EMERGENCY RESPONSE AFTER THE HAITI EARTHQUAKE: CHOICES, OBSTACLES, ACTIVITIES AND FINANCE

ISSUED IN JULY 2010, SIX MONTHS AFTER THE EARTHQUAKE ON 12 JANUARY.
COVERS THE REPORTING PERIOD UP TO 31 MAY.

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EXECUTIVE SUMMARY

Six months after the earthquake that devastated Haiti on 12th January 2010, this report describes the evolution of MSF's work during what is the organisation's largest ever rapid emergency response. It attempts to explain the scope of the medical and material aid provided to Haiti by MSF since the catastrophe, but also to set out the considerable challenges and dilemmas faced by the organisation. It acknowledges that whilst the overall relief effort has kept many people alive, it is still not easing some of their greatest suffering.

MSF had been working continuously in Haiti for 19 years prior to the earthquake, providing a wide range of medical care from maternity services to physiotherapy and mental health programmes. From this long term involvement, the organisation knew that the health system was out of reach for the majority of Haitians. There was a lack of trained medical staff across many disciplines, from physiotherapy to psychiatry. The country was totally ill-prepared to deal with the medical consequences of such a calamitous natural disaster.

The earthquake destroyed 60 per cent of the existing health facilities and 10 per cent of medical staff were either killed or left the country. MSF had to relocate services to other facilities, build container hospitals, work under temporary shelters, and even set up an inflatable hospital. With over 3000 Haitian and international staff working in the country, MSF currently manages 19 health facilities and has over 1000 beds available at various locations. The organisation has provided emergency medical care to more than 173,000 patients between January 12th and May 31st.

MSF was overwhelmed by the generosity of people around the world providing financial support for the organisation's response in Haiti. By the end of May, MSF had received over 91 million euros specifically for emergency relief there. Well over half of this money – some 53 million euros – was already spent in the first five months following the disaster. Our current budgets foresee that around 89 million euros will have been spent on direct assistance to the earthquake victims by the end of 2010.

Six months on, the medical provision for the majority of citizens has been significantly improved in general and some poor people who were unable to access healthcare prior to the disaster are now able to recieve care. However, the sustainability of this situation depends on continuing international commitment and the question of ensuring quality remains. Shelter remains the most urgent need, with reconstruction moving at a very slow pace and the rainy season compounding the misery. Poor Haitian people are entirely used to limited comfort and resources but MSF staff there report that frustration and anger are rising because too little has changed in the living conditions since the quake.

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INTRODUCTION: ONE MILLION UNDER CANVAS

The disaster in Haiti was such an intense blow to a poor and densely packed urban population that it presented new challenges of scale and complexity on every level for the relief effort. Although MSF was in the country before the earthquake hit, the organisation was stretched to its limits by the urgency and extent of the medical needs. The organisation's financial resources were generously augmented by millions of individual donors, but the sudden pressure on its medical, technical and managerial staff was unprecedented.

The report sets out the ways in which those people, the Haitian and international staff, struggled to answer the challenges thrown up by the earthquake. They know that the response could never be sufficient, that even the core medical action in the early days was overwhelmed by the suffering. And that the wider need of the Haitian people for the restoration of some dignity and hope to their lives has been painfully slow to be realised.

The dust laid down by the thousands of buildings that were crumpled and split by the huge tremors in January has now been washed into pools and gulleys in the streets of Port-au-Prince. The rains that were the next threat to the survivors have been falling for weeks and the predictable misery for the hundreds of thousands without homes is now relentless. And it will likely get worse as what is expected to be a bad hurricane season looms on the horizon.

Many people who escaped from the falling buildings six months ago are still too afraid to seek shelter in the ruins. They remember the after-shocks and have heard the scientific gossip about more quakes to come. They huddle under the flimsiest tarpaulin or tent, chase and recover them when they get blown away, and stay with their new neighbours in the straggling city settlements. From the air, Port-au-Prince has ragged lakes of tarpaulin blue. There is protection against the sun and showers but not tropical downpours or cy-

clones. The relief effort has kept the people alive but it is not easing some of their greatest suffering. The conditions of life are raw and levels of frustration are increasing.

The level of violence in Port-au-Prince is a permanent concern. Before the earthquake, MSF was treating people with bullet wounds and victims of sexual violence in Martissant and Trinité. Beyond these important medical needs, the generalised insecurity requires special attention. However, MSF's medical data do not show an increase in the number of victims of violence after the earthquake. The overall figures for five months show 2,147 patients treated for violence related trauma and another 264 for gunshot wounds.

Health

Today, the medical provision for the majority of the citizens has been substantially improved since the quake and in some respects is better than before it. Numbers of poor people who before the disaster were effectively excluded from the public and private systems are now able to get attention. The range of medical care in new, temporary structures and in some of the surviving hospitals and clinics is substantially greater and nearer to the people, although issues of quality remain. The concern is that so much of this depends on a continuing international commitment and there are real questions about its sustainability. The Ministry of Health has a plan for the next 18 months that has free care for some vulnerable groups at its core. But all this needs external funding and the reconstruction of lasting facilities. The private sector, which has always been significant in Haiti, was badly hit too and is struggling to recover. The other constraint is the lack of trained professionals. The earthquake destroyed 60 per cent of the health facilities and 10 per cent of the medical staff were either killed or left the country. Haiti has always exported talent and those who survived the quake are still heading abroad.

Food and water

The availability of food and water has also improved substantially since the quake, although for most people it is still less secure than in their lives before. The massive World Food Programme distributions were effective and although there is concern whether they reach all of the most vulnerable groups in the communities, MSF has not seen evidence of growing malnutrition. The water issue is less clear because the free distribution in the first three months has been changed to a charge system, which complicates non-charging relief distributions like MSF's and puts a strain on so many people without jobs and income. The concern here is that this is not something that MSF specialises in, it is not a core medical activity and the organisation's resources are being stretched because of the lack of response from other providers.

Sanitation and shelter

Similar concerns apply even more forcefully to the sectors of sanitation and shelter. In sanitation provision there have been improvements since the dire conditions shortly after the quake, but in some communities like Cité Soleil or the camps of Carrefour Feuilles, MSF is one of very few organisations with a presence. MSF is playing a role with latrines, waste disposal and hygiene provision in many other parts of the earthquake affected area, which often goes well beyond the standard work at the medical facility and the surrounding community. At the same time there are big challenges that are not being resolved by the wider relief and reconstruction effort. There is just one waste dump for the city, which is full to overflowing. No alternative has been decided on and the rainy season is compounding the problems of access and pollution. Large parts of the city are at sea level, so latrines should be emptied very regularly. They are not. In the camps, the inadequate provision adds to the likelihood that heavy rains will wash sewage through the living areas.

By far the biggest threat to people's living conditions is the failure to provide any substantial, robust shelter. Sheeting and tents were never anything more than a very temporary solution. They have a life expectancy of around six months. MSF

itself distributed significant quantities of tents but some form of reconstruction should have begun in June and July so that people would then be able to move into at least semi-permanent shelters. Very little of this has happened. Decisions about land allocation have been very slow. The tents are starting to deteriorate and the rain is exposing the problem. Even without a hurricane, the wet season will be enough by itself to complete the misery of the people caught in the open.

Never enough

MSF has focussed a very substantial part of its global resources on Haiti in the last six months. The peak of that emergency phase activity was around the two-months mark, when some 350 international staff were working there. They were needed because it took longer than usual to find and recruit all of the Haitian staff to run the massively expanded medical projects. At its peak in March there were 26 separate facilities – a number that included hospitals, rehabilitation centers, and general medical centers. Following the consolidation of some of these facilities and a shift in priorities, MSF now manages 19 health structures. MSF also runs 16 operating theatres and has more than 1100 beds available at its various locations. Overall, since the earthquake and up to 31 May, MSF has provided medical care to more than 173,000 patients and performed over 11,000 surgical operations.

