

Emergency and Rescue Structures in Germany: Structures, Challenges, and Mathematical Considerations Concerning the Preparedness for Mass-Gathering Events

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Introduction: Mass-gathering events require well-calculated preparedness.

Methods: The available resources and methods of the German rescue system were considered. The risks and problems associated with the vanishing of international borders, increasing professionalism in the rescue job field, and the establishment of an increasing number of European institutions involved in the German rescue systems were evaluated. The international influences on the disaster situation and the distribution of work among participating relief groups involved in a mass-casualty event were analyzed using mathematical models. The following aspects of German rescue missions were evaluated: (1) prevention; (2) emergency planning; (3) active mission; and (4) post-mission relief.

Discussion: The positives and negatives of the existing federalism versus more central coordination of rescue-aid in mass-gathering events in Germany will be discussed.

Conclusions: Only the simultaneously available evaluation of the different parts (phases) of a mass-casualty rescue mission will ensure the necessary safety and influence the situation in a positive manner.

Keywords: coordination; evaluation; mass-casualty event; mass gatherings; models; preparedness; rescue; safety; structure

Prehosp Disast Med 2005;20(2):s102

Process Management as Practical Aid for Preparing Control Measures for Analysis of Mass-Casualty Incidents

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Introduction: National mass-gathering events under international observation, such as the 2004 Greek Olympics in Greece and the 2006 Federation de Football Association (FIFA) World Cup in Germany, deserve special preparations.

Methods: As a fundamental security measure, several factors must be considered. To use the existing and voluntary first-aid structures in an optimal condition, capacity, analysis and quality control processes must be adjusted. Defined exercise patterns, such as Brigg exercises, should be performed to ease the transition from an established rescue and first-aid agency to a security-management instrument for a national mass-gathering event. Cybernetic networking elements, although posing uncertainties, can be an effective and economical tool to overcome these challenges.

Results: Past events such as the 2000 Soccer European Championship in the Netherlands, the 2004 Olympics in

Athens, and the 2002 FIFA World Cup in Korea/Japan suggest known indicators for the management of complex situation.

This presentation discusses possibilities for the development of process indicators based on evaluations of these past events. Possible security situations are analyzed under the auspices of available security resources, and the preparations for the 2006 Soccer Championships in Germany will be compared with the preparations for the 2004 Olympics in Greece.

Keywords: evaluation; Germany; indicators; mass-casualty; preparedness; process management; security; soccer

Prehosp Disast Med 2005;20(2):s102

Hellenic National Centre for Emergency Care's Preparedness to Respond to Chemical, Biological, Radiological, Nuclear Threats During the Olympic Games in Athens, 2004

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In order to ensure the success of the 28th Olympiad in Athens, the Hellenic National Centre for Emergency Care (HNCEC) had to plan for providing emergency health care for all the people that would visit Athens including athletes and VIPs. Health services that the HNCEC provided included conventional health care but also mass casualty healthcare related to natural disasters, transportation crashes, terrorist attacks, and chemical, biological, radiological, and nuclear (CBRN) threats.

To respond to all these needs, the HNCEC appointed its Special Unit for Disaster Medicine to plan and train emergency responders for terrorist threats.

This issue was new to the HNCEC, presenting a challenge in planning and in training medical personnel and emergency responders. Also, the acquisition of special equipment and antidotes and the integration of our plan into the general security plan had to be arranged. Interagency cooperation, crisis communication, and other security issues had to be dealt with.

To respond to such threats, 135 specially trained paramedics and 15 medical doctors organized in teams were mobilized. According to protocols, responses to three alerts referring to possible CBRN threats were successful; none involved real biological or chemical substances.

The experience achieved after these events is of great importance, and there is a challenge in evaluating and improving the response so as to reach the best preparedness for such threats in the future.

Keywords: chemical, biological, radiological, nuclear (CBRN); Hellenic National Centre for Emergency Care (HNCEC); mass-gathering event; planning; preparedness

Prehosp Disast Med 2005;20(2):s102