WHO Philippines Response to Typhoon Haiyan (Yolanda): the first six months

May 2014
**List of Acronyms**

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<tr>
<td>DOH</td>
<td>Philippine Department of Health</td>
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<tr>
<td>EINC</td>
<td>Essential Intrapartum and Newborn Care</td>
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<td>ERF</td>
<td>Emergency Response Framework</td>
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<td>ESR</td>
<td>Event-based Surveillance and Response</td>
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<td>IEC</td>
<td>Information, Education and Communication</td>
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<td>MDR</td>
<td>multi-drug resistant</td>
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<td>mhGAP</td>
<td>Mental Health Global Action Program</td>
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<td>MHPSS</td>
<td>Mental Health and Psychosocial Support</td>
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<td>NBI</td>
<td>National Bureau of Investigations</td>
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<td>NCR</td>
<td>National Capital Region</td>
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<td>NDRRMC</td>
<td>National Disaster Risk Reduction and Management Council</td>
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<td>NGO</td>
<td>Non-governmental Organization</td>
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<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<td>ORI</td>
<td>Outbreak Response Immunization</td>
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<td>PIDSR</td>
<td>Philippine Integrated Disease Surveillance and Response System</td>
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<td>RDT</td>
<td>Rapid Diagnostic Tests</td>
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<td>SOP</td>
<td>Standard Operating Procedures</td>
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<td>SPEED</td>
<td>Surveillance in Post Extreme Emergencies and Disasters</td>
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<td>STOP</td>
<td>Stop Transmission of Polio</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>UNRC</td>
<td>UN Resident Coordinator</td>
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<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Summary

Super typhoon Haiyan (locally known as ‘Yolanda’) struck the Philippines on 8 November 2013. With maximum winds of 230 km/hour reaching 315 km/hour at some points, it had devastating effects, causing destruction across the Central Philippines. According to the Philippine National Disaster Risk Reduction and Management Council, at the peak of the event 4.4 million people were displaced and 1,551 evacuation centres were housing 398,377 people.

In response to Typhoon Haiyan, the World Health Organization (WHO) received aid from a number of donors to provide essential and emergency healthcare to the affected populations. Contributions were received from the Governments of Australia, Canada, Japan, Kuwait, Monaco, Norway, the Republic of Korea, the Russian Federation and the United Kingdom. Funding was also received from the Central Emergency Response Fund of the United Nations and from the Japan Private Kindergarten Association along with staff from the WHO Non-governmental Organization Consortium and members of the Global Outbreak Alert and Response Network.

With the help of these donors WHO has been able to:

- Meet the immediate healthcare needs of the people in the affected areas, especially for obstetric and neo-natal care, trauma care, mental health and psychosocial support, chronic conditions and infectious diseases.
- Strengthen the alert and surveillance capability in order to contain potential disease outbreaks.

All these activities have been in support of the Philippine Department of Health (DOH) and tailored to strengthen local capacity. All necessary steps have been taken to avoid duplication of services and ensure equitable access for all beneficiaries to services across the implementation area. Care has been taken to coordinate and integrate health care with other services and clusters on issues such as protection and gender.

As of April 11, 2014 it is reported by the Government of Philippines that there are:

- Over 16 million affected
- 4.1 million displaced
- 28,689 injured
- 6,283 dead
- 1,061 missing

While emergency healthcare activities are on-going in the three most affected regions of the country, the WHO has also begun the longer term rehabilitation of health services for the affected populations and to strengthen provision in priority areas such as psychosocial support.

WHO’s Immediate Response to Typhoon Haiyan

WHO Philippines worked to prepare for a rapid response before Typhoon Haiyan struck. On 6 November 2013, the WHO Representative, as acting UN Resident Coordinator, attended the National Disaster Risk Reduction and Management Council (NDRRMC) meeting alongside the heads of all key operational agencies of the government, UN agencies and humanitarian agencies active in the Philippines. The meeting reviewed the preparations for Typhoon Haiyan and the roles of the participating agencies. The WHO Representative, as acting UN Resident Coordinator, sent a letter to the Secretary of National Defense offering UN support in preparedness efforts. The WHO Representative also formally offered WHO’s full support to the DOH for the Government’s preparedness efforts.
WHO worked with DOH to ensure there was a rapid assessment of response capacities within the country, including assessment of vaccine status, health facilities and public health risks. WHO ensured the pre-positioning of existing stock and ordered urgent supplies from local and international sources.

Within 72 hours of the typhoon striking, the first Health Cluster coordination meeting was held, chaired by the WHO Representative. The Government of the Philippines declared a national state of calamity on 11th November 2013, in the provinces of Samar, Leyte, Cebu, Iloilo, Capiz, Aklan and Palawan. Local governments of the municipalities of Dumangas and Janiuay in Iloilo province, as well as the provinces of Antique and Bacolod also announced a ‘state of calamity’.

