ty in virology laboratories globally. SARS has provided important lessons for future epidemic containment and continued vigilance is essential.

Keywords: control; diagnosis; epidemic; epidemiology; laboratories; restrictions; severe acute respiratory syndrome (SARS); surveillance; testing; World Health Organization (WHO)

Brantsaeter AB: A global infection—SARS: What actually happened in China? *Prehosp Disast Med* 2004;19(S1):s9–s10.

Quality Assurance for Red Cross Volunteers in Finland

Maaret Castrén, MD, PhD
Medical Director of Uusimaa EMS, Medical Advisor of Red Cross, Finland

A member of the Red Cross first-aid group can be participating in the activities for his or her own needs, just wanting to practice, or to maintain first-aid skills. A member also can assign himself to different tasks when needed. When a volunteer is hoping to practice or maintain his/her first-aid skills, the Red Cross cannot make demands on the quality; however, when the volunteer is bound for different tasks, the Red Cross demands an assurance of high quality.

An important element is that volunteers should be able to deal with a situation when something happens and provide help by using correct first aid, thus ensuring that a victim gets helped effectively.

Tasks can differ in different parts of Finland. Mainly, the tasks for the groups are: (1) first aid at large events; (2) first response as a part of the local emergency medical system; or (3) searches for missing people. In bigger accidents and catastrophes, volunteers can provide primary care (e.g., food, shelter, and psychosocial support).

Different tasks require different training. To ensure high quality when volunteers perform different tasks, the following recommendations must be considered: (1) all courses are valid for three years, and the instructors have to update their competencies every three years; (2) training courses have a competence-based approach: skills, behaviors, knowledge, and attitudes to perform a job effectively all are important parts of the courses; (3) all volunteers get continual monitoring, evaluation of their competencies, and assessment of practical skills; and (4) to get the certificate, the volunteer must perform skills in a competent manner that follow the guidelines.

As an example of the efforts of ensuring high performance quality among the volunteers, a study done last year will be described. The quality of basic life support was tested in recently trained volunteers and in volunteers in Uusimaa, who trained twice each month. Objective Structured Clinical Examination (OSCE), introduced by Harden and Gleeson,[1] has been proven to be both a valid and reliable method to test the practical skills of the students.[2] It was used in two different scenario-based training modes. The first scenario was a patient with ventricular fibrillation as the initial mode and the second scenario was a patient with asystole. A skills checklist was used to grade each pair. All together, 49 points were registered during both scenarios.

The important keys are to start action without hesitation and to build up the confidence of the performer during the training. The effects of frequent training of CPR-Defibrillator skills by lay persons could be seen when comparing the recently trained volunteers with a group of professional first aiders practicing every two weeks. The first aiders performed almost 100% correctly, which indicates the vital importance of continuous training and exercise of resuscitation skills.

The Red Cross requirements for volunteers who provide first-aid at big events are: (1) passing basic and advanced first-aid courses (16 + 16 hours); (2) passing a special first-aid course (12 hours) for the provision of first-aid at public events; and (3) being at least 18 years of age.

There are special courses for those who are planning the events, including risk management, communication, cooperation, etc. There are forms to ensure high performance quality among first-aid givers that provide information on how to make an agreement, what to monitor in the patients and that require all first-aid actions and observations of the patient be written down. Afterwards, the instructors provide feedback on how they performed and a plan on how to develop the skills further is produced. Continuous work for finding ways of better performances and better quality assurance is carried out, not only by the instructors, but by the whole organization in Finland.

References

1. Harden RM, Gleeson FA: Assessment of clinical competence using an objective structured clinical examination (OSCE). *Med Educ* 1979;13:41–54.
2. Wik L, Dorph E, Auested B, Steen PA: Evaluation of a defibrillator-based cardiopulmonary resuscitation program for non-medical personnel. *Resuscitation* 2003;56:167–172.

Keywords: cardiopulmonary resuscitation (CPR); competence; defibrilation; Finland; first aid; mass gatherings; performance; Red Cross; training; volunteers

Castrén M: Quality assurance for the Red Cross volunteers in Finland. *Prehosp Disast Med* 2004;19(S1):s10.

Nordic Cooperation in International Operations: Experiences from the Earthquake in Iran

Ingrid Tjoflåt
Assistant Professor, Stavanger University College, Institute of Health Education, Norway

The main focus of this presentation was to determine how important well-functioning teamwork was in the field hospital provided by the Norwegian and the Finnish Red Cross following a major earthquake in Iran in December 2003. The area most affected was the ancient city of Bam, where 26,271 people were killed, approximately 30,000 were injured, and up to 75,000 were left homeless.

Given the scale and the scope of the disaster, the Government of the Islamic Republic of Iran and the Iranian Red Crescent Society (IRCS) formally requested international assistance. The IRCS provided a vital immediate response. In support of the IRCS, the International Federation of the Red Cross (IFRC) and Red Crescent Societies coordinated the deployment of an emergency response unit (ERU) field hospital. In addition, three basic healthcare ERUs, four water and sanitation ERUs, a logistic ERU, and a

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

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

What Is a Disaster?

Lars Weisæth
University of Oslo/ The Armed Forces Joint Medical Services/ National Center for Violence and Traumatic Stress Studies

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?

Knut Ole Sundnes, MD
Joint Medical Command, Norwegian Defence Forces/ President, World Association for Disaster and Emergency Medicine

There are numerous definitions of disasters, as discussed by Al-Madhari and Keller.[1]

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 where 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?

Nils Jul Lindheim
Consultant, Helse Sør RHF, Norway

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-