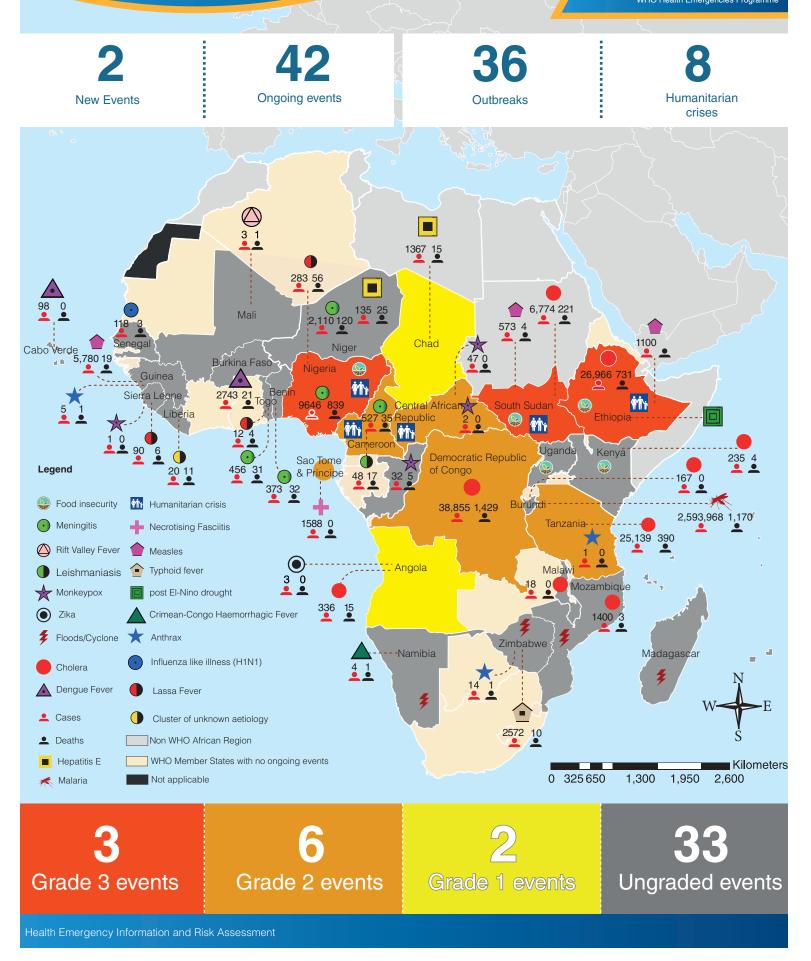
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 17: 22 – 28 April 2017 Data as reported by 17:00 28 April 2017





Overview

Contents

- 1 Overview 2 - 3 New events
- 4 9 Ongoing events
- 10 Summary of major challenges and proposed actions
- 11 All events currently being monitored

- This weekly bulletin focuses on selected public health emergencies occurring in the WHO African region. WHO AFRO is currently monitoring 44 events: three Grade 3, six Grade 2, two Grade 1, and 33 ungraded events.
- This week, two new events have been reported: a cluster of acute illness and sudden deaths of an unknown aetiology in Liberia and outbreak of anthrax in Zimbabwe. 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 outbreaks of meningitis in Nigeria and necrotising cellulitis/fasciitis in Sao Tome and Principe, hepatitis E outbreak in Niger, and the food insecurity crisis in the Horn of Africa.
- 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 report with information on all public health events currently being monitored in the region.
- Major challenges to be addressed include:

1

- The capacity to undertake rapid analytical epidemiology studies as well as appropriate laboratory testing including toxicology in a timely manner in order to determine the aetiology of unknown events.
- The practical operationalization of the 'One Health' concept to all levels of the health system including communities in order to prevent avoidable morbidity and deaths linked to zoonosis.

New events

Cluster of undiagnosed illness and deaths

Liberia

11 55.0% Deaths CFR

Event description

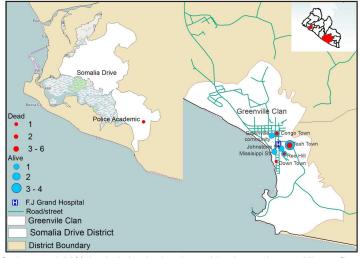
On 25 April 2017, the Liberia Ministry of Health notified WHO of a cluster of acute illness and sudden deaths due to an unknown aetiology in Sinoe county located in the southern region. The event, linked to a funeral function, started on 23 April 2017 when the index case, an 11 year old girl from Teah town, Greenville district developed an acute onset illness. She presented to FJ Grante hospital with diarrhoea, vomiting and mental confusion; and died within one hour of admission. The following day (24 April 2017), the second case-patient, a 51 year old woman from Teah town, Greenville developed sudden onset of vomiting, abdominal pain and confusion. She was admitted to FJ Grante hospital on 25 April 2017 and died the same day. On 25 April 2017 (the third day), a cluster of 13 case-patients from 5 communities in Greenville [Teah town - 6 cases, Congo town - 3 cases, Red hill - 2, Down town - 1, and Johnstone street - 1] developed similar acute onset illness. Seven out of the 13 case-patients died the same day on 25 April 2017.

Between 23 and 27 April 2017, 20 case-patients presenting with similar illness were line-listed, 11 of those died, giving a case fatality rate of 55%. Over 80% (9/11) of the deaths occurred within the first 3 days (between 23 and 25 April 2017). Forty-two percent of the

Geographical distribution of cases of undiagnosed illness and deaths in Liberia, 23 - 28 April 2017.

20

Cases



cases manifested with headache, 37% had vomiting, 27% had confusion, and 26% had abdominal pain and body weakness. Ninety five percent (19/20) of the cases came from Sinoe county. The first case outside Sinoe county (but linked to the funeral) occurred on 27 April 2017 in Montserrado county. Ten of the deaths took place in Sinoe and one in Montserrado. By 28 April 2017, 5 case-patients were admitted in F.J. Grant hospital in stable clinical condition. Fifty two close contacts have been listed and are being followed up on a daily basis for signs and symptoms of the illness.

