KEY HIGHLIGHTS

- Forty-five healthcare facilities are affected. These include nine health facilities severely damaged, 14 moderately damaged and 22 mildly damaged.
- Public Health Emergency Operation Centre (PHEOC) / Surveillance unit has activated the Event Based Surveillance (EBS) hotline at the health command post. The number is 08114100806.
- As of 18th October 2018, 5 out of 16 PHCs from Donggala, 2 of 19 PHCs from Sigi and 5 of 13 PHCs from Kota Palu reported Early Warning Alert and Response System (EWARS).
- Six reproductive health tents have been established by the reproductive health sub-cluster and are offering life-saving delivery, ante-natal, post-natal and family planning services and information in Palu.
- Measles-Rubela (MR) campaign is ongoing in the three affected districts with additional focus on the IDP camps. During 16-18 October 2018, 507 children aged 9 months to 15 years have been vaccinated against measles and rubella under MR campaign in Donggala and Palu.
- 92 out of the 344 registered patients on Antiretroviral (ARV) therapy, including 9 children, have now accessed ARV treatment following the disaster, either through the hospital network or through the mobile ARV response team.
- Five hundred health workers have been trained to care for children with severe acute malnutrition.

SITUATION OVERVIEW

- A 7.7 magnitude earthquake and its aftershocks, tsunami, and subsequent liquefaction and landslides have severely affected Donggala, Palu municipality, Sigi and Parigi Mountong Central Sulawesi. Electricity, communication and accessibility have improved.
- To date, 2100 deaths, 4612 severely injured, 9642 mild injuries and 686 missing persons are recorded. There are currently 87752 displaced people at 147 camp sites. Public kitchens are operational in IDP camps.
- Forty-five healthcare facilities are affected:
  - Nine health facilities severely damaged: Anantapura hospital Palu, Birobuli PHC, Petobo sub health centre in Palu, Baluase PHC and Biromaru PHC Sigi, Delatope PHC, Toaya PHC and Tompe PHC and Loli Pesua community village in Donggala.
  - Fourteen health facilities moderately damaged: three PHCs in Palu, five PHCs in Sigi and two PHCs, two sub PHCs and two community health posts in Donggala.
  - Twenty health facilities are mildly damaged: seven PHCs and one Sub health centre (Pustu) in Palu, seven PHCs in Sigi, five PHCs in Donggala and two community health post in Donggala.
PUBLIC HEALTH CONCERNS

- There is an increased risk of communicable diseases among displaced people living in IDP camps. Increased numbers of diarrhea cases and acute respiratory infection have been observed. Varicella, malaria and dengue suspected cases are reported. Incoming rainy seasons will increase the risk of vector-borne diseases such as dengue.
- Current ongoing Measles Rubella (MR) vaccination campaign has coverage rates of 48.5% and 75.14% in Palu and Donggala respectively with no significant progress made since the disaster.
- While Palu and Sigi are malaria free, there were low rates of malaria transmission in Donggala, Parigi Moutong and Mamuju Utara (Pasang Kayu) before the disaster. However, the tsunami has created new mosquito breeding grounds of brackish water; this, coupled with the movement of people and poor living conditions especially in displacement sites, means there is a high risk of an outbreak of malaria.
- Mobile clinics reported more suspected TB cases with bloody cough that need further diagnosis and treatment.
- Referral hospitals for infectious diseases management, including isolation room need improvement.
- A high number of cases of hypertension and diabetes have been reported during post-disaster. Continuous treatments for hypertension and diabetes cases are also a concern.
- The nutrition status in Central Sulawesi Province was poor before this emergency. Inappropriate breastfeeding and complementary feeding practices are ubiquitous. Damage to health infrastructure, lack of medical staff and lack of medical supplies and essential medication after the earthquake has worsened the situation, with children the most vulnerable to health concerns including malnutrition.
- The number of people living with HIV in Central Sulawesi is estimated at 1900, however as testing coverage is low in Indonesia the actual number may be higher. Antiretroviral (ARV) treatment coverage is low, out of the estimated number of people living with HIV (PLWHIV) only 300 are known to be on ARV.

