



World Health
Organization

Health Action *in* Crises

annual **report**
2006





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Each year, one out of five countries faces a major crisis

Every day, hundreds of millions of people face threats to health and livelihoods because local and national systems that support their health and lives are overwhelmed or too weak to withstand crises and extreme events.

WHO is committed to working better with Member States and other stakeholders so that suffering and death in crises are minimized and systems are protected and repaired. We want to help national authorities and communities to:

Prepare for crises by strengthening their overall capacity to manage all types of crises;

Mitigate against the effects of crises by taking measures to reduce the effects of disasters and crises on systems that support good public health;

Respond to crises by ensuring effective, efficient and timely action to address public health priorities so that lives are saved and suffering is reduced;

Recover from crises by ensuring that the local health system is back to functioning.

The UN Inter-Agency Standing Committee (IASC) has designated WHO as the lead agency for the Global Health Cluster. The Health Cluster currently has 32 humanitarian partner agencies, organizations and institutions. The aim of the cluster approach is to strengthen system-wide preparedness and technical capacity to respond to humanitarian emergencies by ensuring that there is predictable leadership and by enhancing the accountability and transparency of humanitarian response.

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The year 2006

saw major developments in the emergency and humanitarian arena. Rarely has health and humanitarian action been so high on the international agenda. In St Petersburg in July 2006, G8 Heads of State and Government reaffirmed the importance of the coordinating role played by the United Nations in emergency and humanitarian operations, and pledged to further enhance the UN's effectiveness. G8 leaders explicitly recognized the central importance of health in emergencies and welcomed WHO's efforts in strengthening its operational capacity in crises. They also declared their support for emergency preparedness programmes to help the health sector meet the challenges posed by emergencies.

2006 also brought about significant improvements in the effectiveness of international relief efforts, with the implementation of the Humanitarian Reform Initiative. The Initiative, adopted in the wake of a major review of international emergency operations commissioned by the Emergency Relief Coordinator in 2005, attempts to tackle the three fundamental issues highlighted in the review: the need for better coordination, better standby arrangements, and predictable funding.

Technical "clusters", established to improve coordination, took shape in 2006. They 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, among many others. WHO is the lead agency for the Health Cluster, responsible for coordinating the health aspects of emergency operations. Better standby arrangements are being developed through the creation of the Humanitarian Coordinator System, bringing together trained and certified emergency leaders in the field. Access to emergency funds has improved with the introduction of the Central Emergency Response Fund (CERF) in March 2006. In 2006, CERF grants financed over 270 projects in 26 countries, with a quarter of the money going to health projects. This injection of funds has allowed WHO to provide much-needed assistance to populations in chronically under-funded and neglected crises.

Against this backdrop of widespread humanitarian reform, WHO has pursued internal reforms to strengthen its emergency response capacity at the request of its Member States. For the second consecutive year, Member States passed a global resolution asking the Organization to improve and expand its emergency response operations. In 2006, WHO adopted standard operating procedures for emergencies, strengthened its logistics platforms, and enhanced the capacity of its regional offices to deal with emergencies, with headquarters playing a supporting role. At headquarters, Health Action in Crises focused on adopting a more holistic approach to emergencies, and held major consultations on chronic disease management in emergencies, the role of mass casualty management and other aspects of crises. Externally, WHO, as lead agency of the Health Cluster, initiated and guided the roll-out of the Cluster approach in the Democratic Republic of the Congo, Indonesia, Lebanon, Liberia, Somalia and Uganda.

The following pages describe WHO's emergency activities throughout 2006. They range from major relief operations in Lebanon to humanitarian programmes in underreported complex emergencies. WHO has 60 emergency field staff stationed in 42 countries, ready and able to respond whenever and wherever crises occur. This expansion in WHO's emergency capacity was possible largely thanks to generous funding from donors – DFID, ECHO, Sida, and others – of the Three Year Programme to Enhance WHO's Performance in Crises (TYP).

As 2007 gets underway, the role of Health Action in Crises continues to be emphasized with the Director General's appointment of the department to a cluster in the Organization. But challenges remain: to secure alternative funding once the Three Year Programme comes to an end, to maintain a strong field presence, and to advocate for greater funding for neglected crises. At the beginning of 2006, there were an estimated 23.7 million internally displaced persons, of whom over 6 million were coping without any significant assistance from their governments. We must bear these sobering statistics in mind as we move into 2007.

Dr Ala Alwan
 Assistant Director-General
 1 March 2007



2006: new events, old challenges



January

Relief operations continued in **Azzad Jammu and Kashmir administered by Pakistan** following the 8 October 2005 earthquake which killed an estimated 75 000 people and left another 3.5 million homeless. WHO's emergency response activities continued well into 2006, with staff from all levels of the Organization joining forces in the relief effort.

Relief operations were complex and challenging. Heavy rains and snowfalls and the risk of landslides meant that many of the more remote villages were inaccessible. Procuring and setting up winter-proof tents – essential to ensure the survival of almost 300 000 people during the harsh winter – was a priority. In terms of public health, the number of acute respiratory infections was the main concern, and the most common reason for consultation among under- and above-five populations (42% and 29% respectively).

Thanks to the efforts of local health authorities and international health partners, no major outbreaks of communicable diseases were reported. The Disease Early Warning System (DEWS) set up by the Pakistani federal Ministry of Health and WHO, in collaboration with other health stakeholders, was efficient in verifying outbreak rumours and addressing communicable disease cases of potential public health significance. Vaccination campaigns against measles, diphtheria, tetanus and poliomyelitis, were conducted from the first week after the disaster, and vitamin A was distributed. A health and nutrition survey conducted by the Ministry of Health, UNICEF, the World Food Programme (WFP) and WHO six to 12 weeks after the event confirmed that the crude mortality rate, ranging between 0.1 and 0.4 deaths per 10 000 per day, had remained below the emergency threshold of 1 per 10 000 per day.

A WHO survey conducted in Bagh highlighted the need to provide proper psychosocial support to earthquake survivors. WHO supported the Ministry of Health in sending teams of mental health experts to the affected areas.

The long running conflict in **northern Uganda** continued, with over 1.4 million internally displaced persons continuing to live in more than 100 overcrowded camps in the districts of Gulu, Pader, Kitgum and Lira. Relying largely on external assistance for survival, the internally displaced people's situation was exacerbated by the deteriorating secu-



rity situation, which prevented relief workers from reaching the camps and resulted in moderate to severe food shortages. Together with UNICEF, the United Nations Population Fund (UNFPA) and UNAIDS, WHO secured funds for some of the most pressing health concerns – tuberculosis control, health coordination, and the prevention of sexual and gender-based violence – in the camps. Cholera and meningitis were also a concern. At the beginning of 2006, following reported cases of meningitis, WHO conducted a review of hospital records in the district of Gulu for 2005. The records showed that about 120 lumbar punctures had been carried out each month, of which 63 were diagnosed as meningitis. The investigation highlighted the limited capacity of rural health facilities to diagnose epidemic diseases due to lack of staff, equipment and laboratory facilities.

Following riots targeting UN and nongovernmental organizations in Guiglo, western **Côte d'Ivoire**, some 500 UN peacekeepers and humanitarian staff were forced to leave the town. Shortly thereafter, WHO participated in a joint UN assessment mission to the area and provided trauma kits for internally displaced persons and refugees. In response to a cholera outbreak in the same area, WHO delivered essential drugs and medical supplies and trained local health workers on epidemiological surveillance and communicable diseases. As soon as the security situation permitted, WHO opened a sub-office in Guiglo, from where it continued to provide humanitarian assistance.

February

Torrential rains in **Bolivia** caused major rivers to overflow, affecting La Paz and Trinidad as well as rural communities across the country. The rains triggered landslides and road obstructions, isolating some communities. The government declared a national emergency and appealed for international assistance. In coordination with the Ministry of Health, WHO strengthened epidemiological surveillance, vector control and vaccination, and carried out an assessment to determine what medicines were required. A supply and management system was used to manage subsequent donations.

In the first half of 2006, displacements, killings, sexual violence, child recruitment and looting and burning of possessions were a daily ordeal for many in the eastern provinces of the **Democratic Republic of the Congo**. Fighting over the previous months was estimated to have displaced almost 270 000 people in Ituri and a similar number in Katanga.

The WHO nationwide surveillance system – monitoring communicable diseases including cholera, bloody diarrhoea, malaria and measles – ensured rapid data collection and analysis as well as swift response and support. Cholera and measles epidemics were reported in North Kivu, Orientale, Maniema and Katanga. WHO delivered cholera kits to several health zones.

WHO organized a training of trainers on the prevention of sexual and gender-based violence. Health officials and representatives from the police, the military, the judiciary and youth organizations attended. WHO also organized two workshops in Goma and Bukavu on the use of artemisinin-based combination therapies for the management of malaria, as well as further training courses for head nurses in South and North Kivu.

On 17 February, a mudslide caused by torrential rains buried a village in the Southern Leyte province of the **Philippines**. WHO provided technical support to the United Nations Disaster Assessment and Coordination (UNDAC) mission, and gave funds to the Philippine Department of Health to support psychosocial services and policy development on the management of dead bodies.

March

Long described as "the world's most silent crisis", the **Central African Republic** remains one of the world's poorest and most neglected countries. Since fighting flared up in late 2005 in the north-west prefectures of Ouham and Ouham-Pendé, attacks and military operations have internally displaced some 150 000 people and driven at least 60 000 over the border into Chad and Cameroon.

Three-quarters of the country's health infrastructure, including the cold chain system, is damaged. Only about one-third of the infrastructure in the most affected zones has been rehabilitated. The lack of access to health care and the difficulty in preventing, detecting and responding to disease outbreaks represent major health risks to the population. In March, WHO assessed health needs related to sexual and gender-based violence in four cities in the north. Of the 192 interviewees, fewer than half had received medical treatment, 14% were in need of urgent psychological care and 40% were HIV positive and required follow-up treatment. WHO purchased essential drugs and equipment locally for the implementation of a project on sexual and gender-based violence and obstetric care.

In late March, WHO issued a press release warning that the lack of funding for humanitarian programmes in **Sudan**, coupled with growing security concerns in areas such as Darfur, could result in a dramatic deterioration of the health of the population. Around 20 WHO projects covering essential health areas (health information and coordination; improving access to hospital care, referral systems and primary strategic health care, strengthening surveillance and outbreak response) were not adequately funded. As a result, WHO was obliged to scale down many of these projects and to reduce the overall size of its emergency operations. Nonetheless, a number of outbreaks were detected and curtailed, and essential medical supplies were delivered. In addition, WHO, with the South Darfur Ministry of Health and the nongovernmental organization **Aide Médicale Internationale**, treated over 2200 children for schistosomiasis in Edd al Fursan.

WHO facilitated the relocation of around 600 internally displaced persons from the lead-contaminated settlements of north Mitrovica, **Kosovo (Serbia)** to a new area with proper sanitation. WHO worked with



the medical authorities in Belgrade to screen blood levels among the population and provide appropriate therapy for affected children.

Torrential rains and landslides flooded the coast of **Ecuador**, forcing the evacuation of around 1800 families. The Ministry of Health and WHO/PAHO focused on health coordination and environmental health measures including reducing vector breeding sites, spraying, distributing safe water and conducting water quality control and disease surveillance.