This report records some of the thinking that went into choices made around strategy and deployments. It contains testimony from staff and patients who have seen the different faces of MSF's work. It sets out the ways in which MSF is spending the generous donations it received from so many people around the world and it sketches some of the ways that the organisation is committing itself to the future of medical action in Haiti. But first, this report looks at the past, the long history of MSF in Haiti and what it tells us about the fragile condition of everything even before the disaster.

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A HISTORY OF VULNERABILITY

When MSF began its continuous presence in Haiti in 1991, the emphasis was largely on rehabilitation of hospitals and health facilities that were crumbling and unsanitary. The work was accompanied by training for surgeons and anaesthetists. There was some direct medical action through surgery and a considerable amount of water and sanitation provision around the hospitals but the majority of MSF's engagement was in supporting a very under-resourced and fragile health system. There were also periodic emergency responses to floods and hurricanes.

That began to shift after 2000 when the first attempts started to reduce maternal mortality in one of the health districts. This marked the beginning of what has been an ongoing commitment to maternity and obstetric care. But the big evolution of MSF's work happened as the country descended into political turmoil and violence in the middle of the decade.

In 2004, MSF opened a surgical project in Port-au-Prince that is still running in a new setting of Trinite Trauma Centre, the only comprehensive emergency treatment facility in the country. Wound treatment became vital for a constant stream of casualties from street fighting. MSF was located at the heart of the violence in the capital when other organisations had left. Between 2005 and 2007, MSF worked in Choscal hospital in the slum of Cité Soleil as fighting went on between armed gangs and the UN peacekeeping forces. The lack of emergency care in the public health sector and the surge in violence led to the establishment in 2006 of the Martissant emergency room and mobile clinics in that slum area of the capital. In the following year, MSF increased its capacity to work with the victims of sexual violence when it opened the Pacot Centre. That facility also provided rehabilitation with physiotherapy and psychological care.

At the same time, extreme levels of maternal mortality combined with frequent sexual violence brought MSF to deliver emergency obstetric services in the Jude Anne hospital in Port-au-Prince and later on in Maternite Solidarite. New peri-natal services were also started, along with voluntary testing and counselling for HIV.

And Haiti's frail infrastructure is constantly exposed to savage natural disasters. In 2008, the northern city of Gonaives was flooded by a hurricane and MSF worked there for several months in an 80-bed hospital and running mobile clinics in the camps where people had to subsist in temporary shelters.

The main lesson of those 19 years work in the country was that for the majority of Haitians, the health system was almost out of reach. In Port-au-Prince, many of the poor have been highly dependent on MSF's free emergency services. Fees charged by the public and private health facilities made care unaffordable for most people. Public hospitals and clinics were often plagued by management problems, strikes and shortages of staff, drug and medical supplies. Patients could be turned away because the hospitals were full and they had to abandon treatment when they ran out of money.

One of the clearest statistical indicators of this poverty of care is in the life expectancy for women. It is estimated at 58.8 years. And with maternal mortality at 630 deaths per 100,000 – 50 times the rate in the United States next door – giving birth can be more than hazardous.

The shocking truth of MSF's experience as a major medical and humanitarian organisation in Haiti is that even without the risk of violence, Haiti's people are exposed to life threatening suffering and neglect. The country could hardly have been less well-placed to deal with the huge additional demands that a natural catastrophe would place on its medical resources.

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DAY ZERO

Dr Hans Boucher, the Haitian medical director at MSF's Maternite Solidarite Hospital in Port-au-Prince, was one of the first to respond to the quake.

"I was in my office when the computer screen suddenly fell to the ground. All of sudden I saw the building shake. When I got outside, I saw the walls crumble, crushing cars in the courtyard and that's when I understood the whole building was collapsing. I noticed then that a lot of people were lying on the ground. So I called another doctor over, and both of us went over to check on these people lying on the road. That's when we realised they were all dead. They were the street vendors who were working in front of the hospital grounds. Then I went back into the hospital to evacuate the other patients. 70 or 80 patients needed to be evacuated so we got them all out – it took us one hour and a half to get all the patients evacuated from the building.

We had them lie down on mats in front of the hospital where the logisticians had quickly set up three tents to shelter the patients. We treated the injured who arrived at the hospital gate. We spent the entire night treating people, bandaging them, we were working as quickly as possible because there were so many injured people in the front courtyard of the hospital.

When I realised what was happening, the first thought that crossed my mind was that my children must be dead, because at the time of the earthquake (5 pm) my children are usually home. I was wondering if I had the courage to go home to find out what had happened to them. There was no way to reach them because all the phone lines were down. So I had to make a choice at that point: I could stay and help the injured who were pouring into the hospital compound or go home not knowing who I would find.

The event was so intense, I cannot say I was not thinking of my family, but we saw so many injured people arriving at the hospital that we had to care for them. Fortunately, around 7 pm, a colleague came to inform me that he had seen my wife and children and that they were alive and okay. So I continued to work until midnight, and then I went home to check up on my family. A few hours later I went back to the hospital where I continued to care for the patients and with my colleagues. We spent the night keeping an eye on them, knowing that tomorrow would be the beginning of much more medical work to treat those who had been wounded."

Dr Hani Fares was in his MSF office, without any medical facilities, in another part of town. He is a surgeon and a medical coordinator for MSF.

"For a whole minute it felt like the ground was moving on water. I was alone in the office, and I think the first thing in my head was that it had to be an earthquake. Maybe it's because I'm Egyptian, and we had an earthquake in Cairo in 1992, so I recognised the feeling. So I got myself out of the office fast and went outside, where I found the other staff.

People began to arrive on foot at the office, more and more of them, and I had to decide what to do with them all. That's when I first heard the rumour that many of the hospitals in Port-au-Prince had collapsed. We started to get the picture, and realise: yes, it's big; in fact it's a catastrophe.

My problem was that I didn't have any drugs to give them. But I went next door and found some boxes with just enough drugs in there to help me, and I took them back to the office.

Then I started to see patients, pregnant women with a lot of fractures; serious wounds; head trauma; open fractures. Initially I covered the wounds with antibiotics, and gave the patients painkillers to relieve the pain - I had found some injectable diazepam and morphine and antibiotics in the box of drugs. The Haitian colleagues were an enormous help to me. During those first two hours, they were really fantastic: they were all afraid, and worried about their children and families, and yet not one of them left – all of them stayed and helped me.

I think we had eight people who died. Most of them there were serious head trauma cases. One frustration was when there were cases of subdural hematoma – when blood pools under the scalp. With a small machine you can make a hole in the bone to let the blood out and save the patient, but I didn't have the machine.

I'm a surgeon, so there were a lot of things I was able to do, and a lot of patients I could save, but afterwards I kept asking myself whether perhaps there was more I could have done. Maybe I could have saved some limbs. But then I think, I simply didn't have the time. When we went outside, and down into Port-au-Prince, we found a dead city. There were lots of collapsed houses, cables fallen down, streets blocked, and then hundreds of people, all sleeping outside. Some of them were praying, or singing, others were crying."

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EMERGENCY CHOICES

As those first terrible hours were unfolding, the initial connections were being made with the wider MSF network outside the country and the emergency managers who would have a vital part to play in steering the overall response. This section of the report looks at the way that response was handled, the strategic choices that were made and the factors that challenged the effectiveness of MSF's work.

