As of 29 September 2019, there have been 696,537 suspected cholera cases and 913 associated deaths (CFR 0.13%). From Week (37) to Week (39) at country level, the trend of suspected cases is decreasing (-12 %).

Heavy rains and thunderstorms hit southern Yemen affecting Aden, Lahj, Abyan, Shabwah and Hadhramout governorates. In Aden, houses were flooded and electricity cuts off up to 15 hours due to storm-induced damages to the electrical grid.

Second round of Oral Cholera Vaccination campaign was conducted in the three districts of Sana’a city (i.e As_Sabain, Al_Wahda and Shu’Ab) from 13-23 September 2019. Out of the 1.3 million people targeted 1.13 million (93%) were administered OCV.

Diphtheria vaccination was conducted in 186 districts of the 12 Northern Governorates targeting 5.7 million children 6 weeks to 15 years of age in phased manner that concluded in September. A total of 2,773 vaccination teams including 1,320 fixed and 1,453 mobile teams vaccinated target children in these districts.
**Situation update**

- **Fuel Crisis:** Northern Yemen is currently experiencing acute fuel and gas shortages, with queues of vehicles several kilometres long and drivers waiting sometimes for days to get fuel. In parts of the country, black market fuel prices have increased to almost three times the official price.
  - The shortage of gasoline in local markets significantly increased the cost of transport and electricity and threatens to lead to a hike in the price of other commodities.
  - WASH activities appear to be the most affected by the shortage, due to the ground movements needed to ensure these are implemented.
  - In terms of access to healthcare, hospitals and health facilities have not yet been affected, however some mobile clinics have been suspended and fuel shortages may hamper patients’ ability to travel to health facilities to seek treatment.

- **Cholera Update:** As of 29 September 2019, there have been 696,537 suspected cholera cases and 913 associated deaths (CFR 0.13%). From Week (37) to Week (39) at country level, the trend of suspected cases is decreasing (-12 %). There is an expected increase in the coming weeks of suspected cases in some governorates due to the heavy rains and/or floods such as Hudaydah, Lahj, Dhammar, Ibb, and Sana’a.

- **Floods Update:** Heavy rains and thunderstorms hit southern Yemen affecting Aden, Lahj, Abyan, Shabwah and Hadramaut governorates. In Aden, houses were flooded and electricity cuts off up to 15 hours due to storm-induced damages to the electrical grid. Serious damage to internal displaced people sites were reported in Aden City, Tuban in Lahj Governorate and Khanfir in Abyan District. The Meteorological Department at Aden International Airport reported that adverse weather conditions may continue for several days.

**Epidemiological Update and Surveillance**

- **Cholera**
  
  - **From 1 January to 29 September 2019:** A total of 696,537 suspected cases of cholera, including 913 associated deaths (CFR 0.13%), have been reported. Children under the age of five continue to represent 25.5% of the total number of suspected cases. As of 29 September, 92% (n=305) of the 333 districts in Yemen have reported suspected cholera cases since 2019.

![The trend in suspected cases between epidemiological weeks 1 -39](image-url)
**Diphtheria**

- **From 1 January to 29 September 2019**: A total of 1273 probable cases, including 66 associated deaths, have been reported. As of 29 September, 183 (55%) of the 333 districts in Yemen have reported suspected diphtheria cases, during last four weeks 78% were reported from five governorates: Sa’ada (25%), Al Hodeida (21%), Hajjah (15%), Amanat Al Asimah (9%), and Ibb (8%).

**The trend in suspected cases between epidemiological weeks 1 -39**

**Measles**

- **From 1 January to 29 September 2019**: A total of 9,095 suspected measles cases have been reported, including 47 associated deaths (CFR 0.5 %). Within the last 4 epidemiological weeks, 54% of suspected cases were reported from 6 governorates: Amanat Al Asimah (15%), Aden (10%), Ibb (10%), Sa’ada (9%), Taiz (5%) and Dhamar (5%). Children under the age of five represent 68% of the total suspected cases.

**The trend in suspected cases between epidemiological weeks 1 -39**
Dengue Fever

- **From 1 January to 29 September 2019:** There have been a total of 19,939 suspected cases reported including 97 associated deaths (CFR 0.5%). Within the last four weeks, 91 districts have reported suspected cases, with 91% of these being reported from five governorates: Taiz (40%), Abyan (18%), Hajjah (13%), Lahj (10%), and Aden (10%). The highest proportion of cases is being reported from districts where access is challenging due to insecurity.

