

Humanitarian Health Cluster

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Pakistan Earthquake October 2005 Consolidated Health Situation Bulletin #3

Health Agencies who wish to include information here should write to health@whopak.org copied to southasiaearthquake@who.int.

HIGHLIGHTS

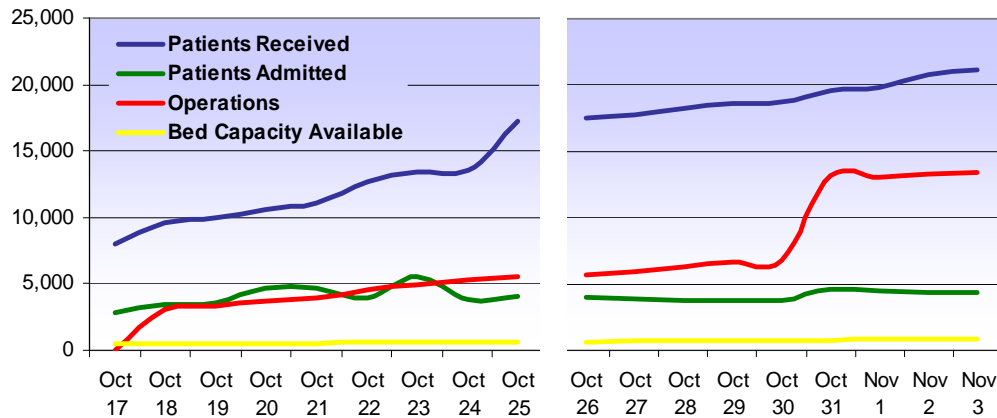
- Government data indicate over 73,000 dead, nearly 70,000 seriously injured and 59,000 with minor injuries in Pakistan earthquake affected areas. The number of people not yet reached with consistent assistance could range from 400,000 to 800,000, possibly including thousands of injured and ill people. An estimated four million people are in need of health services. Cumulatively most consultations at health facilities have been for injuries but, increasingly, patients have been recently presenting with diarrhoeal diseases and respiratory tract infections. With several hundred people with amputations, the need for prostheses and rehabilitation will require particular attention.
- An estimated 3.2 million are homeless. Snow is expected soon. With approximately 117,000 tents distributed to affected communities and another 192,000 in the pipeline, roughly 1.5 million people will be provided with necessary shelter. A further 1.7 million will remain without shelter if no urgent action is taken. Tents for hospitals and remote surgical teams continue to be urgently needed. WHO assessment teams verified that 171 of 535 assessed health facilities are still functioning. Alternative primary and secondary health care centres will need to be put in place soon to provide essential care. There are approximately 2,000 health workers from outside assistance agencies (international and national staff) working in Pakistan at the moment.
- Most critical health concerns are for hypothermia, due to decreasing temperatures at night and lack of shelter, and diseases such as Hepatitis E, diarrhoea and meningitis due to poor sanitary conditions. Shelter, water and sanitation, provision of basic health care remain the main priorities and challenges for coming months. Gender vulnerability is of concern as women may be having difficulty getting access to shelter and other basic services; mainly due to insufficient numbers of female doctors.
- The Disease Early Warning System has reported several suspected cases of acute watery diarrhoea, as well as sporadic suspected cases of measles, meningitis and acute jaundice syndrome. In spite of the remote location of some reported cases only accessible by helicopter, samples are being sent to the National Institute of Health laboratory in Islamabad for testing and confirmation/refutation.

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HEALTH CARE

Emergency trauma care - The cumulative trend analysis of civilian in-patient health facility utilization is at Figure 1.

Figure 1: Cumulative trend analysis of civilian in-patient health facility utilization as reported by Ministry of Health/WHO surveillance teams from health facilities/outlets



An MSF team of nephrologists (kidney specialists) has treated many with crush syndrome. This is a condition in which muscle tissue damaged by severe internal injury can release massive quantities of toxins into the bloodstream and lead to kidney failure. MSF flew in four dialysis machines and medicines needed to treat the syndrome. Left untreated, crush syndrome can be fatal.

Referral and hospital care - At present, 16 field hospitals and 44 basic health units (BHUs) have been registered by WHO as functioning health facilities in all affected areas. The UNFPA District support team in Muzaffarabad in coordination with the district health officer has made operational the Abbas Institute of Medical Sciences (AIMS), Muzaffarabad. The total number of patients evacuated by helicopter to hospitals outside the affected areas (Islamabad, Rawalpindi, Chakwal, Jehlum, Taxila and Gujarat) has reached almost 20,000, four weeks after the earthquake. The daily number of air evacuations to hospitals has now decreased from 350 to 80. 436 of the more than 13,000 surgical operations carried out in these hospitals required amputations.

Access to PHC (fixed or outreach) - During the first two weeks, more than 100,000 patients were treated, mainly addressing infected wounds, Acute Respiratory Infections (ARI) and scabies. The MOH and WHO mobilized 28 combined surgical / public health / medical teams to remote areas. WHO is providing basic health and surgical kits to each team for their two-week rotation.