A total of 20 biological specimens were collected: 7 oral swabs, 7 whole blood, 3 urine, 2 cardiac fluid, and 1 rectal swab. Of these, the 7 oral swabs, 6 whole blood and 2 cardiac fluid tested negative for *Ebola virus*. One whole blood sample is still being tested for Ebola virus. Chemistry analysis on 3 urine specimens has not yielded any significant results. Further laboratory investigations for the pathogens including toxicological testing are ongoing. The first set of 11 samples have been shipped to Atlanta, United States. Another set of samples is being shipped to the WHO Reference Laboratory in South Africa.

Over 95% of the line-listed cases participated in at least one aspect of the funeral rites of the religious leader who reportedly died of a known cause. The aspects of the funeral activities include burial, "repass" and "wake keeping".

Public health actions

- The national and county epidemic preparedness and response committees have been reactivated to coordinate response to the event.
- A multi-disciplinary national rapid response team has been deployed to Sinoe to conduct detailed outbreak investigation and support lower level outbreak response.
- Active case search has been initiated in the affected and surrounding communities. Outbreak case definition has been developed to facilitate active case search among those who attended the funeral functions and others. Investigation and compilation of line list of all cases including systematic identification of contacts are ongoing.
- S Case management of patients currently admitted at the F.J. Grante Hospital is ongoing
- County level advocacy meetings and community engagement have been conducted. The county health team has also embarked on mass public awareness.
- Infection prevention and control interventions have been re-enforced including hand hygiene practices, water points testing and safe burials.

Situation interpretation

An alarming and a rapidly evolving situation unfolded in Liberia, understandably so, coming in the aftermath of the Ebola virus disease outbreak. While the dreaded Ebola virus disease has been ruled out in this event, there is still an urgent need to establish the ultimate aetiology of this cluster of acute illness and sudden deaths. The dramatic evolution of the event with very short course of illness and sudden death, and the clustering of the cases is indicative of a common source exposure to the pathogenic agent. All indications are pointing at the funeral functions of the religious leader. The likelihood of foods, drinks or water poisoning is high and the ongoing toxicology testing will be very critical to provide some answers. The overall risk of spread of the event is lowering with the sharp decline in the number of cases and deaths reported. No new cases and/or death have been reported since 28 April 2017.

The Ministry of Health has requested WHO and CDC to expedite the process of toxicological testing outside the country. WHO is currently supporting the deployment of an experienced pathologist to do autopsy on one dead body that is preserved.

The Government of Liberia and the Ministry of Health is being commended for the swift and effective response to this event, including the early detection and rapid deployment of response teams. The strong collaboration between WHO, CDC and the other partners in dealing with this event should set precedence for future response.

Zimbabwe

1419.1%CasesDeathsCFR

Event description

The Zimbabwe Ministry of Health and Child Care notified WHO on 15 April 2017 of an outbreak of anthrax in Binga district located in Matabeleland North, Zimbabwe. The index case in this outbreak, a 61-year old women from Katyatya 4 village, developed illness on 11 April 2017. She presented to Siansundu rural health centre on 13 April 2017 with clinical features including itchy skin bumps, vesicular blisters, painless ulcer with some black necrotic tissues, and swelling behind the ears. In the subsequent 4 days (14 – 17 April 2017), 8 new cases coming from the same community presented to the local health facility with similar skin lesions and cutaneous swellings. One of the case-patients presented on 15 April 2017 with nausea, loss of appetite, vomiting, fever, abdominal pain and severe diarrhoea, and headache.

The district rapid response team conducted preliminary outbreak investigation from 15 - 17 April 2017, during which biological samples were obtained from the initial case-patients. Nine whole blood samples were collected on the 15 April 2017 and shipped to the National Microbiology Reference Laboratory in Harare on 16 April 2017. Preliminary laboratory results released indicated that *Bacillus anthracis* was isolated, confirming the outbreak.

Between 11 April and 21 April 2017, a total of 14 cases of anthrax including 1 death (case fatality rate of 9.1%) were reported from two communities, namely Siansundu and Binga. A total of 58 close contacts have been identified and are being monitored daily for signs and symptoms.

This anthrax outbreak in humans was preceded by an epizootic in hippopotamus. On 2 April 2017, a community leader reported the deaths of hippos along Mlibizi River in Binga. The National Parks and Wildlife authority confirmed the outbreak of anthrax in hippos on 12 April 2017 when animal samples tested positive for Bacillus anthracis. A total of 14 hippos have been reported dead and it was openly known that the local communities consumed the carcasses.

Geographical distribution of anthrax cases in Zimbabwe, 11 - 21 April 2017.



Public health actions

- A multi-disciplinary district rapid response team conducted a pre-
- liminary outbreak investigation from 15 17 April 2017, following notification of the district health team of the suspected outbreak on 14 April 2017.
- Active surveillance has been established including case search in the affected communities. Close contacts were systematically identified and are being monitored.
- Biological specimens were collected from the suspected case-patients to facilitate confirmation of the outbreak. Samples are being collected from the subsequent new cases.
- Health education has been intensified in the affected communities to dissuade the community members from consuming carcases and encourage those exhibiting signs and symptoms to report to the health facilities.
- Additional essential medicines and other medical commodities have been supplied to the local health facilities where patients are being managed.
- Inspections were conducted in the local butchery from where hippo's meat laced with goat's meat were discovered, confiscated and destroyed.

Situation interpretation

Anthrax is a zoonotic disease that affects a wide range of animal species and humans. The etiological agent, *Bacillus anthracis*, forms long lasting highly resistant spores able to persist in the environment for several decades. The disease is one of the most important zoonotic diseases because of its effects on public health, agriculture, occupational health, environment, and recently biosecurity.

