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 populationbased 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 Prebosp Disast Med 2005;20(2):s74-s75

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

K. Kuboyama; S. Marukawa; K. Yoshinaga Hyogo College Of Medicine, Japan

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 ±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 Prebosp Disast Med 2005;20(2):s75

Sheltering the Medically Fragile—Lessons Learned in Florida (USA) during the 2004 Hurricane Season P.J. Gardner; S.A. Straub; K.T. Albers Department of Health – Florida, USA

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