

Rohingya Crisis in Cox's Bazar District, Bangladesh: Health Sector Bulletin

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Fourth Round of Oral Cholera Vaccination Campaign, December 2018



HMBDF, FDSR, Coast Trust, CZM, DCHT, Humanity First, ISDE, OBAT Helpers, Prottayashi, Pulse Bangladesh, RPN, SALT, DSK, Moonlight Development Society, RISDA, Muslim Hands International, Al Markazul

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908 000 Rohingya
refugees in need of
humanitarian
assistance



721 000
New arrivals
since
25 Aug 2017



5 702 467
outpatient
consultations since
25 August 2017



126 health sector
partners

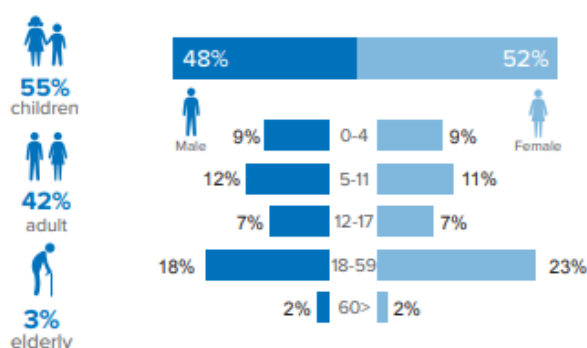


1.3 million People
in Need for the
Health Sector
Response

1. SITUATION OVERVIEW

Since 25 August 2017, an estimated number of 721 000 Rohingya refugees have crossed over from Myanmar into Bangladesh, joining 168 000 who had fled in earlier waves of displacement. As of December 13 2018, the total number of Rohingya refugees became 908 000 (ISCG situation report; 13 December 2018). The overall population in need for the health sector, including the host communities, remains 1.3 million for 2018 including host community affected populations. Figure 1 below illustrates the demographic breakdown based on latest available UNHCR population data (15 December 2018).

Figure 1 Demographic breakdown among FDMN (UNHCR population factsheet) (n=904,373)



Based on the emergency nutrition and health assessment Round 3, conducted by the Nutrition sector, the crude death rate among the Rohingya refugees in the makeshift camps significantly reduced from 0.38/10,000/day [95% CI 0.23-0.65] in April/May 2018 to 0.13/10,000/day [95% CI 0.06-0.28] in October/November 2018 ($p=0.033$). No reductions were found in Nayapara registered camp where crude death rate remains 0.21/10,000/day [95% CI 0.11-0.39]

The health sector benefits from support of over 100 partners who have responded to the needs in numerous ways including through direct service delivery from primary, secondary and specialized health facilities (both static and mobile health facilities in both Ukhia, and Teknaf); establishing expansive community health worker networks and developing risk communication materials; supporting government health facilities with human resources, renovations and medical supplies; ensuring availability of essential medicines and other supplies through logistics support; maintaining a strong disease surveillance system; delivering vaccination campaigns and strengthening routine immunizations; improving morbidity/mortality reporting from health facilities and from the community; strengthening laboratory diagnostic capacity; monitoring and improving water quality in health facilities; capacity building of medical personnel; and preparing for disease outbreaks.

2. HEALTH SECTOR COORDINATION

2.1 Overall coordination structure

Overall, the health sector partners are coordinated under the leadership of Civil Surgeon's Office of Cox's Bazar, the Directorate General Health Services Coordination Center and the World Health Organization (WHO), for better planning and implementation of a coordinated emergency response. The health sector has adopted a three-tiered coordination structure at District, sub-district (upazila) and union levels. At the District level, a strategic advisory group, constituting the main health sector partners, serves an advisory role to the health sector coordinator based on priority needs. As part of 2019 planning, the health sector strategic advisory group recently reviewed its coordination structure and formalized the following working groups effective for the next year:

- Mental Health and Psychosocial Support (currently chaired by ACF/BRAC and will be handed over to newly elected chairs IOM/UNHCR)
- Sexual and Reproductive Health (currently and will continue to be chaired by UNFPA)
- Community Health (currently chaired by UNHCR and in 2019 will be co-chaired by CPI)
- Epidemiology and Case Management (merged the previous epidemiology, case management and acute watery diarrhea meetings into one working group chaired by WHO)

In addition, coordination of support to the District hospital (Sadar) will continue through the Sadar Roundtable meetings; and upazila level health sector coordination meetings remain part of the plan. A time bound emergency preparedness taskforce will be activated during monsoon and cyclone preparedness periods and response phase, however this is currently deactivated (since end of November 2018) post monsoon/cyclone season. All other ad-hoc issues not directly related to the above are addressed through health services strengthening taskforce under the health sector.

2.2 Health Sector Funding

JRP for the Rohingya Crisis was launched in March 2018, for the period 1st March- 31 December 2018. A total of 50 project proposals were submitted for the health sector, with \$113 086 292 million appeal budget. To date, the health sector has been funded 39.4% of its needs. However, given that only 33 implementing partners submitted JRP projects, this figure is not fully representative of the actual sector funding status.

2.3 Accomplishments in reporting period

During the reporting period, the health sector office has undertaken comprehensive planning for 2019, in consultation with and supported by all health partners. The new joint response plan for 2019 was developed, including objectives, indicators and strategy for the sector. In addition, the sector has developed a health sector plan for 2019, which includes core sector activities and essential annexures, which is intended to serve as a roadmap to partners. As part of the 2019 planning process, the minimum service package for primary health facilities in the refugee camps was reviewed and revised with additional details added on human resources and laboratory capacities (This was approved by Civil Surgeon on 27th December 2018). Alongside this, a health sector monitoring framework was

developed with 50 indicators which will be used to monitor progress in the health sector response. This was developed during a one-day workshop on health sector information management, during which key information gaps for 2019 (that cannot be filled through existing information sources) were also defined. In addition to the 2019 planning, several technical review missions and/or workshops were undertaken during the reporting period including TB review mission (December 2018); Safe Blood transfusion (November 2018); NCD review mission (October/November 2018); Essential Drugs Assessment (September/October 2018); HIV workshop (November 2018); and Emergency Medical Referrals workshop (December 2018). A full external review of health services was conducted in November 2018 which made several key recommendations including reassessing geographic distribution of health facilities; reducing duplication, maintaining up to date database on facilities and services available; consider use of health cards to maintain service records; provide induction trainings of health care providers; develop simple clinical guidelines and algorithms; and improving physical infrastructure of health facilities¹. These recommendations and others from the numerous assessments informed the 2019 planning and will require considerable efforts by the health sector at large to implement. Two members of the health sector team attended the Global Health Cluster coordination training in France in November 2018.