In light of the scale and complexity of the emergency, WHO categorized the response to Typhoon Haiyan as a Grade 3, the highest internal emergency category and mobilized organization-wide support for the country. Emergency operation centres across the three levels of the organization were activated. The WHO Philippines country office established its Emergency Management Team, while Emergency Support Teams were organized in the Western Pacific Regional Office and at WHO Headquarters.

Following WHO’s Emergency Response Framework (ERF) procedures, and to fulfil WHO’s core functions in emergencies, staff from the Western Pacific Regional Office, Headquarters and other regional offices were repurposed and deployed to support the Philippines Country Office in the response. External health experts in various fields were also deployed. The Global Health Cluster and the Global Outbreak Alert and Response Network were activated to mobilize expertise. Experts and staff joined the WHO team from around the world, including from many of the donor countries who also provided funds directly to WHO.

WHO worked with the DOH as co-lead of Health Cluster in responding to the health needs of the affected communities.

As co-lead for the Health Cluster, WHO provided immediate coordination support to the DOH and Health Cluster partners. The support of the WHO included coordination of field hospitals, over 500 tonnes of medical supplies and over 150 foreign medical teams to help restore the capacity of the affected regions’ health system to provide basic emergency services to the affected populations. WHO also worked to ensure there was a multi-sectoral approach – including close cooperation with the Water, Sanitation and Hygiene (WASH), Nutrition, Food Security and Agriculture, Emergency Shelter, Protection and Logistics Clusters – to tackle the main causes of morbidity and mortality.

Since the typhoon struck, WHO-led health recovery operations have been focused in the following four thematic areas as set out in the Strategic Response Plan:

1. **TREAT**: Address the immediate health needs of the affected especially for obstetric and neonatal care, mental health and psychosocial support, and the care of the deceased and bereaved.
2. **PREVENT**: Strengthen the alert and surveillance capability to address public health threats and inform the provision of health care including immunization and outbreak response.
3. **REBUILD**: Establish an equitable basic system of primary and secondary healthcare functions, and access to a tertiary referral system in all areas (including management of victims of gender based violence) without financial barriers to access for affected populations.
4. **LINK:** Strengthen the coordination and integration of health care with other services and clusters including for protection issues around mental health and psychosocial support and gender based violence.

The geographical areas of focus for WHO’s work on the Typhoon Haiyan response – as requested by DOH – are Region VI (all provinces), Region VII (provinces of Bohol and Cebu) and Region VIII (provinces of Eastern Samar, Western Samar, Biliran and Leyte).

*This report provides an initial overview of progress in each of the four thematic areas based on the best information currently available.*

**Progress**

1. **TREAT:** Address the immediate health needs of the affected, especially for obstetric and neonatal care, mental health and psychosocial support, and care of the deceased and bereaved.

Within the first 72 hours of the typhoon, medicines, hygiene supplies and 1350 dignity kits along with seven Rural Health Unit kits were pre-positioned for deployment. The procurement and dispatch of body bags to the affected sites, starting with Tacloban, was organized. WASH supplies were pre-positioned in regions IV-B, V, VI, VII, VIII and X. Three water treatment units arrived in Cebu for Tacloban and a water treatment unit from Tagbilaran was delivered to Ormoc, Leyte province. A further 1000 jerry cans and 20 000 aquatabs for Region VIII were mobilized; 500 jerry cans and 10 000 aquatabs were mobilized for Region VI.

As the response to Typhoon Haiyan has continued, WHO has used pre-positioned and additional supplies to help ensure Rural Health Units are able to deliver basic health care packages. WHO has also trained staff and helped support those who have themselves been affected by the typhoon to get back to work. WHO coordinated 150 foreign medical teams, both to facilitate their work and to ensure an equitable delivery of medical care and services across the affected population. Following a request from Office for the Coordination of Humanitarian Affairs (OCHA) and humanitarian partners, WHO is currently taking part in an interagency intervention in Biasong (San Isidro) to support a tent community that has no Barangay Health Station.

WHO has taken special care to ensure that the immediate healthcare needs of the more vulnerable sections of the affected population are adequately met. Outlined below are some of the activities undertaken by WHO to target these needs.

1.a Obstetric and Neonatal Care

In the immediate aftermath of the typhoon, WHO and UNICEF promoted breast feeding to mothers across the affected region and provided policy and advocacy support to mitigate against the risks of the use of breast milk substitutes. WHO distributed Essential Intrapartum and Newborn Care (EINC)\[1\] materials to health

\[1\] The search for EINC is the number one reason people currently visit the WHO Philippines website. [http://www.wpro.who.int/philippines/areas/maternal_child_nutrition/newborn_mother_care/en/]
cluster partners. WHO and DOH had previously developed the standardised training for EINC (including non-breathing baby training materials) that was rolled out across key Haiyan affected areas. The training was first piloted and rolled out in Bohol, followed by two trainings for trainers in Ormoc City and a further one for Iloilo province. The training was reported to have helped dramatically to improve the quality of care provided.

