

on Louisiana nursing programs; nursing program roles in disaster; and awareness of nurse emergency preparedness competencies were queried.

Results: 34 of 42 surveys were returned. 20 were complete. Nursing programs were located state-wide and found in 7 of 9 Louisiana regions. Surveyed programs offered a Bachelors degree (45%); Graduate degree (35%); Associate degree (35%) and vocational or Licensed Practical Nursing (35%).

Conclusions: The majority of Louisiana nursing programs and their health communities have been impacted by federally declared disasters. Coordinated efforts to improve nursing program preparedness education, roles and responsibility are warranted as vulnerability increases.

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(A33) Application of the Modular Emergency Medical System (MEMS) for Community Response to All-Hazards Public Health Emergencies

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The Modular Emergency Medical System (MEMS) is a flexible and scalable model for community-based response to all catastrophic emergencies. This paper highlights the development of MEMS at the local and regional levels, including training exercises to demonstrate MEMS capabilities, implementation strategies, and its role in the H1N1 response and vaccination clinics. The MEMS was introduced in 2002 as a bioterrorism response by the US Army Edgewood Biological and Chemical Command (ECBC). All-hazards MEMS, as part of a Regional Response System (RRS), was developed by the New England Center for Emergency Preparedness (NECEP) working with state and federal partners. The MEMS presents a modular response framework to mobilize communities and local resources to meet the medical surge demands during a catastrophic event. The modular components of MEMS empower a community-based response to catastrophic emergencies. The Neighborhood Emergency Help Center (NEHC) provides triage and initial treatment, or can function as a point for dispensing prophylaxis medications or vaccinations. During a medical surge, the Acute Care Center (ACC) moves non-critical patients outside of the hospital setting, creating more space for critical care patients. The Community Outreach (CO) module supports casualties recovering in their own homes, under quarantine, and other home-care support. The Casualty Transportation System (CTS) operates between MEMS components, patients' homes and outside of the affected area, meeting all transfer needs. The Medical Control Center (MCC) and Multi-Agency Coordinating Entity (MACE) provide command, control, and coordination of community emergency medical services (EMS), hospital, and public health response assets. Local, regional, and statewide exercises have demonstrated the capabilities of MEMS in Northern New England. The MEMS system, specifically with the MACE concept, was used in New Hampshire during the 2009 H1N1 event. These proven implementation strategies will assist local communities in developing and refining all-hazards response plans.

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(A34) Space Technology to Support Disaster Risk Reduction and Emergency Medical and Rescue Teams

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Space technology plays important role during emergency as well as non-emergency situation to provide the information that is relevant for disaster preparedness and to the rescue and emergency medical teams. During emergency situation, first and immediate information rescue and medical teams like to have is the area impacted, severity of the disaster and the population at risk. Such information is of critical nature for emergency medical teams in order to plan and mobilize the medical personnel, resources and infrastructure needed to provide effective medical services. Space based observation is the most efficient way to provide this preliminary information. Often emergency maps generated based on the space based observations are useful to the medical and rescue teams during emergency situation while detailed information from the field is still awaited. UN-SPIDER offers the platform for providing such services effectively by connecting with the end users the international and regional mechanism that provides such information. During non-emergency phase, the space technology contributes in strengthening disaster risk reduction (DRR) efforts, especially through telemedicines and Global Positioning System (GPS) technologies. These tools integrated with Geographical Information System (GIS) provide effective mechanism for predicting risks (risk mapping) and early warning. It also ensures the rapid distribution of information during catastrophic events. In recognition of these needs the United Nations General Assembly established the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER). The programme aims at providing universal access to all types of space-based information by: being a Gateway to space information for disaster management support; serving as a Bridge to connect the disaster management and space communities; and being a Facilitator of capacity-building and institutional strengthening.