RESPONSE

EPIDEMIOLOGICAL SUMMARY

- Early Warning Alert and Response System (EWARS) surveillance reporting has improved compared to the initial days of the emergency response. As of 18 October 2018, five out of 16 PHCs from Donggala (PHC Tambu, PHC Ogoomas, PHC Balukang, PHC Lalindu, PHC Wani), two of 19 PHCs from Sigi (PHC Tinggede and PHC Nokilalaki) and five of 13 PHCs from Kota Palu (PHC Kamonji, PHC Bulili, PHC Sangurara, PHC Mabelopura, PHC Tipo) reported EWARS. The completeness and timeliness of EWARS from Palu, Donggala and Sigi remain low.
- Most cases reported from health facilities are acute diarrhea, typhoid fever, and pneumonia. During the period 4 - 16 October 2018, increased numbers of acute diarrhea and acute respiratory infection were observed. Other diseases reported are influenza like illness (ILI), injury, pneumonia, diabetes, hypertension, acute bloody diarrhea, mental health and skin diseases. Donggala district reported highest cases of acute diarrhea and acute respiratory infection, followed by Palu municipality and Sigi.
- Hypertension cases are mostly reported from Palu municipality, followed by Donggala and Sigi district, while most diabetes cases are reported from Palu municipalities. Injuries and skin diseases are mostly reported from Donggala.
- Field Epidemiology Training Programme (FETP) students are mobilized to support surveillance officers for field investigation of increasing cases of diarrhea and pneumonia at Tompe PHC, diarrhea cases at Taweli PHC, reported suspect malaria case at Batusuya PHC, suspect dengue case at Delatope PHC. PHO conducted verification of reported suspect varicella cases from Pantoloan PHC (five cases), Taweli PHC (three cases) and three cases of suspect varicella from Mabelopura PHC, Bulili PHC and Biromaru PHC.
- Field investigation of three suspect measles cases found those suspects are not from IDP camps and no additional cases were found. All three patients’ conditions have improved. PHC continuous surveillance and monitoring of any additional cases, especially during two incubation period.
Situation Report #09 Sulawesi Earthquake and Tsunami, Indonesia

Legend

PHC condition
- Severe damage
- Moderate damage
- Mild damage

Source: Ministry of Health. PHC = Primary Health Center
HEALTH OPERATIONS AND LOGISTICS

- Rapid health assessment data on health facilities has been compiled and mapped across four districts.
- 80% of healthcare facilities including eleven hospitals and primary health centers in Palu are operational. Medical services at Undata hospital are operational in hospital premises.
- Ten Emergency Medical Teams (EMTs) from Muhammadiyah Medical Centre (MDMCs) are operational at ten locations. Up to date, 3622 patients have been treated.
- MoH has delivered 1200 body bags, two tons of medicines, 2.35 tons of anti-tetanus (ATS) serum, 4250 surgical masks, 150 kg liquid disinfectant, 5000 disinfectant tablets, 5 unit spray cans, 18 tents, 3.3 tons of complementary food for pregnant women, 4 tons of complementary food for children, 3500 polybags, 950 medical waste polybags, 1728 repellants, 50 kits food handlers, 216 surgical gloves, environmental health equipment, 5000 hygiene kits, 1000 pregnant kits, 1000 post-delivery kits, 1000 newborn baby kits, 50 midwifery kits, 200 elderly kits, 20 units reproductive health tents, 5820 risk communication materials (leaflets, banners, posters), and four sets of oxygen concentrators. UNFPA delivered 50 kits, 2400 post-delivery kits, 170 newborn baby kits. Indonesia Red Cross delivered 700 body bags.
- IDP location will be coordinated as per standard camp management and this will go along with the plan to build temporary housing. Health services need to monitor IDP location mapping to ensure access to health.
- UNFPA in collaboration with WHO is supporting technical assistance including mapping of population affected by disasters and public health facilities damaged; mapping of health services and hospital capacity/facilities in affected areas; mapping of damaged public health facilities, PHCs and sub-primary health care (Pustu) per district; and other related health cluster actions.

