This weekly bulletin focuses on selected public health emergencies occurring in the WHO African region. WHO AFRO is currently monitoring 47 events: three Grade 3, six Grade 2, two Grade 1, and 36 ungraded events.

This week, three new events have been reported: outbreaks of Ebola virus disease in the Democratic Republic of Congo, dengue fever in Côte d’Ivoire and Crimean-Congo haemorrhagic fever in Senegal (imported from Mauritania). The bulletin also focuses on key ongoing events in the region, including the grade 3 humanitarian crises in Nigeria and South Sudan, the grade 2 humanitarian crisis in the Central African Republic and meningitis outbreak in Nigeria as well as the undiagnosed illness in Liberia.

For each of these events, a brief description followed by public health measures implemented and an interpretation of the situation is provided.

A table is provided at the end of the bulletin with information on all public health events currently being monitored in the region.

Major challenges to be addressed include:

- The unprecedented occurrence of acute public health events in the African Region, calling for full implementation of the IHR and the regional strategy on health security and emergencies in the African Region.

- There are subtle public health emergencies in the region that require comprehensive response and actions including advocacy and multi-sector engagement.
On 11 May 2017, the Ministry of Health of the Democratic Republic of Congo (DRC) notified WHO of an outbreak of Ebola virus disease (EVD) in Likati health zone in Bas Uele province located in the north-eastern part of the country. The index case, a 39-year-old male, presented to the local health facility on 22 April 2017 with acute onset fever, asthenia, vomiting, bloody diarrhoea, haematuria, epistaxis, and extreme fatigue. He was immediately referred to Likati health district facility but he died in transit. On 24 April 2017, a motorcycle rider (who transported the index case) and another person who supported the index case during transportation developed acute febrile illness. The motor cycle rider subsequently died on 26 April 2017.

Preliminary outbreak investigation carried out by the health team obtained 5 blood samples that were shipped to the Institut National de Recherche Biomédicale (INRB) in Kinshasa. Laboratory results released on 11 May 2017 indicated that one of the five samples tested positive for Ebola virus Zaire sub-type by polymerase chain reaction (PCR) assay.

As of 13 May 2017, a total of 11 suspected cases including 3 deaths (case fatality rate of 27.3%) have been reported. Detailed epidemiological investigation and risk assessment are being conducted and the findings will be communicated accordingly.

**Public health actions**

- The Ministry of Health convened an emergency meeting on 11 May 2017 involving various sectors of government and partners including CDC, MSF, WHO, etc. The meeting aimed to design response strategies, mobilize immediate resources needed and mount an effective response to the EVD outbreak.
- The Minister of Health, accompanied by the WHO Representative, held a press conference on 12 May 2017, intended to alert the general public to take necessary preventive measures while allaying anxiety and fear.
- Preliminary outbreak investigation is being conducted by the national, provincial and health district teams, with support from WHO and other partners.
- The Provincial Government has mobilized initial funds to facilitate immediate operational activities in the field.
- WHO held a three-level teleconference on 12 May 2017 to review the situation, conduct risk assessment and guide the overall response to the outbreak. The potential risk of this outbreak was ranked as high at national and regional level.
- On 12 May 2017, WHO released a press statement to inform the global community on the EVD outbreak in DRC.
- The Regional Director of WHO AFRO is set to meet the national authorities on 13 May 2017 to reiterate the availability of WHO to closely work with the Ministry of Health and other sectors to rapidly contain the outbreak and avoid unnecessary interference with travel and trade. She will also be meeting with in-country partners to enhance partnership and coordination of response to this highly dangerous pathogen.
- WHO is deploying a surge team following the request from the government

**Situation interpretation**

An outbreak of Ebola virus disease has been confirmed in the DRC, coming days after rumours of unexplained clusters of illness and deaths. The affected locality, situated in the north-eastern part of the country, is remote and isolated with limited transport and communication networks including telephone connectivity. The locality is 350 km from Kisangani and cannot be access by car (has only 20 km of road). The public health infrastructure and health care system in the affected area is weak. These circumstances, in addition to other factors, impeded the timely transmission of the information on this suspected outbreak. The delay to detect and confirm this outbreak may mean that the disease could have spread in the local communities. This therefore calls for a swift, extensive and rapid response in order to curtail further propagation and mitigate any impact and consequences.

The Ministry of Health has rapidly solicited for support from partners (in particular WHO), a call that we must respond to. Based on the lessons learnt from the West African EVD outbreaks, WHO calls for strong multi-sector collaboration and the support of global stakeholders to quickly bring this outbreak to an end. WHO is ready to provide the leadership and technical expertise required to mount a coordinated and effective response to the outbreak.
On 03 May 2017, the Côte d'Ivoire Ministry of Health and Public Hygiene notified WHO of an outbreak of dengue fever in Cocody-Binger-ville health district in Abidjan, the capital city. The outbreak started on 22 April 2017 when the initial case, a 17-year-old boy from Deux-Plat-500x740au-Vallon district, presented to the local health facility with a febrile illness that was not responsive to a course of antimalarial treatment. Biological samples obtained from the case-patient on 23 April 2017 and shipped to the Institut Pasteur of Côte d'Ivoire (IPCI) tested positive for dengue virus sero-type 3 on 28 April 2017, thus confirming the outbreak.

Active case search, done as part of epidemiologic investigation, detected 14 suspected acute cases of dengue fever in the community and neighbourhood of the index case. Six out of 14 blood samples obtained from these acute cases tested positive for dengue virus type 3 at the IPCI. Meanwhile, retrospective review of health records in two health facilities in Cocody identified 20 cases seen in the past days with a clinical picture meeting the case definition of dengue fever.