While coordinating the work of 150 foreign medical teams, WHO was focused on making sure that there were sufficient reproductive health care facilities across the affected regions in the aftermath of the typhoon. WHO encouraged all non-government organizations (NGOs) to follow DOH policies and protocols for quality assurance on reproductive health care. WHO has continued to focus coordination on addressing gaps in emergency obstetric, maternal and child care.

WHO has conducted and concluded a comprehensive stock-take of the available maternal and child health services, facilities and human resources in Region VIII including undertaking GIS mapping to determine accessibility of facilities. Among the affected population there are more than three million women of reproductive age, about one million of whom are displaced. Six months after the typhoon struck, over 80 000 babies have been born in the affected areas. In the next three months, more than 70 000 births are expected, of which 8500 will be born to adolescent mothers under 19 years old. There are 250 000 pregnant and 170 000 breastfeeding women among the affected population and 122 obstetric complications are expected daily.

1.b Assisting the Newly Disabled

An estimated 28 686 people were injured in Typhoon Haiyan in addition to those already living with a disability. In the aftermath of the typhoon, WHO mapped all the service providers for people with disabilities across regions VI, VII and VIII. This information was shared with the injured people and the hospital staff where those with more severe injuries were located. WHO also encouraged the individuals to make contact with providers then and or on return to their home. WHO also shared some individual details with NGOs active in the affected areas so they could follow-up with people when they returned home.

There has been a real concern that in the areas affected by Typhoon Haiyan, people with disabilities faced exclusion or received inadequate support. From January 26 to 31, 2014 focus group discussions were conducted in Northern Cebu, Leyte, Iloilo, Capiz, Roxas and Antique to listen to the needs and recommendations of people with disabilities. Using the information gathered, a report was published by WHO and the National Council on Disability Affairs, which detailed the feedback from disabled people on how to make the plans for the recovery of different sectors disability-inclusive.

WHO supported the development of a Guidance Note by the National Council on Disability Affairs to promote eradication of discrimination against people with disabilities in the construction or repair of buildings and other facilities for public use following Typhoon Haiyan. Its purpose was to provide guidance on the design and construction of buildings and structures for public use by reminding all stakeholders of
the need to comply with the Accessibility Law of the Philippines. The Guidance Note also aimed to promote additional considerations when constructing new shelters or repairing damaged houses of people affected by Typhoon Haiyan. Detailed technical specifications were included in the amended Implementing Rules and Regulations of the Accessibility Law that were attached to the guidance note. While the note was developed for recovery and reconstruction post-Haiyan, it remains applicable for all constructions and repairs in the future whether related to disasters or not.

1.c Tackling tuberculosis and Chronic Diseases

The displacement of populations and the loss of health care facilities and of medical services has made the continued treatment of chronic diseases including hypertension, diabetes, cancer, heart ailments and tuberculosis (TB) difficult. This is a serious issue as these diseases account for a large number of morbidity and mortality in the region. While lack of treatment of most chronic diseases has localized impact on the individual and their families, interruption of treatment for TB patients can create a higher risk of new infections and of existing patients becoming resistant to TB medication. Therefore tackling TB became a high priority for WHO in the immediate aftermath of the typhoon.

Many medical records were destroyed by the typhoon and local health staff had to compile a list of their TB patients from memory so that follow up could take place. The DOH, WHO and health partners established a system to locate persons with TB and to direct these individuals to their nearest treatment center. TB treatment centers, including those for multi-drug resistant (MDR) TB and diagnostic laboratories were mapped and assessed for functionality to enable the appropriate referral of patients or TB suspects and reinstitution of therapy, diagnosis and facilities as soon as possible. The facility maps were distributed in particular to foreign medical teams to assist them to make rapid referrals. WHO and the DOH also quickly prepared and distributed a basic field manual to assist NGOs, foreign medical teams and health centres in diagnosing and treating TB. The TB culture laboratory in Tacloban was completely destroyed, but this was quickly repaired with the assistance of the Global Fund for AIDS, TB and Malaria.

Over a one month period, nearly 100 percent of the identified TB patients still remaining in the area were back on treatment. There remains an ongoing concern that some people from villages along the coastline migrated to other areas and the TB cases from all of these villages have not yet been traced. Therefore work continues across the affected regions to ensure all patients are identified and put back on treatment. Meanwhile the assessment of TB treatment and diagnosis facilities’ functionality continues along with provision of further equipment and GeneXpert training for health care professionals.

