

barriers. Barriers may be more complex, relating to: healthcare decision-making, perceptions of quality and traditional culture and beliefs. It is noted that many patients die before reaching care at the facility level.

Going Forward: Multiple methods will provide perspectives from the community on barriers to optimal EC access.

- Case studies: Cases that present to the ED late in the course of illness will be utilized to understand aspects such as recognition of symptoms and severity, first aid administered and deliberations of the patient or caregivers.
- Focus Groups: Emergency scenarios will be utilized to explore the course of action that would be taken by community members.
- Community Survey: Hypothesis will be drawn from the qualitative data and tested with a quantitative survey implemented in locations frequented by a wide cross-section of the community.

This program has potential to increase understanding of rural Ugandan sociocultural factors in EC seeking, impact EC implementation and increase mutual understanding between providers and similar underserved populations.

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Abstract #: 2.050_NEP

Assessing diabetes knowledge and prevalence in Nevis, WI: A type 2 diabetes surveillance initiative

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Background: A multi-university team investigated the prevalence of type 2 diabetes (DM) and its risk factors in Nevis, WI, the second leading cause of death in the country.

Methods: We used a mixed methodological approach of randomized chart reviews and surveys. The randomized chart review of the six publicly funded health centers yielded 439 examined charts (4% of the island population). Metabolic screenings, medical history and general health information were analyzed using descriptive statistics. The World Health Organization's STEPwise instrument was used to survey 110 Nevis residents (~1% of the island's population) focusing on diabetes knowledge, risk factors (such as diet, exercise, risk-factors), and open-ended questions targeting perceived DM risk.

Findings: Approximately 17% of the clinical records noted a diabetes diagnosis. Distribution of diabetes between males and females was 16% and 17% respectively. Seven percent of 18-49 years olds (n=279) and 34% of 50 – 75 years olds (n=160) are diabetic. Evidence of a family history that included T2D was evident in 62% of records with a family history notation. While not recorded in every file, risk factors of hypertension, elevated cholesterol and fasting blood glucose were evident in 46%, 72% and 51% of the files respectively. Surveys revealed a similar prevalence of diabetes (14%) and persons indicated that clinicians had within the last three years advised them to reduce salt intake (24%), reduce fat in their diet

(34%), reduce their weight (48%) and increase physical activity (43%). Surveys revealed understanding that diet contributed to diabetes (78%) but only 14% indicated inadequate physical activity contributed to DM. While the severity of DM was clear to respondents (e.g. potential amputations), over 1/3 of respondents were not aware of the DM support services offered by the Ministry of Health.

Interpretation: Results suggest that educational materials and interventions targeting DM risk factors would be beneficial if they were widely advertised. Persons in this study also confirmed the MOH's suspicions that type 2 diabetes prevention, early detection and management is a population health concern.

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The burden of orthopaedic disease presenting to a referral hospital in northern Tanzania

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Background: In low and middle-income countries, country specific data is scarce regarding the burden of surgical disease, with most estimates extrapolated from indirect methods. Kilimanjaro Christian Medical Center (KCMC) is the only tertiary referral hospital for a population of over 11 million in Northern Tanzania. This study aims to directly quantify the current orthopaedic burden of disease at KCMC and provide a foundation to estimate the magnitude and potential benefit of improving access to orthopaedic surgical care in the northern regions of Tanzania.

Methods: Prospective data was collected during June 2015 for 113 patients admitted to the Orthopaedic Surgery ward at KCMC. Retrospective review of available hospital records for 11,678 patients presenting to the KCMC Emergency Medicine Department, Orthopaedic Clinic, and Orthopaedic Ward over the previous 12 months was also performed to obtain a more complete picture of the burden of orthopaedic disease seen at this tertiary referral center.

Findings: KCMC treats an average of 11,172 orthopaedic patients each year. Approximately 57.1% of these patients are seen as outpatients in clinic, 30.1% are seen in the emergency department and 12.8% are admitted as inpatients in the orthopaedic ward. Road traffic accidents (RTAs) represented the most common etiology of injury requiring ward admission at 63.7%, followed by falls at 29.2%, and assaults at 4.4%. Of admissions between ages 15-45, 73.5% were from RTAs. The majority of RTAs, 52.8%, involved a motorcycle and 30.56% involved pedestrians. Femur fractures were the most common injury seen (39.0%), followed by tibia (27.2%) and radius (17.7%) fractures. Patients used a wide variety of transportation methods and took 2.3 hours on average to arrive at KCMC from the location of their injury. Once in the hospital, patients averaged a length to surgery of 10.2 days and a hospital length of stay of 13.5 days. Of all admissions, 96.5% had indications for surgical fixation, while only 57.9% received surgery. KCMC is the only tertiary referral center for a five state region; however, 65.7% of patients originated from the same state in which the hospital resides.

