

2010 overview



WHO's activities in **emergencies** & **humanitarian action**



World Health
Organization



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Printed in France

Photographs: Cover Dominique Maison/WHO; p. 1 Nyka Alexander/WHO; p. 2 PAHO; p. 3 Maria Anguera de Sojo Pericas/EMRO; p. 5 Marko Kokic/ICRC; p. 6 Siegfried Modola/IRIN; p. 8 UNFPA; p. 10 WHO; p. 12 Charles Akena/IRIN; p. 14 Kate Holt/IRIN; p. 15 Ute Enderwien/WHO; p. 16 Jeff Aries/IRIN; p. 17 Felipe Villalobos/IRIN; p. 18 WHO; p. 19 EMRO.

Foreword

The year 2010 was marked by two major natural disasters. In January, an earthquake in Haiti killed over 200 000 people and reduced the capital city Port-au-Prince to rubble. In the words of WHO's Director-General Dr Margaret Chan, the earthquake was "a mega-disaster that stretched the resources of the humanitarian community to the limit". Seven months later, Pakistan was ravaged by floods that cut a devastating swathe through the country. According to the country's Foreign Minister, the floods "stole the dreams of millions of Pakistanis, shattered their hopes for a better future, and reversed years of development gains".

The impact of natural and man-made disasters on the health of affected populations is far-reaching and manifold. For instance, when hospitals and health centres are damaged or destroyed, pregnant women lose access to safe delivery, children are no longer immunized against preventable diseases and persons with chronic conditions see their treatment disrupted. In protracted emergencies, access to health care is often impaired, the health system is severely disrupted, disease surveillance and early warning systems stop being effective in detecting and controlling infectious disease outbreaks. Coordination of health interventions in emergency settings may be as crucial as the interventions themselves by bringing about efficiency and transparency in the delivery of assistance.

WHO is mandated by its Member States to support their efforts and those of its health partners to prepare for and respond to the health aspects of crises. The work of WHO and health cluster partners is evolving towards a more cohesive and cost-effective model.

The lessons from the recent disasters in Haiti and Pakistan are still being absorbed. The Inter-Agency Standing Committee (IASC), of which WHO is a member, is preparing a new business model to improve the speed and coordination of the humanitarian community's response to sudden-onset emergencies. The model will focus on getting the right people on the ground as quickly as possible.

The IASC is also exploring how to improve dialogue with local communities and involve them more in the emergency response. While outsiders are often hampered by language barriers and lack of familiarity with local systems and social values, community members are better able to step in, resolve problems and accelerate the pace of relief activities.

Lastly, the IASC will place a much greater emphasis on helping countries develop national and local disaster management capacity, to ensure they are better prepared when crises occur.



2010: Two major crises

Haiti

The earthquake that struck near Port-au-Prince on 12 January 2010 killed more than 200 000 people, injured tens of thousands more, and devastated the country's infrastructure. Thirty hospitals were damaged or destroyed, and hundreds of health care workers were injured or killed. The building housing the Ministry of Public Health and Population (MPHP) collapsed, killing more than 200 staff.

The immediate health concerns were trauma injuries. Hospitals and temporary clinics were overwhelmed with severely injured patients; doctors were obliged to perform amputations on hundreds of people whose limbs had been crushed or become badly infected. Basic health care services, including reproductive health care services, childhood vaccination programmes and treatments for patients with chronic diseases, ground to a halt. Survivors took refuge in overcrowded temporary camps without clean water or sanitation, leading to fears of major outbreaks of communicable and waterborne diseases.

The health response

More than 400 national and international humanitarian health entities joined in the emergency response. The Health Cluster, led by the MPHP with support from WHO, coordinated emergency operations and guided partners on health needs and neglected areas. Sub-clusters were quickly formed to support the creation of mobile health care clinics and hospitals, the treatment of patients disabled by amputations and spine cord injuries, the provision of reproductive health care, mental health and psychosocial support and the organization of disease surveillance.

Coordination was challenging. Health partners worked together to identify gaps, mobilize resources and ensure that critical health care services were restored. Dozens of field hospitals and mobile clinics were deployed. Health care facilities were comprehensively mapped and regularly provided with medicines and supplies through a central distribution system. WHO supported the establishment of a disease early warning system to detect and control infectious diseases. Free health care and vaccinations were provided for children under five and a free obstetric care programme expanding the range of services provided to pregnant women was organized.

Cholera outbreak and response

In October, a cholera outbreak in the north – the first in Haiti for more than a century – quickly spread to all 10 departments in the country. The country's battered health care system was unable to muster sufficient resources to tackle the outbreak. By the end of 2010, the country had reported more than 171 000 cholera cases and 3650 related deaths.

With support from WHO, the national health authorities set up a surveillance system to collect data from all available sources, investigate reports of any sudden rise in cholera cases and monitor stocks of cholera treatments. A concerted effort from all health partners over several months helped lower the case fatality rate to 1.1%, although many cases and deaths outside the major cities still went unreported.

The outbreak is now stabilized, although new cases continue to be reported in rural areas.



Next steps

For Haiti, many challenges remain. Almost half the population still has no access to health care or clean water, and many humanitarian agencies have left the country, creating new concerns over gaps in essential health services. The focus should now shift to building Haiti's capacity to manage these services on its own and ensuring that improvements can be sustained over the long term. Concentrating on health recovery as part of the post-disaster agenda becomes essential.

Pakistan

The floods that hit Pakistan in August 2010 affected more than 20 million people and left at least 8 million in need of humanitarian assistance. The country's infrastructure was devastated. More than 1700 health facilities were damaged or destroyed and tens of thousands of health workers were displaced, leaving many communities without any health care services.

Water supply and sanitation systems suffered widespread damage, increasing the threats of water-borne diseases such as acute watery diarrhoea, while the vast expanse of stagnant water heightened the risks of malaria, dengue fever and other vector-borne diseases. There were an estimated 200 000 pregnant women among the displaced population in any given month, making the restoration of reproductive health and emergency obstetric care services a high priority.

The health response

WHO and the Ministry of Health (MoH) co-led the Health Cluster and coordinated the emergency response operations of over 100 health partners. WHO mobilized staff from around the globe to assist with relief efforts. Hundreds of national staff were deployed to the affected areas to work with local authorities and affected communities. Public health experts from the US Centers for Disease Control and the International Centre for Diarrhoeal Disease Research in Bangladesh were sent to Pakistan to train national staff and advise WHO on disease control efforts.

