### HIGHLIGHTS

- **3.7 million** in need of health assistance
- **1.8 million** internally displaced persons
- **2.6 million** targeted by the health sector
- **1,799,506** polio vaccinated children

### HEALTH SECTOR

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEALTH SECTOR PARTNERS</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>HEALTH FACILITIES</strong></td>
<td></td>
</tr>
<tr>
<td>Functioning* (of assessed health facilities)</td>
<td>298</td>
</tr>
<tr>
<td>Damaged/burnt/closed</td>
<td>334</td>
</tr>
<tr>
<td><strong>CONSULTATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>Medical consultations**</td>
<td>827,556</td>
</tr>
<tr>
<td><strong>EARLY WARNING &amp; ALERT RESPONSE</strong></td>
<td></td>
</tr>
<tr>
<td>EWARS sentinel sites</td>
<td>160</td>
</tr>
<tr>
<td>Reporting sentinel sites</td>
<td>84</td>
</tr>
<tr>
<td>Total alerts raised***</td>
<td>48</td>
</tr>
<tr>
<td><strong>VACCINATION</strong></td>
<td></td>
</tr>
<tr>
<td>Polio (IPV &amp; OPV****)</td>
<td>1,799,506</td>
</tr>
<tr>
<td><strong>SECTOR FUNDING</strong></td>
<td></td>
</tr>
<tr>
<td>USD funded (13%)</td>
<td>7</td>
</tr>
<tr>
<td>USD requested</td>
<td>53.1</td>
</tr>
</tbody>
</table>

---

* A report of the NE assessment conducted by the Special Duties Unit of the Federal Ministry of Health and the National Health Sector Working Group May 2016

** A cumulative number of medical consultations from IDP camps under the Borno State Surveillance reporting system

*** The number of alerts change from week to week

**** Number of Polio vaccinated children in the Outbreak and Response campaign (IPV Inactivated Polio Vaccine & OPV Oral Polio Vaccine)

---

On 17 November 2016 following harmonization of the data available from the following sources: EWARS, IDP camp surveillance data from SPHCDA, Health sector partners and IDSR, it was concluded that there is an ongoing measles outbreak in Borno State.

The Borno State Ministry of Health is already conducting a reactive vaccination campaign with the support of partners targeting 18 locations/IDP camps. So far, 35,742 children have been vaccinated in six camps.

Children under the age of five are at highest risk of malaria morbidity with up to seven-disease episode per year and of malaria mortality. Malaria mortality is exceedingly high in the presence of concomitant severe acute malnutrition (SAM) which is prevalent at around 20%. The combination of malaria morbidity with SAM is reported to be able to reach case fatality rates of up to 50% as compared with 3% for uncomplicated malaria.

The upcoming measles catch up campaign would be an ideal opportunity to reach the identical target age group for malaria < 15 years also with malaria MDA.
The humanitarian crisis caused by insurgency in Borno State has resulted in more than 1.4 million IDPs living in more than 100 camps freely mingling with a host population of about 4.3 million people. With an estimated population of 2.36 million children between 6 months to 15 years of age, it has led to massive disruption of the health care delivery system with interruption of such services as Routine Immunization (RI), as seen with the polio outbreak, measles and reported suspected diphtheria cases.

As for the reports in measles cases, following the harmonization of the available data from the following sources: Early Warning and Response System (EWARS), IDP camp surveillance data from State Primary Health Care Development Agency (SPHCDA), Health sector partners and Integrated Diseases Surveillance and Response (ISDR), it was concluded that there is an ongoing measles outbreak in Borno State afflicting camp and non-camp populations.

The Borno State Ministry of Health is already conducting a reactive vaccination campaign with the support of partners targeting 18 IDP camps. So far, 35,742 children have been vaccinated in six camps. This campaign however is inadequate to interrupt the transmission of measles across the state, as it does not involve the host communities nor other settlements and IDP camps where measles cases have also been reported. As the BSMOH is expanding the present campaign to include all accessible estimated 2.3 million children aged 6 months – 15 years in the state without prejudice to the national measles campaign, a request for support (including vaccines and logistics) have been communicated to the Federal MoH. This expanded campaign is planned to take place from 27 – 30 November 2016.