2.4 Upcoming priorities

Going into 2019, the health sector has numerous immediate priorities as defined in the Joint Response Plan. In view of land shortages in the camps, all sectors should rationalize and consolidate services to reduce duplication of services, ensure appropriate geographic distribution of health facilities and to free up land for shelters and road infrastructure projects. This was also a key recommendation from the external evaluation of health services. It is noted that fewer health facilities providing higher quality services is a preferable modality. For these reasons, Health sector will undertake a rationalization exercise in early 2019, with a focus on the camps that are most over-supplied with primary health facilities (health posts and primary health centers). In addition, the health sector is committed to improving quality of services through improved monitoring and strengthening field coordination. A new camp health focal points structure will be established, such that each camp will receive dedicated coordination support for one day/week to monitor health facilities; build linkages with other sectors at the camp level; strengthen two-way information sharing at the camp level; conduct basic monitoring of health activities; coordinate meetings with all relevant stakeholder at camp level; and collect field information to inform the response. In addition, the sector is planning to implement joint supportive supervision visits to all health facilities through inter-agency teams. These visits will provide feedback and recommendation to facilities on quality improvement measures. Finally, the sector plans to strengthen information management in early 2019, with a focus on streamlining data collection sources and reviewing existing platforms to identify areas for improvement. As part of the health sector's commitment to knowledge sharing, a workshop will be organized for partners to showcase best practices from the past year.

¹ External Review of Health Service Delivery for Rohingya Refugees in Cox's Bazar; November 2018. Conducted by KIT (Royal Tropical Institute of Amsterdam) and commissioned by WHO.

3. HEALTH RISKS, NEEDS AND RESPONSE

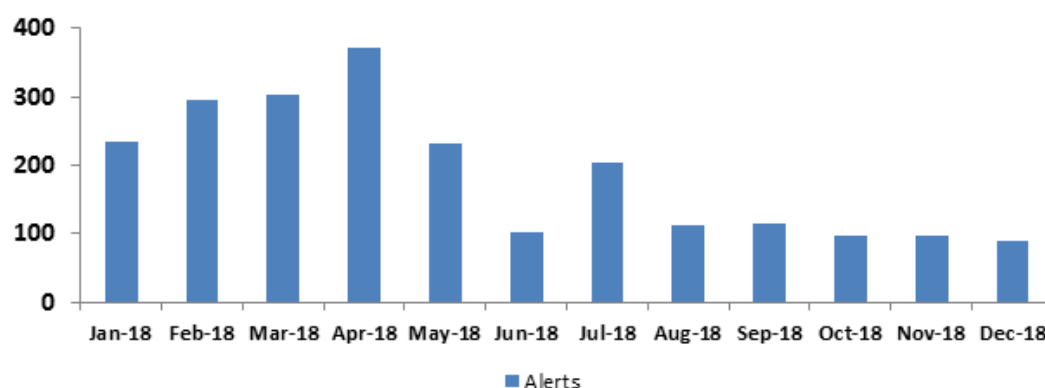
3.1 Epidemiology and Case Management

Surveillance

In total, 76% (162/212) of functional health facilities (Community Clinics, Health and Family Welfare Centers; Health Posts fixed and mobile; primary health centers; sub-centers; upazila health complexes; and secondary facilities) are registered with the Early Warning, Alert and Response System (EWARS) for weekly reporting; while 24% are not registered. Of these sites, 137 submitted their weekly reports (85%) by 18 December 2018 resulting in a cumulative completeness of 85% for 2018. In addition, 5 diarrhea treatment centers (DTCs) are also registered and reporting in EWARS Surveillance system.

As of Week 50, a total of 3 963 990 million consultations have been reported through EWARS since beginning of August 2017. These included clinically defined syndromes of communicable diseases, vaccine preventable and vector borne diseases as well as water borne and related diseases. The majority reported cases were acute respiratory infections (ARI) contributing the highest percentage (13.9%), followed by unexplained fever (9.5%), Acute watery diarrhea (AWD) (5.7%), other diarrhea (2.6%), Suspected Malaria (2%), injuries and wounds (1.9%) and bloody diarrhea (1.0%). Other reported illnesses included diphtheria, severe acute malnutrition (SAM), acute jaundice syndrome (AJS), Measles/Rubella, suspected hemorrhagic fever, confirmed malaria, meningitis, suspected acute flaccid paralysis (AFP), adult and neonatal tetanus, suspected and confirmed dengue and other consultations. A total of 2257 alerts were generated from January – December, 2018 and 100% reviewed and verified. As indicated in the figure below, the number of reports reported in the last three months has been relatively steady, which could be indicative of improved understanding of case definitions as a result of EWARS refresher trainings.

Figure 2 Total monthly alerts reported through EWARS from January – December, 2018



The EWARS surveillance system is complemented by an ongoing project to strengthen laboratory surveillance. Through health sector partner support, a field laboratory is now functional (since 21 April 2018) in the Cox's Bazar District with capacity for molecular technique diagnostic including DNA extraction, master mix preparation (clean room), template addition and PCR amplification. All

Diphtheria samples are now processed at this laboratory. Laboratory diagnostics are scarce in the camp areas, but suspected cases of measles and acute flaccid paralysis are traced back as a part of national response by Immunization team from all partner organizations. Furthermore, rapid diagnostic tests (RDT) for suspected AWD cases are used in large and referral health facilities. Based on the laboratory diagnosis, cases were classified and treated by the Ministry of Health and partner organizations. No confirmed cases of polio have been identified from the camps to date.