Pakistan's disease early warning system, developed following the 2005 earthquake, was expanded to the flooded areas. The MoH began producing a weekly epidemiological bulletin, which to this day remains the official reference for the status of communicable diseases.

WHO and partners assembled district-by-district information on the health situation in the flood-affected areas (the location and magnitude of disease outbreaks, the status of health care facilities, health partners' presence, medical stockpiles and logistic capacities). Health partners worked together to ensure that health services were provided to affected populations through fixed and mobile health care services. A referral system was set up using ambulances donated by WHO to ensure that patients needing life-saving care, including pregnant women and people with chronic diseases, were referred for treatment. The Organization established a medical distribution system and donated enough medicines and medical supplies to cover the basic health needs of 9 million people. Children under five years old were vaccinated against measles, polio and other childhood diseases. WHO and partners tested the water quality in camps and flood-affected areas and took action to avert the threat of cholera.

Next steps

By January 2011, around 80% of those displaced by the floods had returned to their communities. WHO is now focusing on



reactivating primary health care facilities in these areas and making sure that people who are still displaced have access to essential health care services. WHO is also supporting the MoH's efforts to reform the national health system and regulate the private health sector.

The floods have demonstrated the importance and effectiveness of national health authorities and volunteers during the response to an emergency. They have also shown how WHO's ability to draw on its extensive network of national staff, including its polio surveillance officers, was instrumental to the success of the response.

Health Cluster

Since 2006, clusters, established to improve coordination in humanitarian response, have brought about a renewed sense of purpose and focus in bringing together agencies with a similar mandate, such as health, water and sanitation, nutrition, protection, among many others. WHO is the lead agency for the Health Cluster, responsible for coordinating the health aspects of emergency operations.

In 2010, there were health clusters in 28 countries (see maps in the Regional overview section). In each country, health cluster partners work together to develop joint strategies and work plans, prepare consolidated funding proposals and implement activities, in close collaboration with national authorities. The cluster approach shows that proper coordination can lead to cost-effective results by adding to the value of individual agencies involved in humanitarian operations.

Global Health Cluster

To support this work, the Global Health Cluster (GHC) was established. The GHC comprises 38 partners including United Nations agencies, the Red Cross-Red Crescent Movement, nongovernmental organizations (NGOs), donors and academic institutions. The GHC develops emergency health guidance, tools and standards that can be adapted to meet the needs of individual countries. It also provides technical support and guidance to country health clusters, and monitors and evaluates their overall performance. WHO trains health cluster coordinators to ensure they have the technical, managerial and leadership skills to perform effectively at country level.

Box 1. What is the cluster approach?

The cluster approach is a way of organizing coordination and cooperation among humanitarian actors to facilitate joint strategic planning. At country level, it:

- (i) establishes a clear system of leadership and accountability for international response in each sector, under the overall leadership of the humanitarian coordinator; and
- (ii) provides a framework for effective partnerships among international and national humanitarian actors in each sector.

It strengthens, rather than replaces, existing sector coordination mechanisms.

The aim is to ensure that international responses are appropriately aligned with national structures and to facilitate strong linkages among international organizations, national authorities, national civil society and other stakeholders.

Box 2. Health Cluster publications and workshops in 2010

- *Health Cluster Guide, A practical guide for country-level implementation of the Health Cluster* was translated and published in French (http://www.who.int/hac/global_health_cluster/guide/fr/).
- Standard briefing package on the cluster approach, overall humanitarian reforms, finance mechanisms and GHC tools and guidance. It can be used at global, national and sub-national level (http://www.who.int/hac/global_health_cluster/trainings/orientation/en/).
- 91 people attended Health Cluster coordination training courses in Egypt, El Salvador, Indonesia and Tunisia (http://www.who.int/hac/global_health_cluster/trainings/en/).
- During a Lessons Learned workshop, 26 current and former health cluster coordinators from all six regions presented their recommendations to the Global Health Cluster meeting for action and follow up (http://www.who.int/hac/global_health_cluster/newsletter/2/HCC_lessons_learned/en/).

Box 3. Position paper on removing user fees for primary health care services during humanitarian crises

This paper (http://www.who.int/hac/global_health_cluster/about/policy_strategy/position_paper_user_fees/en/) suggests ways in which user fees for primary health care services can be suspended during humanitarian crises.

It argues that goods and services provided by aid agencies should be made available free of charge, particularly during acute humanitarian crises, and that humanitarian aid must not introduce or support financing mechanisms that have negative effects on access to health care for the most vulnerable and excluded groups.

Reflecting international consensus, the paper argues that in developing countries, user fees for essential health care discriminate against the poorest and most vulnerable individuals. Humanitarian crises may further restrict their access to health care and they may fail to seek health care when it is needed. Instead, they may resort to self-medication or reduce their food intake in order to pay medical expenses. If they do seek health care, they may be faced with catastrophic health expenditures.

Box 4. Position paper on civil-military coordination during humanitarian health action

Civil-military coordination is particularly relevant because rehabilitating the health sector is increasingly seen as key to ensuring a country's stability. Over the last decade, military actors have been involved more and more in relief activities, sometimes providing direct assistance to crisis-affected populations. From a humanitarian perspective, this poses specific questions regarding the extent to which their involvement has a positive impact and, conversely, whether and how this involvement might affect humanitarian organizations' ability to respond impartially to the needs of the population.

This paper (http://www.who.int/hac/global_health_cluster/about/policy_strategy/position_paper_civilmilitary_coordination/en/) explores the issues surrounding coordination between civilian humanitarian workers and internationally-deployed military personnel in humanitarian settings. It also addresses issues relevant to humanitarian health workers who are coordinating with national militaries and/or civil defence/protection units within their own borders.

In 2010, the GHC developed two key position papers, one on removing user fees for primary health care services during humanitarian crises and another on civil-military coordination. (see Boxes 3 and 4). These two papers provide guidance to policy-makers and other health actors and reflect the position of GHC partners on key areas of humanitarian health.

Review of the cluster approach; development of a new business model

In May 2010, the IASC issued the second of two reports evaluating the cluster approach. The report concluded that while the benefits of the cluster approach outweighed its costs, country-level clusters could do more to strengthen coordination and improve their effectiveness.

Since then, the sheer scale of the Haiti earthquake and Pakistan floods has prompted the IASC to review its response mechanisms. In coordination with donors and stakeholders, it is developing a new business model to improve clusters' collective response to emergencies. To do so, IASC members and stakeholders have started a process to discuss central issues such as leadership, coordination, accountability, advocacy and emergency preparedness. WHO is engaged in this process.

