



Earthquake in Haiti

PAHO/WHO Situation Report on Health Activities Post Earthquake

18 May 2010



Situation Overview

Four months have passed since the January 12 earthquake in Haiti, and though the humanitarian situation remains fragile, targeted post-disaster interventions continue to improve living conditions for the affected population. Cluster members have reached over 100% of the known caseload with emergency materials and each day 4.2 million liters of clean water are delivered. After providing emergency food rations to 3.5 million people in the months following the earthquake, the World Food Program is now transitioning its program to support recovery efforts through long-term food security and investments in human capital.

PAHO/WHO, the Ministry of Health, and Health Cluster partners have achieved several important milestones in recent months:

- The first phase of the PAHO/WHO, UNICEF and the Ministry of Health and Population (MSPP) post-disaster vaccination program has been completed, resulting in the delivery of 880,000 vaccine doses to the most vulnerable children and adults throughout Haiti
- The MSPP, in collaboration with PAHO/WHO and other health partners, has approved a new model of purchasing and delivering health services
- PAHO/WHO and the MSPP have institutionalized a disease surveillance system using National Sentinel Surveillance Sites, mobile clinics, and other health facilities
- Provision of essential medicines and supplies through PROMESS is ongoing and all hospitals have received appropriate supplies

Recent PAHO/WHO led initiatives include health sector capacity building through training in areas related

to nutrition, radiation safety, mental health, water and sanitation and disposal of medical waste. In anticipation of the challenges the country might face during the rainy season, Health Cluster partners have prepared contingency plans that account for flooding, commune isolation, loss of power and other disaster scenarios.

Background

The strongest earthquake in Haiti in more than 200 years, measuring 7.3 on the Richter scale, rocked the impoverished Caribbean nation on 12 January 2010 in the late afternoon. The earthquake struck Ouest Province around an epicenter 17km south-west of Haiti's capital, Port-au-Prince, which suffered extensive damage. The nearby cities of Carrefour and Jacmel and other areas to the west and south of Port-au-Prince were also affected, with the town of Léogâne reported to be 80% destroyed.

The human impact has been immense in a country marked by a high incidence of poverty (prior to the earthquake, around 67% were living on less than US\$ 2 a day). Around 1.5 million people, representing 15% of the popu-



lation, have been directly affected. Over 220,000 people lost their lives and over 300,000 were injured. Thousands of people are in need of psychological support or psychosocial supervision. Around 1.3 million people are living in temporary shelters in the Port-au-Prince metropolitan area and over 500,000 people have left the disaster areas to seek refuge in the rest of the country.

Even before the earthquake, Haiti struggled to provide many with essential public health services. The present situation adds new challenges to the existing difficulties. The international community has mounted a massive response to this natural disaster. Coordination has been effective in the acute phase of the emergency, with responsibilities for the leadership distributed among clusters. Strengthening the capacity of the Government of Haiti to take over reconstruction is essential, as is ensuring that support from the international community is appropriate, strategic, and aligned with government priorities.

A Post-Disaster Needs Assessment (PNDA) was initiated on 18 February by the United Nations, the World Bank, the European Commission, and the Inter-American Development Bank, at the request of the Prime Minister of Haiti. This group liaised with other national and international stakeholders and government-led teams to assess reconstruction needs. The health component was led by the MSPP and a team of Haitian officials and experts. A four-member WHO/PAHO team supported the MSPP in this exercise, together with UNICEF, UNFPA, ILO, World Bank, USAID, Management Sciences for Health (MSH), the Clinton Foundation, NGOs and the private sector.

On 31 March 2010, world leaders gathered at UN headquarters in New York for the *International Donors' Conference Towards a New Future for Haiti*. During the conference, the Government of Haiti presented the Action Plan for National Recovery and Development of Haiti.

The plan is a roadmap outlining priorities for short and long-term reconstruction. UN Secretary-General Ban Ki-moon stressed the need not just to rebuild, but to “build back better.” To meet that challenge, UN member states and international partners pledged \$5.3 billion for the next 18 months, and a total of \$9.9 billion was pledged over the next three years.

1. Coordination of Health Sector Response

Health Cluster Coordination and Leadership

Since becoming operational four days after the earthquake, nearly 400 health partners have registered with the Health Cluster, including national and international NGOs and bilateral teams. Within the first days, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) had established a joint website (www.onereponse.info), and health partners populated the site with useful data, including background information on the health situation in the country before the earthquake, location of hospitals and health centers, and announcements from the MSPP.



