

Special Report: Update on the Health Response to the Earthquake in Haiti 16 February 2010

① General Overview

Summary of affected population by department in Haiti

Department	Dead	Missing	Injured	Affected Families	People in Shelters	Displaced people	Houses	
							Destroyed	Damaged
Artibonite	9		19	783	45	162,509		
Centre	12		39	4,279		90,997		
Grande-Anse						55,167	80	703
Nippes						33,350	257	4,022
Nord						13,531		
Nord-Est						8,500		
Nord-Ouest						45,862		88,762
Ouest	211,607	369	299,803	91,523	1,215,790	32,253	23,029	
Sud						25,532		
Sud-Est	441	14	711	39,334	21242		7,621	30,478
TOTAL	212,069	383	300,517	135,919	1,237,077	467,701	30,987	123,965

Source: Ministry of Interior, Haiti, 6 February, 2010

According to official statistics from Haiti's Civil Protection, the 12 January earthquake killed more than 200,000 people, caused approximately 300,000 injuries and displaced more than one million Haitians. At one point, more than 600 organizations were providing humanitarian aid to Haiti, and currently, 274 organizations are conducting health activities in at least 15 communities. Immediately following the quake, the most pressing need was to rescue people buried in the rubble and provide immediate emergency care for trauma patients. Needs have now changed and focus is on post-operative care and follow-up of patients who have already had surgery as well as basic primary health care services, such as maternal child health, rehabilitation services, and chronic diseases including diabetes, heart disease, HIV, and tuberculosis, among others. The Health Cluster liaises with other clusters, as many specialties have implications on the health of the population. Some of the major issues are as follows:

- The World Food Programme (WFP) reports that 16 food distribution sites have been activated across metropolitan Port reached 2 million people in and around Port-au-Prince since the earthquake struck. In a surge operation that began on 31 January, 1.4 million people received two weeks work of rice. The target population is two million.

- According to the CCCM Cluster, there are now ten organized settlements that are being managed by cluster partners with a total of 42,569 people. A list of all spontaneous temporary settlements contains 315 sites occupied by 468,075 people (91,112 families). Sanitation is becoming a major concern at many of the temporary sites
- The WASH Cluster continues to provide safe drinking water (5 litres per person per day) to over 780,000 people through 300 sites across Port au Prince, Leogane, and Jacmel. In Jacmel, over 260 temporary settlement sites are receiving water through the distribution efforts of cluster partners. The highest priority for the cluster remains sanitation and the strengthening of monitoring systems for sanitation activities.
- IOM is working with some 40 partners to provide mental health and psychosocial support to tens of thousands of earthquake survivors living in spontaneous settlements in Haiti; = provide comprehensive psychosocial first aid to some 150,000 individuals and follow-up counselling for up to 10,000 distressed individuals over the coming months. Six psychosocial mobile teams consisting of Haitian psychologists, social workers, educators, art therapists and cultural animators will deploy in settlements where needs have been identified
- Some 87 community outpatient care centers/mobile units for the treatment of severely acute malnutrition are open or have re-opened throughout Haiti. Nutrition Cluster partners have indicated plans to open 52 additional sites within the next 2-3 weeks. Within the 2 most affected Departments, OUEST and SUD'EST, there are an estimated 577,246 infants, children and pregnant and lactating women have been affected. Women in the informal settlements are also being trained as breastfeeding counselors.
- UNICEF says some 23 large-sized tents have been installed in Port-au-Prince to give children a place to seek refuge and play. Families are wary of sending children to school because they fear that another earthquake could strike. UNICEF is working with the Government to distribute messages to Haitians encouraging them to send their children back to school. Schools in unaffected regions opened on 1 February, while the Government of Haiti says the remaining will open by 1 March. Forty-percent of the population of Haiti is under 14 years of age and child protection is also an area of grave concern.

