

relief ERU from several Red Cross/Red Crescent National Societies were deployed. The ERUs are an important tool in the Federation's disaster response and part of the Federation's Integrated Disaster Management Program, which deals with emergency response, preparedness, and rehabilitation.

This presentation describes how crucial the teamwork was, but also how important the coordination of the equipment was for the cooperation between the Norwegian and the Finnish Red Cross in Bam. In addition, how essential the cooperation between the different ERUs was for the operation will be emphasized. The data are based on the author's experience as the head nurse in the Norwegian/Finnish referral hospital in Bam, and those collected from 18 Norwegian and Finnish nurses working in the hospital during the first three months of the operation.

Implications for future operations as better coordination before the departure and the standardization of training and set-up will be outlined.

**Keywords:** Bam; cooperation; coordination; earthquake; field hospital; Finland; international operations; Iran; Norway

**Tjøflåt I: Nordic cooperation in international operations: Experiences from the earthquake in Iran. *Prehosp Disast Med* 2004;19(S1):s11.**

### What Is a Disaster?

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Various organizations use different disaster definitions according to the usefulness. For each particular organization, the medical disaster definition emphasizes the number of persons in immediate need of medical treatment. This definition reflects the operational need of the hospital, in other words, when the hospital needs to alarm its disaster organization, when the immediate/acute needs for treatment exceed the immediately available medical resources.

This somewhat narrow definition sometimes leads to a clash between the needs for professionals to communicate between themselves and common sense. Such an event as the sinking of the ferry in Estonia was defined as "not a disaster" by a leader in the medical rescue organization. Formally, that was correct, but it was not well-received by the public. For most people, an event that costs the lives of >800 people will qualify for the term "disaster".

The narrow medical definition of disaster for many years also was seen as partly responsible for the lack of scientific knowledge we had of families, missing persons, bereaved families, and the effects on personnel working with the deceased.

It is essential to distinguish between disaster medical work and acute/emergency medical care. The first involves working in a situation characterized by a shortage of resources, where the medical or rescue disaster worker will be expected to feel insufficient, but, in spite of this, should know that he is handling the situation correctly and is performing well. This means that the disaster worker must cope with the feeling of relative helplessness. Research indicates that different degrees of personal control, such as real control, perceived control, and cognitive control, are achieved through relevant education/training/real-life experiences, and in a decisive way, contribute to maintaining the functional capacity.

**Keywords:** communication; coping; definitions; disaster; effects; helplessness; resources

Weisæth L: What is a disaster? *Prehosp Disast Med* 2004;19(S1):s11.

### What Is a Disaster? What Is Disaster Economy, and Where Do We Go from Here?

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There are numerous definitions of disasters, as discussed by Al-Madhari and Keller.<sup>1</sup>

However, the core of all modern definitions focus on a mismatch between tasks and resources in such a way that problems that could have been solved if resources were available are not solved unless resources are brought in from outside the affected area. This distinguishes a disaster from a mass-casualty incident. Thus, disaster is a relative term.

In this concept, disaster economy is a term that still must be defined. Who is affected? Who pays the bill? How is it paid? The current paradigm of market economy will probably deprive most disaster projects of their financial support, as they are not cost-effective in any tangible manner. Therefore, disaster economy also must include intangible variables and focus on what promotes health and well-being, both physical and mental. A pure financial approach is inappropriate in this context since it cannot measure these intangible values and also because it confuses finances with actual available resources. In a disaster, in this context, a thorough knowledge of opportunity costs is essential since prioritization is a crucial component of all disaster management.

These basic approaches should be applied to all phases of disasters, their prevention, mitigation, and management, since they constitute essential elements of a well-functioning coordination and control, which is an absolute must in any disaster management.

#### Reference

1. Al-Madhari AF, Keller AZ: Review of disaster definitions. *Prehosp Disast Med* 1997;12(1):17-21.

**Keywords:** costs; definitions; disaster; economy; intangibles; opportunity costs

Sundnes KO: What is a disaster? What is disaster economy and where do we go from here? *Prehosp Disast Med* 2004;19(S1):s11.

### What Is a Disaster?

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The Norwegian Law on Health and Social Preparedness aims to protect the life and health of the population, and to contribute to their quality of life by offering necessary health services to the population during war, at times of crisis and disaster, and in times of peace.

The interpretation of the terms varies according to situation and context. Many healthcare workers believe that during disasters, patients with the best likelihood of survival should be given priority. Others claim that one could give way to emergency justice in disas-

ter situations. One could even plan to set other laws and regulations aside. Furthermore, to some, the term "disaster" is equal to "alarming hospital employees" and the term is not connected directly to treating patients.