As the Health Cluster lead, PAHO/WHO has ensured coordination and prioritization of health sector activities. In the immediate aftermath of the earthquake, the Cluster led an evaluation of needs, mapped capacity and activities of health partners, and built consensus on humanitarian priorities and related best practices. To coordinate response activities outside of Port-au-Prince, PAHO/WHO established field offices in Jimaní (Dominican Republic), Léogâne, and Jacmel. The following Health Cluster sub-clusters are active:

1. Mobile Clinics
2. Hospitals
3. Disability and Rehabilitation
4. Health Information Management
5. Disease Surveillance
6. Reproductive Health
7. Mental Health and Psychosocial Support
8. Two satellite sites – Jacmel and Léogâne

The Health Cluster has designed contingency plans for the rainy season which include an inventory for health activities undertaken by Health Cluster partners. Supplies in Port-au-Prince and surrounding areas have been identified for reproductive health, preventative medicines such as vaccines, treatment of acute malnutrition, and clean drinking water. Ensuring continuity of health services in hospitals and clinics is being addressed through provision of generators, tents, HTH drums, and fuel in the event of excessive flooding or road closures.

Jacmel Health sub-cluster

The South-East department is one of 10 departments in Haiti. It borders on the Dominican Republic (east), West department (north), and South department (west). The

South-East department has 10 “communes”: Jacmel (capital), Cote de Fer, Bainet, La Vallee, Cayes-Jacmel, Marigot, Belle Anse, Thiotte, Grand Gossier, Anse a Pitre.

Of the 10 communes, Cote de Fer, Bainet, and Jacmel were the most severely affected by the earthquake, but the department also received a large number of IDPs from Léogâne, Port-au-Prince, and other affected areas, increasing its population by an estimated 10%.

Coordination

The Health subcluster is being led by the Département Sanitaire du Sud Est (DSSE) and co-chaired by PAHO/WHO—who has provided full support by setting meeting agendas, documenting meeting minutes, ensuring discussion points are properly addressed, and offering technical inputs. The cluster continues to collect information on who, what, where, and a similar form is being used to detail the gaps in mobile clinic coverage.

Overall health coverage has increased thanks to a number of mobile clinics that were set up by NGO partners. Priority health interventions since the earthquake include maternal health, rehabilitation of disabled people, and mental health and psychosocial support. The department has 44 health institutions (government and mixed) in



place; of these, 27 institutions were damaged including the only referral level hospital in the department

Organizations are currently providing mobile clinic services throughout the department. To aid these partners in finding the areas that are not covered, and to increase the rate of health services coverage, a matrix was developed to trace the mobile clinics and to map them out (with the support of OCHA). This is an ongoing process that PAHO/WHO will continue to be engaged in.

To support the DSSE in ensuring the right norms and regulations are followed in terms of qualitative as well as legal issues, PAHO/WHO is acting as a repository, collecting and disseminating norms and standards to the partners. They include information on the minimum service package of Haiti, the national health strategy, technical guidelines on certain health topics, as well as norms and regulations regarding importation and use of drugs and medical equipments in Haiti.

Anse a Pitre, one of the poorest and least accessible communes in Haiti, is located to the far east of Jacmel. Although it was not touched by the earthquake, its proximity to the Dominican Republic resulted in a influx of IDPs from affected areas. The surge in IDP has stressed resources—particularly in the health sector. A health center is currently being supported by the NGO Battery Relief Agency (BRA) which is based in Dominican Republic. BRA will support the center in its maternal ward by placing gynecologists and surgical capacity in the center for complicated deliveries. Going forward, there will be a need to support the health center and build capacity because many women are crossing the border to deliver their babies.

To strengthen contingency planning, DSSE has requested support in prepositioning drugs and supplies in strategic locations. As a short-term solution, ACDI/VOCA, a

strong partner on the ground, has put its three warehouses at the disposal of the DSSE to help stockpile essential drugs and supplies. The warehouses are placed in Cote de Fer, Thiotte and Belle Anse. With the support of PAHO/WHO, the DSSE will start moving some of its own supplies as well as supplies from PAHO/WHO to the three locations.

Léogâne Health sub-cluster

In Léogâne, the PAHO/WHO led sub-cluster covers three communes: Grand Goave, Petit Goave, and Gressier. These areas were closest to the earthquake epicenter and some suffered almost 80% destruction. With the presence of PAHO/WHO, coordination of health partners has strengthened the quantity and quality of health coverage, and the long-term objective is to transfer leadership to the local health authorities.

In all four areas, access to health services or health centers is extremely limited, and even impossible for populations living in mountainous regions. Temporary field hospitals have been set up through Médecins Sans Frontières (Switzerland), the Cuban Brigades and an American NGO.

PAHO/WHO has installed containers in Léogâne and made plans for two health centers. Plans for the reconstruction of a semi-private hospital (Cardinal Leger & Sanatorium de Siguenau) are underway.

In Grand Goave, PAHO/WHO has cleared out rubble and reconstructed 3 Health Centers - Meyer, Dufour and Dano - in collaboration with MDM Switzerland.

