

Integrating oral health into Haiti's National Health Plan: from disaster relief to sustainable development

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ABSTRACT

In 2010, Haiti suffered three devastating national emergencies: a 7.0 magnitude earthquake that killed over 200 000 and injured 300 000; a cholera outbreak that challenged recovery efforts and caused more deaths; and Hurricane Tomas, which brought additional destruction. In the aftermath, the Pan American Health Organization (PAHO) reoriented its technical cooperation to face the myriad of new challenges and needs. Efforts included support and technical assistance to the Ministry of Health and Population of Haiti and coordination of actions by the United Nations Health Cluster.

This Special Report focuses specifically on the PAHO Regional Oral Health Program's call to action in Haiti and the institutional partnerships that were developed to leverage resources for oral health during this critical time and beyond. To date, achievements include working with Haiti's private sector, dental schools, public health associations, and other stakeholders, via the Oral Health of Haiti (OHOH) Coalition. The OHOH aims to meet the immediate needs of the dental community and to rebuild the oral health component of the health system; to provide dental materials and supplies to oral health sites in affected areas; and to ensure that the "Basic Package of Health Services" includes specific interventions for oral health care and services.

The experience in Haiti serves as a reminder to the international community of how important linking immediate/short-term disaster-response to mid- and longterm strategies is to building a health system that provides timely access to health services, including oral health. Haiti's humanitarian crisis became an important time to rethink the country's health system and services in terms of the right to health and the concepts of citizenship, solidarity, and sustainable development.

Key words

Oral health; national health programs; emergency plan; delivery of health care; Pan American Health Organization; Haiti.

In January 2010, the 7.0 magnitude earthquake that struck Haiti killed

more than 200 000 individuals, injured 300 000, and displaced more than 1 million Haitians (1). A subsequent cholera outbreak in October of the same year caused 17 418 hospitalizations and 1 065 additional deaths (2). Then in November 2010, Hurricane Tomas brought further devastation and complicated recovery

and cholera control efforts. These three national emergencies overran the country's already deficient infrastructure and services and exacerbated its high incidence of poverty. The events of 2010 took an enormous toll on Haiti and have required massive international assistance in moving toward recovery.

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The Pan American Health Organization (PAHO), the Regional Office for the Americas of the World Health Organization (WHO), had already identified Haiti as one of the five priority countries.

In response to the devastation of 2010, PAHO/WHO technical cooperation was reoriented to face the new demands and needs. Its presence continues to be strengthened, providing support to national authorities within the Ministry of Health and Population (MSPP), as well as coordinating actions within the United Nations (UN) Health Cluster, both essential to addressing the present challenges and those beyond.

The three nearly concurrent emergencies in Haiti reminded the international community of the importance of linking immediate and short-term disaster response to mid- and long-term strategies. Doing so builds a health system capable of providing timely access to basic health services, including oral health. The humanitarian crisis in Haiti can serve an impetus for rethinking the country's health system and services, especially in terms of the right to health, and the concepts of citizenship, solidarity, and sustainable development.

This special report has three objectives: first, to showcase the oral health response to the crisis in Haiti as a model for how the international community can make a strong, issue-driven effort to fill the gap for services needed; second, to explain how the Oral Health of Haiti (OHOH) Coalition was made possible through contingency planning according to PAHO's previously developed *Post-Disaster Guidelines for Oral Health* (3); and third, to state that a properly-mobilized disaster response can and should pave the way for sustainable development. In the case of Haiti, the earthquake disaster created an opportunity to integrate oral health into the country's primary health care system.

COUNTRY SITUATION

One of the world's poorest countries, Haiti suffers from economic, social, political, and health challenges. The earthquake that took place on 12 January 2010 caused unimaginable loss of life and millions of dollars in health infrastructure damage, exacerbating the structural problems that already afflicted the country. Haiti's capital, Port-au-Prince, and the nearby cities of Carrefour and Jacmel, suffered extensive damage; the town of

Leogane was close to 80% destroyed (4). Almost 2 million people lost their homes, and more than 500 000 sought shelter in other parts of Haiti. The existing high unemployment rate skyrocketed, making it very difficult for households to access health services, which are paid for out-of-pocket. Access to safe water was scarce—less than 20% of rural, and less than 30% of urban households have latrine access—leaving Haitians primed for outbreaks of diseases such as cholera (5).

