



Children's Health Fund

Health Care and Advocacy for America's Most Vulnerable Children

Earthquake in Haiti Children at Particular Risk

Earthquake in Haiti will be an Unprecedented Catastrophe for World's 4th Poorest Nation: Death Toll May Reach Hundreds of Thousands. Coordinated, Phased International Response Critical to Maximizing Survival in Days and Weeks to Come.

The full effects of a massive 7.0 earthquake focused on Port-au-Prince in Haiti are still undetermined although fatality rates well in excess of 100,000 are likely given the extent of the catastrophe and the widespread destruction of buildings throughout the Capital.

Two factors will exacerbate the consequences of the disaster and have the potential to push fatality rates to unprecedented levels:

First, the wholesale destruction of infrastructure, particularly health care facilities, will markedly affect Haiti's ability to treat survivors, even with a significant influx of external aid from the international community. Loss of electricity, water, sanitation and transportation capacity will significantly hamper rescue and response efforts, as well.

Second, profound pre-existing poverty and deprivation in Haiti that have been the nation's reality for decades pose special levels of population risk that exacerbate the consequences of a major disaster. Some 80% of Haiti's population live in poverty and the nation's economic capacity is extremely limited. Malnutrition and chronic diseases are rampant. This translates into much higher pre-disaster risk and diminished ability to withstand acute shortages of food, water and medical care.

Response phases to a disaster of this magnitude are as follows:

1. Search and rescue with provision of life-saving emergency medical care, including major surgical intervention when necessary.
2. Control of social order.
3. Shelter, nutrition and general care for all survivors.
4. Assurance of clean water and food for survivors and responders.
5. Prevention and management of secondary injury related to dangers consequent to massive rubble accumulation, downed power-lines and other factors.
6. Control of public health hazards and infection.
7. Recovery.

It should be noted that these phases will overlap, of course, with multiple response fronts open simultaneously.

Initial Medical Challenges will be overwhelming. Individuals with severe head and chest injuries are highly acute emergencies. Timeliness of care could not be more important, but quality of medical and surgical response is also critical. Crush injuries also must be treated rapidly to avoid kidney failure from release of toxic proteins from damaged muscles. Prevention and control of wound infection will be substantial objectives of initial care.

Coordination of Responders is a challenge in every large-scale disaster - and will be critical in Haiti. Mobilization of assets from governments around the world, the United Nations and a large number of international and national relief organizations, individual volunteers and enormous outpouring of materials is inevitably chaotic. The more these multiple independent assets can be coordinated, the more effective will be the distribution and deployment of efforts to save lives. Who and how these efforts will be coordinated is unclear at this time.

Recovery will be a painful and very prolonged task that will likely require years of work in every sector. As with any major disaster recovery, it is hoped that the goal will be to "rebuild better" in ways that may give some hope of improved conditions, enhanced infrastructure and economic opportunity for survivors.

Mental health challenges in Haiti will be extraordinary. Terrible loss, social disruption and persistent fear for personal safety, condition of loved ones and future uncertainty will fuel acute and chronic emotional stress and, eventually, post-traumatic stress for survivors. Children may be particularly affected.

Individuals providing rescue and relief in the short term and on-going will themselves be subject to severe emotional stress and PTSD. Furthermore rescuers and responders in all sectors will also be exposed to physical, hazard-related dangers as well as risk from infection or other public health concerns.

All of these issues must be addressed preemptively and effectively as part of the immediate and recovery efforts.

Children will be a particular risk throughout all phases of the response and recovery. They are more at risk from serious trauma, dehydration, shock and infections than adults tend to be - particularly in a chronically undernourished state. Children are also less able to avoid hazard and require adult protection which may or may not be available. Children are also prone to significant emotional trauma - short and long-term - which will need to be managed as swiftly as possible under the circumstances.

Children also require specialized medical providers to manage emergency, surgical, post-operative and long-term care needs. Such providers were virtually non-existent in Haiti prior to the disaster and are not likely to be significant components of in-coming response teams.

U.S. Response is extensive and comprehensive. President Obama's statement, as well as subsequent statements from the Department of State, Department of Defense and U.S. AID make it clear that this country will mount an extensive, highly coordinated and on-going effort to assist in the disaster response. Much of what will actually be done by American governmental organizations will have been informed by mistakes and missteps in the response to previous disasters, including the 2005 Hurricane Katrina response efforts in the Gulf region. Although agencies responding to international disasters differ from lead organizations working on response to domestic catastrophes, it does suggest the possibility of more effective response to domestic disasters in the future.

Irwin Redlener, MD
President, Children's Health Fund
Director, National Center for Disaster Preparedness
Columbia University Mailman School of Public Health