A total of 27 New Emergency Health Kits (NEHK) and supplementary kits were donated to MOH, and local and international NGOs providing medical care covering 270,000 persons for a three-month period with necessary medical supplies. Eight surgical kits have either already been distributed or will be distributed soon, for a total of 8,000 people during three months. Nine Cholera kits are currently being prepositioned in the affected areas (good for 900 interventions).

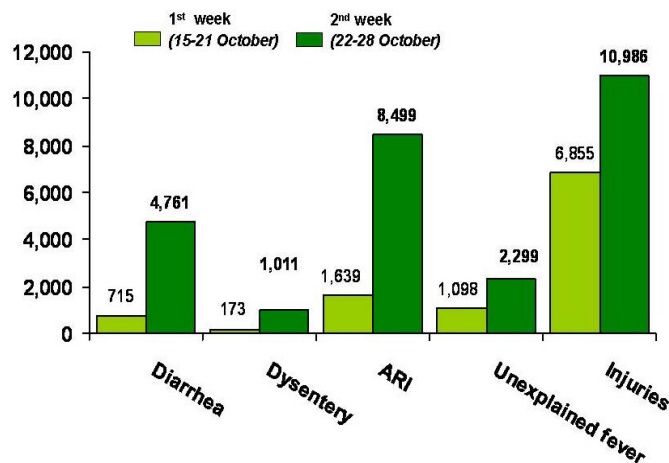
Mental health - Mental health and psychological support services continue to be needed. A strategy on psychosocial support has been developed with a working group of MOH, WHO, other UN agencies and NGO specialists. Turkish Red Crescent psychosocial support will be carried out in Jalalabad, Tariq Abad, Tori Park, Meartonalia, Celabandi camps and AIMS, targeting 10,000 people. The Danish Red Cross is also supporting this program. The MOH and WHO have mobilized seven teams focusing on psychosocial support, in close collaboration with five medical universities and teaching hospitals. Three more teams will be mobilized to Bagh,

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Batagram and Rawalakot. In Balakot alone, the 230 patients seen were predominantly cases of depression.

Communicable diseases - Though the majority of cases from all health facilities reporting to the Disease Early Warning and Surveillance (DEWS) system have been injuries, ARIs are now more prominent (see Figure 2).

Figure 2: Cumulative Cases of Acute Communicable Diseases in Earthquake Affected Areas as reported by Ministry of Health/WHO surveillance teams from health facilities/outlets



Case investigation continues into 40 reported cases of acute watery diarrhoea with 6 related deaths in a remote village in Alai, North of Batagram. Kits to treat acute watery diarrhoea have been propositioned at WHO Muzaffarabad, Mansehra and Bagh field offices.

Two suspected cases of meningitis were reported: one in Bagh and one in Muzaffarabad. A suspected case sample has been sent to the National Institute of Health (NIH) Laboratory in Islamabad for verification.

Two clinically confirmed cases of measles have been reported from Garhi Dupata. The current measles vaccination campaign carried out by the MOH in collaboration with UNICEF will be directed to the affected area.

A total of 144 tetanus cases including 41 deaths have now been reported: an increase of 35 cases and 18 deaths in one week's time. A Johns Hopkins team has been assigned to investigate further. Case fatality for tetanus is expected to be 50%.

Ten cases of acute jaundice syndrome were reported from the Military Hospital in Bagh. After investigation, WHO concluded that all cases were chronic with a history of more than three months. Six more cases reported from the District Hospital in Bagh are being investigated.

The remoteness and inaccessibility of certain areas makes it very difficult to collect and transport samples. Therefore, the NIH in Islamabad, with WHO collaboration, has prepared kits with transport media, blood tubes and sample collection supplies for disease outbreak investigation. One kit has been provided to each WHO field office to allow outbreak confirmation in each catchment area. Collected samples are sent for testing to the NIH in Islamabad.

Immunizations - Campaign implementation for vaccination against measles, oral polio vaccine (OPV) and vitamin A to children under 5 and TT immunization continues. A total of 236,411 children have now been vaccinated against measles and a total of 732,608 children and pregnant women have been vaccinated against tetanus in Bagh, Poonch and Muzaffarabad. Measles and TT vaccination will begin on 7 November in Alai (Batagram District).

Maternal and newborn health - Pregnant women and infants are particularly vulnerable to the harsh post-earthquake and fast approaching severe winter conditions. The specific needs of

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women and infants require particular attention during the acute relief and reconstruction phases of humanitarian assistance.

Of the 4 million target population affected by the earthquake, an estimated 161,000 women could become pregnant within the year (based on a crude birth rate of 35/1000 live births). Of these, an estimated 11,600 women would give birth each month and 1,750 women would miscarry. Assuming that 15% of pregnant or recently delivered women will develop complications and 10% of all newborn babies would develop severe problems, at least 1,750 women and 1,200 newborn infants are likely to have complications every month. Culturally appropriate maternal and newborn health care facilities and skilled services for all pregnant women and newborns and in particular for those with complications must be made available to save lives.