Mental Health

- WHO supported Mental Health and Psychosocial Support teams have been mobilized serving in 4 primary care centres; with plans to expand to the IDPs.
- Pulih Foundation from the University of Indonesia has conducted training for volunteers on psychosocial education and Psychological First Aid (PFA).
- Four psychiatrists and clinical psychologists from Central Sulawesi and six from University Indonesia crisis centre are on the ground to support psychoeducation and PFA.
- Mental health and psychosocial support (MPHSS) sub cluster works with local radio to broadcast the psychological education and inform the MPHSS posts to those in need. Psycho education live via Nebula radio station was aired in the evening 18 Oct 2018.
Environmental Health

- WHO supported MoH to develop technical guideline for emergency treatment of drinking water at the point of use and technical guideline for disinfection for water tanker.
- Some intervention related to environmental health has been made including disinfection spraying of liquefaction areas in Petobo and Balaroa. MoH conducted disinfection at six hospitals (five in Palu and one in Sigi).

Diseases surveillance and vector control

- Public Health Emergency Operation Centre (PHEOC) / Surveillance unit has activated Event Based Surveillance (EBS) hotline 08114100806 at health command post.
- Field Epidemiology Training Programme (FETP) students continue to support surveillance at primary health centres and conduct field investigation and closely monitoring of diseases related to compromised water and sanitation situation in IDP camps.
- FETP trains surveillance officers for weekly surveillance and District Health Information System (DHIS).
- Vector control has been conducted in the Tompe PHC working area and PHO is planning to conduct vector control in other high risk areas as priority.
- UNICEF malaria unit in collaboration with WHO will support MoH and Central Sulawesi PHO on vector borne disease (especially malaria) risk assessment and risk control, including Long Lasting Insecticide Treated Nets (LLITN) distribution. Estimation of 100,000 populations will be protected by LLITNs.

Reproductive health

- Three hospitals (Wirabuana, Aljufri, and Tolabero) are providing a full spectrum of services including antenatal care delivered by midwives as well as emergency obstetric care. Midwives and other health personnel have been deployed to ensure provision of basic sexual and reproductive health services in affected areas.
- UNFPA, in collaboration with WHO, provided technical assistance to the reproductive health (RH) sub cluster and the health cluster on data collection and management including GIS and orientation on the use of KoboCollect applications.
- Six reproductive health tents established, offering life-saving delivery, ante-natal, post-natal and family planning services and information. A total of 255 women were provided with ante- and post natal care.
• RH Sub cluster members oriented 7 health personnel on minimum initial service package for RH in crisis settings and provided psychosocial support to 23 front line health workers to ensure their wellbeing.

• UNFPA and its partners distributed a total of 127 newborn baby kits; 65 pregnant women kits; and 129 post partum kits.

• A mobile Antiretroviral (ARV) response team has now been established. The team consists of five members from civil society organisations. Responsibilities include: contact tracing of community members registered as taking ARVs, distribution of emergency supplies including medications and basic supplies, monitoring ARV supplies in local hospitals and primary health centers, and the establishment of a command post/information and support centre for PLHIV and their families. Some patients registered as requiring ARVs who live in outlying areas have still not been able to be reached.

• Local stocks of ARV in the region remain sufficient and adequate, emergency supplies from Jakarta have not been required to be shipped as yet.

• Indonesia AIDS coalition continues assessments, outreach, psychosocial support and ARV for people living with AIDS. Of the 344 people, including nine children, registered as taking ARV’s prior to the disaster, 92 people have now accessed antiretroviral (ARV) treatment post the disaster, either through the hospital network or the mobile ARV response team.

Immunization

• WHO supported MoH and PHO to complete micro planning for MR and other EPI routine and to integrate other units (vaccine preventable diseases), heath promotion, mental health targeting IDPs in Palu.

• WHO and UNICEF Expanded Programme of Immunization (EPI) unit is supporting MOH and Central Sulawesi PHO, in resuming the MR campaign that was put on hold due to the disasters affecting the four districts, and support the cold chain equipment replacement (solar refrigerators, vaccine carriers, cold boxes, and temperature monitoring devices).

• Measles-Rubela (MR) campaign is ongoing in three affected districts with additional focus on the IDP camps. Since 16-18 October 2018, 507 children aged between 9 months to 15 years have been vaccinated against measles and rubella under MR campaign in Donggala (306 children) and Palu (201 children). MR campaign at Petobo IDPs camp will be conducted on 20th and 23rd Oct 2018.