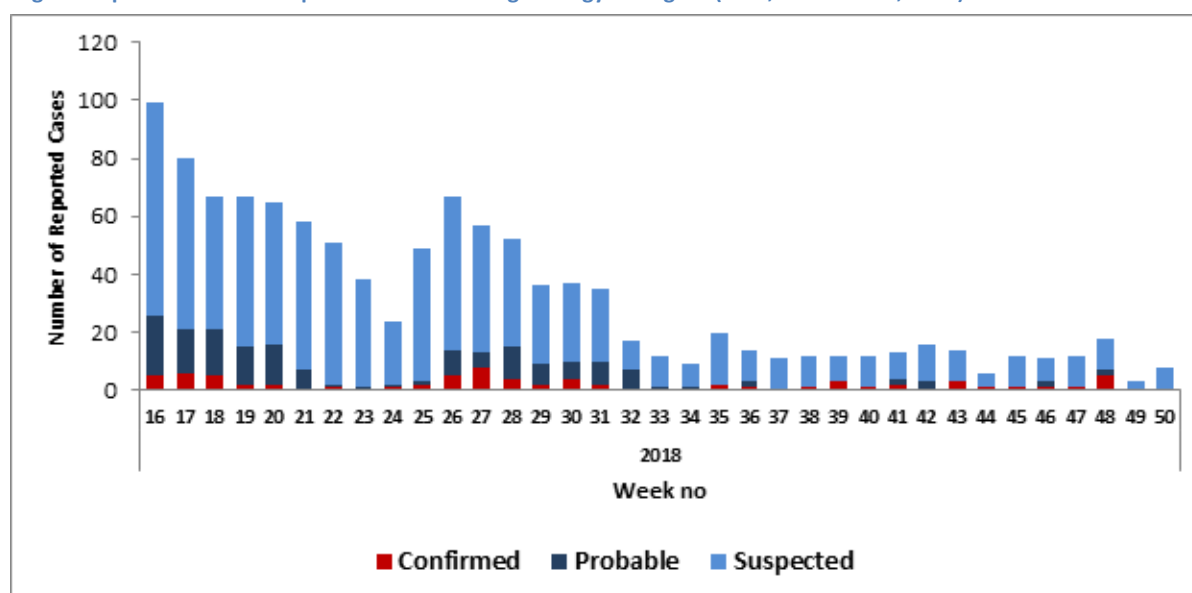
Vaccine Preventable Diseases

Increasing immunization coverage among the host and refugee population against vaccine preventable diseases is a priority for the health sector, both through vaccination campaigns and through strengthening of routine expanded program of immunization (EPI). Since February the focus has been on routine EPI targeting children 0-23 months of age. This is being implemented through 780 outreach session sites monthly run by 65 outreach mobile teams (12 sessions in a month) consisted of 2 MoH vaccinators and 59 fixed sites in-built in HFs run by different agencies by their own vaccinators across the camps. Since beginning of February 2018 to date, the following antigen doses were delivered to children through routine immunization: 35 148 BCG doses; 51 259 pentavalent doses; 52 385 Oral Polio Vaccine (OPV) doses; 49 386 PCV doses; 23 928 Measles/Rubella (MR) doses. Pregnant women are targeted for Td (19 906 doses delivered from February to date).

Diphtheria

November 08 2018 marked one year since the start of the Diphtheria outbreak. While the number of cases has been steadily decreasing since the vaccination campaign and with continuous contact tracing, there are still several cases reported each week as illustrated in the figure below. All cases are now managed by one Diphtheria treatment center.

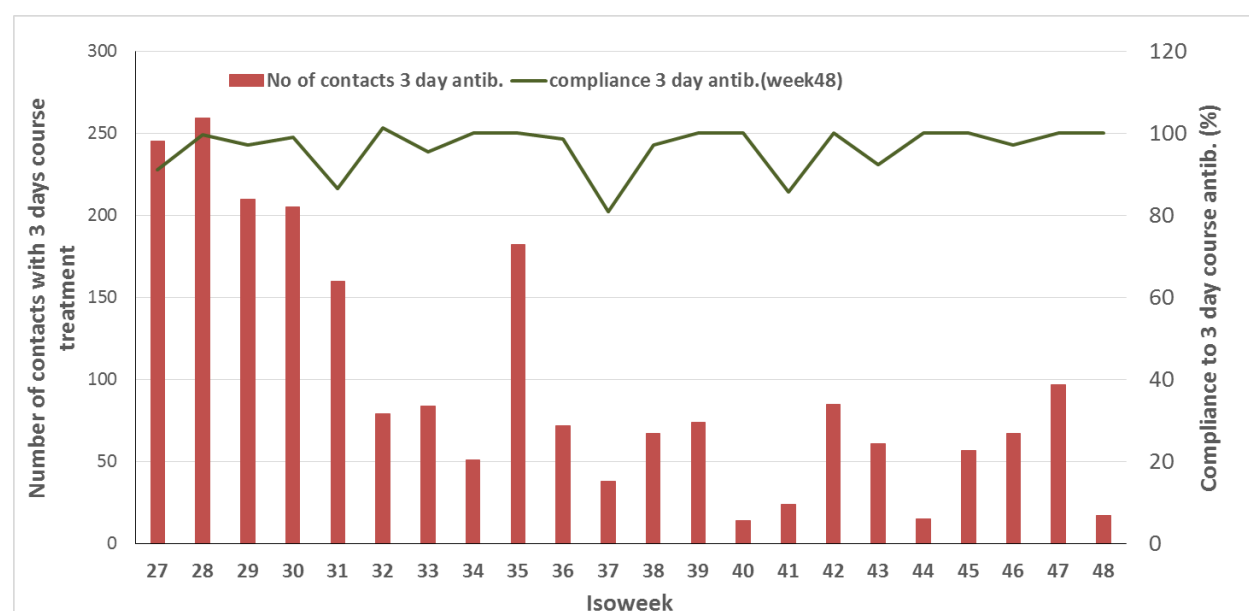
Figure 3 Epidemic curve of diphtheria cases among Rohingya refugees (W16, 2017 – W50, 2018)



In week 50, a total of eight new diphtheria case-patients (all suspected) were reported bringing the total case-patients reported in EWARS to 8335. Of these, 290 case patients tested positive on PCR, with the last confirmed case reported on 29 November 2018. Of the remaining cases 2709 were classified as probable and 5336 as suspected. The total number of deaths remains 44 with the last death reported on 28 June 2018. A total of 194 case-patients were reported from host community since the beginning of the outbreak. Of these, 28 case-patients were confirmed on PCR testing while 63 cases were categorized as probable and 103 as suspected. No death has been reported from the host community.