In 2009, the country's total population reached the 10 million mark. Haiti's population is predominantly young—almost 60% are under 24 years of age—and rural (60%) (6).

Haiti is considered to be one of the most unequal countries in terms of income distribution—66% of the nation's wealth is concentrated in just 4% of the population (7). More than 50% of the population lives below the extreme poverty line (US\$ 1 per day) (5). For the past 2 decades, the country's political and social crisis has had serious socioeconomic consequences. Haiti's Gross Domestic Product (GDP) has generally fallen, translating into a negative average annual growth rate, from -0.3% to -1.1% per year. One-third (33%) of the economically active population is out of work and up to 70% of those employed are government workers. The economic impact of extreme events, such as droughts, hurricanes, and the 2004 floods, coupled with a climate of insecurity reaching critical levels, material losses, and economic disruption caused by political unrest earlier that year, contributed greatly to the 5.5% drop in GDP (5). The United Nations has referred to these dire circumstances as "the silent emergency" (8).

With harshly limited economic growth and resources, and severe sanitation and infrastructure problems, Haiti also remains highly vulnerable to environmental degradation, and low nutritional status due to inaccessibility to highly nutritious foods and a lack of access to enough food. Acute diarrheal disease is highly prevalent: 2 of 5 children (40%) 6–11 years of age, as well as 1 of 4 children (25%) less than 5 years of age experience one or more episodes of diarrhea in any 2-week period (5).

THE PUBLIC HEALTH SYSTEM

Even before the emergencies of 2010, Haiti exhibited significant deficiencies in

its performance of essential public health functions. The precariousness of the Haitian health care system was reflected at all levels: a highly fragmented service delivery network composed largely of private providers, both nonprofit and for-profit; a financing structure that relied on donations from the international community and patients' out-of-pocket payments; health information systems deeply fragmented and poorly developed; problems with the quantity, distribution and regulation of equipment, medical supplies, and essential drugs; and insufficient human resources, who lacked skills and were poorly distributed (5).

Even prior to the earthquake, almost 50% of the population lacked access to basic health care services, including drugs; the majority were seeking care from traditional healers (5). Hospital and clinical facilities in Haiti have long been compromised by infrastructural deficiencies, electrical blackouts, water problems, and a general lack of financial resources. Specifically a concern to oral health, municipal water does not contain fluoride. Prior to the earthquake, provision of essential care had been very limited in terms of coverage and quality.

Nevertheless, the country had taken initial steps toward establishing a social health protection plan for pregnant women and newborns called Soins Obstétricaux Gratuits (Free Obstetric Care, SOG).

REBUILDING THE HEALTH SYSTEM

Despite the three disasters, efforts by government and foreign aid agencies continue to support the rebuilding of the health system. Following the WHO guidelines for organizing emergency response to a humanitarian crisis, UN agencies and other partners organized into "clusters" in the aftermath of the 2010 earthquake. PAHO/WHO undertook the leadership and coordination of the Health Cluster, whose many participants included a large number of non-governmental organizations (NGOs). Coordination of technical assistance within sectors was effective in the acute phases of the earthquake, cholera outbreak, and Hurricane Tomas.

Preparing the Government of Haiti to take over the reconstruction continues to be critical, as well as ensuring support from the international community for

strategic planning and alignment with government priorities. For this purpose, the MSPP created the National Health Commission to coordinate the health services delivery through three venues: mobile clinics (in temporary emergency camps), existing health centers, and hospitals.

Despite the destruction or damage of an important number of health facilities, the SOG Program continued to provide free health services through 63 hospitals, both public and private non-profits. Other health providers followed suit, putting themselves into service free-of-charge among the impacted population.

During the Interim Health Plan (April 2010–September 2011), the MSPP stated that the strategy to rebuild the nation's health system would revolve around access for vulnerable groups (9). Accordingly, in June 2010 the MSPP and PAHO launched the Soins Infantiles Gratuits (Free Child Care, SIG) to provide free-of-charge health services to children less than 5 years of age through 27 hospitals (10).