The United Nations Fund for Population (UNFPA) has deployed mobile service units in quake-hit districts to extend health services with a focus on safe pregnancy and childbirth. Nine mobile units are now working in the two hardest-hit districts (Mansehra and Muzaffarabad) and served 11,357 patients, as of 8 November. These units are staffed by a female doctor, a nurse/midwife, and male and female health attendants. They offer antenatal care, delivery and post natal care, as well as address a wide range of ailments affecting children, men and women who survived the earthquake.

In addition to medicines, medical supplies and other vitally needed surgical equipment, UNFPA has also sent a shipment of 188 emergency reproductive health (RH) kits consisting of emergency equipment and supplies, to Muzaffarabad and Mansehra. These include 20,000 individual kits for clean home deliveries to be given to women who are six months pregnant and kits for 10,000 clinical deliveries by doctors and trained midwives. In total, 1,272 RH kits (11 types) are in the pipeline to be distributed to the health facilities.

Disability - To cope with the burden of functional impairment and disability arising from the disaster, inpatient injury caseload systematic reporting should include the number of surgical procedures carried out with amputations. Data should record specifically, for example:

- (1) upper limb amputations;
- (2) lower limb amputations, of which (a) are above the knee and (b) below the knee;
- (3) spinal cord injuries with resultant paralysis; and
- (4) complicated fractures (e.g., open or severely angulated).

VITAL SUPPORT NEEDS

With expected temperatures down to 25 degrees Celsius below zero and sufficient shelter still lacking, a third wave of deaths due to the cold is feared. The race against severe weather continues and pressure to rapidly distribute winterised tents and other protective shelter against severe cold weather conditions increases.

Water and sanitation WHO is assisting in water quality analysis and in technical and operational support provision in water and sanitation and environmental health issues, including food safety. WHO delivered 1,500 chlorine tablets to the Pakistani authorities for distribution with other relief items.

To prevent a further increase of acute jaundice syndrome and diarrhoea cases *in Bagh*, a water and sanitation coordination cell was set up between the Ministry of Health, WHO, UNICEF and the NGOs MSF-Belgium and Tearfund. One of the first initiatives will be a clean up exercise in close collaboration with Pakistan authorities. As all septic tanks and/or soak pits have either been damaged or destroyed in Bagh Town, UNICEF and Islamic Relief will be setting up 1,000 latrine plastic slabs.

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In Balakot, the NGO ACF is providing latrine kits for the affected population residing in camps. The possibility of handing over to the Pakistan Government the German water purification plant run by Technisches Hilfswerk is being explored to maintain a safer drinking water supply. The plant currently operates at one-tenth its maximum capacity (now only 5-10 m³ of purified water daily) due to a lack of tankers for water distribution. WHO may rent a truck to make safe water available for all health facilities in the area and for the nearby tented villages.

Food WFP estimates that 2.3 million people are in need of food assistance for two to four months. Priority is in airlifting food supply, trucking rations to accessible areas, supplementary feeding to children under five years and livelihood support. According to a recent WFP survey, there may be a possible rapid increase in prevalence of acute malnutrition if appropriate and timely measures are not taken as soon as possible. In addition, feeding practices for infants and young children have been affected mainly as a result of shortage of food (55%), fear and shock leading to loss of appetite (11%) and sickness (11%).

WFP is concerned at the potential decline in newborn status considering the already high acute malnutrition prevalence in the population before the earthquake. Aggravating factors are the high incidence of common diseases (infection), poor access to health services, inappropriate feeding practices and lack of access to food, as well as declining food stocks. To avoid this, WFP recommends:

- Blanket supplementary feeding (fortified with micro-nutrients) for 280,000 children between 6 months and five years in rural areas. Where possible, targeted supplementary feeding should replace blanket feeding to best utilize available resources.
- Therapeutic feeding centres at concentrated areas of affected population and in collaboration with (or as a part of) currently operating health care facility (mainly base hospitals); establish referral mechanism and evacuation of severe malnourished children and infants below 6 months with no mother (design nutrition surveillance system).
- Support and care for the mothers to continue breastfeeding and ensure safe space in camps, and training of health workers on re-lactation skills.
- Measles campaign for 6 months to 15 years children with vitamin A supplementation should continue.
- Distribution of oral rehydration salts (ORS) through all food distribution points or depots at the community level such as shops.
- Micro-nutrient supplementation for pregnant women through health services.

Shelter and household items The field-based UN Early Recovery Cluster needs assessment was carried out (24-27 October in Muzaffarabad, Bagh, Rawalakot and the NWFP). The needs envisaged by UNDP, the WB and ADB are that of early recovery and medium term reconstruction. A common set of guiding principles for Government, the UN and WB interventions will be developed. Funding levels mobilised to date through the Flash Appeal are not nearly enough to meet even minimum early recovery interventions. Priority unmet needs are USD 2,300,000 for transitional shelter, labour intensive public works activities to provide small scale emergency employment and livelihood restoration through cash for work.

