

essential to a more effective and efficient national response. The civilian and military sectors each have numerous directives, standards, regulations, and guidelines that encourage or require such integration.

Methods: Prepare for joint responses through CIV-MIL leadership support and appropriate resources by: initiating planning; exercising and developing organizational infrastructure; identifying, developing, piloting, evaluating, implementing and disseminating specific needs and suitable activities to address them; developing a broad-based constituency advocating for the support and promotion of integration activities; and providing the subject matter expertise and advice required to keep the tasks purposeful and on target.

Results: The integrated civilian-military model for health-care emergency response planning project will develop and implement programs and services (a training assessment, education and training, drills and exercises, a centralized electronic repository of best practices for domestic disaster medical response) that foster the integration of medical responses of the civilian and military sectors to achieve these types of results and enhance the disaster response and recovery capability of the nation.

Conclusions: An integrated CIV-MIL response will foster a heightened state of resiliency through reduction of human injuries, decrease in property damage and loss, protection of critical infrastructure, and a more rapid recovery post-disaster.

Keywords: civil-military collaboration; emergency; health care; model; planning; response

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(L2) Response and Assistance of the Greek Health Sector to a Mass-Casualty Incident in Albania

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A series of explosions in an old army storage facility in Gerde, Albania on 15 March 2008 resulted in 21 deaths and <300 injured persons, while <4,000 people lost their homes due to severe damage to nearby housing. The Greek government was notified of the event through its embassy in Tirana, while Albania notified the European Monitoring and Information Centre (MIC) of the Civil Protection Unit and requested international assistance to care for multiple casualties.

The National Health Operations Centre of the Ministry of Health immediately assumed a leading role in coordinating the response and assisting the neighboring state. Three staff members were deployed in Tirana where they participated in triaging the trauma patients and coordinating the transport of six of them to Greek hospitals for specialized care (critical care and microsurgery) during the first 12 hours after the incident. The on-scene staff also coordinated the transport of blood transfusion units, pharmaceuticals, and medical equipment such as ventilators and monitors to the Albanian hospitals. The transportation of patients and materials was successful with the close collaboration with the Greek military services.

The early deployment of personnel at the scene and the close collaboration with the military enabled the fast and efficient response of the Greek Health Sector in assisting its neighbor state with this mass-casualty incident.

Keywords: Albania; disaster health; disaster management; Greece; mass-casualty incident; response

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(L3) Emergency Medicine in a Tertiary Care Medical Center Under Missile Attack

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Introduction: Rambam Medical Center, an 800 bed, tertiary care, university medical center in northern Israel, is the only Level-1 Trauma Center in the region. Each year, 117,000 patients visit the emergency department. During the second Israel-Lebanon War, the Rambam Medical Center was the main receiving hospital for wounded Israel Defence Forces (IDF) soldiers. Rambam also cared for many of the injured civilians and was under constant missile threat.

Methods: Data regarding emergency department patient volume, patient demographics, chief complaints, and disposition were collected retrospectively from electronic emergency department records. Data regarding missile falls in Haifa and its vicinity was collected from the Home Front Command.

Results: The number of total emergency room visits decreased from an average of 229.9 in the 42 days preceding the war, to an average of 130.1 in the 34 days of conflict. The emergency department visits during the conflict include 849 war-injured soldiers and civilians. Labor and delivery admissions decreased between the two periods from an average of 12.3 to 3.6. Admissions to general surgery and orthopedics were mildly influenced.

Discussion: While serving as the main receiving hospital for soldiers and civilians injured in the war, emergency department visits, admissions, and characteristics underwent drastic changes when the Rambam medical center and surrounding city of Haifa were under intensive missile attacks. The three-fold decrease in admissions for the labor and delivery reflect that the population moved out of the heavily targeted Haifa area.