The health system rebuilding process requires strong institutional partnerships to deliver technical assistance, a key component for securing resources. But above all, it requires a common vision of how to rebuild the system, and a plan that includes all the stakeholders. In July 2010, the Commission for the Reconstruction of Haiti (IHRC) approved a MSPP-PAHO project to provide free health services to women and children less than 5 years of age through performance-based contracting. The project is based on the successful experiences of the SOG and SIG programs, and seeks to expand the package of services, merge SOG and SIG, and offer access to all pregnant women and children less than 5 years of age (about 3 million individuals).

Institutional partnerships and resource mobilization

Despite the MSPP's deep commitment to improving health conditions, the fragile public health infrastructure, the number of players in the health sector, and the extensive challenges ahead, pose the need for the Government to work with partners to mobilize, allocate, and organize resources in a coordinated fashion. Even in the face of the 2010 disasters, progress has been made and continues

to be made, especially when institutions combine resources to achieve greater synergies for Haiti's complex public health problems.

The disasters have created a renewed spirit of solidarity and identity among the Haitian people, making this an ideal time to rethink the country's health systems and services in terms of the right to health and the concepts of citizenship and solidarity. Strengthening the capacity of the Government of Haiti to take over reconstruction is critical, as is ensuring that support from the international community is appropriate, strategic, and aligned with government priorities.

In the aftermath of the earthquake disaster, PAHO/WHO, through the Regional Oral Health Program, called for action in developing institutional partnerships to leverage resources to help address oral health issues. In order to improve oral health among the Haitians, PAHO has been working alongside the various stakeholders throughout the Americas via the Oral Health of Haiti Coalition (OHOH). PAHO has discerned from previous experience that growing broad-based, sustainable, institutional partnerships to achieve solutions in public health creates a multiplier effect. Learning from "what works" and "what doesn't," as well as "scaling up" effectively, is something that is best done through partnerships.

INTERGRATING ORAL HEALTH INTO THE HEALTH CARE SYSTEM

Even before the earthquake, oral health had been a persistent public health problem in Haiti. With regard to dental services, Haiti had the lowest ratio of dentists to population in the Western Hemisphere, according to the 1999 National Oral Health Survey (0.12 dentists per 10 000 individuals) (11). Dental extractions were the treatment most often performed in public health centers; however this service was not always available (11).

Following the earthquake, the situation worsened: 35 private dental clinics were destroyed in Port-au-Prince; many dentists emigrated; procurement of dental materials and supplies became more problematic; and the population was unable to pay for oral health care.

In order to better address oral health issues during the post-disaster recovery

and health care system rebuilding, it was necessary to coordinate the disaster response efforts of the many humanitarian groups. Per PAHO's recommendation, the OHOH Coalition was created to provide relief aid to the oral health community in Haiti (10). The Regional Oral Health Program of PAHO, led by the Regional Advisor for Oral Health, issued a call to action to the international community to join the OHOH Coalition.

The OHOH Coalition now comprises representatives of dental associations, dental schools, and foundations, and strives to meet immediate needs, as well as to address the long-term objective of rebuilding the oral health system. The self-sustaining model that the OHOH is working toward with Haiti will focus on the following: (i) harnessing and empowering local talent; (ii) transferring knowledge and techniques by training local community members in oral health practices; (iii) developing a monitoring and evaluation system to assess the impact of the interventions; and (iv) developing methodologies for quality oral health care at the national level by strengthening the MSPP and targeting the disadvantaged segment of the population (12).

In 2010, the OHOH Coalition was able to provide a coordinated, sustainable disaster response. PAHO's *Post-Disaster Guidelines for Oral Health* was adapted to Haiti's situation, providing the steps and methodology for responding appropriately to the disaster (3). The guidelines can be used in any emergency setting to achieve the following objectives:

- Update the information on the oral health system in the affected country or community;
- Identify key institutions and individuals who can serve as resources and participate in activities aimed to improve planning and service delivery; and
- Provide guidelines for subsequent work in the areas of planning, human resource development, finance, utilization pattern, information, knowledge, and management.