Anthrax was first diagnosed in Zimbabwe in 1898 in the Matabeleland region, where the current outbreak is occurring. The largest recorded outbreak in humans (and possibly the largest among animals) occurred in 1978-1980, during which over 10,000 human cases and 182 human deaths were reported in 6 of the 8 provinces in Zimbabwe. There have been recurrent outbreaks since then, with the latest in 2016 in Lusulu where 8 cases were reported.

During this outbreak, the Ministry of Health was able to promptly detect the human cases through the national surveillance system, deployed a rapid response team within 24 hours and initiated effective response measures. The effective manner in which the Ministry of Health responded to this outbreak may be attributed to the experiences acquired over the past years in managing large outbreaks such as cholera but also previous anthrax outbreaks.

Control of anthrax requires close collaboration and communication between wildlife, veterinary and human health experts under the "One Health Approach". However, the concept of "One Health" needs to be translated and operationalized at the community level where the actual interphase with the ecosystem takes place. To this end, the existing multi-sectoral disease control, zoonotic and integrated rapid response teams need to be revitalized and strengthened in order to rise to the challenge of increasing outbreaks of anthrax.

Ongoing events

Meningitis	Nigeria	9,646 839 8.7% Cases Deaths CFR

Event description

The meningitis outbreak in Nigeria remains severe as the disease continue to affect new communities. During week 16 (week ending 23 April 2017), a total of 1,589 new suspected meningitis cases including 94 deaths (case fatality rate of 5.9%) have been reported. During the reporting week, increasing trends have been observed in 6 states, namely Zamfara, Katsina, Sokoto, Kebbi, Niger, and Yobe; while Ogun state reported meningitis cases for the first time. In week 16 (week ending 23 April 2017), 30 local government areas (LGAs) surpassed the meningitis epidemic threshold of 10 cases per 100,000 populations while 15 LGAs attained the alert threshold of 3 cases per 100,000 populations

As of 26 April 2017, a total of 10,695 cases of meningitis including 919 deaths (case fatality rate of 8.7%) have been reported from 198 LGAs across 23 states. The majority of the reported cases, 47.8%, 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 32 LGAs reached epidemic level at any one point in time.

A total of 717 cerebro-spinal fluid samples were obtained from the case-patients and analysed at the National Reference Laboratory. Bacterial pathogens were identified as the causative agents in 359 samples. Neisseria meningitidis serotype C was predominantly isolated, accounting for 70.2% (252/359) of the bacterial pathogens.

Public health actions

- The Government of Nigeria continues to work with Global Health Ø partners to facilitate increased vaccines, laboratory and other supplies for the ongoing response operations.
- A total of 821,340 doses of meningitis vaccine C has arrived in the Ω country and have been transported to Sokoto state. Training of the vaccination team comprising of ward focal persons, vaccinators, recorders and announcers was concluded by 24 April 2017. The mass vaccination campaign is scheduled to take place from 27 April- 01 May 2017.
- Ø Enhanced meningitis surveillance has been strengthened including data collection and analysis at the ward and LGA levels. Data management guidelines have been developed for timely data collection and cleaning. Weekly feedback is being provided to the affected states based on ward-level epidemiologic analysis
- Θ An advocacy meeting with journalists, health professionals, civil society organizations and other relevant government agencies was conducted from 25 - 27 April 2017.
- 00 Television and radio awareness programmes are ongoing to promote preventive and early health care seeking behavior.
- WHO has released USD 600,000 mostly from its Contingency Fund for Emergencies to support the response.

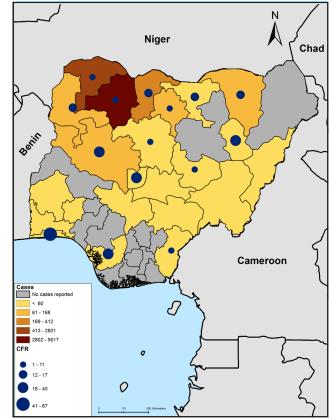
Situation interpretation

The magnitude and complexity of the meningitis outbreak in Nigeria remains a major concern and requires accelerated and concerted efforts from all stakeholders. While much improvement has been made in the response during the last weeks, a lot more still need to be done given the number of states and LGAs affected (30 LGAs in epidemic phase and 15 in alert phase). Increasing trends will be observed in the newly affected states and LGAs where communities are still naïve (unprotected). The meningitis outbreak has also been gradually spreading towards the north east Nigeria that has complex humanitarian situation. One state (Yobe) affected by the humanitarian crisis in north eastern Nigeria is already having meningitis outbreak which is predominantly due to Neisseria meningitidis A serotype. Occurrence of meningitis outbreak within the context of the ongoing humanitarian crisis will more likely have serious consequences.

All components of the response need to be scaled-up in order to achieve early interruption of the outbreak transmission. New states like Kano and Jigawa, though not currently in epidemic phase have shown increasing trend in the last two weeks. The risk of outbreak in these two states is very high as they border the worse affected states. The risk of international spread especially to Niger Republic is also very high as it shares border with a number of LGAs in Sokoto, Katsina, Kebbi, and Yobe states.

The low rate of collection of cerebro-spinal fluid samples from suspected cases, standing at about 7%, and subsequent laboratory analysis to isolate the causative agents need to be addressed. Laboratory confirmation is an integral component of meningitis control as it forms one of the cardinal criteria to secure meningitis vaccines. This is particularly important in newly affected LGAs to ensure that vaccines are obtained timely. The other challenges that need to be addressed urgently include improved coordination of outbreak response operations at the lower levels, timely sharing of data for better decision making and provisions of operational funds to the lower levels.





