bangladesh. The likelihood of dying from a case of diphtheria, the Case Fatality Rate (CFR), is generally 5-10%, but it can go up to 20% among children under five and adults over 40 years old (CDC; WHO, WHO 06/12/2017).

Vaccination coverage: The best way to reduce transmission of the disease is to maintain a high level of immunisation in the community. The Rohingya population generally has low vaccination coverage, as they have limited access to health services in Myanmar. Diphtheria vaccines have to be given in various stages to ensure immunity. Immunity to diphtheria fades overtime, and a booster vaccine should ideally be given every ten years (CDC).

Key priorities



Health

Diphtheria spreading and health facilities vary



WASH

Poor WASH infrastructure



Site management

Congestion as major concern

Humanitarian constraints



Uneven access to health services is a major concern. Lack of roads in expansion sites, rough terrain and difficulty to access certain areas are likely to hamper screening of patients and health services provision.

Limitations

It is unclear how fast diphtheria is spreading.

Other diseases: Among the Rohingya population, fever of unexplained origin is currently the most common disease reported (30%), followed by acute respiratory infection (26%) and acute watery diarrhoea (22%) (WHO 29/11/17). Immune systems weakened by previous diseases and poor nutrition may facilitate the spread of diphtheria

Children as vulnerable population

Diphtheria can affect any age group but is most common in unvaccinated children, who are more likely to die as a result of the disease. As of 5 December, UNHCR estimates that around 55% of the total Rohingya refugee population are children (UNHCR 07/12/2017).

Humanitarian and operational constraints

- Shelters are often built on hilly areas and mostly reached by narrow footpaths in sometimes rough terrain (REACH 05/12/2017). This has consequences for patients, who may be unable to reach health clinics. Humanitarian workers similarly may have difficulty screening or accessing patients in their homes (MSF 06/12/2017).
- At the time of writing, only one health partner is currently able to provide treatment to diphtheria patients. More trained vaccination staff and vaccines are needed to carry out vaccination campaigns.
- A further complication is a lack of signage in the expansion site, as the camp population has indicated that they sometimes are unaware of where to find facilities (ISCG 03/12/2017).
- Lack of light in camps restricts movement at night and may hamper patients' access to health services.
- Curfews on movement of humanitarian actors operating in the camps will restrict health provision for those who need emergency assistance during the night (ISCG 31/10/2017).

Aggravating factors

Health facilities

Unevenly spread health facilities with different standards: Some zones in the expansion site are underserved with health facilities while others have multiple primary health centres (PHCs) and health posts clustered together. The quality at health facilities differs. Reorganisation of sites is needed to address this, as this is an issue that hinders

access for many and delays treatment. Though relocation of health facilities is ongoing, the process is not yet finished.

As of mid-November there were around 105 health points in the expansion site for approximately 500,000 people. Only 18 were classified as sufficiently equipped to meet one or more of the criteria to be classified a primary health centre, while none met all criteria. WHO have said that there are not sufficient facilities to meet the needs of the population should the disease continue to spread (WHO 15/11/17).

Accessing primary health centres is difficult, particularly during the night. Lack of referral pathway mechanisms is hampering access to life-saving services for patients in a timely manner, particularly for transferring complicated cases during the night from primary health care centres to Upazila health facilities (ISCG 3/12/17, BRAC 4/12/17).

Overburdened government health care facilities: Sadar hospital in Cox's Bazar and Teknaf and Ukhia upazila health complexes are overburdened and not able to respond to the refugee inflow. Their capacity to respond to the Rohingya people's health needs is limited (ISCG 31/10/2017).

WASH

Unsanitary living conditions: Poor sanitation infrastructure contributes to the spread of diphtheria. In BMS, 86% of latrines were functional as of 9 November. The ratio of people per functioning latrine was estimated at 90, higher than the standard of 50 (REACH 30/11/2017; SPHERE 2011).

Limited access to hygiene: Although use of soap and washing is common particularly during religious rituals, new arrivals have limited access to bathing facilities and need hygiene items such as soap (UNICEF 03/12/2017). Poor hygiene, particularly hand washing, is an aggravating factor in disease transmission through hand-to-hand and hand-to-mouth contact.

Shelter/NFI

Congestion: As of 7 December, over 530,000 people live in the Kutupalong–Balukhali expansion site. Lack of space to accommodate all of the arrivals remains the main challenge due to land scarcity, which results in high population density (less than 15m² per person in some zones) (ISCG 07/12/17). Shelters are overcrowded, which is conducive to the spread of diphtheria through contact with people (WHO 08/12/17). Decongestion efforts are ongoing by moving people from highly densely populated zones to less

populated zones in the expansion site. However, some of the newer zones do not yet have sufficient infrastructure installed – this is a disincentive to movement. In addition, space in the newer zones is still insufficient for decongestion; ensuring 20m² per person in the allocated land will already be difficult, despite this being much lower than the prescribed SPHERE standard of 45m² per person.

Winter: Diphtheria tends to occur during colder months in temperate climates. Many Rohingya people do not have the appropriate shelter materials and NFIs to protect themselves from colder temperatures during the winter months. It has been reported that there is limited clothing for new-born babies. This is a risk as children are highly susceptible to diphtheria. Many shelters are built of plastic sheeting and bamboo, which provide little insulation from the cold. Prevention of further disease transmission will be enhanced by winterisation of shelter and NFIs. As of 30 November many settlements had not yet been reached with winterisation items (Shelter Sector 30/11/2017; BRAC 4/12/17).

Cooking stoves inside shelters: smoke as an irritant from cooking stoves inside shelters may increase the risk of respiratory infections. Lack of ventilation in shelters is an additional issue (BRAC 4/12/17).

Response

WHO is leading the health sector and is organising a diphtheria vaccination campaign targeting children under the age of six. Vaccination stock is expected to arrive shortly. Vaccinating staff is being trained (Outbreaknewstoday 6/12/17, WHO 06/12/2017). Around 1,000 antitoxins have been procured and should arrive in the weekend of 8–10 December (BD News 24 07/12/2017). Isolation facilities are in the process of being set up. A comprehensive review of Sadar District hospital and the upazila health complexes in Ukhia and Teknaf will be conducted by WHO and partners in Cox's Bazar district from 3-5 December 2017 (WHO 29/11/17).

As of 7 December, Medecins Sans Frontieres (MSF) is the only organisation that is treating patients in the Kutupalong–Balukhali expansion site.

In previous campaigns, 700,000 people have been vaccinated with the oral cholera vaccine; approximately 180,000 children have received a second dose. 293,000 adolescents and children have received vaccinations against measles as of 28 November (WHO 29/11/2017). Vaccinations against rubella and polio have also been given.

Information gaps and needs

- Unclear timeframe of the spread of the disease. It is difficult to estimate how fast diphtheria is spreading

Lessons learned

- Adolescent girls may refrain from coming to vaccination points if vaccinating staff are all male
- Children are often waiting in line at distribution points to obtain food or engaged in other duties to support families. This may limit their presence at vaccination points.
- Rumours about vaccinations causing disease may complicate vaccination processes.
- Communication with communities through extensive messaging combined with outreach of vaccination teams has worked in earlier vaccination campaigns.

This document has been written based on secondary data available on the Rohingya refugee crisis. Any information that may complement this report is welcomed. For feedback or other inquiries please contact fv@acaps.org. This note was written with IOM, DFID, and US government support.