The fragile security in **Guinea-Bissau** took a turn for the worse in March when a faction of the **Mouvement des Forces démocratiques de la Casamance** (MFDC) clashed with the military near the border with Senegal. WHO assisted the Ministry of Health in promoting awareness of communicable diseases among refugees and local populations, and provided cholera and medical kits.

April

On 30 and 31 March, a series of earthquakes shook remote villages in Lorestan Province, 300 km south-west of Teheran, **Islamic Republic of Iran**. Local authorities reported 70 deaths and 2000 casualties, with another 100 000 persons directly affected in 330 partially destroyed villages. WHO set up a temporary field office in Doroud to help local health authorities meet the immediate needs of the affected population. Two New Emergency Health Kits, enough to cover the health needs of 20 000 people for three months, were dispatched.

In eastern **Chad**, clashes between government and rebel forces further undermined security, forcing the evacuation of non-essential UN staff and hampering humanitarian aid programmes set up to assist the 200 000 refugees who had fled the violence in neighbouring Darfur. Although basic services including health care were reduced to the essential, WHO's field office in Abeche continued to function, largely due to the dedicated efforts of local WHO staff. The early warning system for disease outbreaks set up by the Ministry of Health and WHO was also maintained.

Food security and nutrition in the **Sahel** continued to give cause for concern. Nutritional surveys in Burkina Faso, Chad, Mali, Mauritania and Niger indicated that an estimated four million children under five – 10% of all children in this age group – suffered from acute malnutrition. Another 13 million – one in three – suffered from chronic malnutrition. WHO helped develop a regional nutrition and food security strategy. National protocols for the clinical treatment of malnutrition in children were revised and training workshops on building capacity to cope with chronic crises were conducted.

In the **Horn of Africa**, at least 15 million people were reportedly threatened by severe drought, of which more than 8.5 million were in need of emergency assistance. The border areas of southern Ethiopia, northern and north-eastern Kenya and southern Somalia were among the worst affected in terms of both severity and population size.

Preliminary assessments showed that 20 out of every 100 children under five were suffering from moderate to severe wasting, which made them more vulnerable to infectious diseases such as malaria, diarrhoea, acute respiratory infections and tuberculosis. The health coverage in the worst affected areas was poor: 2004 immunization rates were estimated at 30% in Somalia, 64% in Djibouti, 66% in Ethiopia, 73% in Kenya and 80% in Eritrea, while new poliomyelitis cases were detected in Somalia in 2005.

WHO worked with national health authorities and other partners to improve communicable disease and outbreak surveillance and response (in Eritrea), distribute vaccinations in all affected countries, reinforce malaria control measures (in Kenya), train health workers (in Ethiopia and Somalia), provide essential medicines and medical supplies (in Eritrea, Ethiopia, Kenya and Somalia), support mobile outreach and community-based care (in Djibouti and Somalia) and redeploy staff to health centres in affected areas (in Ethiopia).

Across the sub region, WHO supplied 16 New Emergency Health Kits, four diarrhoea kits and one trauma kit and supported UNFPA with 40 kits for clean delivery and 40 kits for treatment of sexual and gender-based violence.



After almost three weeks of general strike and demonstrations in **Nepal's** capital, Kathmandu, parliament was reinstated on 28 April. A WHO, UNICEF and UNFPA assessment of the response capacity of the hospitals in Kathmandu valley found that the flow of mass casualties from the demonstrations had been well managed and that capacities were not exhausted. This may have been partly due to the fact that, because of the strike and curfew, the normal caseload was minimal. In addition, with WHO's support, the national health authorities have been conducting extensive training programmes on mass casualty management since 1999.

With the advent of peace in **Liberia**, it has become essential to support the development of comprehensive and accessible health care delivery systems. WHO supported the Ministry of Health in formulating a national health and social welfare plan, reviewing its national health and social welfare policy, and developing a national cholera contingency plan as well as a strategic plan on gender-based violence. WHO also provided cholera and health emergency kits in response to disease outbreaks, and assisted the Ministry of Health in the control and prevention of Lassa fever.

In April, the **central and south-east Europe region** (Bulgaria, Croatia, Czech Republic, Hungary, Montenegro, Poland, Serbia and Slovakia) was hit by seasonal flooding, caused by melting snows and heavy rainfall that pushed the Danube to its highest level for more than a century. Huge swathes of land were affected, forcing people out of their homes. Hungary, Montenegro, Romania and Serbia agreed to join forces in developing flood prevention and response strategies. WHO provided support in health coordination and monitoring.

May/June

Following torrential rains, **Suriname** declared the southern region a disaster area and requested international assistance. WHO/PAHO provided technical support, helped establish a supply management system, and assisted the country office in assessing health needs and mobilizing resources. Preparedness plans were made to deal with the malaria outbreaks that generally follow flooding in the area.

The 6.2 earthquake that struck the island of Java, **Indonesia**, on 27 May resulted in more than 6 500 deaths and 15 000 wounded. Over 60 000 houses were destroyed and a further 300 000 damaged. Health services also took a heavy toll: 40% of health centres and one hospital were destroyed, and a number of health workers were killed. The remaining hospitals were overwhelmed, treating four times the number of patients that their capacity would normally accommodate. Many patients had to be accommodated outdoors, exposing them to the risk of infection. The WHO country office in Indonesia was already on high alert because of the predicted eruption of the Mount Merapi volcano. (Fortunately, before the earthquake struck, 29 000 people had been evacuated from their homes as a precautionary measure against the volcano's possible eruption.) WHO was able to conduct rapid health assessments within a few hours following the earthquake. It also opened a sub office in Yogyakarta, close to the epicentre, delivered emergency health kits, and supported the establishment of mobile clinics to relieve local hospitals.

WHO also set up an early warning and diseases surveillance system, in collaboration with the Ministry of Health and other health partners. During the first two weeks, 46 cases of tetanus, including 15





deaths, were reported. Measles and tetanus immunization campaigns, coupled with vitamin A supplementation, were implemented with WHO support.

By June, violent clashes in **Timor-Leste** had resulted in the relocation of more than 100 000 people to temporary camps. WHO supported the Ministry of Health in coordinating health needs in the camps, including establishing early warning and disease surveillance systems, and conducting inter-agency assessments. WHO, UNFPA and UNICEF provided immunization kits, hospital supplies and water purification tablets, and provided basic health support to pregnant women.

In late June, a series of flash floods and landslides hit South Sulawesi province in **Indonesia** displacing more than 8000 people and damaging farmland, buildings and infrastructure. Bad weather and damaged roads and bridges hampered initial rescue and relief efforts. WHO sent emergency health kits and a specialist team to assist with the control of water-borne diseases.

July/August

The 33-day crisis in **Lebanon** killed more than 1800 people and wounded 4000. The conflict displaced more than 900 000 people internally. Around another 150 000 fled to neighbouring countries. Essential public health services were severely disrupted by the large-scale destruction, particularly in the south. The extensive use of cluster bombs left a large number of unexploded ordnance, causing further casualties and increasing the difficulties in accessing health care. WHO sent emergency public health specialists, logisticians and operations managers to Damascus and Beirut. In the Syrian Arab Republic, an early warning system for communicable diseases was set up in areas hosting refugees.

Many people returned to their homes in the immediate aftermath of the crisis. WHO focused its operations in Beirut and in the Beqaa valley and south Lebanon, the areas that bore the brunt of the destruction. WHO worked with the Ministry of Public Health and other partners to ensure the availability of safe drinking water, vaccines and medicines and basic health care. WHO also carried out vector control activities and provided fuel for electric generators in key health facilities. Health clusters were set up in Beirut and Tyre and a health cluster bulletin disseminated. The Ministry of Public Health and WHO had carried out damage assessments on more than 400 health facilities by the end of August and set up an early warning system in the south.

On 17 July, a 7.7 magnitude earthquake occurred underseas, south of Java island, causing a tsunami that affected three provinces in **Indonesia** (West Java, Central Java and Yogyakarta). More than 700 people were reported killed or missing, 9000 wounded and more than 5100 displaced. WHO helped local health authorities to carry out communicable disease surveillance. In response to reported cases of tetanus, WHO also supplied anti-tetanus serum.

On 29 July, two earthquakes measuring 5 and 5.5 on the Richter scale, struck Kumsangir district in **Tajikistan**, near the border with Afghanistan. Up to 11 000 people were affected. A large part of the district was left without electricity and several key infrastructures were destroyed. A joint mission of the Ministry of Health, UNICEF, WHO, the Tajikistan Red Crescent and partner nongovernmental organizations

revealed acute housing shortages, as well as the need for tents, equipment, food, clothing, blankets, mattresses, fuel and medicines. WHO monitored the health situation, focusing on malaria, and enhanced the drug distribution system.

On 19 August, toxic chemical waste was dumped in several open waste sites around Abidjan, **Côte d'Ivoire**. The waste contained mixed petroleum distillates, hydrogen sulfide, mercaptans, phenolic compounds, sodium hydroxide and traces of organochlorines. Tests showed there was no radioactive material. At least 68 500 persons, fearful of the severity of their symptoms and encouraged by the decision of the Government to waive user fees, sought medical assistance in 36 health centres, overwhelming the medical services. WHO responded by providing technical and logistical support to the Ministry of Health as well as medicines and computer equipment. WHO Headquarters and the WHO Regional Office for Africa supported the WHO country office in coordinating the public health response to this incident.



By the end of August, WHO had appointed 12 public health officers to the **Democratic Republic of the Congo** to strengthen the Organization's field presence in all provinces. Their work focuses on humanitarian health action and strengthening the health cluster approach. Meanwhile, 22 tons of drugs were delivered to the Katanga provincial health administration.

Oil spills following the sinking of a tanker off the **Philippines'** Guimaras islands on 11 August damaged large areas of coastline. Many residents were forced to leave the area after experiencing breathing problems from the pollution and toxic fumes. A WHO team assisted the Government in reviewing its response, proposed contingency planning for similar future emergencies, and recommended actions to mitigate the effects of the spill on health and the environment.

In **India**, floods killed more than 100 people and affected another 500 000 in the states of Gujarat, Maharashtra and Andhra Pradesh. In Gujarat's Surat district, 100 villages were affected while half of the low-lying areas of Surat city were submerged. WHO provided chloroscopes for water testing, cash for the procurement of insecticide-treated bed nets, and emergency drugs for control of communicable diseases.

An estimated 2.5 million people were affected by drought in **Afghanistan**. Due to the high risk of malnutrition and outbreaks of communicable diseases among the vulnerable populations, WHO and its partners collectively strengthened the early warning and surveillance system and took measures to prevent and control acute malnutrition. In addition, health and hygiene education activities were implemented and health services were strengthened.

Renewed violence in the north-east of **Sri Lanka** between the Government security forces and the Liberation Tigers of Tamil Eelam killed over 800 people and displaced another 100 000 in the first eight months of the year. The violence made it increasingly difficult to implement tsunami recovery programmes in the northern and eastern parts of the country. WHO participated in a health situation monitoring team formed by the Director-General of Health Services in order to monitor camps of internally displaced persons and strengthen field-level coordination and technical support.