With support from the Alpha Omega Foundation and the Pan American Health and Education Foundation, a Post-Disaster Needs Assessment (PDNA) (3, 4) was conducted, which provided the basis for

securing donations from various private institutions, industries, and universities. The PDNA gathered data necessary to assess, plan, allocate resources, and evaluate the dental care being provided to the people of the Haiti. The report from the PDNA assessed the main sites for provision of oral health services in metropolitan Port-au-Prince and its suburbs following the earthquake. The list includes the State University Dental School and a number of NGOs.

In order to improve provision of oral health services to the affected populations of Port-au-Prince and its suburbs, the OHOH Coalition advocated for the provision of dental materials and supplies to oral clinics serving these areas. As part of the health relief effort, in July 2010 dental materials and equipment valued at over US\$ 71 000 were shipped to Haiti. These donations arrived 7 months after the January disaster. This initiative brought to the oral health system necessary and valuable materials to help address the oral health care needs of those who became vulnerable after the earthquake. The materials received for infection control, dental consultations, dental restorations, surgery, prevention, and mobile clinics made oral health care available to refugees still camping throughout Port-au-Prince; reinforced oral health services within the primary health care system; and increased the capacity of the recipient sites to address emergencies in similar disasters. Thanks to the donors' generous support, 18 institutions, including 10 public health centers, benefitted from these dental materials.

Distribution efforts focused on providing each public health care site with an equitable portion of supplies and materials. However, because of limited structural capacity, the dental clinics at public health centers were not able to absorb all of the dental donations. To address this issue, alternate recipients, validated by MSPP, were found among the sites that were providing baseline oral health assessments. For institutions other than public health centers, distribution of donated materials was prioritized using a scoring system based on four criteria: (i) price of services; (ii) type of services provided; (iii) number of dental professionals available; and (iv) type of population targeted.

The distribution of donated materials was an opportunity to reinforce the net-

work of oral health care sites; to perform a system analysis for public institutions; to encourage dental clinics to participate in the fight against cholera; and to promote oral health awareness among the public. The distribution-related activities were under direct supervision of the PAHO/WHO National Consultant on Oral Health.

The State University Dental School

An important oral health institution that benefitted from the donation of dental supplies and materials was the State University Dental School (Faculté d'Odontologie, Port-au-Prince), essentially the only such school in Haiti. Other universities offer dental degrees, but students do not graduate with official state licensure. About 20–25 dentists graduate each year from the Dental School and are then dispatched throughout the country for a 1-year social service period at a public health center. Dentists serve mainly the population of the Port-au-Prince metropolitan area.

Infrastructure. The Dental School is one of three schools in the State University system that withstood the 2010 earthquake. The Dental School has 27 functional operatories; and nine more chairs without units, which could be used to increase the school's capacity in case of a massive emergency. Electricity is provided by the state's electrical power company and a 35 KW generator. The dental school buys about 9 000 gallons of water per week in addition to using water from the state water supply system.

Human resources. The Dental School employs 23 dentists as part-time professors, as well as one nurse and two auxiliaries that act as dental assistants. The school has 110 students and 17 non-dental administrative personnel.

Dental services capacity. The Dental School comprises four clinics, each dedicated to one of four areas of service: diagnostics; oral surgery; general dentistry (prophylaxis, restorative dentistry, and fixed partial prosthodontics); and prosthodontics. In non-emergency times, the Dental School serves about 137 patients per week and provides mostly secondary interventions: extractions, fillings, fixed bridges, full dentures,

endodontics, and periodontal treatment (scaling and root planning).

Following the earthquake, the Dental School provided free services, including extractions, temporary restorations, and scaling in an emergency clinic for about 3 months; in April 2010, it resumed provision of comprehensive care at the same price that prevailed before the disaster. The Dental School is still looking for support for outreach activities, such as offering extractions at refugee camps at mobile clinics, and delivering an oral health education campaign.

Regulations. Universal infection control guidelines are observed and applied by the dental auxiliaries and maintenance personnel. During their first year of training, all students are vaccinated against Hepatitis B and Tetanus.

Relationship to the primary health care system. The Dental School is the primary provider of dentists for the public dental clinics, and serves as a referral center for oral health care.

