

variables and one-way ANOVA was used to compare the mean continuous variables between groups.

**Findings:** The chart review of 12,449 patients seen at the LFHC yielded a total of 31 burn patients. Compared to the Lao, Hmong, and other ethnicities, the Khmuic ethnicity is related to a significantly higher occurrence of burn injuries in Northern Laos. ( $p=0.006$ ). Compared to all other age groups, the adolescent age group experienced longer mean duration of hospital stay ( $p=0.02$ ). Average duration of hospital stay was 16 days ( $SD\pm 34$ days).

**Interpretation:** Scalding was found to be the most common mechanism of pediatric burn injuries in Northern Laos. Our preliminary findings from the Lao Friends Hospital for Children indicate a need for further research on the burn risk amongst the various ethnic groups in Northern Laos. Pediatric burn injuries are an important yet under-researched topic in this country. Only with more data on hand will we be able to craft meaningful prevention programs targeted to behavior change in Laos.

**Source of Funding:** NYIT College of Osteopathic Medicine Presidential Global Fellowship.

**Abstract #:** 1.012\_NCD

### Barriers to Cardiovascular Disease Secondary Prevention Care in the West Bank, Palestine - A Health Professional Perspective

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**Background:** Non-communicable diseases (NCDs) are fast-becoming a global burden on health due to the rise in the rates of conditions such as cardiovascular disease (CVD), increasingly noticeable in developing countries. There is a dearth of earlier studies relating specifically to patients and their capacity for risk factor behaviour change within secondary care settings.

**Aims:** (1) to ascertain whether health professionals consider there are specific barriers for patients in the Occupied Palestinian Territories (OPT) to participate in lifestyle changes; (2) to determine which risk factors for cardiovascular disease hinder patients to change their health behaviour; (3) to determine what the barriers and their causes may be; (4) to investigate whether health professionals consider there is any action that can be taken and by whom, to overcome any identified barriers to care at a system-level or at an individual patient-level approach.

**Methods:** A study was carried out in the West Bank of Palestine using semi-structured qualitative interviews of 12 participants (2 female), recruited through 3 initial 'cold' recruitment emails to medical establishments. The number of participants recruited was dictated by the length of time available in the field. Low-risk ethics approval was granted by the academic institution of the author. Written consent was obtained prior to each interview.

**Findings:** The current Israeli occupation affects the Palestinian people at both an individual and a system-level approach. Stress is considered both a risk factor for CVD, and a barrier to health behaviour change. Poor communication exists between primary and secondary care services, and primary care facilities are not providing adequate intervention to support the detection and management of risk factors for CVD.

**Interpretation:** This study has provided some insight into how social determinants of health can affect health behaviours and the consequent struggle for behaviour change, particularly within a conflict setting. Similar studies within primary care services, with patients themselves, and with other health professionals working in this field of NCDs, may help to inform future health options for collaborative working aimed at addressing CVD in the region. To be effective, however, attention also needs to be given towards a solution for political change.

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**Abstract #:** 1.013\_NCD

### Preventative Healthcare in Post-Soviet Armenia: Providing Education and Screenings to Expand Awareness of Noncommunicable Diseases

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**Program/Project Purpose:** Non-communicable diseases (NCDs) account for more than 75% of deaths globally on an annual basis. Cardiovascular disease (CVD), cancer, diabetes, and respiratory disease (CDC) are the most prominent NCDs which, while typically unique to the developed world, are growing in prominence in post-soviet nations. In Armenia, mortality from chronic preventable NCDs is over 90%, with a 30% yearly risk for individuals between 30-70 years of age (WHO). Education, prevention, health screenings and cost-effective treatment options would be a boon to Armenia and all developing nations' efforts to combat barriers to NCD reduction. Global Health Armenia (GHA) conducted a collaborative multidisciplinary outreach project providing education in NCD prevention and free health screenings, along with encouraging participants to follow up with their community physicians when indicated by their screening results.

**Structure/Method/Design:** In an effort to provide mutually beneficial service, GHA collaborated with local organizations, Yerevan State Medical University (YSMU) and the Armenian Ministry of Health (MOH). Medical and Global Health students from YSMU worked with GHA students serving as interpreters to provide health educational services to the Armenian community. Outreach events were conducted in Gyumri, Yerevan, Ararat, Talin and Martuni, and achieved both urban and rural contact.

**Outcome & Evaluation:** Health screenings (BMI, blood pressure, glucose, and cholesterol) were performed to assess risk factors for chronic disease. Screening sessions included results-based NCD risk-reduction counseling using approved educational materials. Additional counseling in nutrition and breast cancer awareness was also provided. Over 600 participants attended outreach events and received health counseling on prevention of chronic disease. Most of the participants (> 600) had their BMI, blood pressure, heart rate and glucose measured. Over 160 cholesterol measurements (LDL, HDL and total) were performed. Around 800 educational handouts were provided to participants and local providers to share with the community.

