

radically improve throughput and quality with no or little additional cost. The implementation of the FM in the emergency department setting to alleviate overcrowding has never been attempted, and it could revolutionize emergency department operations management.

**Methods:** Emergency department patient flow data affecting factors and outcomes from a large tertiary medical center, exclusively utilizing electronic patient records, will be collected. Root causes and influencing variables of emergency department overcrowding will be mapped and analyzed using FM tools. Later, alleviating measures will be developed and evaluated. During phase two, data will be collected from two additional emergency departments, measuring the impact of implementation of FM operational changes on emergency department flow parameters such as length of stay, wait times, clinical outcomes, and patient and staff satisfaction.

**Results:** Data collection and analysis of phase one of the study will be completed by March 2011 and presented at the conference. The authors speculate that the FM tools will allow better understanding of the root causes and affecting variables of emergency department overcrowding and help plan and later implement efficient interventions.

**Discussion:** The implementation of the novel management strategies of FM has revolutionized operations in many industries and services, helping them to drastically improve performance. The emergency department is a perfect candidate for the use of these tools, due to the overwhelming current operational difficulties (with overcrowding as a prominent symptom) and its complex high volume and high acuity patient flow.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s34–s35  
doi:10.1017/S1049023X11001233

### (A123) Developing World Disaster Health Research - Present Evidence and Future Priorities

H. Ralte,<sup>1</sup> N. Roy,<sup>2</sup> K. Chatterjee,<sup>3</sup> V. More<sup>3</sup>

1. Medical Division, Mumbai, India
2. Public Health, Mumbai, India
3. Mumbai, India

Developing world disaster Health research - Present Evidence & future priorities

**Introduction:** Considering that 85% of disasters and 95% of disaster-related deaths occur in the developing world, the overwhelming number of casualties has contributed insignificantly to the world's peer-reviewed literature. The existing & available evidence on disasters in peer-reviewed journals about the developing world, was examined for quality and quantity in this systematic review.

**Methods:** The free PubMed database was searched using the MeSH (Medical Subject Heading) terms 'disasters', 'disaster medicine', 'rescue work', 'relief work' and 'conflict' and then refined using the MeSH terms 'developing country'. The final list of selected manuscripts were analyzed by type of article, level of evidence, theme of the manuscript and topic, author affiliation & region of the study.

**Results:** Citations using MeSH search terms 'disasters', 'disaster medicine', 'rescue work', 'relief work' & 'conflict' yielded 63,196 results. After these results were refined using the second MeSH term "developing country", 438 articles were retained. Less than

1% (0.69%) citations in PubMed dealt with developing country disasters. Half of the manuscripts (46.5%) were found to be original research articles (36.1%) or reviews (10.4%), while more than a quarter (29.5%) were commentaries. 97.4% (149/153) of all 'original research articles' were Level IV or V evidence. A fifth (20.3%) of the authors of all manuscripts on developing world disasters were from the developing world (82/404); Predominant themes (29.1%) were missions, healthcare provision and humanitarian aid during the acute phase of developing world disasters.

**Conclusion:** Less than 1% of all disaster-related publications are about developing world disasters. Also, the developed world, authors four-fifths of the articles about developing world disasters, and contributes the predominant perspective. Aid for sustaining long-term disaster research may be a more useful investment in mitigating future disasters, than short-term humanitarian aid missions to the developing world.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s35  
doi:10.1017/S1049023X11001245

### (A124a) Developing Pediatric Emergency Preparedness Performance Measures

D. Markenson,<sup>1</sup> M. Reilly<sup>2</sup>

1. Center for Disaster Medicine, New York, United States of America
2. School of Health Sciences and Practice, New York, United States of America

**Background:** The most obvious deficiency in the current evaluation of disaster response is the lack of objective, quantifiable measures of performance. This frequently leads to assessments that are highly subjective depending on the evaluator, does not provide those who are planning with targets to achieve, and does not allow for measures that they have improved their preparedness. The goal of this research project is to offer recommendations for government agencies at the federal, regional, and local levels, public health departments, and health care institutions to aid in the development of pediatric emergency management performance measures.

**Interventions:** The goal was achieved through the application of traditional quality principles to the assessment of emergency management efforts and to the use of innovative analytic methodologies to develop comprehensive approaches to performance measurement in emergency management.

**Discussion and Observations:** When one discusses performance measures, it is important to remember that these are metrics we use to improve the quality of care. With regard to emergency management, performance measures are used to increase capacity and efficiency. A classic approach to health care performance measures is to discuss them with regard to the domains of structure, process, and outcome. Recently, in addition to these domains, volume has also become an important predictor of clinical outcomes. Although we believe that these domains can be applied to emergency management functions and the development of performance measures for disasters, there are some fundamental differences when compared with their use in development and categorization of traditional health care metrics which have been built in to our modification of these domains to emergency preparedness. This approach, quantitative methodology and consensus