

first degree blood relatives. All residents of the household were offered a physical exam looking for surgical disease.

**Results:** A total of 780 individuals answered survey questions; 82% were IDPs. A history, since displacement of surgical conditions, was reported in 38% of respondents, and by 73% of respondents in at least one first degree blood relative. Surgical histories included trauma (gunshots, stabbings, assaults; 5% respondents; 27% relatives), burns (6% respondents; 14% relatives), and obstetrical problems (5% female respondents; 11% relatives). A total of 1,485 individuals agreed to physical exams. Untreated surgical disease was identified in 25% of participants.

**Conclusion:** This study combined unique sampling and survey techniques to perform a population-based assessment of the surgical burden of disease in a highly mobile, marginalized population. We identified significant recent histories of trauma and other surgical conditions, and on exam found a high burden of untreated surgical disease. Health officials and non-governmental agencies working with IDP and refugee populations should be cognizant of the high prevalence of surgically treatable conditions in these communities.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s81-s82

doi:10.1017/S1049023X1700214X

**Impacts of the Interim Federal Health Program on Healthcare Access and Provision for Refugees and Refugee Claimants in Canada: A Stakeholder Analysis**  
*Valentina Antonipillai, Andrea Baumann, Andrea Hunter, Olive Waboush, Tim O'Shea*  
McMaster University, Hamilton/ON/Canada

**Study/Objective:** This study examines the perceptions of key stakeholders regarding the impact of the Interim Federal Health Program (refugee health policy) reforms in 2014, on access and provision of healthcare for refugees and refugee claimants.

**Background:** The Federal Government funded the Interim Federal Health Program (IFHP) since 1957, ensuring comprehensive healthcare insurance for all refugees and refugee claimants seeking protection in Canada. Retrenchments to the IFHP in 2012 greatly reduced healthcare access for refugees and refugee claimants, generating concerns among healthcare stakeholders affected by the reforms. In 2014 a new IFH program temporarily reinstated access to some health services however, little was known about the reforms and its impact on stakeholders.

**Methods:** Data was collected using semi-structured key informant interviews with refugee health policy stakeholders (n = 23). Four stakeholder groups were identified: refugees and refugee claimants (n = 6), policy-makers and government officials (n = 5), civil society organizations (n = 6) and professionals and practitioners (n = 6). Using a stakeholder analysis, stakeholder positions and influences regarding the policy were mapped and a content analysis, using NVIVO 10, was employed to abstract themes associated with barriers and facilitators to access and provision of healthcare.

**Results:** The findings reveal that the majority of stakeholders expressed mixed and opposing views regarding the 2014 reforms, with varying levels of influence over the policy. Moreover,

five facilitators to accessing health care were identified, and eighteen themes regarding barriers to health care access and provision were abstracted. Four common barrier themes were perceived among all stakeholder groups, including lack of communication and awareness among refugees and providers.

**Conclusion:** The study highlights that the IFHP reforms in 2014 have transferred refugee health responsibility to provincial authorities, resulting in bureaucratic strains, inefficiencies, overburdened administration and delayed healthcare seeking by refugees due to existing barriers. There are some benefits to the reforms, but lack of support and mixed opinions among the majority of stakeholders emphasized the need for policy reformulation with stakeholder engagement.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s82

doi:10.1017/S1049023X17002151

**Reproductive, Maternal, Newborn and Child Health (RMNCH): Interventions and Delivery Modalities in Fragile Settings: A Review of Literature**

*Bernice Tiggelaar, Salim Sohani*

International Operations, Canadian Red Cross, Ottawa/ON/Canada

**Study/Objective:** The objective of this review was to systematically identify interventions and service-delivery modalities, that have measurably improved Reproductive, Maternal, Newborn or Child Health (RMNCH) in fragile settings during conflict or disaster response.

**Background:** Over 1.4 billion people live in fragile settings, making them particularly vulnerable to the effects of disasters and protracted conflicts. Sixty percent of preventable maternal deaths, 53% of deaths in children under-five, and 45% of neonatal deaths occur in fragile settings. Synthesized information regarding interventions and modalities used in fragile settings, and their measured outcomes, is significantly lacking.

**Methods:** A literature review was conducted systematically using academic databases PubMed, CINAHL, DoPHER, WoS, CDSR, Scopus, and Global Health up to July 8, 2015. Hand-searching was conducted, and grey literature was assessed. Inclusion criteria were studies: i) Including interventions/service-delivery modalities in RMNCH; ii) Target population included women of reproductive age, pregnant women, mothers, newborns, or children under-five; iii) In conflict/disaster response in fragile settings. All study designs eligible. Exclusion criteria were studies: i) Only including mental health; ii) Not including target population; iii) Not in fragile/post-disaster/post-conflict; iv) Without measured outcomes. Data extracted for setting, project, methods of delivery, results and study design.