September/October

Heavy monsoon rains caused floods and landslides in the mid and far western regions of **Nepal**, killing 45 and affecting up to 69 000. The Nepalese Government appealed for US\$ 32.5 million to relocate 500 families, provide relief assistance to over 10 000 families and build 10 000 new houses. WHO, together with other UN agencies and international and national nongovernmental organizations supported the efforts of the district disaster relief committee and the Nepalese Red Cross Society in ensuring that needs were met. WHO procured medicines for 1000 people to supplement other donations, and dispatched a rapid health assessment team.

In the north of **Nicaragua**, 48 people died, 15 were blinded and 562 intoxicated following the consumption of illegal alcohol laced with methanol. WHO/PAHO delivered a donation of 300 treatments of fomepizol from a pharmaceutical company. Other supplies and equipment were provided locally and from neighbouring countries through the activation of the Latin American network of toxicologists and WHO's regional response team.

On 1 October, tropical cyclone Xangsane hit nine provinces in central **Viet Nam**, killing 69 people and causing significant damage to infrastructure, with nearly 320 000 houses damaged or destroyed. WHO sent a rapid health assessment team to three of the provinces.

In **Thailand**, extensive flooding affected 32 provinces in late October, damaging houses, farmland, infrastructure and fisheries. Over 600 000 households were affected and 164 people were killed. WHO provided technical support to the Ministry of Public Health and helped coordinate relief efforts.

International agencies continued to work in **Lebanon**, providing food and water, medical supplies, non-food items and services where needed. WHO maintained the provision of priority medical and health interventions while focusing on early recovery and the rehabilitation of the health sector.

November

A fifth consecutive year of movement restrictions, compounded by the recent deterioration in security and the Ministry of Health's looming financial crisis, have pushed the **West Bank and Gaza Strip** health



sector to the brink of collapse. The Ministry of Health serves 1.3 million people and manages over 60% of all health services in the oPt. However, constant fighting and the financial freeze imposed last March have reduced the Ministry's funds to a bare minimum. Widespread shortages of essential drugs and medical supplies have been reported, while funds are insufficient to cover staff salaries. Beside running its regular country programme, WHO and its partners have worked to deliver essential medical supplies and organize health coordination meetings with donors, UN agencies and international nongovernmental organizations. WHO and other UN partners have also helped to strengthen the Ministry of Health's information system on pharmaceuticals in order to better monitor the flow of drugs and supplies and track donor responses. WHO has also helped improve the national nutrition surveillance system.

Since the end of September, increasingly severe forest fires in Sumatra and Kalimantan, **Indonesia** have affected not only the local population but also neighbouring countries including Malaysia, Brunei and Singapore. According to a Ministry of Health

report, as of 1 November, more than 2000 people were suffering from upper respiratory tract infections in West Kalimantan alone. WHO conducted rapid health assessments in the affected areas, and advised the Ministry of Health, public and district health officers on contingency and operational planning. WHO also conducted refresher training courses on managing haze-related health issues such as respiratory infections.

Following several weeks of heavy rains, severe floods in central and southern **Somalia**, north-eastern and coastal **Kenya** and southern **Ethiopia** killed at least 80 people and affected up to 1.8 million. This has led to large-scale displacements, overcrowded shelters, poor hygiene and lack of safe drinking water. Water sources are contaminated, drainage systems have collapsed and water pipes have been washed away. An outbreak of acute watery diarrhoea in Ethiopia spread to six districts, with 38 007 cases including 416 deaths reported as of mid November. WHO supported the Ethiopian Federal Ministry of Health and regional health authorities in conducting needs assessments, surveillance, case detection and management and community education. WHO

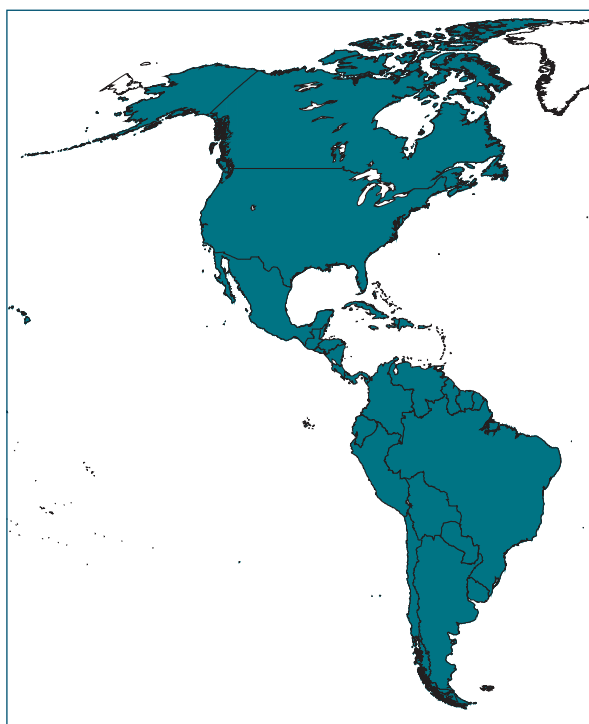
allocated funds to Moyale District, Somali Region for emergency response training. In Kenya, WHO provided supplies and medicines and supported the Ministry of Health in coordinating emergency activities and developing surveillance and outbreak response plans. In Somalia, WHO provided emergency health kits and other supplies for use in district hospitals and mobile clinics. More emergency health and diarrhoea kits were pre-positioned in Mogadishu and Wajid. Lastly, additional WHO staff have been hired to bolster WHO's operations in the above countries.

At the end of November, an underground gas pipe exploded in the town of Sidoarjo, East Java, **Indonesia**, triggered by a mud flow which caused the surrounding land to sink, cracking the pipeline. At least eight people died and 13 were injured. Contingency plans that had already been prepared by the Ministry of Health and WHO were immediately implemented. WHO conducted several joint health assessments in the affected area and deployed staff to support the emergency medical operations.



Health Action in Crises: a regional overview

THE REGION OF THE AMERICAS



Most frequent health threats

- +++ Natural disasters: floods, earthquakes, volcanic eruptions, hurricanes, landslides
- ++ Environmental emergencies: biological, chemical and nuclear incidents, industrial accidents
- + Man-made disasters: refugee movements, civil unrest

Major natural disasters in 2006

- Floods in Suriname, Guyana, Bolivia, Ecuador and Panama
- Methanol poisoning in Nicaragua; Diethylenglycol (DEG) poisoning in Panama
- Hurricane Ernesto in Haiti
- Tungurahua volcano in Ecuador; Galeras volcano in Colombia

Major complex emergencies ongoing in 2006

- Colombia
- Haiti

Structure in place

Regional level

Area on Emergency Preparedness and Disaster Relief

Area in AMRO responsible for technical support for capacity building; guidance and support to Member States for evaluation of effectiveness of emergency preparedness, response and disaster reduction policies and strategies and dissemination of best practices in emergency preparedness and response in the health sector.

Natural disasters and accidents as of November 2006

Type of disaster	Number of events	Number of deaths	Total affected	Total estimated damage cost (US\$)
Floods	12	233	617 290	210 800
Hurricane	4	15	265 960	2 700
Landslides	1	10	-	-
Volcanic eruption	4	5	308 911	150 000
Accidents (air)	2	220	-	-
Accidents (mining)	1	65	-	-
Total	24	548	1 192 161	363 500

Source: EM-DAT: the OFDA/CRED International Disaster Database. Brussels, Université Catholique de Louvain <http://www.em-dat.net/>, accessed 11 December 2006

Headquarters Disaster Task Force

Created by AMRO's Regional Director in the aftermath of Hurricane Mitch in 1998; more than 25 public health and administrative professionals at AMRO headquarters play an active role on the Task Force when meetings are convened during major emergencies and assume technical leadership as needed in response situations.

Regional Health Disaster Response Team

Team of multidisciplinary health experts from WHO/PAHO available to assist in the post-disaster health response as needed.

Headquarters Emergency Operations Centre

Serves as a nerve centre for managing large-scale disasters and provides a weekly roundup of emergency situations in the Americas.

Epidemic Alert and Response Team

Advises AMRO on preparedness, readiness and response activities to address the risk of pandemic influenza; develops strategies for strengthening core capacities for pandemic influenza and other diseases subject to the International Health Regulations; establishes coordination mechanisms with international organizations and regional integration systems.

Disaster Mitigation Advisory Group (DiMAG)

Group of experts at the disposal of WHO Member States to provide an independent assessment of hospital vulnerability based on internationally accepted criteria.

Country level

Health Disaster Coordinator in the ministries of health of Member States of AMRO

Persons responsible for the disaster office in the ministries of health of countries in AMRO.

WHO/PAHO Disaster Focal Point in each country representation

Each WHO/PAHO representation in Latin America and the Caribbean has a disaster focal point who works with national counterparts to plan and conduct disaster reduction activities at country level. Whenever possible, these international staff members are supported by national disaster professionals in the most disaster-prone countries.

Highlights in 2006

AMRO conducted a major regional survey on the status of disaster preparedness and risk reduction activities in the Americas. The survey found that nearly all countries have adopted formal measures within the ministries of health to continually improve their level of preparedness and risk reduction from the establishment of a disaster office or programme to an assessment of their vulnerability to natural hazards and the at-risk population living in at-risk areas (at www.paho.org/english/gov/cd/CD47-inf4-e.pdf, accessed 11 December 2006).

In addition to supporting more than 200 training seminars, workshops and meetings in the Americas, AMRO helped to organize four LEADERS (LIDERES) courses in 2006. LEADERS has become the regional standard for professional development in the field of disaster risk reduction, with an emphasis on health sector issues of development, mitigation, preparedness and response.

AMRO developed simulation exercises for improved decision-making for pandemic preparedness and response and computer-based simulations for volcanic eruptions and floods.

AMRO expanded the capacity and flexibility of the Regional Health Disaster Response Team; to date, more than 80 experts in fields such as damage and needs assessment, water quality monitoring, epidemiological surveillance, mental health and vector control have received training in order to update technical and administrative procedures, clarify their functions and discuss cross-cutting issues such as the collection, analysis and management of post-disaster information. Recommendations are being incorporated into the team manual, and a roster of experts is being developed.

The commitment to safe hospitals emphasizes the importance of building new hospitals with a level of protection so they remain functional during and after disasters, and applying appropriate mitigation measures to reduce risk to existing facilities. In keeping with this commitment, an easy-to-use computer model is being developed to measure and rank a health facility's level of safety in the context of its geographical location and exposure to natural disasters (risk and vulnerability). One critical aspect of this model is that it gives different weight to different factors, thus permitting a more realistic appraisal of the

hospital's level of safety. It is currently being field tested in Cuba, Mexico, St. Lucia, and St. Vincent and the Grenadines.

The Logistics Support System (LSS) software was finalized incorporating the insights and recommendations from LSS members and other humanitarian actors. It was translated into Spanish; training materials were developed, and a web site created to download the software free of charge (www.lss-web.net). Training activities took place in the Americas (Colombia, Mexico, Argentina, Jamaica, Panama, among others) also in other WHO Regions (the Philippines, Islamic Republic of Iran, Turkey); a team of trainers was formed, and the LSS was set up in several locations following different disasters (floods in Colombia and Suriname, crisis in Lebanon). A CD-Rom containing the LSS software, manuals, instructions for setting up the web application, and other information material were developed and are being translated into multiple languages. Meetings are held with nongovernmental organizations, UN agencies and national authorities of each country where the LSS was deployed and training took place. These meetings emphasize the importance of accountability and transparency in the management of humanitarian aid. This objective of promoting good

governance is far more ambitious and important than the improvement of the software and its use as an inventory control in points of entry and warehouses.