Financial resources. Being a public institution, the Dental School receives its funding from the State. Dental School employee salaries and fifth-year student allowances are paid monthly. Financial resources for general operations and maintenance are provided upon request. While the patient fees are nominal, they serve as petty cash covering expenses while disbursement of needed funds is delayed by the bureaucratic process.

Relationships with international organizations. Since the earthquake, the Dental School has been working closely with the OHOH Coalition, the American Dental Association (United States), and the Federación Odontológica Latinoamericana (Dominican Republic, FOLA). The OHOH Coalition is looking for ways to strengthen the capacity of the Dental School to deal with the oral health emergencies of displaced and needy populations and to address existing gaps in the oral health system in Haiti.

BASIC PACKAGE OF HEALTH SERVICES

In spite of the three emergencies that Haiti suffered in 2010, PAHO/WHO technical cooperation kept course under

the firm conviction that it is possible to ensure universal access to oral health care services through a specific set of interventions offered by a Basic Package of Health Services. So far, this Basic Package has included essential extractions, prophylaxis, and amalgam. However, interventions proposed for Haiti have been developed by the PAHO Regional Oral Health Program in the context of the Integrated Management of Childhood Illness (IMCI) strategy.

Proposed evidence-based interventions in oral health include detection of lesions, such as noma, and their treatment; atraumatic restorative treatment; appropriate oral hygiene practices; and use of fluoride varnish during immunization visits, which can improve dental caries prevention in children less than 5 years of age. IMCI now incorporates actions to cover other diseases and problems that impair child health and impinge negatively on healthy growth and development. IMCI is part of the new health plan for children within the broader government health plan.

The MSPP, PAHO/WHO, and other partners have worked to establish an emergency surveillance system for disease control. A situation room was created for national and international partners to monitor and investigate cases and provide information to decision makers. Of particular concern are the spread of cholera, water-borne diseases, and respiratory illnesses. Ultimately, integration of an oral health component in

this surveillance system will help assess the real burden of oral health diseases in Haiti and support improvement of the Haitian oral health policy.

Because of the limitations, such as the low ratio of dentists to population and disparate distribution of dental professionals and clinics across the country, integrating oral health into the health system also calls for training non-dental professionals to detect and address common oral health diseases. In different countries, treatment of simple caries through Atraumatic Restorative Treatment and gingivitis through elementary scaling has been successfully carried out by nurses, health agents, and even by teachers and other community leaders.

CONCLUSIONS

The experience recounted in this report supports three conclusions. First, the ways PAHO and its institutional partners responded to the crises in Haiti can serve as a model for how to create a strong, issue-driven response that fills health services gaps in the wake of emergencies, natural or otherwise (13).

Second, the OHOH Coalition was a result of contingency planning. Due to PAHO's firm commitment to full preparation and planning for such crises, as demonstrated by the PDNA (4) and the *Post-Disaster Guidelines for Oral Health* (3), the OHOH Coalition was able to mobilize, quickly and effectively, delivering

supplies and services to the areas most impacted by the disaster. Without an existing set of guidelines to lead the way in such a disaster scenario, the response of the Health Cluster may have excluded deployment of oral health services and equipment. PAHO's contingency planning, through the *Guidelines*, provided an easy-to-adapt action plan that facilitated a more comprehensive health sector response. By moving in quickly, the Coalition—with PAHO support—was also able to begin the initial push toward integrating oral health with the primary health care system and broaden the basic package of services. Quite notably, this integration will serve as the foundation for a more comprehensive health policy framework for the Haitian people, well beyond the memory of the 2010 earthquake.

Third, the appropriately mobilized disaster response could pave the way for sustainable health development. In this case, the earthquake disaster created an opportunity to integrate oral health with what will constitute the backbone of the country's health system reconstruction: the Basic Package of Health Services.