The graph below indicates the compliance with three-day course of antibiotics for contacts of Diphtheria cases since directly observed treatment was introduced. As compared to the average compliance of 79% from week 1-26, compliance during week 27-48 has improved to 96.5 % as shown in the figure below.

Figure 4 Diphtheria household contacts compliance with antibiotics from Week 27 to Week 48 (after DOT Implementation)

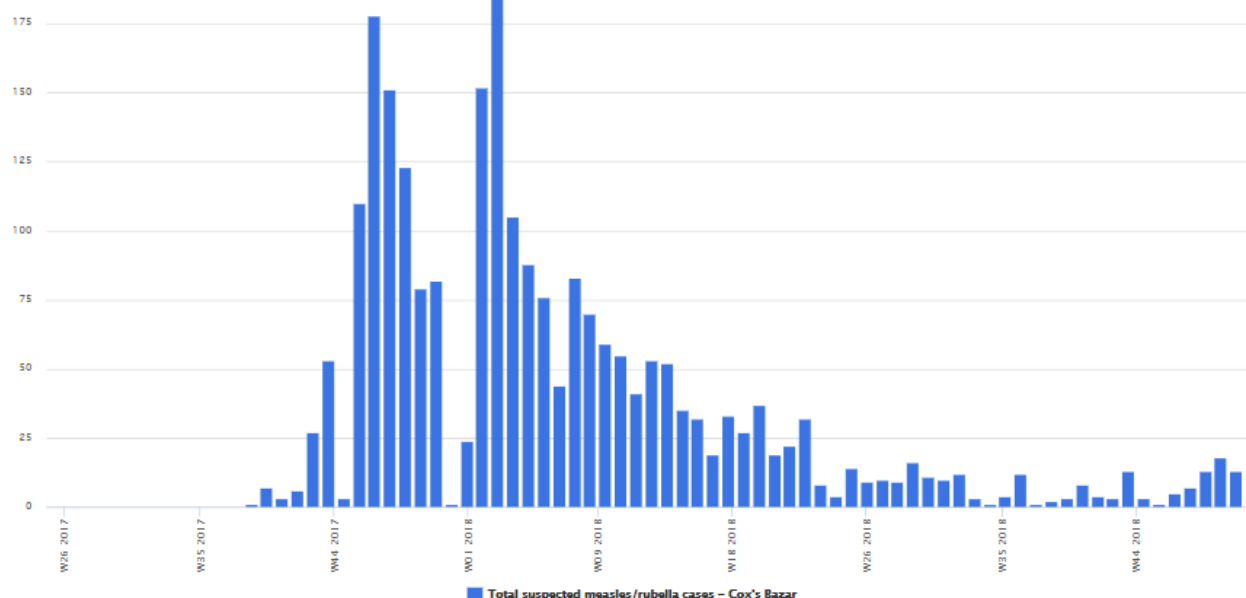


In late September and early October 2018, 3 Diphtheria cases were reported in no-man's land (of which 2 are confirmed cases). A joint response was conducted on 15 October 2018 during which 22 close contacts were traced out for chemoprophylaxis and 16 for vaccination. Response immunization with Penta, bOPV/Td took place in late October 2018 covering all population in the area based on age and vaccine eligibility and routine immunization has since been established in no-man's land.

Measles

A total of 1600 suspected measles/rubella cases were reported through 152 EWARS sites between weeks 1 and 50, 2018. Although the number of suspected measles/rubella cases reported in last three weeks is higher than the previous quarter, measles surveillance has been expanded into the refugee camps since September 2018. There is a plan to ensure that all suspected cases will be laboratory tested through the National surveillance system (in Dhaka) in 2019.

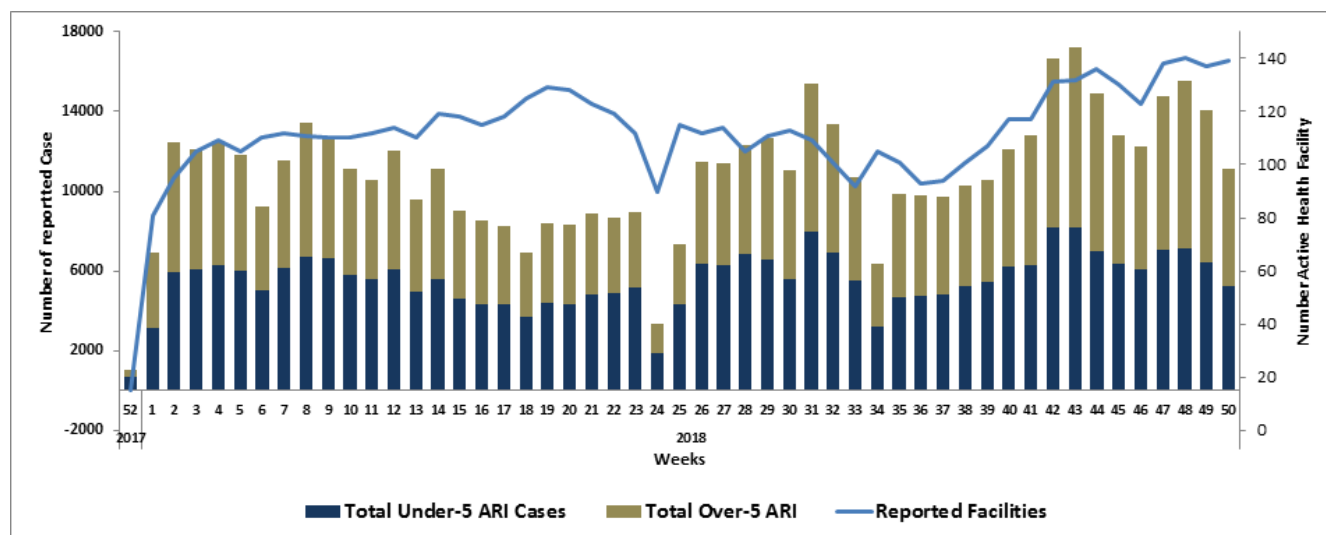
Figure 5 Trend of EWARS reported suspected measles cases among Rohingya refugees as of Week 38 2017- Week 50 2018



Acute Respiratory Infections (ARI)

Acute respiratory infections (ARI) and unexplained fever (UF) contribute about half of the consultations in the health facilities among children < 5 years of age in the Rohingya camps. Since the slight upsurge of cases in ARI consultations in weeks 47 and 48, in the last two weeks these have decreased again as indicated in the figure below. However, there is a large degree of uncertainty regarding the causes of unexplained fever. For this reason, an assessment is planned to obtain a comprehensive prevalence estimates for diseases in question and to estimate the level of transmission of influenza, vector borne diseases (malaria, dengue) or arthropod-borne diseases (rickettsia) among Rohingya and host community population in Cox's Bazar, Bangladesh.