Between 22 April and 8 May 2017, a total of 34 cases meeting the standard case definition of dengue fever have been line-listed from eight communities [Ste Cécile, Bertille JBG, Sococo Annex, 12th Ar-rondissement, Saigon night, ENA, Vallon, and Carrefour]. No deaths have been attributed to the disease, thus the case fatality rate remains 0%. The average age of cases recorded is 25.7 years, with a range of 1 to 67 years.

Preliminary entomological investigation carried out in Cocody com-mune revealed very high indices [House Index of 62.5%, Container Index of 26%], indicating the abundance of the mosquito vector of the Aedes genus. Of the mosquitos caught, 37 mono-specific batches were transferred to the IPCI for viral assay. Mosquito breeding sites such as discarded water containers (tins, plastics, and tyres), bushes, shallow holes, etc. were widespread in the affected communities.

Public health actions
- A multi-disciplinary team comprising epidemiologists, entomologists, laboratory scientists, etc. from the Ministry of Health, IPCI and WHO conducted epidemiological and entomological investigations from 28 April - 01 May 2017.
- Since 06 May 2017, sensitization of the communities on mosquito control activities is being carried out using various media channels such as television, radios and print.
- Since 08 May 2017, fumigation against adult mosquitos has started in the municipalities.
- Distribution of insecticide-impregnated mosquito nets has been initiated to promote vector control at household level.
- Epidemiological surveillance including active case search in the affected communities has been strengthened.
- An operation to collect used tires, containers, etc. in the districts of Abidjan has been initiated.

Situation interpretation
Dengue fever is a mosquito-borne viral infection which usually causes a mild flu-like illness but occasionally develops into a potentially lethal complication called severe dengue. The majority of dengue virus infections are asymptomatic, which is an indication that the burden of the current outbreak in Côte d'Ivoire is much larger than that actually seen.

Dengue viruses are primarily maintained by a human-to-mosquito-to-human cycle. The primary vector is the Aedes aegypti mosquito, which is highly adapted to human habitations. Aedes albopictus can also sustain dengue virus transmission in humans. The high entomological indices observed during the rapid assessment conducted in the affected community illustrate the high transmission potential of the disease. The country has demonstrated capacity to handle the outbreak. The experience acquired in managing previous dengue fever outbreaks, exiting laboratory and entomological capacities and the existence of a multidisciplinary team of experts was instrumental in mounting a rapid response to this outbreak. Close follow-up is however required to ensure that the outbreak is rapidly controlled. This therefore calls for strengthening the operational capacities of response teams for vector control.
On 08 May 2017, the Senegalese Ministry of Health and Social Welfare notified WHO of two imported cases of Crimean-Congo haemorrhagic fever (CCHF) at the National University Hospital Center Le Dantec in Dakar. The index case, a 16 year old female patient from Nouakchott in Mauritania, developed intense pain in the left ear and diffuse headache on 16 April 2017. She presented to Nouakchott Friendship hospital in Mauritania from where a tick was extracted from the left ear. On 21 April 2017, the case-patient developed fever, followed by multiple bleeding tendencies (epistaxis, bleeding from the gum, melena, metrorrhagia, and vomiting blood), and was admitted at the Nouakchott Friendship hospital. Slow clinical improvement was however observed. On 29 April 2017, the case-patient was evacuated by air to Dakar (accompanied by four relatives) and was admitted at the Dantec University Hospital. The hospital carried out clinical investigations with inconclusive findings. On 04 May 2017, blood sample was obtained and shipped to the Pasteur Institute in Dakar. Laboratory result released on 05 May 2017 was positive for Crimean-Congo hemorrhagic fever virus.

The second case, a 48 year old mother to the index case, developed fever, headache, muscle and joint pains, weakness, ecchymosis, vomiting and insomnia on 19 April 2017 (from Mauritania). Blood sample obtained from the case-patient on 06 May 2017 tested positive for Crimean-Congo hemorrhagic fever virus.

As of 08 May 2017, 2 cases with zero death have been reported. Fifteen close contacts have been listed (including the four relatives, two patients who shared the same room, two intern doctors, four nurses and three students) and are being followed up. Epidemiological investigation established the presence of sheep with many ticks in the family environment. The national authorities in Mauritania have been notified and are conducting detailed investigations.

Public health actions
- The Ministry of Health made formal declaration and notification of the outbreak, in line with the International Health Regulations (IHR 2005) requirements.
- The Ministry of Health activated the Emergency Operations Center to coordinate response to the outbreak.
- Health care workers in the hospital have been sensitized on infection prevention and control (IPC) practices including the use of personal protective materials. Personal protective equipment and IPC materials have been provided.
- Health workers in the hospital have been trained on arboviruses and viral haemorrhagic fevers in order to enhance surveillance including identification of suspected cases and contacts, and sampling procedures. Active case search for suspected cases and contacts is ongoing.
- Further epidemiological investigations are ongoing.

Situation interpretation
Crimean-Congo haemorrhagic fever is a tick-borne viral disease that is endemic in Africa, the Balkans, the Middle East and Asian countries. The hosts of the CCHF virus include a wide range of wild and domestic animals such as cattle, sheep and goats. The CCHF virus is transmitted to people either by tick bites or through contact with infected animal blood or tissues during and immediately after slaughter. The majority of cases have occurred in people involved in the livestock industry, such as agricultural workers, slaughterhouse workers and veterinarians. The index case in this outbreak reported close interactions with sheep as the potential risk factor for infection.