1.d Mental Health and Psychosocial Support

In humanitarian emergencies such as natural disasters, the number of people with mental disorders is estimated to increase by 6 to 11 %. Beyond mental disorders, people in emergency situations also often experience psychosocial problems that cannot be quantified.

To adequately address the mental health and psychosocial needs of the population, the Department of Health provided and coordinated initial psychosocial interventions through psychological first aid throughout the affected areas. WHO worked with the DOH to introduce the use of “psychological first aid” which differs from psychological debriefing – when someone is encouraged to recall the details of a potentially traumatic event – by encouraging listening and then identification of those that need onward referral towards more specialised services. Based on available evidence, experts now agree that psychological first aid is more effective and less intrusive.

UN agencies, non-government organizations, academic institutions, faith-based groups, and individual citizens also stepped in to respond to additional needs for mental health and psychosocial support and fill gaps. WHO established and helped run mental health and psychosocial support groups at cluster level to
address psychosocial needs. In order to keep track of who does what, where and when (4Ws), WHO has started collating the 4Ws data weekly on mental health and psychosocial support where possible.

In December, WHO together with DOH held a workshop on "Public Mental Health in Humanitarian Emergencies for Adults and Youth: The Role of Psychology" and produced a further document with guidance for practitioners. WHO conducted a series of training of trainers on psychological first aid and disseminated printed guidelines among representatives of the government, national professional associations and key NGO networks. By March, there had been core and supplemental trainings on the Mental Health Global Action Program (mhGAP) in Tacloban and Ormoc for primary health care doctors and nurses. In Eastern Samar, the core training is ongoing. WHO has also supported work in Cebu to provide expanded tertiary care including outpatient facilities and multidisciplinary training.

Psychological support has also been provided specifically for People Living with HIV/AIDS in the affected communities. The Philippines has one of the fastest growing HIV/AIDS rates in the world. During the immediate response, WHO and the DOH ensured that the people undergoing treatment were accounted for by the treatment hubs in Regions VI, VII and VIII. The availability and condition of the antiretroviral drugs were also verified. In response to the needs identified by the three DOH Regional Program Coordinators and the respective treatment hubs, the WHO organised training for health care professionals in Regions VI and VIII. Further assessments of the participants are planned at least one month after training to ensure impact and work is ongoing to ensure that people living with HIV/AIDS are supported during the recovery phase.

1.e Management of the Deceased

The Mayor of Tacloban and officials requested support from WHO for families and the local community to identify and bury the deceased. The number of dead in and around the city of Tacloban was the greatest of any area affected by the typhoon. In the immediate aftermath, bodies were buried in temporary mass graves scattered across the city and surrounding areas and there were further bodies being discovered on a daily basis in undergrowth or near water.

In November – December 2013 WHO invited an international expert to develop best practice and Standard Operating Procedures (SOPs) for DOH on dead body management and mass casualty management including practice on the ground, registration and tracking. The Government of the Philippines subsequently appointed the National Bureau of Investigations (NBI) to coordinate national and local government agencies involved in dead body management including the exhumation, processing and burial of bodies to enable identification for relatives. WHO also supported the location of unburied bodies by helping make available a team of trained cadaver retrieval dogs and providing additional training to local teams by international experts.

Tacloban City is the only city or municipality in the Typhoon affected area that has so far chosen to exhume and process mass graves in order to support identification and return of bodies to loved ones so as to address psychosocial concerns in the aftermath of the typhoon. WHO has been supporting this process including the erection of the processing tents, the work of the processing facility and the purchase of body bags. Today, the city of Tacloban has completed this work and the 2200 bodies recovered are buried in individually marked plots. The next phase of this work is the genetic tracing of relatives using the samples taken from the dead to match those of relatives who come forward to search for their loved ones.

2. PREVENT: Strengthen the alert and surveillance capability to address public health threats and inform provision of health care including immunization and outbreak response.
In the aftermath of the typhoon the lack of basic infrastructure, clean water and food supplies as well as overcrowding in shelters and from migration created fertile grounds for the outbreak and spread of infectious diseases.

In this context, WHO undertook activities in four key areas:

2. a Immunization
2. b Strengthening early warning disease surveillance systems and preparation of contingency plans in case of outbreak.
2. c Promoting good hygiene.
2. d Health care waste management

Progress in each of these areas is as presented below.

2. a Immunization

After Typhoon Haiyan there was serious concern at the possibility of outbreaks of communicable diseases. measles and polio vaccination campaigns were a key priority. On November 26, there was a mass vaccination campaign for a target population of 30,000 children in Tacloban - the city hit hardest by the typhoon - to vaccinate against measles and polio. The campaign was led by the Government of the Philippines with support from WHO, the United Nations Children's Fund (UNICEF) and other partners. The children also received Vitamin A supplements to help improve their immunity against infections. A further vaccination campaign was carried out across regions VI, VII and VIII.