As the news broke, the 19 years of history in the country were among the most important assets for the organisation. They allowed for a much more rapid, better informed reaction and the battered teams in the country were the base for the medical action. But the first hours were still clouded by poor communication because contact between the teams on the ground was limited.

In the MSF offices in the USA and Canada late that Tuesday afternoon and in Europe in the early hours of the morning of the 13th January, staff were trying to interpret the patchy information about damage levels and the impact on MSF facilities. The first decisions that day were based on experience of earthquakes elsewhere and the certainty that Haiti's limited medical capacity would have been completely overwhelmed. There was word that MSF's hospitals were badly hit and that staff were struggling to rescue patients and colleagues. Many staff could not be accounted for and one international staff member was trapped under the rubble of their house. The final toll was that four Haitian colleagues were killed, along with four more who had worked with MSF until shortly before the quake.

Quick decisions were taken about supplies and extra staff. It was clear that the top priority had to be materials for surgery, along with the extra surgical teams, and shelter materials to rig new facilities by the damaged hospitals. A whole inflatable hospital was rushed to an airport in France to add operating theatres and beds. Medical needs were brutally obvious: life saving surgery and wound care. The plan was to get pairs of surgeons and anaesthetists to rotate and work around the clock in as many theatres as could be reclaimed or erected. On that first day, estimates of the numbers of injured were rising fast and medical orders for dispatch were multiplying. MSF had a plan for emergency responses to widespread violence in Haiti and it was being rapidly adapted to this massive disaster.

Landing rights

The pressure was mounting on the logistics staff to charter planes and find routes into Haiti. The first team for reinforcing MSF staff already in the country arrived 48 hours after the earthquake but there were serious struggles to get landing slots in the damaged and congested airport at Port-au-Prince. In the first 6 days, out of 17 flights with vital supplies and staff that MSF intended to reach Port-au-Prince, 9 cargo and two passenger planes were diverted, usually to the neighbouring Dominican Republic. The consequence for the patients was that many of the medical staff and their supplies had to come by road, which added around 36 hours to the journey. Half of the inflatable hospital with its 100 beds and three operating theatres had to come that way. MSF protested publicly to the US authorities who were running the airport and access did improve but there was real concern about the impact the diversions had on the emergency care that was so urgently needed. Even so, some MSF planes did arrive early on from the logistical base in Panama and the Santo Domingo transport hub was soon consolidated as an additional access point.

Operating space

Restoring and expanding surgical care was the key for the staff on the ground, who were searching for new buildings in the first few days that could be used for operating theatres. One was identified in Carrefour hospital, where the theatre could function, although the patients were kept in tents outside on the street because everyone feared new tremors. Another team re-established MSF in Choscal hospital in the slum area of Cité Soleil where it had worked some time before. The choices were not always able to be made on the basis of clear information about alternatives. Further down the street there might have been an even better building but the teams took what was good enough. In Choscal, the decision was made as much because MSF's strong reputation in a potentially dangerous area allowed the organisation to work in a community that might not otherwise have seen aid workers. In another location, beside the collapsed Trinite hospital, MSF surgeons were working in a container. Nobody thought that was best practice because hygiene conditions were

hardly as they should be in operating theatres but the alternative was not to treat seriously injured people.

Staffing issues

On the staffing side, the impact of the quake on the Haitian staff was particularly difficult. Many of them had lost family members or homes but still carried on working. More international staff were also needed to come in to replace the exhausted workers during the first week. Recruitment internationally was dramatically successful as hundreds of people put themselves forward as emergency cover. The limitation for the organisation was more in the managerial challenge of handling the swelling teams and the multiplying project locations.

Beyond the capital

Outside Port-au-Prince, the decision was taken early on to head for some of the other badly affected towns. Within the first week, MSF was in Leogane to the west of the capital and even closer to the epicentre of the earthquake. The team set up a central surgical unit and ran mobile clinics along the road to Grande and Petite Goave. In Jacmel, to the south, another hospital was identified. But here the first journeys had to be made by helicopter because the road was so badly damaged. That resource continued to have value to search for remote communities whose restricted access to healthcare had become even more limited and who had seen no aid even two or three weeks into the emergency. Mobile clinics and deliveries of household items and shelter were then organised.

Everything is a priority

One of the constant challenges for the management of the work was in trying to anticipate and plan for the emerging health needs. To begin with they were obvious and overwhelming. And one of the preoccupations for the medical staff was the need to find specialist treatment for complex cases like spinal injuries, cranial surgery or multiple fractures. The solution was to refer them to hospitals in Santo Domingo by helicopter. In the early days in Port-au-Prince, the normal MSF practice of outreach into the communities to find new patients was sometimes suspended as they were coming in such great numbers to the hospitals and clinics. The standard local security procedures of a ban on night driving were suspended for the first two weeks because of the clinical pressures.

The surgical priorities did begin to shift though from life saving to limb saving. Doctors in the emergency facilities had always been faced with very difficult decisions about how to save badly damaged limbs and amputations were sometimes necessary to preserve the life of the patient. The second wave of surgical cases saw arms and legs which had infected wounds but where life was less immediately at risk. By then the surgical capacity was significantly expanded with the presence of the inflatable hospital with its three operating theatres.

That phase of the medical work had been preceded by an explicit strategy of consolidating specialist provision for dialysis for crush injuries and to expand emergency obstetric care. This had always been an MSF core activity and it became a major part of the life saving capacity. Psychological services were also very much integrated into the medical provision, initially as part of trauma care for badly injured people but increasingly as an outreach activity that dealt with the widespread symptoms of shock and bereavement in the communities.

Beyond medicine

At the same time as the medical work was being refined and elaborated, there were parallel efforts to fill some of the large holes in the provision of water, sanitation and shelter. These are normally support activities for MSF medical projects, which involve creating the appropriate working conditions in the hospitals and clinics and providing for the patients. But in Haiti, the needs beyond the hospitals were huge and potentially damaging to the health of the surviving people. There was a real tension for MSF as its resources could have been pulled in all directions. The focus had to remain on securing the medical services for the patients but substantial work was done even so in camps and the facilities. Water trucking, setting up bladders and starting to construct latrines was a significant contribution to basic welfare in the settlements. Constant monitoring was going on to identify any signs of disease outbreak or epidemics, which are so much more likely in crowded conditions. Fortunately, such outbreaks are comparatively rare in Haiti.

The next level of provision, distribution of shelter and non-food items like hygiene and household kits, was more problematic. The needs were – and still are – so overwhelming that MSF's contribution to meeting them

could never be very satisfactory. Even so, the project managers did push the boundaries of MSF's core medical action and organise distributions. But MSF has been disappointed in Haiti with the overall commitment to get shelter in particular to the people.

Secondary and primary

The medical needs were certainly shifting by the second month and hospitals had filled up with patients recovering from their injuries. Other emergency medical teams were preparing to leave and MSF was pushing for new facilities to take the patients. That meant a shift to longer term care with an emphasis on physiotherapy as part of the recovery process. Moreover, the wider move in the second phase of the medical work was to reinforce the provision for non-earthquake related conditions and chronic illnesses. Violence related injuries needed front line care and there was growing provision for paediatric cases. So even more hospital beds had to be freed and new ones created for longer-term patients. All of this was a confirmation of the fundamental choice for MSF that it would concentrate on its strengths as a provider of quality hospital care, which was not guaranteed from other sources.

At the same time, there was a determination to work in the communities to deliver primary care. Clinics in the settlements were dealing with wound dressing and minor ailments. The flow of patients to the hospitals was re-balancing to the "normal" medical work with respiratory infections, road accidents, sexually transmitted infections and chronic conditions like TB and HIV infections. By the third month there was also a consolidation of some of the medical facilities, with adjustments to take account of other organisations' work and in response to the Ministry of Health's needs. The staffing patterns were becoming more conventional for an MSF intervention. Recruitment of Haitian staff had greatly increased and the international component stabilised, so that the ratio came back to a historical 10:1. The earlier tendency for staff to overwork with long hours and few breaks was calmed and greater efficiency established with better staffing numbers per ward and clinic.