Country health clusters

The country-level health cluster is a framework for effective partnerships among international and national humanitarian health actors, civil society and other stakeholders,



Box 5. Granada Consensus on sexual and reproductive health in protracted crisis and recovery settings

Around 1000 women die every day from complications during pregnancy and childbirth. More than a third of these deaths occur in crisis settings, where access to emergency obstetric services is scarce and reproductive health is not given the necessary attention. Other services such as support for victims of sexual violence, family planning and the prevention and treatment of sexually transmitted infections and HIV are often inadequate or non-existent.

- The *Granada Consensus on Sexual and reproductive health in protracted crisis and recovery settings* issued by WHO and health partners highlights key priorities to improve sexual and reproductive health outcomes for women during humanitarian crises (http://www.who.int/hac/techguidance/pht/reproductive_health_protracted_crisis_and_recovery.pdf).
- The matrix *Sexual and reproductive health including HIV: from minimum initial response to comprehensive services* lists the main issues to be considered when planning and managing the consolidation and expansion of the minimum initial response (http://www.who.int/hac/techguidance/pht/womenshealth/granada_srh_matrix_july2010.pdf).

and ensures that international health responses are adapted to national structures. It allows members to harmonize their efforts and use available resources efficiently for the benefit of the affected populations.

In short, country health clusters are responsible for responding to the health needs of populations affected by crises. The following section describes WHO's engagement in some of the main emergencies of 2010, both as leader of the country health cluster and as a technical agency in its own right.

Disease control and early warning system

Humanitarian emergencies frequently result in the displacement of large numbers of people who are forced to take refuge in overcrowded temporary camps that lack basic amenities such as food, shelter, safe water and sanitation. These conditions greatly increase the risk of communicable disease outbreaks. The establishment of disease early warning and response systems is a high priority.

In 2010, WHO helped set up surveillance systems and investigate disease outbreaks in many countries and crisis settings. For instance, following the floods in **Afghanistan**, WHO supported the initial rapid assessment of 218 suspected outbreaks, most of them within 48 hours. Similarly, WHO investigated 89 suspected outbreaks in **Somalia** and also alerted partners of the high risks of acute watery diarrhoea in Lower Shabelle and Banadir regions. In **Sudan**, WHO provided technical and operational support for the investigation of 77 suspected outbreaks reported by the more than 520 sentinel sites scattered throughout the Darfur region, South Kordofan, the eastern states and Abyie. Almost all of the 1113 sentinel sites in **Iraq** submitted comprehensive weekly reports to the early warning and response system throughout 2010. In **Uganda**, more than 80% of sentinel sites submitted regular health data. In Kenya, cholera was contained for the first time since 2006.

In **Kenya, Kyrgyzstan, Somalia and Uganda**, WHO and cluster partners trained national staff on disease surveillance, reporting and case management, and outbreak investigation and response. In **Southern Sudan**, there was a dramatic improvement in disease reporting and laboratory diagnosis thanks to new standardized early warning and response guidelines. WHO trained health care workers in **Iraq** on measles surveillance and immunization coverage using specially developed computer programmes and field manuals.

WHO donated supplies and equipment to several countries to detect, diagnose and respond to suspected disease outbreaks (see Box 8 for overview). It pre-positioned contingency stocks for 1 million people in high-risk areas in **Afghanistan**. In the **Central African Republic**, it donated essential medicines and equipment to combat meningitis. In **Sudan**, WHO pre-positioned emergency stocks, diagnostic kits and laboratory supplies in preparation for seasonal outbreaks of meningitis, acute watery diarrhoea, malaria and leishmaniasis. In **Kenya**, essential medicines, basic laboratory



Southern Sudan

Box 6. Four lessons learned in emergencies

- Effective coordination is essential for an efficient humanitarian response. It requires joint needs assessments, co-planning and mutual information sharing. Coordination efforts tend to be high in the initial stages of a crisis and wane after the situation stabilizes.
- Emergency preparedness is equally essential. Stockpiling medical supplies builds community confidence and allows for an effective response. Risk and vulnerability assessments yield critical information to underpin preparedness efforts.
- Communities have an essential role to play in emergencies. WHO can help build local capacity through training initiatives and efforts to strengthen basic primary health care in rural communities. Emergency and trauma care should be integrated into primary health care services.
- Sustainable funding is needed for emergency preparedness activities such as risk assessments, capacity building, technical support, and supplies and equipment).

equipment and supplies were procured for the most at-risk and inaccessible districts while emergency radio equipment was repaired to maintain communication during outbreaks.

In the **occupied Palestinian territory**, partners assessed the nutritional status of more than 34 000 children and provided micronutrient supplements and counselling to more than 12 000 children and 10 000 women. WHO and partners provided equipment and supplies to the MoH nutrition surveillance system, trained national staff on the collection and analysis of nutritional data, and supported monitoring and evaluation at 64 surveillance sites in Gaza and the West Bank.

Access to health care

Following a sudden emergency, procuring trauma supplies for life-saving treatment is often one of the first priorities. For example, WHO and partners donated medicines and equipment (including surgical and orthopaedic devices) to hospitals in **Kyrgyzstan** and supplies for trauma care to health facilities in the **Central African Republic** and in **Somalia**. In **Yemen**, WHO provided supplies for children wounded by landmines and unexploded ordinances.

In **Somalia**, where the population relies almost exclusively on NGOs for health care, WHO trained health care workers and helped strengthen health care facilities. In **Afghanistan**, it distributed medicines and supplies for 300 000 people affected by floods, military operations and displacement and established mobile health teams and temporary clinics for approximately 500 000 vulnerable people in insecure and under-served areas. In the **occupied Palestinian territory**, WHO and partners donated essential medicines and equipment, launched mobile health care services in the West Bank, and supported the provision of mental health care to around 2.9 million people. The provision of mobile services improved access to health for an estimated 160 000 people in the West Bank. In **Sudan**, WHO supported the provision of free primary health care and the rehabilitation of health facilities and provided medicines and supplies for more than 600 000 people in Darfur, Blue Nile and South Kordofan. In **Southern Sudan**, WHO supported the expansion of a basic package of primary health care services for more than 2.5 million people. The package includes health promotion, reproductive health care and immunization and nutritional services. In **Yemen**, WHO and partners donated essential medicines and guided the MoH's efforts to provide primary health care services in camps for internally displaced people.

