

case study presentation seeks to propose alternative methods for public health emergency response in emergency management, through lessons learned and the development of the Emergency Operation Center (EOC) planning tools.

**Background:** Public health incidents pose a challenge for emergency management agencies because they do not follow the same “stand up” and “stand down” style of natural disasters or catastrophic incidents. Typically, public health incidents begin with more ambiguity than emergency managers usually encounter in other types of naturally occurring or manmade incidents. These incidents require technical, regulatory and scientific expertise that involves various non-health stakeholders for general consequence management.

**Methods:** NYC is currently developing a draft of Public Health Response protocols and tools that integrate SMEs from non-health, Medical and/or Human Services agencies based on preparedness and response activities, hot washes, and After-Action Reports. With the goal of connecting expertise of particular ESFs and task forces, such as waste management in non-clinical settings, public information, community engagement, and consequence management, this presentation will allow focus group members/conference attendees to think through select public health incidents (based on NYC’s case studies), that require significant non-public health and medical stakeholders.

**Results:** Research/field testing is still in progress but preliminary information may be available by Spring 2017.

**Conclusion:** More research/field testing is needed to formally integrate public health emergency management into the current ESF mechanisms used in local emergency management agency EOCs.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s115–s116

doi:10.1017/S1049023X17003302

### Maternity Care Model during a Natural Disaster or Humanitarian Emergency Setting in Rural Pakistan

*Humaira Mabeen*

School of Health and Social Development, Deakin University, Melbourne/Australia

**Study/Objective:** To propose a maternity care model for natural disaster or humanitarian setting in rural Pakistan, by using its existing Health Human Resource (HRH).

**Background:** Pakistan has been severely affected by a number of natural disasters, as well as humanitarian emergencies in the last decade. There are more than 100,000 health workers (including community and facility based midwives) in rural Pakistan which are local, trained, and most of them possess a good relationship with their community. There is a need to establish effective strategies, to utilize their services as frontline maternity care workers during emergency and conflict situations.

**Methods:** A mixed methods study was conducted in flood-affected villages of Sindh, which included 60 interviews (15 from women, 25 from Community Health workers, and 20 from key informants) and a survey with 669 women about their preferences of maternity care providers.

**Results:** In the absence of obstetric facilities in relief camps and a functional referral system, 91.2% women gave birth in

temporary shelters with the help of a traditional birth attendant (Dai) with no clean physical space available to birth. Community health workers were not involved in disaster related activities. A clean delivery kit, dignity kit, and contraception were not available at relief camps.

**Conclusion:** The existing health workers are recommended to be engaged at different stages of a natural disaster (preparedness, early warning, and response). The capacity building of health workers and district health officials on emergency management is highly recommended. District health authorities should collaborate with Humanitarian Health Cluster at pre-disaster time to optimal utilization of logistic, financial and human resources. A well equipped “birthing station” and “women friendly spaces” are recommended in each camp. Referral systems should be strengthened whereby all laboring women with complications, can be timely transferred (transportation provided) to the nearest rural health facility where they will be assisted by the Emergency Obstetric Care (EMoC) trained staff.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s116

doi:10.1017/S1049023X17003314

### The Social Impact of Terrorism on Civilian Populations - Lessons Learned from Decades of Terrorism in Israel and Abroad

*Maya Siman-Tov<sup>1</sup>, Moran Bodas<sup>2</sup>, Kobi Peleg<sup>3</sup>*

1. Trauma And Emergency Medicine, Gertner, Ramt-Gan/Israel

2. Tel-Aviv University, Tel Aviv/Israel

3. Disaster Management & Injury Prevention, Tel-Aviv University, Tel Aviv/Israel

**Study/Objective:** This study considers the socio-psychological implications of terrorism, which are sometimes neglected in preparedness plans.

**Background:** One of the main concerns for public safety, shared by many countries, is the fear of terrorism; yet, far fewer lives are lost yearly due to terrorism as opposed to other forms of trauma, such as traffic accidents. Why does terrorism receive so much attention and incite such intense apprehension? Perhaps, terrorism “packs a different punch,” one that goes far beyond the number of injuries and fatalities. Terrorism’s main goal is to disrupt ordinary life, fostering fear and helplessness in the population.

**Methods:** Using Israeli experiences as a case study, this study briefly reviews four points of connection between terrorism and its psychological and social legacies: the sociopolitical aspects of terrorism, the unexpected nature of terrorism, normalization of terrorism and public resilience, and social aspects of medical care for terror-related injuries.

**Results:** The Israeli experience suggests preparedness plans should include planning for the socio-psychological effects of terrorism, on targeted populations, and may, in certain contexts, use Israeli approaches as a model.

**Conclusion:** Experience gained in Israel and elsewhere can set the stage for an appropriate response plan, striving not only for preparedness but also resilience. Efforts should be made to advance local capabilities, response plans, and resilience by

drawing on the experience of others in coping with the terror threat.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s116–s117

doi:10.1017/S1049023X17003326

### Crocodile Human Encounter Patterns in Sri Lanka

*Lakmabhimana R. Pagoda*

Command Hospital, Sri Lanka Air Force, Guwanpura/Sri Lanka

**Study/Objective:** Aim of this study is to identify what species of crocodile's attacks humans, their pattern when they attacked, where they attacked, what parts of the human body they prefer to grab most, why do they attack humans, and how crocodile human encounters are minimized so both species can live peacefully.

