3. Object first-aid team — Led and organized by appointed medical units, its task is to provide medical support to important and special objects such as important operational units, business establishments and residential areas.

According to their designated responsibilities, they can be grouped into first-aid teams and medical treatment teams. As a combined team, the first-aid team is made up of members from the societal elements such as fire fighting, engineering, portage, and sanitation. It is responsible for extricating and moving the wounded persons away from the danger zone, and then to provide first aid. The medical treatment teams should be miniaturized, modularized, and specialized for provision of first aid on-site or in adjacent areas. Several medical treatment teams can form a temporary hospital if the number of wounded persons exceeds the capacity of the hospitals or difficulties are encountered in the delivery of the injured to intact hospitals, and/or that some of the hospitals are badly damaged.

Keywords: disasters; first aid; hospitals; teams; specialties; treatment; wounded
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Tactical Emergency Medical Support in Australia

David Caldicott

Tactical emergency medical support (TEMS) is the provision of advanced life support in the tactical environment, where there is a high risk of violence directed at the police and medical teams. Examples of these high-risk environments include terrorist incidents, hostage situations, clandestine drug laboratory raids, and the serving of high-risk arrest warrants. With origins in the military, and then subsequently in Strategic Weapons and Tactics (SWAT) teams in the U.S., the concepts of TEMS have begun to move into mainstream policing and prehospital care in the U.S. and Europe. Similar developments recently have occurred in Australia. Although each state in Australia has a Tactical Police Group, the level of tactical emergency medical support is variable. The requirements for the provision of TEMS in Australia are very different from those of other countries, and the adoption of pre-existing foreign models is inappropriate.

A postal survey and telephone interview with the directors of each of the Tactical Police Groups and their ambulance counterparts was conducted. This report presents the current provision of TEMS in Australia. Based on the findings, a template for a basic standard of practice in a sadly growing new area of emergency medicine also is provided.

Keywords: Australia; hostage; police; SWAT; tactical emergency medical support; TEMS; terrorist
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Using GIS as a Tool for Community-Based Disaster Preparedness

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Introduction: The poor, elderly, and persons in women-headed households are at greater risk than are other populations during a disaster. Knowledge of where these groups may be concentrated within communities and their general circumstances can be important to effective emergency management and planning. Geographic information systems (GIS) can be used to aid in analyzing and presenting information that is tied to a spatial location. In addition, the use of GIS may serve as an effective tool to assist in identifying at-risk populations with creation of community-vulnerability maps for the purposes of community-based, disaster preparedness and educational initiatives.

Methods: The United States Census Bureau's Topologically Integrated Geographic Encoding and Referencing (TIGER) digital database of geographic features was used to create maps of Baltimore City, Maryland, which included census-based information. Attribute data for the census tracts, such as total population, number of males, and number of occupied housing units, were merged to the TIGER Maps from the Census Bureau's Census 2000 Summary File 1, using Arcview GIS v3.2 (ESRI, Redlands, CA 1999).

Results: Census tracts with percentages of indigent, elderly, or women-headed households above established thresholds have been targeted for a community-based disaster preparedness initiative through Civic Works Project Liberty. These areas will receive increased attention through increased recruitment of volunteers, community information sessions, and house-to-house canvassing activities.

Conclusions: GIS is an effective tool for identifying at-risk populations prior to disasters. It can provide accurate spatial data in a visual format that can be used to determine the focus of community-based disaster preparedness education initiatives that should result in reducing local vulnerabilities.

Keywords: census tracts; disaster; emergency management; geographic information systems (GIS); preparedness; recruitment; spatial location; volunteers; vulnerability
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Emerging Role of Occupational Hygienist in Man-Made Disasters

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Introduction: Emergency response professionals have recognized that occupational hygienists contribute significantly in disaster response. The advent of man-made disasters like the 11 September events, indicate that biochemical terrorism is a credible threat. This paper demonstrates that occupational hygienists play an important role during man-made disasters. The skills set of anticipation, recognition, evaluation, and control of health hazards is most important.