Figure 6 Number of Under-5 & Over-5 ARI cases reported among Rohingya refugees from week 1 to week 50 2018

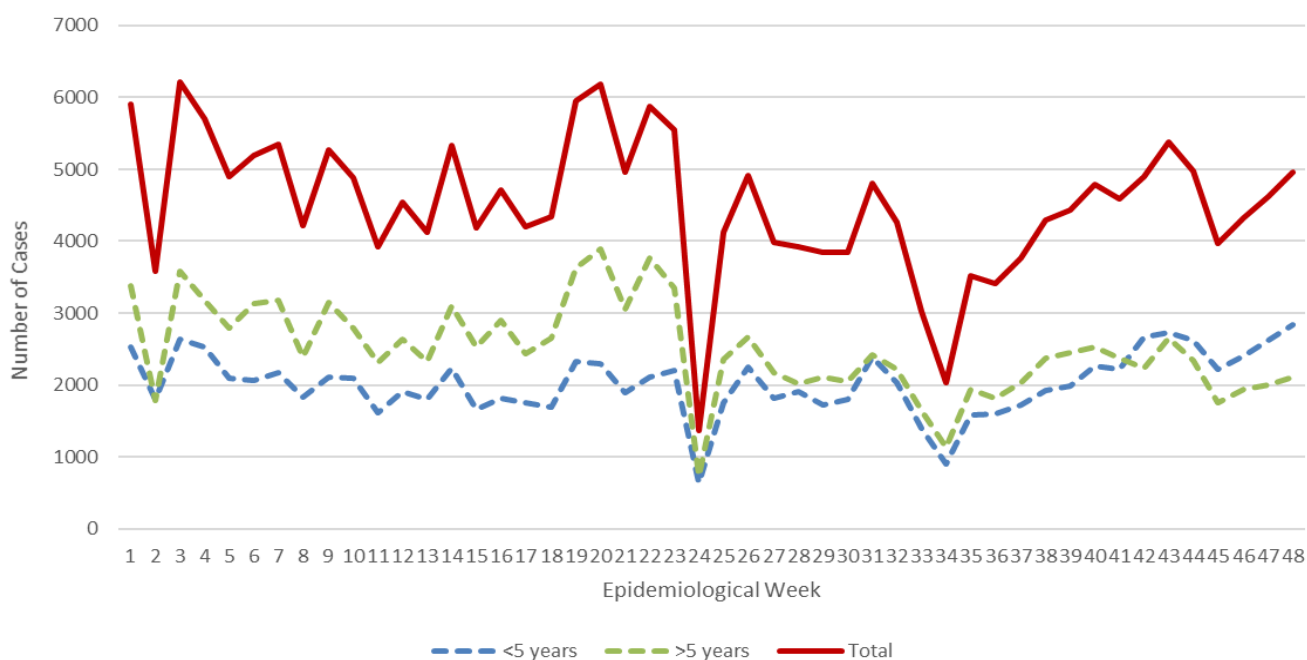


Acute Watery Diarrhea and Water and Sanitation

Diarrheal diseases are common in refugee camp settings, and a total of 224 145 acute watery diarrhea (AWD) cases were reported through EWARS between weeks 1 and 50, 2018, as shown in the figure 3 below. In the post monsoon season, there has been an increase in the number of reported AWD cases and in week 42 the number of cases <5 exceeded the cases >5 years, which could be attributed to rotavirus (which is not part of the routine vaccine schedule in Bangladesh)

A total of 8 Cholera RDT positive cases were reported in November in both the camps and among the host community. All positive cases were investigated jointly with the health sector; and a joint response was implemented including distribution of hygiene kits; chlorine spraying of affected household; contact tracing; and health promotion activities. In response to the RDT positive cases, and to prepare for a scenario requiring a large number of investigations, joint assessment teams (with volunteers from WASH and health sector partners) were trained in November on the investigation processes, to ensure availability of surge capacity in case of need for large number of concurrent investigations.

Figure 7 Acute Watery Diarrhea (AWD) cases reported among Rohingya refugees >5 and < 5 years cases (week 1 – 48, 2018)

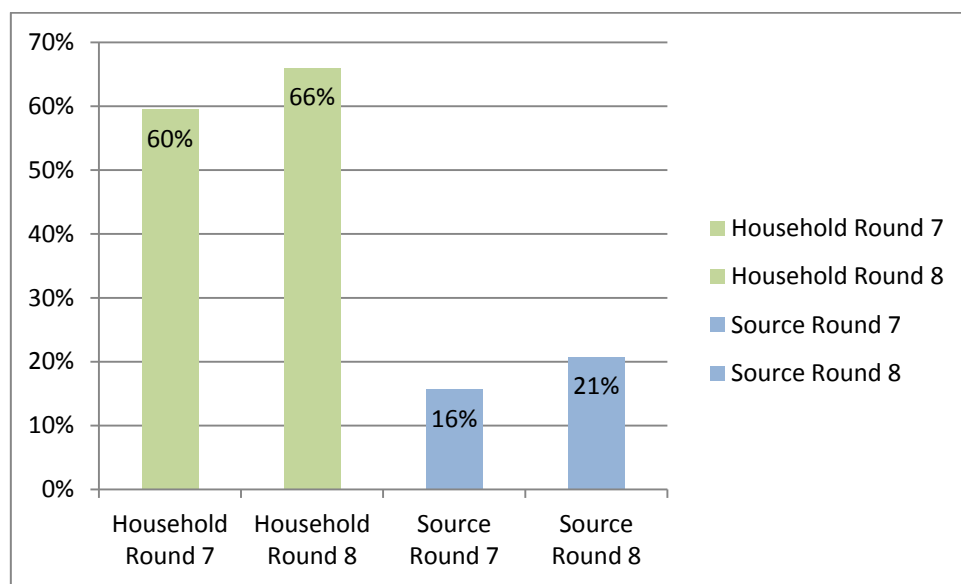


Meanwhile, the fourth round of oral cholera vaccination (OCV) campaign was completed on December 11, with 108% coverage. A total of 356 202 people received vaccination including 257 041 Rohingya refugees and 99 161 host community beneficiaries. OCV campaigns were also conducted in no-man's land at Nakyongchari in Bandarban district where 2476 (104 %). During the house to house rapid convenience monitoring, a total 5237 beneficiaries were interviewed as of 12 December 2018. The results of the monitoring exercise revealed that the OCV coverage is 95% and around 11% beneficiaries had already received at least two doses in previous rounds. Of the people who were not vaccinated (n=214), the reasons ranged from: beneficiaries not at home (41%); not aware of

campaign (24%); not aware of need 16%; and beneficiaries too busy (14%). The mobilization for the campaign was done through the Majhee and Rohingya community mobilizers (50%), megaphone (30%) and moni-flag (15%).

