







On 27 August 2021, Deputy WHO Representative, Dr Ahmed Jamsheed Mohamed, visited Cox's Bazar in a joint mission with the Ministry of Health and Family Welfare (MoHFW), as represented by the Additional Secretary (Planning Wing), Joint Secretary and Deputy Secretary of the Health Services Division (HSD) to monitor and supervise the implementation progress of the "Health and Gender Support Project (HGSP)".

## HIGHLIGHTS

- 36 943 people received the first dose of COVID-19 vaccine during the first round of COVID-19 vaccination campaign in the Rohingya refugee camps, which reached 86% of the target population.
- WHO Risk Communication and Community Engagement (RCCE) team provided support to Immunization and Vaccine Development (IVD) team for the documentation of COVID-19 vaccination program in the refugee camps.
- The Government of Bangladesh has received approval from the International Coordinating Group (ICG) on Vaccine Provision to launch an OCV vaccination campaign for Rohingya refugees.
- **SUBJECT IN FOCUS – Water Quality Surveillance (WQS):** A tool to ensure safety of drinking water in the Rohingya refugee camps in Cox's Bazar

	Host Community	Rohingya refugees
 Total confirmed COVID-19 cases in Cox's Bazar	16 548	2 883
 Total cases in isolation in Cox's Bazar	87	247
 Total number of tests conducted	133 149	58 861
 Total deaths due to COVID-19	236	30

WHO, together with the Ministry of Health and Family Welfare (MoHFW) and office of Refugee Relief & Repatriation Commissioner (RRRC) continues to provide leadership, coordination, supportive supervision and collaborative support to all health partners and sectors responding to the COVID-19 response and maintaining essential health services.

The first round of COVID-19 vaccination campaign (including mop-up) for Rohingya refugees aged 55 years and older was carried out from 10-23 August 2021- with 86% vaccinated among the target population. The second round is awaiting government directives.

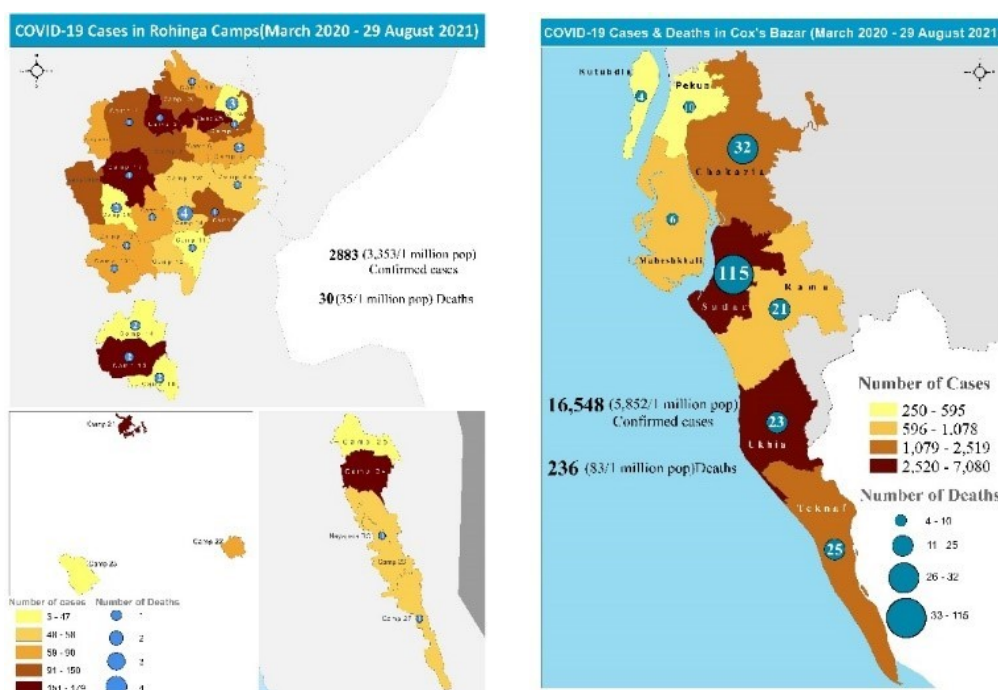
At present, Community Health Workers (CHW) are undertaking active case finding for AWD, referring persons with symptoms, disseminating key health messages and distributing ORS/Zinc in households reporting symptoms. In addition, enhanced surveillance is ongoing utilizing EWARS and 22 sentinel testing sites. At field level, Joint Assessment Team (JAT)s are investigating in and around the household of any Cholera case and ensuring necessary public health measures. At present, 72 active and 400 standby beds are dedicated for AWD management. A coordination meeting among Health, WASH & CwC actors takes place in quick succession.

The Government of Bangladesh has received approval from the International Coordinating Group (ICG) on Vaccine Provision to launch an OCV vaccination campaign for Rohingya refugees.

During the reporting period, feedback from Health Sector partners is being incorporated into the 'General Health Card'. In the coming weeks, the final draft with an operationalization SOP will be submitted to RRRC and Civil Surgeon for review and endorsement. Following the endorsement, this card will be initially piloted prior to further roll out.

The updated Health Facility Gap Analysis has been shared with health partners: this document helps the interested partners to plan for establishing new health facilities as per the need of respective camps. Currently, some organizations are going through transitions in programming and funding and a change in the landscape is expected in the coming weeks and months.

During the reporting weeks, a total of 12 camp-level Health Sector Coordination Meetings were held (maintaining precautions against COVID-19). Strengthening COVID-19 and monsoon response was addressed among different working group partners. In addition, Rapid Investigation and Response Team (RIRT) coordination meetings are ongoing in the camps to strengthen the COVID-19 enhanced surveillance.



## SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION

WHO continues to provide epidemiological data to support operational decision making for the COVID-19 response in Cox's Bazar. As of 29 August 2021, a total of 16 548 individuals from the host community in Cox's Bazar district have tested positive for COVID-19: 1247 in Chokoria, 250 in Kutubdia, 1078 in Moheshkhali, 595 in Pekua, 974 in Ramu, 7080 in Sadar, 2519 in Teknaf and 2 805 in Ukhiya.

While the overall positivity of samples tested in the district is 12.8%, a considerable decrease of positive cases has been observed among the host community in recent weeks. In week 34, 329 cases tested positive, with a test positivity rate of 12.8%, in comparison with week 32 when 718 positive cases were registered with a test positivity rate of 19.4%. To date, a total of 236 deaths have been reported in the host community, with a case fatality ratio of 1.4%.

