

Establishing Evaluation Criteria for Local Public Health Emergency Drills

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State and local public health agencies have participated actively in improving emergency responses across the United States. While this largely has been a function of the attention to the potential for deliberately caused events such as bioterrorism, the improved response infrastructure is of value for any type of emergency in which there is a potential public health threat, such as contamination of the drinking water supply or rapid spread of an infectious agent.

The generic materials for developing and evaluating emergency drills and exercises provide no specific guidance on the sequence, rapidity, or composition of an effective public health response. Using a Delphi technique and a panel of 38 public health and emergency response experts, a menu of specific criteria for the public health component of an emergency response was developed and subjected to preliminary testing in local public health agencies. Selection of criteria from the menu depends on the scenario and objectives for the drill or exercise; once selected, these criteria guide the development of the observer checklists and other evaluation documents, and can be used to focus improvement plans following the experience.

Keywords: criteria; emergency drills; evaluation; public health

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Decisions in Complex Emergencies: Methodology Towards Sufficient Valued Evidence

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Introduction: The field of humanitarian nutrition programs in complex emergencies is becoming increasingly evidence-based, which is defined as: “the informed, explicit, and judicious use of evidence that has been derived from any of a variety of science and social science research and evaluation methods.” The benchmark of systematic literature review (SLR) for peer-reviewed publication is that it be comprehensive, transparent, reproducible, and have minimum bias. In this field, as with most complex situations, there is a need for including gray literature through a rigorous, systematic, gray literature review (SGLR) methodology, which takes into account these values, including comprehensiveness (within defined inclusion criteria), and the representativeness and quality of the evidence.

Methods: A robust SLR was undertaken to explore the values of the evidence from peer-reviewed publications in the area of complex emergencies. Pilots for a SGLR that incorporated the values of a gold standard SLR were undertaken to investigate and prioritize the challenges for the development of the SGLR methodology, and to explore the advantages and disadvantages of reviewing gray literature. A concept of a representative pyramid of different levels of stakeholders was developed through the SLR

and web searching. Current quality assessment tools relevant to the use of gray literature were explored.

Results: Two main issues were highlighted by the SLR findings, which are particularly relevant for complex emergencies: (1) publication bias; and (2) lack of comprehensiveness—insufficient evidence on process and context for policy decisions and implementation. The main advantage, which the SGLR highlighted, was the breadth of gray evidence containing process information for policy-makers and the local information for planning and implementation. The main issues, which must be considered in order to achieve this project’s objectives, were: (1) multiple priorities and stakeholders; (2) the mobility of researchers working in complex emergencies; and (3) systematically filtering Internet-based gray literature even through gray databases. Frameworks for the quality assessment of the best available literature should include lower hierarchy designs and qualitative and descriptive studies prevalent in recent literature.

However, there is a need for consensus on the appropriateness and relevance to the available gray literature in complex emergencies, and, as such, requires an agreed evaluation theoretical basis.

Conclusion: To tackle the problems and to mirror the rigorousness and validity of a standard SLR, a SGLR framework is now being advanced through a working partnership between academia and non-governmental organizations (NGOs). The identification of such valuable gray literature can be time consuming and difficult, because such a framework aims to make the identification feasible for the evidence required for policy and implementation decisions required in complex situations.

Keywords: complex emergencies; comprehensive; evidence; literature review; methodology; publication bias

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Assessing Adult Malnutrition during Complex Emergencies

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Introduction: There currently is no agreed method for assessing the nutritional status of adults during complex emergencies as well as a method that takes into consideration both individual and emergency situation context variables. This study is based on a partnership between academia and humanitarian, non-governmental organizations (NGOs) through the United Nations Standing Committee on Nutrition (Working Group on Nutrition in Emergencies) to ensure the robustness of methodology being used and the applicability of findings resulting from their use in the field.

Methods: A systematic literature review was conducted to investigate various methods used, both within and outside complex emergencies, which currently are used to assess the nutritional status of adults. The “usefulness” of the methods used outside of complex emergencies was assessed for applicability to field nutritional programs within complex emergencies. Next, a focus group was conducted to explore and analyze currently available adult nutrition routine data and reports. A questionnaire was developed and

distributed to NGOs to explore the type and availability of current data and information regarding adult malnutrition.