The UN Flash Appeal for Haiti was launched on 15 January and a revised Flash Appeal will be launched on 18 February:

1. Coordination, Needs Assessment, Monitoring and Evaluation
2. Outbreak control and disease surveillance
3. Water supply and environmental health
4. Basic health care services
5. Treatment and rehabilitation of injured patients
6. Essential drugs and medical supplies

② Coordination

Prior to the earthquake, the WHO/PAHO Office in Haiti had a core staff of 52 persons. In order to support the emergency, more than 60 international experts have been deployed with expertise in disaster management, logistics, epidemiology, surveillance, communicable disease control, water and sanitation, among others. Since the WHO/PAHO building was partially destroyed, the Organization's operational headquarters was moved to the medicine and vaccine storage warehouse, PROMESS, located near the airport. From here, WHO/PAHO is



supplying medicines and medical supplies to hospitals and field clinics in need. A field office was also established in Jimaní, Dominican Republic, located on the border and 1.5 hours from the Port-au-Prince, to serve as a bridge to manage supplies and transfer medical relief teams.

WHO/PAHO is acting as the Health Cluster¹ lead and coordinates the multiple partners and health actions in Haiti. Within the Health Cluster, several subgroups have been created in order to best meet the needs of the population, including:

- Primary Health Care/Mobile Clinics
- Reproductive Health
- Hospitals
- Information Management
- Mental Health
- Epidemiology (Laboratoire National)
- Vector control
- Disability (led by Handicap International and CBM)

WHO/PAHO's EOC in Washington went into full response mode upon notification of the earthquake. The HQ Disaster Task Force was notified and put on alert. The EOC mobilized members of the Regional Health Emergency Response Team to Port-au-Prince and decided early on to use Santo Domingo as a preliminary logistics platform in Jimani which is an hour or so away from Port au Prince. The EOC monitored the situation, provided information for stakeholders and decision-makers, and to coordinated response from a variety of levels, from the teams deployed to the field under the Health Cluster mechanism, to technical advisors in Haiti and the Dominican Republic, as well as liaising with donors for the flash appeals and coordinating with the technical areas at HQ to provide support to counterparts in the field.

WHO/PAHO created a web-based database which permitted the hundreds of people to volunteer their services to the Haiti response. This database of volunteers is shared with other agencies. The EOC also developed a database of health facilities in Haiti using existing available information and it maintains and updates this with the feedback from partners in the field.

③ Outbreak control and environmental health

Prior to the earthquake, routine vaccine coverage and epidemiological surveillance in the country was weak. Slightly over half of children in Haiti were immunized against diphtheria/pertussis/tetanus (53%) and measles/rubella (51%) before their first birthday. However, indigenous measles recently had been eliminated from all countries in the Americas and polio has been eradicated in Haiti.

The extreme impact of the quake has increased the risk of disease outbreaks due to poor sanitation and crowded conditions as hundreds of thousands of people are currently living in more than 300 temporary shelters, with difficulty in accessing clean water. Medical teams in these areas report respiratory and diarrheal diseases as well as skin infections; however, despite harsh conditions in Haiti, there were no reported outbreaks of communicable diseases including cholera, measles and rubella in the first two weeks after the earthquake.

¹ There are 12 Clusters in total: Camp Coordination and Camp Management (IOM); Education (UNICEF); Emergency Shelter and Non-Food Items (IOM); Food (WFP); Logistics (WFP); Nutrition (UNICEF); Protection (OHCHR with UNICEF for Child Protection and UNFPA for GBV); WASH (UNICEF); Agriculture (FAO); Early Recovery (UNDP); Emergency Telecommunications (WFP); Health (WHO/PAHO).

Surveillance and early warning

PAHO/WHO is working closely with national authorities and other organizations, specifically partners of the Health Cluster, to monitor and prevent outbreaks. One of the first priorities of the Ministry of Health was to set up the epidemiological Early Warning System (EWARN) in selected sites with rapid response capacity, including field laboratories. EWARN was originally developed following the floods in Gonaives in 2008. In that disaster, the system was manageable because EWARN was implemented in a limited number of sites in the Department of North (the affected region was much smaller than the current area impacted by the earthquake.) The EWARN system must be adapted to the current emergency in order to restore the epidemiological surveillance—a major post-disaster concern.

Immediately following the earthquake, PAHO/WHO deployed a team of epidemiologists to support surveillance activities in Haiti and along the border with the Dominican Republic. Information is being collected in two ways:

- Through the 52 government-defined sentinel sites in Haiti to monitor diseases.
- Reports from health cluster partners.