More epidemiological and entomological investigations are required, especially in Mauritania, to establish the full picture of the outbreak in the country. The Senegalese authorities also need to monitor the situation very closely to avoid further escalation.
Event description

The aetiology of the cluster of acute illness and sudden deaths that occurred in Sinoe county in Liberia remains unknown. While there are continuing extensive efforts to establish the causative agent, the situation has markedly improved. From 05 – 12 May 2017, one new case was reported from Grand Bassa county. This case-patient, a 40-year-old man, became ill on 01 May 2017, manifesting high fever (40°C), headache, cough, vomiting, mental confusion, diarrhoea, abdominal pain, and profuse sweating; he was admitted on 07 May 2017. While this case-patient did not participate in the funeral function, he shared food with a person who attended the funeral, developed the illness on 27 April and died on 4 May 2017. No new case has been reported since 07 May 2017. As of 12 May 2017, two cases are currently admitted at F.J. Grant Hospital. One of the patients was readmitted for a medical condition unrelated to this outbreak. Both cases are responding to treatment and are in stable clinical condition.

From 23 April to 12 May 2017, a total of 31 cases of the undiagnosed illness including 13 deaths (case fatality rate of 41.9%) have been reported from 11 communities in Sinoe (27 cases and 10 deaths), two communities in Montserrado (2 cases and 2 deaths) and two communities in Grand Bassa (2 cases and 1 death). The ages of the affected people ranged from 10 to 62 years while 55% of the cases were females. A total of 214 close contacts of the sick people who attended the wake/funeral in Greenville Sinoe on 21 and 22 April 2017 have been identified from three counties. The contacts continue to be monitored daily by the county health teams.

A total of 56 biological specimens have been collected from 26 suspected cases: 17 whole blood, 8 blood serum, 5 cardiac fluid, 9 oral swabs, 5 urine, 7 blood culture, 3 cerebrospinal fluid, 1 rectal swab, 1 stool. Overall, 26 samples tested negative for Ebola and Lassa fever viruses. Laboratory results of three plasma specimens shipped by MSF to Institute Pasteur in France were negative for Ebola, Marburg, Crimean-Congo, and Lassa fever viruses. Meanwhile, CDC Atlanta laboratory detected Neisseria meningitidis serotype C in 4 out of 16 blood samples. Autopsy on two deceased cases was conducted in Monrovia and the specimens are being prepared for shipment by WHO and CDC for further testing. Food samples have been collected and transported to the National Reference laboratory for testing.

The undiagnosed illness in Liberia was notified to WHO on 25 April 2017 by the Ministry of Health when a cluster of 14 cases with 8 deaths were reported from Greenville city in Sinoe county following a funeral function.

Public health actions

- The Liberia Ministry of Health held a press conference on 07 May 2017 to announce the preliminary results available so far.
- Arrangements to ship clinical specimens to South Africa and food samples to Vienna, Austria for toxicology analysis have been finalized.
- The samples will arrive in the respective laboratories by 14 May 2017.
- The national and county epidemic preparedness and response committees continue to coordinate the response to this event.
- Active case search is ongoing in the counties to identify cases, contacts and the people who attended the funeral.
- Surveillance has been heightened at the district, health and community levels in all counties.
- A total of 214 contacts of cases in Sinoe (152), Montserrat (40) and Grand Bassa (22) have been identified and are being followed up daily.
- Community engagement is still ongoing at the district level to encourage all affected communities to report all sick people to the nearest health facilities.
- Infection prevention and control protocol has been disseminated to all counties.
- WHO has deployed additional capacity to the country to support the investigation and response.

Situation interpretation

The cluster of acute illness and sudden deaths in Liberia remains an enigma despite the frantic efforts to establish the causative agent. While the quest and urgency to ascertain the aetiology of the public health event is enormous, the preliminary results need to be interpreted carefully, in line with conventional epidemiological and scientific principles. WHO and all the Partners (CDC, MSF) will continue the quest to establish the causative agent for this public health event. In the meantime, rigorous implementation of outbreak containment measures will continue. The robust public health actions including clinical management of the suspected cases from the onset of the outbreak has undoubtedly mitigated the consequences and minimized potential extensive spread of the disease.
Meningitis

Nigeria

Health Emergency Information and Risk Assessment

Meningitis

Nigeria

13,420 | 1,069 | 8%
Cases | Deaths | CFR

The meningitis outbreak situation in Nigeria is gradually improving. During week 18 (week ending 7 May 2017), the four most affected states of Zamfara, Sokoto, Katsina and Kebbi observed reduction in the weekly caseload and deaths. Between 26 April and 08 May 2017, a total of 2,725 new cases including 150 deaths have been reported across the country. During the reporting week, 32 local government areas (LGAs) have reached the epidemic threshold of 10 cases per 100,000 populations while 16 LGAs have attained the alert threshold of 3 cases per 100,000 populations. The outbreak is still largely localised to six most affected states [Zamfara, Sokoto, Katsina, Yobe, Kebbi, and Kano].

As of 08 May 2017, a total of 13,420 cases of meningitis including 1,069 deaths (case fatality rate of 8.0%) have been reported from 210 LGAs across 23 states. The majority of the reported cases, 47.0%, were in the age group of 5 – 14 years. Since the beginning of the outbreak in week 50 of 2016 (week ending 18 December 2016), a total of 34 LGAs reached epidemic level at any one point in time. A total of 897 cerebrospinal fluid samples were obtained from the case-patients and analysed at the National Reference Laboratory. Bacterial pathogens were isolated from 448 samples, 65.4% of those were Neisseria meningitidis serotype C as the predominant strain.