January to February 2014, an expanded catch-up measles immunization campaign was conducted targeting over 2.2 million children aged six months to three years in response to a measles outbreak in Manila. The focus was children living in all the cities in the National Capital Region (NCR), all provinces and cities in Region IV A, and the provinces of Bulacan and Pampanga in Region III. Movement of large numbers of people between Manila and the Typhoon Haiyan-affected areas helped spread the disease across the country. External monitors were deployed to monitor the campaign implementation and to perform rapid coverage surveys in selected high-risk communities. Monitors were composed of WHO WPRO staff, United States Centers for Disease Control and Prevention staff and members of the STOP (Stop Transmission of Polio) Team. A national measles immunization campaign is currently planned for September 2014.

Cold chain

Vaccinations require a consistent cold chain temperature. Rebuilding the cold chain infrastructure has been a shared priority for the Philippines Government, UNICEF and WHO. There have been assessments of the state of the cold chain and equipment distributed. In Bohol, the WHO distributed cold chain equipment after the region was affected by an earthquake in October 2013 and then again by the Typhoon Haiyan the following month. The equipment included generators, ice lined refrigerators and
freezers, cold boxes, vaccine carriers, icepacks, safety boxes and temperature monitoring devices. In Roxas, a cold chain assessment was completed by WHO and UNICEF and 18 refrigerators were provided. WHO is currently procuring cold chain equipment for regions VI, VII and VIII to fill in the gaps after UNICEF cold chain procurement activities have been completed. A total of 60 icepack freezers, 300 vaccine carriers and 88 cold boxes have been ordered. In collaboration with WHO and in coordination with DOH, UNICEF completed a four day orientation training in Manila on the new cold chain equipment to Expanded Program on Immunization and cold chain managers of six regions on March 14.

In an attempt to ‘Build back Better’ when reinstating health infrastructure and to make the cold-chain more resilient to consequences of calamitous events, such as lack of power and diesel, WHO is also exploring alternative technologies including the use of solar energy. WHO delivered 16 solar powered vaccine refrigerators to key points in Leyte within three weeks of the Typhoon to support vaccination campaigns.

**Rabies**

WHO has been supporting the Rabies elimination in the Visayas which aims to prevent human rabies through the control and elimination of dog rabies by 2015. Vaccination of dogs has been proven to be the most cost effective method to eliminate rabies overall. Unfortunately the three priority regions for this program were also those worst hit by the typhoon. In the aftermath, the WHO assessment of program resources including dog vaccines, needles, syringes, vaccine carriers as well as dog catching equipment revealed that all had been damaged or destroyed. The animal laboratory diagnostic support in Eastern Visayas Region was also totally destroyed. There have been increasing reports of dog bites in the affected three regions, especially in Tacloban and Ormoc. WHO has prepared a plan to assist the three regions and is providing ongoing technical support. Investigations of reported deaths due to rabies are being conducted with the DOH and Department of Agriculture. Procurement of essential equipment is underway and improvements are being made in the diagnosis and treatment of bite victims.

**2.b Strengthening early warning disease surveillance system**

**SPEED**

WHO has been involved from the very beginning in strengthening the ‘Surveillance in Post Extreme Emergencies and Disasters’ or SPEED. This is the Filipino Early Warning Surveillance System that is activated in post-disasters and extreme emergency situations and was developed by DOH in collaboration with WHO after the country was devastated by a series of tropical storms in 2009. It was conceptualized to provide real time health information reporting after a disaster. The objectives of SPEED are the early detection of an increase in communicable and non-communicable diseases; to monitor trends of health conditions under surveillance; and to enable identification of appropriate responses. Resources can then be prioritized and channeled to ensure disease outbreaks are contained. It undertakes syndromic surveillance of 21 health conditions; is activated within 24 hours post-disaster; and uses information and communication technology (e.g. text messaging, internet) for data collection, analysis and report generation.
Post-typhoon Haiyan, the SPEED surveillance system was activated on November 10 and continued reporting until March 8. By then systems were already being put in place to transition into the routine surveillance systems of the Department, viz., PIDSR (Philippine Integrated Disease Surveillance and Response System) and ESR (Event-based Surveillance and Response). Now WHO continues its work to strengthen surveillance through PIDSR and ESR.

During the initial four months, when SPEED was in place, it was implemented in 411 health facilities in the affected areas of Regions VI, VII, and VIII to permit the early detection of epidemic-prone diseases and to minimize morbidity and mortality of the predetermined 21 syndromes. Of these, 145 were Rural Health Units, 131 Barangay Health Stations, 63 hospitals, 38 mobile clinics, 20 evacuation centers, 12 foreign medical teams and 6 hospitals run by foreign medical teams.