**Results:** The search yielded 66 articles from 25 countries published between 1996-2015. Contexts included IDP/refugee camps, active conflicts, earthquakes, famine, tsunamis and other humanitarian crisis. Due to study variations, quantitative meta-analysis was not performed. Measurable improvements in health or access in fragile settings included skilled birth attendance, postnatal care, management of hemorrhage, use of modern contraceptives, HIV treatment, and more. Compelling

methods to ensure continuity-of-care during crises were identified.

**Conclusion:** This evidence will significantly inform the technical capabilities and research priorities of organizations delivering RMNCH programming in humanitarian crises; including delivery strategies that have ensured continuity-of-care during erupting crises.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s82-s83

doi:10.1017/S1049023X17002163

### Attacks on Health Care in Emergency Settings: What is the Extent of the Problem, Based on Open Source Data from 2014 to 2015?

Rudi Coninx<sup>1</sup>, Erin Kenney<sup>2</sup>, Erin Downey<sup>3</sup>

1. Who Health Emergencies Programme, World Health Organization, Geneva/Switzerland
2. WHO, Geneva/Switzerland
3. Congresses, World Association for Disaster Emergency Medicine, Washington DC/DC/United States of America

**Study/Objective:** The objective of the study was to document the extent and the nature of the problem of attacks on health care workers, health care facilities and patients by consolidating and analyzing the data available from open sources.

**Background:** Attacks on health care workers and health care in emergency settings are a general problem, depriving people from the health care services they badly need. General perception is that the frequency of attacks on health care workers is increasing.

**Methods:** Review of data from open sources on individual attacks on health care, that reportedly took place in countries with emergencies from January 2014 to December 2015.

**Results:** Over the two-year period, we found reports of 594 attacks on health care that resulted in 959 deaths and 1,561 injuries in 19 countries with emergencies. Sixty-three percent of the attacks were against health care facilities, and 26% were against health care workers. Sixty-two percent of the attacks were reported to have intentionally targeted health care. Most countries experienced a decrease in the number of attacks, with the notable exception of the Syrian Arab Republic.

**Conclusion:** Attacks on health care remains an important problem. The study highlights the need for standard definitions and classifications to enable a comparison of information from multiple sources, in order to better understand the full extent and nature of the problem. The lack of information on the impact of attacks on health service delivery and the health of affected populations, is a significant knowledge gap and should be a priority for information collection moving forward, if we want to make evidence based policy recommendations. The findings underscore the need for intensified action from a broad spectrum of actors, to ensure that health care is provided universally during emergencies to all those who need it, unhindered by any form of violence or obstruction.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s83

doi:10.1017/S1049023X17002175

### Minimum Standards for Staff Health in Humanitarian Aid Organizations

Hannele Haggman<sup>1</sup>, Joyce Kenkre<sup>2</sup>

1. IFRC, Vernier/Switzerland
2. University of South Wales, Pontypridd/United Kingdom

**Study/Objective:** To create Minimum Standards for aid workers regarding their occupational health.

**Background:** Annually, Non-Governmental Organizations (NGOs) deploy thousands of expatriates worldwide to assist with various disasters. There are no international guidelines on minimum standards on occupational health for humanitarian aid workers, to ensure consistent and accurate preparedness and support for the delegates. Consequently, there is a need to have global guidance on the medical clearance, personal medical kit, psychosocial support, first aid training, medical evacuation, insurance and post deployment return home.

**Methods:** Based on the Delphi technique, a literature review, interviews with delegates, and a workshop organized for several humanitarian aid organizations, a questionnaire was developed to form future minimum standards for occupational health for humanitarian aid workers worldwide.

**Results:** Ten themes were identified: Delegates should be well prepared for their deployments; have good support during their deployment; accompanying family members be included in the health policies; have a healthy and safe working environment and accommodation; psychosocial support be available and implemented; a medical evacuation plan which they know how to implement; good insurance coverage during and after their deployment; staff are well taken care of after deployment; duty of care is fulfilled and emergency recruitment is handled professionally.

**Conclusion:** To be effective in the aid work, staff should receive appropriate health briefings, equipment and support for their deployment to be sufficient in their role. Humanitarian aid organizations have an important task to fulfil in various disasters. With help of this global guidance they can fulfil their duty of care, and fulfil their obligation to protect and support their workers in the best possible way. In operations like the Ebola outbreak in West Africa, this was even more important to address to ensure health and safety of the humanitarian aid workers. The results of the research on Minimum Standards will be presented to the audience.

*Prehosp Disaster Med* 2017;32(Suppl. 1):s83

doi:10.1017/S1049023X17002187

### There's an App for THAT!

Sean Smith

Critical-care Professionals International, Critical-Care Professionals International, Durham/United States of America

**Study/Objective:** This session focuses on recognizing the utility of personal mobile technology as both a supplement to enhanced patient care, and access to healthcare for the humanitarian practitioner, within the framework of austere disaster/emergency medicine response.

**Background:** When considering the use of technology in clinical medical practice, a lot of factors must come into consideration: "What works for a particular individual or practice,