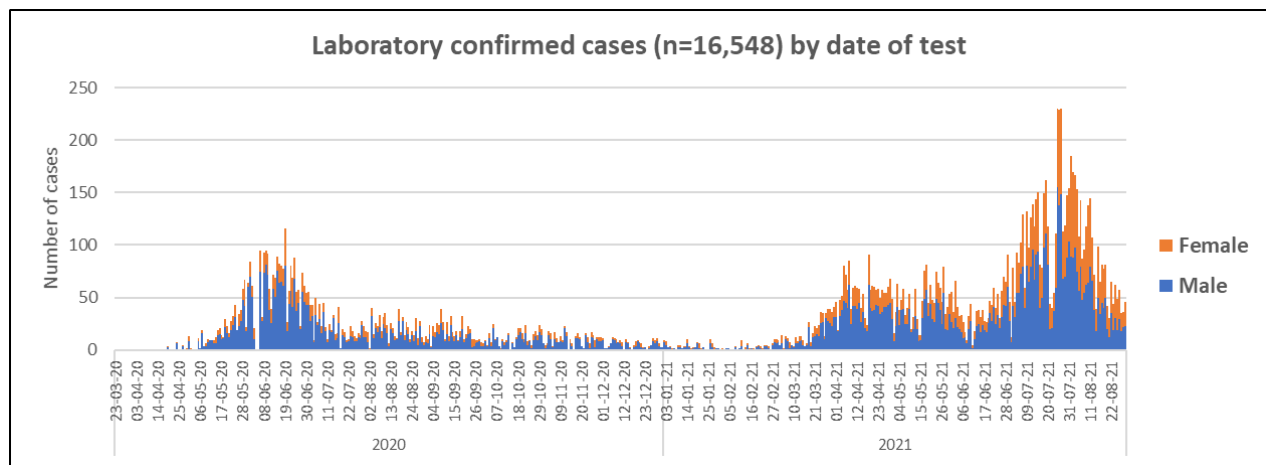


Figure 1: COVID-19 positive cases in among host population in Cox's Bazar District

66%

34%

63%

47%

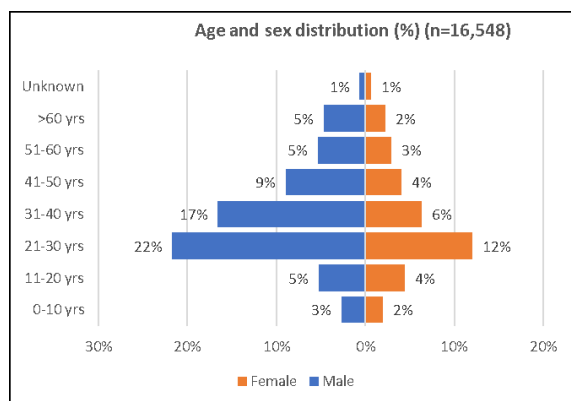


Figure 2: COVID-19 positive cases by age and sex among host population in Cox's Bazar District

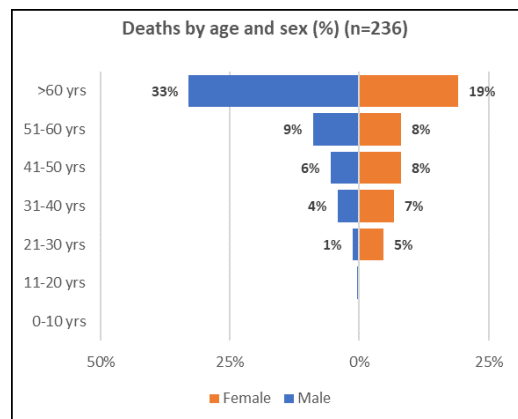


Figure 3: Age and sex distribution of COVID-19 deaths among host population in Cox's Bazar District

Among the Rohingya refugee population, the number of confirmed COVID-19 cases has remained stable in the past weeks. In week 34, a total of 105 positive cases were registered in the Rohingya refugee camps with a test positivity rate of 7.0%, in comparison to the 100 confirmed cases in week 32, with a test positivity rate 7.6%. As of 29 August 2021, a total of 2 883 COVID-19 cases have been reported among Rohingya. With a total of 17 cases, Camp 3 has the highest number of cases to date ahead of Camp 24 and 2W with 174 and 160 cases, , Camp 15 with 154 cases, Camp 17 with 152 cases and Camp21 with 151 cases. To date, 150 cases have been reported from Camp 4, 132 cases have been reported from Camp 1W, 120 cases from Camp 20 extension and 111 cases from Camp 9. In Camp 5, 110 cases and camp 2E 100 cases have been registered. Camp 1E, 4 Ext, 6, 7, 8E, 8W, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 23, 25, 26, 27, Kutupalong RC and Nayapara RC so far had less than 100 cases. 7 cases have been registered from Zero Point and 5 amongst new arrivals.

Currently, 641 beds are functional in 13 Severe Acute Respiratory Infection Isolation and Treatment Centers (SARI ITCs) in the camps with provision of oxygen to assist both the Rohingya refugee population and the nearby host communities of Cox's Bazar. The bed occupancy of these SARI ITCs is 54% at the end of the reporting period. Moreover, the capacity of general isolation beds in the district is 517. The Intensive Care Unit/High Dependency Unit (ICU/HDU) at the Cox's Bazar Sadar Hospital has a capacity of 43 beds for severe and critical patients. During the past weeks, an increase in the bed occupancy at the ICU has been observed, indicating the increased demand of hospitalization due to severe disease presentation at admission.

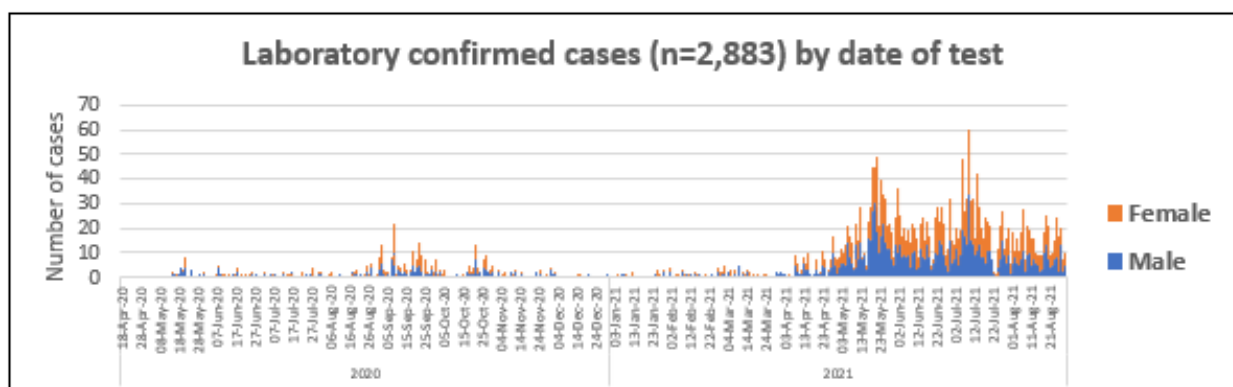


Figure 4: COVID-19 positive cases among Rohingya refugees/FDMN in Cox's Bazar



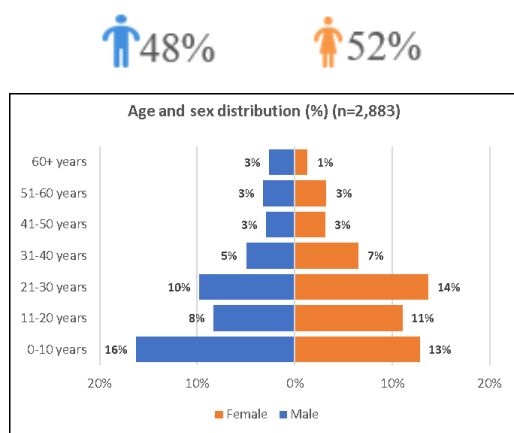


Figure 5: Age and sex distribution of COVID-19 positive cases among Rohingya refugees/FDMN in Cox's Bazar

