

Constitution, Ilaco, Talcahuando and Dichato. The national authorities reported 512 dead and 81,444 homes were affected. It was the one of the five most powerful earthquakes in the human modern history. The most affected regions were Maule (VII) and Bio (VIII).

Results: The impact of the quake in the health sector was enormous especially on the health care infrastructure. The preliminary evaluations showed that 18 hospitals were out of service due severe structural and no-structural damages, interruption of the provision of water or because they were at risk to landslides. Another 31 hospitals had moderate damage. The Ministry of Health lost 4249 beds including 297 (7%) in critical care units. Twenty-two percent of the total number of beds and thirty-nine surgical facilities available in the affected regions were lost in a few minutes due to quake. At least eight hospitals should be reconstructed and other hospitals will need complex repair.

Conclusion: The effect of the earthquake was significant on hospital services. It included damages to the infrastructure and the loss of furniture and biomedical equipment. The interruption of the cold chain caused loss of vaccines. National and foreign field hospitals, temporary facilities and the strengthening of the primary health care facilities had been important to assure the continuation of health care services. *Based on information from PAHO – Chile.

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(A4) Emergency Health Interventions in Earthquakes: Red Cross Experience from Haiti and Chile, 2010

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On 12 January 2010, the fate of Haiti and its people shifted with the ground beneath them as the strongest earthquake in 200 years, and a series of powerful aftershocks demolished the capital and multiple areas throughout the southern coast in thirty seconds, leaving some 220,000 people dead, and 300,000 persons injured. On 27 February 2010, at 03:35 hours local time, an earthquake of magnitude 8.8 struck Chile. As a consequence, the tsunami generated affected a coastal strip of more than 500 kilometers. Approximately 1.5 million people were affected and thousands lost their homes and livelihoods. The emergency health response of the International Red Cross Movement to both disasters was immediate, powerful and dynamic. The IFRC deployed seven emergency response units (ERU) to Haiti: one 150-bed referral hospital, one Rapid Deployment Emergency Hospital, and five basic health care units. One surgical hospital and two Basic Health Care Units were deployed to Chile. The ERU system of the IFRC is a flexible and dynamic tool for emergency health response in shifting and challenging environments. Evaluations show that the system performs well during urban and rural disasters. Despite a very different baseline in the two contexts, the ERU system of IFRC can adapt to the local needs. As panorama of pathology in the aftermath of an earthquake changes, the ERU system adapts and continues supporting the local health care system in its recovery.

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(A5) Search and Rescue Underestimated

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Background: Search and rescue plays a major role in today's society. Whether lost at sea, stranded in a remote area, or trapped in a confined space, countless rescuers and volunteers will attempt to find you and get you to safety.

Discussion and Observations: Rescue teams consist of highly trained professionals including firefighters, EMT's, paramedics and other local volunteers who are willing to risk their lives to help others. Special teams and robotics were sent into ground zero after 9/11, locating and providing immediate extrication to those who were injured. The U.S Coast Guard's search and rescue efforts during Katrina were crucial saving countless lives in New Orleans.

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(A6) Animal Search and Rescue

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Background: In the United States, animal search and rescue (ASAR) is becoming a recognized component of Search and Rescue (SAR).

Discussion and Observations: Urban Search and Rescue (USAR) teams have long recognized the importance of having trained animal rescuers available to handle the animals that are often with humans seeking rescue. Animals are such an important part of most U.S. families, that in many cases, if the animal isn't included in the rescue efforts, the human will refuse to evacuate. The International Fund for Animal Welfare received a grant in 2010 to develop an ASAR curriculum and to train two Type II ASAR teams in Mississippi and Louisiana. This presentation will provide an overview of that curriculum and the courses that were developed for the unique tasks, skills, and equipment needs for animal search and rescue.

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(A7) Beyond Illness and Trauma: A Study of the Interface between Disaster Mental Health and Recovery