Keywords: attack; civil-military collaboration; emergency medicine; medicine; war

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Oral Presentations—Disaster Health Management

Computerized Patient Information

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The Israeli health system is on constant alert for mass-casualty incidents (MCIs) and disasters. Although experience

copied with MCIs and providing adequate medical care has accumulated, the increased need for *ad hoc* information required the development of a swift, effective computerized information system (CIS). The MCI CIS is designed to attach the everyday Computerized Medical Records System (CMRS) and to be operated after a MCI or during any other disaster. The ADAM CIS helps to collect a MCI patient's data in real-time and refer the information to the Information Center at Tel Aviv Sourasky Medical Center (TASMC). The ADAM system is managed by TASMC social workers working with the patients' families during the time of the event. The ADAM information system is connected to the Israeli Ministry of Health (MOH) and other hospitals. Social workers can help the families to look for their loved ones not only in TASMC, but also in other hospitals. Parallel to operating the ADAM information system, Tablet Portable Computer (TCP) is operated at the Emergency Department (ED) entrance. Data are entered into the TCP while admitting the patient into the ED; these data include demographic information as well as the first medical sorting information. All of the data are connected to the CMRS and ADAM information systems. This study will present the accumulated experience of using the computerized system in MCI in TASMC as well as the recommendations following this experience.

Keywords: computerized; disaster health management; Israel; mass-casualty incident; patient information

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Characteristics of Disaster Management in China—A Preliminary Evaluation of Flood Management in Jinan, 2007

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Introduction: On 18 July 2007, a flash flood in Jinan city caused 39 deaths, 171 injuries, affected 333,000 people, and caused an economic loss of RMB\$1.32 billion (US\$194 million). To better understand the current characteristics of disaster management in China, an evaluation of the management of this flood was conducted.

Methods: A semi-structured, one-on-one, in-person interview was conducted with six middle-level managers from public health and seismological sectors. The theme method was applied when analyzing the open-ended questions, and the median (minimum, maximum) was reported when analyzing the scales.

Results: On a scale of 1–10, the managers gave a 7.5 (5,10) for government policies for disaster preparedness, 7.5 (5, 10) for the disaster response, and 9.0 (6, 10) for the disaster recovery. Aspects that were managed well included: (1) strong political leadership in command and control; (2) swift mobilization of army personnel; (3) effective public health management in the field; and (4) management of casualties. Challenges in flood management included: (1) timely and accurate flood warning; (2) dissemination of the warning to public; (3) limited power of public health sectors in command;

(4) absorbing capacity in infrastructure; and (5) buffering capacity in resources such as antiseptics.

Conclusions: The managers appreciated the government policies for disaster management and were pleased with the outcome of the management of this flood. The advantages and challenges experienced while managing this flood may represent the characteristics of disaster management in China and could stimulate critical thinking in managing disasters worldwide.

Keywords: China; disaster management; evaluation; flood; manager
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Development of Disaster and Emergency Medicine in Nepal

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Nepal, a landlocked country between China and India, is developing disaster and emergency medicine. The Nepal Disaster and Emergency Medicine Center (NADEM) was created in 2007 with the goal of developing this specialty in Nepal. The first hospital was built in July 1889 and only planned with a Disaster Response Team in 1988 following a stampede at the national stadium in Kathmandu. Nepal is geographically, naturally, and politically prone to disasters and emergencies. In 1984, the Institute of Medicine at Tribhuvan University Teaching Hospital began providing emergency services using general practitioners (GPs). Since then, nearly all emergency departments are run by GPs along with house officers, nurses, and paramedics. There still is a lack of training, proper management, equipment, and infrastructure to provide disaster and emergency services to the public. The NADEM Center is creating coordination objectives between different institutions to organize a method of providing service. Other NADEM projects include: (1) NADEM continuing medical education; (2) publishing J-NADEM (the *Journal of the Nepal Disaster and Emergency Medicine*) and NewsHealth; (3) coordinating pre-hospital (emergency medical services), in-hospital, disaster, and critical care medicine; and (4) planning and implementing research, training, workshops, seminars, and conferences.

The NADEM Center will develop an International Institute of Disaster and Emergency Medicine with worldwide support and collaboration.

Keywords: assessment; development; disaster; emergency medicine; Nepal

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Disaster Medicine Care in Tschinali

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Introduction: The Disaster Medicine Centre "Zaschita" is a head coordinating body of the Russian Ministry of Health with the purpose of managing and providing medical relief in response to emergencies. The objective of this study was to analyze the field experience obtained by the All-Disaster Medicine Centre field hospital in Tschinali, Georgia.

Methods: An analysis of lessons learned from complex emergencies complicated by local military conflicts was performed.