**Going Forward:** Support and collaboration from the MOH and the YSMU enabled the development of a program that was well-received by local healthcare providers and the Armenian populace. Due to the positive response from participants who expressed interest in future projects, we hope to build upon this foundation to continue improving access to health promotion materials, as well as establishing better screening practices by local providers.

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**Abstract #:** 1.014\_NCD

### Malnutrition and Associated Factors among Community-dwelling Elderly in Sri Lanka

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**Background:** Malnutrition among elderly is a multi-dimensional problem which predisposes them to increased risks of disability, hospitalisation and mortality. This study aimed to investigate the prevalence of and associated factors for malnutrition in community-dwelling elderly.

**Methods:** A cross-sectional study was conducted in six divisional secretariats in Kandy district, Sri Lanka using multi-stage sampling. The nutritional status was categorised into three categories, ie: at risk of malnutrition, malnutrition and well nutrition using the Mini Nutritional Assessment- Short Form (MNA-SF). A standardised questionnaire was used to record demographic data and other potential factors associated with malnutrition. Physical activity and depression were assessed using International Physical Activity Questionnaire and Geriatric Depression Scale respectively. Complex sample multinomial logistic regression analysis was performed.

**Findings:** A total of 1200 participants were recruited. Majority of the participants were females with mean age of 70.8 years (95% confidence interval: 70.13-71.47). Out of 999 participants who completed the MNA-SF, the prevalence of malnutrition, risk of being malnutrition and well nutrition were 13.6%, 51.2% and 35.2% respectively. The prevalence of malnutrition was higher in very old (> 80 years of age) elderly. In the multivariate model after adjusted for sex, alcohol consumption, smoking, betel chewing, medication usage, age, number of people living with and having hypertension, elderly with hypertension (aOR: 1.71, 95% CI: 1.02, 2.89), alcohol consumption (aOR: 4.06, 95% CI: 1.17, 14.07), and age (aOR: 1.06, 95% CI: 1.01, 1.11) were positively associated with malnutrition. Increased number of people living with the elderly was protective of being at risk for malnutrition (aOR: 0.91, 95% CI: 0.85, 0.97).

**Interpretation:** The prevalence of risk of being malnourished in the community-dwelling elderly in Sri Lanka was high. Age, alcohol use and hypertension were independently associated with malnutrition while number of people living with the elderly was protective of being at risk of being malnutrition.

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**Abstract #:** 1.015\_NCD

### The Prevalence of Proximal DVT in Orthopaedic Trauma Patients in Northern Tanzania Without the Routine Use of Thromboprophylaxis

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**Background:** The standard-of-care for lower limb orthopaedic trauma in Tanzania is associated with prolonged, bed-based immobilization. This, along with a nearly complete lack of thromboprophylaxis, significantly raises the risk for deep vein thrombosis (DVT). However, there have been few studies on DVT prevalence in East African patients. We aimed to estimate the cross-sectional prevalence of proximal DVT in lower limb orthopaedic trauma patients in northern Tanzania.

**Methods:** Over four weeks, we performed compression ultrasound on patients in the Orthopaedics and Traumatology Ward at Kilimanjaro Christian Medical Center (Moshi). All patients who were at least 15 years old, had sustained pelvic or lower limb trauma, had no spinal cord injury, were immobilized, were not on thromboprophylaxis at the time of initial study encounter, and provided assent/consent, were entered into the study. Patients were scanned weekly from the point of enrollment until either the end of the study period, hospital discharge, or voluntary withdrawal. 60 patients were scanned.

**Findings:** The mean±SD age was 40.4±19.6 yrs., 77% were male, 38% had more than one injury, and 46% had at least one open injury. Proximal DVTs were found in six patients, giving an estimated 10% prevalence. DVTs were found in the common femoral (CFV) and superficial femoral (SFV) veins in three patients, in the CFV in one patient, in the SFV in one patient, and in the popliteal vein in one patient. One patient showed clinical signs of pulmonary embolism. There were no mortalities. DVT was more prevalent in females (29% vs. 4%), giving a relative risk of 6.6 (95% CI [1.3, 32.2], p=0.0082). Multinomial logistic regression analysis confirmed female sex as an independent predictor, giving an odds ratio of 18.3 (95% CI [1.2, 289.2], p=0.039).

**Interpretation:** While limited in cohort size and degree of follow-up, our study offers a benchmark on proximal DVT prevalence in an at-risk Tanzanian patient population. The fact that females are at a significantly higher risk for DVT suggests a basis for prioritizing thromboprophylaxis in a resource-constrained hospital setting.

**Source of Funding:** Travel expenses were covered by the Center for Global Health at the University of Pennsylvania's Perelman School of Medicine. Siemens donated the ultrasound equipment.

**Abstract #:** 1.016\_NCD

### A Chance to Thrive, Not Just Survive Ebola: A Model for International Psychosocial Support Programming in Emergency and Disaster Settings

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