Reproductive and newborn health, mental health as well as conditions requiring regular treatment, such as HIV/AIDS, also rank high on the list of health priorities during crises. In the **Central African Republic**, for instance, WHO provided supplies for obstetric care and rehabilitated and equipped two paediatric units in the north-western Bambari and Bria hospitals. In **Somalia**, WHO provided supplies for reproductive health care, trained health workers on gynaecology, safe delivery and emergency obstetric care and supported Baidoa hospital and partners on a campaign on



Box 7. Migrant health

The notion that the health of migrants and health matters associated with migration are crucial public health challenges forms the basis for the Resolution on the "Health of migrants" endorsed by the Sixty-first World Health Assembly in 2008 (http://apps.who.int/gb/ebwha/pdf_files/A61/A61_12-en.pdf). Complying with the requests put forward by the Resolution, WHO collaborates with other relevant organizations to promote migrant health and encourage cooperation and dialogue among its Member States. In March 2010, WHO, the International Organization for Migration (IOM) and the Ministry of Health and Social Policy of Spain organized a Global Consultation on Migrant Health (http://www.who.int/hac/events/3_5march2010/en/index.html). In addition, WHO contributed to the organization of the Regional Dialogue on the Health Challenges for Asian Labour Migrants, in Bangkok (http://www.who.int/hac/techguidance/health_of_migrants/meetings/en/index.html) and participated to the Second Ibero American Forum on Migration and Development (http://www.who.int/hac/techguidance/health_of_migrants/meetings/en/index.html) in El Salvador.

Finally, WHO joined the Global Migration Group (http://www.who.int/hac/techguidance/health_of_migrants/meetings/en/index.html) in September and participated in the fourth Global Forum on Migration and Developments (http://www.who.int/hac/techguidance/health_of_migrants/highlights_november2010/en/index.html) organized in November in Puerto Vallarta.

obstetric fistula repair. In **Southern Sudan**, the basic package of primary health care services also gives family planning, basic and comprehensive emergency obstetric and neonatal care and post-abortion care. In **Uganda**, WHO helped increase the availability of reproductive health services by training health workers and supported the provision of HIV counselling and testing services.

A functioning referral system can make the difference between life and death. In the **Central African Republic**, WHO provided vehicles, including fuel and maintenance, for supervision and referral to international NGOs supporting conflict-affected health prefectures. WHO also supported the provision of and emergency referral services for secondary health care in **Sudan, Yemen** and in the **occupied Palestinian territory**, where WHO also helped increase the number of patients accessing health services outside Gaza by developing a standardized system for monitoring medical referrals and collecting and disseminating data on referrals outside of Gaza.

Coordination

Information sharing is essential for good coordination. WHO, as Health Cluster lead, has developed together with partners a number of tools to better share information among stakeholders: health cluster bulletins, epidemiological bulletins, needs assessment reports, the Who Does What Where matrix, to name a few.

In **Afghanistan**, for instance, regular cluster and inter-cluster meetings during the response to both floods and conflict ensured that all partners were consulted on priorities. In the **Central African Republic**, WHO organized monthly sub-clusters meetings, alternating the meeting sites so that local staff in health prefectures would be able to participate in the meetings. In **Kenya**, national, provincial health and nutrition sector meetings were organized in most at-risk districts and a joint platform for coordination, information management and sharing was created. In **Kyrgyzstan**, WHO also helped the MoH guarantee free and equal access to essential health services to all IDPs and returnees, regardless of ethnicity.

Identifying and filling critical gaps

Humanitarian health strategies must be based on comprehensive assessments. A continuous flow of data allows WHO to understand



Kyrgyzstan

health trends, implement and adapt emergency operations, and measure their impact. It also enables WHO and partners to identify critical health gaps and improve national capacity to respond.

Following an assessment of health risks and vulnerabilities in **Kenya**, WHO trained provincial health teams on disaster preparedness and contingency planning. WHO carried out health assessments in **Somalia**, and trained more than 900 health workers on trauma care and emergency surgical procedures. Following more than 300 health assessments in **Sudan**, WHO and partners trained more than 4600 state and NGO professionals and community health workers on various aspects of health care, and distributed case management guidelines. Staff in rural hospitals were trained on emergency obstetrical and gynaecological care, infection control and medical waste management. In **Southern Sudan**, WHO assessed the capacity of state and county hospitals to cope with mass casualties in anticipation of the 2011 referendum. Based on the results of the assessment, it set up surgical teams and trained hospital staff on triage and mass casualty procedures. In **Kyrgyzstan**, WHO and partners assessed the health and nutrition status and mental health needs of women and children, and went on to provide appropriate training.

WHO assessed several prosthetic limb rehabilitation centres in **Iraq** and, with UNDP, helped improve health care services for people with disabilities, including the survivors of landmines. In the **occupied Palestinian territory**, the results of health assessments were used to advocate for patients' rights to access health care and for health staff's freedom of movement and safety.

In **Afghanistan**, WHO trained MoH staff and NGOs on the cluster approach, gender mainstreaming, the management of childhood diseases and emergency drug management. In the **Central African Republic**, WHO sponsored the participation of national staff at the *Health emergencies in large populations* (HELP) course in Benin. In **Iraq**, more than 650 health professionals were trained on emergency mental health and trauma care, and another 150, including religious and community leaders, were trained on community-based rehabilitation. In **Southern Sudan**, WHO has begun planning on-the-job training on surgical, emergency obstetrics and newborn care.

Box 8. Deployment of emergency supplies

Thanks to an agreement between WHO and the World Food Programme (WFP), WHO has pre-positioned a wide range of emergency stocks in the WFP global network of logistics hubs. Medicines and supplies are packed as standard kits that can be reformulated to meet specific health needs.

WHO stocks are held in WFP hubs in Italy, the United Arab Emirates and Ghana. WHO is planning to store additional supplies in Panama and Malaysia. Each hub is able to deliver humanitarian relief items worldwide within 48 hours.

In 2010, WHO mobilized more than US\$ 12.6 million worth of emergency kits, laboratory and hospital supplies and other equipment to support its emergency operations around the globe (http://www.who.int/hac/techguidance/tools/highlights_february2011/en/).

The Governments of Italy and Norway support WHO in building its stocks of health emergency supplies.

Box 9. Analysing disrupted health sectors

The publication in 2010 of the manual *Analysing disrupted health sectors – a modular manual* is the culmination of a project begun in 2002 to provide guidance documents and training materials specifically devoted to the analysis of health systems in crisis situations. A robust analysis is critical for identifying priority needs, facilitating coordination and formulating policies, strategies and plans for the recovery and development of the health sector during and after a protracted crisis.