Reflections

MSF emergency managers have been looking back at the achievements and the frustrations of the early work. They feel that their preparations and plans for events like this were pushed to the limits. The capacity to respond was demonstrated but it was also close to being swamped. The financial cost of flying such a high proportion of the vital material was very high and at the beginning even that was compromised by the airport problems. But the scale of the disaster was exceptional. MSF had dealt with natural disasters where the fatalities were as high but in this case there were far more injured survivors. The nature of the buildings, the depth of the quake and the way people lived delivered a particularly cruel level of suffering. Experienced MSF workers were universally shocked by it.

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WORK AND WITNESS

SURGERY AND REHABILITATION

Emergency Surgery

In the 20 days following the earthquake, MSF surgeons worked around the clock, carrying out over 1,300 surgical operations. Just over one tenth (140) of those operations were amputations, and they were always the last resort in the effort to save the life or limb of the patient.

Paul McMaster is a surgeon who reached Haiti less than a week after the earthquake struck.

"When we started surgery we didn't have electricity in the hospital. The team rigged up a couple of lights in a tree. We were working off two makeshift operating tables in the courtyard and we just went from one patient to the next. Those first few days we didn't have water or food for the patients - or indeed for the teams working.

These were brutal wounds. They were deeply infected after three or four days when people were still being brought out. The surgery isn't very complex, but it's a very, almost primitive and brutal surgery of removing dead and damaged tissue and amputating limbs. The decision you have to take surgically is whether you can preserve that limb or whether it must be removed. It can be a very difficult decision at times and amputation is clearly the last resort you want to turn to. But when a person has been crushed for days in a building, the tissues have been severely damaged, and the great dangers are overwhelming infection and septic shock setting in.

For us individually, it's always different things, but for me it's always the children, I think. Having to amputate the limbs of children who have already been deeply traumatised by their experiences is always hard to do. There is often a feeling of helplessness, or wanting to do more. And so the emotions and the feelings are very strong."

Seven year old Jerry was trapped under the rubble when his house collapsed, and emerged with a severe open fracture to his femur. MSF put Jerry on antibiotics straight away to keep infection at bay and an MSF surgeon performed a complete cleaning of the wound. However, a few days later the doctors discovered that the infection was still raging, and they became extremely concerned that it would spread to the rest of his body and threaten Jerry's life.

"The wound was very near the groin, so if the infection went above it there would have been very little we could have done to save him. We knew we had to amputate if we wanted to keep him alive," remembers Dr. Karin Lind.

Reconstructive surgery and rehabilitation

Reconstructive surgery is not just about aesthetics: it can help limit infection and restore mobility. In the days after the earthquake many patients arrived at MSF facilities with drastic loss of tissue, both muscular and cutaneous. To limit the risk of infection and preserve patients' limbs, the teams administered skin grafts and carried out scar control.

In the less severe cases they were able to use a technique that involves taking a piece of skin from a healthy part of the body and applying it to a superficial wound. This allows new skin growth to occur after two or three weeks.

For more severe tissue loss or necrotised wounds (notably severe burns), it was necessary to apply reconstructive grafts. Once the acute phase has passed, other techniques are used to restore mobility and physical function.

Most of these methods were taught in the University Hospital of Haiti before the earthquake, but many Haitian surgeons were unable to use them due to lack of equipment. Since the earthquake, local MSF teams have worked in partnership with their Haitian colleagues to reintroduce these techniques into the operating thea-

tres, using the new equipment sent into the country. In the future the teams will therefore be better able to deliver patient care to victims of violence, road accidents and burns, who are now replacing earthquake victims in the hospital beds. Overall, some 11,421 patients went through MSF's rehabilitation programmes.

Doctor Maria Adele Dammacco, a specialist in reconstructive and aesthetic surgery, joined the emergency teams in Port-Au-Prince in February.

"In Port-au-Prince, patients leaving hospital are going to live in very difficult conditions, and the risk of infection is high. Plastic surgery, amongst other things, can reduce the risks. For instance a simple skin graft will allow a superficial wound to close more quickly than if it were left to heal completely by itself. In a situation where tens of thousands of people were injured at the same time, it is a real bonus to be able to make post-operative care easier.

I do not think the aesthetic question is trivial or exclusively for the rich, it is a question of status as well as appearance. In many countries people afflicted by aesthetic handicaps are excluded from society. By repairing their faces one gives them a chance to regain their place in their community."

Physiotherapy

For many of the types of injuries sustained during earthquakes, physiotherapy is vital to recovery and rehabilitation. Patients with lower and upper limb fractures and breaks, pelvic trauma and compound fractures all require physiotherapy to ensure they regain as much mobility as possible, recover muscle tone and avoid muscle atrophy. Physiotherapy also helps prevent medical complications such as deep vein thrombosis and pulmonary embolism.

Initially MSF, in partnership with Handicap International, was providing post-operative physiotherapy to fresh trauma cases. By the beginning of June the nature of patients' injuries had changed, so that only about half of cases were directly related to the earthquake - mainly complicated orthopedic issues. The other half were largely due to road accidents and burn injuries.

There were few physiotherapy services available in Haiti prior to the earthquake, so finding trained physio staff has been a major challenge. Many auxiliary medical staff had to be trained from scratch. Much of the necessary equipment has been sourced locally: parallel bars, weights and extension machines have all been made with local material. An exercise bike machine was made by simply suspending a normally bicycle by the back wheel.

MSF is now providing physiotherapy in a number of inpatient and outpatient facilities, both in Port-au-Prince and other devastated cities such as Leogane.

Gilles Lavigne is a physiotherapist who arrived in Haiti a week after the earthquake.

"The treatment includes massage, exercise, working on mobility. It's very important you start treating burn patients very quickly after the accident to prevent muscle shortening. If a patient has had a skin graft you have to massage around the scar to keep the skin elastic. We have brought in special thermo-plastic splints for the treatment of burn victims. The special splints keep the hand or arm in a good position and ensure the scar is able to heal properly. We have to make a unique one for each patient.

I remember one patient - a little three year old girl called Anelka. She asked her mother, 'Mummy, mummy give me my legs – I want to play with the other kids!' Her mother asked me if it would be possible to give her crutches and I said no way – I knew I'd never be able to find anything for a three year old. So I made some for her myself and she tried to walk with them. I said 'Oh my God, I'm sure she'll fall down, she'll never manage'. But two days after that she walked very quickly with these crutches. Now she has an artificial leg. But the problem for kids is that you have to change their artificial limb every three months because they grow so fast."

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PRIMARY HEALTH CARE

The earliest forms of this most basic contact between patient and medical professional after the disaster were in the hospital reception units and clinics that dealt with thousands of the more minor injuries. As the MSF presence expanded and the number of facilities increased, these outpatient departments touched on ever wider parts of the city, as well as the towns in the affected area. Mobile clinics went out into the settlements to find people who were not travelling to the hospitals.

The primary health care clinic, a familiar model from many countries and refugee camps where MSF works, is important for several reasons. One of the first procedures is a check up when a new patient registers. Weight, height, temperature, blood pressure, a urine test, and nutrition measurements are all taken. This allows MSF to identify major health problems among the communities and monitor for potential disease outbreaks such as measles, meningitis, typhoid and whooping cough.