AWD prevention interventions overlap closely with the WASH sector activities and strong collaboration exists between the two sectors. Eight rounds of water quality surveillance were completed from August 2017 to December 2018. Results from the 7th round (613 samples from water sources and 1226 household water storage containers in Sep/Oct 2018) and the most recently completed 8th round (616 samples from water sources and 1232 household water storage containers in Oct/Nov 2018)² indicate that there has been an increase in contamination of water post monsoon season, at both household and source level. Household level contamination remains very high, at 66% in the latest round. This information is shared with the WASH sector for relevant actions. Round 9 of water surveillance is ongoing.

Figure 8 Percentage of contaminated source and household-level samples from rounds 7 and 8 of water surveillance



3.2 Sexual and Reproductive Health

Based on the recent surveys the proportion of pregnant women has been estimated to be 2.4 % of the total FDMN population. The Sexual and Reproductive Health Working Group is coordinated by UNFPA and includes approximately 53 partners. Although some partners are providing the minimum initial service package of sexual reproductive health (SRH), access to essential comprehensive reproductive, maternal and new-born health services remain a major concern. The difficulty of transporting patients for safe facility-based births continues to be a challenge, especially for night time deliveries, as 24/7 facilities with birthing units are scarcely located within the camps, and arranging for an emergency patient transport at night remains a major challenge, resulting in avoidable maternal and infant mortalities. Findings from the MSNA indicate that 41% of households reported fear of sexual violence for girls aged under 18 (UNHCR/REACH; September 2018).

² Sampling from camp 14; 15 ;16 ; 26 ; 21 ; 22 ; 23 ; 24 and Nayapara RC.

Currently there are no systems in place to track community-based births, but to date a total of 13 416 deliveries were reported from health facilities³. There has reportedly been an increase in the proportion of facility-based delivery to 43% among total population in need and 32% among refugees according to SRH monthly data collection tool. Nevertheless, attainment of the 2019 JRP target of > 55% of deliveries taking place in health facilities assisted by a skilled attendant will require considerable effort and better understanding of access barriers and demand-side barriers. Improved community based information in 2019 will be important to understanding how to attain the target.

MSNA results indicate that 72% of pregnant women interviewed reported to have attended an NGO or government clinic at least once since the start of their pregnancy, to get advice or treatment about their pregnancy (UNHCR/REACH; September 2018). However, data from DHIS-2 in the last quarter shows clear progressive drop off in ANC visits, suggesting that the number of pregnant women receiving the recommended 4 ANC consultations is sub-optimal.

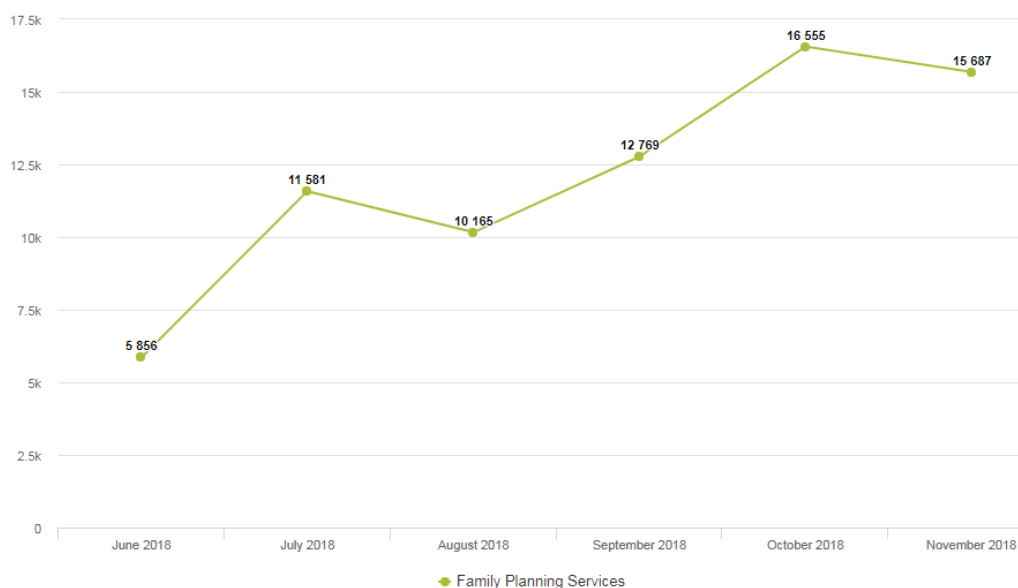
Table 1 ANC service data, September to November 2018, DHIS-2 Rohingya, Cox's Bazar

| Period / Data | ANC 1 Service ± | ANC 2 Service ± | ANC 3 Service ± | ANC 4+ Service ± | Total ± |
|----------------|-----------------|-----------------|-----------------|------------------|---------|
| September 2018 | 8,606 | 5,096 | 2,702 | 2,320 | 18,724 |
| October 2018 | 10,134 | 5,903 | 3,323 | 2,797 | 22,157 |
| November 2018 | 9,872 | 5,989 | 3,088 | 2,564 | 21,513 |
| Total | 28,612 | 16,988 | 9,113 | 7,681 | 62,394 |

The SRH Sub Sector continues to facilitate the permission of partners to provide long acting family planning services in the camps and access to and coverage of family planning services has improved slightly over the past 6 months (March-August 2018), family planning needs remain inadequately addressed for Rohingya refugees. According to the latest available figures, contraceptive prevalence rate is estimated to be just 33.7 % (iccd, survey July 2018) which suggests that gaps in service provision and uptake remain. SRH Sub sector data from health facilities indicates an improvement in provision of Family Planning from a baseline of 12% to 36% of the facilities providing at least 3 short acting and 1 long acting method as per the Joint Response Plan (JRP) standard. A total of 107 604 family planning services are recorded in the past six months in DHIS-2 from facilities serving Rohingya refugees. While the data (see graph below) may not be complete, it nevertheless shows a clear overall upward trend in the delivery of Family Planning services in the past 6 months, as illustrated in the figure below.