Haiti's Ministry of Health lost more than 200 staff members in the earthquake. Much of the Ministry's operating capacity has been seriously compromised, thereby necessitating significant support from PAHO/WHO and health partners. Dual mechanisms for gathering information have been established. In order to reinitiate surveillance networks and include the various field hospitals and mobile clinics, the EWARN surveillance form (originally developed for the 2008 floods and adapted to the earthquake) was distributed to Health Cluster partners and Ministry staff to capture daily surveillance information.

Twelve of Haiti's 52 sentinel sites are located in the metropolitan area (Port-au-Prince and surrounding area). Six of the 12 have begun reporting daily. Currently, three mobile teams are conducting outbreak investigations. The epidemiology team will provide a weekly report on the epidemiological situation.

Strong partnerships now exist with regard to surveillance activities. In Port-au-Prince, the Ministry of Health along with PAHO/WHO, the U.S. Centers for Disease Control and Prevention (CDC), MINUSTAH, the Public Health Agency of Canada and other partners have worked to set up the EWARN emergency surveillance system. A situation room was created in the National Public Health Laboratory for national and international partners to monitor and investigate cases and provide information to decision makers. Starting 1 February, a CDC epidemiologist is assisting PAHO in the coordination of the health cluster regarding outbreak detection and control; there are plans for a rotation of staff on a monthly basis. Two CDC laboratory specialists are providing direct technical assistance to the National Public Health Laboratory until the end of February. Discussions are underway to have a Canadian microbiologist and a logistician based at the National Public Health Laboratory for a three-month period beginning in March 2010.

The following is a summary from surveillance reports:

- Measles: As of 6 February, a total of 6 suspected measles cases have been reported; the 3 cases from Port-au-Prince were discarded. The other 3 suspected cases were reported from Jacmel (located 2 hours from Port-au-Prince).
- Polio: On 2 February, a case of acute flaccid paralysis (AFP) was reported in a three-year old child from the West Department who had previously received three doses of oral polio vaccine (last dose 20/5/09). The case is currently under investigation. The specimen was shipped to the Caribbean Epidemiology Center (reference laboratory) in Trinidad,
- Diphtheria: The last case of diphtheria was reported in January 2010 in the North Department.

- Tetanus: the University Hospital of Haiti has registered one case of tetanus; MSF has reported four cases; the Cuban Brigade has registered more than 9. Cases have been clinically confirmed and require review and analysis of case investigation.

As the beginning of the rainy season is expected soon (April) there will be a high risk of emergence of vector-borne diseases including Malaria, Dengue and Leptospirosis.



Vaccination

In the first few weeks after the disaster, WHO/PAHO did not recommend a national mass vaccination campaign. In the meantime, WHO/PAHO worked with Haiti's Ministry of Health to overcome challenges related to the cold chain as well as the distribution and deployment of vaccines. Due to the high concentration of people in confined resettlement areas and poor sanitary conditions, on Tuesday, February 2, The Ministry of Health, with support from WHO/PAHO, UNICEF and non-governmental partners, began a targeted immunization campaign, focusing on populations in temporary settlements. The immunization campaign includes rubella and diphtheria-tetanus- pertussis vaccines for children under 7 years of age and diphtheria and tetanus for older children and adults. The following is the post-disaster vaccination plan:

Objectives

- Vaccinate children aged 6 weeks – 8 months with DTP.
- Vaccinate children aged 9 months – 7 years with DTP, MR and provide vitamin A supplementation to this age group.
- Vaccinate children aged > 8 years, adolescents and adults, with Td.

Strategy

- First phase is the vaccination in temporary settlements.
- Second phase consists of a second round to vaccinate the entire population once the situation has stabilized.

The first phase aims to vaccinate approximately 1.5 million people in temporary settlements. One of the biggest challenges for this first vaccination phase (vaccination in temporary settlements) is to calculate and evaluate coverage. Four large temporary settlements were visited in order to better understand population dynamics and the manner in which to best implement vaccination activities. Different size settlements were identified as large (3,000 to 4,000 people during the day, over 10,000 at night), medium (located in schools parks, etc), and small (families in tents or in small groups).