Public health actions

- The Government of Nigeria continues to work with Global Health partners to facilitate increased vaccines, laboratory and other medical supplies for the ongoing response operations.
- A 5-day reactive meningitis vaccination campaign targeting 739,850 people from 9 LGAs in Sokoto state has been completed. During the exercise, 556,683 people (75%) were vaccinated. This was followed by a 2-day mop-up exercise, during which 160,750 more people were vaccinated, bringing the total number of people vaccinated to 717,433, with an administrative coverage of 97% of the targeted population. A total of 719,117 doses of vaccine were used. Thirteen cases of minor adverse effects following immunization (AEFI) were reported.
- The second request for 694,065 doses of polysaccharide meningitis vaccines for Zamfara state has been approved by the International Coordinating Group (ICG) and delivery is expected in the coming days.
- A total of 285,740 doses of meningitis ACYW polyvalent conjugate vaccines are expected to arrive in Yobe States by 17 May 2017. Meanwhile, the ICG vaccines request for Katsina is being processed.
- The first five medical teams (five members each) have been deployed to Zamfara and Sokoto states (after a one-day orientation) to support case management. Five priority health facilities where the teams have been deployed (to serve LGA/Ward clusters) were identified in conjunction with the states.

Situation interpretation

The meningitis outbreak situation in Nigeria is showing a clear indication that the trends are going down in the most affected states. This remarkable gain is coming following tremendous improvement in the control interventions, especially provision of more doses of meningitis vaccines by the ICG. Training of healthcare workers, provision of medicines (ceftriaxone) and medical commodities and the deployment of case management teams were also instrumental in lowering the case fatality. At this point, when the situation is getting better, intense interventions need to be continued including enhancing public information and social mobilization. The health partners should continue to support the Federal Ministry of Health to control the meningitis outbreak. In the medium to long term, local capacity needs to be developed for prevention, detection, response and preparedness for meningitis (and any public health events) in the next epidemic season.
Health Emergency Information and Risk Assessment

**Humanitarian crisis**

**Central African Republic**

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**Event description**

The humanisation crisis in the Central African Republic (CAR) remains serious though little known. In recent weeks, there have been new scenes of violence across the country, impacting on the humanitarian situation. On 2 May 2017, the town of Niem in the west of the country was attacked and occupied by armed group trying to recover stolen herd of cattle. More than 11 people were killed and 5 others injured, while about 17,000 people were displaced in the bushes, neighbouring towns or villages. Nearly 2,000 people regrouped and remained at the area, settling at two sites. Clashes between these two rival armed groups continue along the corridor between Cantonnier in the west to Bouar.

Persistent violence and insecurity are also causing continuous population displacement in Ouaka prefecture (district) in the centre of the country. Around 6,000 new internally displaced persons (IDPs) have joined more than 87,000 displaced persons throughout the prefecture. In the southeast Mingala sub-prefecture including Lanzé, Drushima and Morouba, there are ongoing retaliatory clashes, looting, burning of villages, and assassination of civilian passengers in public transport vehicles.

In addition, abuses and attacks targeting homes and infrastructure of aid workers in Kabo locality in Ouham prefecture located in the north of CAR has forced humanitarian agencies to temporarily suspend their activities. On 31 April 2017, MSF-Spain medical team was evacuated from Ndélé district hospital and four health units of the sub-prefecture. This worrying situation indicates the difficulties in providing urgent medical care and humanitarian assistance to the populations in need.

**Public health actions**

- Taking advantage of the calm security situation in Ngaoundaye and Koui, the International Rescue Committee (IRC) organized mobile clinics from 2 – 5 May 2017, providing free access to basic health services to more than 500 people.
- The humanitarian community at Bouar conducted a joint assessment mission to Niem on 9 May 2017.
- WHO has strengthened contingency stocks in the 5 sub-offices. WHO has also provided basics kits, trauma kits A and B, and pneumonia kits to hospitals in the districts of Bakala, Ippy, Bocaranga, Kouango, Ngaoundaye and Kaga Bandoro.
- WHO is coordinating remedial interventions to fill in the gap created by MSF withdrawal from Ndele hospital.
- The health cluster continues to advocate for urgent replenishment of antimalarial in health facilities experiencing stock-outs.

**Situation interpretation**

The security situation in CAR has deteriorated over the last few weeks, particularly in the interior of the country, affecting ongoing humanitarian actions. WHO, through its sub-offices, continues to coordinate and collaborate with operational partners and other UN agencies to deliver health services to affected populations. The current policy of cost recovery being implemented in some health facilities, especially while the population is unable to pay for health care, is detrimental. The health cluster has engaged the Ministry of Health to consider, as soon as possible, the modalities of free healthcare in the country.

Response to the humanitarian crisis in CAR continues to suffer from lack of funding. The health sector response plan is currently only funded at 4.7%. With the influx of displaced people in Bambari, Maloum and Agoudoumanga, the response capacities of the partners have reached their limits in relation to their initial planning. A similar situation is also being seen at the Alindao hospital, which is facing an increase in the need for health services due to the influx of displaced persons and returning residents. The hospital issued an alert to say that they need medicines and health personnel. The presence of an armed group in front of the Niem hospital limits access to health services. The Ngakobo site in Ouaka is no longer accessible to humanitarian workers due to the resurgence of insecurity.

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Map of internally displaced persons’ sites in Central African Republic, 08 May 2017
The ability of communities and healthcare infrastructure to cope continues to be depleted by the ongoing conflict in north east Nigeria. There are over 1.8 million displaced people in Nigeria, of whom more than 1.4 million are in Borno State – the epicentre of the crisis. Most displaced people are hosted in local communities, while 210,000 people are living in IDP camps.

