

Restoring health after Typhoon Haiyan

MSF reflects on the emergency medical response in the wake of a disaster

On 8 November 2013, Typhoon Haiyan reached the Philippines — the world's strongest recorded typhoon at landfall. Seven provinces were affected, particularly Leyte and its capital, Tacloban. The death toll stands at 6300 people, with 28 689 injured and more than 16 million people affected.¹ The Philippines ranks third globally in terms of disaster risk and is regularly visited by typhoons. However, Haiyan was a storm of unprecedented intensity and broad sweep over highly populated areas. Much of the public and private health infrastructure was seriously damaged, and in Tacloban only one public hospital remained partially functional.²

Among many domestic and international responders, Médecins Sans Frontières (MSF) deployed a large-scale emergency intervention. Since the first days after the disaster, medical needs have been constantly changing. Much aid has rushed in and out, but without measured assessment the focus has been on severe trauma and surgery, while other potential priorities have been overlooked. There is now a valuable opportunity to reflect on elements of the disaster response, including adaptability to local needs and conditions.

From a medical perspective, after the immediate loss of life, the first 7 days after a disaster are marked by acute and other injuries. After Haiyan, the local authorities and the army impressively managed the early-phase medical response, including search and rescue, reinforced by international contingents focusing on trauma and urgent care. However, as most deaths in severe tropical storms are due to drowning rather than acute injuries,³ the supply of surgeons in the 87 medical response teams led to overcatering for injury management.²

For survivors, continued treatment or follow-up of pre-existing medical problems was disrupted while concerns relating to postdisaster stress on individuals and the health system emerged. Pregnant women developed pre-eclampsia from disrupted follow-up, along with stress-induced complications of pregnancy and premature birth. Chronic diseases such as hypertension, diabetes, heart problems, emphysema and asthma, and acute respiratory, digestive and cutaneous infections were exacerbated by poor supplies, physical stress, and lack of hygiene and health services. More consideration needs to be given to minimising disruption of care after a major disaster.

Maternal, perinatal, intensive care and neonatal units, linked as a network of facilities, should be part of the initial intervention. Hospitals in the storm path had reportedly prepared for trauma management but not for perinatal or maternal care. Within a week of Haiyan, more than 200 000 pregnant and 130 000 breastfeeding women lacked

prenatal, perinatal and postnatal medical services,² with severe overcrowding of the only remaining obstetric and perinatal unit. MSF's previous experience shows that a focus on trauma tends to overshadow efforts to improve health outcomes for women and newborns. In response, MSF opened a basic maternity unit in nearby Tanauan and a comprehensive maternity counterpart with surgical capacity in Tacloban's Bethany Hospital, incorporating care of sick neonates. Although the service's resources are limited, it ensures that more than 90% of sick and premature newborns survive.

Perinatal health relies on referral systems to detect the few complicated cases that require management in a major centre and to distribute simple cases among peripheral facilities. For basic levels of medical care and coverage, it is accepted that external responders should pool resources over wide areas and cooperate closely,⁴ but cooperation in Tacloban was patchy. In a complex humanitarian crisis, interagency collaboration means recognition of common goals, not loss of independence. Each emergency organisation must understand its own limits and strengths. Cooperation ensures that the collective response is timely, adaptable and accessible to populations, and avoids unnecessary duplication.

An entrenched trend among emergency responders is standardised preparation, such as having large medical kits ready for immediate dispatch, to avoid delays in response. There has also been positive emphasis on the technical quality, coherence and efficiency of the health care response. Although these factors may ensure autonomy for months, this can work against collaboration and thus the overall medical appropriateness of the response.⁵

Meanwhile, continuous epidemiological assessment and subsequent operational adjustment remain crucial to reducing mortality and morbidity after a disaster.⁵

In the aftermath of Typhoon Haiyan, MSF recognised its own limitations to respond and concentrated on maintaining relevance to the population through ongoing assessment of specific medical needs. Nonetheless, as our operations in the Philippines continue to adjust, there is further scope to reflect on how best to equip ourselves for the most appropriate response in future disaster events.

Daniel Martinez Garcia
MD
Medical Advisor, Paediatrics
and Nutrition

Alexandra L Brown
BA
Medical Communications
Officer

Médecins Sans Frontières
Australia, Sydney, NSW.

alexandra.brown@
sydney.msf.org

doi: 10.5694/mja14.00143



a focus on
trauma tends
to overshadow
efforts to
improve health
outcomes for
women and
newborns



Competing interests: No relevant disclosures.

Provenance: Commissioned; externally peer reviewed.

- 1 National Disaster Risk Reduction and Management Council (Philippines). NDRRMC updates re effects of TY Yolanda (Haiyan). 17 April 2014. <http://www.ndrrmc.gov.ph> (accessed Apr 2014).
- 2 Chiu YT. Typhoon Haiyan: Philippines faces long road to recovery. *Lancet* 2013; 382: 1691-1692.
- 3 Doocy S, Dick A, Daniels A, Kirsch TD. The human impact of tropical cyclones: a historical review of events 1980-2009 and systematic literature review. *PLOS Curr* 2013; Apr 16. pii: ecurrents.dis.2664354a5571512063ed29d25ffbc74.
- 4 Parmar S, Lobb A, Purdin S, McDonnell S. Enhancing collaboration during humanitarian response: an interim report from stakeholders survey. *Prehosp Disaster Med* 2007; 22: 414-417.
- 5 Noji EK, Toole MJ. The historical development of public health responses to disaster. *Disasters* 1997; 21: 366-376.