

that for various reasons had a significant delay in treatment with antivenom. This case will be used to highlight important aspects to snake envenomation and recommendations on dealing with consultants.

**Results:** In the end, our young patient was ultimately discharged from the Intensive Care Unit (ICU) with significantly improved central and peripheral nervous system symptoms.

**Conclusion:** Conflicting treatments and patient advocacy need to be carefully balanced, and even disagreements can be handled professionally.

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### Using the Epidemic Curve to Inform Social and Behavior Change at Scale During Epidemic Response.

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**Study/Objective:** The International Federation of the Red Cross and Red Crescent (IFRC) presents a model for Social Behavior Change in emergency contexts that supports local actors in low resources settings, and engage with communities and utilize the epidemic curve to help inform response. Using the epidemic curve at a granular level, allows national communication plans to be tailored in time and place in relation to the movement of the epidemic, ensuring messaging and activities are tailored to where and when communities are in the epidemic evolution and combines with local context

**Background:** The focus on community engagement and the role of ‘Social and Behavior Change’ (SBC) during development and emergency interventions is not new. Much work has been done in this area with a plethora of theories and models to support implementation across health topics and sectors, as diverse as obesity and STD prevention. These models, often based on social science, psychology and social marketing have a commonality that includes triggering motivation for change, supporting and maintaining the new behavior. They rely heavily on in depth assessments of root causes of the behavior, cultural contexts and reflective program design. However, how do these models interface in an epidemic, where time and resources can be limited, the motivation for change is often clear, the threat time limited and moving geographically?

**Methods:** The IFRC supports an average of 20 public health threats a year. Providing quality SBC programming at scale in low resources settings, remain a significant challenge, however new models of implementation are being field tested.

**Results:** A new model was developed.

**Conclusion:** Providing a clear link between the epidemic evolution in time, place and person allows specific targeting of interventions to support prevention, reduction and eradication of transmission to at risk groups. The combination of the improved utilization of social science to inform programming, needs to be a two-way dialogue, where epidemiological data is used to target and tailor SBC.

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### Nutrition Centers in Protracted Crisis Context: Field Study from Syria

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**Study/Objective:** The objective of this field study is to examine the effectiveness of implementing comprehensive nutritional services at the community level in the complex humanitarian crisis in Syria; and to disseminate this knowledge among other humanitarian actors.

**Background:** Syria is one of the largest and most complex crises, experienced by the international humanitarian system. Difficulties of access and transportation of goods have increased the prices and reduced the availability of commodities. Cases of Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) – both components of Global Acute Malnutrition (GAM), are on the rise in Syria. The Syrian Arab Red Crescent in cooperation with Canadian Red Cross are supporting 6 nutrition centers in Hama, Salamiyeh, Al Tal, Tartous, Aleppo and Swaida.

**Methods:** In Syria, the Community-based Management of Acute Malnutrition (CMAM) approach targets of acutely malnourished children under five, and pregnant and lactating women through community outreach, Supplementary Feeding Program (SFP) and Outpatient Therapeutic Program (OTP). The cases either come directly to the centers or referred by doctors or outreach mobile teams who conduct door-to-door nutritional assessments, using Mid-Upper Arm Circumference (MUAC) measurements. Quantitative and qualitative data are collected and analyzed on regular bases.

**Results:** Until the end of October 2016 the centers were able, collectively, to screen a total of 38,847 children and 8,434 pregnant and lactating women. We’ve identified and treated total of 254 SAM cases and 1,574 MAM cases amongst children, and 1,167 cases of MAM among pregnant and lactating women. With ensuring humanitarian principles are always respected, we consider various tactics to overcome evolving challenges that may include access, security, patients and family compliance and disruption of nutritional supplements.

**Conclusion:** Implementation knowledge generated from this project can model challenges and solutions in comprehensive nutritional services at the community level in complex humanitarian crisis.

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### Applying the Experience of Level-2 Military Surgical Teams to Disaster Medicine

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**Study/Objective:** The objective of the paper is to assess the options of using the experience of level-2 military surgical teams operating in military conflict in the context of treating mass casualty and disaster victims.

**Background:** Procedures applied by Polish military surgical teams during foreign missions conducted from 2008 to 2013 (total number of trauma patients –1,327), specifically in terms of treating locals, and the operations of the Urban SAR Groups of the Polish State Fire Service during earthquake-related rescue missions from 1999 to 2014, were assessed.