At first, patients were coming with injuries to be dressed, four or five hundred a day to each clinic. Today this number has dropped drastically, down to an average of around 70 a day. Many of the health problems reflect the extremely poor living conditions: respiratory infections, skin infections and diarrheoa. Recently there have been more cases of violence and sexual violence, although these may simply have not been reported previously. In the five months after the disaster, 212 patients were treated following sexual violence.

The services offered at the clinics are generally basic consultations, ante- and post-natal care, vaccinations, a home visiting feeding programme and referral to mental health services or hospital when necessary. There are also still people coming to the clinics who failed to return for follow up care after surgery, who now have infections needing medical attention.

Dr Emmanuel Bélimaire divides his time between Delmas 24 and Champ de Mars, one of the largest camps for displaced people in Port-au-Prince. Primary care clinics in both places were established by MSF.

"Infections and intestinal parasites are the most common complaints we see. Sometimes we also give guidance on the basics of hygiene because it is necessary for a patient to change their habits.

Pregnant women may be screened or referred to specialised centres if there are complications. Newborns are given special attention with screening for conjunctivitis. The organisation also offers vaccinations and monitors for epidemics such as measles, malaria, tuberculosis and tetanus."

SPECIALISED SERVICES

Maternal and Obstetric health care

Even before the earthquake, pregnant women in need of maternal health care were at risk in Haiti. The earthquake severely damaged or destroyed up to 60 per cent of health facilities in Haiti, including the old MSF maternity hospital. As a result, MSF started providing support to the Ministry of Health maternity hospital, Isaïe Jeanty, which had not been damaged in the earthquake, providing human resources, drugs and obstetrics expertise. As well as treating pregnant women with medical complications such as eclampsia and malaria, the centre offers neo-natal and post-natal services and a blood bank. The latest figures show that MSF helped to deliver 3,752 babies in its facilities.

Dr Gessie Delusma is an obstetrician-gynecologist currently working in the Isaïe Jeanty hospital.

"Pregnant women were already vulnerable, but now their situation is even worse. They have even less access to health care and health education, and their living conditions are poorer. Mothers who have lost their husbands and other family members live in tents with their children. Those women face great difficulties actually staying in the hospital and delivering.

I have always been careful to talk with my patients and to explain to them what is happening. Patients without much education need to be able to understand the information they get. I saw a patient recently who came in with her mother. She presents with a molar pregnancy and needs to be treated, otherwise she could develop cancer. This girl must come back to the hospital for her treatment, so it is crucial that I take the time to explain properly why."

Roseline, 34, was five months pregnant when the earthquake struck. She delivered her first baby at the Isaïe Jeanty maternity centre in May.

"When the earthquake happened I was afraid I would lose the baby as I ran outside the house. I was so scared for him. Afterwards, I talked to the baby inside me and explained to him what happened.

The pregnancy went well but the birth was a bit difficult. I had a lot of pain and I needed a c-section. I knew that the services would be free here, that's why I came. It all finally went well, and here is Angely, my first baby.

Life was pretty cool before. When I look at the past, I think that we used to be free. My life is totally different now and much harder. Our community life has changed. Some people died. Some left. We used to live much more all together. Today, everyone goes their own way. But I am very proud to finally be a mother. We thought that life was done. But no, we take it back, step by step."

Burns

Haiti lost its only specialized treatment unit for severe burns when MSF's La Trinité Hospital was destroyed by the earthquake. Re-establishing this unit became a priority, especially given the dangerous living conditions faced by earthquake survivors.

By late March, a new dedicated unit had been set up under canvas within the Saint-Louis Hospital compound. The unit includes three tents and thirty beds for severe burn patients, both children and adults.

Dr. Rémy Zilliox, a plastic surgeon and burn specialist started working in the burn unit just after it opened.

"Burns are increasingly frequent and severe now because lots of people are living in even more dangerous conditions. All aspects of family life take place in just one, often very cramped space: family members sleep, play and cook in the same area. Women and children are often burned because a pot of boiling water or oil tips over, or a candle sets fire to a blanket. Men are mostly burned when handling flammable products, primarily fuel containers. I've also seen electrical burns, which are particularly serious.

For victims of severe burns, the 24 hours following the accident are crucial. Emergency surgery must be performed within six hours of the accident happening and they require very regular care for three weeks to a month. They are initially treated in the emergency room of the hospital, where specially trained doctors decide whether to set up a resuscitation infusion. Burn patients lose a lot of water, salt and micronutrients.

Next, we determine whether the patient needs emergency surgery, which usually involves a tracheotomy or escharotomy - an incision in the burned area. A tracheotomy is required when the lungs or mouth have been burned, which makes it difficult to take in oxygen."

Five year old Walderson suffered third-degree burns to his right leg in April. His mother was cooking in their tent while Walderson was playing with his twin brother. His trousers caught on a pot of boiling water and 12 per cent of his body was scalded. He was admitted to the Saint-Louis burns unit, where he received emergency surgery and remained as an inpatient for over a month.

"He had blisters on his skin and he was in pain," his father explains. "Fortunately, his mother snatched him up right away. He used to go to the operating room and receive his treatment under anesthesia, but now we just change his dressing every other day."

Mental health

Dealing with the 'invisible wounds' – the psychological consequences of the disaster – quickly became a vital part of MSF's response. Not only were people mourning the death of loved ones, the fear of re-experiencing the earthquake was aroused with every aftershock. Many were also extremely anxious about their own injuries, and were particularly scared of having to lose a limb.

MSF started to provide a broad range of mental health support, from group counselling sessions with psychologists to one-on-one consultations with psychiatry professionals for those who developed acute psychiatric distress. Over the last few months, MSF has given psychological support to more than 80,000 Haitians. Most patients that had individual sessions presented with physical complaints such as cardiac palpitations, pain or flashbacks.

By June, psychologists were providing support not only to individuals who were direct victims of the earthquakes but also, increasingly, to those who can no longer bear their dire living conditions. People are extremely anxious about the future, with no hope in sight for an improvement in their lives. Marital, family and socio-economic problems have reappeared and are exacerbated among people who have lost their social standing or who find themselves forced to raise their children alone.

MSF offers therapy sessions including relaxation techniques to help reduce anxiety. This strategy works much of the time, but if patients have psychiatric complications, such as mania or delirium, they are referred to a psychiatrist.

Before the earthquake, Haiti had only a few facilities that could treat patients with severe psychiatric illnesses. Today there are less than 10 psychiatrists in all of Haiti. There are still only limited opportunities to refer individuals who require hospitalisation and increasing numbers of seriously ill psychiatric patients are today seeking help from MSF.

Dr. Maryvonne Bargues, a psychiatrist, leads a 19-person MSF mental health team in Port-au-Prince that includes 13 Haitian psychologists.

"Four months after the earthquake, many people remain in what I would call a state of 'complete confusion of land and body.' Most of my patients are afraid of being swallowed up by the earth. The earthquake is literally in their body and the noise is always present. They have major sleep disorders. They live in a constant state of fear and continue to have flashbacks. In April alone, I saw 70 patients who were in a state of acute delirium, confused and unable to think clearly. Many have stopped speaking and eating. After two or three weeks of sessions, they improve.

There are also people who are grieving deeply and who suffer from depression. Many patients tell me, 'We will never get through this.' Living conditions are horrific and many people think that things will not change. Their houses are gone. In the best of circumstances they have a tent, which is almost a luxury. The people in the camps are living in crowded, unsafe and violent conditions.

We work both within MSF's medical facilities and in the camps. I see each of my patients at least once a week. If they are in an acute state or delirious, I see them every other day. We also hold group psycho-social sessions, targeting people of the same age, such as children."