The intended users of the manual include public health professionals from ministries of health, the health and nutrition clusters, NGOs interested in longer-term planning, humanitarian and development donors and researchers. By offering practical advice, experiences from the field, tools, references and suggestions for further study, the manual strives to convey to users the art, as well as the science, of making sense of troubled health sectors. It is available also in French and Spanish (http://www.who.int/hac/techguidance/tools/disrupted_sectors/en/index.html).

A residency course, jointly organized by WHO, Merlin and the International Rescue Committee was created on the analysis of health systems of countries affected by, or recovering from, protracted crises. It provides an opportunity for participants coming from crisis-affected countries and the authors to discuss the contents of the manual and to test the many exercises incorporated in the manual. Two sessions of the course were held in 2010, including one in French (http://www.who.int/hac/techguidance/training/analysing_health_systems/en/index.html).

Preparedness

The catalogue of disasters in 2010 and their impact on health have reinforced the importance of preparing for emergencies and reducing hazards and vulnerabilities before crises occur.

In 2010, WHO continued to advocate for emergency preparedness at global, regional and national levels by:

- advocating for the importance of assessing hazards, vulnerabilities and capacities as the basis on which to build emergency preparedness programmes;
- using an all-hazards, whole-health, multisectoral approach to encompass the multiple risks faced by a country and taking account of the numerous actors involved;
- ensuring a country-focused and community-centred approach to achieve improved outcomes at community level;
- combining management and technical approaches to ensure that capacity development efforts are properly supported and sustained.

Policies for health emergencies and disaster risk management

Several WHO regions committed to improving national disaster risk management capacity. EMRO's Regional Committee adopted Resolution EM/RC57/R.2 (<http://www.emro.who.int/eha/pdf/EHAResolution.pdf>) urging Member States to integrate health in all national emergency management and disaster risk reduction programmes and vice versa. AMRO's Directing Council adopted Resolution CD50.R15 (http://www.preventionweb.net/files/17836_17836cd50.r15eresolutionplanactions.pdf) urging Member States to adopt national policies on safe hospitals. SEARO began implementing the recommendations of the Kathmandu Declaration on Protecting Health Facilities from Disasters (http://www.searo.who.int/LinkFiles/EHA_kathmandu-declaration-09.pdf).

WHO collaborated with the United Nations International Strategy for Disaster Reduction (ISDR) secretariat to underscore the health priorities outlined in ISDR reports. WHO led the development of a framework on the role of IASC agencies in disaster preparedness, and supported the IASC task force on climate change.

Mainstreaming emergency and disaster risk management

In 2010, WHO's Health Action in Crises (HAC) Cluster collaborated regularly with other technical departments in WHO. It worked with the Health Systems and Services Cluster to integrate health emergency management into national health plans, and with the Global Influenza Programme to bring



a humanitarian dimension to pandemic preparedness. HAC worked with the department for International Health Regulations (IHR) to integrate emergency preparedness into IHR monitoring tools, and with the department for Public Health and Environment to ensure disaster risk management was integrated into WHO guidelines on climate change adaptation. Working with the Noncommunicable Diseases and Mental Health Cluster and the WHO Kobe Centre in Japan, HAC ensured that health emergency management was included in the WHO-UN Habitat report on urban health and in World Health Day 2010 on the same topic. HAC also worked with the World Bank, the European Commission and other partners on integrating disaster risk reduction into post-disaster needs assessments and with McMaster University in Canada on strengthening linkages between primary health care and health emergency management..

WHO's Vulnerability and Risk Analysis and Mapping (VRAM) team in the WHO Mediterranean Centre for Disaster Risk Reduction assessed hazards and vulnerabilities in Eritrea, Kazakhstan, Kenya, Mexico, Oman, Sudan, Tunisia and Turkey in 2010. It also produced an e-Atlas of disaster risks that models the distribution of natural hazards and populations.

The Hospital Safety Index was introduced in all WHO regions (See Box 10 below). WHO helped build national capacity for disaster risk management in many countries, including Afghanistan, Bhutan, Cambodia, Colombia, Kenya, the Lao People's Democratic Republic, Oman and the Republic of Moldova. Disaster risk reduction activities have been included in the recovery plans of Haiti and Pakistan.

Box 10. Hospital Safety Index

The Hospital Safety Index (<http://new.paho.org/disasters/>), first developed by AMRO, is an easy-to-use evaluation tool that helps hospital directors, administrators or health authorities determine the likelihood that their hospital or health facility can or will remain operational in emergencies. The Hospital Safety Index provides a snapshot in time of a hospital's level of safety. The Index can and should be reapplied a number of times, over an extended period, in order to continuously monitor safety levels. In that way, safety is not seen as an absolute state of 'yes-or-no' or 'all-or-nothing,' but rather as something that can be improved gradually. The Hospital Safety Index is not designed to replace detailed vulnerability studies. However, because these can be very costly and time consuming, the Hospital Safety Index is a cost-effective first step.

A workshop was held to review the Americas region's decade-long experience using the Hospital Safety Index in 2010 and the tool has been adapted and applied in the Eastern Mediterranean region and European Region.

Box 11. Emergency institutional readiness

- WHO collaborates with international partners on several institutional readiness initiatives including the Health Emergencies in Large Populations (HELP) training course organized by the International Committee of the Red Cross in Geneva (http://www.icrc.org/eng/resources/documents/misc/help_course.htm) and the European Masters in Emergency Medicine (<http://www.dismaster.com/emdm/history-emdm-references.php>).
- WHO is a member of the World Association of Disaster and Emergency Medicine (<http://www.wadem.org/>) and the International Search and Rescue Advisory Group's medical working group (<http://www.unocha.org/what-we-do/coordination-tools/insarag/overview>), among others.

Box 12. Public Health Pre Deployment course

The Public Health Pre-Deployment (PHPD) Course prepares public health and other professionals to work effectively and safely in emergency and crisis situations. It is a two-week residential course organized by WHO and delivered by a pool of experienced humanitarian and public health experts from WHO, academic and technical institutions as well as NGOs (<http://www.who.int/hac/techguidance/training/predeployment/phpd/en/index.html>).

Regional overview

In 2010, WHO's Regional Offices continued to respond to sudden-onset crises and complex emergencies while helping countries strengthen their emergency preparedness programmes and disaster risk reduction efforts.

Regional Office for Africa (AFRO)

In 2010, 32 of the 46 countries in the African region were faced with emergencies of one kind or another.