1,588 0 0% Cases Deaths CFR

Geographical distribution of Necrotizing cellulitis/fasciitis cases

in Sao Tomé & Principe, September 2016 - 23 April 2017

Event description

The outbreak of necrotising cellulitis/fasciitis in São Tome and Principe is still persisting. The steady decline observed since week 9 (week ending 5 March 2017) has stagnated in the last three weeks. During week 16 (week ending 23 April 2017), 32 new cases were reported from 6 districts [Mezochi (11), Agua Grande (7), Caue (1), Cantagalo (9) Lembá (2), and Lobata (2)]. This is almost doubling the caseload of week 14 (week ending 9 April 2017) when 17 cases were registered and higher than the 21 cases registered in week 15 (week ending 16 April 2017). During the reporting week, 34 case-patients were hospitalized in the 7 health facilities in the country.

Since the onset of the outbreak in September 2016 till 23 April 2017, a total of 1,588 cases have been registered in the country. To date, no death has been directly attributed to the disease, however, two patients have had amputations. A slight majority, 57%, of the reported cases were male while older people aged 35 years and above were more effected, constituting over 50% of the total caseload.

All health districts in the country have been affected by the outbreak. The most affected districts are Caue with an attack rate of 25.1/1,000 inhabitants, Lemba with 13.3/1000 inhabitants and Lobata north with 9.2/1000 inhabitants. The least affected health district is Príncipe Island with an attack rate of 3.7/1000 inhabitants. The health district of Principe was also the last to be affected.

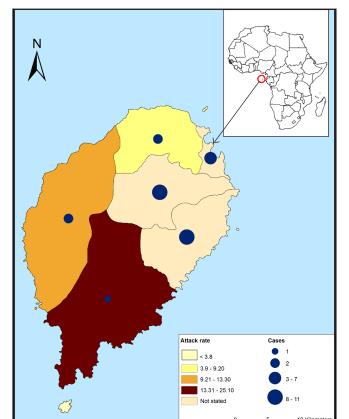
Public health actions

- Regular coordination meetings are being conducted by the Ministry of Health and Partners to plan and monitor implementation of control measures. While the WHO 3-level weekly conference calls are continuing.
- Case management protocol has been adopted by the national clinicians and international experts including WHO, taking into account the available medicines and anti-biogram laboratory results.
- Data collected as part of the case control study is being analysed. Meanwhile, clinical and epidemiological investigations to
- correlate recent laboratory findings on the causative agents are being conducted.
- Key messages for health promotion and preventive measures, particularly in relation to personal hygiene and early health care seeking has been developed and is in the process of validation by the Minister of Health.
- Analysis of resources needs (logistics, human, financial) is being carried out to ensure effective operations.

Situation interpretation

The outbreak of necrotising cellulitis/fasciitis in São Tome and Principe has been protracted since September 2016. The steady decline in the number of new cases observed since the beginning of March 2017 appears to have stopped. This reversal in the decreasing trend could be an indication of slowed control interventions on the ground. The limited availability of clinical, laboratory, epidemiological, and environmental data makes it difficult to better interpret the situation and makes appropriate or evidence-driven decision making.

A range of pathogens have been identified thus far, agreeing with the earlier notion of poly-microbial infections. All these pathogens can be easily treated with antibiotics as long as strict adherence to treatment protocols is observed. There is a need to improve the quality of patients' care through recruiting, training and deploying national physicians. All stakeholders are urged at this point to reinforce the outbreak control operations on the ground in order avoid losing the gains already achieved. All the existing challenges need to be addressed holistically to ensure that this outbreak is finally brought an end.



Hepatitis E Niger	135	25	18.5%
	Cases	Deaths	CFR

Event description

This is an update on the outbreak of hepatitis E notified to WHO by the Republic of Niger on 12 April 2017. In the first two days of week 17 (24 - 25 April 2017), 29 new cases of hepatitis E were reported from three districts [N'Guigmi - 15 cases, Diffa - 12 cases and Maine Soroa - 2 cases]. During week 16 (week ending 23 April 2017), a total of 56 new cases of hepatitis E (with no death) were reported from 5 out of the 6 health districts in Diffa region. Three new health districts (Bosso, Goudoumaria and Maine Soroa) notified hepatitis E cases for the first time in week 16.

Between 9 January and 25 April 2017, a total of 164 cases of hepatitis E including 25 deaths (case fatality rate of 15.2%) have been reported. All the deaths occurred among pregnant mothers and were reported by the Centre Mere-Enfant de Diffa. Majority, 76% (120/164) of the cases reported were female; while 40 cases were refugees. The most affected age group is 15 - 34 years. Five out of the 6 health districts in Diffa region have been affected, with Diffa and N'Guigmi accounting for about 96% of all the cases reported.

A total of 29 samples obtained from the case-patients were analyzed at the Institut Pasteur Dakar, 15 of them tested positive for hepatitis E virus by polymerase chain reaction (PCR). One case of co-infection with hepatitis E virus and Rift Valley fever virus (IgM positive by ELI-SA) was also reported.

Public health actions

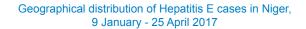
- The Ministry of Health made the IHR notification of the event on Ø 12 April 2017 and the official declaration on 19 April 2017.
- $\mathbf{\Omega}$ MSF is supporting health care facilities in Diffa with medicines and other supplies to provide clinical care to the case-patients. Case management is being provided to the patients free of charge with support from WHO and MSF.
- Ω A multidisciplinary national response team was deployed to Diffa region on 24 April 2017 to support implementation of control interventions.
- Ø Community engagement has been reinforced to promote early care seeking and preventive practices.
- WASH activities is being implemented in the affected communities including promoting personal hygiene and environmental sanitation.
- Ŏ O Cross-border collaboration with the authorities in Chad has been strengthened through regular meetings and information sharing.
- A multi-sectoral contingency plan has been developed and will be used to mobilize the required resources.