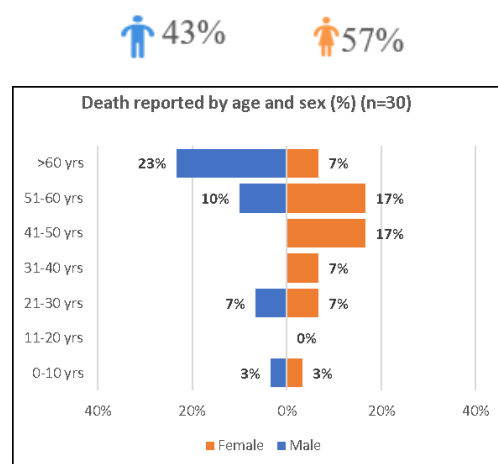


Figure 6: Age and sex distribution of COVID-19 deaths among Rohingya refugees/FDMN in Cox's Bazar

Between weeks 33-34, 206 new confirmed cases were detected from 2 546 samples tested, the test positivity was therefore 7.5%. As of 29 August 2021, the cumulative incidence is 122.1 per 100 000 people. The overall positivity of samples tested is 4.9%. Among the cases, 1.8% showed severe symptoms at the time of admission while 4.3% reported at least one co-morbidity. The median age of tested and confirmed cases was 11 (0-120) & 21 (0-100) years, respectively and ratio of females among tested and confirmed cases was 54% and 52%, respectively. Though the median age of tested samples remained below 10 years, a significant proportion has been tested among 50+ years: 706 per 10 000 population, following that of 0-9 years with 867 tests per 10 000 population as highest number. The test positivity was highest 7.7% in 30-39 years age cohort and the age specific mortality 2.6 per 10 000 population observed among 50+ years during the period. In total, and since the outbreak began, 30 deaths due to confirmed COVID-19 have been reported in the camps with a case fatality ratio of 1.0%.

A Camp wise dedicated Contact Tracing (CT) network (34 supervisors and 311 volunteers) has been embedded in the Rapid Investigation and Response Teams (RIRTs) for COVID-19. A total of 2 653 confirmed cases (out of 2 883 to date) have been investigated by RIRTs by 29 August 2021, with contact tracing activities being conducted and captured through Go.data, including 5 227 contacts. Out of these, 3 526 (67%) contacts have seen their follow up visits completed and were released from quarantine. 285 (8.0%) tested positive cases during the follow up period. WHO is closely supporting contact tracing through the Camp Health and Disease Surveillance Officers (CHDSOs).

Since 1 May 2021, there have been 150 cases (123 from Rohingya refugees and 27 from host community) of Acute Watery Diarrhea (AWD) that have tested positive by Rapid Diagnostic Tests (RDTs)/bacteriological culture confirmed cases for cholera (data as of 29 August 2021) bringing the total to 170 (130 from Rohingya refugees and 40 from host community) in 2021. Of the 170 cases, 63 (51 from Rohingya refugees and 12 from host community) have been culture confirmed. In the past three weeks (week 32-34) the total number of culture confirmed cases was 3.

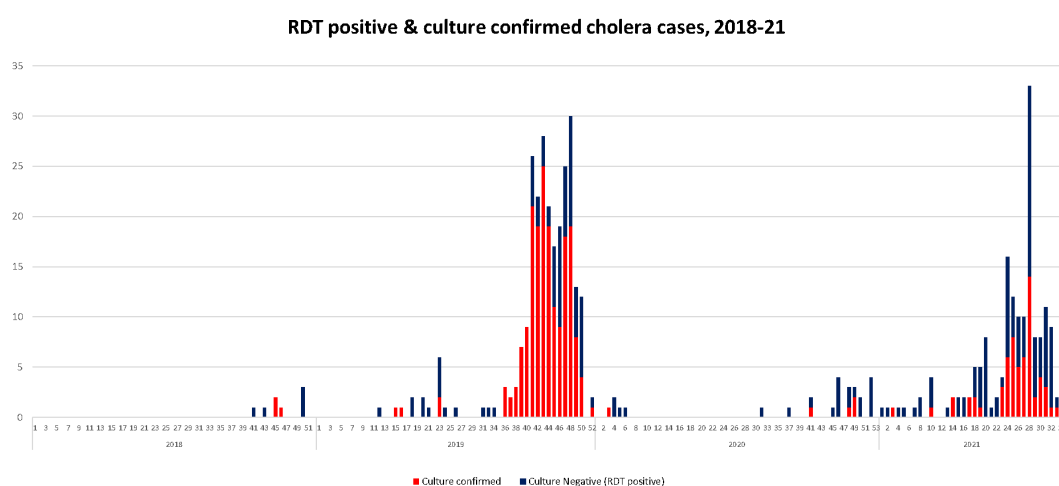


Figure 7: RDT positive and culture confirmed for Cholera cases in 2019-21.

In week 34, 4 Rapid Diagnostic Test (RDT) positive cases were reported, (all 4 awaiting for culture, in addition 1 case was culture confirmed from RDT negative sample. In week 33 (16-22 August), 2 RDT positive cases were reported 1 was culture confirmed and 1 was awaiting for culture result. In week 32 (9-15 August) 9 RDT positive cases were reported (1 was culture positive and 8 were discarded). In line with the Multisectoral AWD response plan, a joint Health and WASH Sector investigation takes place for each case, followed by the implementation of household and sub block level measures. Areas of focused intervention have been identified based on at least one culture confirmed case in camp in last 30 days and/or 2 or more RDT positive cases from same sub-block in last 14 days, where WASH, health and community engagement activities are undertaken/intensified at sub block/camp level as appropriate. In 2021, at least one confirmed cholera case was reported in last 30 days, from camps 1E, 6, 8E,13 and 15. Out of these camps with culture confirmed cases, two camps have reported more than one case namely: 1E and 13.

In response to the surge of Acute Watery Diarrhea (AWD) cases in Cox’s Bazar, a rapid mapping conducted by WHO and partners in line with the Multisectoral Acute Watery Diarrhea Response Plan (August 2020) has identified 72 isolation beds for AWD are functional at this time, with additional 400 beds on stand-by that could be activated on short notice. Out of these standby beds, 160 are SARI ITC standby capacity beds that could be repurposed for AWD if the epidemiological situation required. Diarrhea Treatment Centers (DTC) in Leda remain open for strengthened case management of AWD patients and are ready to expand the capacity.

The situation continues to be closely monitored by WHO in order to respond accordingly., WHO conducted AWD clinical management training for healthcare workers in the camps. In total, 254 Healthcare workers mainly from the affected Upazilas and the camps attended a three-day online training on clinical management of AWD organized by Civil Surgeon of Cox’s Bazar, WHO/Health Sector in collaboration with iccdr,b. In the month of August 2021, 47 admissions to the isolation facilities and the Diarrhea Treatment Centers (DTC) have been registered. No deaths have been reported at the isolation facilities so far.