The trend in suspected cases between epidemiological weeks 1 - 39

Cholera

**Oral cholera vaccination campaign:**

- Second round of Oral Cholera Vaccination campaign was conducted in the three districts of Sana’a city i.e As_Sabain, Al_Wahda and Shu’Ab from 13 to 23 September 2019. In this campaign 903 vaccination teams were used with 112 fixed site vaccination team and 791 house to house vaccination teams to vaccinate all people age more than 1 year. Out of the 1.3 million people targeted 1.13 million (93%) were administered OCV. The district wise coverage is As_Sabain 669,231 (94%), Al_Wahda 151,768 (88%) and Shu’Ab 312,148 (93%). A strategic risk communication strategy involving key influencers and engagement of local celebrities was used to improve awareness and acceptability for the vaccination, as part of trust building measures to incite vaccine seeking behaviors.
WASH

- **Coordination and Partnership:** WHO environmental health (EH) team is working in close collaboration with the WASH Cluster, Health Cluster partners, and National Authorities to highlight the health risks associated with contaminated water, poor sanitation and hygiene issues and providing guidance on mitigation measures. Also, WHO under the Health Cluster has activated the technical working group on WASH in healthcare facilities to assess gaps and provide technical guidance to partners to fill those gaps.

  - One coordination meeting was held in the month of September. Monitoring indicators for WASH in Health facilities have been finalized by the technical working group.

- **Capacity Building:** WHO in collaboration with the MoPH and Central Public Health Laboratories (CPHL) conducted the first training session on infection prevention and control (IPC) to build the capacities of staff working in Diarrheal Treatment Centres (DTCs), 30 participants have been trained on standard operating procedures (SoPs) for IPC in the month of September.

- **Water Provision and Monitoring:** WHO maintained the provision of approximately 3239 m$^3$ of safe water to 72 health care facilities. Regular monitoring of emergency health services in health facilities has been conducted by WHO field WASH supervisors in 12 governorates. Free residual chlorine (FRC) has been monitored in water supplied by WHO to 72 healthcare facilities. 50 % of the samples tested have shown positive results for FRC. Results of samples having zero FRC were communicated to the administration at the health facilities to take remedial actions. Also, reconstruction and rehabilitation of WASH services in 35 healthcare facilities are in progress, to improve WASH in these areas.

Lab

- Vibrio cholerae isolates have been shipped to Sanger Institute – Cambridge for further genetical analysis to confirm observed antibiotic resistance of the disease. Outcome of this analysis is expected in the coming weeks.
- Procurement of rapid diagnostics tests (RDTs) is being prioritized: 100,000 strips were requested on April 2019 through international procurement including media and antibiotic discs for the immediate diagnosis of cholera.
- Sufficient quantities of supplies including media and antibiotic discs for the diagnosis of cholera and antibiotic susceptibility testing has been provided with the 6 Central public health laboratories (CPHL) to ensure uninterrupted provision of diagnosis of confirmed cases.
- The Standard Operating Procedures (SOPs) and guidelines for sampling, transportation, and diagnostic testing have been completed and shared with (CPHLs) in Sanaa and Aden. Supervision is being conducted to ensure the adoption and application of the SOPs.
• 3 training plans on technical skills improvement, quality management system and bio-safety have been finalized. The training will be conducted by the end of October for health facility level laboratory staff and those working at the CPHLs.

Risk Communications

• **Preparation for OCV Campaign:** Contributing in the EPI task force meetings at the ministry of health, organizing, launching the (Health ambassadors) initiative in the capital of Sana’a with 24 Yemeni celebrities in the community in order to participate in the vaccination campaign to address and fight the rumors. The WHO risk communications team along with UNICEF, Health Education Centre (HEC) and the local authorities supported in distributing a total of 60,000 leaflets, 6000 posters, and 60 banners about cholera prevention and importance of vaccination. Also, key messages were aired through 20 TV and Radio spots. 1.5 million people were reached with awareness materials.

Diphtheria

• **Vaccination:** Diphtheria vaccination was conducted in 186 districts of the 12 Northern Governorates targeting 5.7 million children 6 weeks to 15 years of age in phased manner that concluded in September. Whereas vaccination against Diphtheria in selected districts of Southern governorates and Sa’adah will be conducted later this year. A total of 2,773 vaccination teams including 1,320 fixed and 1,453 mobile teams vaccinated target children in these districts.