Interpretation: KCMC sees an approximately identical volume of surgical orthopaedic trauma as a Level 1 Trauma Center in the United States, but has significantly fewer material and intellectual resources to meet this surgical burden. These data give a more complete picture of the patient demographics, mechanisms of injury, types of injury and patient outcomes for similar resource-limited locations.

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Abstract #: 2.052_NEP

The relationship between social and institutional gender inequality and suicide rates of young women across the globe

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Background: This study seeks to analyze the relationship between suicide rates of young women around the world. The Social Index and Gender Index, or SIGI, offers a measure of the upstream social and structural inequalities in world countries. We seek to discover the areas of discrimination against women that are significantly correlated to the prevalence of female suicide.

Methods: We investigated the relationship between suicide rates of women 15–29 around the world and the relative gender discrimination experienced in their country as rated by the SIGI. This is an ecological study at the country-level using publicly available data from the WHO on suicide rates and the OECD's SIGI data from 2012. We examined the bivariate correlations of between suicide and SIGI composite and sub-component measures using robust regression models and used Spearman rank correlation coefficient.

Findings: The female suicide ratio (to males) was positively correlated with the SIGI (0.72 (0.21–1.24) $p=0.006$) and all of its sub-components except physical integrity. Sub-component correlations included family code (0.67 (0.24–1.11) 0.003), physical integrity (0.01 (-0.23–0.24) 0.958), son bias (0.92 (0.38–1.46) 0.001), access to resources (0.29 (0.05–0.53) 0.019) and civil liberties (0.22 (0.03–0.42) 0.024). Secondly, we found a significant negative correlation with SIGI and male suicide rate (-12.19 (-23.93–0.44) 0.04), but no correlation for female suicide rates.

Interpretation: It's important to consider the role of gender inequalities and suicide in order to understand the effect that gender discrimination may have on women's mental health and how severe that impact can be. The findings do not show direct causation but do offer findings that merit further study and a deeper depth of understanding. These findings may explain the negative impact that discrimination in family code and son bias can have on women's health. Asia may have a high ratio of female to male suicide in part because of their problems with son bias and family discrimination.

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Abstract #: 2.053_NEP

A needs-based perspective to improve medical care and education in Cono Sur, Lima, Peru

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Purpose: In the realm of global health, providing care and education is crucial. With a widening spectrum of health issues but a narrow pool of resources, it is important to ensure that the

resources provided are relevant to the population and time-period. This requires consistent assessment of the population's needs. This study aims to identify and help refine the kind of care and health education needed in Cono Sur, Lima, Peru through a needs-based assessment. Data were obtained from mobile clinics in the Cono Sur. An orally administered survey was compared against nurse reported diagnosis rates for each diagnostic category.

Outcome & Evaluation: Clinic staff diagnosed 311 patients in a 6 month period. In total, 68 patients (22M, 46F) participated in the survey. Thirty-six percent of participants did not feel they had access to healthcare, and 74% of participants reported difficulty in paying for healthcare. Sixty-three percent of participants said they have difficulty paying for medications.

A one-way between-groups ANOVA was conducted, and showed that our results were significant ($F(9,11)=8.5, p=0.001$) for a difference between the number of people diagnosed with a disease and the number of people that reported that disease as their primary health concern in a list of disease categories. Patient concerns were often directed towards life-ending medical problems, such as cancer and family history (27% and 13%, respectively), which were overrepresented compared to clinic diagnoses (5%). Chronic medical conditions and other silent diseases, on the other hand, were an underreported concern (chronic: 23% diagnosed, 8% concerned; other: 40% diagnosed, 5% concerned). These results, in combination with only 42% of patients taking medications for their chronic illnesses, and the majority of patients who lacked knowledge or wanted to learn more about their illnesses, prompts the need for increased education in these areas. In addition, the community's main concerns need to be addressed to decrease fear of rare fatal conditions.

Going Forward: Based on these findings we would advise medical educators to improve access to information to both conditions that are highly diagnosed as well as conditions that cause high levels of concern in this region.

Abstract #: 2.054_NEP

Screening for depression in Andean Latin America: Factor structure and reliability of the CES-D short form and the PHQ-8 among Bolivian public hospital patients

Abstract Opted Out of Publication

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Awareness and attitudes of prescribing pre-exposure prophylaxis for HIV prevention among medical providers in Guatemala: Implications for country-wide implementation

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Background: HIV continues to be a major health issue with approximately 2.2 million new infections worldwide in 2014. Over 2,900 of these occurred in Guatemala, which was the highest number of infections in Central America. Pre-exposure prophylaxis (PrEP) is a newly recommended HIV prevention intervention by the World Health Organization (WHO) and has the potential to curb new infections in this region. Successful PrEP implementation