Over 340,000 consultations were reported through SPEED in the affected areas and it generated approximately 3,000 “alert” signals. The majority of these were for acute watery diarrhea (58%), suspected measles (13%), acute hemorrhagic fever (9%), acute bloody diarrhea (6%) and suspect leptospirosis (5%). In addition, alerts were also generated for typhoid fever, dengue, rabies and suspected meningococcemia.

Action was then undertaken in response to the alerts generated in order to prevent any likely outbreaks. For instance, in the case of suspected measles, investigation and outbreak response immunization (ORI) were conducted by local public health authorities, in accordance with the National guidelines for measles ORIs in Capiz, Iloilo, Biliran, Eastern Samar and Leyte. In the case of acute watery diarrhea, investigations were conducted and water, hygiene and sanitation activities were implemented in Aklan, Iloilo, Eastern Samar and Leyte. Epidemiological and environmental investigations were conducted and outbreak control measures were taken when a typhoid alert was raised in Cebu province. Vector control activities were instituted and are still ongoing in Eastern Samar and Leyte in response to reporting of suspected dengue cases. Three deaths were reported due to suspect rabies in Eastern Samar. Dog vaccination, advocacy and community information campaigns are still ongoing. Two deaths for suspect meningococcemia were reported in Leyte: an epidemiological investigation was conducted and meningococcal chemoprophylaxis was given to people who were in contact with these cases.

WHO has supported trainings on SPEED for all districts and several municipalities outside of Ormoc city and provided rapid diagnostic tests for Ormoc District Hospital and Ormoc City Health Office. WHO is currently supporting the Center for Health Development in the follow-up, monitoring and technical assistance of local health staff in the surveillance for communicable disease control in the different municipalities of Leyte and Eastern Samar. The monitoring visits conducted by WHO and Center for Health Development staff will identify problems and issues encountered by the health workers in the implementation of the surveillance system, PIDSR, and provide technical assistance in teaching and coaching on data encoding and data analysis.

In addition to strengthening the surveillance being undertaken through the health facilities, WHO has also been actively undertaking other assessments and follow-up action including the drawing up of strategic plans to strengthen disease and outbreak control. A summary of some examples of these are presented in the adjacent box.

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Examples of WHO Assessments and Follow-Up Action:

- Flood assessments in Roxas in January.
- Reassessment of the oil spill area in Estancia, also in January.
- Assessments on the Health Care Waste Management Systems of 15 hospitals spread across Regions VII and VIII.
- Entomological investigations in bunk houses in Ormoc and Tacloban.
- An acute watery diarrhoea preparedness and response plan for region VIII was completed by the Philippines Department of Health, WHO and UNICEF in February.

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1 Some medical facilities continued with speed reporting until March 31.
2 These facilities reported at least once through SPEED from 10 November 2013 to 8 March 2014.
2.c Promoting good hygiene

The damage caused by Haiyan has forced some people to live in crowded conditions, with poor water and sanitation, where the potential for outbreaks of communicable disease are much higher than usual. In such situations the importance of promoting good hygiene practices, ensuring good water quality and controlling vector populations, cannot be overemphasized. Mapping was done to identify areas most in need of action and this information was used to direct initial fogging and clean-up activities.

WHO collaborated with the DOH in conducting water quality testing in Leyte and Eastern Samar between November-December 2013. Findings revealed that 30-40% of the drinking water in these regions was contaminated. Health promotion activities focused on hygiene issues were conducted with the affected communities including explaining the correct use of chlorine disinfectants and water purification tablets.

WHO conducted a field assessment in January to discover local water quality monitoring and management capacity in Local Government Units in Eastern Samar and Leyte, including Tacloban and Ormoc. Findings showed not all Local Government Units had functional monitoring systems in place. In partnership with DOH, WHO conducted a series of trainings for 140 sanitary inspectors on water quality for LGU’s in Region VI (Aklan, Antique, Capiz, Iloilo), VII (Bohol, Cebu) and VIII (Tacloban, Eastern Leyte). In addition to the water quality training sessions, a large number of water quality testing kits have also been distributed to priority areas.

Entomological investigations (mosquito studies) carried out by WHO in bunk houses in Ormoc and Tacloban revealed that in all sites that were investigated, dengue and chikungunya vector (Aedes aegypti and Aedes albopictus mosquitoes) breeding sites were present. Using this information, community mobilization to encourage environmental clean-ups has been initiated in order to reduce the breeding sites at household, community and institutional level. The involvement and participation of other stakeholders including the Departments of Education, churches, and local government units has been encouraged to help support activities to prevent and control dengue and chikungunya in the affected areas. The Ormoc City Health Office, with support from WHO, has now finalized a training plan for Dengue Vector Surveillance and Vector Control. WHO is developing a strategy across the typhoon-affected areas to address the upcoming dengue season.

