

understanding of disasters and their impact of health has been developed. This project aims to examine the effectiveness of the disaster knowledge training to improve technical knowledge and perceptions of health impact of disasters in health care professionals and responders.

**Methods:** “Understanding Disasters” training was provided to 300 health care professionals during May to October. Each of the participated attendees filled a pre- and immediate post-training survey that contains socio-demographic information and 20 items measuring various knowledge of disasters.

**Results:** 287 individuals completed the questionnaires (95% response rate). Findings demonstrated that training may effectively enhance one’s knowledge about disasters, especially by clarifying the myths and misunderstandings towards disasters. Respondents demonstrated an enhancement of knowledge in 70% of the questions (14/20). Of note, while the whole sample exhibited an enhancement in knowledge, non-clinical staff appeared to have more statistical significant gained in knowledge than clinical based trainee.

**Implication:** Although disasters cannot be controlled, human impacts of disaster can be mitigated if appropriate training might be offer. This study demonstrates that training program might be useful to enhance better understanding of health impact of disasters.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s115–s116  
doi:10.1017/S1049023X11003852

#### (P1-54) Healthcare Worker’s Perception towards Individual and Institution Disaster Preparedness

G.H. Lim

Department of Emergency Medicine, Singapore, Singapore

**Background and Aim:** Disaster and MCI events are occurrences that healthcare institutions must be prepared to respond to at all times. The events of September 11 2001 have rekindled our attention to this aspect of preparedness amongst our healthcare institutions. In Singapore, the SARS experience in 2003 and the recent H1N1 outbreak have thrust emergency preparedness further into the limelight. While priorities had been re-calibrated, we feel that we still lack far behind in our level of preparedness. This study is conducted to understand the perception of our healthcare workers towards their individual and the institution preparedness towards a disaster incident.

**Method:** A questionnaire survey was done for this study for the doctors, nurses and allied health workers in our hospital. Questions measuring perception of disaster preparedness for themselves, their colleagues and that of the institution were asked. This was done using a 5-point likert scale.

**Results:** The study was conducted over a 2-month period from 1st August 2010 till 30th September 2010. 1534 healthcare workers participated in the study. 75.3% felt that the institution is ready to respond to a disaster incident; but only 36.4% felt that they were ready. 12.6% had previous experience in disaster response. They were more likely to be ready to respond to future incidents ( $p = 0.00$ ). Factors that influenced perception of readiness included leadership ( $p = 0.00$ ), disaster drills ( $p = 0.02$ ), access to disaster plans ( $p = 0.04$ ), family support. 80.7% were willing to participate in future disaster incident response training. 74.5% felt that being able to respond to a disaster incident

constitute part of their professional competency. However, only 31% of the respondents agreed that disaster response training was readily available and only 27.8% knew where to go to look for these training opportunities.

**Conclusion:** There is an urgent need to train the healthcare workers to enhance their capability to respond to a disaster incident. While they have confidence in the institutions capability they were not sure of their own capability. Training opportunities should be made more accessible. We should also do more to harvest the family support that these worker value in order for them to be able to perform their roles in a disaster incident.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s116  
doi:10.1017/S1049023X11003864

#### (P1-55) Ten Commandments for Emergency Preparedness Deployment – A Basis for Quality Model

M. Wilhelm Kafil,<sup>1</sup> L. Otits,<sup>1</sup> M. Ashcenazi<sup>2</sup>

1. Nursing Manegment, Haifa, Israel
2. Haifa, Israel

Hospitals are obliged to maintain emergency preparedness plan to support the army’s rear. Hospital preparedness plans contain several scenarios that are aimed to provide an answer to different crisis situations. The basis of these scenarios is common to all situations. Haifa region three hospitals cooperation in emergency preparedness plans extracted Ten Commandments for utmost emergency deployment: a. Creating a clear management policy b. Assigning high proficiency qualified key persons. c. Creating a multidisciplinary management team: Physician, nurse and administrator, with the notion that there is only one manager. d. Emergency activities are similar as possible to routine level. e. Using an assignment method for f. Clear and elaborated checklists are the basis for emergency activities. g. Trainings and drills are a solid basis for knowledge. h. High materials and infrastructure availability and stocks. i. Accessible communication channels. j. Debriefing is the basis for organizational learning and quality improvement. These Ten Commandments are the milestones for a quality model, developed for emergency preparedness. The quality model outlines our constant quest to achieve a state of the art emergency preparedness system in a region that has been involved and is prone e to a variety of emergency scenarios. Ten Commandments for Emergency Preparedness Deployment – a Basis for Quality Model.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s116  
doi:10.1017/S1049023X11003876

#### (P1-56) Recent Scientific Writing about Consequences of Disasters on the Health of Worker

D. Maltais, S. Gauthier

Human Science, Chicoutimi, Canada

Recent Scientific Writings about Consequences of disasters on Workers Danielle Maltais, Ph.D. and Simon Gauthier, M.Sc. University of Quebec in Chicoutimi (UQAC) When an application of emergency measures is issued following a natural or technological disaster, or a disaster caused by human negligence, in many countries social workers and nurses play a central role in the support to the victims not only during the period of social disturbance but also at the time of the return to a normal life. These workers sometimes find themselves plunged within

various intervention sectors where work conditions are often difficult. Once juxtaposed to the characteristics attached to disasters (nature, suddenness, duration, intensity, etc), the characteristics of the workers (intervention skills, training received, intrinsic efforts made, etc) and to the characteristics of the organizations (expectations towards their employees, organizational support offered to the employees, extrinsic efforts required, etc), these conditions increase their level of vulnerability by exposing them to environments harsh to manage. This vulnerability experienced by the workers in an emergency period can be reflected through symptoms such as anxious disorders and exhaustion. This poster will present the major findings of recent studies in this field (impact of disaster on the psychological health of workers) while under lighting personal, contextual and organizational factors which either contribute to the presence of psychological health issues for the workers or facilitate their resilience.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s116–s117  
doi:10.1017/S1049023X11003888