I call for a clarification of terms by the authorities that have defined them, and also on what these terms mean during a preparedness situation. This should be done in the form of a regulation.

I envision that, as a starting point, we should describe the normal situation, when the emergency preparedness is tailored to normal needs, and the service level is adequate. The crisis could be defined as a situation in which the demand is increased to a level that implies reorganization of resources and calls for assistance, but where it still is possible to meet the population's need for necessary health services according to normal criteria of adequacy and within the framework of laws and regulations.

The term "disaster" is reserved for situations in which one is unable to give necessary treatment despite reorganization and other efforts within crisis circumstances, and where it is necessary to apply for exceptions from various laws and regulations that secure an adequate health system during normal circumstances.

**Keywords:** definitions; demand; disaster; health system; justice; laws; Norway; organization; preparedness; regulation; supply

Lindheim NJ: What is a disaster? *Prehosp Disast Med* 2004; 19(S1):s12.

### When Do Infections Become Disasters?

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Infections have accompanied humankind forever and have significantly influenced their historical development. Few, if any, other environmental factors have influenced population growth and instigated population migration to the same extent as have infections. The bubonic plague in the early middle ages, the repetitive smallpox epidemics during the 19th and 20th century, and the HIV epidemic today, demonstrate the power and volatility of epidemics in spite of the society's repeated attempts to eradicate them. During a short period in the 1970s, it was believed that infections could be controlled, but soon thereafter, new diseases like HIV, modified diseases like tuberculosis, and diseases in new areas like West Nile in the United States (US) proved otherwise.

Infections with magnitude of a disaster distinguish themselves from traditional disasters in many ways, (e.g., large-scale accidents, earthquakes). During most other disasters, a large number of people are hurt during a very short time period, and thereafter, no new casualties are added; infections, however, produce new cases over a prolonged time span, even months and years. Other disasters are easily recognized, whereas an epidemic can have a slow, creeping start, and consequently, it may be very difficult for society to organize their resources optimally. Infections create significant disturbances in a society since everybody feels threatened, which then, also increases the need for adequate information placing a heavy burden on different authorities. Infections also may change their properties during an ongoing epidemic, which again makes established countermeasures irrelevant and ineffective.

The conditions for new epidemics of disaster proportions are increasing. New infections are emerging at an increasing speed. A population increase and an increase in cross-continental travel promote all the conditions for infections to spread worldwide (e.g., SARS). War and deteriorated economies destroy the public health systems in many countries, which again reduce the possibilities for protection.

On the positive side, an increasing number of authorities, countries, and international organizations are becoming more and more aware of the threat, accentuated by the recognized threat from bioterrorism. This has led to increased international collaboration, which strengthens the possibility of fighting future epidemics.

**Keywords:** bioterrorism; containment; disaster; economy; epidemics; infections; war

Tegnell A: When do infections become disasters? *Prehosp Disast Med* 2004;19(S1):s12.

### Selection and Training of Personnel for Disaster Management

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The largest voluntary organization in Sweden is the National Red Cross comprising 300,000 members and 40,000 active volunteers. The Red Cross movement originated from the need to have dedicated and trained people who were equipped to care for war wounded during and after battle. In several countries, this has extended significantly into programs encompassing training not only on how to handle war wounded, but also in addressing emergency medical problems, accidents, and natural disasters.

In Sweden, the Red Cross carries the main responsibility for promoting first-aid training among the lay people and has, during the last ten years, trained close to one million people, a many of them school children. Additionally, there are approximately 130 permanent first-aid groups throughout the country, each comprising 5–6 persons. The Red Cross also trains people in crisis management. Home guard is another large voluntary organization, which has 4,000 trained healthcare workers. This is complementary to the society's other aid and rescue systems.

Also, internationally, the Red Cross is the largest voluntary organization. Especially with regard to international missions, their prime concern is to identify persons with the relevant education, proficiency, and qualifications enabling them to work under sometimes dire circumstances. Preparations should include general knowledge on material, communication, legal aspects, and also in depth insight on the importance of mutual respect among all fellow human beings and their respective cultures. Therefore, the International Red Cross has developed a "Code of Conduct," which all delegates are committed to following.

In my capacity as a surgeon for the International Committee of the Red Cross, I have been active in many armed conflicts, but most recently, I have been active as a teacher. For the last two years, I have been affiliated with the Swedish Defence Forces and contributed to the training of our troops earmarked for international missions. To identify the proper persons for the job and to prepare them properly is a prerequisite to succeeding when presented with challenging missions and will be more extensively discussed during the presentation.