



AP Photo/David Longstrech

Disaster Myths *by Donna Eberwine*

That Just Won't Die

"Dead bodies cause epidemics." "Any aid is better than none." When it comes to disasters, these and other popular misconceptions abound. Relief experts say these myths not only are misguided but also can lead to actions that add to the suffering of survivors.

▲ Family members search for information on missing loved ones at a mass grave near Wat Bang Muang, in Takuapa, Thailand.



Pornchai Kitiwongseakul/AP/Geop Images

It was South Asia's worst natural disaster in memory—the earthquake and tidal wave that claimed more than 280,000 lives in a dozen countries last December. But as the death toll climbed in the days following the disaster, media reports warned that a second calamity was in the making: dangerous disease outbreaks caused by the legions of rotting bodies.

“International organizations urged that the thousands of bloated corpses littering beaches, streets and makeshift morgues be disposed of quickly to stem the threat of disease,” Agence France-Press reported on the second

day after the disaster. According to “experts” interviewed by the news agency, “the decomposing bodies contaminating water would provide ideal conditions for water-borne diseases such as cholera, typhoid and malaria.”

A CBS/AP report the same day quoted a microbiologist at a Bangalore, India, hospital saying that unburied corpses could spread diseases including cholera, typhoid, hepatitis A and dysentery. “There is a very high risk of epidemics breaking out in all these places. Decaying bodies are bacteria factories. The bodies must be quickly disposed of.”

The next day, the *Los Angeles Times* reported from Nagappattinam, India:

“Worried that rotting corpses could take more lives by spreading disease, health officials ordered them collected in city trucks and dumped in mass graves. Many were buried before they could be identified.”

It was all based on myth.

The notion that dead bodies pose an urgent health threat in the aftermath of a disaster is one of several enduring myths about disasters and relief efforts that the Pan American Health Organization (PAHO) and the World Health Organization (WHO) have been trying to counter for nearly two decades. In 1986, PAHO produced a video titled “Myths and Realities of Natural Disasters” that debunked some of the

▲ A Thai medic makes notes at a makeshift morgue at Wat Bang Muang in Thailand's southern province of Phang Nga. Forensic experts worked long hours to identify the dead, a process that would likely take many months to complete.



PAHO

AP Photo/Richard Vogel

▲ Forensic teams sort through the bodies of tsunami victims through the mist of dry ice at a makeshift morgue at Yan Yao temple in Takuapa, in southern Thailand.

the risk of contagion can be minimized with basic precautions and proper hygiene.

One valid concern is that fecal matter from decomposing bodies may contaminate water. “Getting clean water to people should be a high priority regardless of the source of contamination,” says Poncelet.

Despite the scientific evidence, the belief that dead bodies spread disease remains a chronic problem in disaster relief efforts.

“What happens is the mass media will publish alarming news about the risk of massive disease outbreaks, and authorities then rush to bury bodies in mass graves,” says Claude de Ville, who headed PAHO’s disaster program from 1976 to 2002. “This adds to people’s anguish and to the chaos. It becomes one more blow to the affected population.”

The rush to bury bodies can use up valuable resources—vehicles, fuel and human effort—when the priority of relief work should be finding and treating survivors, according to de Ville and other experts. Following the 2001 earthquake in India that claimed nearly 100,000 lives, for example, so much wood was used to cremate recovered bodies that many survivors were left without enough fuel for cooking or heating.

But there is a larger problem: mass burials and cremations can make identification of remains all but impossible, and they prevent survivors from burying loved ones according to local customs and beliefs. Even in the aftermath of a major catastrophe, says de Ville, these are important considerations. “Identifying victims is critical for legal, social and psychological reasons.” Indeed, he insists, “it should be considered a basic human right.”