PAHO/WHO continues to coordinate weekly mental health cluster meetings in Léogâne to share past and upcoming activities with several NGO partners and other health agents. NGO partners and other organizations are

working to incorporate Haitian culture into their programs, clear rubble from schools, create psychosocial and health promotion programs.

Jimaní and the Haiti-Dominican Republic Border

On the third day after the earthquake, PAHO/WHO sent a team to Jimaní, in the Dominican Republic at the border with Haiti. A field office was established and acted as a logistics hub and also supported local health facilities, which received over 3,000 patients in the first few days. A medical officer from PAHO/WHO supported triage efforts in hospitals, and Dominican medical brigades were sent to Jimaní to help refer patients to hospitals in Santo Domingo. PAHO/WHO set up a coordination mechanism with the health staff of 'Love a Child', run by Harvard University and World Vision, to join forces in the treatment of patients. A small pharmacy was set up to serve the hospitals.

PAHO/WHO remains active in health response services and coordination. Border highlights include rehabilitation activities, vaccinations, and capacity building through training.

In April, MSPP and PAHO/WHO met in Jimaní to begin planning for staff training in rehabilitation services along the border. There is also an ongoing needs assessment related to design, fitting, and maintenance of prosthetic limbs. Of the 275 individuals recovering from quake-related injuries in the Love a Child rehabilitation center, 48 underwent amputations.

PAHO/WHO is also partnering with the MSPP to design a training program for waste management in shelters. Finally, a registration system coordinated by MSF and PAHO/WHO is ensuring patients returning to Haiti from the Dominican Republic receive proper follow-up care.

The referral system reflects a larger effort throughout Haiti to help recovering patients find appropriate health services.

2. Outbreak Control and Disease Surveillance

Communicable Diseases

Population displacement has resulted in overcrowding in resettlement areas. The current living conditions of almost two million displaced people pose a serious risk of outbreaks of communicable, water-borne and vector-borne diseases, such as diarrhea, acute respiratory infections, malaria, dengue, and measles. The situation will become critical in the current rainy season.

PAHO/WHO plays a critical role in the detection and control of communicable diseases in the aftermath of the earthquake. Together with partners such as the U.S. Centers for Diseases Control and Prevention (CDC), the Cuban Brigades, the Canadian International Development

Agency and Médecins Sans Frontières, PAHO/WHO supported the MSPP in developing an early warning system for the detection of communicable diseases, comprised of 52 sentinel sites. Health facilities, NGOs, and medical brigades from Cuba and other countries are providing daily information on a large number on communicable diseases with epidemic potential. Procedures are in place for field investigations of suspected cases upon the immediate notification of six diseases (measles, diphtheria, meningitis, acute hemorrhagic fever syndrome, flaccid paralysis and rabies) reported through the sites. Other suspected outbreaks have been investigated. In addition, the MSPP and partners have established active surveillance in temporary camps where the risk of epidemics is higher due to overcrowding and poor sanitary conditions.

Displaced populations may be at an increased risk of malaria and dengue due to an increased exposure to vectors among displaced populations. Based on reports of the UN Office for the Coordination of Humanitarian Affairs (OCHA), there has been an increased movement of people from the earthquake affected areas to places that are known

to be of moderate to high risk for malaria transmission.

The rainy season will further increase the risk not only for displaced Haitians but for the entire population, as mosquito breeding is expected to increase. PAHO/WHO is supporting the MSPP to address this situation and has helped to develop short- and medium-term emergency response plans and is advising the MSPP on how to improve vector control.

In February 2010, PAHO hosted a Multipartners Dialogue for Rebuilding the Neglected Tropical Disease (NTD) Program in Haiti. Participants included representatives from Haiti's Ministry of Health and Population, the US Centers for Disease Control and prevention (CDC), NGOs and academic institutions which participate in the NTD control programs in Haiti, and potential donors. PAHO's main commitments are: 1) To support the restoration of basic public health services in Haiti, including the Mass Drug administration (MDA) programs for Lymphatic Filariasis (LF) and soil-transmitted helminths (STH), as well as the implementation of integrated plans for the control of NTDs in Haiti; 2) To support the sustainability of the NTD control programs in Haiti and the strengthening of country capacity to lead and coordinate them; 3) To provide continued support for donations of drugs, access to diagnostic tests, monitoring, and evaluation.

Human rabies transmitted by dogs is one of Haiti's priority diseases and the country has significantly improved rabies control measures even in difficult situations. A new dog mass vaccination campaign was underway when the earthquake struck. However, the national authorities finished the campaign with very good results, vaccinating more than 400,000 animals. The dog vaccination campaign, developed by the Ministry of Agriculture in coordination with the MSPP with PAHO support, was one of the first activities that returned to normal after the earthquake.