WATER, SANITATION AND SHELTER

So many people lost almost everything in the quake that the basic needs for survival were very pressing in the first few days. MSF was focussed on the medical and surgical priorities and the first concern for the water and sanitation specialists was to make the hospital areas safe for the patients. That always involves ensuring high standards of cleanliness and waste disposal.

But that rapidly expanded to the people who were in the area. Karline Kleijer, one of the emergency managers in Port-au-Prince, says the reaction is instinctive. *"You see it because you are working in a hospital in the middle of a big camp and you just have to take care of the people in it."* At the same time she acknowledges that all of this had to be related to the medical work and the facilities because otherwise all of MSF's resources would have been diverted away.

Outside Port-au-Prince, MSF also started going into some of the small camps and communities and built 'sanitation areas' which consisted of a latrine, a shower and a wash area. There were hygiene distributions of soap, toothpaste and toothbrush. Then there were household kits of cooking materials and sheets for shelter and tents. There are still camps with very poor provision and the latest MSF work is in Aviation camp and those around Carrefour Feuilles in the capital, where water and sanitation support is underway.

MSF has been significantly involved in shelter delivery but the organisation remains very concerned about the lack of progress overall. It delivered 26,971 tents and over 35,000 hygeine and households kits.

Paul Jawor is a water and sanitation specialist who went as part of the emergency team.

"Haiti had trouble with water and sanitation before the earthquake, so when the earthquake happened it looked like the perfect storm of disasters all at the same time.

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Everyone was talking about cholera, which was interesting because there is no cholera in the country! But they did have incredibly bad sanitation issues in the camps. The 'flying toilets' as they are called – basically defecating into a plastic bag and throwing them into the waste system was a huge problem because there was no waste collection, so it gets thrown in the lake or into the street.

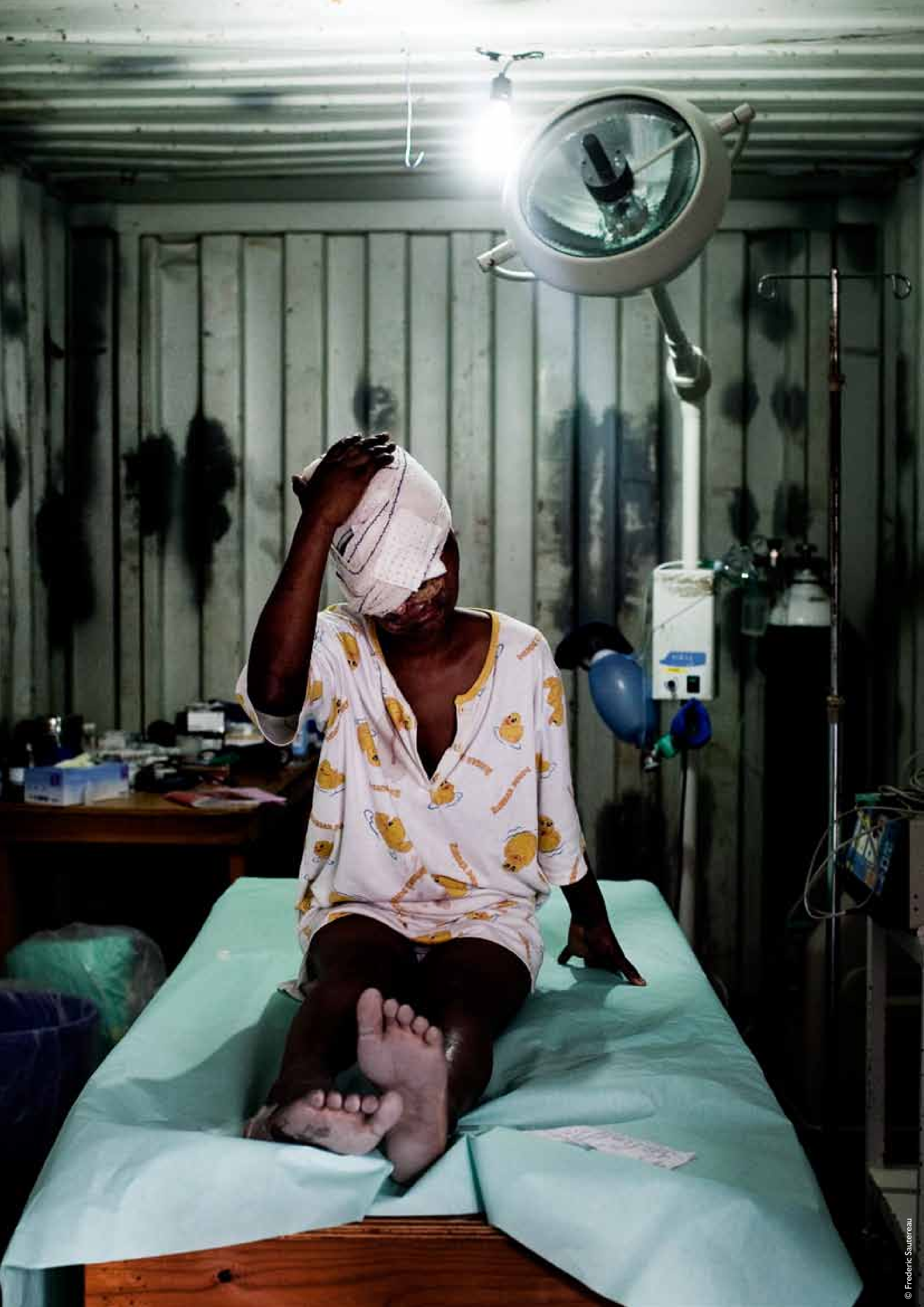
So we made basic cubicles, with a frame and plastic sheeting around the outside and we used a slurry vacuum pump to get the waste out into a 3000 litre tank on a pick-up, which we then drove out of town to the dump area.

In the city it was clear that you could get lost among the hundreds of thousands who all needed help. So MSF would do something very simple, which was to put a protractor on the map with its point on the health centre that we were working in and I drew a circle. And I said the first people we're going to influence are within it because these are the people who will be coming to the health centre, so it was linked to the medical work.

We're now moving on to the next stage with putting in water towers and other more permanent ways of water provision other than trucking, which has been the basic model. And there's the challenge of keeping the latrines above the water table and the floods with the rains now."

Siliana is one the 45,000 displaced people living in the Golf Club Camp in Port-au-Prince.

"I came here on January 13th with my mother, my daughter, my three brothers and my cousin. I received plastic sheeting but these things do not last long. With the rain falling for weeks the water gets inside… Do you understand that? We have to wait until it stops to put our beds back and sleep. Six people are sleeping in this little space. This is how we live and this is not easy."



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AT A GLANCE: MSF ASSISTANCE IN FIGURES

The earthquake in Haiti on 12 January left immense numbers of people in need of urgent medical care and relief. MSF staged the largest natural disaster response in its history. This table gives some of the key operational data for the period up to 31 May.

	TOTAL
Haitian staff	2,807
International staff	209
Operating theatres	16
Number of beds	1,187
Patients treated	173,757
Surgical operations	11,748
Patients treated: post operative care	11,421
Patients treated: bullet wounds only	264
Patients treated: other violence related trauma	2,147
Patients treated: other trauma	44,717
Patients treated: psycho social and mental health	81,735
Psychological consultation	20,652
Psychological education	61,083
Patients treated: deliveries	3,752
Patients treated: sexual violence	212
Relief kits distributed	35,350
Tents distributed	26,971
Number of fixed sites	19
Number of mobile clinics	3
Litres of water distributed per day in cubic meters	723
Latrines built	880
Showers built	415

DONATIONS AND SPENDING

Following the earthquake, MSF initially developed fundraising activities and the generosity of people around the world in response to the tragedy that befell Haiti has been overwhelming. While the MSF medical relief effort was immediately shaping up to be massive in volume, the total of funds donated to MSF by the public specifically for this emergency threatened to eclipse what MSF could foresee to spend. Striking the right balance so early on was complicated by the fact that it took weeks for the real scale of needs to become clear as well as to guage what other organisations would bring in terms of practical emergency assistance.