Access to critical information on health and disasters was expanded through electronic services and resources and support for the work of the Regional Disaster Information Centre (CRID). Thanks to strategic alliances developed with partners such as the US-National Library of Medicine, the European Union and the Andean Community of Nations, all Central American countries have specialized disaster libraries. In 2006 the process of creating a network of information centres in the Andean countries of South America began. Collaboration with universities, nongovernmental organizations, civil defence organizations and the health sector is helping to standardize the collection of information, convert thousands of documents to electronic format and provide free access to this information to organizations and individuals working in the field of risk reduction and disaster management.



Health Action in Crises: a regional overview

THE AFRICAN REGION



Most frequent health threats

- +++ Disease outbreaks
- +++ Man-made disasters: violent conflict, civil unrest, refugee movements
- ++ Natural disasters: floods, droughts
- + Environmental emergencies: chemical spills, industrial accidents

Major natural disasters in 2006

- Drought and floods in the Horn of Africa
- Drought and food shortages in the Sahel

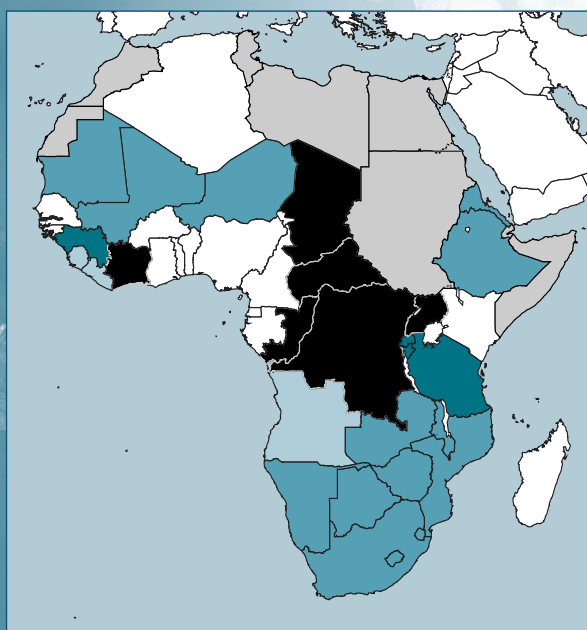
Major environmental emergencies in 2006

- Toxic waste in Côte d'Ivoire

Major complex emergencies ongoing in 2006

- Central African Republic/Chad
- Côte d'Ivoire
- Democratic Republic of Congo
- Uganda

Over the past two decades, the African region has seen more armed conflict and humanitarian emergencies than any other. Between 1992 and 2004, 22 of 33 humanitarian crises globally that lasted two or more years occurred in Africa. 2006 confirmed this trend with 21 humanitarian appeals related to African countries out of 31 appeals launched.



- Countries outside the WHO African Region
- Hosting high number of refugees
- Drought, floods and food shortage
- Transition
- Ongoing conflicts

Structure in place

Regional level

Emergency and humanitarian action

To strengthen the capacity and self-reliance of Member States in the prevention, preparation and mitigation of the health consequences of natural and man-made disasters and linking relief to development.

Intercountry level

Intercountry focal teams

To support intercountry technical cooperation in order to stimulate countries to work together efficiently and effectively to alleviate the health impact of natural and man-made disasters.

Country level

Country focal points

WHO national and international focal points at country level responsible for implementing emergency health response activities and coordinating with ministries of health.

Focus on increasing presence and capacity

AFRO recruited additional staff in 2006, including a focal point for the southern Africa region.

Three teams including each one emergency focal point and one nutritionist are positioned in:

- West Africa
- Southern Africa
- Great Lakes, eastern and central Africa

AFRO's inter-country staff has been involved in many joint assessment missions to, among others, Côte d'Ivoire, Liberia, Niger, Chad, Mauritania and Senegal.

The regional adviser for Emergency Health Action (EHA) and some country EHA focal points took part in several international workshops and meetings on emergency preparedness, including the national summit on disaster management and emergency preparedness in Nigeria and the training workshop on civil military medicine during natural disasters in conflict zones in Monterey (USA).

Regional staff training initiatives included:

- Contribution to the Red Cross's Health Emergencies in Large Populations training (HELP)
- Regional induction briefing for new staff in Mombasa, September 2006
- Severe malnutrition case management workshop in Tanzania attended by emergency and nutrition inter-country focal points, IMCI Kenya and ministry of health focal points from Eritrea, Ethiopia and Kenya.

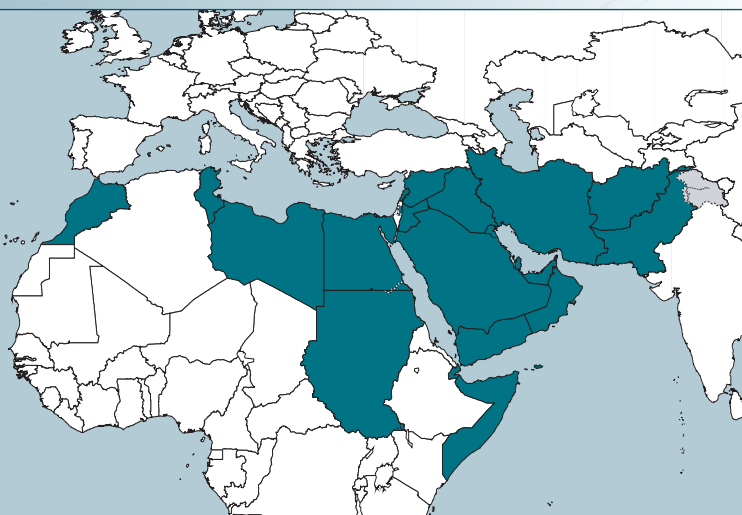
Country training initiatives included:

- Induction briefing for 12 new staff in the Democratic Republic of the Congo
- Workshop on severe malnutrition case management in Kenya, Ethiopia and Eritrea
- Training on disaster management in Côte d'Ivoire.



Health Action in Crises: a regional overview

THE EASTERN MEDITERRANEAN REGION



Most frequent health threats

- +++ Natural disasters: earthquakes, floods, droughts, windstorms
- +++ Man-made disasters: violent conflict, civil unrest, refugee movements
- ++ Disease outbreaks
- + Environmental emergencies: chemical and nuclear spills, industrial accidents

Major natural disasters in 2006

- Earthquakes and floods in Pakistan
- Earthquakes in the Islamic Republic of Iran
- Floods in Sudan and Somalia
- Drought in Djibouti
- Windstorm, landslide and floods in Afghanistan

Major complex emergencies ongoing in 2006

- Afghanistan
- Iraq
- Lebanon
- Somalia
- Sudan
- West Bank and Gaza Strip

Natural disasters and accidents SUMMARY 2005-2006 - as of November 2006 ¹

Type of disaster	Number of events	Number of death	Total affected ²	Total estimated damage cost (US\$)
Earthquake	11	74 033	3 155 970	5 122 262
Epidemic	16	1 305	28 832	-
Flood	47	1 438	7 934 219	16 000
Accident ³	104	5 221	19 397	-
Landslide	5	146	300 016	-
Windstorm	5	360	30 656	-
Extreme temperature	3	211	300	-
Drought	3	2	150 000	-
Total	194	82 716	11 619 390	5 138 262

Source: EM-DAT: the OFDA/CRED International Disaster Database. Brussels, Université Catholique de Louvain
<http://www.em-dat.net/>, accessed 11 December 2006.

¹ No data available on West Bank and Gaza Strip and Qatar.

² The total affected is the sum of injured, affected and homeless.

³ Accidents include industrial, transport and other miscellaneous accidents.

Structure in place

Human resources

The WHO Regional Office for the Eastern Mediterranean is gradually strengthening its disaster preparedness capacity as well as its institutional readiness to respond to emergencies. Various skill sets needed in emergency response and recovery have been identified, including expertise in epidemiology, environmental health, public health, primary health care, hospital management, health information management, communications, logistics, administration, maternal and child health, and mental health. The Regional Office has begun to create a roster of experts within the Region who have experience in emergency settings and can help countries develop and sustain response systems for future emergencies. These experts can be mobilized in the event of a major emergency. An annual regional training course on the management of public health risks in emergencies is being reviewed to ensure that it includes the skills in disaster management needed for the regional network of emergency experts.

Emergency funds

Securing the resources necessary to initiate and sustain humanitarian assistance in the acute phase of any major emergency is a challenge in the Region. The response to WHO appeals for health funding has been poor in past emergencies, and WHO has never attained 100% of required funds through the appeal process. Hence, a Regional Emergency Solidarity Fund

(RESF) has been set up to ensure the availability of funds to initiate emergency operations. The fund is not, however, intended to replace existing appeal mechanisms or the need for humanitarian partners to fund life-saving health interventions in crises. The RESF comprises 1% of regular budget country allocations per biennium.

Next steps

Significant resources and efforts are still needed to ensure that sufficient emergency preparedness and response capacity is developed for Member States and WHO in the Region.

This will include:

- Increased advocacy and awareness of health needs and challenges in chronic crisis situations such as those in Afghanistan, Iraq, West Bank and Gaza Strip, Somalia and Sudan.
- Increased advocacy and awareness of potential risks and threats to health for preparing and planning responses.
- Sustained and increased resource mobilization to deliver humanitarian response and recovery programmes in the wake of major disasters, and to accelerate disaster preparedness and risk reduction programmes in high-risk countries in the Region.
- Acceleration and improvement of disaster preparedness and mitigation programmes, in particular the protection of key health facilities to withstand the impact of major disasters as outlined by the Hyogo Framework for Action (2005-2015), as well as developing, testing and improving disaster response plans at national and local levels.
- Documenting lessons learnt from previous emergencies and the development and application of public health best practices in emergencies.



WHO/EMRO Atlas of Disaster Risk

During 2006 EMRO launched the first volume of the WHO/EMRO *Atlas of Disaster Risk*, which looks at exposure to natural hazards. The volume describes the regional distribution of the risks for five hazards (floods, heat, earthquakes, wind speed and landslides) in order to better understand the health impact of and vulnerabilities to such events in all 21 Countries of the Region

Health Action in Crises: a regional overview

THE EUROPEAN REGION



Most frequent health threats

- +++ Natural disasters: floods, earthquakes, heatwaves, droughts
- ++ Environmental emergencies: chemical and nuclear spills, industrial accidents
- + Man-made disasters: violent conflict, civil unrest, refugee movements, terrorist attacks

Major natural disasters in 2006

- Floods in central and south-east Europe
- Earthquake in Tajikistan
- Heatwaves in western Europe

Major environmental emergencies in 2006

- Lead contamination in Kosovo

Major complex emergencies ongoing in 2006

- Kosovo
- North Caucasus

Structure in place

Regional level

Emergency steering committee

High-level inter-divisional forum for decision-making during a crisis.