Survivors have a strong psychological need to identify lost loved ones and to grieve for them in customary ways, says Jorge Rodríguez, a mental health specialist in PAHO’s Panama office. “Societies all have funeral rituals that have developed over many generations to help people cope with

most common misconceptions and explained how they exacerbate problems following a disaster. Yet 19 years later, many of these myths persist (see sidebar p. 7).

Perhaps the most enduring and consequential of these myths is the idea that dead bodies cause epidemics.

“Survivors are much more likely to be a source of disease outbreaks,” says Jean-Luc Poncelet, chief of PAHO’s Emergency Preparedness and Disaster Relief program.

Most victims of natural disasters die of trauma, drowning or burns rather than infection, he explains, and victims are no more likely to carry infectious agents than survivors. “Someone who died without cholera isn’t going to produce it after they’re dead.”

Oliver Morgan, an environmental epidemiologist at the London School

of Hygiene and Tropical Medicine, reviewed the scientific evidence on the issue in a recent article in the *Pan American Journal of Public Health* (May 2004, p. 307).

The microorganisms that are involved in decomposition are not the kind that cause disease, Morgan’s article explains. And most viruses and bacteria that do cause disease cannot survive more than a few hours in a dead body. An apparent exception is the human immunodeficiency virus, HIV, which has been shown to live up to 16 days in a corpse under refrigeration.

Morgan points out that blood-borne viruses, such as HIV and hepatitis B and C, as well as tuberculosis and gastrointestinal infections, do pose a slight risk for relief workers charged with handling bodies. But

▶ Relatives hold a photo of a woman (at right) killed by the December 2004 tsunami. Her body was buried in her home village on the outskirts of Banda Aceh, Indonesia.



AP Photo/Eugene Hoshiko



AP Photo/Peter Dejong

death and loss. Denying survivors the right to carry out those rituals can add significantly to mental health problems that occur after a disaster.”

The effects can be similar to those suffered by families of the “disappeared.” “Family members may know that the missing person is almost certainly dead, but living with the ambiguity makes the loss much more difficult to bear,” says Rodríguez. “Not knowing how the death occurred and what happened to the corpse leads to unresolved grief. And this can lead to serious mental health problems.” He adds that in large-scale catastrophes, these problems can become collective, affecting entire communities.

Failure to find and identify a victim can have material consequences as well, leaving survivors in a kind of legal limbo with respect to property ownership, inheritance, or family benefits. A widow without her husband’s death certificate may not be able to collect her spouse’s life insurance or social security benefits. Children may be unable to access their parents’ financial assets without going through a lengthy legal process to formalize a presumed death. In many cases, these problems add to the economic hardship caused by the disaster itself.

Seeking closure

Much of the news coverage of South Asia’s tsunami catastrophe propagated the myth of dead bodies and epidemics, particularly in the first days following the disaster. But the coverage also reflected the enormous importance survivors place on identifying lost loved ones. Media reports were filled with stories and images of survivors searching desperately in hospitals and morgues, perusing bulletin boards with victims’ photos, and posting pleas on the Internet for help in finding lost loved ones.

They also showed many instances in which relief workers tried to facilitate this process. At a Buddhist foundation in Thailand, “workers photo-

▲ Top: Survivors of the tsunami disaster search through a list of missing persons posted publicly in Banda Aceh, Indonesia.



AP Photo/David J. Phillip

Handle with care

No one denies that dealing with a large number of casualties is a daunting task. But there are ways of doing it that follow scientific evidence, respect survivors' rights, and allow authorities to preserve their credibility with the population, according to PAHO disaster experts.

"Even with large numbers of casualties, every effort should be made to deal with bodies in a systematic way that both respects people's identities and gets bodies buried as quickly as possible," says Jean-Luc Poncelet, chief of PAHO's disaster program. For example, he says, "bodies can be laid in a simple trench with a small space between each one and a short des-

cription of the body and the evidence found with it." With this method, bodies can be exhumed later for positive identification.