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Today there is adequate research evidence at national and international level regarding the health and mental health consequences of disasters. The realization of the larger impact of mental health on the recovery process has been instrumental in prioritizing mental health and psychosocial well-being of affected populations in recent years. Traditionally the bio medical models were used to understand the disaster mental health outcomes, however over the last two decade a gradual change is visible in the understanding of the mental health and psychosocial consequences of disasters. It is more inclusive of varied expressions of distress and the services to address the same. A review of various disaster mental health research and interventions documented since 2001 reveals that most

studies/interventions attempt to list the various mental health problems and psychosocial consequences. There are very few studies which go beyond listing of consequences, to focus on implications of disaster mental health for long term disaster recovery. There is dearth of research based literature on the concept of community trauma, factors contributing to negative emotions and emotional distress/problems, community response (social and cultural) to disaster mental health issues, long term emotional implications of psychosocial consequences of disasters and the life course of individuals with mental health issues in the long run following disasters. The paper attempts to address the above mentioned issues in the context of 2004 tsunami. The paper is based on a study carried out in India two years after the disaster. A Case study approach was used and 177 case studies were collected from 104 villages in 14 affected districts of three states in India. The paper contributes to understanding the long term implications of disaster mental health for disaster recovery and reiterates the significance of integrating disaster mental health services within humanitarian services.

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(A8) From a Helpless Victim to a Coping Survivor: Innovative Mental Health Intervention Methods during Emergencies and Disasters

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Crisis, disasters, terror attacks or any other traumatic event may cause among the survivors acute stress reaction (ASR). The main goal of the first responder in terms of mental health in the acute phase is to provide the victim the basic support that will stabilize the needed coping resources and re-establish the sense of control and safety (Kutz & Bleich, 2005). This process encourages the shift of the victim's perspective from a helpless victim to a coping survivor. The emergency mental health interventions are differentiated by the location: Location 1: The event's location: Pacing & Leading using varied communications channels. Re-establishing sequences of contingency. Regaining sense of control. Using the cognitive communication channel. Yes-set sequences. Location 2: Emergency rooms or Traumatic Stress First Aid Centers (TSFAC) Stress symptoms reduction using suggestive techniques Memory Structure Intervention (MSI). Psychological Inoculation (PI). Group interventions. Basic differential diagnosis: ASR-PTSD Patent release decision making. The higher the number of casualties, the more likely is the need for early interventions by non-professionals. This may be particularly true for a mega-terror attack, when the numbers of survivors with ASR can flood the hospital gates. The general principles for intervention by non-professionals, adopted by the Israel Ministry of Health (2002), are: a. Establish personal contact with the survivors and provide words of comfort or supportive touch. b. Encourage survivors to verbalize their experiences. c. Provide orienting information about what happened and what is about to happen in the hospital. d. Ensure physical needs such as hydration, food, and rest when appropriate. e. Enable contact with any significant other as soon as possible through phone or personal contact. During the presentation

the above subjects will be elaborated and demonstrated by case studies and short videos.

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(A9) Effective Proactive Outreach among Disaster Relief Workers (DRW) in an Emergency Mortuary (EM)

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Background: Following the Buizingen train-crash disaster on February 15, 2010, nineteen dead bodies were evacuated to the morgue of the Military Hospital. According to the hospital's emergency incident management system, the reception plan for the deceased was activated and an EM organized. Aim: To determine the psychological impact of exposure to current death and to evaluate the effect of proactive outreach in DRW deployed in an EM.

Methods and Results: For five consecutive days 62 hospital staff personnel were involved in the daily activities of an EM: disaster victim identification, autopsies, care for the dead, logistic support and reception and mental relief of the families. Besides a critical incident debriefing on day 5, a postal questionnaire survey of these 62 DRW was conducted, including the Davidson Trauma Scale (DTS) – detecting acute post-traumatic stress reactions/symptoms (ASR/S) – and the Symptom Checklist SCL 90 self-report inventory – measuring primary symptoms and global distress – administered 2, 4 and 7 months following the train-crash. Out of these, 35 (56%) initially responded (informed consent), followed by a return rate of 80% (28/35) and 68% (19/28) respectively. Six out of the 35 participants were identified suffering from acute psychological distress according to DTS and SCL 90 and subsequently followed up in the hospital's dedicated Military Centre for Crisis Psychology. In five of them, normalization of symptoms had occurred by the second inquiry and persisted. Ten months post-event, only 1 patient still needs psychological counseling, whereas 34 demonstrated psychological resilience.

Conclusion: Prevalence of chronification is low (1/35) compared to literature (5 to 10%). Timely detection of acute distress and proactive outreach may effectively counterbalance chronification in tertiary victims following a critical incident. Education and training should help hospital staff deal with ASR/S and improve coping. Hospitals should support professionals in the most disturbing situations.

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(A10) Psychosocial Support Services in Disasters - Indian Experiences

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India with 1.08 billion populations is vulnerable to earthquake (56%), floods (8%), cyclones (12%) and droughts (28%) every year. It is further compounded with refugees, riots, epidemic and endemic situations. Disaster psychosocial support and mental health services has consistently grown and standardized over