Regional surge capacity team

Technical experts ready to be deployed during a crisis.

Disaster preparedness and response programme

Unit responsible for coordination and implementation of EURO emergency health response activities.

Country level

Disaster preparedness and response focal points in country offices

WHO national and international focal points at country level responsible for implementing EURO emergency health response activities, and coordinating with ministries of health.

Ministry of health national counterparts for disaster preparedness and response

Ministry of health focal points for EURO preparedness and response activities.

Natural disasters and accidents SUMMARY 1990-2006 - as of November 2006

Type of disaster	Number of events	Number of death	Total affected ¹
Earthquake	98	21 828	4 486 715
Epidemic	51	621	213 149
Flood	319	0	10 774 701
Accident ²	595	16 017	108 182
Windstorm	160	1 375	8 000 000
Extreme temperature	105	50 082	1 376 200
Drought	31	0	1 594 675
Total	1471	89 923	26 553 622

Source: EM-DAT: the OFDA/CRED International Disaster Database. Brussels, Université Catholique de Louvain <http://www.em-dat.net/>, accessed 11 December 2006.

¹ The total affected is the sum of injured, affected and homeless.

² Accidents include industrial, transport and other miscellaneous accidents.

Focusing on preparedness

In 2006, WHO/EURO worked with the governments of Armenia, Azerbaijan, Georgia, Kyrgyzstan and Tajikistan on the development of health sector crisis management plans. In Armenia and Kyrgyzstan, plans were finalized and are pending ministry of health endorsement. In Tajikistan, the final plan was approved by the Ministry of Health and the Ministry of Emergency Situations.

A generic tool for hospital preparedness (***A practical tool for the preparation of a hospital crisis preparedness plan, with a special focus on avian influenza***) was produced by EURO, and workshops on its implementation were held in Slovakia (involving also representatives from the Czech Republic), Georgia and The former Yugoslav Republic of Macedonia. In 2007, the application of this tool will be expanded to EU countries, starting in Poland and Ukraine.

In Turkey, EURO, in cooperation with headquarters, facilitated national training of emergency health professionals on crisis preparedness in relation to biological, chemical, radiation and nuclear (BCRN) health threats. Further, and in cooperation with AMRO, training on humanitarian supply management (LSS/SUMA) was delivered to the Turkish Ministry of Health.

Following up on the Hyogo Framework for action priority "hospitals safe from disasters", the EURO handbook ***Health Facility Seismic Vulnerability Evaluation*** was piloted in The former Yugoslav Republic of Macedonia. A vulnerability assessment was successfully performed on a hospital in Skopje, and a full report is available on request.

Dealing with a chronic crisis

The general health status of the people in the north Caucasus republics still compares unfavourably to the Russian Federation average. Public health needs remain greatest in Chechnya as a post-conflict area. Due to the collapse of the health system, access to health care is limited and the quality of health services poor throughout the region.

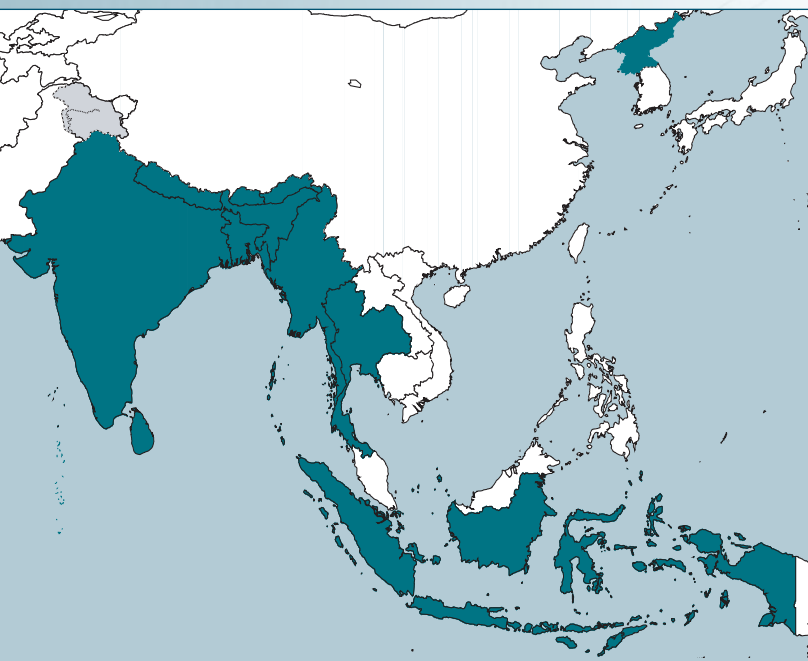
The health system suffers from a lack of technical, administrative and managerial skills among staff; obsolete or lack of basic and specialized medical equipment, and rundown health facilities with poor water and electricity supply. In 2006, an increased federal budget allocation for the strengthening of health infrastructure in the region, has contributed to positive change. Serious challenges remain, however, which in 2007 will require a combination of relief, recovery and development oriented support to the health sector.

EURO has had since 1999 an emergency health coordinator based in Moscow and a field office in Nazran, Ingushetia, supporting programmes in several important public health fields. Since 2006, a UN transitional plan is replacing humanitarian appeals, and WHO is collaborating with all health stakeholders within this framework on activities for health system strengthening. In cooperation with UNICEF, WHO is embarking on a three-year project for improving the provision of health care in the region, funded by the European Commission.



Health Action in Crises: a regional overview

THE SOUTH-EAST ASIA REGION



Most frequent health threats

- +++ Natural disasters: earthquakes, floods, droughts, windstorms
- ++ Man-made disasters: violent conflict, civil unrest, refugee movements
- ++ Disease outbreaks
- + Environmental emergencies: chemical and nuclear spills, industrial accidents

Major natural disasters in 2006

- Earthquake in Indonesia (Yogyakarta)
- Floods in Thailand
- Flash floods in India
- Flash floods and landslides in Indonesia (Sulawesi) and Nepal
- Forest fire and haze in Indonesia
- Gas pipe explosion in Indonesia
- Tsunami in Indonesia (Java)

Major complex emergencies ongoing in 2006

- Nepal
- Sri Lanka
- Timor-Leste

Natural disasters and accidents in 2006 as of November 2006

Type of disaster	Number of events	Number of death	Total affected
Earthquake	2	5 782	2 341 325
Epidemic	2	11	153 324
Extreme temperature	1	47	-
Flood	31	1518	10 991 422
Industrial accident	4	131	2
Miscellaneous accident	5	136	-
Slides	4	243	3 523
Transport accident	23	763	263
Volcano	1	0	11 000
Wave/Surge	1	802	35 000
Wildfire	1	0	-
Windstorm	5	257	74 155
Total	80	9 690	13 610 014

Source: EM-DAT: the OFDA/CRED International Disaster Database. Brussels, Université Catholique de Louvain
http://www.em-dat.net/, accessed 11 December 2006.

Structure in place

Human resources

The Regional Office continues to build its disaster preparedness and response capacity as well as the organizational readiness to respond to emergencies. The Emergency and Humanitarian Action (EHA) unit is placed directly under the Deputy Regional Director and is headed by a regional adviser. Besides the regional adviser, the team includes a technical officer and short-term staff for technical support, resource mobilization, communications and finance support. There are full-time EHA focal points in five of the 11 Member States in the Region. The WHO Representative is the focal point in some while in others there are staff addressing emergency preparedness and response issues along with other responsibilities.

In the coming months, more staff will strengthen the EHA team in the Regional Office to enhance the capacity of existing staff and respond more effectively and efficiently to the requests of Member States. In countries, a roster of national experts is being prepared which would include individuals and institutions that could be rapidly deployed during emergencies.

Building capacity

Effort to build capacity of Member States for emergency preparedness and response is a continual exercise. In 2006, the regional Public Health and Emergency Planning in Asia Pacific (PHEMAP) course (conducted in collaboration with the Asian Disaster Preparedness Center, Bangkok) was reviewed; suitable changes were made in the light of new experience gain during recent disasters. Countries such as Sri Lanka have started replicating PHEMAP at the national level. Besides, SEARO is developing a pre-deployment training course in collaboration with the Indian Institute of Health Management Research, Jaipur. Training in specific technical areas, such as mass casualty management and forensic identification of dead bodies, was conducted in several Member States.

Emergency preparedness and response benchmarks

Following a major review of the response and recovery efforts after the Indian Ocean tsunami, a set of 12 benchmarks for emergency preparedness and response was developed. Three broad areas for which benchmarks have been developed: multisector coordination, community empowerment and

capacity building. A follow-up meeting on these recommendations was conducted in June 2006: all countries have made considerable progress.

SEARO will continue to play a monitoring and facilitatory role enabling member countries to achieve the benchmarks. This includes providing technical support as well as initiating suitable multicountry activities. To a large extent the magnitude and direction of country support from SEARO will be determined by the progress to be made by each country towards achieving the benchmarks.

Resources

Following the generous support received from donors after the 2004 tsunami, SEARO has also been successful in mobilizing resources through established mechanisms like the United Nations' new Central Emergency Response Fund (CERF) and the Consolidated Appeals Process (CAP). During 2006, more than US\$ 3 million was mobilized from nine different donors to support the earthquake response plan for Yogyakarta, Indonesia. For the conflict in northern Sri Lanka, WHO, as leader of the Health Cluster, was able to mobilize about US\$ 541 000 under the CERF, of which US\$ 200 000 was for partners. In Nepal, the CAP resulted in the inflow of US\$ 500 000 during 2006.

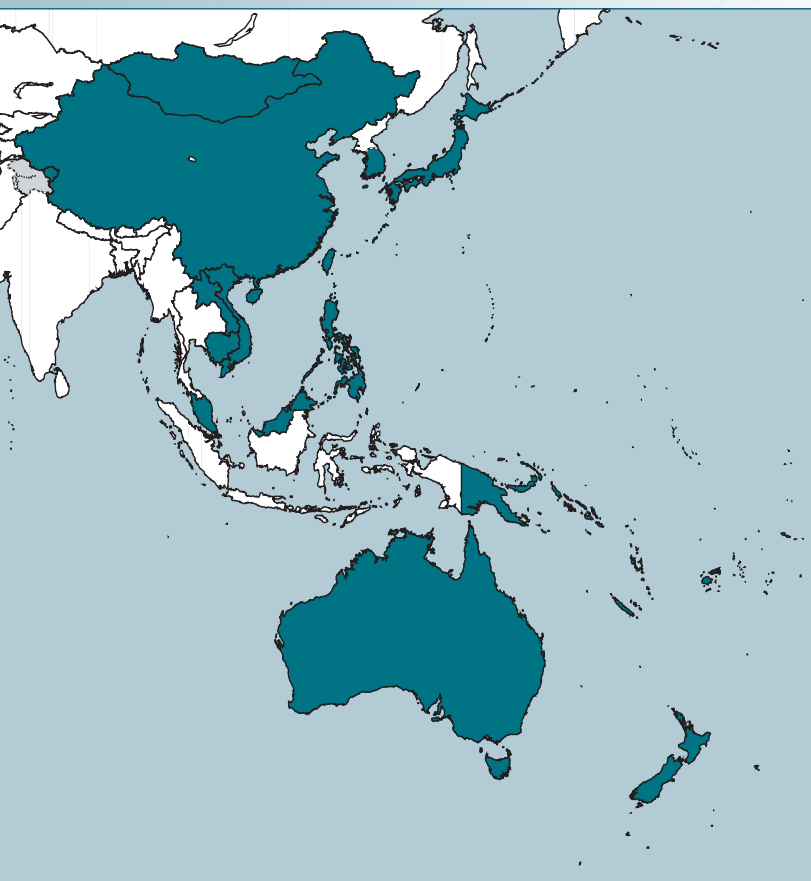
Efforts are made to sensitize donors about the critical need to fund preparedness activities. Advocacy and relation-strengthening exercises will be intensified in the coming year.