Camp management Registering unaccompanied children remains an issue. ICRC, IRC, Terre des hommes, UNICEF and WV are actively addressing this. Many in the Alai Valley will understandably wish to relocate to lower heights due to inadequate shelter. UN agencies and NGOs must ensure as soon as possible that camps are correctly sited and properly serviced.

Logistics and communication WHO and MOH are assisting government provincial health offices to reestablish and develop the medical supply system using the WHO/UN Logistics Support System (LSS) set up in Islamabad, Muzaffarabad and Mansehra. LSS is a software system that inventories all incoming donations and monitors their distribution to warehouses in the affected areas. This enables information exchange between disaster response organizations, enhancing transparency and efficiency in humanitarian logistics coordination.

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UNJLC has mapped main logistical hubs and routes in the earthquake-affected area and contiguous supporting areas at: www.unjlc.org/Pakistan/land. The schematic map provides relative times and distances by rail and road. Please provide comments and new information to pakistan@unjlc.org, particularly regarding the latest routes closed with landslides and snowdrift.

WHAT THE IASC HEALTH CLUSTER IS DOING (Source: agency reports)

Over the past three weeks the Health Cluster has achieved the following:

- Jointly with the Ministry of Health, coordination arrangements have been established in Islamabad and five locations in the disaster affected area.
- Emergency health teams, mobile clinics, and field hospitals have been deployed in all accessible areas to provide basic health care.
- Thousands of acutely injured earthquake survivors have received surgical attention either locally or after evacuation to hospitals outside the disaster area.
- Several tons of essential drugs and other health supplies have been delivered.
- A measles vaccination programme has been initiated.
- A disease surveillance system is functional with prompt investigation and containment actions taken when conditions of public health importance have been identified.
- Technical advice and assistance has been provided to the Government and health cluster partners, and
- More detailed damage and needs assessments have been carried out.

However, transport, logistics and shelter have been particular constraints, and several areas which may contain significant caseloads of seriously injured and ill people are yet to be reached.

There are approximately 2,000 health workers from outside assistance agencies (international and national staff) in Pakistan, in addition to several hundred service providers from the Ministry of Health and other domestic Pakistani sources. They are working under arduous circumstances, and the challenge over coming months is to maintain a sufficient pipeline of personnel to allow necessary rotations to be done. Basic health service needs can be met in the disaster-affected areas if there are approximately 15,000 health workers (for an estimated target population of up to 4 million people). Most of these health staff will come from national and local health authorities and Health Cluster partners will support them to enable them to do their job effectively and efficiently. The aim should be to maintain about 2,000 external agency experienced and well-supported staff, to back-up national and local efforts, and to fill specific and specialised skill and service gaps.

The UN Revised Flash Appeal asks for nearly US\$62 million for the health sector. There is an estimated US\$ 30 million that has been pledged and/or committed for health (inside and outside the Flash Appeal), in addition to the considerable civil and military resources of the Government. No Health Cluster member has reported that they are unable to initiate urgent practical assistance operations because of lack of access to immediate funds. However, there is very serious concern that sustaining emergency health operations over the winter will need sustained commitment from donors, on which it would be useful to have more firm guarantees of funding, than is currently the case.

The annexed Health Cluster Strategy statement (Annex 1) sets out current priorities over the next 2 to 4 weeks. In summary, minimum basic medical and surgical care is being provided in most accessible areas, along with public health monitoring and a disease early warning system. This effort will be maintained over the next month - and well beyond. Specifically, this will mean the deployment, during November, of an additional 32 health units and teams, in addition to sustaining some 12 field hospitals, and re-establishing at least 300 "health houses" with the MOH. During the same period, we hope that an additional 220,000 children will be vaccinated against measles, and essential health care provided to 150,000 people in camps as well as 200,000 people in more isolated areas. With joint organised effort, these additional inputs (and others

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such as expanded provision for psychosocial support and women's health) can be delivered provided critical logistical and supply challenges (for example, prefabricated and winterised health facilities) are met by the international humanitarian system as a whole. Some of these constraints to enhanced delivery go beyond the health sector and need to be addressed more widely.

HEALTH AGENCIES

Please note that agencies described below are those responding to the crisis with health interventions and that not all agencies are Health Cluster members.

The NGO **ARC** is providing basic health services to approximately 250-300 patients in the affected villages of Ratnoi, Khwaja, Mahaldara and Kotla near Bagh. ARC provided the villages with 500 winterized tents, 500 blankets, 1,000 shawls and 3,000 socks. More are in the pipeline.

The **Czech Government** donated their field hospital to the District Hospital in Rawalakot to use as alternative facilities for the outpatient department of the heavily damaged hospital.