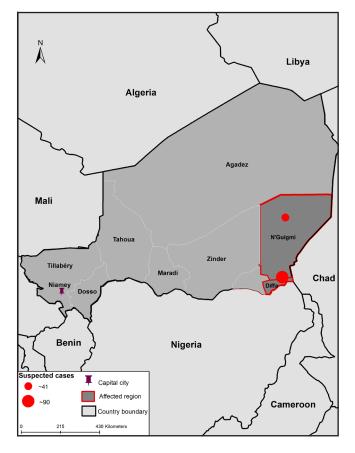
Situation interpretation

The outbreak of hepatitis E in Niger is gradually gaining a foothold as cases continue to emerge in new health districts. The affected region, Diffa, is prone to rapid propagation of the disease due to the prevalent underlying predisposing factors, namely limited access to safe water, inadequate sanitation and poor hygiene practices. The region is also inhabited by vulnerable populations such as refugees and displaced persons who are at a high risk of contracting the disease because of their living conditions. Enhanced implementation of water, sanitation and hygiene (WASH) interventions at this early stage in the evolution of the outbreak is paramount.

The Ministry of Health and the Partners have developed a multi-sector contingency plan estimated at FCFA 683,352,779 to address three main components of the response: health, WASH and communication. The budget for the health component is FCFA 296,627,567. WHO urges all stakeholders including the government, humanitarian partners and donor communities to support the implementation of the contingency plan for rapid containment of the outbreak.

The major gaps to be addressed in response to this outbreak include the need to conduct detailed epidemiologic investigations, strengthening active surveillance for timely case detection and notification, scaling up WASH interventions, and enhancing health education, promotion and community engagement.





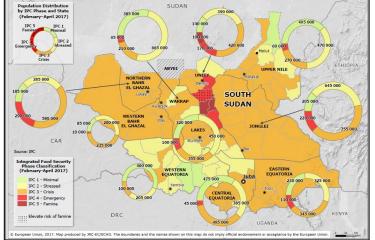
Humanitarian crisis

South Sudan

Event description

The humanitarian crisis in South Sudan has continued to deteriorate due to intensified armed conflicts in several locations, including Jonglei and the Western Bank of River Nile in Upper Nile. The clashes in Jonglei since late February 2017 has displaced an estimated 100,000 people. Humanitarian access has also been constrained as nearly 60 humanitarian workers were evacuated. There is increased need of trauma care while the food insecurity is likely to be exacerbated especially in counties that were already in Integrated Food Security Phase Classification (IPC) phase 4. The clashes in Wau in the second week of April 2017 also left about 17,000 people in need of urgent humanitarian assistance. The total population of internally displaced persons (IDPs) in Wau has increased to nearly 45,000. On the western bank of River Nile in Upper Nile state, an estimated 30,000 IDPs are moving northwards from Panyikang and Kodok to Aburoc and beyond. The Aburoc humanitarian hub that has been providing assistance to IDPs who fled from Wau Shiluk has been evacuated, thus creating a humanitarian vacuum.

The number of internally displaced people in South Sudan are currently estimated at 1.88 million while another 1.74 million have Classification of food insecurity in South Sudan, 21 Febuary 2017



fled to neighbouring countries as refugees. The total number of food insecure people in South Sudan is estimated at 4.9 million. In February 2017, two counties - Leer and Mayendit with a total population of 100,000 people were classified in famine while Koch and Panyijiar were on the brink of sliding into famine (IPC phase 4). As a result, current efforts are focused on delivering adequate and timely humanitarian interventions to reverse the famine and save lives.

In week 17 (week ending 28 April 2017), completeness of weekly reporting for routine surveillance sites was 51% and 75% for the IDP sites. Malaria accounted for 32% and 10% of all consultations in the routine surveillance and IDP sites respectively. Malaria transmission is currently low and within the expected levels countrywide. New cholera outbreaks were confirmed in Yirol West, Mayom, and Fashoda counties. The number of affected counties has increased to 18 in 10 states. As of 28 April 2017, a total of 6,900 cholera cases including 222 deaths (71 facilities and 151 community), with a case fatality rate of 3.2%, have been reported.

During the reporting week, 31 new suspect measles cases were reported countrywide. Since the beginning of 2017, a total of 573 suspect measles cases including 4 deaths (case fatality rate of 0.70%) have been reported from 19 counties. Measles outbreaks have been confirmed in five counties - Wau, Aweil South, Gogrial West, Gogrial East, and Juba counties.

Public health actions

- 00 WHO convened for a meeting for state focal points in Juba from 24 – 27 April 2017 to strategize on its humanitarian operations.
- An inter-agency rapid assessment mission was undertaken in Lainya, Central Equatoria from 24th to 28th April 2017.
- ŏ Interagency mobile and static teams have been deployed in Mayendit Town and Mayendit North to offer lifesaving services starting April 2017
- Ø A rapid response mission by Save the Children and UNIDO South Sudan is in Mayendit North providing basic health care services and routine immunisation to 15,000 people. WHO donated basic health kits to facilitate the mission.
- WHO donated a trauma kits to Wau hospital and IMC in response to the increased trauma care needs in Akobo.
- Ω WHO has donated two cholera investigation kits with WHO technical officers working alongside the Ministry of Health rapid response teams to investigate the new suspect cases.
- \odot Oral cholera vaccination campaign, led by MedAir and supported by WHO and Unicef, is ongoing in Mingkaman IDP camp from 25 April to 2 May 2016, targeting 118,340 people.

Situation interpretation

The humanitarian situation in South Sudan remains critical as clashes continue countrywide with increasing population displacements. The worsening security has constrained humanitarian operations as aid workers are being evacuated from several locations. Nonetheless, humanitarian agencies continue to exploit the available windows of access to deliver lifesaving interventions to populations in need. This has been possible in Lainya, Leer, Mayendit, and other locations affected by cholera. In parts of Jonglei, however, the worsening security situation has led to suspension of food delivery as aid workers were relocated. The food insecurity crisis is likely to deteriorate as the lean season approaches with serious consequences. As the rainy season starts, humanitarian agencies have been urged to preposition medicines and other commodities to optimise response to malaria, cholera, and other diarrhoea diseases during the rainy season.

