

# Abstracts of Scientific and Invited Papers

## International Preparedness and Response to Emergencies and Disasters

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### Oral Presentations

#### Risk Communication

##### Are We Prepared for Major Disasters?

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**Introduction:** In most countries with high-risk areas for disasters caused by natural hazards, the population has developed coping and response mechanisms to mitigate the effects of such events. Each year in the United States, people are exposed to hurricanes and tornadoes. Californians experience major earthquakes and forest fires, and the population of South East Asia is exposed to earthquakes, flooding, and tsunamis. During the Nazi air attacks on the UK during the World War II, the British population responded actively by extinguishing fires and rescuing victims from collapsed buildings.

**Results:** Israel has been repeatedly at war with its neighbors and experienced continuous terrorist attacks. Studies, performed after the recent armed conflicts and acts of terrorism, demonstrated that the population living in high-risk areas developed physical and mental coping mechanisms that have lessened the loss of lives and property. The Israeli Home Front Command has developed support systems for local authorities and the population at-risk, improving their resilience.

Historical studies prove that severe seismic events have occurred in Israel periodically, causing the loss of many lives. Because of the long intervals between these events, the population is currently not sufficiently aware of such threats. Responding to natural and human-made disasters are perceived to be the responsibility of the government and its rescue services. However, these services may be overwhelmed by major events. Currently, the general population has not taken an active part in preparedness, planning, and exercises held by the Home Front Command and its rescue services. This has developed an attitude of dependence and passivity among most of the citizens.

**Conclusions:** In order to improve the preparedness for a major disaster, the threatened population should be aware of their responsibility to prepare and respond to such events.

**Keywords:** disaster; Israel; preparedness

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##### Measuring the Effectiveness of Mass Media Messages

Created by Public Health Leaders

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**Introduction:** Communicating with the public during public health emergencies is critical. Messages provided by government leaders must be direct enough to induce the desired behavior change, but not too fear-inducing. Models are utilized in risk communication training sessions and often are assumed to be effective, but have not been tested in a research setting.

**Methods:** A small sample of the general public in the United States (Dayton, Ohio) evaluated three risk communication messages (a smallpox outbreak) based on clarity, level of risk portrayed, and action potential. Their conclusions were compared with the evaluations of public health professionals who led the risk communication trainings which created the messages. Quantitative and qualitative measures were used. It was hypothesized that no differences would be found between the intent of the messages and what was understood by the public.

**Results:** There was concordance between the public and professional groups in the interpretation of the clarity and risk of the messages. There was a statistically significant difference between the two groups in interpretation of needed actions, with public health professionals rating the action potential higher than the consumers. The three messages—all designed to communicate the same information to the public—were interpreted to portray distinct differences in the amount of risk portrayed. Qualitative evaluation demonstrated stark differences between the consumers and public health professionals. The message deemed most effective by the professionals was interpreted as least effective by the public, and vice versa.

**Conclusions:** There were distinct differences in the interpretation of the public health messages created for a public health emergency. Public health professionals may need to develop better mechanisms to review these messages to assure that they have the desired effect in informing the public and inducing them to follow desired behaviors.

**Keywords:** communication; effectiveness; mass media; public health

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