2.d Health Care Waste Management

WHO conducted assessments on the Health Care Waste Management Systems of 15 hospitals spread across Regions VII and VIII. The data showed that out of the 1800 kg of healthcare waste generated daily, 47% contains medical waste that is disposed of in open waste dump sites; 69% of these health facilities have no wastewater treatment plant nor wastewater treatment system; 52% of health facility staff have never had training on health care waste management; 7% of the health facilities are using mercury devices despite a DOH ban since 2009; 30% of health facilities do not practice segregation of waste at source; 27% of health facilities have no Personal Protective Equipment (PPE), 47% have partial PPE, and 28% have complete PPE. A series of trainings on health care waste management have been conducted in Leyte and Eastern Samar. Hygiene promotion was introduced as part of the training modules. WHO also assisted in the consultation meeting with Local Government Units and hospitals on how to address health care waste issues in the province of Leyte. Further training and equipment for health care waste management is due to be provided in the coming months.

3. REBUILD Establish an equitable basic system of primary and secondary healthcare functions, and access to a tertiary referral system in all areas (including management of victims of gender based violence) without financial barriers to access for affected populations
The DOH, in collaboration with WHO and other health partners, continues to provide the necessary technical and material resources required to enable functional health facilities. Six months post-Typhoon Haiyan, more than half of all pre-existing health facilities are now either partially or fully functional.

On behalf of DOH and the health cluster, in November and December 2013, WHO mapped the health facilities that were functioning, damaged or destroyed as a result of the typhoon. Using this information WHO was able to advise on the immediate deployment of medical equipment and foreign medical teams; and to identify which health centres were a priority for repair and rebuilding to ensure adequate health care for the community.

WHO continues to map the ongoing repair and rehabilitation of health facilities to help guide the recovery effort. For example, in Tacloban, WHO is providing mapping support to identify all health facilities located within unsafe areas, as all critical infrastructure in this area will have to be relocated according to a recent bill passed by the Government of the Philippines.

On 21 January, the DOH and WHO convened a panel discussion in Manila on building back better hospitals and other health facilities. Experts from the Philippines, Japan and WHO presented lessons learnt and good practices on safe hospitals. WHO has identified and, has either supported or plans to support, the improvement of health facilities including those listed in the annex where it is considered a particularly important priority to ensure these facilities are up and running quickly to serve the community.

DOH, with the support of WHO, is utilizing a unique and innovative approach to support the rehabilitation and rebuilding of typhoon-affected Community Health Centers. Under the title “Rising Anew - Health at the Heart of Healing” a photobook has been developed and will be disseminated to health partners and the public in the coming weeks. The 92 page document presents 31 out of 96 damaged community health centers, focusing on the most damaged in Region VIII and provides detailed information on the damages and the estimated costs for repairs. Meanwhile maps on the latest state of repair and funding for rebuilding continue to be available on the WHO Philippines website.

4. LINK: Strengthen the coordination and integration of health care with other services and clusters

Maintaining inter-cluster coordination

In addition to the Health Cluster, the humanitarian response to the typhoon is being channelled through a number of other clusters:

- Food security and agriculture
- Shelter
- Early recovery/ livelihood
- Water, Sanitation and Hygiene (WASH)
- Education
- Protection/ Gender Based Violence/ CP
- Logistics
- Nutrition
- Coordination
- Camp coordination and camp management (CCCM)

Clearly, a number of these clusters are cross-cutting, especially regarding the health sector. It is important to coordinate with these different clusters to ensure that everyone is aware of who is doing what, where and when and any duplication of work is avoided. This also ensures that different sector or cluster
strategies support the objectives of one another, expertise is pooled to develop more holistic solutions, and cross-sectoral cooperation is effective.

WHO has been actively taking the initiative to maintain inter-cluster coordination. In the aftermath of the typhoon, WHO undertook a damage assessment of major health facilities. The damage assessment was done collaboratively with DOH and OCHA. WHO has also led the regular production of the Health Cluster reports to provide information that is useful not just for members of the Health Cluster but also for those working particularly in the Shelter, WASH, Protection and Nutrition clusters. The same is true for the health facility maps and other data collected by WHO that is regularly shared with other clusters.

WHO has provided support to other clusters where needed. For example, the Nutrition Cluster in Ormoc asked WHO for support on the management of malnutrition in children with underlying neurological conditions. A WHO expert has been put in contact with the local coordinator to provide technical mentoring. As noted above, WHO supported the development of a Guidance Note by the National Council on Disability Affairs to promote the elimination of discrimination against people with disabilities in all sectors and provide guidance on the construction or repair of buildings and other facilities for public use following Typhoon Haiyan.