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REFERENCES

- United States Geological Survey. Magnitude 7.0: Haiti region; 2010. Available from: <http://earthquake.usgs.gov/earthquakes/recenteqsww/Quakes/us2010rja6.php> Accessed on 15 June 2011.
- World Health Organization. Cholera in Haiti. Available from: http://www.who.int/csr/don/2010_11_17/en/index.html Accessed on 16 June 2011.
- Estupiñán-Day S, Scharfen A. Pan American Health Organization post-disaster guide-lines for oral health. Washington, DC: PAHO; 2010.
- Government of Haiti. Haiti earthquake PDNA: assessment of damage, losses, and sectorial needs—annex to the action plan for recovery and development in Haiti. Port-au-Prince: PAHO/WHO; 2010.
- Pan American Health Organization. Haiti health population assessment prior to the 2010 earthquake. Washington, DC: PAHO; 2010.
- Bureau of Western Hemisphere Affairs, United States Department of State. Background note: Haiti. Washington, DC: USDS; 2010.
- World Bank. World development indicators 2010. Available from: <http://data.worldbank.org/data-catalog/world-development-indicators/wdi-2010> Accessed on 27 September 2011.
- United Nations Food and Agricultural Organization. Press release, 2003. Available from: <http://www.un.org/apps/news/story.asp?newsid=7878&cr=&cr1=> Accessed on 27 September 2011.
- Ministere de la Sante Publique et de la Population. MSPP Plan Interimaire du Secteur Sante, Avril 2010—Septembre 2011. Port au Prince: MSPP; 2010. P 6.
- Estupiñán-Day S, Cohen LK. Oral Health of Haiti (OHOH): a year later. *Compend Contin Educ Dent*. 2011; 32(2):10–2.
- Psoter WJ, St. Jean L, Morse DE, Prophete S, Joseph E, Katz RV. Dental caries in 12 and 15-year olds: Results of the Basic Oral Health Survey in Haiti. *J Public Health Dent*. 2005 Fall;65:209–14e.
- Ministere de la Sante Publique et de la Population, Institut Haitien de l'Enfance, Macro International Inc. Survey enquête mortalité, morbidité et utilisation des services (EMMUS IV). Haïti; 2005–2006.
- Pan American Health Organization. Earthquake in Haiti: one year later. Washington, DC: PAHO; 2011.

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RESUMEN**Integración de la salud bucodental en el Plan Nacional de Salud de Haití: de la ayuda en casos de desastre al desarrollo sostenible**

En el 2010, Haití padeció tres emergencias nacionales devastadoras: un terremoto de 7,0 de magnitud que causó la muerte de 200 000 personas y traumatismos a 300 000, un brote de cólera que vulneró las actividades de recuperación y causó más muertes, y el huracán Tomás, que causó más destrucción. En el período inmediatamente posterior, la Organización Panamericana de la Salud (OPS) reorientó la cooperación técnica para afrontar los múltiples retos nuevos y necesidades que surgieron. Estas actividades incluyeron apoyo y asistencia técnica al Ministerio de Salud y de la Población de Haití, y la coordinación de las medidas llevadas a cabo por el Grupo de Acción Sanitaria de las Naciones Unidas.

Este informe especial se centra específicamente en la convocatoria a la acción del Programa Regional de Salud Bucodental de la OPS en Haití y en las alianzas institucionales que se establecieron para aprovechar los recursos de salud bucodental durante esta crisis y a partir de ese momento. Hasta la fecha, los logros comprenden la colaboración con el sector privado de Haití, las facultades de odontología, las asociaciones de salud pública y otros interesados directos por intermedio de la Coalición para la Salud Bucodental de Haití. Esta coalición procura satisfacer las necesidades inmediatas de la comunidad odontológica y reconstruir el componente de la salud bucodental del sistema de salud; proporcionar materiales y suministros odontológicos a los centros de salud bucodental de las zonas afectadas; y lograr que la "canasta básica de servicios de salud" incluya intervenciones específicas para la atención y los servicios de salud bucodental.

La experiencia de Haití muestra a la comunidad internacional la importancia de vincular la respuesta inmediata y a corto plazo ante catástrofes con las estrategias a mediano y largo plazo para establecer un sistema de salud que brinde acceso oportuno a los servicios de salud, incluida la salud bucodental. Así, la crisis de Haití se transformó en un motor importante para replantear los sistemas y servicios de salud del país a la luz del derecho a la salud y los principios de ciudadanía, solidaridad y desarrollo sostenible.

Palabras clave

Salud bucal; programas nacionales de salud; planes de emergencia; prestación de atención de salud; Organización Panamericana de la Salud; Haití.