³ This figure is based on SRH WG data collection; the figure in DHIS-2 is much lower totally 3800 live births in the past 1 year.

Figure 9 Family Planning services rendered, June-November 2018, DHIS-2 Rohingya, Cox's Bazar



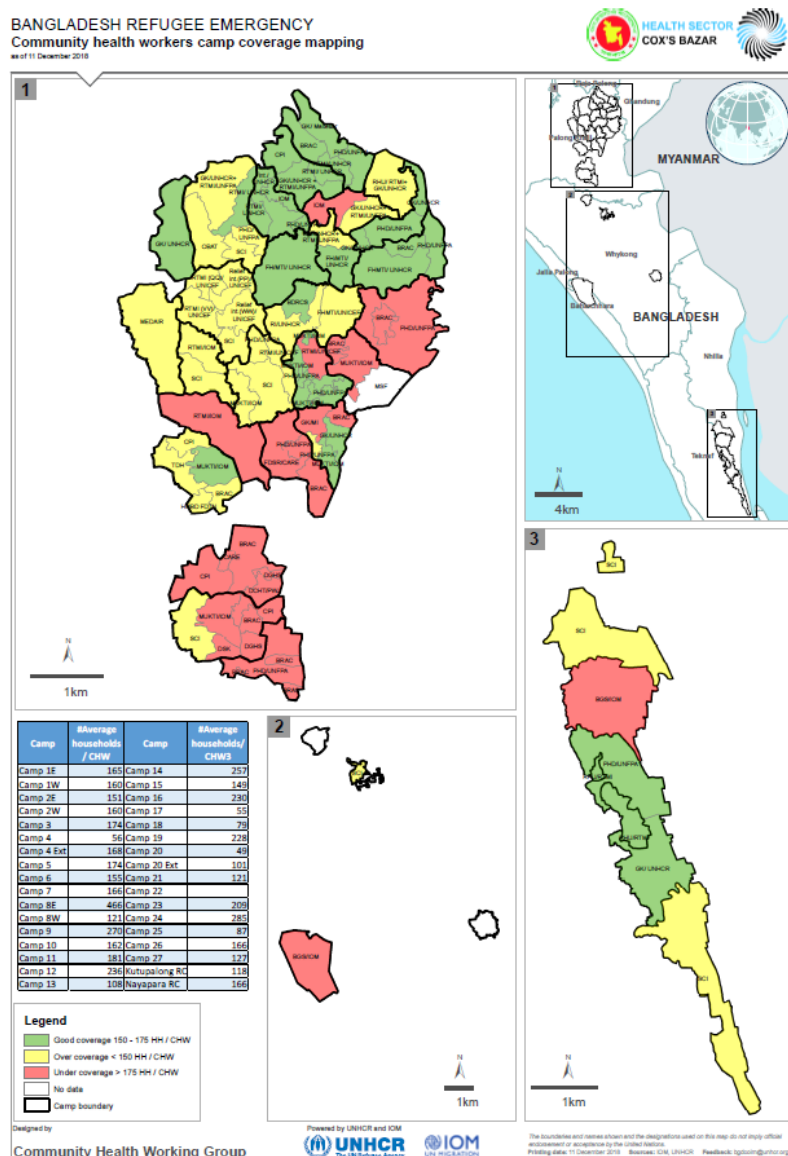
To help address remaining gaps large quantities of emergency reproductive health kits were distributed to implementing partners and government facilities. Importantly, the SRH sub-sector in partners carried out a community-based retrospective study of maternal mortality surveillance to provide baseline for more robust maternal mortality surveillance in the camps. The data collection was finalized in end of November and the full report is expected early next year. Prospective community based maternal mortality surveillance will continue in 2019 using EWARS to trigger alerts for deaths among women of reproductive aged, reported by Community Health Volunteers. This will instigate a maternal death audit, led by the SRH working group.

Other key achievements of the subs-sector in the past three months include the development of a service quality monitoring checklists developed to guide on-site mentoring of health providers alongside the launch of a series of trainings to improve the quality of care provided to FDMNs and the local population with a focus on SRH/maternal health and neonatal care. A total of 600 health care practitioners received various SRH related training on Helping Babies Breathe, Emergency Response, Helping Mothers Survive, Family planning (LARC), Menstrual Regulation & Post-Abortion Cared and Clinical Management of Rape. Recently the SRH Sub Sector also developed a pool of master trainers within the sector on key SRH topics to help roll out the key trainings to the front line service providers as part of the ongoing capacity building program. the Health Sector in collaboration with the SRG Working group held a workshop to discuss SRH gaps and needs assessment analysis as part of the Global Health Cluster Project to strengthen SRH in emergencies. Similarly, under the same project, a four days training was conducted in which 28 participants were trained on health responses to gender based violence to health partners including first line response; clinical Management of Rape, referrals and community outreach. Finally, as part of this global health cluster project, a detailed research study was recently finalized with the objective of understanding barriers to uptake of SRH services. Results and report are expected in early 2019.

3.3 Community Health

Community health is critical component to the health response and community outreach activities are implemented by numerous health sector partners. These activities are coordinated through a community health working group under the health sector, responsible for strengthening and standardizing health outreach activities. During the reporting period, the working group successfully developed and launched a standardized guidance note detailing the scope of work and minimum standards for ‘generalized’ community health workers/volunteers (CHW/Vs). According to this, there should be 1 general CHW/V for 750 of the refugee population. The main task of the working group during the reporting period was to define coverage areas for the different agencies’ volunteers, to avoid unnecessary duplications and ensure optimum coverage. As part of this mapping exercise, attainment towards the coverage target was mapped and areas with under coverage and over-coverage were identified as shown in the figure below.