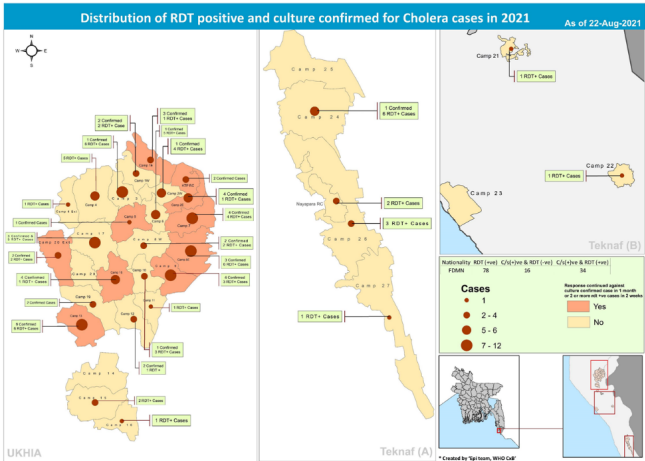


Figure 8: Geographic distribution of all RDT Positive and Culture Confirmed Cholera Cases in 2021

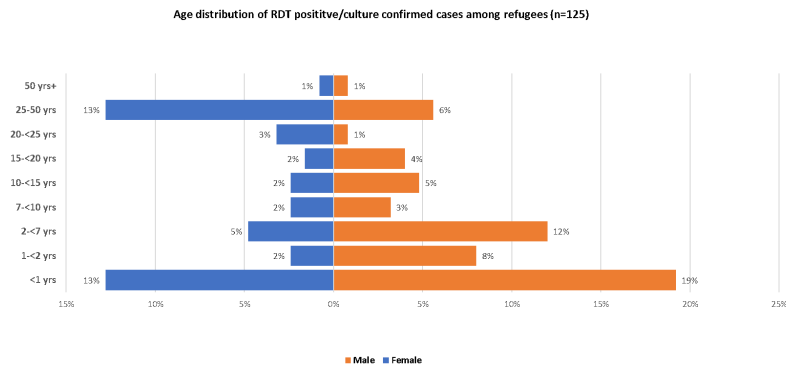


Figure 9: Age group distribution of RDT Positive and Culture Confirmed Cholera Cases among refugees from May to 7 July 2021

A total of 741 refugee cases were admitted to DTC and other health facilities with AWD isolation capacity. Out of the cases, 21% were severely dehydrated, 29% had some dehydration and 49% showed no sign of dehydration at the time of admission among refugees. As of 11 August 2021, around 1400 Community Health Workers (CHWs) have been trained on key messages on health/hygiene promotion and prevention of acute watery diarrhea, following a training of 120 CHW supervisors and managers in previous weeks. UNHCR, as chair of the Community Health Working Group (CHWG), has organized and facilitated the training. UNHCR is also supporting with printing and distribution of hygiene promotion and AWD prevention IEC materials to help enhance awareness and prevention measures in the camps, other agencies are providing support as well.

Active case finding with a uniform line list has been rolled out by CHWG partners since early July, in support of community-based surveillance. CHWG with Health Sector support developed AWD surveillance which was rolled out as of week 27 (4th July). At the end of the reporting period, over 270 000 household visits have been conducted, out of which over 2 900 AWD cases were referred to the health facility for further case management. Furthermore, over 10 000 Oral Rehydration Solution (ORS) sachets and over 9 700 zinc tablets have been distributed at community level.

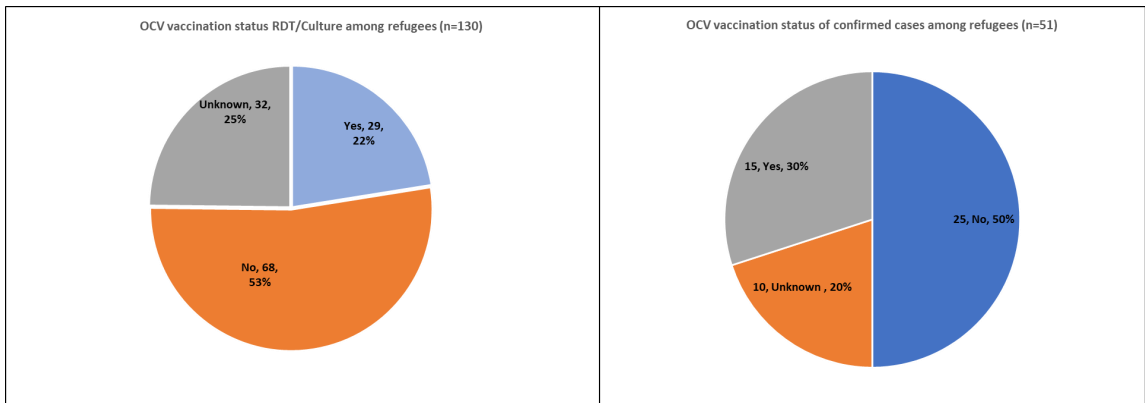


Figure 10: OCV vaccination status among RDT Positive and Culture Confirmed Cases among refugees

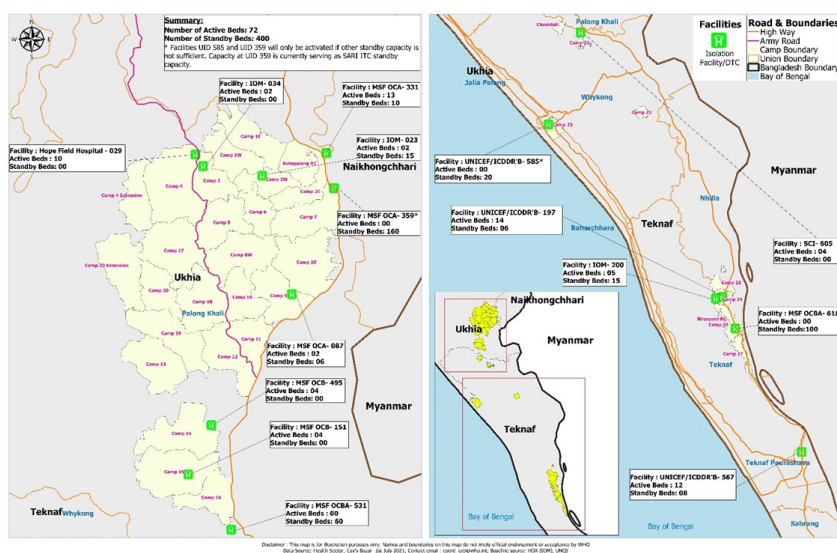


Figure 11: Acute Watery Diarrhea Isolation & Diarrhea Treatment Center Bed Capacity Mapping, as of 1 July 2021.

Throughout the camps, CHWs have reinforced community engagement activities through weekly visits to every household in the camps. This includes community-based surveillance; health education on hygiene promotion and prevention of AWD through house to house visits and small group sessions and active finding of cases with AWD and subsequent referrals to health facilities. Specific emphasis is being placed on “target camps”.

In 2020, a total of 28 RDT positive cases for Cholera were detected through sentinel testing, 5 of which were confirmed by culture – 2 from Ukhiya host community, 1 from Teknaf host community and 2 from the refugee camps. It is important to note that a Cholera outbreak occurred in late 2019 with a reported number of 239 RDT/culture positive cases and in response a mass Oral Cholera Vaccine (OCV) vaccination campaign was conducted with over 160 000 children of 1-<5 years being vaccinated with a 2- doses regimen.

Since the onset of the outbreak in 2017, Diphtheria surveillance is ongoing in the camps. The total number of diphtheria cases reported is 9299 to date (3016 in 2017; 5330 in 2018; 614 in 2019; 226 in 2020 and 113 as of week 34, 2021). In total, 9053 cases were reported in the camps and 246 from the host community, with 47 deaths registered in the refugee camps and none in the host community. While the first Diphtheria case was detected on 10 November 2017, the first death occurred on 29 December 2017 and the last death on 25 October 2019.