MSF takes the expectations of donors seriously and decided to discontinue active fundraising for the victims of the earthquake in the days following the disaster. While MSF continued to welcome donations, pro-active earmarked fundraising for Haiti was put on hold. Instead, MSF called upon donors to continue to support the organisation for its current and future emergency work in general.

As of 31 May, four-and-a-half months after the earthquake, MSF had received around 91 million euros[1] earmarked for emergency relief in Haiti, and had already spent nearly 53 million euros on assistance to the Haitian population. MSF foresees to spend around 89 million euros in Haiti until the end of the year; remaining earmarked funds will support MSF's ongoing commitment to the victims of the earthquake in 2011 and beyond.

AT A GLANCE	ROUNDED TOTALS
Spent until 31 May	53 Million euros
Donated for Haiti until 31 May	91 Million euros
Projected budget until 31 December	89 Million euros

Examples of activities

Among the large scope of MSF activities in Haiti, as of May 31, more than 11 million euros have been spent on surgical care for significant numbers of Haitians injured in the earthquake. At least 4 million euros were spent on providing maternal health services, which were already extremely limited before the earthquake struck. Roughly 8.5 million euros [2] were spent on shelter and related items in an attempt to improve living conditions for some of the hundreds of thousands of people whose homes and livelihoods were destroyed.

MSF also invested substantial means in other medical and relief activities, including primary care, mental health support, and provision of water and sanitation.

EXAMPLES OF MAJOR MSF ACTIVITIES	ESTIMATED COSTS UP TO 31 MAY
Surgery and post-operative care	More than 11 Million euros
Maternal health care	More than 4 Million euros
Shelter	More than 8.5 Million euros

[1] Some caution is warranted regarding the quoted totals as fluctuating exchange rates, mainly between the US dollar and the euro, have impacted the calculated totals in euros. The calculations are based on the average monthly rate for currencies other than the euro.

[2] These figures only include the direct costs related to this work; as some investments are shared between a variety of medical activities, the real costs are higher than the quoted totals.

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Categories of spending

Operating such emergency health programs requires a range of investments. Given the devastation in Port-au-Prince and beyond, including the near-total destruction of many health centres and hospitals, nearly 30 per cent of MSF's expenditures as of 31 May were devoted to logistics, such as the rehabilitation or construction of medical facilities, and ongoing maintenance of health structures including water and electricity provision. Without this investment, medical staff would not be able to operate. A further 16 per cent of MSF's expenditures have been attributed to medical materials and supplies.

Because of the large number of essential emergency workers and vast amount of relief goods brought into Haiti, transportation accounted for 23 per cent of the total spending to date. At one point, the MSF team totaled over 3,500 Haitian and international emergency personnel – many of them doctors and nurses, but also logisticians, administrators, drivers, and project coordinators. At the end of June, MSF still has more than 3,000 staff on the ground, well over 90 per cent of them Haitians. The costs related to employing personnel accounted for 28 per cent of the money spent.[3]

MSF is immensely grateful to the millions of people around the world who have helped finance the organisation's massive relief work in Haiti.

[3] *These rounded figures, totaling 97 per cent of expenditures, are very close approximations of total expenditures to date.*

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FUTURE

The broad range of MSF's work listed above is constantly re-shaped to meet new needs and, in some cases, reduced ones. It is already clear that MSF will be making a very substantial commitment to Haiti in the years to come. There are uncertainties around the speed of reconstruction and the extent to which other organisations will still be providing elements of care. There are concerns about the continued physical exposure of so many people in Port-au-Prince and about political and criminal violence which always risks being increased by frustration and despair about the slow improvement in living conditions. All of this has reinforced the urgency of MSF's planning and provision for all kinds of new emergencies; outbreaks of violence, disease, nutritional crises and further natural disasters.

The immediate challenge though for MSF has been to create some more robust medical facilities to replace those damaged in the quake and the tented structures that have coped up to now. In Port-au-Prince, the inflatable hospital known as Saint Louis, along with the Tabarre rehabilitation centre, are expected to be replaced with a new hospital next year, that will be an MSF emergency medical and surgical hospital. Martissant hospital will continue into 2011 and Choscal is also likely to operate as an emergency room. Another container hospital in Delmas 33 will be dedicated to obstetric care for the next three years, while support will continue to the Ministry of Health maternity hospital of Isaïe Jeanty. Paediatric care will also continue in 2011 in Carrefour Paediatricand Bicentenaire hospital, which will provide trauma care and surgery too. Primary health care services, including mental health and sexual violence programmes will be provided through next year in the deprived Carrefour area and in the new slums of the Airport zone.

Outside the capital, MSF will continue to support the hospital in Jacmel with a range of medical specialties through this year, although the hope is that the Ministry of Health will then be able to resume its responsibility there. In Leogane, a container hospital of up to 200 beds will become operational in the next few weeks to replace the current tent structure and until others can provide these services. MSF will work there on obstetrics, surgery and paediatrics.

© Bruno Stevens, Saint-Louis / Delmas 31

ANNEXE – OVERVIEW OF LOCATIONS AND ACTIVITIES

HOSPITALS AND SURGERY

In Port-au-Prince

Bicentenaire: Since January 25th, MSF has been running a hospital and provided emergency care in a former dental clinic. An average of 350 people seek care in the emergency room every week. This facility provides surgical, paediatric, obstetric and mental health care. It has two operating theatres and an inpatient ward with an 80 bed capacity.

Carrefour Orthopaedic and Trauma Hospital: Around 20 major and 110 minor surgical operations are performed every week in this 120-bed surgical and post-operative hospital, which has four operating tables, a standard X-ray machine, and one of the few C-arm x-ray machines in the city. Orthopaedic surgery, including external and internal fixation, skin grafts, and muscle flaps are being performed and post-operative care and rehabilitation provided. The hospital is also functioning as an emergency trauma hospital for the Carrefour area. Rehabilitation care is offered to patients in collaboration with Handicap International and psychological care is provided to patients and families. The hospital also as an outpatient department for wound care treating around 100 patients per day.

Carrefour Paediatric Hospital: This new hospital, located next to Grace Camp, started activities at the end of May. It has a paediatric emergency room, a paediatric ward with 40 beds, and another of the same size for severely malnourished children.

Choscal Hospital in Cité Soleil: MSF is working in this Ministry of Health hospital and was initially focused on earthquake-related trauma. Currently two operating theatres are functioning for major surgery, and one for minor surgery. MSF also works in the emergency room and the maternity and paediatric wards. Medical and psychological care is provided to victims of sexual violence. The hospital has a 100-bed capacity. It now operates as a general hospital which serves a slum community living in extremely precarious conditions. Psychological care continues for all patients and their carers.

Isaïe Jeanty / Chancerelle, Emergency Obstetrics Hospital: MSF is working in collaboration with the Ministry of Health in this 85-bed hospital, providing maternity, neo-natal and emergency obstetric care. In May, 588 deliveries, including 120 c-sections, were performed. At the moment this is the main referral hospital in Port-au-Prince for complicated births and eclampsia cases. In the next few weeks, MSF is going to build a flat-packed container hospital with a capacity of 130 beds, which will become a referral and training centre for neo-natal and obstetrical care. The partnership with the Ministry of Health in Isaïe Jeanty will continue.