The targeted children who did survive the years without RI, did not as well received adequate access to malaria prevention and treatment and are most likely mostly malaria parasite carriers. Therefore, any other infection be it ARI, diarrhoea, or measles, is likely to spark an acute increase in parasitaemia and a concomitant clinical malaria episode among those already parasitized. Children under the age of five are at highest risk of malaria morbidity with up to seven-disease episode per year and of malaria mortality. Malaria mortality is exceedingly high in the presence of concomitant severe acute malnutrition (SAM) which is prevalent at around 20%. The combination of malaria morbidity with SAM is reported to be able to reach case fatality rates of up to 50% as compared with 3% for uncomplicated malaria.

Among the currently reachable target population, it can be expected than children under 15 years be infected with malaria at least once during the ongoing peak transmissions season. If there is no treatment available uncomplicated malaria episodes can be expected to have a 10% case fatality rate, which could rise to 50% among the 20% of children under 5 with and to 30% for the children between five to under 15 years old the untreated association of SAM and malaria. Therefore, a total of 18% of children under 5 or 14% of children between 5 to less than 15 years of age are at are at high risk of dying of malaria between now and the end of this year unless urgent action to alleviate the acute lack of access to antimalarial drugs is taken. It can be expected that adults will have developed semi-immunity in a hyper-endemic area but in face of the widespread prevalence of malnutrition, also among adults, it is recommended to administer one curative dose of antimalarial to all those receiving iron supplementation due to anaemia.

Given the above, WHO and the Global Malaria Programme (GMP) recommends that urgent action be focused on the rapid reduction of malaria mortality among the children under the age of 15, giving first priority to children under the age of five. The upcoming measles catch up campaign would be an ideal opportunity to reach the identical target age group for malaria < 15 also with malaria Mass Drug Administration (MDA). For the 15% of the total population reachable in IDP camps, age-targeted MDA for malaria also could be carried out as a standalone campaign. A written decision in this approach is being awaited from the National Malaria Elimination Programme (NMEP).

Security incidents of the past week indicate the continued fluidity and unpredictability of the general situation in the area. These continued to impact on the humanitarian movements and activities.

Public Health Risks and Needs

Malaria is hyper-endemic in Borno State and transmission is perennial with a seasonal peak of morbidity from September to December and of mortality at the end of high transmission season in December.
There are three major causes for the extreme mortality of malaria in the current context:

- The incidence of severe and complicated malaria is increased in malnourished children, the mortality of which in Borno State hospitals was last reported to be 12%.
- During a bout of acute malaria, children are often nauseous and vomiting whatever food and water intake is available pushing them from Global Acute Malnutrition (GAM) stage into the high-risk group of SAM that requires therapeutic feeding. The average mortality of SAM alone can expected to be between 20 and 30% even in a hospital setting.
- Among the IDP population, the access to free medical care is currently restricted. Therefore, the there is a high risk that an overwhelming majority of malaria and of SAM cases will go untreated. This can be expected to further increase the above mentioned hospital-care-based malaria mortality rates by an estimated factor 2 to 3 times.

Many people do not have free of charge access to life-saving primary healthcare medicines and services, such as emergency obstetric and neonatal care (EmONC) or maternal, neonatal and child health (MNCH) services.

**Surveillance and communicable disease control**

As per **Borno State, routine weekly surveillance reports** from IDPs camps indicate that, malaria, Acute Respiratory Infection (ARI) and watery diarrhea remain the three leading causes of morbidity in the camps. In Epidemiological (Epi) Week 45, a total of 10,780 consultations were recorded from 23 IDP camps: 3,452 for malaria, 2,110 for ARI and 966 for diarrhea accounting for 32%, 19% and 7% respectively. The cumulative number of consultations at camps recorded from Epi Weeks 1 - 45 has reached 827,556.

**Early Warning Alert and Response System (EWARS):** In Epi Week 45, a total of 84 out of 160 reporting sites (including 26 IDP camps) in 13 LGAs submitted their weekly reports. Completeness of reporting was 53% (79 sites) while timeliness was 57% (target 90% and 80% respectively). There is an urgent need to strengthen and institutionalize LGA Rapid Response Teams (RRTs) to improve completeness of reporting and ensure rapid verification of alerts. Forty eight indicator-based alerts were received of which 83% were verified (Target 90%).

- **Measles:** Between Epi Weeks 36 to 45, a total of 1,142 suspected cases of measles were reported from EWARS reporting sites in 13 LGAs. In Epi week 45 alone, 148 suspected cases were reported with 76% of them were aged under 5 years old.