Dehydration status among refugees (n=502)

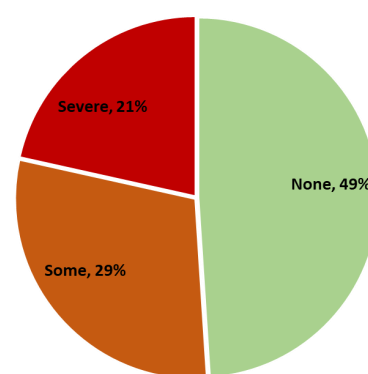


Figure 12: Dehydration status of admitted cases reported from Leda DTC and other health facilities with isolation

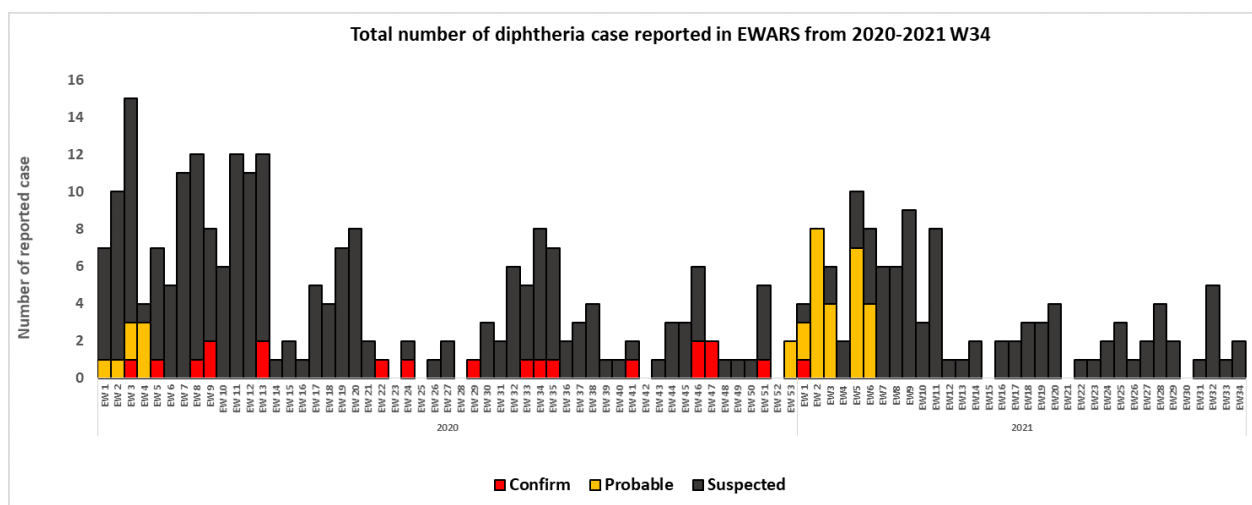


Figure 13: Total number of diphtheria case reported in EWARS from 2020-2021

During the reporting period, no new probable maternal death has been reported. In total 78 probable maternal/deaths of women of reproductive age (WRA, 12-49 years) have been reported in 2021, of which 21 deaths have been reported from facilities and directly undergone review by Maternal and Perinatal Mortality Surveillance and Response (MPMSR).

Investigation of mortality due to suspected potential infectious causes i.e. SARI, Measles, Cholera, Diphtheria etc. is ongoing in the camps along with death due to maternal causes, as high priority. In week 33-34, 4 suspected Severe Acute Respiratory Infection (SARI) deaths were reported. In total 64 deaths have been reported in 2021. All deaths have been investigated by RIRT as a part of COVID-19 response and 9 were considered as death due to probable COVID-19. In 2020, a total 85 suspected SARI deaths were reported through community-based mortality surveillance. Of these, all were verified and 9 considered death due to probable COVID-19. So far in 2021, 2 deaths at community level were investigated that were eventually considered as death due to suspected cholera.

## RISK COMMUNICATION AND COMMUNITY ENGAGEMENT

WHO is engaging communities, health partners and other key stakeholders to develop, implement and monitor an action plan to effectively help prepare populations and protect them from COVID-19. Through its involvement in the Communications with Communities Working Group (CwC WG) and the Risk Communication and Community Engagement Working Group (RCCE WG), WHO continues to coordinate with agencies across the response to ensure that all information around COVID-19 and health issues are of high quality, technically correct and easily understandable by communities. Mixed-media messages include general information on COVID-19, hand washing, physical distancing and mask wearing, risks and vulnerabilities, safe and dignified burials, quarantine, isolation, and treatment centres, among others.

WHO and UNICEF continue providing English and Bangla versions of the updated weekly radio script on COVID-19 confirmed cases and number of tests conducted among refugee and host communities. These messages were shared with partners to be widely disseminated among the Rohingya community through radio broadcasting (Bangladesh Betar and Community radio Naf 99.2 FM).

During the reporting period, RCCE WG and WHO maintained regular communications with other humanitarian partners on the COVID-19 vaccination campaign for the Rohingya community. RCCE team provided support to Immunization and Vaccine Development (IVD) team for the documentation of COVID-19 vaccination program in the refugee camps. WHO has also been providing additional support for the documentation and monitoring of COVID-19 vaccination in the camps and supporting social mobilization efforts. Feedback/inputs provided by the RCCE TWG partners incorporated for the finalization of the Public Health message for Health Card were also incorporated.

To address different health issues like Sexual, Reproductive, Maternal, Neonatal, Child and Adolescent Health (SRMNCAH), Gender-Based Violence (GBV), Nutrition, Sexually transmitted infections (STI) and Noncommunicable Diseases (NCDs), among others, as well as improving health-seeking behaviour among Rohingya refugees, WHO has been working closely with BBC Media Action in the production of audio-visual and podcast materials.

Following a number of reports of infections caused by razors, needles, scissors and/or other tools in the refugee setting, WHO and UNHCR are finalizing a study on “Knowledge, Attitude and Practice on Minimum Invasive Procedure in the Non-Healthcare Settings among Rohingya Refugees in Cox’s Bazar”. The report is currently under review by technical focal points from WHO and UNHCR.

During the reporting period CHWs conducted 272 243 household visits in which 3600 patients were identified with mild respiratory symptoms (fever, sore throat, cough) and 42 patients with moderate/severe symptoms. The cumulative number of patients with mild symptoms is 170 845, and 1063 patients with moderate/ severe symptoms. To date, 92 209 persons with COVID-19 like symptoms have been referred to health facilities, 2391 of which during the reporting period. Through coordination by the CHWG, COVID-19 messages reached 524 656 persons between weeks 33 and 34. Since the beginning of the response, CHWs have conducted more than 9.5 million house hold visits and had a cumulative number of more than 25.2 million contacts with adult household members. Through the CwC WG, 91 844 people were engaged in 31 852 small group sessions.

## DISTRICT LABORATORY

WHO continues its support to the Institute of Epidemiology, Disease Control and Research (IEDCR) Field Laboratory at the Cox’s Bazar Medical College comprising human resources, equipment, supplies/consumables and technical and operational expertise.