IICA and other organizations were partners in this activity. Given the complex situation of the health system in Haiti after the earthquake, special attention was taken to ensure that the country will have enough human vaccine and immunoglobulin for post exposure prophylaxis of people bitten by animals. Also new guidelines in French were sent to country in case previous copies were lost in the destroyed buildings.

The Health Information and Analysis Project had developed a comprehensive country health situation analysis prior to the earthquake, as well as a country health profile. This background information provided key analytical inputs to the emergency relief coordination efforts immediately set up in the aftermath of the earthquake.

The Chronic Diseases Project was involved in discussions with the Dominican Republic in how to strengthen health services on the border for chronic diseases, as they have been facing a large increase in patients from Haiti since the disaster.

3. Sustainable Development and Environmental Health

Right after the earthquake in Haiti, PAHO/WHO started to develop cooperation strategies to address not only immediate emergency rescue operations and disaster relief efforts, but also long-term interventions contributing to promoting health and sustainable development.

On 20 January 2010, PAHO/WHO held a virtual consultation meeting with 27 Collaborating Centers specializing in the area of sustainable development and environmental health. The dialogue with the partners helped identify priority areas of concern, begin coordinating efforts, and align resources in the following areas:

1. Gender-based violence (GBV)
2. Communication for Development and Community Mobilization
3. Water and Sanitation (WASH)
4. Workers' Health

For the past four months, PAHO/WHO has played an instrumental role in supporting program activities related to these four areas. All activities have been carried out under the coordination of the Health Cluster taking into account the WHO mandate in WASH under the UN Humanitarian reform. Coordination with other Clusters and sub-clusters has also been carried out.

Gender-Based Violence

The Health Cluster has been working during emergency response and recovery to ensure availability of clinical care for survivors of sexual violence. Procuring medicines and supplies, and ensuring health staff know where to refer survivors for help with psychosocial, legal and other needs is a key component of this initiative.

At present, the response to gender-based violence in Haiti is being coordinated through the Protection Cluster, which



has a GBV sub-cluster headed by UNFPA and UNICEF focused on protection issues. Under the Health Cluster, a Sexual and Reproductive Health working group is being headed by UNFPA and focuses on clinical management of rape.

GBV has been addressed during strategic and coordination meetings with all agencies providing health services to ensure that health provisions for survivor of sexual violence are addressed. Provision of care and referral to GBV survivors has been included in the minimum package for primary health care services, developed by the MSPP with the support of PAHO/WHO.

Communication for Development and Community Mobilization

Basic communication channels broke down during the emergency, preventing the flow of communication and information related to health services and health messages to displaced groups living in temporary shelters.

In partnership with the Collaborating Centers in the region, PAHO/WHO facilitated communication materials, relevant to the context in Haiti, that were available in French or could be adapted to Creole. PAHO/WHO also worked with UNICEF and the Department of Health Promotion and Environmental Protection from the Ministry of Health in the development of a Plan of Health Communication Interventions following the earthquake.

PAHO/WHO continues to work with AMARC (World Association of Community Radios) and grassroots organizations to rebuild long-term development communication initiatives in Haiti.

Youth groups in Haiti were part of the emergency response effort right after the earthquake. Organized groups,

such as Ecoclubes and the Water and Youth movement, assisted in search and rescue efforts, provided first aid to the injured, transported water, food and medicines to remote communities while working in close coordination with PAHO/WHO. In order to strengthen capacity of the youth groups, PAHO/WHO facilitated logistics and communications, mobilized resources, and provided technical assistance for the groups to operate.

Also as part of the prevention efforts against malaria, the Ecoclubes are adapting to Creole the educational board game PALÚ developed by PAHO/WHO to teach low literacy groups how to prevent malaria at home and in the community.

In response to the needs of many displaced Haitians seeking help in the Dominican Republic, the Ecoclubes immediately mobilized youth groups and provided a variety of health promotion services under the “Magic Border” initiative. After contacting their counterparts in Haiti, the Ecoclubes in the Dominican Republic, in coordination with PAHO/WHO, combined entertainment and education techniques to promote hygiene and sanitation behaviors, joined efforts to strengthen the surveillance system, and implemented a number of activities to reduce stress and promote mental health among the youth, children and family groups.

Currently, youth groups under the Water and Youth movement are running a fundraising campaign known as “Today for Haiti” at the international level. The goal of this campaign is to raise \$65,000 to train and equip six disadvantaged communities with six water pumps in order to provide safe water to over 5,000 homes in Haiti. In addition to providing technical assistance, PAHO/WHO has involved the Pan American Health and Educational Foundation (PAHEF) in the collection and management of the fund.

PAHO/WHO’s Contribution to Water and Sanitation

The earthquake damaged Haiti’s power, water and sanitation systems, and the deterioration in quality of these vital utilities presents a major health risk. PAHO/WHO estimates diarrhea accounted for 16% of under-5 deaths in Haiti before the earthquake.