The case fatality rate in the ongoing cholera outbreak has been high, at 3.2%, mainly in the Islands of the River Nile and cattle camps that lack immediate access to basic healthcare. Mobile clinics, oral rehydration points and cholera treatment centres have been established to facilitate timely initiation of rehydration in affected counties.

WHO is working round the clock to replenish the cholera response kit stock that is currently below critical levels. A review of the public health information team and products is underway. This is aimed to streamline public health information management to optimise support to the crisis response. Rapid Response Teams and supplies are being deployed to support investigation and response to emerging and existing cholera outbreaks.

Nigeria

Event description

The deepening humanitarian crisis in Borno, Yobe and Adamawa, has led to the displacement of 1.8 million people and put more than 6.9 million in need of urgent humanitarian assistance. The displaced persons are seeking assistance both in camps and host communities, increasing also their vulnerability.

Notwithstanding the military counter-offensive by the Nigerian army against Boko Haram, the security situation continues to be unstable and constitutes a challenge for the provision of humanitarian assistance. In late March and early April, there have been several causalities around Maiduguri. Along with suicide bombing, insurgents have entered villages taking goods, kidnapping people and killing civilians. After this wave of causalities around Maiduguri, the number of incidents has now decreased but the situation remains volatile.

Food insecurity remains one of the greatest concerns in the coming months. According to 'Cadre Harmonise' - a consortium of humanitarian organizations, 5.2 million people will be affected by food insecurity between June and August 2017, and more than 50,000 people are expected to experience famine-like conditions. Borno will be the worst affected state.

The uncertainty on the repatriation process and landing sites and the movement of populations across the borders with Cameroon, Niger and Chad indicates the need to have a more regional strategy to support the affected populations and address the multifaceted aspects of this complex emergency.

Public health actions

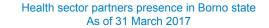
- A retrospective mortality survey has been conducted among the displaced people in Monguno. The results indicate that the mortality rate is just below the emergency threshold. The findings are in line with the surveys conducted by other UN Agencies and international non-mental organizations.
- A cholera preparedness plan has been developed for north eastern Nigeria under the State Ministry of Health with the support from UNICEF and WHO. The training of Rapid Response Team for acute gastroenteritis, cholera surveillance, investigation and water, sanitation and hygiene interventions is ongoing. Nine strategic places have been identified to preposition cholera/ inter-agency diarrhoeal disease kits before the start of the rainy season.
- With the start of the rainy season, the incidence of malaria is expected to increase. To contain the levels of mortality and morbidity, a plan for distribution of rapid diagnostic test kits has been finalised.
- Hard-to-reach teams conducted health and nutrition education sessions with mothers and screened 6,701 children between 6 and 59 months using the mid upper arm circumference (MUAC) measurement in 25 LGAs. Five percent of the children were identified with global acute malnutrition and 1% with severe acute malnutrition.
- In the past weeks, training activities have been conducted on the case management of meningitis and cholera. WHO trained 41 health-care providers to manage the isolation centre for viral haemorrhagic fever at the general hospital in Molai and 148 volunteers on integrated community case management and on preventive community integrated management of childhood illness.
- During the inter-sectoral follow up missions conducted in Ngala and Rann, WASH activities and referral services were identified as the priority areas of interventions.
- The preparedness plan for meningitis has been developed in Borno, Yobe and Adamawa.
- The risk assessment of the meningitis outbreak in Yobe is ongoing. Active case finding in the affected LGAs is ongoing, and three referral health centres have been identified.
- Considering the risk of spread of the hepatitis E epidemic ongoing in Niger to Damask, a field investigation has been planned, but not yet conducted because of security concerns.

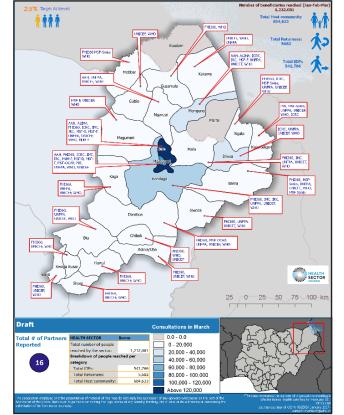
Situation interpretation

Despite the unstable insecurity situation, health partners have been increasingly engaged in the rehabilitation of the health facilities. In order to ensure a greater resilience of the health system, mobile clinics will continue to provide targeted health services to hard-to-reach populations living in insecure wards. Health systems strengthening team is providing support to design operations that save lives and generate resilience.

With the start of the rainy season, the incidence of malaria, acute watery diarrhoea and cholera is expected to increase. Accordingly, health sector partners need to preposition the stocks of medicines and supplies in the areas at highest risk of epidemics and that will be most difficult to reach. The malaria team is scheduled to provide field support in the first week of May 2017.

Considering the projected food security outcomes, humanitarian actors need to continue to scale up their response towards malnutrition, conducting regular nutrition screening and improving the referral system for the treatment of severe malnutrition cases with complications.



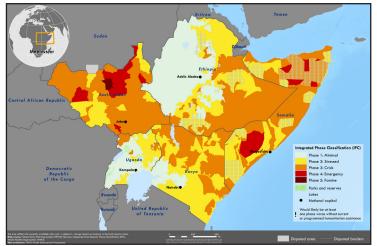


Food insecurity Horn of Africa (Ethiopia, Kenya, South Sudan, and Uganda)

Event description

Severe drought, water shortages and poor sanitation consequent to the post El Nino phenomena precipitated food insecurity and outbreaks of communicable diseases across the Horn of Africa. The situation has been aggravated by insecurity, which continues to shrink the humanitarian space through hindering access by aid workers and health care personnel to the populations in need. The combination of drought and conflict has also triggered mass population movements, displacing people within their own country or forcing them as refugees, increasing the risks of diseases spread.