The security situation continues to be volatile, with explosive devices and insurgent attacks common across Yobe, North Adamawa and Borno, as well as in the neighbouring countries. There are fatalities among civilians, the Civilian Joint Task Force (CJTF) and further destruction of infrastructure and households at village level.

A WHO 3-level mission aimed to plan for interventions to mitigate the high levels of morbidity and mortality was held during week 18 (week ending 07 May 2017) in Abuja and Maiduguri. A strategy for mass drug administration of antimalarial and a comprehensive preparedness and response plan was recommended.

Public health actions
- A meningitis epidemic preparedness and response plan for north-east Nigeria has been developed by WHO in collaboration with the State Ministry of Health of Adamawa, Borno and Yobe, UNICEF, NCDC and other health sector partners.
- A support team of two epidemiologists from GOARN and one microbiologist from Nigeria Centres for Diseases Control arrived in Yobe to support meningitis vaccination campaign scheduled to start on 15 May 2017.
- An exploratory mission has been organised in Damasak to assess the local capacity to detect and respond to a possible outbreak of hepatitis E, which is ongoing in Niger. Cross-border surveillance activities were identified as a priority. One suspected case tested negative for hepatitis E.
- WHO prepared a plan to expand mental health services, nutrition activities, hard-to-reach teams and referral services using US$900,000 expected from the United Nations Central Emergency Response Fund.
- As part of the response to the expected increases in cases of malaria, 1.6 million malaria rapid diagnostic tests (RDTs) have been made available for distribution in Borno, Adamawa and Yobe.
- WHO is working with Borno state nutrition sector and the Ministry of Health to plan and prioritize humanitarian nutrition responses based on the Integrated Food Security Phase Classification (IPC) and other assessments. In order to reach most of the people in need, the nutrition response involves extensive collaboration with partners, including ICRC, MSF, SCI, PUI, ALIMA, ACF, MDM and CRS.

Situation interpretation
The unpredictable security situation in northeast Nigeria hinders humanitarian operations to address the needs of the vulnerable populations. These needs remain huge in spite of the gains already made in reaching those in need with aid. Strategic planning to mitigate the burden of cholera, malaria and other communicable diseases, which are expected to increase with the start of the rainy season, is a priority. Measures for preparedness and response include the pre-positioning of essential health kits in high risk areas and locations, which will be hard to access. While the provision of essential services will continue using mobile services, health sector partners need to revitalise and reconstruct the health facilities. Furthermore, capacity building activities for health staff need to be implemented to reduce the gaps in health service delivery.
**Event description**

South Sudan continues to experience fighting in almost all areas. Fresh fighting has been reported in Pibor area, leading to displacement of between 50,000 and 70,000 people who are in dire need of humanitarian assistance. In the past week, a deadly ambush took place on the Juba – Bor highway, causing the death of 31 civilians. In addition, a vehicle carrying measles vaccines was attacked and two persons including the driver were injured. These security incidences exemplify the difficulty in reaching the populations with humanitarian interventions. The United Nations Mission in South Sudan (UNMISS) has deployed peace keepers in Aburoc internally displaced persons’ camp in Upper Nile to create an enabling environment for humanitarian interventions to the 25,000 people.

There was a planned demonstration against the rising cost of living in Juba, the capital city, due to the continued worsening economic situation and hyperinflation being experienced currently.

During week 18 (week ending 07 May 2017), completeness of weekly reporting for routine surveillance sites was 53% while for the internally displaced persons (IDP) sites was 65%. Malaria accounted for 30% and 7% of all consultations in the routine surveillance and IDP reporting sites respectively. During the reporting week, 13 new cases of cholera were reported from Yirol West (4), Duk Pajut (7) and Kapoeta South (2). Vibrio cholera inaba was confirmed in samples from Kapoeta South and Kodok. Since the beginning of the cholera outbreak in June 2016, a total of 7,894 cholera cases including 248 deaths (case fatality rate of 3.1%) have been reported from 19 counties in 10 states. Active transmission is currently going on in 8 counties [Yirol East, Yirol West, Awerial; Duk; Ayod, Fangak, Kodok, Pigi, and Kapoeta].

**Public health actions**

- As part of the inter-cluster response, WHO provided 21,500 doses of oral cholera vaccines that will be deployed in Aburoc in Upper Nile state.
- An oral cholera vaccination campaign is going on in Bentiu, Mingkaman IDP settlement and in Pageal in Ayod, targeting over 200,000 displaced persons.
- The sub-national health cluster coordinators for Malakal and Leer have arrived in the country and will be deployed to coordinate health interventions in Upper Nile and Leer/Mayendit.
- WHO has also deployed a team of technical officers to Mingkaman and Dut (Pajut) to support the cholera response.
- On 3 May 2017, 6 out of 10 states started implementation of the nation-wide measles campaigns.
- All the 10 WHO state coordinators from the ten field offices attended a 2-day workshop in Juba on the health response to the current humanitarian crisis in South Sudan.
- WHO supported training of healthcare workers in Yambio/ WES in emergency obstetric care as part of capacity building for safe delivery.
- WHO WES/Yambio Hub office finalized the health cluster preparedness and response plan to address gaps in the provision of humanitarian aid to the population in need.
- WHO procured calamine lotion to manage over 3,000 cases of chicken pox that have been reported among the displaced persons in Wau.
- Despite intense insecurity, WHO and partners have delivered urgently needed lifesaving health supplies and services to 52,174 internally displaced persons in Lainya. The WHO supplies (transported as part of the UN convoy) included 20 basic unit kits, 20 basic and supplementary kits (antimalarial drugs), assorted medical drugs, emergency vaccines and immunization supplies, outbreak investigation kits, and laboratory transport media. The supplies are expected to cover the next three months.