Activities

A regional roster of experts, complemented by emergency standard operating procedures and pre-positioned supplies, has allowed AFRO to respond to emergencies within as little as 48 hours, with technical and operational back-up from inter-country support teams in Burkina Faso, Gabon and Zimbabwe. AFRO's ability to draw on regional stockpiles has reduced the delivery time for emergency kits from two months to one week.

AFRO is increasingly focusing on risk rather than crisis management. It has mapped hazards in all countries in the region, with support from the WHO Mediterranean Centre on Disaster Risk Reduction in Tunisia, and has commissioned region-specific training materials based on WHO's Guidelines for disaster risk reduction and emergency preparedness. Over half the countries in the region now have national emergency preparedness plans that cover multiple hazards.

AFRO has set up a task force to develop emergency training curricula and modules for use by all countries in the region. Training initiatives in 2010 included the organization of a regional public health pre-deployment workshop. AFRO also provided technical support for external regional training programmes such as the Health Emergencies in Large Populations training courses in Benin and South Africa and a similar course offered by

the University of Makerere in Uganda.

Thirteen countries in the region have a health cluster led by WHO. Full-time health cluster coordinators have been assigned to Chad, the Democratic Republic of the Congo and Zimbabwe. AFRO has coordinated overall health humanitarian activities in the region and strengthened partnerships with various agencies at regional and country levels.

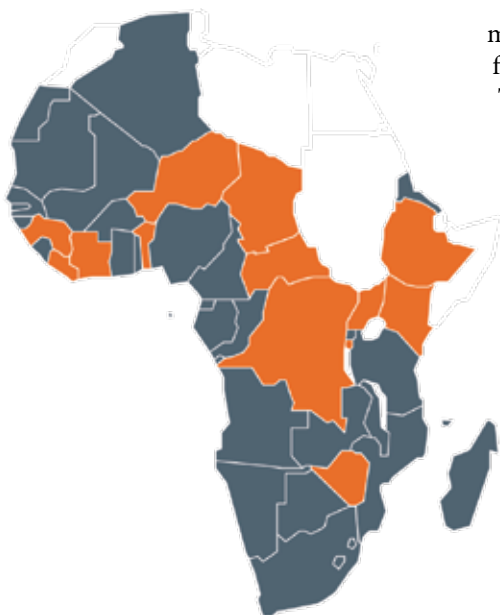
Challenges

During major emergencies, local capacity to provide health care and support the international response is often disrupted because health care workers have fled or been displaced. Weak health systems are often further compromised by prolonged crises and complex emergencies.

Lack of predictable funding remains a major challenge that threatens to erode WHO's humanitarian presence in several countries of the region.

WHO Region for Africa

■ Countries with active health clusters in 2010



Uganda

Regional Office for the Americas (AMRO)/ Pan-American Health Organization (PAHO)

It is probably safe to say that the cumulative impact of the disasters that occurred in the Americas Region in 2010 was the most devastating since PAHO's Emergency Preparedness and Disaster Relief programme was launched in 1976. Starting with the earthquakes that rocked Haiti and Chile in January and February, followed by Tropical Storm Agatha in Central America in May and the cholera outbreak in Haiti later in the year, 2010 was characterized by non-stop disaster response efforts by WHO. The earthquake in Haiti placed a particular strain on AMRO/PAHO, with many of its most valued staff either deployed there to support the emergency operations or detailed to work on the response from other locations. In spite of this, AMRO/PAHO made notable advances in its emergency preparedness work.

AMRO/PAHO continued to support countries' efforts to establish health sector emergency preparedness programmes. In 2010, 19 countries in the Americas region developed and/or updated their health emergency preparedness plans. AMRO/PAHO organized a number of training workshops to strengthen countries' emergency response capacity. By the end of 2010, almost 1300 health professionals with a variety of skill sets had been trained to become members of national response teams. A regional workshop on health cluster leadership took place in June 2010, with strong participation from the entire region and WHO headquarters. This was an important challenge, as many staff were occupied with the response to the earthquakes in Haiti and Chile and the tropical storm in Central America.

Most countries in the Americas region are working under the framework of the Safe Hospitals Initiative. PAHO's Directing Council approved a plan of action which aims to ensure that all new hospitals in the region are built to better withstand natural disasters. Thirty participants attended a workshop on the application of the Hospital Safety Index (see Box 10). By October 2010, at least 27 countries and territories in the Americas region had applied the Hospital Safety Index.

The added value of partnerships is evident in many activities carried out in the Americas in 2010, and AMRO/PAHO's investments made in forging strong partnerships with UN agencies, governments and NGOs paid solid dividends following the earthquake in Haiti. Major regional partners include the Center for Natural Disaster Prevention in Central America, the Andean Committee for Disaster Preparedness and Response, the Caribbean Disaster and Emergency Management Agency, the Caribbean Environmental Health Institute, the Eastern Caribbean Donor Group, the Regional Disaster Information Center and the Economic Commission for Latin America and the Caribbean.

Challenges

Cholera's staggering resurgence in Haiti demonstrated the importance of addressing the determinants of health in a country where less than half

WHO Region for the Americas

■ Countries with active health clusters in 2010



the population had access to health care before the earthquake, and where epidemic control depends on access to safe drinking water, basic sanitation and proper hygiene, all in short supply in Haiti.

Regional Office for the Eastern Mediterranean (EMRO)

Several countries in the Eastern Mediterranean region are facing crises of long-standing duration. The year 2010 was also marked by a major natural disaster – the floods in Pakistan – that resulted in the United Nations' largest-ever Humanitarian Appeal. The concerted efforts of all stakeholders staved off an anticipated second wave of deaths in the population of some 20 million people affected by this unprecedented disaster.

WHO Region for the Eastern Mediterranean

■ Countries with active health clusters in 2010



Activities

In 2010, EMRO prepared a strategy on disaster risk reduction for all countries in the region, and began developing an overall emergency preparedness plan. Awareness of the importance of disaster risk reduction is growing in the region; six countries have initiated disaster risk reduction programmes based on an all-hazards approach. EMRO is conducting knowledge and practice surveys in countries to better understand communities' perceptions of risks. The results will be used to guide country-specific disaster risk reduction programmes.

EMRO also advocated for safe hospitals, and pilot-tested a region-specific Hospital Safety Index (see Box 10). The index is now being introduced in all countries of the region.

EMRO is evaluating the effectiveness of its emergency operations in Pakistan, and testing predictive models that will yield quantitative estimates of the disease burden averted as a result of health cluster interventions.

