

use of MIP enables the association of morbidity and mortality more accurately to the affected body region, clarifying the obscured “multiple injury” diagnosis, which resulted in loss of information.

**Conclusions:** Multiple injury profiles improve the ability to present injuries. The use of MIPs facilitates the identification of all patients with a specific injury, even if secondary while providing a better description of the full pattern of injury and the injury combinations that potentially could be fatal.

**Keywords:** injury; multiple injury profile; presentation; research; war  
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### Maintaining a Flexible Framework: Conducting a Large, Mixed Methodology Study of Refugees' Ideas on Family Planning at Mtendeli Refugee Camp, Kibondo, Tanzania

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**Introduction:** Mtendeli Refugee Camp housed approximately 27,600 Burundian refugees. Comprehensive reproductive health services, including family planning and youth-centered services were available, however contraceptive prevalence ranged from 3.7% to 8.3%. The goal of this research was to develop, test, and evaluate a research methodology to accommodate the dynamic movement of the population with security challenges within refugee camps.

**Methods:** In-depth interviews of a random sample of 48 mixed gender refugees, 17–63 years of age were completed between March and August 2006. The study design had built-in flexibility in site selection and sampling methodology. Age stratification ensured that all ranges were represented. Data extraction for group health services and individual use was triangulated with in-depth interviews.

**Results:** The study design included options for transferring the study site based on security. A dynamic mapping system with a mathematical formula created an innovative sampling framework able to accommodate shifting populations due to constant repatriation and resettlement. This method maintained randomization and minimized the effect of sample clustering. Grouping of selected houses minimized travel time over the 35-kilometer camp.

**Conclusions:** Maintaining flexibility in study design and appropriate adjustments in the implementation phase allowed for the completion of this large qualitative study with methodological rigor. The use of in-depth interviews with individual and aggregate data allowed for a more comprehensive evaluation of the beliefs surrounding family planning.

**Keywords:** Burundi; family planning; refugee; Tanzania  
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### Evidence-Based Emergency Preparedness Guidelines for Persons with Disabilities

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**Introduction:** A cadre of experts and stakeholders from government agencies, professional organizations, emergency medicine and response, persons with disabilities,

mental health, and disaster preparedness were gathered to review and summarize the existing data on the needs of persons with disabilities in the planning, preparation, and response to disasters or terrorism. This review was followed by the development of evidence-based consensus guidelines and recommendations on the needs of persons with disabilities during disasters, acts of terrorism, and public health emergencies.

**Methods:** An evidence-based consensus process was used in conjunction with a modified Delphi approach for selecting topic areas and discussion points. The methodology used to develop the guidelines and recommendations in the current report was one of a previously validated evidence-based consensus process that has been used in prior studies, supplemented by a modified Delphi approach for topic selection.

**Results:** The final recommendations of the conference focused on 13 major areas:

1. Disaster Communications
2. Emergency Transportation
3. Decontamination, Isolation and Quarantine
4. General and Medical Needs Sheltering
5. Disaster Drills
6. Community Preparedness
7. Individual Preparedness
8. Children with Special Healthcare Needs
9. Continuity of Care
10. Strategic National Stockpile
11. Mental Health Needs
12. Federal Disaster Response Programs
13. Specialized Training for Emergency Planners and Responders

**Conclusions:** These recommendations and guidelines represent the first multi-disciplinary, evidence-based standards for persons with disabilities and emergency preparedness.

**Keywords:** disability; emergency preparedness; guidelines; research; special populations  
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### Benchmarking for Hospital Evacuation: A Standardized Data Collection Tool

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**Introduction:** Hospital evacuation is an increasingly common occurrence. Most hospital evacuation events have been examined, studied, or reported anecdotally in after-action reports or in other non-systematic interviews. These methods offer inconsistent and possibly unreliable results needed for individual and regional hospital evacuation planning, decision-making, and resource utilization. The purpose of this study was to design and implement a standardized, consistent, and systematic interview process for hurricane evacuated hospitals by building upon a previously validated regional hospital evacuation tool.

**Methods:** Investigators used a previously validated tool applied to eight hospitals that evacuated due to the Northridge Earthquake, modified its use for appropriateness for hurricanes, and applied the questionnaire to seven hospitals that evacuated due to Hurricane Rita.