**Situation interpretation**

The security situation in South Sudan continues to deteriorate leading to more displacement of populations. At the same time, the famine situation will get worse, especially in the Equatoria region, because the populations have largely been displaced and not much cultivation has taken place during this rainy season. The economic situation is also getting worse due to hyperinflation, with urban rioting expected. The current cholera outbreak is spreading to new counties and is expected to escalate during the rainy season.

The worsening humanitarian situation will require aid agencies to scale up their response operations, inadvertently calling for additional resources. The major challenges being encountered include transportation of life-saving diarrhoeal kits to areas of need, and the increasing need for oral cholera vaccines due to increased numbers of vulnerable populations. Over 50% of health facilities are not functioning due to insecurity, affecting delivery of healthcare services, including surveillance performance in the country.
Challenges

The incidence of public health emergencies in the African Region is very high, with an average of one acute public health event reported every 3 – 4 days. This week, three events have been reported: outbreaks of Ebola virus disease in the Democratic Republic of Congo, dengue fever in Côte d’Ivoire and Crimean-Congo haemorrhagic fever in Mauritania but detected in Senegal from 2 patients who travelled for treatment. Since the beginning of 2017, 37 events have occurred across the region. At this rate, Member States and WHO in the African Region need to accelerate the implementation of the IHR (2005) and the regional strategy on health security and emergencies adopted by Ministers of Health in 2016. The need for accelerated strategic investments in health security infrastructure is becoming more compelling and inevitable.

The humanitarian crisis in the Central African Republic is subtle but with serious consequences on the vulnerable populations. The humanitarian response is enduring acute shortage of funding, with a paltry 4.7% of the health sector response plan funded.

Proposed actions

Member States and WHO AFRO need to accelerate the implementation of the IHR (2005) and the regional strategy on health security and emergencies and to increase strategic investments focusing on building national in-country capacity to prevent, detect, prepare and respond to the public health emergencies.

The humanitarian crisis in the Central African Republic calls for deliberate actions including advocacy and multi-sector engagement.

Rapid and coordinated actions to control acute public health events including rapid detection and reporting.
### All events currently being monitored by WHO AFRO