South-East Asia Regional Health Emergency Fund (SEARHEF)

The 24th Health Ministers' Meeting, held in Dhaka in August 2006, recommended that WHO create a regional emergency fund. EHA/SEARO developed a concept paper for the fund, which was discussed at the 58th WHO Representatives' meeting in SEARO in November 2006. The fund is envisioned to have a corpus of US\$ 2.25 million of which about US\$ 1 million is to be pooled in from the Regular Budget of countries and SEARO. External donors will provide the rest. The concept will be debated and refined first in a regional consultation and then through the Consultative Committee for Programme Development and Management before being taken up at the Regional Committee in 2007.

Health Action in Crises: a regional overview

THE WESTERN PACIFIC REGION



Most frequent health threats

- +++ Natural disasters: floods, landslides, typhoons, volcanic eruptions, earthquakes
- ++ Disease outbreaks
- ++ Environmental emergencies: chemical spills, industrial accidents, mine blasts
- + Man-made emergencies: civil unrest; mass gathering emergencies

Major natural disasters in 2006

- Landslide, mudslide, typhoon and volcanic eruption in the Philippines
- Typhoon, drought and floods in China
- Earthquake/tsunami warning in Japan
- Volcanic eruption in Papua New Guinea
- Floods in Cambodia
- Typhoon in Vietnam

Major environmental emergencies in 2006

- Oil spill (Guimaras) in the Philippines
- Mine blasts, chemical leaks in China

Human generated emergencies

- Civil unrest in Tonga and the Solomon Islands
- Mass gathering emergency, internally displaced populations in the Philippines

The approach

WHO in the Western Pacific Region aims to reduce the impact of emergency situations and disasters through intersectoral collaborative efforts. In particular, WHO continues to collaborate with Member States to develop and enhance regional, national and community mechanisms in order to strengthen the emergency management capacity of the health sector.

Programme strategies

- Strengthening of national capacity-building activities for emergency management
- Assistance to countries to develop community-based risk reduction initiatives
- Provision of technical, material and financial support to Member States in major emergencies
- Promotion of collaboration with partner agencies
- Enhancement of WHO's institutional capacity for emergency management

Activities

Managing crisis situations

The Regional Office provided rapid health assessment and coordination activities for acute emergencies. Funds were also given for emergency supplies needed by Member States.

Aside from work in the Western Pacific Region, the Regional Office also provided support to SEARO during the Java earthquake in May.

Capacity building

The sixth inter-regional Public Health and Emergency Management in Asia and the Pacific (PHEMAP) training course was conducted in collaboration with SEARO and the Asian Disaster Preparedness Center in August in Bangkok, Thailand. National PHEMAP courses were also offered in the Philippines, China, Cambodia and Viet Nam. The first Pacific subregional PHEMAP training course was conducted in Nadi, Fiji, in November.

A mass casualty management and hospital disaster preparedness training course is being developed and will be piloted in 2007.

A training course on logistics supplies system (LSS) was conducted in the Philippines with the support of AMRO and FUNDESUMA, a nongovernmental organization assisting in the operational deployment of WHO's supply and management system for donated supplies.

An induction briefing on emergency and humanitarian action for WHO staff was conducted in January in the WHO Regional Office in Manila.

Dissemination of health knowledge

Achievements include:

- A pocket emergency toolkit for field managers.
- A draft guide on the establishment of emergency operations centres developed and presented in a regional workshop on pandemic preparedness and response in December.
- Work was initiated for the development of a Pacific health emergency response manual.

Health emergency and humanitarian action projects

The Regional Office supported community-based activities in Marikina, Philippines, for an emergency preparedness and response programme. Marikina was the recipient of WHO Healthy Cities awards for 2006 for Good Practice and Best Proposal categories.

Strengthening collaboration with focal points, partner agencies

Regional workshops; country reviews

The Regional Office and the Regional Office for South-East Asia, together with the Southeast Asian Ministers of Education Organization's Tropical Medicine Network, conducted an Asia Pacific meeting on health emergencies and human resource development in October in Manila.

A workshop on health information systems in emergencies was conducted by the Ho Chi Minh Institute of Hygiene and Public Health in October with participants from China, the Philippines and Viet Nam.

Strengthening collaborating centres

The Shanghai Medical Emergency Centre, a WHO collaborating centre in China, conducted a national PHEMAP training course with the support of the Chinese Ministry of Health and Shanghai Municipal Health Bureau. Participants included representation from the Ministry of Health, Provincial Health Bureaus and CDC staff from the disaster-prone provinces of China.

Preparedness and response capacity

Regional level

Emergency and humanitarian action (EHA)

Unit responsible for coordination and implementation of WHO/WPRO health emergency preparedness and response activities.

Country level

EHA focal points in country offices

WHO national and international focal points at country level responsible for implementing Regional Office health emergency preparedness and response activities, and coordinating with ministries of health.

Ministries of health national counterparts for health emergency preparedness and response

Ministries of health focal points for the Regional Office's health emergency preparedness and response activities.

In May 2006 the World Health Assembly passed resolution 59.22 calling for the Director-General to undertake several activities to support Member States to build their health-sector emergency preparedness and response programmes at national and local levels. In line with this resolution, WHO organized several consultations on topics such as Mass Casualty Management, Nursing and Midwifery Contributions in Emergencies and conducted a public health pre-deployment training course. These themes are common to crises worldwide and are important factors affecting the work of WHO's department for Health Action in Crises. Many of the world's crises, for instance the Darfur, are developing into chronic crises. WHO is developing standardized procedures, tools and evaluation mechanisms to streamline and improve the consistency and efficiency of its work in crises. These procedures and mechanisms are also being implemented within the Health Cluster. This annual report focuses some of these key specific issues which were critical aspects of crisis preparedness, response and recovery in 2006.

Darfur, an unending crisis

The Darfur peace deal has failed to halt the violence that has hit the region since 2003. Contrary to hopes, fighting escalated soon after the peace agreement was signed in May 2006. The Office of the UN Resident and Humanitarian Coordinator reported in July 2006 a growth of 50 000 internally displaced persons and 100 000 residents affected by the crisis, taking the total of people in need of humanitarian assistance to over 3.7 million, more than half the Darfur population. There are worrying signs that gender-based violence is on the rise.

Insecurity and bureaucratic obstructions have limited humanitarian access, now at its lowest level since 2004. Several humanitarian workers have been killed, assets have been looted and vehicles hijacked. As a result, most humanitarian agencies have been forced to reduce their activities, while some have decided to pull out. Funding shortages have negatively affected the effectiveness of the response, while logistics and transport costs along supply routes have spiralled because of widespread banditry and insecurity. For example, the World Food Programme was forced in May 2006 to halve its food aid ration, and this may happen again if no additional contributions materialize. The risk of the conflict spilling over into neighbouring countries – Chad and the Central African Republic – which has been a constant in the history of the region, has intensified in the last months triggering initial regional preparedness action.

There is not yet strong evidence on the deterioration of the health and nutrition status of people in Darfur. However, pockets of acute malnutrition above emergency thresholds have been detected across the region, showing that the overall humanitarian situation is fragile and that the health gains that were achieved in 2005 thanks to the efforts of the world's largest humanitarian operation can be easily reversed. In fact, the two state-wide retrospective mortality studies carried out by WHO with the Federal Ministry of Health and other partners in 2004 and 2005, using similar methodologies, showed that mortality declined by a factor of almost two in North Darfur and of around three in West Darfur and South Darfur, indicating highly positive effects of the humanitarian response. With decreased humanitarian access and international assistance, Darfurians are increasingly at risk of being left alone to struggle with



their survival strategies, which have been exhausted by the long crisis. For example, access to primary health care has dropped to 1.7 outpatient consultations per person per year in 2006, compared to 2.5 at the end of 2005. Internally displaced persons accounted for 35% of hospital work load at the end of 2005 and only 17% in early 2006; 37% of surgical operations in the hospitals were due to weapon-related injuries.

WHO was one of the first agencies to start a humanitarian programme in Darfur in the first half of 2004. The programme, arguably the largest emergency programme run by WHO worldwide, centres around information management and support to coordination, strengthening primary health care (including support to first referral level) and communicable disease surveillance and control, including environmental health. Innovative approaches have been introduced, such as the design of an early warning system and a programme to support hospitals in exchange for the removal of user fees, which represents an important financial barrier to the use of health services in Darfur. Like other agencies, WHO is struggling to readjust its programme to the increased health needs, deteriorating security and diminished funding, keeping its support to the most critical life-saving interventions.

Managing mass casualties

Mass casualty management is a significant aspect of emergency management: what to do when there are too many casualties for the regular health care system to deal with. If handled effectively and efficiently, mass casualty management can dramatically minimize the impact of a disaster on a community in terms of direct mortality, morbidity and disability rates. Most injuries are sustained during impact, and thus the greatest need for emergency care occurs in the first few hours. The burden of organizing and delivering first aid, triage, transport, medical care and supplies falls therefore on the affected community and country since international help is unlikely to make a difference in saving lives during the period of greatest need, because of the response time required.

Mass casualty management systems must recognize and be part of an all-hazard, multiagency approach. They must consist of more than just a crisis response to an event and be part of a comprehensive emergency management model, addressing a mix of strategies to mitigate, prepare for, respond to and recover from the consequences of a disaster.



Finally, they must, as far as possible, be carried out with the community rather than doing things to them.

Despite the importance of having mass casualty management systems in place, reviews of the Indian Ocean tsunami experience revealed that most countries were ill prepared to handle large numbers of casualties. They lacked standardized triage systems and pre-established networks of hospitals for referrals and burden-sharing.

The health sector can play an important role in promoting an inter-sectoral cooperation in mass casualty management. During 2006, WHO pledged to improve the effectiveness of the health sector within this multisectoral context by developing and delivering adequate guidelines and training programmes for health sector workers and those coordinating the health sector response.

A global consultation on mass casualty management was convened by WHO in Geneva from 26 to 28 September 2006. The participants were consultants from WHO Member States from all the WHO regions, together with WHO headquarters staff from various departments. The outcome was a draft document for mass casualty management consisting of two parts: policy and strategy guidelines; and an outline for technical guidelines. The document is being peer reviewed and will be ready for publication during the first half of 2007.

Addressing chronic diseases in emergencies

It is estimated that chronic diseases accounted for 35 million deaths in 2005 or 60% of all deaths. Over three-quarters of deaths due to chronic disease occur in low- and middle-income countries and in equal numbers among men and women. Further, one-quarter of all chronic disease deaths occur in people under 60 years of age.

