

### Lessons Learned from Landslide Disaster Due to Torrential Rainfall in Minamata, Japan

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**Objective:** Landslides due to torrential rainfall killed 19 people and injured seven people in Minamata, Japan on 20 July 2003. The local medical response was examined in order to improve local preparedness for future events.

**Methods:** The local emergency organization and medical association formed a task force to investigate measures taken for the natural disaster. Questionnaire surveys and interviews were performed by the taskforce with the personnel who managed the disaster at the municipal office, the fire and ambulance services, as well as the hospitals.

**Results:** While the district was designated as a landslide-prone area, the local residents had not been well informed about the possible danger. Hazard maps were prepared, but not distributed. The municipal authority only declared an evacuation advisory one hour after the landslides. In addition, the announcement over the loudspeakers barely was heard or understood because of the heavy rainfall. Evacuation procedures were not instructed. The major hospital, five kilometers (three miles) from the scene, recognized the disaster one hour and 40 minutes after the landslides through a message via wireless telephone; five minutes before the arrival of the first casualties. The local medical society responded to the disaster according to the disaster plan and took care of the seven injured patients. Nineteen people were killed instantly at the scene, and therefore, were not subject to medical treatment.

**Discussion:** Initiation of evacuation was delayed by confusion and disorganization at the municipal office and the fire service. While incoming calls from the sufferers were numerous, out-going reports were not arranged properly. Disaster manuals had been prepared in the area, but a drill was never exercised practically according to the manual. The taskforce concluded that channels of information needed to be refined and regular drills, especially for communication, should have been exercised. The local emergency organizations and medical association have begun a periodical meeting and practical drill.

**Conclusion:** The importance of communication in a disaster was the major lesson learned from the response in Minamata, Japan.

**Keywords:** assessment; drills; event; Japan; preparedness; response  
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### Plenary Session: Feedback from the WADEM Working Groups and Task Forces

### Plenary : Hot Topic - Governmental Influence on Disaster Response - Help of Hindrance?

Chair: Eric Noji

### The Role of Government and the International Agencies

Hilary Benn  
Minister for Overseas Development (TBC)

### Health and Politics in the 2003 War with Iraq: Lessons Learned

Frederick Burkle, Jr.  
Johns Hopkins University Medical Institutions, Baltimore, Maryland  
USA

This presentation analyzes the planning, epidemiology, and execution of the immediate humanitarian relief phase of the 2003 War with Iraq. Critical lessons learned in security, public health, assessment, authority, and leadership are offered. These suggest that the Coalition-led unilateral approach to humanitarian intervention fell gravely short in meeting expectations in dealing with the complexities of humanitarian assistance in modern day, complex emergencies.

**Keywords:** assessment; health; humanitarian relief; Iraq; planning; politics; war

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### Military Humanitarianism—An Oxymoron?

Tim Hodgetts  
Defense Consultant Adviser in Emergency Medicine

### Humanitarian Tensions and Challenges

Anthony Zwi

### Human Rights Abuses in Conflicts and Disasters

Lynn Amowitz  
University of Harvard Medical School

## Poster Presentations

### Critical Health Infrastructure Planning—Using Data to Improve Critical Infrastructure Planning in Health

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The Critical Infrastructure Project provided the Department of Health (DOH) in Western Australia (WA) the opportunity to conduct a risk analysis of the vulnerabilities associated with a terrorist attack in the health system. The project also looked at the ability of the health system to respond to a terrorist event.

The Critical Infrastructure Project focused on four components of the health system: (1) dependency upon major utilities; (2) hospital infrastructure; (3) availability of supplies; and (4) emergency management and disaster preparedness.

The results of the Critical Infrastructure Project have provided the basis for reviewing the emergency preparedness and vulnerabilities in the WA health system. This has resulted in the development of the Disaster Preparedness and Management Unit within the DOH, and a review of minimal requirements for the future capital works developments within the hospital system.

**Keywords:** Critical Infrastructure Project; emergency; health system; risk analysis; preparedness; vulnerabilities

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