Priorities in the area of water and sanitation include access to safe water, sanitation (including management of medical waste) and hygiene in hospitals/health care centers, as well as access to safe water for communities (especially through coordination of water quality monitoring).

In partnership with MSPP and DINEPA, a general framework of monitoring water quality has been developed.

A key objective has been to achieve proper chlorination for 50 DINEPA trucks temporarily supplying water to public facilities, and PAHO/WHO is assisting DINEPA with chlorination of water by providing HTH to water trucks at filling stations. Each day 4.2 million liters of clean water are delivered to affected communities. Efforts to recruit and train attendants at filling stations are ongoing and Technischen Hilfswerks (THW), a German NGO, is working with PAHO/WHO to conduct water analyses.



Raw water first analysis has been conducted followed by a raw water routine monitoring for main chemicals. PAHO/WHO similarly supports Haiti under the coordination of the Representative of PAHO/WHO in the Dominican Republic. Prevention of infections in hospitals at the border has been addressed, including aspects related to water and sanitation and criteria for Safe Hospitals.

PAHO/WHO’s Contribution to Workers’ Health

In February 2010, the PAHO/WHO Collaborating Centers in Occupational Health was asked to support activities in occupational and environmental health following the earthquake in Haiti. A consultant completed the short-term assessment and identified specific actions for the immediate, medium, and long-term.

The core objectives of this assessment were to:

- o Improve living and working conditions of staff and employees of the MSPP
- o Improve living and working condition of PAHO/WHO staff
- o Improve support for relief operations and the protection of aid workers in general
- o Reduce work-related risks of locally contracted personnel during reconstruction after an emergency
- o Improving Workers’ Health in Haiti

Sanitation

The disposal of medical waste from hospitals and health facilities poses an environmental risk that PAHO/WHO is working to mitigate. After the earthquake, overwhelmed health facilities did not dispose of medical waste properly, which is essential to controlling the spread of diseases

transmitted by rodents and mosquitoes. PAHO/WHO has provided public health institutions and NGOs with 20,000 plastic bags for safe disposal of medical waste and 1,000 sharp containers for disposal of needles and other sharp items.

During the initial emergency response, PAHO/WHO paid for two pits to be dug in the Truitier Municipal Dump (TMD), one for excreta and the other for Health Care Waste. PAHO/WHO contracted, trained and vaccinated the Haitian Department of Solid Waste Management (SMCRS) agents to collect health care waste from hospitals to be transported to the pits dug at TMD.

In May, WHO/PAHO began working with the WASH Cluster, SMCRS, DINEPA, and World Vision, to coordinate plans for emergency liquid waste containment and treatment at the TMD waste disposal site in Haiti. The site only has capacity to manage solid waste, but since the earthquake, it has taken significant amounts of liquid waste from Port-au-Prince.

Key objectives of the project include preventing the spread of liquid waste and reducing risk to the local population through separation of harmful solid and liquid waste. The project will directly benefit approximately 2,500 people currently living in settlement camps directly affected by the waste disposal site, as well as users of latrines in camps in Port-au-Prince.

Two settlement ponds will be constructed with the capacity to hold and treat 25,000 cubic metres of sludge. 2000m of road and a turning circle will be constructed for the efficient and safe disposal of liquid waste by waste disposal trucks. WHO/PAHO and the WASH cluster are working with the MSPP, along with THW and other partners to establish a laboratory that can test water quality.

4. Restoration of Basic Health Services

One of the first activities of PAHO/WHO after the earthquake was the reactivation of the Venezuelan Humanitarian Fuel Program, aimed at allowing operation of key services at health facilities, particularly surgical units. Three deliveries were made with fuel totaling more than 50,000 between the end of January and March 2010.

Soon after the January 12 quake, PAHO/WHO took the lead of the Hospital sub-Cluster to ensure coordination of foreign medical teams that came to the country to offer services. In this context, PAHO/WHO led an evaluation related to the situation of sanitary institutions after the quake. The same action was carried out in relation to the Mobile Clinics' sub-cluster. Regarding the mobile clinics, support was provided to the health authorities on the following:

1. Defining the health package to be provided free of charge by the mobile clinics
2. Organizing the mobile clinics' health services provision and their integration into a reference system to allow the patients to access health services at different levels of care depending on their needs
3. Establishing an information system to record the mobile clinics activities
4. Coordinating integration of different players working on mobile clinics, including the Cuban Brigade

PAHO/WHO has defined the parameters that would allow for a Free of Charge Obstetric Care (SOG) project for pregnant women and newborns to be revamped. The SOG was made operational again after February 2010 with a simplified activity reporting mechanism. An expanded package of services (SOG Plus) has already been designed and agreed upon with health authorities. PAHO/WHO is working on bringing the prenatal information system and the SOG data base back to normal operation so they will be ready for the launching of SOG Plus in July 2010.