Figure 10 Map of coverage areas for community health workers/volunteers



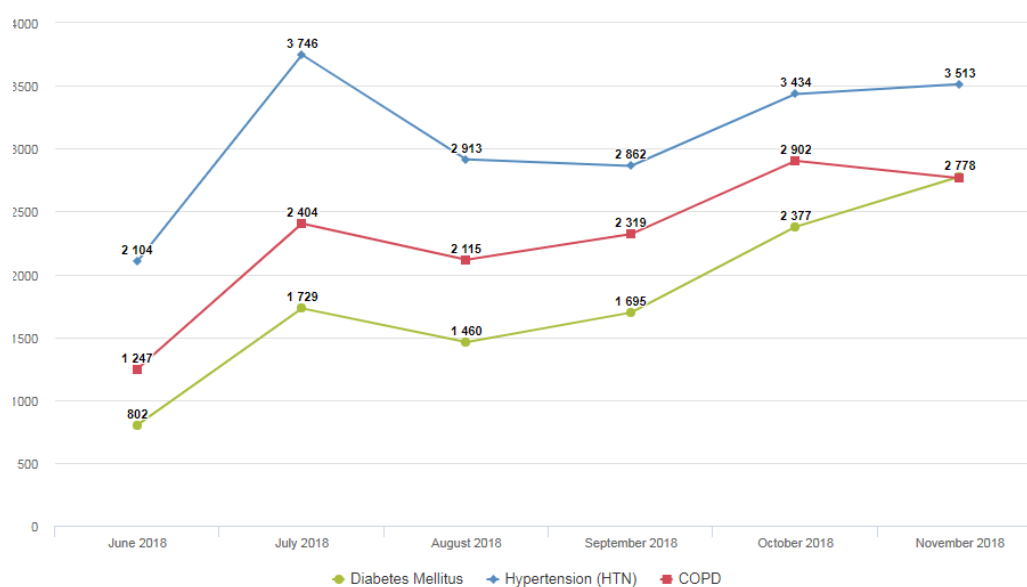
The working group is actively coordinating the partners to minimize gaps and rationalize community health volunteers. Furthermore, the group developed information and monitoring tools to help track the activities of the community health outreach as well as obtain critical community health information including mortality surveillance, rumours and complaints, and data on home-based deliveries and ANC and PNC uptake.

3.4 Mental Health and Psychosocial Support (MHPSS); Non-communicable diseases (NCDs) and other specialized services

The psychological impacts of being forcibly displaced continue to affect large numbers of FDMNs. To help coordinate the response, an MHPSS working group exists with over twenty partners and actors providing mental health and psychosocial support to the affected population. In-camp management of mental health conditions remains a gap and uptake of services is also a challenge, in part due to stigma. To help address this, at Task Force on Integration of Mental Health (MH) into Primary Healthcare (PHC) was initiated to help ensure effective, coordinated and focused inter-agency and government approach among all stakeholders in Cox's Bazar in their efforts to integrate MH into PHC services and to strengthen capacities to do so through mhGAP training as well as to help build existing government capacities. This requires procurement of essential psychiatric medicines in the primary health care system. Furthermore, the working group established minimum standards for community MHPSS volunteers including terms of reference and minimum standards of 1 MHPSS volunteer for each 2500 refugee population. In the reporting period, the working group updated their detailed review of who is doing what where (3Ws) and undertook an exercise to map this information to visualize and minimize gaps in the camps, based on the 4 layers of the MHPSS pyramid. There is still need to define and map referral pathways including to government services.

Regarding NCDs, reliable morbidity data is not currently available for the Rohingya refugee population. However, DHIS-2 data on hypertension, Diabetes Mellitus (DM) and COPD consultations suggests that hypertension is likely the largest contributor to the NCD disease burden in this population, followed by COPD and DM.

Figure 11 Trends in NCD consultations from June-November 2018



In November 2018, a review mission assessed the NCD situation and made recommendations that the WHO Package of essential noncommunicable disease interventions (PEN) be adapted to the

context and distributed to partners alongside context-relevant training modules for clinical use and capacity building for primary health care workers. Availability of medicines and diagnostic laboratory for essential care provision of hypertension, diabetes, COPD, asthma is urgently needed. Cold-chain provision and in-patient monitoring system are also needed to initiate treatment and follow up for the insulin-dependent diabetic cases.

Eye care services were also strengthened jointly with the Government during the reporting period including the establishment of a Vision Center at Ukhia upazila Health Complex on 19 November 2018; orientation on 17-18 December 2018 at Ukhia Health Complex on primary eye care for 70 doctors who are currently engaged in different health posts at in the camp. Meanwhile, during the reporting period, 17 847 persons were screened, 494 eye surgeries were performed and 1872 spectacles were provided by the main eye care provider in this response.

3.5 Health Logistics

Health logistics is a critical component to the health sector response. In the previous quarter, several critical health commodities were procured and distributed to partners. In total, 30 Severe Acute Malnutrition (SAM) kits were delivered to nutrition sector partners, 30 cholera kits and 20 Inter-Agency Health Kits (IEHK) were donated to the Civil Surgeon's office Cox's Bazar (for use in the district), 5000 Malaria and Dengue and 4000 cholera rapid diagnostic tests were procured and availed to partners; and approximately 15 tonnes of sexual and reproductive health kits were received in November and distribution has begun. Inevitably, some of the procured medications are expiring. At present, these are being systematically removed from kits before distribution however there is need to develop a plan for safe disposal of expired medications in this context.

A cold storage container (temperature 2-8 degrees Celsius) was identified through the support of Logistics sector and efforts are ongoing to identify most suitable location for storage of this container for temperature sensitive medical supplies. The health sector has prepositioned three temperature control containers stocked with essential medicines, for health sector partners' use in case of emergency. These stocks are continually replenished and a further five containers are being procured to scale up prepositioning within the camps. Storage capacity at Ukhia and Teknaf health complexes was assessed and recommendations for improvement/refurbishment were identified and will be undertaken through partner support. Finally, to strengthen 24/7 health care provision, generators and solar systems were procured for partners running 24/7 primary health centers. These facilities were identified and assessments are ongoing after which these will be fitted.

To improve coordination, a medical logistics meeting was held with health partner stakeholders in mid-December with support of Logistics sector. Going forward, this meeting will take place monthly. Quality of medicines and cold chain management are two important key areas for this group to address.