Methods: Exposure assessments made by a hygienist not only are for on-site or off-site populations, but also cover the exposure of the responders and emergency personnel. Disaster response planning and execution can be made by assessment of the magnitude and impact of exposures resulting from the release of chemicals or biological agents

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into the environment.
Results: Effective emergency responses require that exposures for all involved populations be quickly and accurately assessed, interpreted, and communicated so that it can integrated into the decision-making process.
Conclusions: The threat of biological and chemical terrorism continues to be real and possible. The occupational hygienist can contribute significantly in the planning and execution of disaster responses.
Keywords: assessments; biological; disasters; exposure; hygienist, occupational; planning; response; terrorism
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Comparison of Effectiveness of Disaster Drill Methodologies: Table Top vs. Simulation Exercise

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The escalation of terrorism events in the world has prompted many healthcare systems to increase activities towards disaster preparedness. Included in these activities is the conduct of a variety of different types of disaster drills and exercises. Significant resources in terms of personnel time and effort are consumed for planning, conduct, and evaluation of these activities. In the hospital setting, money spent on these activities usually is diverted from another program. Thus, it is important to establish which activities are the most cost-effective. To date, little research has been published that compares the effectiveness of different types of disaster drills.

This paper presents the findings of a study that was conducted at the Columbia University Center for Public Health Preparedness Center at the Mailman School of Public Health, and funded in part by the Achelis Foundation. A comparison was made between table-top and simulation drill exercises in terms of gains in knowledge, cost, and participant perception of usefulness.
(The Centers of Public Health Preparedness are funded through a cooperative agreement with the CDC and ASPH # A1013-21/21)
Keywords: cost-effectiveness; disaster; drills; exercises; simulation; table-top; terrorism
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Symposium: Assessment of the Public Health Effects of Complex Emergencies

Chair: Dr. Les Roberts
Director of Health Policy, International Rescue Committee

Measuring Mortality in Cross-sectional Surveys: Which Methods Are Best and Why?

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In emergency situations, mortality rates are critical indicators of a population's health status. When surveillance systems are not yet functioning or cannot be implemented, rates can be derived from data collected in population-based, cross-sectional surveys.

Unfortunately, such data collection methods are neither validated nor standardized, though three methods have been used widely. These methods include: (1) Past household census; (2) Current household census; and (3) Prior birth history. The past household census method lists all persons, along with their age and gender, who lived in sampled households at an easily remembered time point in the past, and then determines what has happened to each person since that time. The current household census method determines how many persons currently live in sampled households, and how many have died since a time point in the past. The prior birth history method asks women in sampled households about births and deaths during the previous five years.

These methods are subject to various biases and limitations. In some cultures, survey respondents may be reluctant to answer questions from strangers about family deaths, leading to an underestimate of the number of deaths and, ultimately, the death rate. Survey respondents also may recall deaths as occurring more recently than they actually did, thus overestimating the number of deaths during the time period of interest. The past-household census method allows calculation of different age- and gender-specific death rates, while the prior birth history method collects data only on children <5 years of age. These limitations and recommendations for additional validation studies will be discussed during the presentation.
Keywords: biases; births; brief history; census; cultures; data collection; death rates; indicators; limitations; measurements; past-household; surveys
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Food Security Surveillance in the Palestinian Territories

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Introduction: A two-year military confrontation between the Israeli Defence Forces and the Palestinian population has severely depressed the West Bank (WB) and Gaza Strip (GS) economies with restricted freedom of movement for civilians, prompting the likelihood of household food insecurity and the use of coping strategies to provide food.
Purpose: To determine the extent of food insecurity in the Palestinian population by using ongoing household surveillance.
Methods: Twenty households were surveyed every two weeks in each of 16 districts in the WB and GS. The survey queried: (1) Decreases in household food consumption; (2) Decreases in consumption of specific types of food; (3) Reasons for those decreases including selling assets for food; and (4) Households borrowing money for food.

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