PAHO/WHO has also been actively involved in the definition of a new contracting model for purchasing health services. The model, agreed upon with the MSPP, will allow for:

1. Providing free of charge health care at the point of service



2. Ensuring health institutions' cost recovery with no need for them to charge the patients
3. Strengthening national health authorities' stewardship and bargaining power
4. Integrating health providers under a single system through the provision of the same health package

Radiology

PAHO/WHO, in cooperation with the International Atomic Energy Agency (IAEA), is providing basic radiology services to hospitals inside and outside Port-au-Prince, including a donation of eight mobile X-ray machines, four automatic film developers, and related supplies, which have been delivered to strategic health facilities designated by the MSPP. Following their delivery, successful installation of three digital X-ray machines, three film based X-ray machines, and two automatic film developers was completed.

PAHO/WHO will manage and distribute supplies for these X-ray machines such as X-ray films, developer liquids, lead aprons, protective panels, and personal dosimeters through PROMESS. Training is ongoing for personnel



on proper use of the portable machines, radiation protection, storage of films and chemicals, darkroom techniques, machine maintenance, patient positioning, and use of different film screens and speeds.

Re-activation of the Health Information System

Haiti's Health Information System was disrupted by the catastrophe. MSPP lost 200 staff when its building collapsed; many health staff at hospitals and health centers were affected, and a number of them left their posts. MSPP asked for support from PAHO/WHO and other partners including UNFPA, UNICEF, U.S. Centers for Disease Control and Prevention (CDC), and the Clinton Foundation to establish a Health Information Situation Room as the basis for a system for collecting and managing health information. The information collected has provided an overview of the needs, epidemic trends and services available to enable the MSPP to take evidence-based decisions.

Blood Banks

The MSPP National Blood Safety Program was created to establish standards for safe blood transfusions, increase voluntary blood donations and facilitate access to safe blood for patients. In the past five years, blood collection rose by 250%, the number of blood units increased from 9,000 to 22,000 and voluntary blood donations went from 4.7% to 70%. The NBSP hoped to reach the goal of 100% voluntary donations by 2010, but their efforts have been seriously hampered by the earthquake's destruction of the building housing the National Center for Transfusions and the NBSP building itself.

For the first eight days after the earthquake, no blood was available for transfusions. PAHO/WHO played a critical role in coordinating and distributing blood donations

from other countries, and in six weeks, 2,500 units were received and distributed to hospitals in Port-au-Prince and the metropolitan area. International donations of blood will still be needed until the system is fully re-established. PAHO/WHO is now working with the MSPP and other partners to seek funds and international support to build new premises for the National Center for Transfusions.



Mental Health

Addressing psychosocial needs in Haiti remains a top priority for the health officials in Haiti. PAHO/WHO, UNICEF, and IOM have been working with MSPP to finalize the national plan for mental health and psychosocial support. The draft plan is now being circulated for feedback among other government agencies, health professionals, and partnering institutions.

A three month work plan was organized by the Mental Health and Psychosocial Support (MHPSS) sub-cluster in April, and is now being implemented by health partners. The plan aims to coordinate and promote the launch of the national plan, and establishes systemic relationships for interfacing with the Health, Protection, Education, Nutrition, and CCCM Clusters. There are currently 90 NGOs working in the MHPSS who are mapping psychosocial capacity and developing contingency plans for the rainy season.

5. Reactivation of Specialized Health Care in the Metropolitan Area

Basic Package of Health Services/Mobile Health Units

A system of mobile health units has been put in place to facilitate access to health care for displaced Haitians. PAHO/WHO is helping the MSPP coordinate the work of international and national agencies and NGOs that have brought in health personnel and equipment to provide primary health care services in the affected areas. A number of international agencies are providing mobile health services, including the Cuban Medical Brigade, Partners in Health, Aide Médical International, Merlin, Médecins Sans Frontières, International Federation of the Red Cross and its National Societies, and Médecins du Monde, among others.

Child and Adolescent Health

PAHO/WHO has been working with the Academy of Pediatrics (AAP) in translating the Children and Disaster Manual into French and Creole. An assessment in neonatal health was conducted and a plan was produced for capacity building at the country level. Areas of action for improving child health include; clinical IMCI training



(including neonatal health); actions to improve family and community health; promoting key family practices and linking them to health services; expanding mobile units for health promotion and education services; and strengthening child development activities.

Nutrition

Prior to the earthquake, there were 16 NGOs working on nutrition in eight Departments.