   • Over 3.4 million (60%) target children were vaccinated with Diphtheria vaccine, including 1.2 million children 6 weeks to 5 years of age with Penta vaccine and 2.2 million children 5-15 years of age with Td vaccine.

   • **Medication Distribution:** A distribution plan for diphtheria medication covering more than 3900 probable diphtheria patients and more than 27000 contacts has been approved by the Ministry of Public Health and Population (MoPHP). The dispatching process has been started.

Dengue Fever

• **Medical Diagnostic Test Distribution:** WHO delivered a total of 65,000 Rapid diagnostic tests RDTs to the National Malaria Control Program in Sana’a for distribution in health facilities in the northern and western governorates.

• **Dengue Vector Control Campaign:** in September, WHO supported the implementation of the third round of the dengue vector control campaign in Al-Dala’a district, Al-Dala’a governorate, 1st and 2nd round were implemented in August 2019. Below table illustrates the coverage of the campaign.
<table>
<thead>
<tr>
<th>District</th>
<th>DF phase</th>
<th>Period</th>
<th>Population covered</th>
<th>No of avenues/locality sprayed</th>
<th>No of Houses sprayed</th>
<th>Number of spraying workers</th>
<th>Number of pumps sprayed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Dala’a</td>
<td>Phase 1</td>
<td>3-6 August 2019</td>
<td>15,307</td>
<td>50</td>
<td>2,935</td>
<td>12</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Phase 2</td>
<td>25-28 August 2019</td>
<td>14,142</td>
<td>24</td>
<td>20,47</td>
<td>12</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Phase 3</td>
<td>18-22 Sept 2019</td>
<td>11,620</td>
<td>25</td>
<td>2181</td>
<td>12</td>
<td>360</td>
</tr>
</tbody>
</table>

**Measles**

Since the nationwide Measles/rubella campaign conducted in February 2019, no mop ups or case response activities conducted for MR vaccine, except the MR vaccine offered through routine EPI. The only additional MR vaccine offered in September 2019 was through Integrated Outreach round. During Outreach round 79,765 children received MCV1 and 57,165 received MCV2.

**Trauma Care and General Emergency Services**

- **Incentives Payments to keep the health system functioning:** A total of 47 surgical teams were supported with incentives/per diem payment in 17 governorates and 36 health facility based primary health care teams were supported in 12 governorates. In addition to 1 -emergency mobile medical team in Al Hudaydah governorate.

- **Medical and Surgical consultations:** In September, health facilities based primary health care conducted a total of 166,438 consultations the surgical teams performed 12,017 while the supported emergency mobile medical teams performed 1,157 consultations.

- **Fuel provision to health facilities:** WHO continued its support to targeted health facilities with fuel provision to ensure functionality and continuous provision of life-saving health care services. A total of 1,107,900 L of fuel planned to be provided to 182 health facilities HFs across the country in September, so far a quantity of 295,022 liters was delivered to 69 health facilities. Delivery of the remaining quantity of 812,878 L to 113 HFs is on the wheels.
Non-Communicable Diseases (NCDs)

- To ensure the sustainability of medical care provision to the most vulnerable patients suffering from chronic diseases such as cancer, dialysis-dependent chronic renal failure, and patients with mental disorders, WHO supported 9 cancer centres with incentives in 6 governorates (Sana’a City, Aden, Taizz, Ibb, Alhudaydah and Hadramout governorates), and 16 dialysis centers in 10 governorates (Sana’a Gov., Sana’a City, Ibb, Sada’a, Al baidha, Al Hudaydah, , Almahrah, Taizz, Hadramout and Shabwah governorates).

Nutrition

- **Child admissions**: Due to access issues, data recently received from July and August is being reflected in this month’s sitrep.
  
  - A total of 975 children were admitted in August to WHO supported Stabilization Centers (SCs) for the treatment of Severe Acute Malnutrition (SAM) with medical complications compared to a total of 1,430 children admitted in July 2019.
  
  - The cure rate was reported at 90.1% with a case fatality rate (CFR) 2.1%.
  
- **Nutrition Surveillance**: In August, a total of 7,635 children were screened at nutrition surveillance sentinel sites this month compared to 8,548 children in July. The proportion of children with Severe Acute Malnutrition is 8% out of the total children screened, across the sentinel sites.
  