By April 2017, more than 20 million people in the region were facing crisis or emergency food insecurity levels. The lack of food is leading to a steep increase in severe acute malnutrition rates in the region. Famine is already occurring in parts of Unity State in South Sudan, while the majority of the country faces high levels of food crisis. Large areas of Somalia, south eastern Ethiopia, and north eastern Kenya are also experiencing high food insecurity crisis levels, with areas of Somalia already at emergency levels. The integrated food security phase classification (IPC) projection, Febuary - May 2017



The outbreaks of acute watery diarrhoea/cholera in Somalia, South Sudan, Ethiopia, and Kenya are at risk of rising with the onset of the rainy season. Increasing suspected measles cases has been reported in Somalia, with 5,700 cases so far registered in 2017, more than 3 times higher than the total number of cases reported at the same period in 2016.

Public health actions

- A comprehensive sub-regional response plan is being developed under the leadership and coordination of WHO with active participation of all partners including UNICEF, IOM, OCHA, UNAIDS, UNFPA, WFP, UNHCR, UNDP, MSF, and many others.
- WHO and health partners are extending support to affected communities in the areas of disease surveillance and early warning, increase access to essential health and nutritional services, water and sanitation services, health promotion and education, and case management.
- In Ethiopia, WHO supported deployment of 30 surveillance officers to Somali region to improve case reporting. The polio network has been activated and repurposed to assist in the response.
- In Somalia, WHO supported the Ministry of Health to launch the second round of oral cholera vaccination (OCV) campaign for over 450,000 children and adults in at-risk communities.
- In South Sudan and Ethiopia, surge experts have been deployed to support the famine response and implement the incident management system to support planning, coordination, implementation and monitoring of the emergency response activities.

Situation interpretation

The governments in the Horn of Africa countries and the health partners have prioritized control of acute watery diarrhoea/cholera and measles, improved access to food and safe water, and nutritional treatment for malnourished children. Despite the ongoing interventions, WHO remains concerned that life-saving health interventions are not scaling up as quickly as needed and may not reach those in need in time. Some hindrances include limitations in some countries to share data and information on outbreaks and other public health emergencies, lack of strong financial backing from donor partners, and security challenges that impede access to vulnerable populations in hard-to-reach locations.

A thorough assessment of the entire region of the Horn of Africa is lacking. A risk analysis is currently ongoing, with integration of data from the health, food and nutrition, and water and sanitation (WASH) sectors as well as population movement in affected areas. There is a lack of nutritional data to project the number of medical complication associated with severe malnutrition in the region. WHO is planning an assessment to better understand the situation.

Challenges

- Determining the aetiology of public health events can sometimes be a challenge as seen this week in the new event in Liberia as well as the ongoing necrotizing cellulitis/fasciitis in Sao Tome and Principe. The need to access laboratories for testing a range of potential aetiologies from microbiology to toxicology in a timely manner is essential to be able to respond effectively to outbreaks. Undertaking rapid analytical epidemiology studies in these contexts is also key to developing hypotheses on the possible cause.
- The translation of the 'one health' approach to the community level and ensuring it is operational is critical when it comes to outbreaks of zoonosis. The response to the anthrax outbreak in Zimbabwe demonstrates how critical it is for unexpected clusters of animal deaths to be reported to public health authorities in a timely manner. This would enable preventative measures to be undertaken at an early stage in the community as well as the timely identification and response to any cases in the human populations.
- Availing raw data on public health events to the Regional Office remains a major concern, which prevents the Regional Office and partners, not only to support the response operations based on evidence but also to assess the impact of different interventions. The continued reluctance by some countries to share various data and information on ongoing events make it difficult to ascertain the impact of various public health interventions.

Proposed actions

- WHO AFRO should support WHO Country offices to develop an inventory of laboratories including their capacity in the region that are able to undertake a variety of testing modes on biological specimens.
- WHO country offices should support Ministries of Health to work with animal health counterparts to operationalize the One Health concept to all levels of the health system including the community.