The Nutrition Cluster was activated 10 days after the earthquake and PAHO/WHO and the MSPP-UCPNANu acted as facilitators for health partners involved in nutrition. All the previous work done in 2009 served as a base and source of information to organize Cluster activities. More than 25 NGOs are part of the Nutrition Cluster

PAHO/WHO ensures the provision of treatment and management of children hospitalized with severe acute malnutrition. This involves providing essential drugs and supplies and training. Strategies included the Coverage Nutrition Program, which helps prevent malnutrition by providing children between 6 and 59 months, as well as pregnant and breastfeeding mothers with nutritional food (energetic biscuit rich in proteins). Ready to use artificial milk for children under one year old who have been left without breastfeeding as a consequence of the earthquake (orphans, traumatized mothers, etc.) has also been made available.

A joint agreement between MSPP/UNICEF/WFP/PAHO/WHO has been made to support adequate nutrition for breastfed babies and children. In addition, recommendations have been made on nutrition for breastfed babies and those who are HIV-positive.

Finally, PAHO/WHO has partnered with the MSPP on the following initiatives:

- Training of Trainers on acute malnutrition treatment in outpatients: a total of 26 people have been trained, 18 MSPP staff in the different Departments, 5 MSPP staff at central level and 1 PAHO/WHO nurse.
- Training of Trainers on acute malnutrition treatment in hospitals: a total of 27 people trained, 19 MSPP staff in the different Departments, 5 MSPP staff at central level and 1 PAHO/WHO nurse.
- Training on acute malnutrition treatment for outpatients and hospitals: a total of 43 people trained, 40 members of NGOs which are counterparts of the MSPP, 2 MSPP staff at central level and 1 PAHO/WHO nurse.
- Training on breastfeeding and use of artificial ready to use milk for infants.



A new nutritional survey was carried out in affected areas from 24 April to the end of May, organized by UNICEF and the MSPP, with the participation of CDC, NGOs working on those areas and the collaboration of the WFP and PAHO/WHO.

6. Control of Vaccine-Preventable Diseases

National Post-Disaster Vaccination

After the earthquake, the National Immunization Program (DPEV, from the French acronym), with support from



PAHO/WHO and United Nations Children's Fund (UNICEF), developed a National Post-Disaster Vaccination Plan. The main objective of this plan was to minimize the occurrence of vaccine-preventable diseases in the aftermath of the earthquake. This plan included immediate provision of Td/TT vaccine and tetanus antitoxin to persons injured during the earthquake and those undergoing emergency surgeries, including amputations. It also included vaccination against diphtheria, tetanus (and whooping cough for children), measles and rubella, the provision of vitamin A supplements and albendazole, as follows:

- Children aged 6 weeks to 8 months – DTP
- Children aged 9 months to 7 years – DTP, MR and vitamin A supplements
- Persons aged 8 years and more – Td
- All children aged ≥ 2 years – Albendazole

The main vaccination interventions were planned in two phases.

Phase 1. Vaccination of displaced population living in temporary settlements in disaster affected communes (second administrative level or district equivalent). These

include Port-au-Prince, Petion Ville, Delmas (including Tabarre and Cite Soleil), and Carrefour in the Metropolitan Area; Croix de Bouquet, Léogâne, Gressier, Grand Goave and Petit Goave in the Ouest Department and Jacmel in the Sudest Department. Even though vaccines are offered to the entire population in the camps, children have been the main focus. The target population was initially estimated at around 1.4 million people (around 250,000 children aged 6 weeks to 7 years) living in over 300 sites, using data from the Office for the Coordination of Humanitarian Affairs of the United Nations (OCHA). The estimates by age group were done by applying the age distribution in the general population. One of the biggest challenges has been determining the target population, given the transient nature of some of the population and sites and the appearance of spontaneous new sites in several localities. As of mid-May 2010, this phase was finished and around 880,000 persons in 692 sites had been vaccinated (data entry ongoing); representing around 62% of the estimated target age group in the vaccinated settlements.

Phase 2. This phase aims to provide a similar package of interventions (OPV instead of vitamin A) to all people living in the affected areas, not only those living in settlements. This will provide a second dose of DTP/Td and MR for previously vaccinated persons and an additional opportunity for those not living in tents or missed in phase 1. Vaccinations will be conducted by the DPEV with its departmental and commune health bureaus. Coordination with NGOs working in the field is expected at the local level. Vaccination strategies will include fixed and mobile posts and intense social mobilization activities. Based on the experience from phase 1, it is expected that such a campaign could be implemented in all affected communes over no more than a four-week period.

The plan is to start phase 2 in mid-June, taking into consideration the urgent need to protect the population living

in poor conditions and the feasibility of having all required vaccination supplies in the country.

The post-disaster vaccination plan also includes intensification of routine vaccination with all the EPI vaccines, as an integrated health package, for children aged <5 years, and epidemiological surveillance in health institutions and at community level.