Martissant 25: This emergency, outreach and stabilisation centre (operated by MSF since 2006) with a capacity of 40 beds, sees approximately 100 new patients per day, around a third of whom need immediate care. Pediatric care as well as internal medicine and maternal services are provided.

Saint-Louis Hospital / Delmas 31: Medical and surgical activities are ongoing in a 250-bed-capacity inflatable hospital, which includes three operating theatres, one specially designed to treat patients suffering from burns. It replaced MSF's La Trinitée hospital, which was destroyed by the earthquake. Saint Louis also operates as a general hospital, complete with paediatric and medical emergency capabilities. This includes medical and surgical follow-up, physiotherapy and psychological care. Almost 3,000 surgical operations have been performed since January 25. The bed occupancy rate is around 90 per cent.

Outside Port-au-Prince

Jacmel: Since the hospital was badly damaged in the earthquake MSF has provided full inpatient services under tents in a facility with 81 beds. In May, construction was completed of new 77-bed capacity wooden structures which now house the maternity, paediatrics, emergency room, surgery, internal medicine and mental health services.

Leogane: Again, this has been a tent hospital with a 130-bed capacity, initially on the existing St Croix hospital site, then moving to Chatulet. There are emergency services, maternity, obstetrics and gynecology, general surgery, general medicine, including paediatrics and neonatology. Physiotherapy and mental health care are integrated. MSF has started to build a container hospital on the same Chatulet site, which will have a capacity of up to 200 beds. The new hospital is expected to be ready between mid-July and mid-August and will provide the same range of services, plus radiology and laboratory facilities**.**

Rehabilitation

Although a full range of post-operative care is offered in all MSF-supported structures where surgery is performed, some sites in Port-au-Prince have been specifically dedicated to welcome patients after surgery.

Sarthe: Opened in February as a post-operative centre in a converted soft drinks factory in the Sarthe area with a potential capacity of up to 300 beds. At present, 130 patients are receiving wound care and more specialised orthopaedic or reconstructive surgery. Handicap International physiotherapists are working in collaboration with MSF to advance rehabilitation and patient adaptation to prosthetics. Mental health care is also provided.

Tabarre: 100 bed capacity under tents. It was designed to take patients and their carers transferred from Saint-Louis Hospital. It replaced MSF's post-operative centre in Delmas 30, which was closed in April.

Lycée des Jeunes Filles, Champs de Mars: This site was functional as of February 1st and held an average of an 80 patients for post-operative and medical care, mental health care, and physiotherapy. Closed in March, all patients requiring further treatment were referred to other MSF facilities.

Ministère du Tourisme, Champs de Mars: Site opened on February 22nd with an average of 40 patients hospitalised and receiving post-operative and medical care, mental health care and physiotherapy. It was closed in April and patients were referred to other MSF facilities.

Mickey crèche, Christ Roi road: Opened January 19th with an average 60 patients. Closed in April.

Promesse: 50-bed capacity, which closed its doors at the end of May.

Primary Care

Aviation Camp: MSF teams are installing latrines and showers in a camp that is currently home to 40,000 displaced people. Several mobile clinics have begun providing basic health care, ante-natal consultations and community mental health services in May, averaging around 110 consultations a day.

Carrefour Feuilles: Tented clinics are run in two sites—Carrefour Feuille and Tapis Rouge—close to four camps where 20,000 displaced people are living. Between 200 and 250 consultations are carried out daily. The team does wound dressing and vaccinations and provides clean water, sanitation, and mental health services. Work is also starting in four camps near the MSF hospital of Bicentenaire to provide water and sanitation services, as well as psycho-social care to the people there.

Ministère du Tourisme, Champs de Mars: An outpatient department conducting approximately 3,000 consultations a month.

Delmas 24: A health centre opened in February with some 2,300 consultations in the following month.

Mickey crèche, Christ Roi road: Around 3000 consultations a month, closed mid-April, including reproductive health (ante-natal care, family planning, treatment of sexually transmitted diseases), mental health and physiotherapy.

Petionville Golf Club camp: Basic health and ante-natal care, rehabilitation (in collaboration with Handicap International), routine vaccination and psycho-social counselling for a camp of an estimated 45,000 people. Around 160 consultations daily.

Saint-Louis / Delmas 31: Next to the inflatable hospital, a 24-hour service cared for over 50 victims of sexual violence in May. There is also an outpatient department, with around 3,000 consultations a month and ambulatory program (for patients leaving the hospital or the emergency room and needing regular dressing or other follow up), with 1,600 consultations a month.

Sarthe: Alongside the post operative centre in the former soda factory, there is a health clinic offering basic health care for the surrounding population.

Shekina Clinic, Waney 87: Basic health, antenatal and postnatal care, as well as mental health services. Receives around 95 patients per day.

Village Grace IDP camp: A health centre for a camp of 10,000 displaced persons and the surrounding urban area. Some 230 patients are seen daily, plus 120 women a week in the ante-natal and post-natal service.

Outside Port-au-Prince

Leogane, Chatulet: 1,000 consultations per week in the outpatient department. This includes reproductive health (antenatal care, family planning, treatment of sexually transmitted diseases), mental health care and physiotherapy.

Duffort Health Centre in Leogane: 400 outpatient consultations per week in a temporary health centre.

Distributions

MSF has completed its distributions of tents, targeted at the thousands of people living in areas surrounding its medical facilities. Distribution of basic necessities such as kitchen utensils and hygiene kits is still going on in a wide range of locations both inside and outside the capital. In total, MSF has distributed 35,350 non-food item kits and 26,971 tents in: Ecole Saint Louis, Delmas 33, Delmas 24, Tabarre, Sarthe, and Cité Soleil in Port-au Prince; in Carrefour; on the coast west of Carrefour in Petit Goave and Grand Goave; in Leogane and in Jacmel. Tents and basic necessities were also recently distributed to about 200 families in remote villages of the Léogâne region.

Water and Sanitation

MSF has joined other organisations working in the water and sanitation sectors in a number of locations both inside and outside Port-au-Prince. Overall, 1,269 cubic meters of water are distributed per day and 880 latrines and 415 showers have been built. MSF is also cleaning and emptying latrines to help guarantee minimal hygiene conditions for people living in makeshift camps.

Evaluations and plans

MSF has conducted assessments in areas outside Port-au-Prince to identify potential emergencies. Recent missions have covered, among other areas, Gonaïves, Port-de-Paix, Cap Haïtien, Fort-Liberté, Saint-Marc, Belle Anse, Thiotte, Jérémie and Les Cayes. MSF teams also assessed the area along both sides of the border with the Dominican Republic, as well as in Santo Domingo. There was a clear lack of public health services. The cost of health care in private and semi-private structures is an obstacle to people's access to healthcare, even for medical emergencies.

MSF is preparing to meet an increase in needs for emergency treatment related to the arrival of the rainy season and a possible worsening of the medical situation in Port-au-Prince and throughout the country. Additional medical and logistical supplies have been ordered to increase the capacity to respond to the needs that arise.

Haiti
Dominican Republic
Port-au-Prince
Leogane
Jacmel

Sarthe
Tabarre
Choscal Hospital in Cité Soleil
Promesse
Isaie Jeanty / Chancerelle, Emergency Obstetrics Hospital
Aviation Camp
Saint-Louis Hospital / Delmas 31
Delmas 24
Village Grace IDP camp
Carrefour Paediatric Hospital
"Ministere du Tourisme"
"Lycée des Jeunes Filles"
"Mickey" crèche
Carrefour Orthopaedic and Trauma Hospital
Port-au-Prince
Pétionville Golf Club Camp
Bicentenaire
Carrefour
Martissant 25
Shekina Clinic, Waney 87
Carrefour Feuilles
Pétionville

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