EMRO's operational support platform was activated for emergency response operations in Pakistan and Southern Sudan. Health cluster coordinators were deployed in all emergencies, supported

by technical and operational staff. Thanks to strong cooperation between the emergency and communicable disease units in the regional and country offices, communicable disease outbreaks in the region were detected and contained through disease early warning systems established in all crisis-affected areas.

EMRO organized two training courses, one on health cluster coordination and a second on the management of public health risks. Overall, 60 participants from 16 countries were trained.

Challenges

Donor fatigue and the seemingly endless nature of several chronic emergencies in the region coupled with the two massive disasters in Haiti and Pakistan have stifled and/or diverted the funding available from traditional donors. As a result, health system recovery plans and medium-term initiatives are progressing very slowly.

Regional Office for Europe (EURO)

In 2010, EURO was faced with sudden-onset crises in three countries.



Afghanistan

Box 13. Hospital Safety and Disaster Preparedness in Tajikistan

Tajikistan is prone to disasters such as earthquakes and flooding, and has recently been faced with a series of particularly cold winters. Since 2007, WHO has worked with the Ministry of Health (MoH), Red Crescent Society, European Commission Humanitarian Aid Office and the Swiss Agency for Development and Cooperation to improve hospital safety and strengthen the country's ability to respond to disasters. The MoH has developed a national health crisis management plan, strengthened disaster response capacity at community level, and trained its health workforce.

The principle of safe hospitals has been integrated in the country's national health care strategy, which calls for measurable improvements in safety and preparedness over the next ten years. Japan is supporting Tajikistan's hospital safety campaign for 2010–2011, during which 16 health care facilities along the Tajik-Afghan border will be refurbished.

Following flooding in Tajikistan, WHO and health cluster partners helped the national authorities ensure that life-saving health care services and psychosocial support were available for affected communities. A flare-up of ethnic violence and civil unrest in Kyrgyzstan led to the displacement of over 300 000 people and the temporary movement of around 100 000 refugees into neighbouring Uzbekistan. WHO quickly mobilized staff, supplies and financial resources to support the MoH in both countries.

Activities

EURO has made substantial progress developing emergency preparedness norms and standards. These include a tool and accompanying handbook to assess national health systems' level of preparedness and capacity to implement the International Health Regulations. It has been pilot-tested and used in eight country assessments in the region.

The document *Guidelines for reports on health crises and critical health events*, prepared by EURO, was published in the *Pre-hospital and Disaster Medicine* journal. The Hospital Safety Index (see Boxes 10) was launched in priority countries, and a hospital emergency preparedness template was developed to complement a similar checklist for pandemic influenza. EURO also field-tested a tool to assess health systems' capacity in Kazakhstan, Poland, Turkey and the Ukraine.

Representatives of 14 countries in the region attended a training course on public health and emergency management (PHEM) in Kazakhstan. National PHEM training programmes were subsequently introduced in several countries.

EURO strengthened cooperation with regional partners, notably through joint work on international technical consultations. Internally, EURO revised its emergency procedures, developed a new health crisis management framework, and established an emergency operations room.

WHO Region for Europe

■ Countries with active health clusters in 2010



Challenges

Funding constraints are jeopardizing EURO's efforts to help Member States build sustainable health crisis management capacities.

Regional Office for South-East Asia (SEARO)

Natural disasters accounted for most of SEARO's emergency work in 2010. Four of the region's 11 countries were affected by some form of crisis requiring SEARO's assistance (fire in Bangladesh; Cyclone Giri in Myanmar; floods in Thailand; volcanic eruption and tsunami in Indonesia).

WHO Region for South-East Asia

■ Countries with active health clusters in 2010



Activities

SEARO continued to focus on preparedness and risk reduction in 2010. Using a set of 12 region-specific benchmarks, it developed a tool that allows countries of the region to assess the status of their emergency preparedness and response programmes. It also convened a meeting of all countries in the region to develop a framework for improving a primary health care approach in emergencies. It is currently finalizing a vulnerability assessment methodology for climate change-related emergencies.

All countries in the region have emergency preparedness plans covering various types of hazards. Some countries are revising or expanding their plans (for example, Nepal is integrating mass casualty management) or adapting them to fledgling emergency health management systems.

SEARO's guidelines on essential public health needs in emergencies are in the final stages of preparation. The guidelines are aimed at primary health care providers. SEARO's emergency and nursing units collaborated on case studies on the role of nurses in emergencies.

SEARO advocated throughout the year for safe hospitals, using social media to carry the message to all countries in the region.

All eleven countries have signed the Kathmandu Declaration of Health Ministers in Protecting Health Facilities from Disasters.

To improve its internal preparedness to respond to acute crises, SEARO established regional stockpiles of emergency kits in New Delhi and Bangkok, drew up procedures for the activation of its regional emergency fund, and ensured an adequate staff presence in all countries in the region. The ability to draw on regional stockpiles has significantly improved the speed of SEARO's emergency response.

Sixteen people from seven countries attended SEARO's training course on inter-regional public health and emergency management for Asia and the Pacific. SEARO also organized a health cluster coordination workshop in coordination with WHO headquarters, and two operational readiness workshops for country offices. Overall, more than 70 people inside and outside WHO were trained in 2010.



Regional Office for the Western Pacific (WPRO)

WPRO supported several countries faced with natural disasters in 2010.

Activities

In 2010, WPRO focused on helping countries strengthen emergency preparedness and build health sector capacity for emergency management. The Lao People's Democratic Republic finalized its national emergency preparedness plan, with support from WPRO. Cambodia's emergency preparedness plan is awaiting the official endorsement of the Ministry of Health.

WPRO's work under the Hospitals Safe from Disasters campaign included the development of assessment tools, emergency exercises for health facilities, business continuity plans and emergency guidelines for hospital managers. The campaign's target countries include the Philippines, Viet Nam, Cambodia, and the Lao People's Democratic Republic.

WPRO coordinated the formulation of the health component of emergency appeals and helped mobilize resources for crises in the region. It worked throughout the year to foster collaboration among regional partner agencies in order to pool limited resources and improve the availability of systematic and reliable health information during emergencies. Main partners include the Asia-Pacific Humanitarian Network, the South-East Asian Ministers of Education, Tropical Medicine and Public Health Network, the Pacific Health Team, the Asian Disaster Preparedness Center, the University of the Philippines, Hanoi School of Public Health and the Ho Chi Minh City Institute of Hygiene and Public Health. WPRO's emergency team and nursing unit co-organized the third conference of the Asia Pacific Emergency and Disaster Nursing Network.