- **Malaria:** Malaria remains the leading cause of morbidity in Epi Week 45 accounting for 48% of all cases reported, followed by Acute Respiratory Infection (ARI) at 10%, Severe Acute Malnutrition (SAM) at 8% and Acute Watery Diarrhea (AWD) at 7%.

- **Acute Watery Diarrhoea (AWD):** In Epi Week 45, a total of 966 cases of acute watery diarrhea were reported from 10 LGAs in Borno State. Maiduguri LGA accounted for the majority of the cases at 26.9%,
while Jere and Konduga LGAs accounted for 17.9% and 14.7% respectively. Sixty seven percent (67%) of all the cases reported were over 5 years and 33% were aged under 5 years. No laboratory confirmed case of cholera was reported.

Weekly trend of AWD cases reported through EWARS in Borno State since Epi Weeks 34 to 45

• **Severe Acute Malnutrition (SAM):** In Epi Week 45, a total of 1,377 cases of Severe Acute Malnutrition and four deaths were reported from 10 LGAs. 95.9% of all the cases reported were under 5 years while only 4.1% were over 5 years. Maiduguri LGA accounted for the majority of the cases at 23.9%, while Monguno and Biu LGAs accounted for 22.7% and 17.7% respectively.

Weekly trend of SAM cases reported through the EWARS in Borno State from Epi Weeks 34 to 45

**Health Sector Coordination**

The Borno State Ministry of Health called an ad-hoc meeting on Friday 17th November 2016 to have an overview of the suspected measles outbreaks and a common understanding and recommendations to the State and Federal Governments of Nigeria. In attendance were State Ministry of Health, Nigeria Centre for Disease Control (NCDC), the African Field Epidemiology Network (AFENET), World Health Organization, University of Maryland Baltimore and the Health Sector partner’s representatives. Following harmonization of the data available from the following sources: EWARS, IDP camp surveillance data from SPHCDA, Health sector partners and IDSR, it was unanimously agreed that there is an ongoing measles outbreak in Borno State afflicting camp and non-camp populations.

The Mental Health and Psycho Social Support (MHPSS) working group is being constituted to provide technical guidance to the set up and delivery of MHPSS services to conflict affected communities in a responsive, accountable and coordinated manner. The composite term Mental Health and Psychosocial Support is used to describe any type of local or outside support that aims to protect and/or promote the psychosocial well-being and/or prevent or treat mental disorder. The Ministry of Health will serve as a chair of the group, co-chaired by IOM. Participating organizations may be required to host the meeting and share secretarial duties on a rotational basis to ensure shared responsibility. The MHPSS Working Group will be a sub-sector working group that falls within the Health Sector coordination mechanism.
Membership of the reference group is open to UN agencies, relevant government institutions, and NGOs with technical expertise in the field of MHPSS and those involved in the delivery of MHPSS services/interventions as part of the humanitarian response in North East Nigeria. For further information and meetings scheduled please contact Pauline Birot (PBIROT@iom.int) MHPSS IOM Project Officer.

**Health Sector Action**

The Borno State Ministry of Health and partners are conducting a reactive vaccination campaign targeting 18 IDP camps. During this week, in Bakassi camp, 11,506 were vaccinated from a target population of 9,586 (120% coverage). In Farm Centre camp, 5,768 were vaccinated from a target population of 5,392 (107% coverage). Since the beginning of the campaign, 35,742 children have been vaccinated in six camps.

This campaign however is inadequate to interrupt the transmission of measles across the state, as it does not involve the host communities nor other settlements and IDP camps where measles cases also been are reported. The Borno State Ministry of Health is expanding the present campaign to include all accessible estimated 2.3 million children aged 6 months – 15 years in the state without prejudice to the national measles campaign. This expanded campaign will take place from 27 – 30 November 2016.

**WHO** six newly trained Hard to Reach Teams (HTR) have been engaged in the measles outbreak response vaccination in IDP camps around Maiduguri metropolis. These teams will be deployed to the recently liberated LGAs next week. In addition, WHO selected 70 Community Resource Persons (CORPS) and their training will commence in the coming days.

An Interagency Emergency Health Kit (IEHK) was delivered to Premiere Urgence Internationale (PUi) as a jump start their activities at the Primary Health Center in Bolori II (estimated catchment population is over 100,000 including IDPs). This WHO donated kit contains essential medicines and medical supplies to treat the essential health needs of 10,000 people for three months.