### (P1-57) Develop New Mechanism of Capacity Building of Disaster Preparedness in China

W. Zhang,<sup>1</sup> B. Huang,<sup>2</sup> S. Miao,<sup>3</sup> J. Yao,<sup>1</sup> B. Zhang,<sup>1</sup> Q. Li<sup>1</sup>

1. Office for Disease Control and Emergency Response, Beijing, China
2. Jinan, China
3. Tianjin, China

**Background:** China is one of the countries most affected by natural disasters, it is an important restricting factor for economic and social development. However, Disaster Medicine training is not included in medical education curriculum in China, continual training is separated among public health professionals and clinical personals.

**Methods:** WHO provides technical and financial support for public health emergency preparedness through intensive training and workshop. We intended to develop a new working mechanism under the support of WHO and MOH, China for capacity building of disaster preparedness in China with the combination of public health professionals and clinical personals though TOT training.

**Results:** Through the new mechanism, public health professionals from CDC system and clinical personals from hospitals could benefice mutually fro each side and strengthen the effectiveness for the disaster preparedness.

**Conclusion:** The new mechanism increases the effectiveness of capacity building for disaster preparedness, TOT training should transit from national level to local level.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s117  
doi:10.1017/S1049023X1100389X

### (P1-58) Frailty, Dementia and Disaster: An E-Learning Initiative for Health Care Providers

D. Maltais,<sup>1</sup> M. Gibson,<sup>2</sup> L. Hardy,<sup>3</sup> S. Ruthe,<sup>4</sup> M. Balazs<sup>2</sup>

1. Human Science, Chicoutimi, Canada
2. London, Canada
3. Senior Services/Adult Protection, Yukon, Canada
4. Community Emergency Preparedness, Victoria, Canada

Frailty, Dementia and Disaster: an e-learning initiative for Health care providers D. Maltais<sup>1</sup>, M. Gibson<sup>2</sup>, L. Hardy<sup>3</sup>, S. Ruthe<sup>4</sup>, <sup>1</sup>University of Quebec, Chicoutimi, <sup>2</sup>St. Joseph's

Health Care London, London, <sup>3</sup>Health and Social Services, Yukon Territory Government, Whitehorse, <sup>4</sup>Emergency Program, Corporation of the District of Oak Bay, Victoria, Canada.

This poster describes the development, piloting, evaluation, and dissemination of the e-learning tool: “Frailty, Dementia and Disasters: What Health Care Providers Need to Know”. The purpose of the e-learning tool is to contribute to international efforts to reduce the disproportionate vulnerability of older adults in emergencies and disasters. Key literature on geriatric emergency preparedness and response issues, including the roles and responsibilities of health care providers, was identified and synthesized. Content was piloted in a facilitated workshop in Ontario. A Canada-wide health provider reference group provided feedback on the transition from a traditional powerpoint presentation to an e-learning format. The evaluation process included facilitated review of the tool by health care providers in two in-person workshops in each of Yukon and Quebec and in an independent review by health care providers in British Columbia (virtual). The learning objectives of the e-learning resource are to help health care providers, administrators and policy makers understand the: · disproportionate vulnerability of older adults who are frail and those who have dementia, in emergencies and disasters; · components of the emergency management cycle and how they apply to this target population; · best practice resources that can be used to improve emergency preparedness, response, recovery and mitigation; and · role of health care organizations and providers in emergency management for these older adults. The e-Learning tool is hosted with open access on [www.dementiaknowledgebroker.ca](http://www.dementiaknowledgebroker.ca) (DKB), a platform facilitated by the CDRAKE - the knowledge exchange theme of the Canadian Dementia Knowledge TranslationNetwork (CDKTN).

*Prehosp Disaster Med* 2011;26(Suppl. 1):s117  
doi:10.1017/S1049023X11003906

### (P1-59) Atom Course in Japan

T. Nagata,<sup>1</sup> M. Hasbizume,<sup>1</sup> A. Lefore<sup>2</sup>

1. Department of Emergency and Critical Care Center, Fukuoka, Japan
2. Department of Surgery, Oyama, Japan

**Introduction:** Trauma care is one of the key components of disaster medicine. However, it is difficult in Japan to gain extensive experience in trauma surgery, especially penetrating trauma. The Advanced Trauma Operative Management (ATOM) course was developed as a model for teaching operative trauma techniques to surgical residents, fellows, and attending surgeons as the number of these cases decreases in the US. In 2008, a new ATOM training site was established at Jichi Medical University in Japan, and as of December, 2010, five courses have been offered.

**Methods:** The ATOM course consists of lectures and a porcine operative experience. Comprehensive evaluation of ATOM was designed to assess participant learning in the cognitive, affective, and psychomotor domains. Data on the first 36 participants was retrospectively collected and analyzed.

**Results:** Participants included: 20 expert trauma surgeons, and 16 general surgeons. All groups showed improvement in knowledge (pre-test score:  $61.9 \pm 16.4$  (mean  $\pm$  standard deviation), post-test score:  $70.6 \pm 16.5$ ,  $p$ -value  $< 0.001$ ) with results in the expert and fellow groups reaching statistical significance.