Cuba Medical teams of over 300 Cuban doctors and surgeons have been mobilized to seven different locations in the earthquake affected areas.

The NGO **Doctors Worldwide** are treating on average 210 patients a day in three camps in Muzaffarabad and Balakot. In total, over 6,500 patients were treated. Doctors Worldwide has set up a new medical camp in a remote area near Bagh, where no medical help has yet been reached.

IFRC/ICRC The ICRC mobile hospital in Muzaffarabad is planning to expand to 150 beds. ICRC established two fixed medical teams in Patika and Chenari in Neelam Valley. The 200 bed federation multinational field hospital in Abbottabad at the Ayub Medical Center teaching hospital will continue to provide health services. The Italian Red Cross and Saudi Red Crescent field hospitals in Mansehra continue to operate in the medium term. The Saudi Red Crescent is exploring the possibility of reconstructing the district headquarters' Mansehra hospital. The French and Spanish Red Cross Societies have established 2 basic health units in Batagram and in Balakot, respectively. They will provide outpatient services for 10,000 persons for 3-4 months and will expanded to a 220-bed inpatient service, if necessary. Their mobile outreach covers areas such as Banna Alie, Pachto, Bateela and Rashang (French). Pakistan Red Crescent mobile teams and multinational Red Cross and Red Crescent Regional Disaster Response Teams have seen a total of 17,109 patients in 93 villages in the most remote areas of the earthquake zone, bringing the total to over 30,000 patients.

The Federation priority is now to reach as many of the remaining, remote villages before winter sets in, with relief and health care, supporting also the domestic health care PHC system with Lady Health Workers.

International Medical Corps IMC is expanding its emergency relief efforts. It's emergency health care services include:

- Mobile teams, travelling by foot, mule, vehicle and helicopter, will continue to access hard to reach locations in the high valleys and areas surrounding Batagram, Balakot and Ghari Habibullah to provide first aid and basic primary health care to residents staying in or near their homes. The Pakistan Army will assist IMC by providing airlifts to remote areas and transporting the seriously injured for inpatient treatment;
- IMC's mobile health teams will provide PHC, immunizations and referral services for displaced people who have left remote mountain regions but are not living in government or agency-sponsored camps;
- IMC, working with the UNHCR and the Pakistan Army, will establish medical clinics in camps located in Ghari Habibullah, Balakot and Batagram, serving a total of 13,000

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families or 78,000 people. The clinics will provide a full range of primary health services including prevention and treatment of infectious diseases and reproductive health services. IMC will also provide measles vaccinations for all children under age fifteen, tetanus vaccinations for all pregnant women, as well as routine childhood vaccinations.

IMC's relief efforts will extend to providing these services to upwards of 178,000 people living in spontaneous camps and other communities without health care throughout the Allai and Kagan Valleys and in areas between Ghari Habibullah and Muzaffarabad. Working closely with the Pakistan Army, civil government and other humanitarian agencies, IMC will maintain access to these communities throughout the winter. IMC will build upon its well-established health care programs (prior to the earthquake) that currently serves over 300,000 people by adding specialized staff and relief activities.

In coordination with UNICEF, WHO and the MOH, IMC will support: communicable disease surveillance and control; cholera outbreak preparedness and prevention; expanded immunization programs; and health education campaigns. Other activities will include the distribution of hygiene and sanitation kits along with water purification supplies to affected families.

As the emergency phase transitions into long-term recovery efforts, IMC will help integrate mental health care into PHC services. It will train PHC workers to:

- Identify and treat minor and moderate mental illness (such as anxiety, depression, stress disorders and unexplained medical complaints);
- Provide immediate care and referrals, if needed, for acute mental disorders;
- Manage the care of the long-term mentally ill;
- Provide community education on mental health issues such as substance abuse, grief, and fear counseling; and
- Recognize the specific mental health needs of women and children.

In addition to providing emergency and long-term medical services, IMC will continue to distribute life-saving supplies to earthquake survivors including winterized tents, blankets, clothes, cooking utensils, jerry cans and hygiene kits.

International Organization for Migration IOM medical evacuations by helicopter and ambulance continue. Approximately 320 injured patients were evacuated to different hospitals using 4 ambulances between helipad and Abbas Shaheed Emergency Hospital in Muzaffarabad. Ambulances have also driven discharged patients with family in Muzaffarabad, Batagram and Balakot. A newborn baby with his parents was evacuated from Alai to PIMS Islamabad in coordination with Japanese medical team and air support.

For primary health care, IOM, with MOH and WHO, is restoring health facilities in Muzaffarabad and Batagram districts using tents, basic furniture and instrument kits.

IOM joined UNICEF and MOH teams to support the measles and tetanus vaccination campaign in Allai. 150 quilts, heaters, gas cylinders and pillows is being provided for the vaccinations. IOM provided the MOH with 20,000 anti-tetanus serum doses.