<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Grade</th>
<th>Date of notification to WHO</th>
<th>No. of cases / suspected (confirmed)</th>
<th>No. of deaths</th>
<th>CFR (suspected) / %</th>
<th>Comments</th>
<th>Date of last sitrep</th>
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</thead>
<tbody>
<tr>
<td><strong>Cholera</strong></td>
<td>Democratic Republic of Congo</td>
<td>2</td>
<td>01-Jan-15</td>
<td>38,855</td>
<td>1429</td>
<td>3.7</td>
<td>Eleven new cases reported in epi week 18. Tememe municipal council in Dar es Salaam region is the only district on the mainland still reporting for the past six epidemiological weeks.</td>
<td>22/04/2017</td>
</tr>
<tr>
<td>Cholera</td>
<td>Tanzania</td>
<td>2</td>
<td>04-Apr-15</td>
<td>25,168</td>
<td>390</td>
<td>1.5</td>
<td>23 new cases were reported in week 18. Five experts have arrived in the country to support investigation and response: two epidemiologists, one data manager, one dermatologist and one plastic surgeon</td>
<td>07/05/2017</td>
</tr>
<tr>
<td>Necrotising cellulitis/fasciitis</td>
<td>Sao Tome &amp; Principe</td>
<td>2</td>
<td>10-Jan-17</td>
<td>1632</td>
<td>0</td>
<td>0</td>
<td>Neisseria meningitides serogroup C remains the predominant (65.4%) cause of meningitis amongst those who tested positive. Five days reactive vaccination has been completed in Sokoto state with 75% coverage among target population in 9 Local Government Areas</td>
<td>09/05/2017</td>
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<tr>
<td>Meningitis</td>
<td>Nigeria</td>
<td>2</td>
<td>20-Feb-17</td>
<td>13,420</td>
<td>1069</td>
<td>8</td>
<td></td>
<td>10/05/2017</td>
</tr>
<tr>
<td>Acute watery diarrhoea</td>
<td>Ethiopia</td>
<td>3</td>
<td>Beginning 2017</td>
<td>32,689</td>
<td>776</td>
<td>2.37</td>
<td>Somali region continues to be the worst affected region with ninety-one percent (91%) of these cases and 99% of the deaths</td>
<td>07/05/2017</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Chad</td>
<td>1</td>
<td>01-Sep-16</td>
<td>1367 (98)</td>
<td>15</td>
<td>1.1</td>
<td></td>
<td>16/04/2017</td>
</tr>
<tr>
<td>Cholera</td>
<td>Angola</td>
<td>1</td>
<td>04-Jan-17</td>
<td>336</td>
<td>15</td>
<td>4.1</td>
<td></td>
<td>09/04/2017</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Niger</td>
<td>-</td>
<td>12-Apr-17</td>
<td>282</td>
<td>27</td>
<td>9.6</td>
<td>Patients (mainly refugees) in Diffa presenting with conjunctival jaundice were confirmed Hepatitis E positive. Diffa borders with Tchad where there is an ongoing Hepatitis E outbreak. On 19 April the MOH declared an outbreak.</td>
<td>03/05/2017</td>
</tr>
<tr>
<td>Cholera</td>
<td>Kenya</td>
<td>-</td>
<td>10-Oct-16</td>
<td>303 (36)</td>
<td>5</td>
<td>1.65</td>
<td></td>
<td>10/05/2017</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>Burkin Faso</td>
<td>-</td>
<td>29-Oct-16</td>
<td>2743</td>
<td>21</td>
<td>0.8</td>
<td></td>
<td>12/04/2017</td>
</tr>
<tr>
<td>Typhoid fever</td>
<td>Zimbabwe</td>
<td>-</td>
<td>21-Nov-16</td>
<td>2572 (95)</td>
<td>10</td>
<td>0.4</td>
<td></td>
<td>20/03/2017</td>
</tr>
<tr>
<td>Lassa fever</td>
<td>Nigeria</td>
<td>-</td>
<td>Dec-16</td>
<td>283 (99)</td>
<td>56</td>
<td>19.8</td>
<td>Outbreak in 13 states</td>
<td>17/04/2017</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>Cabo Verde</td>
<td>-</td>
<td>04-Jan-17</td>
<td>124 (30)</td>
<td>0</td>
<td>0</td>
<td>Investigations by the deployed entomologist and virologist from IPD determined the recent circulation of the virus and the presence of Aedes aegypti as the vector</td>
<td>16/04/2017</td>
</tr>
<tr>
<td>Cholera</td>
<td>South Sudan</td>
<td>-</td>
<td>Beginning 2017</td>
<td>7,735</td>
<td>246</td>
<td>3.2</td>
<td>Currently, 9 (47%) out of 19 counties ever affected (since June 2016) have reported cholera cases in the past 4 reporting periods (weeks) and are considered to have active transmission</td>
<td>05/05/2017</td>
</tr>
<tr>
<td>Measles</td>
<td>South Sudan</td>
<td>-</td>
<td>Beginning 2017</td>
<td>590</td>
<td>4</td>
<td>0.7</td>
<td>Since the beginning of 2017, measles outbreaks have been confirmed in five counties - Wau, Yambio, Aweil South, Gogrial West, Gogrial East, and Juba</td>
<td>05/05/2017</td>
</tr>
<tr>
<td>Measles</td>
<td>Ethiopia</td>
<td>-</td>
<td>Beginning 2017</td>
<td>1774 (918)</td>
<td></td>
<td></td>
<td>A total of 50-laboratory confirmed measles outbreaks have been reported up to week 18, out of which 6 of them are currently active.</td>
<td>07/05/2017</td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Congo</td>
<td>-</td>
<td>01-Feb-17</td>
<td>70 (7)</td>
<td>5</td>
<td>7.1</td>
<td>Reported from four different districts in Likouala Department and one district in Cuvette department</td>
<td>20/04/2017</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Togo</td>
<td>-</td>
<td>03 Feb 2017</td>
<td>484 (104)</td>
<td>34</td>
<td>7.0</td>
<td>Seven districts are in the alert threshold and one district is in epidemic threshold</td>
<td>12/05/2017</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Benin</td>
<td>-</td>
<td>09 Feb 2017</td>
<td>419 (13)</td>
<td>39</td>
<td>9.3</td>
<td>Six districts are in the alert threshold and one district is in epidemic threshold</td>
<td>12/05/2017</td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Central African Republic</td>
<td>-</td>
<td>09 Feb 2017</td>
<td>47 (5)</td>
<td>0</td>
<td>0</td>
<td></td>
<td>19/04/2017</td>
</tr>
<tr>
<td>Measles</td>
<td>Guinea</td>
<td>-</td>
<td>08 Feb 2017</td>
<td>5780 (3951)</td>
<td>19</td>
<td>0.3</td>
<td></td>
<td>26/04/2017</td>
</tr>
<tr>
<td>Cholera</td>
<td>Mozambique</td>
<td>-</td>
<td>16 Feb 2017</td>
<td>1400</td>
<td>3</td>
<td>0.2</td>
<td></td>
<td>13/03/2017</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Niger</td>
<td>-</td>
<td>19 Feb 2017</td>
<td>2726 (782)</td>
<td>165</td>
<td>6.1</td>
<td>Two districts are in epidemics: Niamey II and Maradi South. One health district, Filingué, has reached alert threshold. The second batch of 142/051 doses of bivalent A / C vaccine have been received in order to continue reactive vaccination</td>
<td>05/05/2017</td>
</tr>
<tr>
<td>Leishmaniasis</td>
<td>Cameroon</td>
<td>-</td>
<td>20 Feb 2017</td>
<td>48</td>
<td>17</td>
<td>35.4</td>
<td>Deployment of an expert to train people in managing cases and perform active screening in process</td>
<td>30/03/2017</td>
</tr>
<tr>
<td>Lassa fever</td>
<td>Togo</td>
<td>-</td>
<td>24 Feb 2017</td>
<td>12 (7)</td>
<td>4</td>
<td>33</td>
<td></td>
<td>19/03/2017</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Cameroon</td>
<td>-</td>
<td>9 Mar 2017</td>
<td>633(32)</td>
<td>40</td>
<td>6.3</td>
<td>There are 14 districts in alert and 1 in epidemic</td>
<td>02/05/2017</td>
</tr>
<tr>
<td>Lassa fever</td>
<td>Sierra Leone</td>
<td>-</td>
<td>9 (7)</td>
<td>6</td>
<td>6.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthrax</td>
<td>Tanzania</td>
<td>-</td>
<td>11 Mar 2017</td>
<td>i</td>
<td>0</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Malaria</td>
<td>Burundi</td>
<td>-</td>
<td>13 Mar 2017</td>
<td>2,888,252</td>
<td>1329</td>
<td>0.05</td>
<td>Outbreak declared by MOH</td>
<td>30/04/2017</td>
</tr>
<tr>
<td>Cholera</td>
<td>Malawi</td>
<td>-</td>
<td>15 Mar 2017</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td></td>
<td>19/03/2017</td>
</tr>
<tr>
<td>Influenza like illness (H1N1)</td>
<td>Senegal</td>
<td>-</td>
<td>28 Mar 2017</td>
<td>118</td>
<td>3</td>
<td>2.5</td>
<td>Presence of the H1N1 influenza virus has been confirmed in 23/29 samples tested at IPD, Dakar.</td>
<td>10/04/2017</td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Central African Republic</td>
<td>-</td>
<td>15 April 2017</td>
<td>1 (1)</td>
<td>0</td>
<td>0</td>
<td>New confirmed case reported in Mbakki district bordering Likouala province in Congo where an outbreak is ongoing. Previous 5 confirmed cases in February 2017 in Mbomou province.</td>
<td>19/04/2017</td>
</tr>
<tr>
<td>Anthrax</td>
<td>Zimbabwe</td>
<td>-</td>
<td>15 April 2017</td>
<td>14</td>
<td>1</td>
<td>7.1</td>
<td>Detailed update above</td>
<td>25/04/2017</td>
</tr>
<tr>
<td>Anthrax</td>
<td>Guinea</td>
<td>-</td>
<td>16 April 2017</td>
<td>5</td>
<td>1</td>
<td>20</td>
<td>All cases eaten meat from same cow. 37 additional persons being followed up. Indepth investigation ongoing</td>
<td>22/04/2017</td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Sierra Leone</td>
<td>-</td>
<td>17 April 2017</td>
<td>1 (1)</td>
<td>0</td>
<td>0</td>
<td>On 23/04 April 2017, the single confirmed case of Monkey pox was discharged from Pujehun Government Hospital where he had been admitted since 25th March 2017. Outbreak response activities with heightened surveillance will continue for another 42 days from the date of discharge to prevent and promptly detect new cases.</td>
<td>23/04/2017</td>
</tr>
<tr>
<td>Cluster of unknown aetiology</td>
<td>Liberia</td>
<td>-</td>
<td>25 April 2017</td>
<td>31</td>
<td>13</td>
<td>41.9</td>
<td>Preliminary results of samples tested by MSP in France were negative for Ebola virus, Marburg virus Crimean Congo virus and Lassa fever virus. Preliminary results received from CDC, Atlanta showed that 4 out of 16 blood samples isolated Neisseria Meningitidis serotype C.</td>
<td>04/05/2017</td>
</tr>
</tbody>
</table>
### Event