• Risk communication will be integrated with mobile clinic and programme intervention implementation in the field, such as MR campaign.

Nutrition

• WHO in collaboration with UNICEF maternal and child unit is supporting MOH and Central Sulawesi PHO for improving nutrition as part of response. These include:
  - Increasing capacity of key health personnel in from hospitals, health centers, and NGOs especially focusing on child health and management of Severe Acute Malnutrition (SAM) among displaced people, referring to Integrated Management of Acute Malnutrition (IMAM) guidance and Integrated Management of Childhood Illness (IMCI) standard.
  - Strengthening nutrition sector coordination and partner’s engagement within and across the sectors and enhancing accountability to the affected population.
  - Strengthening nutrition surveillance and screening systems to monitor the nutrition situation including monitoring and analysis of the nutrition situation. These include Mid-Upper Arm Circumference (MUAC) screening in selected sites/health facilities for both children and pregnant mother.
  - Strengthening implementation of Infant and Young Child Feeding (IYCF) programming include:
    - Issuance of circular letter from MoH on formula donations and the use of formula
    - Establishment of 10 public kitchen to cater food for infant and young children supported by NGOs and government
    - Infant and Young Children counselling take place in selected sites
- Support provision of quality care for treatment and management of acute malnutrition include referral of severely acute malnourished (severe wasted) children to facility based Therapeutic Feeding Centre.
- Optimize blanket supplementary feeding (PMT) and enhance coverage of micronutrient deficiency control. These include distribution of fortified biscuits to under-five children and pregnant mother.
- Five hundred health workers were trained to be able to care children with severe acute malnutrition.
- MoH conducted risk communication activities among IDPs for nutrition intake.

**COORDINATION**

- National Disaster Agency conducted early recovery coordination meeting on 19 October 2018.
- Central Sulawesi PHO has coordinated health cluster. Donggala and Sigi has activated health cluster.
- Routine sub cluster meeting led by MoH in Palu, participated by different sectors including Ministry of Social Affair (MoSA), National Disaster Agency, Health (reproductive health, Water sanitation), NGOs, Academician, Professional Organization and UN. Nutrition working group established for daily updates and discussions.

**GAPS AND CHALLENGES**

- Transport media for stool specimen is not available in Palu. Monitoring sample collection for outbreak detection is needed.
- Isolation room at hospitals for infectious diseases patients, including MDR TB is not yet available.
- MoH indicated additional medical resources would be needed during the coming weeks including medical doctors, specialists (obstetric and gynaecologist, paediatricians, anaesthetists, and surgeons), psychiatrist, psychologist, nurses, midwives, radiographer, environmental health officers and nutritionist.
- ARV data between the district health office, hospitals and ARV mobile health team needs to be synchronized.
- There is still no information yet regarding the number of PLHIV who have died. Cross-checking between PLHIV registration and the total deaths need to be conducted.
- Insufficient skills and knowledge of health personnel to respond to basic reproductive health needs of the affected population remains a gap.
- Rapid Diagnostic Tests (RDTs) for dengue and leptospirosis are not available. Although RDT for malaria are available in primary health center, the number of tests may not be adequate.
- Health workers have experienced trauma and are in need of psychological first aid and psychological support service (PSS), many have left the area. The head of IBI (midwifery association) reports that up to 30% of midwives are not able to work due to trauma.

**HEALTH CLUSTER AND WHO RESPONSE**

- WHO personnel are continuously supporting health cluster coordination and response. One field coordinator and MR campaign personnel are on-ground to support coordination for response. These include EMTs coordination, health response mapping, health facility mapping, surveillance, risk assessment, water and sanitation situation, mental health and immunization.
- Health partners continue to support response in the field. These include EMTs, water sanitation, ARV, reproductive health, support for disability, risk communication and immunization including MR campaign.

**FUNDING**

- UN Central Emergency reserve funds (CERF) has been approved. WHO developed response plan to implement USD 0.9 million to support health cluster response. WHO response will focus on restoring EWARS in 22 primary health centers, strengthening health cluster coordination, mobilization of FETP students from universities to support surveillance during outbreak, vector control, and collaboration with professional associations in supporting mental health.
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