IOM's medical evacuations, with local health provider capacity building, allowed: 33 large tents, 33 bathroom tents, 400 mattresses, 400 metal beds, 400 quilts, 400 pillows, 400 bedsheets, plastic roles and ropes to be handed over to Abbas Shaheed Hospital, and surgical supplies to PIMS Pediatric Hospital. IOM is providing Pakistan Medical Association with bedding and surgical instruments and supplies to establish a 60 bed hospital in Rawalpindi that will ease the burden of evacuated patients on already overwhelmed hospitals in Islamabad and Rawalpindi.

Responding to the "Winter Race Operation", to provide adequate assistance before the severe weather, IOM and IFRC will deliver 10,000 shelter repair kits to villages above 5,000 meters. The Operation already brings together IOM, IFRC, the UN Joint Logistics Cell (UNJLC) and the

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military helicopter assets of several nations. It is now expanding to work closely with the NGO Islamic Relief and three Pakistani engineering battalions on the ground. IOM is preparing to facilitate evacuations of people living in the higher mountain areas if they wish to be relocated to lower lying camps. Services will include transportation, registration pre departure, medical screening and facilitation of reception.

IOM is currently conducting a rapid assessment of affected areas looking at vulnerable groups and risk in terms of trafficking. IOM agreed to help the Ministry of Interior in identifying target areas to conduct counter trafficking interventions by sharing the assessment findings. IOM will soon launch an emergency counter-trafficking information campaign using the findings.

IOM is also expanding its traditional role of providing transport and warehousing for other relief agencies. To date it has provided over 300 trucks to partners including Islamic Relief, World Vision, UNICEF, Oxfam, Samaritan's Purse and JEN. New warehousing capacity in Islamabad, Muzaffarabad and Batagram is expected to be available shortly.

IOM has established sub-offices in Muzaffarabad, Batagram, Bagh, Balakot and Mansehra.

Jamaat Dawa treated around 3,500 patients in their field hospital in Shwai Nala, Muzaffarabad.

MDM ceased activities in Balakot and will begin PHC activities in Jabba Camp (located between Mansehra and Balakot).

Merlin is currently operating one PHC Unit in Panjkot and one PHC/Trauma Unit with inpatient capacity in Deolian in the Lower Neelam Valley (estimated population 80,000). Merlin is facilitating medical evacuation and referrals from these sites and is planning to conduct assessments of outlying areas to assess and triage further trauma needs. One additional unit may be opened in Dhanni, Lower Neelam Valley, as a satellite clinic from Deolian. National community health workers will be trained to provide outreach from these units and hygiene promotion will be conducted in the surrounding areas especially in an IDP camp in Deolian. Merlin is distributing 5,000 plastic sheets, 100 family tents, 1,000 blankets and 16,000 BP5 biscuits. Merlin will be conducting further needs assessments in the Neelam Valley and in Chenari to assess whether further primary health care and hospital services is required.

MSF has provided medical assistance, mental health support, water and sanitation and distribution of relief goods. MSF brought more than 620 tons of relief goods into Pakistan including medical items (emergency medical kits, drugs, surgical material, dressings, plaster, dialysis machines, high-protein food, and oral rehydration solution), logistical material (especially water and sanitation material such as tanks, pumps and water treatment units) and shelter (about 120,000 blankets, 10,000 sleeping mats and 1,600 winterized tents). Additional relief items such as hygiene, cooking and tool kits are being purchased locally.

MSF has set up a complete field hospital in Bagh. A number of tents accommodate an operation theatre, laboratory, delivery room, intensive care, emergency room as well as an in-patient department with about 40 beds. About ten operations are carried out every day. An outpatient facility in another part of town receives about 75 patients every day. In Bir Pani and Mallot, MSF provides basic health care in a tented facility to about a hundred patients every day and refers serious cases to Bagh. In Paniani, MSF has just established a similar health facility.

In the Jehlum and Neelam Valleys, MSF set up permanent outpatient facilities in Saidpur and in Kai Manja, Lamnian and Hattian. Medical teams continue to set out to surrounding settlements by foot. MSF mobile medical teams flown by helicopter treat wounded in Sarli Sacha and Panjkot, otherwise inaccessible villages to the north of Muzaffarabad. Charakpura, Kumikot and Jhandgran are reached by a mobile team on a regular basis by road.

MSF tents provide clean roomy accommodation to patients and an MSF team relieves pressure from wards at the Mansehra district hospital. A tetanus intensive care unit is available for reference from all other medical structures. In Batagram, an MSF team provides surgery and

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post-operative care in a tented facility with 50 beds. MSF continues to treat about 80 patients per day in an outpatient facility in Kargan, reached only by helicopter. A measles vaccination campaign targeting 5,000 children was started. The team also reaches out to surrounding locations.