A visit to State Specialist Hospital was made on 16/11/2016; a recipient of two IEHK, to discuss post exposure prophylaxis (PEP) standard operating procedures and protocols based on national and state HIV guidelines. After consulting with the technical experts and the national guidelines it was established that PEP with two components (zidovudine + lamivudine, as contained in the PEP modules) is not obsolete, except is cases of sexual assault.

WHO planning for the integration of the proposed MDA of Artesunate/Amodiaquine (ASAQ) with the upcoming state level measles mass vaccination campaign is on going. 854,100 doses of ASAQ to be used have been procured and being shipped. Mobilization of malaria commodities from other programs and projects within the country is currently on going.

IRC has opened up two new outreach sites (Kulollori community in MMC and Gobe da Nisa in Jere LGA) this week; the teams provide Integrated PHC services. About 500 medical consultations were done and children under five years of age with Severe Acute Malnutrition were admitted into the Outpatient Therapeutic Program (OTP). Five children with SAM and medical complications were admitted in the stabilization centre for management.

**Mental Health and Psychosocial Support**

IOM: The MHPSS resource centres in Dalori II, Gubio, Bakassi and Teacher's Village are now fully operational and in use by beneficiaries. Activities include counselling, group support, livelihood and recreational activities. The resource centres also aim to be an access point for IDPs seeking specialized services. 241 individuals benefited from specialized mental health services in the newly accessible areas of Bama, Dikwa, Banki and Gwoza. Most common diagnosis included depression, anxiety, schizophrenia, and post-traumatic stress disorder. Patients with mental disabilities were also identified. In Maiduguri, six new cases were identified and supported for specialized mental health services. In Yola, 10 patients were supported with specialized mental health services.
WHO procured 30 inpatient kits for the management of severe acute malnutrition (SAM) with complications have arrived in Abuja and will be delivered at Maiduguri the coming days. Some of the hospitals with stabilization centers (SCs) have already been identified for the delivery of kits. Contacts with relevant government department focal points and I/NGOs are ongoing for the distribution of the kits.

A November report from MSF, which provides information on the emergency in Borno State, shows that at the beginning of September 2016, the rate of severe acute malnutrition, SAM, which stood above the five per cent threshold was recorded among children below age five. However, the intervention programmes put in place to check the emergency resulted in a rapid stabilization of the situation in 10 weeks. The programmes consisted mainly of adequate food distribution and regular provision of medical aid. (http://www.vanguardngr.com/2016/11/bornos-idcs-severe-malnutrition-drops-emergency-level-msf/)

Gaps in response:

- The number of health implementing partners in the sector is very limited to respond the increasing accessible population.
- Humanitarian assistance in hard to reach areas remains largely insufficient, access to humanitarian actors should be facilitated to upgrade the level of emergency aid.
- There is a real lack of skilled and appropriately trained health staff and health facilities critically are in need of medical equipment and supplies.
- The poor state of water and sanitation infrastructures affect negatively the existing health system delivery.

Resource mobilization:

The OCHA Financial Tracking System (https://ftsbeta.unocha.org/content/about-fts-what-fts) shows the Health Sector 2016 Humanitarian Response Plan (as 20 November 2016) only 13.3% funded; this well below the level required to address unmet health needs amongst IDPs and host communities.

Health Sector Partners

- Federal Ministry of Health and Borno State Ministry of Health
- UN Agencies: IOM, UNFPA, UNICEF, WHO

For more information, please contact:

**Dr. Abubakar Hassan**
Permanent Secretary Borno State Ministry of Health  
Email: abubakarhassan60@gmail.com  
Mobile +2340805795680

**Dr. Jorge Martinez**
Health Sector Coordinator  
Email: martinezj@who.int  
Mobile +23408131736262

**Mr. Muhammad Shafiq**
Technical Officer  
Email: shafiqm@who.int  
Mobile +2340

Health sector updates and reports are now available at http://who.int/health-cluster/news-and-events/news/en

---

2. Amy L. Rice,1 Lisa Sacco,2 Adrian Hyder,3 & Robert E. Black4 Malnutrition as an underlying cause of childhood deaths associated with infectious diseases in developing countries Bulletin of the World Health Organization, 2000, 78 (10)
4. Gellert S1, Hassan BY, Meleh S, Hiesgen G. Malaria Prevalence and Outcome in the In-patients of the Paediatric Department of the State Specialists Hospital (SSH), Maiduguri, Nigeria J Trop Paediatric (1998) 44 (2): 109-113