The appropriate adult anthropometric and contextual data, which were available, were collated for the relevant NGOs and were entered into a centralized database. A targeted, literature search and a focus group with an NGO were conducted to explore appropriate contextual factors. A data collection tool was developed to standardize and improve the recording of details in the context of a feeding program during a complex emergency.

Results

Literature search— Limited evidence was identified outside of complex emergencies regarding the usefulness of hair pluckability using a “trichotillometer” to assess nutritional status in adults. A study was carried out in Aberdeen to test the reliability of this method and to investigate whether this method shows ethnic variance.

Adult data—Data were collated from feeding programs treating adults from countries in Africa and the Middle East from 1997–2003 included in a centralized database. Data from children’s malnutrition programs were found to have been the priority for NGO data collection. Taking into account the lack of individual adult nutritional data and the few variables common across NGOs, a population-based approach was adopted for data analysis. There were very few context factors from the NGO reports that could be compared across different feeding programs. Therefore, the development of a context data collection tool was advanced.

Conclusion: The partnership approach enabled this project to contribute to the recent increasing focus on adult malnutrition during complex emergencies, by advancing the methods for assessing adult malnutrition in complex emergencies. The process of creating a cross-NGO, centralized database for this project can be used to explore other issues in this field. Using this tool to explore different contexts also will enhance the ability to assess nutritional status in relation to contexts of children’s food programs.

Keywords: adults; assessments; children; complex emergencies; malnutrition; non-governmental organizations

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Medical Relief in Shelters after October 2004 Earthquakes in Chuetu Region of Niigata Prefecture, Japan

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Introduction: In the sub-acute phase of major earthquakes in the Chuetu region in Niigata Prefecture, Japan, on 23 October 2004 (maximum seismic scale of 7), the Hyogo College of Medicine dispatched medical relief teams to one of the affected cities, Nagaoka, which has a population of >190,000 people. The purpose of this study is to summarize the medical relief activities.

Methods: Before receiving a systematic press report or official request from the local government of the disaster area, Hyogo College sent a medical scout team to Nagaoka city from 26–28 October, followed by three successive medical relief

teams. Each team consisted of one or two physicians, one pharmacist, one clerk, and one driver. Volunteer local nurses also were recruited to assist each team. The college ambulance was used as a transporter and as a consultation room when necessary. Each team was replaced every three days. Following requests from the Nagaoka city health authority, the teams circulated public shelters in the most heavily affected rural part of the city, which provided medical service to the evacuees. Patients’ medical records retrospectively were reviewed and analyzed by a particular team member (KK).

Results: In the twelve days of activities, a total of 46 shelters were visited and 334 patients (226 males and 108 females) were examined. The mean value of their ages was 56.6 ± 24.2 (mean \pm standard deviation), with a range of 0–98 years. The most common symptoms/diseases were upper airway infection (37.0%), circulatory diseases including hypertension (23.0%), gastrointestinal disorder (7.2%), and sleep disturbance (6.3%), whereas trauma and burn were very rare. One hundred, twenty-two patients were treated or prescribed and three were referred to local clinics or a general hospital. The number of the evacuees in shelters fluctuated because: (1) the shelter residents went out for work or home cleaning in daytime and came back in the evening; (2) frequent aftershocks drove them from home to the shelters; (3) new evacuation advices were announced repeatedly; and (4) the risk of unexpected pulmonary thromboembolism by staying in family cars was reported. However, the number of patients per shelter for each team declined from 17 to 9.5, 6.9, and 6.0. As medical needs were considered becoming fulfilled, activities were discontinued on 06 November.

Conclusion: Even several days after a major disaster, the estimation of medical requirements from outside is not easy. Medical relief teams should be dispatched early without waiting for confirmed information and should have close relationships with local counterparts.

Keywords: earthquakes; evacuees; Japan; medical; relief; shelters
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Sheltering the Medically Fragile—Lessons Learned in Florida (USA) during the 2004 Hurricane Season

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The 2004 hurricane season in the United States resulted in four hurricanes directly making landfall in the state of Florida. As a result, medically fragile individuals in communities across the state were displaced into mass-care shelters. At one point, nearly 7,000 medically fragile clients were being sheltered in non-healthcare facilities. This presentation will: (1) identify the best practices related to deployment and the provision of services at the state and local level; (2) identify the lessons learned related to management and operation of shelters at the state and local level; (3) discuss the systems issues related to the level of care provided in the sheltering of medically fragile clients; and (4) discuss the implications for future events.

This presentation also will contain information related to the planning steps critical to the development of shelter