Chronic diseases are often neglected in emergency settings. During the initial relief phase of a crisis, the focus is on rescue, medical evacuation, treatment of injuries and early detection and control of disease outbreaks, as well as emergency provision of shelter, food and proper water and sanitation systems. However, in the days that follow, the unmet needs of people with chronic diseases can become a major public health threat and contribute to unnecessarily high mortality and morbidity rates.

It is calculated that about one-fifth of the adult population exposed to a disaster is likely to have one or more chronic diseases requiring medical attention. However, recent experiences during the aftermath of Hurricane Katrina in the United States and the earthquake in Pakistan confirmed that not enough attention is given to chronic diseases during emergency response operations.





Conditions caused by a disaster, such as lack of food and clean water, exposure to extremes of temperature, mental stress, injury and exposure to infection can exacerbate chronic diseases. Health care delivery is often disrupted, with shortages of drugs used to treat chronic disease. In particular, people from low socio-economic strata, those with no health insurance and the elderly are particularly vulnerable to chronic disease during disasters and require special attention. Similarly vulnerable are insulin-dependent diabetics, ischaemic stroke and heart attack survivors taking clot-preventing medications, individuals with severe lung disease receiving home oxygen therapy, those with hereditary blood disorders and patients receiving haemodialysis for kidney failure.

Unfortunately, no generally accepted guidelines on the management of chronic diseases in emergency settings exist, although some general guidance principles have been produced.

Recognizing this urgent need, WHO promoted a technical consultation on the management of chronic diseases in emergency and humanitarian settings in late November 2006 and saw the participation of various experts from UN agencies, nongovernmental organizations, academic institutions, international patients associations and several WHO technical departments. The main objectives of the consultation were to reach consensus on the treatment guidelines for certain chronic diseases – diabetes, cerebrovascular diseases, cardiovascular diseases, hypertension and asthma – in emergencies and to revise the contents of the chronic diseases emergency kit developed during the Bosnian war. The outcomes of the consultation will be subject to peer review, and the final products will be ready in the first half of 2007.

Global survey for emergency preparedness and response

Specific preparation for crises alleviates their impact on health systems and decisively reduces the level of suffering, spread of epidemics, and number of deaths. However, a global picture of the status of emergency preparedness and response in Member States is still missing.

WHO decided to implement a global survey to assess and monitor baseline information on the status of emergency preparedness of the health sector in Member States following a recommendation of a WHO global expert consultation on emergency preparedness held in February 2006.

The first phase of the survey was conducted in 60 countries distributed equally in all WHO Regions from June to November 2006. Most of the responding countries (92%) have experienced an emergency or disaster in the past five years, including natural hazards (98%), social hazards (73%) and technological hazards (47%).

Most countries (85%) reported the existence of a national emergency preparedness and response policy; and two-thirds reported having a policy on health sector emergency preparedness and response at the national and provincial levels. Almost two-thirds (64%) of countries reported the presence of national, multi-disciplinary health emergency preparedness and response plans, of which only half reported that such plans were developed by a formal committee, based on vulnerability assessment, and linked to the multisectoral plan.

Among countries reporting the existence of emergency preparedness and response programmes and projects (86%), hazard analysis and vulnerability assessment, public awareness, early warning and alerting systems, and communication systems are reportedly covered in two-thirds. However, only half the respondents reported having simulation exercises, logistic platforms and emergency information systems.

The survey showed the widespread shortage of human resources trained on emergency preparedness and response, particularly emergency medical technicians, physicians, nurses and social workers.

The survey also showed the increasing importance of nongovernmental and intergovernmental organizations in emergency response; training and education; and raising public awareness. The Red Cross and Red Crescent Movement and Médecins sans Frontières provide most such cooperation.

The preliminary results of this phase of the survey provide some clear signposts for emergency preparedness and response for all Member States and WHO, especially in the fields of policy and legislation, institutional arrangements, vulnerability assessment, health sector planning, training and education, monitoring and evaluation, international cooperation and partnerships, and human resources.

The survey is currently in its second phase, which involves the rest of the WHO Member States and is expected to be concluded during 2007.



Measuring impact: the TRIAMS experience

The Indian Ocean tsunami of 26 December 2004 was one of the worst natural disasters in recent history, with more than 275 000 persons believed to have perished in the five most affected countries. While the death toll was enormous, it was easy enough to quantify. Harder to measure is the full impact of the tsunami on livelihoods, economic activity and individual well-being, particularly for the poorest and most vulnerable sections of the affected communities.

Two meetings of the Global Consortium for the Tsunami Affected Countries in mid 2005 discussed the need for a tsunami recovery impact assessment and monitoring system (TRIAMS) common to affected countries and international organizations. The International Federation of Red Cross and Red Crescent Societies (IFRC) and WHO, with the support of the UN Office of the Special Envoy for Tsunami Recovery, have been requested by the Global Consortium to support India, Indonesia, the Maldives, Sri Lanka and Thailand (the worst-hit countries) in designing and implementing such a system.

These partners developed a concept paper that addressed the key questions to be taken into consideration by TRIAMS and proposed a set of core output and outcome indicators for each of the four areas of the recovery: vital needs, basic social services, infrastructure and livelihood. Special attention has been devoted in developing TRIAMS to make sure that the system addressed pre-existing inequalities and that it was not generating new ones. A workshop was held in Bangkok in May 2006 to review of the concept paper, reach final consensus on the core indicators and develop draft plans to implement TRIAMS-related activities in each of the five worst-hit countries. During this workshop the government delegations also identified country-specific indicators. A detailed report of the TRIAMS workshop is available on the WHO web site at http://www.who.int/hac/crises/International/asia_tsunami/TRIAMReport_final021006.pdf.

After the 2006 workshop, the IFRC and WHO organized follow-up missions to the affected countries. Specific operational and/or technical support has been provided in order to address some constraints linked



with the adoption of TRIAMS indicators. All the countries worked in the last quarter of 2006 on adopting the TRIAMS conceptual framework and the indicators. Countries were also engaged in documenting the achievements and progress of the recovery efforts. At the most recent Global Consortium meeting in New York in November 2006, the affected countries highlighted the relevance and importance of the TRIAMS initiative and the need to assure the necessary commitment and resources to continue TRIAMS work over the next 3 to 4 years; a second workshop is scheduled for early 2007 to share experiences and develop national plans of action for TRIAMS implementation over this time.

Promoting the health cluster approach Update on implementation

The Inter-Agency Standing Committee (IASC) is the primary mechanism for inter-agency coordination of humanitarian assistance. It is a unique forum involving the key UN and non-UN humanitarian partners. In 2005, the IASC introduced the cluster approach for improving the capacity, predictability, timeliness, effectiveness and accountability of international humanitarian action. WHO serves as the lead agency of the Health Cluster and is committed to working with partners to achieve the highest quality response in the health sector in times of emergencies. The role of the global health cluster is to develop, through a large collaborative effort from all cluster partners, global guidance, standards, tools and resources in order to inform, enhance and facilitate the implementation of the cluster approach at the country level as well as to improve surge capacity, access to trained technical expertise and stockpiles to improve response operations.

In 2006, WHO hosted three meetings at the global level to which participate 15 partners from other agencies, organizations and institutions. Through these meetings, the health cluster was able to determine its objectives, finalize its mission statement, core commitments and action points, develop a detailed work plan and establish three subgroups to concentrate initial efforts in health assessments, health management guidance and tools, and training. The initial products being developed by the global health cluster for the implementation of the cluster approach at the country level are expected to become available in early 2007. They include an inter-cluster initial rapid assessment tool and accompanying guidance and definitions; guidance and proformas for developing strategic plans and action plans; guidance on health during the recovery phase; and the establishment of a roster of trained health cluster field coordinators, who would be ready for rapid deployment to acute and chronic emergency areas.

Such collaborative work at the global level is expected to enhance the rapidity, effectiveness and predictability of emergency health responses by

ensuring that stakeholders work within their jointly predetermined and agreed methods of work, using cluster-endorsed guidance and tools.

At the country level, WHO's position as cluster lead is being strengthened by its operational presence, coordination and leadership of the health cluster in selected crisis countries, with the support of the regional offices. By the end of 2006, health clusters had been established in chronic emergencies such as the Democratic Republic of the Congo, Liberia, Somalia and Uganda and in rapid-onset emergencies such as Lebanon and the Pakistan earthquake.

The cluster approach has added value to these emergency responses by bringing stakeholders together to collaborate on joint strategic plans, action plans, cluster-wide resource mobilization through pooled funds and the United Nations' new Central Emergency Response Fund (CERF), cluster stakeholder mapping and cluster-wide trainings. Furthermore, cluster evaluations have indicated that by having designated cluster leads, the roles and responsibilities in emergency response are more predictable than they were in emergencies that took place before the implementation of the cluster approach.

Nursing and mid-wifery contributions in emergencies

Although there is a wide range of health workers providing health services, in most cases nurses and midwives constitute the largest group. Frontline workers, they provide a wide range of health services, which include promotive, preventive, curative, rehabilitative and supportive care to individuals, families or groups.

Nurses and midwives are routinely involved in emergency care. However, they need to be adequately prepared and operate under a framework in order for them to be fully engaged in a comprehensive and systematic response to health crises. Such response varies from medical coordination, coordination of project activities, training and supervision to direct clinical work. Nurses often have overall responsibility in nutritional activities and immunization campaigns.

Recent WHA resolutions have requested WHO to assist Member States to build local and national capacities in health, including nurses and midwives trained in emergency preparedness and response. With this in mind, WHO held a consultation on nursing and midwifery contributions in emergencies in



November 2006 in Geneva. The objectives of the meeting were to discuss the roles and functions of nurses and midwives in emergency preparedness and response; identify the appropriate skills needed for nurses in emergencies; develop guidelines for incorporating health action in crises and emergencies into the academic curricula of nursing worldwide; establish priorities for in-service training programmes on nursing role and response during emergencies through use of innovative strategies and technology; discuss methods for coordinating efforts between nursing, other health professionals as well as other members of the rescue team during emergencies; and identify the role of partners in support of training and deployment of nurses in case of emergencies.

The meeting was inaugurated by HRH Princess Muna Al Hussein, WHO patron for nursing and midwifery. In addition to WHO participants, the consultation included experts in the field of nursing in emergencies and general nursing representing professional societies and nongovernmental organizations, UN agencies, the International Committee of the Red Cross, academia, as well as nursing practitioners and regulators. This included a balanced distribution of participants from the six WHO regional offices.

A draft report was prepared to be shared with participants for their feedback. It summarizes the results of the meeting, which include a framework for strengthening the nursing and midwifery response in emergencies; a list of the core competencies required by nurses and midwives; guidelines for pre-service curricula; continuing education guidelines; priorities for research; and a listing of expert institutions and agencies working in this field.