**Methods:** Medical procedures applied by the Polish military surgical teams and the Urban SAR Groups were analyzed, specifically in terms of using their experience to improve the efficiency of medical treatment of disaster victims.

**Results:** The operations of the level-2 surgical teams in Afghanistan have greatly advanced knowledge of dealing with trauma victims with limited personnel and restricted transport resources. The challenges involved in treating local patients always include limited options of long-term observation, and treatment which necessitates modification of treatment methods. Based on the experience of the Urban SAR groups acquired during post-earthquake rescue efforts, there is significant need for more extensive medical aid, specifically in cases of dealing with damage to the extremities, wound treatment and the “crash syndrome”. Experience of and procedures followed by the level-2 surgical teams in the course of damage control surgery and damage control orthopaedics, may be directly applicable to treating disaster victims, and also if there is no continued observation of victims.

**Conclusion:** Damage control surgery procedures may be applied to treatment of disaster victims. However, methods and standards of treatment must be carefully tailored to the inability to provide long-term care and patients relying on local health-care services for continued treatment. That is specifically important in case of orthopedic trauma treatment procedures.

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### Emergency Teams in Cascading Disasters

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**Study/Objective:** To analyze the role of non-medical disaster response teams in cascading disasters, and their fit within wider Disaster Risk Reduction and Response (DRR&R) efforts.

**Background:** The field of disaster studies has recently seen a focus on so-called “cascading disasters.” What is meant is disasters with cascading effects across functional and national boundaries, leading to secondary disasters of a similar or larger magnitude than the initial event (Pescaroli and Alexander, 2015). The notion of cascades points our focus to an important question within current disaster response: Are we sending the right people? Put differently, is the composition of our disaster response teams fit for DRR&R in cascading disasters? In this regard, the role and potential of non-medical personnel to prevent, stop, and respond to cascading disasters has received little attention. Yet, considering how cascading disasters spread across critical infrastructures, such as electrical, transportation, or sewerage systems, clearly the focus on sending predominantly medical teams to disaster zones is insufficient.

**Methods:** This study is conducted in three steps: 1. An extensive literature review. 2. 20 in-depth, semi-structured interviews with: a) non-medical key personnel in areas such as construction, municipal planning, and the electrical grid to understand their perceptions of their role and abilities within DRR&R in cascading disasters. and b) key personnel from international DRR&R teams to understand their perceptions of the role of non-medical personal in cascading disasters.

**Results:** The insights of the literature review and interviews will be analyzed and consolidated into meaningful conclusions and actionable recommendations.

**Conclusion:** The research aims to suggest improved compositions of response teams that may prevent deterioration in disasters scenarios rather than focusing on the initial disaster situation alone. Final conclusions will be presented at the 2017 WADEM conference in Toronto.

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### Medical Response to the 2016 Fort McMurray Wildfires - Descriptive Epidemiology of Patients Presenting to a Field Hospital

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**Study/Objective:** To describe the epidemiology of patient presentation to a physician, nurse, and paramedic staffed field hospital during the 2016 Fort McMurray Wildfires (FMMW).

**Background:** The FMMW was the most economically devastating natural disaster in Canadian history, resulting in the evacuation of over 80,000 citizens, burning of over 1,600 structures, with a cost of over \$9 billion CDN. Canada Task Force 2 (CAN-TF2) is Alberta’s all-hazards disaster response team, which includes Heavy Urban Search and Rescue (HUSAR) and Disaster Medical Assistance Team (DMAT) capabilities. As part of CAN-TF2’s deployment, a field hospital was established to support the incident as a result of the evacuation of local healthcare facilities.

**Methods:** A retrospective chart review was conducted of all Patient Care Reports from the field hospital to determine chief complaint, organized by Canadian Emergency Department Information System (EDIS) Presenting Complaint List. Disposition and patient demographics were also recorded.

**Results:** A total of 162 patients were seen over a 14-day period. Medical force protection accounted for 32/162 (20%) of patient presentations, with the remainder being patients external to CANTF. Evacuation to higher levels of care was required for 23/162 (14%) patients. Table 1 describes presenting complaints. The leading presenting complaint was prescription / medication request (n = 47), followed by foreign body eye injury (n = 14), GI complaints (n = 11 and n = 9), and foot care (n = 9).

**Conclusion:** The majority of patients presented with primary care complaints. While CAN-TF2’s primary mission was to provide medical force protection, most of the patients treated were external to the agency. Of the incident responders who