To guide such work, PAHO recently published *Management of Dead Bodies in Disaster Situations*, the fifth in its series of disaster manuals and guidelines. The book provides both background and technical information to support relief workers in the proper management of bodies. Among its recommendations are the following:

- Inform the public that dead bodies do not pose a danger of epidemics.
- Avoid mass burials and cremations under all circumstances.

Bury bodies in a way that will permit later exhumation.

- Give families full access to bodies and provide support for their final disposal. Identifying victims should be considered a basic human right of surviving family members.
- Avoid mass vaccination against diseases supposedly transmitted by cadavers.
- Respect the cultural beliefs and religious norms of the affected populations.
- Ensure that there is a plan for the psychological and physical care of relief workers. Handling a large number of corpses can have an enormous impact on the health of the working team.

▲ Friends and family members search through debris for the bodies of missing loved ones near Takuapa, Thailand. The death toll from the tsunami in Thailand was more than 5,300.

Disaster myths and realities

Myth: Dead bodies, left unburied, are a dangerous source of disease epidemics after disasters.

Reality: Disaster victims' bodies pose little or no threat to public health.

Myth: Burying victims quickly in mass graves gives survivors a sense of relief.

Reality: Survivors have a strong need to identify lost loved ones and grieve for them in customary ways.

Myth: Identifying large numbers of casualties is all but impossible. Mass graves are sometimes the only solution.

Reality: Even large numbers of bodies should be dealt with systematically, to facilitate their identification. Mass graves should always be avoided.

Myth: Any kind of international assistance is needed, and right away.

Reality: A hasty response that is not based on a needs evaluation can contribute to the chaos. It is better to wait until genuine needs have been assessed.

Myth: Foreign medical volunteers with any kind of medical background are needed following a disaster.

Reality: The local population almost always covers immediate life-saving needs. Only medical personnel with skills that are not available in the affected country are usually needed.

Myth: Natural disasters cause deaths at random.

Reality: Disasters cause more damage to vulnerable geographic areas, which are more likely to be inhabited by poor people. Especially in developing countries, disasters take a greater toll on the poor.

Myth: Locating disaster victims in temporary settlements is the best alternative.

Reality: It should be the last alternative. Funds may be better spent on building materials, tools, and other construction-related support in the affected country.

Myth: Things are back to normal within a few weeks.

Reality: The effects of a disaster last a long time. Countries deplete much of their financial and material resources in the immediate post-impact phase. Successful relief operations take account of the fact that donor interest tends to wane as needs and shortages grow more pressing.

prints of the dead so that they could be identified later if possible."

Ciro Ugarte, a PAHO advisor on emergency preparedness, notes that although authorities may feel public pressure to dispose of bodies quickly, families, neighbors and immediate community members are likely to resist efforts to bury victims en masse. He recalls an incident following Hurricane Jeanne in Haiti last September in which residents of Gonaïves reportedly stoned a truck trying to dump corpses into a mass grave.

"Relief workers tried to persuade the people that it was necessary, but their strong desire was to give the bodies a proper burial." Ugarte adds that, in his experience, "families never agree to having their own loved ones buried in this way, and they may eventually make legal demands if it is done against their wishes."

Ugarte acknowledges that, especially in cases of mass fatalities, dealing with large numbers of corpses is a critical challenge for disaster relief. The approach to this task, he insists, should be based on scientific evidence, not unfounded fears, and should recognize the rights of survivors.

"Every survivor's hope is that they will find someone alive. But when that hope fades, there is a nearly universal human need to learn the fate of a missing loved one and to somehow say good-bye. This is something that has to be recognized along with all the other needs that people have in the aftermath of a disaster."

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graphed the bodies [of 30 children killed in the disaster] before placing them in coffins and taped the photos on top so weeping parents could identify them," according to an

Agence France-Presse report. An Associated Press report on more than 1,000 passengers killed when their train was submerged in Sri Lanka noted that authorities "took finger-