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(A35) Building National and Community Resilience

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Each year a report is prepared for the World Economic Forum on global risks. It outlines the issues most likely to impact on society, and makes recommendations on actions required. The 2010 report concludes that global risks are becoming more volatile, uncertain, complex and ambiguous; and it comments on the increased number of high-impact, hard to predict 'black swan' events over the past decade. Indeed, recent disasters such as the Haiti earthquake which killed over 250,000 people, the eruption of Mount Eyjafjallajökull in Iceland, the rapid onset of the 2008/09 global financial crisis, and terrorist attacks around the world have all contributed to a heightened awareness of personal risk and vulnerability. In less than a decade the term resilience has evolved from the disciplines of

materials science and environmental studies to become a concept used enthusiastically by policy makers, practitioners and academics. The concept is attractive as it suggests an ability of something or someone to cope in the face of adversity – to recover and return to normality after confronting an abnormal, alarming and often unexpected threat. It is used alongside security to understand how governments, local authorities, the emergency services and health agencies can best address the threats from natural disasters, health pandemics, malicious attacks on a country's critical infrastructure, and other major disruptive events. The paper discusses the meaning and utility of the concept of resilience. It traces the origins of the term through to its current use in addressing contemporary threats facing individuals, communities, organisations and nations. It identifies and describes a number of characteristics which are common to the concept of resilience in its many contexts and manifestations. In conclusion, the paper supports a review of the language and thinking of emergency and disaster management, and promotes the emerging concept of disaster resilience.

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(A36) What is there to Show for the Last 5 Years?

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A disaster creates disruption and threats to life and society, mental anguish, and leads to feelings of instability around such areas as security and safety. It causes suffering and requires assistance from experts within a structured and tested response framework. After 11 September 2001, the demarcation between disasters caused by natural hazards and terrorism virtually disappeared. The two now get treated concurrently, but there is a danger that anti-terrorism might hijack the agenda, overshadowing important work that must be done in the field of disasters caused by natural hazards. With this in mind, the Health Emergency Management Unit in South Australia was born. The unit was established for preparedness planning around the growing concerns of the potential for an impending pandemic caused by avian influenza. From those shaky beginnings, South Australia now has a dedicated and trained team. The unit provides a 24/7 health responses to planned events and unexpected incidents caused by natural or deliberate forces that may occur in the region. It also participates as part of the National Disaster Deployment Program. Currently, the unit is focused on risk reduction and increasing resilience by implementing a sound, comprehensive approach including all elements of prevention, as well as preparedness, response, and recovery strategies. The unit also provides an extensive education, training, and exercise program to health facilities across South Australia. This paper will describe the ongoing journey of the unit, how it works and interacts with all levels of health service staff and other emergency services, and some of the recent events and incidents in which it has been involved in within Australia and overseas.

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(A37) Characteristics and Evaluation of China's Earthquake Disaster Management Systems

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Background: This presentation summarizes our ongoing hybrid sociological-geological research into China's earthquake disaster management systems. Our methodology is a grounded research approach, based firstly on field observations related to the Wenchuan earthquake, including interviews with survivors and professionals responsible for disaster management; secondly on an extensive review of the English-language disaster management literature. China's earth scientists, frequently in collaboration with international scientists, have created a substantial English-language literature, but the social literature on disasters in China is scant. China's geographic variation is complex, with significant fault lines crisscrossing the nation.

Discussion: Approximately half of the population lives in areas with a high risk of earthquakes. The two most-devastating of these since 1949 were the 1976 point-source Tangshan earthquake with mortality of 242,419, and the 2008 huge-area Wenchuan earthquake with mortality of 69,226. Our research has found that China's earthquake disaster management systems at the local, provincial, and national levels respond rapidly to earthquakes. National mobilization for rescue-relief after the Tangshan earthquake began within six hours, and within two hours for the Wenchuan earthquake. These systems are also characterized by reconstruction planning that functions in parallel to, and melds into, the relief effort streams. China's major infrastructure projects, such as hydro-electric power dams, are designed to resist extreme earthquake; however, rural mountain populations and the historic built-environment have low earthquake resistance, conditions which will endure for a long time.

Conclusions: As a result of the Wenchuan earthquake, China has undertaken ambitious three-dimensional monitoring and response programs. We recommend studies and action to reconnoiter, investigate, and prevent population exposure to geo-hazards, particularly in the Qinghai-Tibet Plateau. In summary, China excels at disaster response but has not yet entered a development era of preventing the population's exposure to earthquake hazards.

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(A39) Civil-Military Collaboration in Trauma Training

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In the present Swedish military medical organisation all medical personnel, including surgeons, have to be recruited from civilian hospitals. Even if there are many civilian surgeons well qualified to perform trauma surgery, the injury patterns seen in e.g. Afghanistan are quite different compared to what is generally seen in trauma patients arriving to the ED at a civilian hospital. In order to upgrade the major trauma skills of the civilian