  - Hodeida and Sana’a governorates recorded the highest proportion of children affected by SAM (WHZ <-3 z-score) with 18% and 8%, respectively. Chronic malnutrition remains a high concern, as detected in 53% of all children 6-59 months screened, with 41 districts reported a very high proportion of stunting, in the period under review.

- As of July 2019, WHO supported a total of 42 Nutrition Surveillance Sentinel Sites established and functional in 7 governorates, covering 17% of priority districts. 65 more sentinel sites are planned to be established by the end of 2019.

- Global Acute Malnutrition was detected in 29% out of the total children 6-59 months screened, marking an increase compared to the average GAM rate recorded in the previous period (January to June 2019, GAM rate at 23.4%). Children found with acute malnutrition were all referred to appropriate nutrition services.
Logistics

- Throughout the month of September, WHO supported a total of 94 facilities with items that value USD 3,357,552.

<table>
<thead>
<tr>
<th>Summary by Group (in USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialysis Sessions</td>
</tr>
<tr>
<td>Medicines &amp; Med. Supplies</td>
</tr>
<tr>
<td>WHO KITS (IEHK/Nutrition/NCDK/SSK)</td>
</tr>
<tr>
<td>Grand Total</td>
</tr>
</tbody>
</table>

Partnerships/ Health Cluster

- **Health cluster coordination meetings**: During September, Yemen Health Cluster conducted several coordination meetings to further improve health response operations by HC partners:
  - 2 National Health Cluster coordination meetings,
  - 2 Subnational health cluster coordination meetings in Ibb/Taiz Hub
  - 1 Health Cluster coordination meeting in Al-Hudaydah
  - 1 Health Cluster coordination meeting in Sana’a
  - 1 Health Cluster coordination meeting in Sa’ada
  - 2 Health Cluster coordination meeting in Aden, in which the cluster discussed many epidemiological / health interventions situation as well as the main challenges facing partners in the field

- **Technical working groups and bi-lateral meetings**: The Health Cluster has coordinated a total number of 4 meetings for the technical working groups such as mental health and psychosocial support (MHPSS), reproductive health (RH), also the health cluster on national and subnational level have conducted many bi-lateral meetings with the partners and authorities to discuss partners’ interventions, response, gaps, needs and challenges.

- **Field Visits**: Health Cluster coordinators have conducted a total of 12 field visit to monitor and support health facilities, DTCs Hospitals in the Hubs as well as supporting partners in trainings and workshops.

- The Office of U.S. Foreign Disaster Assistance (OFDA) generously allocated an additional US$ 10 million to first line response. This contribution helps WHO sustain some of the most critical and life-saving interventions, including the existing 63 therapeutic feedings centers (TFCs) across Yemen and additional 31 as per scale up plan. Thanks to the timely support from OFDA, the funding gap is 76%, but several other needs from the first and second line response remain unmet, leaving more than 9.3 million people at risk.
WHO leads the health cluster in Yemen and works in collaboration with partners on a two-pronged approach:

- **Firstly, addressing two health determinants;** WHO will focus on monitoring potable water and sanitation conditions to advocate and leverage partners at directing their efforts where more critically needed; the goal is to decrease water borne diseases such as cholera.

- The Organization will also significantly enhance surveillance and monitoring for malnutrition, address severe malnutrition as a last resource organization and ensure all partners have access to strategic information for their operations in a timely fashion.

- **Secondly, restoring and enhancing preventive programs and access to health services.** WHO aims to restore key priority preventive programs such as vaccination and disease surveillance and improving access to health services. While WHO will increase its technical support to the country, it will also restructure its emergency operations to deliver within the security and non-permissive environment conditions.

**As reported by Health Cluster partners:**

- **Access issues persist:** Access constraints, authorities restricting implementing partners, thus delaying implementation

- **Bureaucratic impediments:** To importing and transporting medicines and supplies; delays in receiving MoH requests for supplies and equipment; increased restrictions and controls at the importation level, with customs, requesting to check and approve cargo manifest for each airlift. Implementing partners face delays in receiving the approval of the sub-agreements by the governorate counterparts further delaying governorate and district level implementation.

- **Customs clearance issues:** Separate administrations regulating clearance of controlled and non-controlled drugs. To authorize the release of medical supplies, every administration needs separate invoices and packing, adding a huge burden to an overstretched system.

- **Capacity building needs:** Training in health education and infection control at health facility level.

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