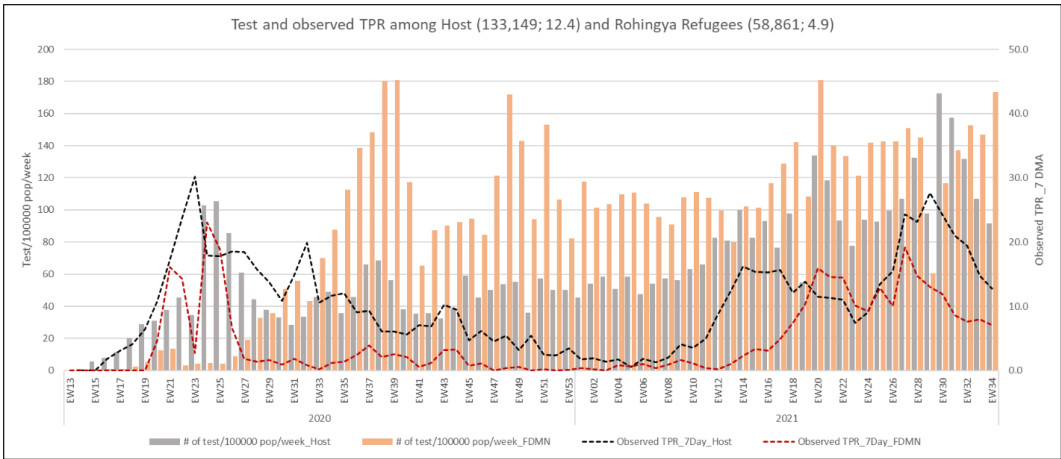


Figure 14: Number of tests conducted and observed test positivity per million among the host population and the Rohingya refugees/FDMN



Between early April 2020 and August 2021, a total of 212 937 tests for COVID-19 have been conducted, of which 192 010 are from Cox’s Bazar district and the remainder from Bandarban and Chittagong districts. An increase in the number of tests conducted among the Rohingya refugees was observed in weeks 33-34 as compared to weeks 31-32, from 2 546 to 2 493 tests. Among the host community an decreased number was tested as well; from 8 107 tests in weeks 31-32 to 4 797 tests in week 33-34. Currently, 42 sample collection sites are operating for suspected COVID-19 patients.

WHO continues supporting the Government of Bangladesh through the Civil Surgeon’s office in the implementation of the COVID-19 Anti-gen Rapid Diagnostic Test (RDT) pilot testing in the Cox’s Bazar district. During the reporting period WHO conducted one session of hands-on training on “Use and analysis of COVID-19 Ag RDT at camp level” at MSF-OCA in Camp 2E to 5 healthcare workers.

## INFECTION PREVENTION CONTROL

To enhance preparedness for COVID-19 in Cox’s Bazar, WHO has been training healthcare workers on Infection Prevention and Control (IPC) from Severe Acute Respiratory Infection (SARI) ITC partners and Government facilities. To date, training for IPC has been provided to 3600 humanitarian health care workers and government staff from healthcare facilities and SARI ITCs in Cox’s Bazar.

During the reporting period, the Infection Prevention and Control Technical Working Group (IPC TWG) and WHO IPC team conducted a technical assessment on IPC at CARE Bangladesh facility in Camp 4 Extension. This facility is expected to contribute on medical care for patients diagnosed with COVID-19. Recommendations for improvement in infrastructure, staff flow, and ventilation, among others, were provided. In the coming days, further training will be provided by WHO IPC team.

## CLINICAL CASE MANAGEMENT

Since the onset of the outbreak, WHO is coordinating regular weekly Operational, Clinical and Critical care online forums; each with a multidisciplinary panel of health care providers with experience in the clinical management of patients with COVID-19 and other viral infections to foster peer to peer support and knowledge exchange. With the guidance provided by WHO experts, the initiative is serving as a foundation for optimized clinical care to ensure the best possible outcome for patients in Cox’s Bazar.

During the reporting period, two health sector case management working group meeting along with two case conference call for SARI ITCs and two case conference call for ICU/HDU of Cox’s Bazar District Hospital were conducted. The SARI ITC bed occupancy rate is currently 54% (Ukhiya 61% and Teknaf 43%). For the admitted patients, 73% of them are categorized as mild patients, 16% moderate, 10% severe and 1% as critical cases. At the 250 Bed District Sadar Hospital, the Intensive Care Unit (ICU) has 10 beds while the High Dependency Unit (HDU) has 15 beds and the Severe Care Unit (SCU) has 13 beds (all of the beds are functional). At the end of the reporting period, 21 beds are occupied with suspected and confirmed COVID-19 patients.

## ESSENTIAL HEALTH SERVICES

Ensuring the provision of essential health services remains a priority in Cox’s Bazar. Under the coordination of WHO and the Civil Surgeon, Cox’s Bazar, the Health Sector is providing health care to nearly 890 000 Rohingya refugees and 472 000 Bangladeshi living in the surrounding areas of the refugee camps. The health facilities operated by Health Sector partners to provide services to the population include 41 primary health care centers (PHCs), 90 Health Posts (HPs), 23 special facilities and three field hospitals.

Under the leadership of the Government of Bangladesh and with the technical support of WHO and Health Sector partners, on August 10, 2021 a COVID-19 vaccination campaign started in the world’s largest refugee camp targeting Rohingya refugees of 55 years and above. 36 943 people received the first dose of COVID-19 vaccine during a 9-day vaccine roll out which reached 86% of the target population.

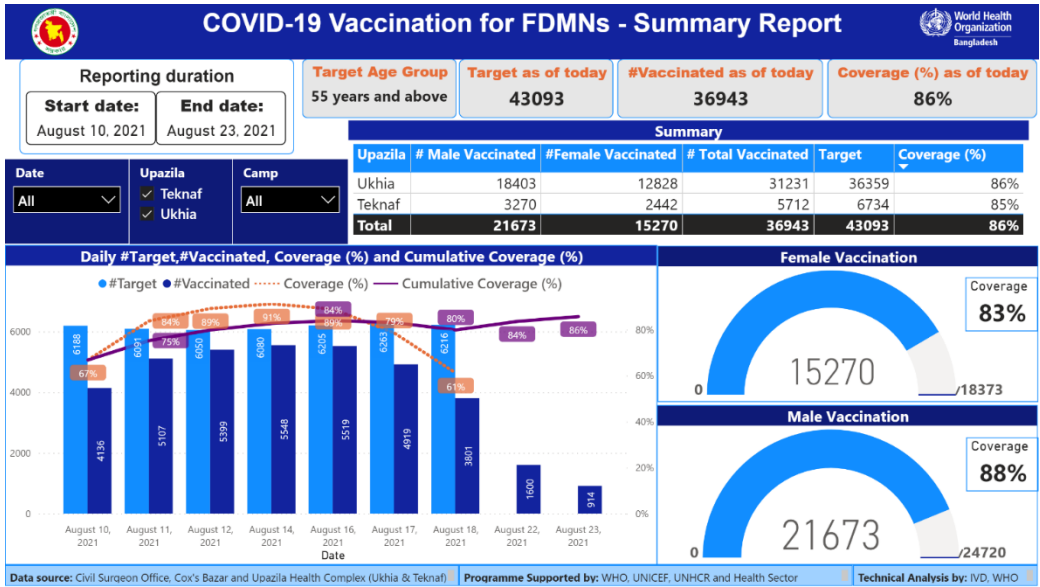
In total, 56 health facilities with 58 vaccination teams, each comprising 2 vaccinators and 4 volunteers, are conducting vaccination sessions. Every healthcare facility has 1 supervisor, 2 AEFI focal person and 1 verifier for better vaccine management and monitoring. WHO has supported the Government with training of the human resources for the vaccination campaign, micro planning of vaccination session, vaccine distribution, developing the training packages and required forms in the line of National level, monitoring of the sessions and evaluation of the campaign, house to house mobilization along with



Photo: Rohingya refugees had to present their vaccination card at the health facilities to receive the first dose of the COVID-19 vaccine.



other partners. In total, 25 Health Field Monitors of IVD team with 2 SIMOs and other 10 technical staff of WHO are in the field continuously for program monitoring. Currently, WHO is finalizing the micro plan for 2nd round vaccination which is expected to be started from second week of September. To better monitor vaccinations, WHO has developed a concurrent vaccination session monitoring tool. So far, more than 550 sessions were being monitored by the independent monitors which covered 100% sessions.