In addition to this targeted vaccination campaign, WHO/PAHO insists that all aid workers going to Haiti should be vaccinated against both measles and rubella to prevent any well-meaning volunteer who is not immunized from bringing measles or rubella into the country. The risk of a measles outbreak will depend upon the reintroduction of the measles virus into the population.

Water and environmental health



WHO/PAHO is helping to coordinate the delivery of water to affected communities and health facilities and monitoring its quality in collaboration with the Direction Nationale pour l'Eau Potable et l'Assainissement (DINEPA). About 50 water tankers are providing water to health care settings and to the affected population. The water is collected from three major pumping stations. Even if the water is clean when pumped from 50m underground, its quality may be compromised during transport. WHO/PAHO is training operators at the three water stations to treat water with chlorine. This will prevent potential contamination afterwards. These interventions are vital in Haiti where poor environmental conditions could lead to outbreaks. On 2 February, WHO/PAHO visited Port-au-Prince's main water supplier, Fresè local. Water quality will be tested in the coming days to ensure quality is maintained along the distribution chain. Also in coordination with DINEPA, WHO/PAHO is setting up a project to empty public toilets; a site has already been set up for the safe disposal of excreta.

④ Health services

Although major efforts were first devoted to saving lives of people buried under the rubble and providing immediate trauma care, it was also crucial to restore health services as quickly as possible. The Ministry of Health (MOH) created a National Health Commission to coordinate the local and international response and defined three levels of healthcare: mobile health centers, fixed health centers (minor health problems), and finally hospitals with surgical capacities. The Health Cluster supported these government priorities and soon after, created specific subgroups (mentioned above) to focus specific health services issues (reproductive health, mobile clinics, hospitals, disabilities, mental health).

Due to the large number of affected people in other areas outside of Port-au-Prince, the Health Cluster was also activated in Leogane and Jacmel. The MoH began assessing post-operative care and human resources to determine how many people will require care in mobile clinics. Mobile clinics are now serving 250 spontaneous gathering areas (SGA), as identified by the government. Each mobile clinic will cover two SGAs and must coordinate with other clusters. The mobile health facility subgroup highlighted the need to include epidemiological surveillance among the activities in the mobile clinics.

WHO/PAHO has been compiling information on health facilities and their locations and a dataset of over 900 facilities in Haiti is being shared with partners in order to improve coordination of health services. This dataset includes including geographic location and unique identifiers, based on codes generated by the Ministry of Health. WHO/PAHO also assessed health facilities in Port-au-Prince, including the General Hospital (HUEH, 700 beds), L' Hopital de la Paix/Universitaires (100 beds) and the OB/GYN Center Isaie Jeanty-Leon Audain (70 beds), and health authorities now have a complete list of equipment required at each facility.

According to hospital assessments, there are 91 identified functioning hospitals; of which, 59 are in Port-au-Prince metropolitan area (4 public hospitals, 34 NGO or private-run hospitals providing health care for free since the earthquake and 21 field hospitals). Fifty-six of the 59 have surgical capacity.

Rehabilitation, and especially physical therapy, is critical to prevent or minimize long-term disability due to earthquake injuries. This is especially important because disabilities can cause significant economic and mental health problems for earthquake survivors in the long term.

Mental health

A primary evaluation of WHO/PAHO experts reports that mental health services are concentrated in two main facilities: the Centre de Psychiatrie Mars & Kline (CPMK, a university psychiatric clinic) with around 50 beds and a psychiatric hospital (Défilé de Beudet) located outside of Port-au-Prince, with around 150 beds. The frequency of acute mental health problems is very high as a consequence of the earthquake, and specific concerns related to non-identification of dead family members, the consequences of amputations and victims of rape and/or violence will require special consideration. Although there are poor statistics on mental health problems before the earthquake, it is evident that demand has increased dramatically and resources are scarce, thus creating a large need for clinicians in mental health.

A mental health team deployed by the Dominican Republic to the General Hospital of Jimani consisted of a psychiatrist, 4 psychologists and 3 nurses specialized in mental health. They developed an action plan to provide psychosocial and mental health support to patients in 5 institutions in the border region. The team, together with staff from these facilities WHO/PAHO, is providing technical support including advice on recreational activities for hospitalized infants and children. The next phase will focus on training of primary health care professionals to support families of patients.