Save the Children Up to November 1st, a total of 34,088 patients were treated at the Batagram field hospital. Save the Children is providing management support in running the hospital as well as playing a major supporting role in health coordination in Batagram District. Save the Children will provide health, education, protection, food and shelter support to 10,000 IDPs from Allai in Maira Camp in Shangla District. In Allai Tehsil, Bana Rural Health Centre (RHC) staff and volunteers have seen 26,300 cases (including PHC). The Government has requested Save the Children to work with them to reestablish this Centre, which was destroyed by the earthquake. Save the Children is now facilitating the basic set up of health care services in Bana. As of 7 November Save the Children's health related distribution has been: 165 hospital tents, 2 generators, 385 mattresses/pillows, 264 hospital supplies, 353 blankets, 100 beds, 50 water cartons, chairs and tables, and 4,608 water purification tablets.

Terre des homes (Tdh) Tdh is intervening in two crosscutting areas: (A) psychosocial support (provision of 3 child friendly spaces and counseling) and (B) enhancement of protection mechanisms (identification and registration of separated children, community awareness, support to vulnerable children). Through its child friendly spaces, Tdh is also focusing on hygiene and health issues that are still a major concern in the affected areas. Through the education cluster, Tdh is part of initiatives enabling children to go back to school (distribution of school material, and support to teachers) as this is an essential step for psychosocial rehabilitation. Depending on local needs, Tdh project will be providing psychosocial assistance on a long term basis (maximum 2 years).

Turkish assistance At total of 15 Turkish military and 3 civilian have been dispatched to Pakistan to carry humanitarian aid and personnel. The Turkish Red Crescent is establishing a tent city with capacity to provide shelter to 70,000 people. Belgian and French field hospitals are referring patients here, as well. Turkish Ministry of Health teams so far vaccinated 29,569 persons, conducted 4,161 minor or major surgeries and provided polyclinic services to those in needs. 400,000 doses of vaccinations were provided to Pakistani authorities.

There is currently a 22 strong medical team of the Turkish MOH working in the Turkish Red Crescent field hospital in Muzaffarabad.

UNFPA Since at the time of the earthquake UNFPA was present (through its District Programme Offices) in Mansehra and Muzaffarabad, it immediately went into action to respond. At the provincial and federal level, UNFPA continued to provide technical and financial assistance plans for the early recovery and mid-term plan of action, in collaboration with other UN agencies. UNFPA is continuing to support PHC and secondary level facilities with medicine, medical supplies and medical equipment with special focus on maternal and newborn care.

United Arab Emirates will expand its field hospital in Balakot and seventy beds will be added to the 100 bed hospital already functioning. Doctors and nurses have arrived in Islamabad to staff the hospital.

USAID and Procter & Gamble announced a public-private alliance to provide safe drinking water for those affected by the earthquake. They will supply a point-of-use water purification product that will reduce diarrhoeal illnesses.

The **US Army** field hospital in Muzaffarabad is doubling its Intensive Care Unit bed capacity from 12 to 24 beds, and is also adding 20 intermediate care beds.

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WHO priorities continue to be: (1) health needs assessments, (2) coordination, (3) communicable disease surveillance and outbreak control and (4) prompt reestablishment of primary and referral systems.

WHO has opened their sixth field office in Batagram, to focus on surveillance and increased access to PHC for the affected population. Over 70 New Emergency Health Kits and Supplementary kits were donated to the MOH, and local and international NGOs providing medical care in the affected areas. Over 100 WHO staff members have been deployed in Pakistan (Islamabad and five other locations within the affected areas). Technical and operational support for the control of tuberculosis has been provided as well as investigating a number of rumours of potential outbreaks. Contingency, drug supplies have been ordered, to enable a quick response in case of disease outbreak. WHO and UNICEF together have assisted the Government of Pakistan to carry out a measles immunization campaign in NWFP and AJK, particularly targeting the earthquake.

WHO health situation reports are available at www.who.int/hac.

SUMMARY OF RESOURCES FOR HEALTH ASSISTANCE

(Source: OCHA Financial Tracking System, agency reports and the Revised Flash Appeal 26 October 2005)

(NB: under reporting means that the table below is incomplete. Agencies are requested to please report the health contributions they have received.)

Appealing agency	Requirements under the Revised Flash Appeal (in US\$)	Cash pledges & commitments received against Revised Flash Appeal (in US\$)	In kind assistance (estimated US\$ value)	Total received for health (in US\$)
IOM	2,500,000	50,000	10,000	60,000
IFRC / ICRC				
UNAIDS	500,000			
UNFPA	8,000,000	2,100,000		2,100,000
UNICEF	17,500,000			
WHO	27,750,000	12,231,095	351,000	12,582,095
AAI Australian International	850,000			
Aga Khan	110,000			
Greenstar Marketing	1,000,000			
Mercy Corps	500,000			
Merlin	850,000			
MSF				
Save the Children-Alliance	1,720,000			
World Vision	600,000	423,729		423,729
TOTAL	61,880,000	14,804,824	361,000	15,165,824