Regarding COVID-19 vaccination for Bangladeshi host community, the Government of Bangladesh has revised the age limit for the vaccination registration to 25 years-old, students above 18 years and other priority groups. Pregnant women and lactating mothers are now also eligible for the vaccination as per decision of Bangladesh Government.

During the COVID-19 vaccination campaign, routine immunization (RI) sessions are continuing, both fixed and outreach, with WHO's guidance on the operation and sustaining of immunization programs during the COVID-19 pandemic, and a revised strategy and microplan having been reviewed by the Government with technical assistance from WHO and other partners, based on data collected in 2020. Currently, 59 health facilities are working as immunization fixed sites and another 75 vaccination teams are conducting outreach sessions both in community and healthcare facilities. Vaccination sites and surveillance health facilities will be reassessed by Government authorities with the technical support of Surveillance and Immunization Medical Officers (SIMOs) based on data from 1st half of 2021.

Currently, WHO is completing the preparatory work and planning to conduct basic routine immunization trainings for vaccinators and supervisors after the campaign. During the reporting period, WHO continues monitoring and following up with children who missed their vaccines at the healthcare facilities. Assessment of the vaccination list is currently ongoing through the work of WHO Health Field Monitors. WHO is continuously monitoring Acute Flaccid Paralysis (AFP) and vaccine-preventable diseases (VPDs) despite the lockdown.

WHO has conducted 3 supportive supervision sessions in Ukhiya for continued capacity building of healthcare professionals who were previously trained in mhGAP to better integrate Mental Health and Psychosocial Support (MHPSS) at primary care level. Further mhGAP trainings will be organized in the coming weeks. Additionally, ongoing remote supportive supervision is carried out through online platform, where the mhGAP trained doctors and staff can reach out to the WHO psychiatrist for active advice regarding patient management. During



Photo: An engagement campaign involving key community members and religious leaders was initiated in all the camps leading to better uptake of the COVID-19 vaccine.

ing these two weeks more than ten consultations were conducted online. This initiative is part of a group for mhGAP personnel that has been previously trained by WHO the last two years.

As part of the Non-communicable Diseases (NCDs) program, during the reporting period, a total of 10 554 patients (host community and Rohingya refugees) from Ukhiya and Teknaf were reported in DHIS-2 to have sought care with noncommunicable diseases. Hypertension was reported with the highest percentage of 35% followed by Diabetes Mellitus with 31% of all NCD patients. The NCD Core Group conducted supportive supervision visits on implementation of the national protocol on hypertension and diabetes mellitus in camps 8W and 18 to identify opportunities for improved NCD service delivery.

Regarding communicable diseases, a total of 11 872 patients from the host community and the Rohingya refugee camps from Ukhiya and Teknaf were reported through DHIS-2. Acute Watery Diarrhea (AWD) was reported with highest proportion of 46% followed by unexplained fever which was about 22%.

The Health Sector, with respective working groups and partners regularly updates its contingency plan for cyclone (March-June) and monsoon (September-November) seasons. Information related to health facility functionality, contingency supplies and locations, mobile medical teams (MMT), ambulance network systems to respond to emergencies, and the list of camp health focal points is maintained and updated regularly.

During the reporting period, co-chairs and partners from the Emergency Preparedness and Response Technical Committee (EPR TC) have formed the subcommittee for health facility safety and resilience assessments in the camp. The EPR TC nominated UNFPA, UNOPS, UNHCR, UNICEF, MOAS, IOM, and WHO as member of this subcommittee, reviewed the tool and shared their inputs. Post review, the feedbacks were addressed, and the revised tool was shared among partners for additional feedback. In addition, a sub committee comprised of health sector partners was formed under the EPR TC to review and contextualize the Emergency Health Logistics and Medical Supplies of the Mobile Medical Teams (MMTs) as a part of the follow up of the recommendations identified through the After Action Review (AAR) of the MMTs response to the fire incident on 22nd March 2021. The sub committee members revisited the kit contents and provided their preliminary feedback to the chair of the MMT TWG. This will be shared among MMT partners for their review and feedback.

Similarly, WHO is coordinating with IOM to organize the training for health workers in the medical hubs on trauma management. This training will be blended with online and hands on training modules facilitated by national and international facilitators from key agencies in Cox's Bazar in the first half of September.

## OPERATIONAL SUPPORT AND LOGISTICS

WHO continues to ensure timely provision of quality and adequate supplies, equipment and consumables for the health emergency operations in Cox's Bazar. To reinforce the public health response to COVID-19, WHO has distributed 1 175 pieces of COVID-19 Rapid Antigen Testing kits to Médecins Sans Frontières (MSF), International Organization for Migration (IOM) and the Hope Foundation in the Rohingya refugee camps. WHO continues providing support to the sentinel sites in the camps with the provision of 5 800 red cap vacutainer and 6500 throat swab stick, 6500 nasal swab stick and 500 throat swab.

During the period WHO donated 9 945 kg with volume of 1.35 cubic meter of kits, medicines, PPE and medical equipment to the 11 partners in Rohingya refugee camp. WHO continues its logistics support to the IEDCR Field Laboratory with two vehicles providing transportation of COVID-19 sample collection in the camps.

## SUBJECT IN FOCUS: Water Quality Surveillance (WQS): A tool to ensure safety of drinking water in the Rohingya refugee camps in Cox's Bazar

Contaminated water and poor sanitation are linked to transmission of diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid, and polio. Absent, inadequate, or inappropriately managed water and sanitation services expose individuals to preventable health risks. This is particularly the case in humanitarian settings such as Cox's Bazar where refugee and host community families struggle to access clean water and health facilities face many challenges to provide quality care due to lack of safe water.

### Water and Health

Safe and readily available water is important for public health, whether it is used for drinking, domestic use, food production or recreational purposes. Improved water supply and sanitation, and better management of water resources, can boost countries' economic growth and can contribute greatly to poverty reduction.

In 2010, the UN General Assembly explicitly recognized the human right to water and sanitation. Everyone has the right to sufficient, continuous, safe, acceptable, physically accessible, and affordable water for personal and domestic use.

### WHO's response

Globally, WHO works closely with UNICEF in a number of areas concerning water and health, including on water, sanitation, and hygiene in health care facilities. In Cox's Bazar, WHO is supporting the Government of Bangladesh through the Civil Surgeon's Office to ensure quality health care delivery for the 890 000 Rohingya refugees and the 472 000-host community members living in the vicinity of the camps. The establishment of a sound Water, Sanitation and



Photo: On 25 August 2021, DPHE held an orientation session for the next round of Water Quality Surveillance in the Rohingya refugee camps in close coordination with WHO and UNICEF.