**Establishing and maintaining subnational Health Cluster hubs in 6 key locations.**

The WHO established six Health Cluster hubs in addition to a national hub in Manila, in order to support the DOH and coordinate the health response:

- Tacloban on 11 November
- Cebu on 13 November
- Roxas on 17 November
- Ormoc on 18 November
- Borongan, Guiyan on 25 November
- Palo, regional field office, early December

The hubs were designed to ensure operational reach and provide a logistical platform to plan, execute and monitor the health recovery interventions by all partners. The national hub in Manila continues to compliment sub-national hubs for typhoon response. At the request of the DOH the WHO will continue to operate two field offices – Palo for Region VIII and Cebu for Regions VI and VII (also covering the earthquake affected areas in Bohol), as well as four hubs to cover affected areas in Region VIII (Tacloban City/West Samar, Ormoc City/West Leyte, East Leyte hub based in Palo and Eastern Samar hub based in Borongan). Dedicated WHO office space continues to be provided by DOH in Iloilo to assist with coordination of support in Region VI and in Tagbilaron to assist with coordination of support in earthquake affected areas of Bohol in Region VII.
Looking Ahead: Key challenges
While much progress has been achieved in these six months since Haiyan, a lot remains to be done. The delivery of critical services such as immunization, facility based deliveries, antiretroviral treatment, and TB detection and treatment remains a challenge. Replacement of the rabies dog vaccines and equipment that were destroyed by the typhoon is a priority to avoid further spread of the disease and help achieve the national goal to eliminate rabies. A rise in birth rates and an increasing trend of pregnancy in teenage girls who are also seeking prenatal care is of great concern and requires extra support. The exit of the many foreign medical teams providing free healthcare in the region puts an increased burden of care on the government health facilities.

The risk of flooding and strong winds threatens all temporary buildings including health facilities, particularly those still operating out of tents. There are insufficient numbers of evacuation centers and emergency accommodation available. Furthermore, some people have repaired their homes and offices using materials that are unlikely to withstand even category 1 winds leading to an overall increased risk of further injuries and fatalities.

The onset of the rainy season also threatens to increase the risk of seasonal vector borne diseases. This threat needs to be tackled now through the preparation and timely implementation of vector control plans, and the preparation of contingency plans in case of outbreaks. A further health risk is the continued practice of open dumping of medical waste, and tackling this issue poses a major challenge in terms of investment in training and the necessary equipment.

Finally, the security situation in parts of eastern and southern regions at times limits WHO’s capacity to fully and freely mobilize health support services where required.

Looking ahead and with a view to meeting the challenges outlined above, WHO will now move from providing immediate emergency response, to longer term rebuild and rehabilitation activities. The response will continue to be focused on the achievement of all four of the health objectives highlighted in the Strategic Response Plan plus an added objective of preparing for the oncoming rainy season. These five objectives are:

1. **TREAT**: Address the immediate health needs of the affected especially for obstetric and neonatal care, mental health and psychosocial support, and the care of the deceased and bereaved.
2. **PREVENT**: Strengthen the alert and surveillance capability to address public health threats and inform the provision of health care including immunization and outbreak response.
3. **REBUILD**: Establish an equitable basic system of primary and secondary healthcare functions, and access to a tertiary referral system in all areas without financial barriers to access for affected populations.
4. **LINK**: Strengthen the coordination and integration of the health care with other services and clusters including for protection issues around mental health and psychosocial support and gender based violence.
5. **PREPARE**: Prepare for the oncoming rainy season and likely typhoons in the affected areas through purchase and pre-positioning of contingency supplies; repair and rebuilding of all remaining health facilities; and further strengthening health services.

WHO will continue its work to help the communities affected by Typhoon Haiyan to “build back better” the health facilities and services they need. There are plans in place to address the different challenges listed above and WHO remains very grateful for the ongoing support of its donors as the organization continues to help improve the lives of some of the poorest and most vulnerable people in the Philippines.
### Annex: Health Facilities For Improvement

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<th><strong>East Samar Facility</strong></th>
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<tr>
<td>Balangkayan Rural Health Unit</td>
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<td>Quinapondan Community Hospital</td>
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<td>Balangiga, Albino Duran Hospital</td>
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<td>Gigoso, Giporios Barangay Health Station</td>
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<td>Asgad, Salcedo Barangay Health Station</td>
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<td>MacArthur Rural Health Unit</td>
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<td>San Isidor</td>
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<td>Ormoc Health Centre complex</td>
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<tr>
<td>Kananga Municipal Hospital</td>
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<td>6 birth centres in Ormoc</td>
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<td>Holy Cross Forensic Centre</td>
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<td>Tacloban City Health Office and Rural Health Unit</td>
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<td>Tacloban City Hospital, Marasbaras Women’s Centre</td>
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<td>Eastern Visayans Regional Medical Center</td>
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