ers developed a detailed summary of each working group's discussions. That summary formed the basis for the second day's discussion within each working group, which focused on narrowing down the summaries to identify the top priorities and next steps. The final workshop session brought all participants back together to report on their priorities and next steps, which are summarized in the table in the following section.

Results

The development of a consensus related to measurements and tools associated with the benchmarks is expected to assist hospitals worldwide with response to catastrophic medical events by establishing minimum standards that will assist healthcare facilities in mitigation and preparedness activities that can be utilized during large-scale emergencies. Critical components include the identification and implementation of best practices for: (1) mitigation measures; (2) human resource development; (3) training and education; (4) undertaking capability, capacity, and readiness assessments; (5) utilizing information technology and communication systems to enhance emergency preparedness and mitigation efforts and outcomes; and (6) fostering key partnerships and efficient utilization of all resources within the hospital region. The following table displays the top priorities and next steps identified for each benchmark discussed in the working groups are listed in Table 2.

Discussion

It was striking that both of the working groups reported similar priorities and next steps/action items, although their individual benchmarks differed in their focus. Both groups identified the need for consistent measurement tools, actions tied to standardized and periodically conducted assessments of needs and capabilities, next steps that address the practical realities of authority and responsibility (identifying the individuals and organizations that have a mandate to take action), and difficulties with implementation. Utilizing the workshop format and a series of facilitating questions fostered a consistent thought process and discussions that produced actionable items for participants, as outlined in this summary report.

This report was shared with each of the workshop leaders for review and comment prior to dissemination to all workshop participants and publication in *Prehospital and Disaster Medicine*. Additionally, the leaders have developed a white paper to be used to more broadly disseminate the process as well as the results of the workshop in collaboration with the 2008-2009 global Safe Hospitals campaign sponsored by the World Health Organization, the United Nations International Strategy for Disaster Reduction (ISDR) and the World Bank.[3]

Conclusions

Once the summary materials are reviewed by session participants, a consensus statement will be published providing recommendations and metrics for each benchmark addressed at the WCDEM Safe and Resilient Hospitals workshop. Workshop participants will be asked to broadly disseminate the

statement and share it with their constituents to further the evolution of the benchmarking process globally. To assist with this development, the benchmarking process will be the focus of subsequent consensus-building activities coordinated by the organizations that conducted the WCDEM workshop (YNH-CEPDR, The Joint Commission/Joint Commission International, PAHO/WHO, WADEM, SEARO/WHO). Other organizations will be encouraged to further the process through activities appropriate to their constituents and their institutional missions and mandates. Funding sources will be sought to provide support for these activities. It is the intention of the workshop leaders and participants that the workshop recommendations, metrics, and the process itself be adopted and utilized by hospitals, other healthcare delivery organizations, and other agencies with a stake in safe and resilient hospitals. This will serve to enhance their ability worldwide to effectively respond to the disasters on the horizon.

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Preparedness

Chair: Felipe Cruz-Vega
Correspondence: fcruz@optical.com.mx

General Comments

This was an extraordinary set of oral presentations. On average, they were a highly professional share of experiences with the participants, with a very productive interchange of comments at the end of each presentation.

The presentations took into account a wide range of different aspects concerning the structural, non-structural elements and the functional organization of the personnel inside of the hospital. All of the papers were complementary to each other. There was a lot of interest in educational and training aspects and the improvement of emergency systems, including prehospital and emergency services, among others.

Some structure instruments are required in order to self assess their level of disaster preparedness and prioritize areas. The resulting indicators comprised quality dimensions: (1) structure, taking into account human and material resources; (2) procedures and process including education, training, practice, and cooperation within the hospital and other disciplines.

Due to problems with power grids, many hospitals all over the world have experienced power outages. Patient safety in hospitals is highly dependent on a functioning power supply. After discussion, it seems that national technical standards should be developed and implemented for the electrical infrastructure and standby generation of electricity in all hospitals.

As a result of the deep experience of seven system hospitals in southeast Louisiana and southwest Texas that were

serving the population surge from New Orleans, patients and evacuees were either partially or fully evacuated as result of Hurricane Rita. They took into account hospital demographics, disaster plan characteristics, planning lessons for individual hospitals, hospital decision-making and incident command, movement of patients within the facility, and movement of patients to other facilities.

Findings from a study of emergency department physician and nurse's perspectives on the issue of radiological terrorism were reported. The top concerns for nurses and physicians can be summarized as: A hospital being overwhelmed, the safety of loved ones, a lack of preparedness for this type of effect, the contamination of the facility, and self-protection.

A study of health facilities in rural areas in Central America took into account that prehospital care is difficult if you don't have governmental support, the necessary resources, and infrastructure

The US government is interested in the design and building of a new type of emergency care center to manage the medical consequences of terrorism and emerging infections diseases, taking into account capacity, capability, and protection. Design concepts for an all-risks emergency care center were identified. These were vehicular access, screening portals at entrances, universal isolation, multimodal decontamination, and rooms large enough to handle multiple patients simultaneously.

The opportunity to demonstrate the process of performing an inventory, recognizing potential space for supplementing surge capacity (20%), and preparing the space and policy for its activation as results of the request of the New York City Department of Health and Mental Hygiene were described.

One study used an instrument to evaluate the preparedness of hospital physicians for a mass-casualty incident. It seems to be a very useful instrument that brings into account the preparedness level of physicians in hospitals for a mass-casualty incident, the level of training, especially for surgeons, against chemical, biological, and nuclear exposures.

A major effort of a developing country in order to standardize the hospital preparedness against disaster situations was developed. The course, HOPE and how it has developed the professional interest of the health personnel and their government to be prepared for disasters, was described. This presentation provided a very interesting discussion about this.

A great example of a mega drill involving many first level institutions and doing so without interrupting the regular work of the hospital was presented. There was a very strict evaluation used for professionals from other hospitals and the Minister of Health.

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Hot Topics

Chair: Knut Ole Sundnes
Correspondence: kosundnes@c2i.net

The term "hot topics" is rather ambiguous and must be viewed with some degree of flexibility, because what is hot in one region may be less hot in others. Also, a hot topic not necessarily is a new problem arising, but more often a question of different levels of controversies or challenges not yet overcome. As such, it was somewhat questionable to call this session a theme session as such topics may have had little more in common that they foster discussions, disagreements, and questions when presented.

Topics that were addressed ranged from "Informatics Solutions", focusing on data reporting, databases (repositories), tracking, and their use in preparedness for management of disasters, to "Rationing of Resources" through an institutionalized model that demonstrated how to select potential victims in need of ventilation support due to the avian flu and how to decide who would not benefit from such vital organ support. It was interesting how the fear of the avian flu has dominated planning in certain areas, but has been given equal attention in others. Under all circumstances, a system that can take off some the personal burden of triage and replace it with an institutionalized concept is interesting. From a healthcare provider's point of view, it is important that such processes free themselves completely from financial issues, which one would expect to be a problem in countries with a mostly privatized healthcare system.

The process of establishing a single emergency telephone number throughout Europe was an important topic for discussion. It highlighted the difficulties and the potential solutions and benefits for implementing such a system. The ever-returning problem of triage also was covered more analytically by addressing the many disaster and multi-casualty triage systems. An evidence-based triage using new and simple methods will reduce chaos and potentially maximize the number of survivors at a lover cost-benefit.

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