Hygiene (WASH) system in healthcare facilities is instrumental to attain this feat.

Since 2017, WHO has been working together with the Department of Public Health Engineering (DPHE) and UNICEF on Water Quality Surveillance (WQS) to monitor and assess safety and acceptability of drinking water and enable the rapid detection and response to water quality issues in the Rohingya refugee camps. This WQS includes healthcare facilities, community water points, learning/multiple centers and pipeline water supply system. Finding and results of the WQS are disseminated among WASH and Health Sector partners.

#### Water Quality Surveillance (WQS) in the Rohingya refugee camps (January – April 2021)

This year in 2021, despite all constraints related to COVID-19, DPHE with the support of WHO and UNICEF has completed the 16th round of water quality surveillance from January to April including the dissemination of the report among relevant stakeholders.

Beside the analysis of collected water samples, the program also identified sanitary risk of drinking water at source and storage at community level, learning centres, health care facilities and pipeline water schemes in different refugee settlements and disseminate the findings to the WASH and Health Cluster organization.

A total of 4212 water samples were collected from the community sources and analyzed comprising 1053 unsterile sources, 1053 sterile sources and 2106 household storage water samples. Additionally, samples were collected and analyzed from 167 HCFs comprised of 8 field hospital, 112 health post and 47 primary health care centres across different camps in Ukhiya and Teknaf. Moreover, the program covered 28 pipeline water supply systems across Ukhiya and Teknaf. In each of the pipeline water supply system WQS was performed at pump house, 3 stand points of each of the pump house and 2 user household's water storage of each of the standpoints. It also covered 327 functional water sources including 212 deep/shallow tube wells, 01 mechanized pump with reservoir and , 114 tap stands respectively. The overall results showed that 93% of community point sources (tube wells) matched WHO guideline value and Bangladesh Standard for E. Coli (0 cfu/100ml) in drinking water. The remaining sources have variable degree of E. Coli contamination associated with different types of sanitary risks. While the analysis of 2106 household's storage water samples showed that 73% matched WHO guideline value and Bangladesh Standard for E. Coli (0 cfu/100ml) in drinking water. Several recommendations have been made to improve the sanitary condition and quality of water in the report.

The water of all the HCF analyzed matched Bangladesh standard for pH in drinking water (6.5 - 8.5). The E. Coli testing results indicated that 156 (93%), 6 (4%), 4 (2%) and 1 (1%) HCFs has E. Coli contamination 0 cfu/100ml (Bangladesh standard), 1-10 cfu/100ml (intermediate risk), 11-99 cfu/100ml (high risk) and >100 cfu/100ml (very high risk) respectively.

In terms of pipeline water system, overall finding indicated that all the water supply systems were supplying safe water from source in terms of E. Coli, though there were risks of contamination existed. But the E. Coli contamination varied with respect to stand points and household storage for each of the pipeline water supply system. The pH of was almost within the range of 6.5 - 8.5 Bangladesh standard. Additionally, 96% of the Learning/ Multiple Centres are free from E. Coli contamination and matched WHO guideline value as well as Bangladesh standard. The remaining 1% and 3% have 1-10 cfu/100ml and 11-100 cfu/100ml E. Coli contamination respectively. The value of safe water in health care facilities, schools, workplaces and households is critical. The improvement of the quality of water is highly related to the lowering the incidence of water-borne disease outbreaks in world's largest refugee camps.

#### Training

To ensure transparency and responsibility in surveillance, WHO and UNICEF have trained the Department of Public Health Engineering (DPHE) water sample collection teams – including Lab Analyzer, Sample Collector and Data Entry operator of DPHE– who are responsible for pre-selecting the points at the refugee camp, collect the water samples and physical tests to check pH or turbidity and bring DPHE water testing lab for the bio-chemical analyses.

These orientation training sessions facilitated by DPHE officials, WHO WASH/IPC Expert, UNICEF WASH Officer and icddr,b technical professionals covered a wide range of topics related to: water quality surveillance planning and implementation; health safety and security at field and laboratory; GPS recording; water sample collection; water sample testing at field (pH and turbidity) and laboratory (biochemical analysis including testing for E. coli, Fe, As and Mn); sanitary inspection; kobo data management and logistics/materials management. The procedures of sanitary inspection, water sample collection preservation, transportation, analysis and quality control issues in the existing COVID-19 pandemic situation were also addressed during these sessions.



Photo: DPHE water sample collection teams are technically supported by WHO to ensure transparency and responsibility in Water Quality Surveillance.



The active participation of all the attendants during these sessions enabled to identify areas and actions for improvement in the next rounds of Water Quality Surveillance through the sharing of field experiences and challenges encountered during the previous rounds.

#### Supportive supervision visits

The WHO WASH and Health Care Waste Management (HCWM) team conducts supportive supervision to ensure that the benchmarks and standards are compiled consistently in the refugee camps. Whenever possible, they receive the feedback from the community members regarding any challenges faced by them in accessing safe water.

### NATIONAL LEVEL HIGHLIGHTS, 02 SEPTEMBER 2021 (BANGLADESH)

	Last 24 hours	Total
COVID-19 tests conducted	33 025	8 991 664
COVID-19 positive cases	3436	1 507 116
Number of people released/recovered	5901	1 437 885
COVID-19 deaths	88	26 362

WHO global situation report: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

WHO interim guideline on Preparedness, prevention and control of coronavirus disease (COVID-19) for refugees and migrants in non-camp settings: [https://www.who.int/publications-detail/preparedness-prevention-and-control-of-coronavirus-disease-\(covid-19\)-for-refugees-and-migrants-in-non-camp-settings](https://www.who.int/publications-detail/preparedness-prevention-and-control-of-coronavirus-disease-(covid-19)-for-refugees-and-migrants-in-non-camp-settings)

Institute of Epidemiology, Disease Control and Research (IEDCR) for COVID-19 updates in Bangladesh : <https://www.iedcr.gov.bd/>

COVID-19 Bangladesh situation reports: [https://www.who.int/bangladesh/emergencies/coronavirus-disease-\(covid-19\)-update/coronavirus-disease-\(covid-2019\)-bangladesh-situation-reports](https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-update/coronavirus-disease-(covid-2019)-bangladesh-situation-reports)

WHO Bangladesh awareness and risk communication materials in Bengali:  
[https://www.who.int/bangladesh/emergencies/coronavirus-disease-\(covid-19\)-update](https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-update)

Previous issues of this Situation Report:  
<https://www.who.int/bangladesh/emergencies/Rohingyacrisis/bulletin-and-reports>

COVID-19 Dashboard under WHO Cox's Bazar Data Hub can be accessed here: <https://cxb-epi.netlify.app/>

Write to [coord\\_cxb@who.int](mailto:coord_cxb@who.int) to receive COVID-19 updates and situation reports from Cox's Bazar with the subject "Add me to the situation reports and updates mailing list"



### CONTACTS

Dr Bardan Jung RANA  
WHO Representative  
WHO Bangladesh  
Email: [ranab@who.int](mailto:ranab@who.int)

Dr Kai VON HARBOU  
Head of Sub-Office  
WHO CXB Sub-Office  
Email: [vonharbouk@who.int](mailto:vonharbouk@who.int)