5 Ensure availability of essential drugs

To meet the enormous health challenges posed by the earthquake, Haitian authorities, United Nations agencies and donor countries have provided tons of medicines to scores of health partners on a daily basis through a large-scale coordinated effort run out of Haiti's pharmaceuticals hub in Port-au-Prince. WHO/PAHO manages PROMESS, Haiti's Central Procurement Agency for drugs and medical supplies. PROMESS, which was founded in 1992, supplies drugs to public health institutions, NGOs, and non-profit organizations. PROMESS also stores and distributes drugs, including vaccines, contraceptives, and tuberculosis drugs, related to health programs subsidized by donor agencies. PROMESS was virtually the only source of drugs and medical supplies in Haiti after the earthquake.

As part of the overall Haiti response operations, the Dominican Republic was also provided with essential drugs for health facilities in the border region. WHO/PAHO evaluated offers of medicines, vaccines and medical equipment and created recommendations for deployment of donations based on needs gathered from the field, quality requirements and logistic considerations.

PROMESS has distributed medicines and medical supplies to approximately 250 institutions. As of 9 February, the value of the medicines and supplies is approximately US\$1.2 million.

In addition to the procurement of medicines and supplies, 27 different donations shipments were received from 11 countries (USA, Austria, Australia, Italy, Switzerland, Dominican Republic, Chile, Taiwan, Spain, France, Argentina).

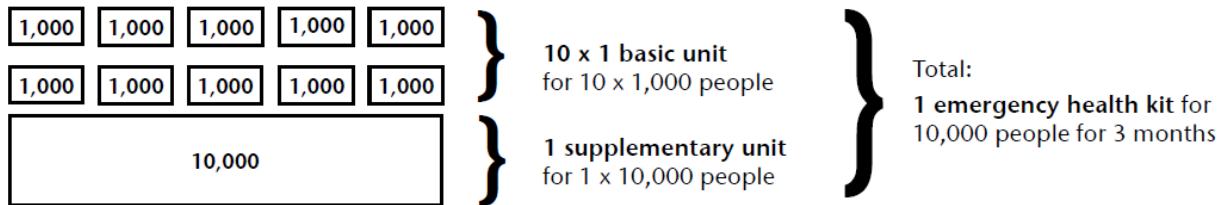
Warehouse space has been configured at PROMESS and the inventory process is up and running since 14 February, with the help of US Army. PROMESS is now staffed with six pharmacists, 6 warehouse staff, four supply chain experts and additional pharmacists from Clinton Foundation, and the U.S. Army.



Good communication and coordination between donors and recipients on the ground are key to managing the massive influx of drugs and supplies. WHO/PAHO is using LSS/SUMA, the Logistics Supply Management System, to track and process humanitarian supplies and donations in several locations:

- a) With support from the Argentinean White Helmets, LSS/SUMA is operating out of the PROMESS warehouse, coordinating the acquisition and distribution of donations and other supplies received through the Port-au-Prince airport.
- b) At the airport in Port-au-Prince, working with customs authorities and Haiti’s Civil Defense.
- c) At the port, inventorying supplies arriving by ship.
- d) LSS/SUMA has also been set up in Jimaní, Dominican Republic, along the border with Haiti, to coordinate the arrival of humanitarian supplies transiting by land. The health cluster plans to use this information to determine supply gaps and distribution priorities.

The contents of the Inter-Agency Emergency Health Kits (IEHK) form the bulk of the procurement of essential drugs. The comprehensive IEHK contains medicines to treat 10,000 persons for three months. The IEHK is composed of Basic Units (10), each of which treats 1,000 people and a Supplementary Unit (one) for use with one or more of the Basic Units, containing additional medicines, medical devices and modules containing malaria items, psychotropics, etc.



WHO/PAHO has procured 96 of the Basic Units; 87 of the Supplementary Units and 15 of the complete IEHK. This is in addition to thousands of miscellaneous medical supplies, ranging from bandages, and pain medications to sophisticated mobile X-ray equipment.

PAHO and WHO have clear guidelines on how to be a ‘good donor.’ These guidelines are available on the PAHO website www.paho.org/disasters; click on How to Donate.