Enhancing standard operating procedures

Reviews of WHO's emergency operations over the years have repeatedly found that the Organization's normal administrative procedures needed to be revised to respond to large-scale emergencies. Several high-profile natural disasters, including the Indian Ocean tsunami of December 2004, have served to illustrate these findings and highlight the need for emergency standard operating procedures (SOPs) to underpin WHO's emergency operations. Following the tsunami, WHO's Member States adopted a resolution (WHA 58.1) calling on WHO to improve its operational logistics platforms in order to better assist countries faced with health emergencies. A similar resolution was adopted after the South-Asia earthquake of October 2005. WHO subsequently included the development of standard operating procedures for emergencies as one of its global expected results for 2006-2007.

In August 2006, administrative and technical staff from WHO headquarters and regional and country offices met in Geneva to discuss the development of emergency SOPs. They identified the main impediments to WHO's work in crises, made recommendations for overcoming them, and developed a work plan for the production of emergency SOPs. The SOPs were drafted, circulated to all working groups, and cleared and adopted between September and October 2006.

The SOPs will improve WHO's emergency operations by ensuring clarity and consistency in its global emergency operations.



Information management and reporting

Open channels of communication, dialogue and easy exchange of information between Country Offices, Regional Offices and Headquarters are a key requirement for effective action in crisis, be it for purposes of preparedness, response or transition to recovery.

Over the past year, HAC has worked to promote greater exchange between the various levels of the Organization, increasing the proportion of reports received twofold compared to 2005. Throughout 2006, daily, weekly, monthly or punctual reports, studies and field assessments have been produced for the following crises:

Burundi, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Guinea, Horn of Africa (Djibouti, Eritrea, Ethiopia, Kenya and Somalia), Indonesia, Iran, Lebanon, Nepal, Niger, Pakistan, Sudan, Timor-Leste, Uganda

Health Cluster reports were also developed in the Horn of Africa, Lebanon and Pakistan.

Reports can be seen on HAC's website at <http://www.who.int/hac/en/>.

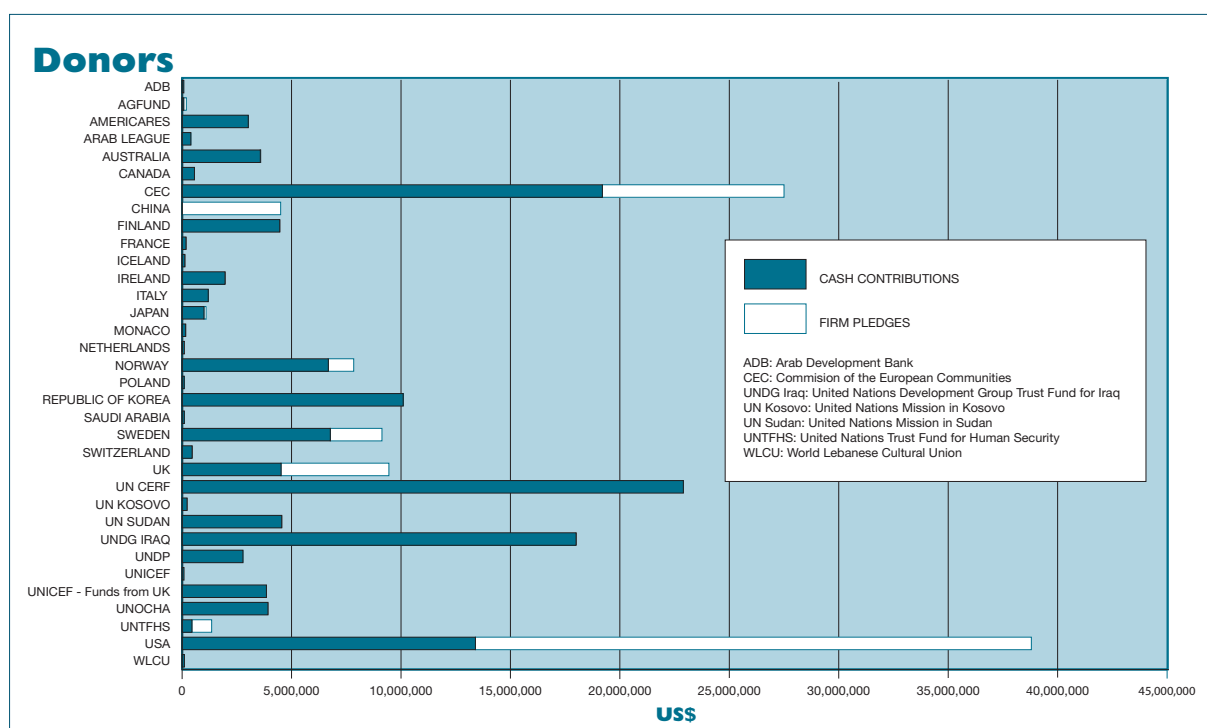
The impact of new funding mechanisms

In 2006 WHO received voluntary contributions of over US\$120 million for Health Action in Crises work. In 2005 a large percentage of funding was targeted to supporting large-scale crises such as the Indian Ocean tsunami, the South Asia Earthquake, Sudan and Iraq; in 2006, funds reached 37 countries suffering from sudden emergencies or protracted crises.

The United Nations Central Emergency Response Fund (CERF), which started operating in March 2006, has been an important funding source for WHO's work in emergencies. The Organization received close to US\$25 million to respond to crises in 24 countries, in Africa, South-East Asia, the Eastern Mediterranean and the Americas. This has allowed WHO to respond more rapidly to sudden crises and to develop humanitarian assistance programmes in countries that were previously receiving very little or no funding.

However, CERF funding was only available for life-saving activities and did not cover all the priorities stated in the humanitarian action plan. Additional funding from donors is crucial to develop humanitarian programmes that cover life sustaining activities





essential to help countries come out of crises. It is also important for WHO to establish its own emergency fund to enable it to respond promptly to acute crises.

The common humanitarian funds for the Sudan and the Democratic Republic of Congo have been instrumental in allocating the resources based on needs assessed at country level. The joint planning required for this exercise has also served to reinforce inter-agency collaboration and the inclusion of non-governmental organizations in sector and cluster strategies and plans.

As in previous years, the Eastern Mediterranean Region continued to attract most of the voluntary contributions (53% of the total received), mostly for operations in Afghanistan, Iraq, Pakistan, Somalia, Sudan and the West Bank and Gaza. The African Region received 21% of the funding available, a great progress since 2005, when African countries in crisis received only 8% of voluntary funds for Health Action in Crises.

Funding for the South-East Asia Region focused mainly on supporting Indonesia in the aftermath of the earthquake in Yogyakarta and countries where WHO has well-established programme of humanitarian assistance. Sri Lanka, where the civil strife has escalated in the second half of 2006, and Nepal also received financial support for health in emergencies.

In the Americas, Haiti and Colombia were allocated grants from CERF; and in the Western Pacific voluntary contributions went to support relief efforts in the Philippines and Timor-Leste. In Europe, Albania, Chechnya (Russia), Kosovo (Serbia), The former Yugoslav Republic of Macedonia, the North Caucasus region and Tajikistan also received voluntary funding for humanitarian operations.

The adoption of the cluster approach to enhance the joint response to humanitarian crises is also changing WHO's way of working. As the leader of the Health Cluster, the Organization has scaled up its joint work with UN partners and non-governmental organizations active in the humanitarian arena. Donors have supported this effort with close to US\$2 million for 2006.

Other initiatives such as Management of Mass Casualties, addressing Chronic Diseases in Crises, Nursing and Midwifery in Emergencies, and the Health and Nutrition Tracking Service have received financial support during 2006. However, additional funds are needed to continue expanding these activities.

Predictable funding to maintain and strengthen WHO's presence in countries in crisis will also be one of the main challenges for 2007 and beyond if the Organization is to successfully fulfil its responsibilities in the area of Health Action in Crises.

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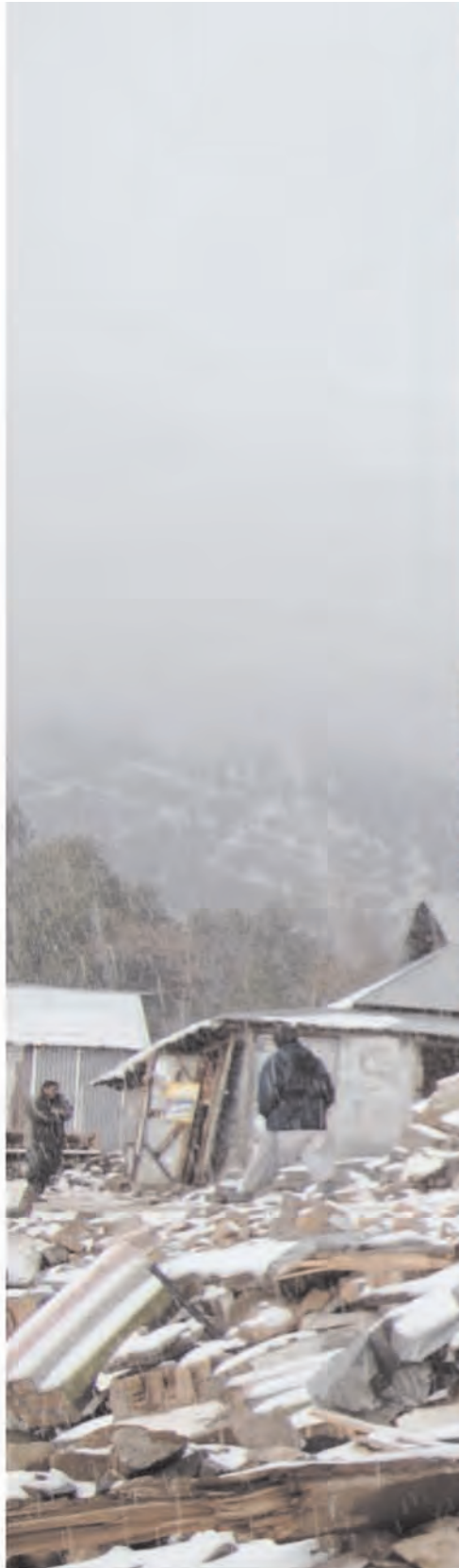
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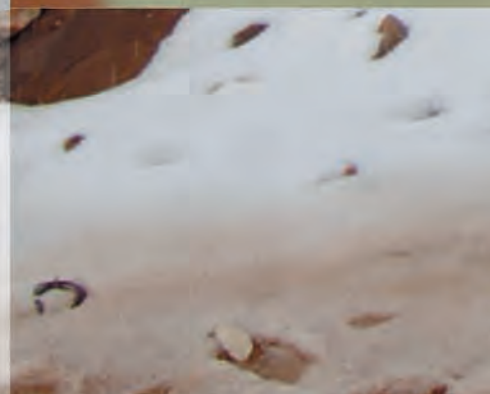
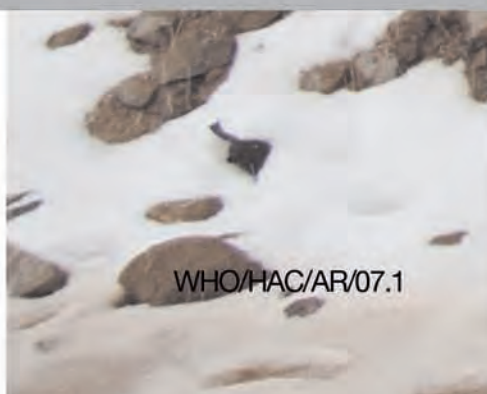
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