**Background:** Crocodilians represent one of the oldest constant animal lineages on the planet, in no small part due to their formidable array of predatory adaptations. As both human and crocodilian populations expand, they increasingly encroach on each other's territories, bringing morbidity and mortality to both populations. Sri Lanka has two species of crocodiles – the Mugger Crocodile (*Crocodylus palustris* or “crocodile of the marsh”) mainly found in freshwater tanks, and the Saltwater Crocodile (*Crocodylus porosus* or estuarine crocodile) which prefers estuaries and lagoon habitats. Research found both were responsible for attacking humans.

**Methods:** The reported cases of crocodile attacks from year 2010 to year 2015 were reviewed. During the 5 year period 150 attacks were reported and 51 were fatal. The aim was to identify the attacks by two different species of crocodiles that live in Sri Lanka. We studied timeframe, location, causes, and how they attacked humans.

**Results:** The popular belief is only salt water crocodiles are man eaters, and muggers are less aggressive. But our research shows that fatal attacks are done by both groups. The saltwater croc attacked and killed 27 people, and the muggers killed 49 humans, not much difference. The usual attack sites for both groups are either in shallow water or close proximity to croc infested water. This amounts to nearly 60% of attacks (90 incidents), of which 116 (77%) victims were males. They were attacked during bathing, washing clothes, swimming, collecting grass in marshy lands and playing in the water. Females were attacked while bathing, washing clothes and utensils. There were three rare cases where people were ambushed by saltwater crocodiles in a marshy area when they regularly collect firewood. Ninety-five percent of the victims were dragged to the water by both groups of crocs. Most of the incidents limbs were attacked; there were reports of attacking to the head and torso by both groups of crocodiles. Most of the victims (>92%) were aware that the water sources are infested with crocodiles, but did not care enough to think of the impending danger. We found that some people were attacked non-fatal, by salt water crocs when they approached a croc nest, the attacks launched to defend the nest. An interesting observation that emerged from the accounts on crocodile attack victims and witnesses, was that it appeared that the animals had observed people engaged in water-based activity, like bathing and washing clothes, over a period of time before the attack.

This would imply that at least some attacks, were not the result of a casual encounter with potential prey, but the culmination of a hunt at a spot where prey was known to gather. Hunting the reptile for meat or for skin made them endangered species. It has been observed that reptiles were poisoned after attacking humans, in some parts of the island. The climatic change is also an important factor as temperature decides the gender of the siblings. Reducing the croc land due to encroachment by humans, sand mining and destruction of mangroves, made reptiles attack humans as well as loitering in the land areas searching for food.

**Conclusion:** In this review, we examined the features of crocodilians that contribute to explaining their evolutionary success, as well as the potential hazard they pose to humans. Only by understanding reptiles' capabilities and respecting its right to live, it is possible to mitigate the potential threat to life and limb of humans.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s117

doi:10.1017/S1049023X17003338

### Perceptions on Medical Clowns in the Israeli Field Hospital after the Nepal Earthquake

*Uri Ilan<sup>1</sup>, Avigail Davidov<sup>2</sup>, Joseph Mandelovitch<sup>3</sup>, Ofer Merin<sup>4</sup>, Giora Weiser<sup>5</sup>*

1. Pediatric Hemato-oncology, Hebrew University, Hadassah Jerusalem, Jerusalem/Israel
2. Hebrew university, Hadassah, Jerusalem, Jerusalem/Israel
3. Pediatrics, Hebrew University, Shaare Tzedek, Jerusalem, jerusalem/Israel
4. Shaare Zedek Medical Center, Jerusalem/Israel
5. Pediatric ER, Hebrew University, Shaare Tzedek, Jerusalem, Jerusalem/Israel

**Study/Objective:** Following the 2014 disastrous earthquake in Nepal, the Israeli Field Hospital (IFH) was deployed to Kathmandu to assist and treat the thousands wounded. Five Israeli Medical Clown (MCs) volunteers arrived with the IFH. The impact of a MCs in a disaster zone has yet to be described or considered at all. The objective of this study was to assess the effect of the MC presence on the work of a field hospital in a disaster zone.

**Background:** The use of MCs for alleviating pain and distress has been well documented. There is evidence showing the effect of a MC on the well-being of patients, especially regarding painful and distressful procedures. There is no known description of MCs in a disaster zone.

**Methods:** An online survey was sent to all available members of the IFH (medical and technical) with questions regarding their perception of the MC impact on the IFH staff

**Results:** The survey was a Likert based questionnaire (grading the impact from 1 = very little to 5 = very high). Of 92 available members, 75 completed the survey (81%). The participants were of an average age of 40.5 years old, and 75% were male. The participants were from every part of the IFH (medical and technical) and included enlisted, reserve and volunteer participants. There were 67.2% of the participants found a very positive impact on the staff, with 48.3% finding a very high impact of clowning on staff performance. Staff with previous exposure to MCs were more likely be impressed by MC.