7. Treatment and Rehabilitation of Injured Patients

Among the 300,000 people injured in the earthquake, more than 4,000 amputations have been performed. In addition, there are many people with other traumas, including head and spinal cord injuries. Rehabilitation services are critically important to help them recover mobility, even if partially.

Prior to the earthquake, Haiti did not have a specialized rehabilitation center. Several hospitals offered rehabilitation services, however, the existing infrastructure and equip-



ment was damaged, and some of the health personnel specialized in rehabilitative care (already scarce before the disaster) became unavailable.

Handicap International and Christoffel Blind Mission (CBM) are the chairs of the sub-cluster that has been created within the Health Cluster to coordinate rehabilitation activities in the relief phase. A PAHO/WHO expert in rehabilitation is part of this group and another working group set up by the MSPP to develop a national rehabilitation plan. The draft plan was presented to national authorities in March. PAHO/WHO is also providing technical advice to the MSPP on the integration of rehabilitation services into the health system structure. This includes training of specialized personnel (psychiatrists, occupational therapists, prosthetic and orthotic technicians, speech therapists and physiotherapists), and the provision of equipment for rehabilitation and the production of prostheses.

In early May, a Letter of Agreement was signed between Handicap International and PAHO/WHO for the provision of rehabilitation equipment.

8. Availability of Drugs and Medical Supplies

The PROMESS medical warehouse, established in 1992 to ensure access to quality medicines and supplies, has played a vital role in the earthquake response. Overseen by a management committee led by the Haitian minister of health and managed by PAHO/WHO, PROMESS has served as the main storage and distribution center for medicines and supplies that were already in-country as well as those donated as part of the relief effort. In the aftermath of the earthquake, PROMESS made drugs and medical supplies available to all public health facilities and national and in-



ternational NGOs that were providing free health services to the affected population.

Several days after the earthquake, the U.S. Army offered to support PROMESS in the distribution of drugs and supplies. The collaboration revolved around four areas:

- The U.S. Army provided 25 medical logisticians and pharmacists who, for several weeks, worked throughout the night to update the inventory of PROMESS
- Through USAID, PROMESS received help to organize more effectively the supply chain management of medical items to be able to address the growing requests for drugs and supplies with the speed that the emergency required
- A group from the JFSOCC visited hospitals and health centers in Cape Haitien, Saint Louis du Nord, and Gros Morneto to collect a list of medicines and supplies needed, then prepared the requests for PROMESS and delivered them to the hospitals within six hours.

- U.S. forces also provided engineering support to clear the rubble around the PROMESS facilities to create space for storage of containers. In addition, they provided 24/7 security for the premises for over a month, until new walls could be erected.

In the immediate aftermath of the earthquake, PROMESS saw an average of 30-32 clients per day, such as public hospitals and local NGOs. During the first 45 days, PROMESS distributed more than 345,000 boxes of essential medicines and supplies, including antibiotics; vaccines; drugs for mental health conditions; drugs for treatment of TB, diabetes and malaria; anaesthetics; and analgesics.

A global agreement with the World Food Program (WFP) for collaboration in logistics allowed PAHO/WHO to send more than 25 metric tons of essential medicines, supplies and equipment by helicopter to hospitals and health centers in areas where health services are being overwhelmed by the needs of displaced people.

In early April, MSPP extended free access to medicines until July 12. Currently, PROMESS continues to partner with MSPP for the distribution of health packages to all mobile clinics, public hospitals and NGOs. The following packages are being distributed to meet the health needs of the Haitian population:

1. **Basic Units** – Contains 24 boxes of supplies, which are packaged with medicines, IV fluids, renewable supplies, medical instruments, and clinical guidelines/diagnostics and treatment manuals. The Units can care for 1,000 people for three months
2. **Supplementary Units** – Contains medical devices, essential medicines and equipment for a population of 10,000 for a period of three months
3. **PROMESS Kit** – Contains donated supplies tailored to meet the needs of displaced populations. This kit

is assembled by PROMESS in the Port-au-Prince warehouse

4. **Mobile Clinic Kits** – Contains one Basic Unit and one PROMESS Kit
5. **Emergency Health Kits** – Contains 10 basic Units and one supplementary Unit
6. **Reproductive Health Kits** – Contains condoms, obstetric supplies, and Sexually Transmitted Infection supplies

In March, 100 mobile clinic kits were distributed in all priority areas. As of April, all hospitals had received Basic Units required to meet the population demand.

On April 1, PAHO/WHO launched a website for PROMESS highlighting its role as distributor of essential medicines in Haiti. The site provides procedures for delivery and acquisition medicines and offers helpful links and multi-media. Partners can find a list of products by therapeutic classification and access order and payment

forms. The site can be located at www.paho.org/promess and is available in both French and English.



Contact Information

Pan American Health Organization
 Emergency Operations Center, Washington DC
www.paho.org/disasters
eoc@paho.org