WHO Region for the Western Pacific

■ Countries with active health clusters in 2010

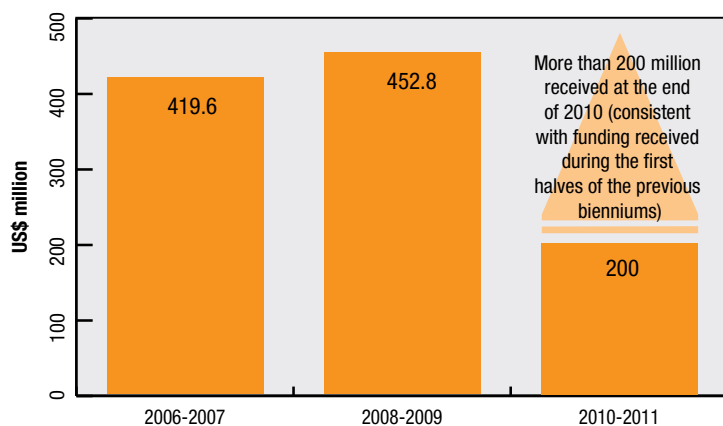


Funding WHO's emergency & humanitarian work

WHO's Emergency work is part of the WHO medium-term strategic plan for 2008–2013 approved by the World Health Assembly in 2007. This global planning tool has identified 13 priority areas for the Organization. Of those, Strategic Objective Five (SO5) focuses on reducing the health consequences of emergencies, disasters, crises and conflicts, and minimizing their social and economic impact.

The Organization's work in emergency preparedness and response relies heavily on voluntary contributions. Approximately 95% of the income for SO5 comes from voluntary funds raised through various funding mechanisms and only 5% comes from assessed contributions.*

Funding for WHO's emergency work between 2006-2007 and 2010-2011



The total budget approved for SO5 for 2010–2011 is US\$ 364 million. Around 30% is meant to support base emergency preparedness and response programmes. The rest is to be dedicated to fund specific emergency response operations at country level.

In the past years, WHO's work in emergencies has become increasingly important, especially since WHO took up the leadership of the humanitarian Health Cluster. Both the financial resources and the implementation rate for WHO's emergency work have increased over the past biennia. The funds received for WHO's emergency work represent 12% of the Organization's approved budget, and the implementation rate has risen from 67% to 82% between 2006–2007 and 2008–2009.

Most of the voluntary funds received have been allocated to country operations. In 2010 the main recipients were countries in the Eastern Mediterranean with 46% of the funding, Africa with 13% and the Americas with 8%. Europe, South-East Asia and the Western Pacific received 3%, 8% and 2% respectively. Global activities (including stand-by funds for the provision of emergency supplies to field operations and the WHO Rapid Response Account) have received around 20% of the funds.

Humanitarian funding mechanisms

Following the recommendations from the Humanitarian Reform in 2005, several mechanisms were established to provide funding for humanitarian operations based on needs collectively assessed at country level. These include, among others, country-based pooled funds for Sudan, the Democratic Republic of the Congo, Somalia and the Central African Republic and the United Nations Central Emergency Response Fund (CERF) which supports operations in all countries facing humanitarian crises.



While voluntary contributions from Member States continue to be a large source of funding for WHO's work in emergencies, these mechanisms have become another important source of financing. The CERF has become WHO's main single donor. Since 2006, WHO has received US\$ 49 million from the CERF for emergency health activities in more than 60 countries.

Although CERF funds have been instrumental in boosting WHO's operations in countries in crisis, CERF and, in general, pooled funding is tightly earmarked mainly to life-saving activities with a short implementation period. Therefore additional flexible funding is needed to sustain health interventions once the acute phase is over.

Whereas funding support for country activities is growing, funding to sustain base programmes and core functions at global, regional and country level is increasingly difficult to obtain. In 2008–2009, flexible voluntary contributions amounted to approximately US\$ 9 million for headquarters. By the end of 2010 only US\$ 4.8 million had been received for the current biennium 2010–2011. All other humanitarian agencies receive a larger proportion of flexible funds compared to WHO.

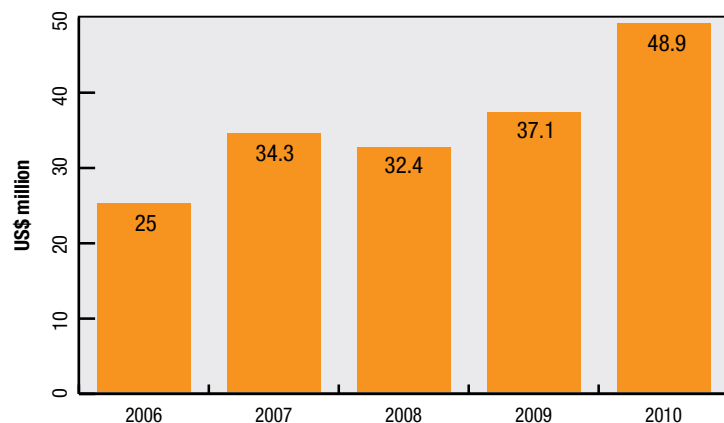
Un-earmarked predictable funding is essential to strengthen WHO's capacity to lead the Health Cluster and to provide support to countries in crisis. Budgets for core emergency preparedness and response programmes are dropping (US\$ 17 million for 2010–2011, down from US\$ 26 million for 2008–2009).

A strategy is being developed to mobilize additional flexible resources and to increase the donor base. Targeting emerging economies and building private sector partnerships are part of the efforts to expand innovative practices and to seek alternative means of funding.

In 2010 WHO's work in emergencies was supported by the following donors: Andorra, Australia, Brazil, Canada, the United Nations Central Emergency Response Fund, the Central Fund for Influenza Action, the Common Humanitarian Fund for Somalia, the Common Humanitarian Fund for Sudan, the European Commission/ECHO, EISAI CO Ltd., Finland, the Humanitarian Response Fund for Somalia, the Islamic Development Bank, Italy, Japan, the Japan Private Kindergarten Association, Saudi Arabia, the One United Nations Fund for Pakistan (EFW), Monaco, Norway, the Pooled Fund for the Democratic Republic of the Congo, the Republic of Korea, the Russian Federation, Spain, Sweden, Switzerland, the United Kingdom and the United States of America.

* Assessed contributions, previously known as Regular Budget, are the financial contributions that Member States give to WHO as members. These are independent from other bilateral or voluntary contributions that they may choose to give to the Organization for specific programmes or projects.

Funds received from the CERF between 2006 and 2010



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