All events currently being monitored by WHO AFRO

Event	Country	Grade	Date of notification to	No. of cases / suspected	No. of	CFR	Comments	Date of last sitrep
	Country	Grade	WHO	(confirmed)	deaths	(suspected) / %	Comments	Date of last shirep
OUTBREAK	1				_	1		
Cholera	DRC	2	1 Jan 2015	38,855	1429	3.7	WHO / UNICEF Teleconference held on April 13, 2017 to evaluate interventions in the affected provinces and revita- lize the response	22/04/2017
Cholera	Tanzania	2	04 April 2015	25,139	390	1.6	8 new cases reported in epi week 16. Temeke municipal council in Dar es Salaam region is the only district on the mainland still reporting suspected cholera cases for the past two consecutive weeks. However, one of the cases was reported from Zanzibar after 38 weeks of zero reporting	24/04/2017
Necrotising cellulitis/ fasciitis	Sao Tome & Principe	2	10 Jan 2017	1588	0	0	Detailed update given above	26/04/2017
Meningitis	Nigeria	2	20 Feb 2017	9646	839	8.7	WHO grading assessment undertaken this week, as- signed grading level 2	25/04/2017
AWD/Cholera	Ethiopia	3	Beginning 2017	26,966	731	2.7	Detailed update given above	20/04/2017
Hepatitis E	Chad	1	1 Sept 2016	1367 (98)	15	1.1	Resumption of chlorination activities with the financial support of WHO. A WASH expert has been deployed to support activities.	16/04/2017
Dengue fever	Cabo Verde	-	4 Jan 2017	98 (19)	0	0	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.	09/03/2017
Cholera	South Sudan	-	Beginning 2017	6,220	13	10	11 new suspected cases between 13/03/2017 – 19/03/2017 from Malanville commune. A total of 40 speci- mens have been tested between 13 March and 12 April. 12 are positive for Neisseria meningitides C and 1 for Streptococcus pneumoniae.	14/04/2017
Measles	South Sudan	-	Beginning 2017	515	4	0.78	Overall downtrend continues. 20 new suspected cases re- ported from Wau, Yambio, Tonj North, Jur River, Nzara and Gogrial West. Laboratory results include 46 measles IgM and 36 rubella IgM confirmations. A measles vaccination campaign is scheduled for 17 – 28 April 2017.	2/04/2017
Meningitis	Niger	-	19 Feb 2017	1767 (570)	115	6.5	A steady increase in cases has been seen since epi week 7. A vaccination campaign was launched by the MOH on 13 April 2017.	14/04/2017
Leishmaniasis	Cameroon	-	20 Feb 2017	48	17	35.4	Deployment of an expert to train people in managing cases and perform active screening in process	30/03/2017
Lassa fever	Togo	-	24 Feb 2017	12 (7)	4	57	No update available	19/03/2017
Meningitis	Cameroon		9 Mar 2017	527(32)	35	36	47 new suspected cases in week 14.	20/04/2017
Lassa fever	Sierra Leone	-		90 (7)	6	6.7 (86)	Late referral of cases from communities to health facilities resulting in high case fatality rate. Community sensitization ongoing. Health workers were sensitized on observing infection prevention and control while managing cases	10/04/2017
Anthrax	Tanzania	-	11 Mar 2017	1	0	-	Investigation undertaken by district team. Laboratory confirmation awaited. 36 contacts developed symptoms	-
Malaria	Burundi	-	13 Mar 2017	2,593,968	1170	0.04	Outbreak declared by MOH	16/04/2017
Cholera	Malawi	-	15 Mar 2017	18	0	0	1 case reported in the last week, CTC set up to manage	19/03/2017
Influenza like illness (H1N1)	Senegal	-	28 Mar 2017	118	3	2.5	cases. Presence of the H1N1 influenza virus has been confirmed in 23/29 samples tested at IPD, Dakar. Surveillance is being strengthened	10/04/2017
Monkeypox	Central Afri- can Republic	-	15 April 2017	1 (1)	0	0	New confirmed case reported in Mbaki district bordering Likouala province in Congo where an outbreak is ongoing. Previous 5 confirmed cases in February 2017 in Mbomou province	19/04/2017
Anthrax	Zimbabwe	-	15 April 2017	14	1	9.1	Detailed update above	
Anthrax	Guinea	-	16 April 2017	5	1	20	All cases eaten meat from same cow. 37 additional per- sons being followed up. Indepth investigation ongoing	22/04/17
Monkeypox	Sierra Leone	-	17 April 2017	1 (1)	0	0	No new cases have been reported	
Cluster of unknown aetiology	Liberia	-	25 April 2017	20	11	55.0	Ebola has been ruled out as the cause of the event. Food, water, and other environmental parameters are being investigated	28/04/2017
EMERGENCIES								
Humanitarian crisis Humanitarian crisis	South Sudan Nigeria	3					Detailed update given above Detailed update given above	24/04/2017 15/04/2017
Humanitarian crisis	Ethiopia	3					Ethiopia's on-going drought, acute water shortages, popu- lation movements(IDPs) and rising malnutrition, increasing the spread of AWD/cholera. The situation has been re-	16/04/2017
Humanitarian crisis	Cameroon	2					graded as an internal WHO level 3 on 20/04/17.	
Humanitarian crisis	Central Afri-	2						
Food insecurity	can Republic South Sudan, Kenya, Ugan- da, Ethiopia, NE Nigeria	-	23 Feb 2017				OCHA and IGAD estimate up to 22.9 million people are food insecure in the Horn of Africa.	
Floods	Zimbabwe	-	02 Mar 2017				The Government of Zimbabwe has declared the flooding situation affecting 36 districts in the country a national disaster, and has appealed for international assistance. They estimate 251 people killed and 128 others injured by various impacts of the floods. An estimated 100,000 people lack access to safe drinking water	
Cyclone	Madagascar	-	07 Mar 2017				Flooding is persisting in the district of Maroantsetra. WHO is strengthening district capacity for coordination of inter- ventions and monitoring of epidemic-prone diseases. US \$1 million allocated by CERF to partners in the health sector for the response to cyclone Enawo.	11/04/2017

Data is taken from the most recently available situation reports sent to WHO AFRO. Numbers are subject to change as the situations are dynamic.

© WHO Regional Office for Africa

This is not an official publication of the World Health Organization.

Correspondence on this publication may be directed to: Dr Benido Impouma Programme Area Manager, Health Information & Risk Assessment WHO Health Emergencies Programme WHO Regional Office for Africa P O Box. 06 Cité du Djoué, Brazzaville, Congo Tel: +4724139773 Email: impoumab@who.int

Requests for permission to reproduce or translate this publication – whether for sale or for non-commercial distribution – should be sent to the same address.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate borderlines for which there may not yet be full agreement.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or its Regional Office for Africa be liable for damages arising from its use.

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. **Editor** Dr. I. Socé Fall

Editorial Board

Dr. B. Impouma, Dr. Z. Yoti, Dr. Y. Ali Ahmed, Dr. F. Nguessan, Dr. M. Djingarey

Contributors

Dr. E. Hamblion, Dr. C. Okot, Ms. C. Machingaidze, Dr. S. Dlamini, Mr. A. Moussongo, Dr. A. Oke, Dr. B. Bonkoungou, Dr. L. Omar, Dr. E. Musa, Dr. N. Nsenga Dr. S. Rajatonirina, Dr. V. Sodjinou, Dr. A. Talisuna, Mr. E. Minkoulou, Mr. T. Mianda, Mr. C. Masaidi and Mr.

Mr. T. Mlanda, Mr. C. Massidi and Mr. S. Zielinski

Please contact Dr. B. Impouma (impoumab@who.int) for any clarifications.