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HEALTH POSTINGS

(Health reports and assessments are available on the Health Cluster website:

http://www.who.int/hac/crises/international/pakistan_earthquake/southasia_healthcluster/en/index.html

- WHO / PAHO Guidelines for the Use of Foreign Field Hospitals in the Aftermath of Sudden Impact Disasters
- Management of dead bodies in disaster situations WHO / PAHO
- EARTHQUAKES - Technical Hazard Sheet - Natural Disaster Profile
- LANDSLIDES - Technical Hazard Sheet - Natural Disaster Profiles
- What is an emergency health kit?
- WHO Communicable Diseases Surveillance and Early Warning Response Guidelines
- TEACH-VIP, a comprehensive modular injury prevention and control curriculum developed by WHO and a global network of experts, is available at www.who.int/violence_injury_prevention/capacitybuilding/en/

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Annex 1

Health Cluster Strategy in response to the Pakistan Earthquake

Background

The task of providing sufficient medical services to those affected by the October 8th earthquake in Pakistan is enormous. In response to the immediate and emerging needs in the affected areas, partners of the health cluster have developed a strategic approach aiming to provide health care for approximately 4 million people in the earthquake affected areas.

This document presents a strategy for the following:

- the next 30 days critical/immediate health assistance
- 6 months provision of basic health services including hospital access in emergency.

Assumptions

- Approximately two thirds of the population will remain in or as near to their own homes as possible.
- Approximately one third will be in camps or other alternative accommodation.
- Most health facilities in the earthquake affected region have been destroyed or damaged beyond use.
- There will be a greater proportion of women and children in the camps than men.
- Seasonal migration patterns from high ground to lower ground will take place in greater number and possibly earlier than usual.
- Populations living in mountainous areas are not necessarily the most vulnerable.
- Women will not seek medical care from a male.
- There will be increased needs for health care provision for the disabled.
- There will be increased needs for psychosocial health care provision.
- The Pakistan Government will continue to allow international medical staff open access to all areas of AJK.

Problems

- Approximately 75,000 people injured requiring hospital treatment.
- Approximately only 22,000 people received hospital treatment so far.
- 4 million people affected and in need of primary health care facilities.
- Thousands of people disabled through amputation or other debilitation
- 600,000 children under 5 years of age in affected population.
- 40,000 women affected, of which 9,000 likely to be pregnant; about 15% of these would be expected to develop delivery complications requiring emergency obstetric care including C-section facilities.
- Affected population spread across 28,000 kilometres of mountainous terrain poorly served by road access and with winter approaching.
- Increased vulnerability and reduced coping mechanisms of population.
- 70% of health infrastructure damaged beyond use.
- Pre-existing health staff severely depleted due to loss of life, loss of family members or loss of homes.

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Solutions

The health cluster will work with other UN agencies, international NGOs, national NGOs, the Pakistani military and other voluntary bodies to provide the following solutions to the health needs of the population:

- Emergency hospital care for the wounded still requiring treatment will be carried out by medical air evacuation to the nearest field hospital or pre-existing surgical referral facility. Helicopter access points have already been established to facilitate this.
- Referral field hospitals (with operating theatre, laboratory and x ray) will be established (or existing hospitals supported) at Muzaffarabad, Mansehra, Abbottabad, Bagh, Balakot, Batagram, Betel, Chakothi, Rawalakot and Patika.
- Humanitarian health hubs will be established at the following locations: Muzaffarabad, Mansehra, Bagh, Balakot, Rawalakot, Batagram and Shangla. These will serve as logistics and re-supply bases for the primary health care system.
- Primary health care facilities will be positioned in areas of greatest population density and will be pre-positioned in areas where populations are likely to gather. Additionally primary health care facilities will be provided in all tented camps established by UNHCR according to SPHERE standards and protocols.
- All primary health care facilities will include the provision of maternal and neonatal health care services, immunisation activities, TB treatment and will have referral systems in place for responding to psychosocial issues and the needs of the disabled.
- Mobile clinics providing basic primary health care including Minimum Initial Service Package (MISP) for reproductive health services with the help of UNFPA will be established to operate amongst populations in outlying areas who have not migrated.
- Referral mechanism would be established to provide emergency obstetric care especially for the remote areas with the help of UNFPA and other agencies
- Active recruitment of female international health staff will take place and the Government of Pakistan will be encouraged to seek solutions to increase the number of female health workers to take over.
- All health facilities and mobile clinics will use the established disease early warning system prepared by WHO and approved by the Ministry of Health. Protocols and treatment guidelines already established by Ministry of Health will be adhered to.
- Every effort will be made to establish primary health care facilities alongside pre-existing health facilities and to use pre-existing health care staff where possible.
- Emphasis will be placed on re-establishing pre-existing health networks under the Federal Ministry of Health or Provincial Governments of AJK and NWFP as appropriate.
- Provision of psychosocial support for traumatised children and adults
- Physical and social rehabilitation support for those disabled from traumatic injuries including amputations.