<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Grade</th>
<th>Date of notification to WHO</th>
<th>No. of cases / suspected (confirmed)</th>
<th>No. of deaths</th>
<th>CFR (suspected) / %</th>
<th>Comments</th>
<th>Date of last sitrep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dengue fever</td>
<td>Cote d’Ivoire</td>
<td>-</td>
<td>28/04/2017</td>
<td>34 (6)</td>
<td>0</td>
<td>9</td>
<td>A confirmed case of dengue fever was reported by Institut Pasteur Dakar on April 28, 2017</td>
<td>12/05/2017</td>
</tr>
<tr>
<td>CCHF</td>
<td>Senegal</td>
<td>06 May 2017</td>
<td>2 (2)</td>
<td></td>
<td></td>
<td></td>
<td>Cases arrived in Senegal from Mauritania on 29 April 2017 WHO informed on 09 May</td>
<td></td>
</tr>
<tr>
<td>Ebola Virus Disease</td>
<td>Democratic Republic of Congo</td>
<td>11 May 2017</td>
<td>11(1) 3 273</td>
<td>1 case of EVD confirmed in zone of Likati in the province of Bas-Uele</td>
<td>12 May 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td>South Africa</td>
<td>-</td>
<td>28/04/2017</td>
<td>4484</td>
<td></td>
<td></td>
<td>Limpopo Province reported upsurge in number of reported cases on outbreak start date on week 14, April 2017</td>
<td>10/05/2017</td>
</tr>
</tbody>
</table>

### Humanitarian crisis

<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Grade</th>
<th>Date of notification to WHO</th>
<th>No. of cases / suspected (confirmed)</th>
<th>No. of deaths</th>
<th>CFR (suspected) / %</th>
<th>Comments</th>
<th>Date of last sitrep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanitarian crisis</td>
<td>South Sudan</td>
<td>3</td>
<td>23 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30/04/2017</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Nigeria</td>
<td>3</td>
<td>23 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15/04/2017</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Ethiopia</td>
<td>3</td>
<td>23 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>07/05/2017</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Cameroon</td>
<td>2</td>
<td>23 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Central African Republic</td>
<td>2</td>
<td>23 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food insecurity</td>
<td>South Sudan, Kenya, Uganda, Ethiopia, NE Nigeria</td>
<td>-</td>
<td>23 Feb 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10/05/2017</td>
</tr>
<tr>
<td>Floods</td>
<td>Zimbabwe</td>
<td>-</td>
<td>02 Mar 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>06/04/2017</td>
</tr>
<tr>
<td>Cyclone</td>
<td>Madagascar</td>
<td>-</td>
<td>07 Mar 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11/04/2017</td>
</tr>
</tbody>
</table>

Data is taken from the most recently available situation reports sent to WHO AFRO. Numbers are subject to change as the situations are dynamic.
Data sources
Data is provided by Member States through WHO Country Offices via regular situation reports, teleconferences and email exchanges. Situations are evolving and dynamic therefore numbers stated are subject to change.