

Mobile Solution for Immunization (M-SIMU) study; a recently completed 152 village randomized controlled trial that employs short message system (SMS) reminders and mobile money incentives to improve pediatric immunization coverage and timeliness in rural western Kenya. Oftentimes, randomized controlled trials and public health programs move forward without receiving input from the community the intervention seeks to serve. Focus group discussions (FGDs) prior to a trial's implementation helps ensure the interventions are contextualized to local customs and culture.

**Methods:** FGD was conducted with three groups of mothers ranging from eight to 12. The FGD participant's opinions on timing, frequency, and content of SMS reminders, amount of incentives, in addition to other perceived challenges and barriers, were sought and integrated into the M-SIMU trial.

**Findings:** The FGD participants preferred that the SMS reminders for M-SIMU to be offered in multiple languages, personalized with the child's name to maximize the likelihood that the message is correctly relayed to the intended recipient, sent to caregivers 3 days and 1 day before their infant's scheduled vaccination date, include the study sponsor, and have local motivational sayings appended to the end of the reminder. Also, the amount of incentives was suggested to range from 50 to 300 Kenya Shillings (USD 0.5 to 3).

**Interpretation:** The findings were incorporated in the M-SIMU study's design and during the conduct of the study; efficacy of the design was evidential. Improvements in vaccine coverage and timeliness were reported by various health stakeholders in the study area, including Community Health Workers (CHWs), Village Reporters (VRs) and nurses. Such success could be associated with the involvement of the key stakeholders (mothers) in designing the randomized controlled trial.

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**Abstract #:** 2.041\_NEP

### Preoperative incidence of penile abnormalities found during voluntary male medical circumcision in Swaziland

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**Background:** Circumcision has proven to be an effective procedure in reducing the transmission of HIV in Africa. The Luke Commission (TLC), a mobile hospital outreach, has acted upon this research by performing thousands of male circumcisions throughout rural Swaziland, the country with the highest rate of HIV in the world. As a result of limited healthcare access, penile abnormalities that would be diagnosed during genital health exams in developed countries are often found and corrected during these procedures. The objective of the study was to evaluate the rates of penile abnormalities discovered and treated during voluntary male medical circumcisions performed in Swaziland.

**Methods:** We assessed the rates of the penile abnormalities through a retrospective analysis of all male patients who underwent voluntary male medical circumcision performed by the Luke

Commission during a period from June–August, 2014. The participants of the study consisted of uncircumcised males ages 4 to 65 years old who lived in remote rural communities throughout Swaziland and volunteered for the procedure. As part of the TLC protocol, nursing staff perform a preoperative examination and document all findings in an electronic database. The penile abnormalities documented and analyzed included: phimosis, paraphimosis, epispadias, hypospadias, ulcers, balanitis, torsion, and cases of adherent foreskin attached to glans. This information is added to a database that records procedure date, date of birth/age and HIV status.

**Findings:** Out of 929 total circumcisions, there were 726 patients (78%) with phimosis, 25 (3%) with hypospadias, 359 (39%) with adherent foreskin attached to glans, and no patients with paraphimosis, epispadias, ulcers, balanitis, or torsion; 771 patients (83%) had at least one penile abnormality, and 334 patients (36%) had two or more conditions. Over 96% of those individuals with abnormalities were ages 6–19. The 158 patients (17%) that had no penile abnormalities followed a similar age distribution as those patients with abnormalities.

**Interpretation:** These results display that a significant majority of patients had penile abnormalities that persisted well into their teenage years. This data exemplifies the steps The Luke Commission is taking alongside the Swaziland government towards decreasing HIV transmission and improving male sexual health.

**Funding:** None.

**Abstract #:** 2.042\_NEP

### Lived experience of persons with prostate cancer enrolled into palliative care: A qualitative study at mobile hospice Mbarara

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**Background:** About 1 in 6 men worldwide will be diagnosed with prostate cancer during their lifetime. In Uganda, prostate cancer is currently one of the most common cancers among men with an age-standardized incidence rate of 39.6 per 100,000. Its physical, emotional and social effects greatly impacts the lives of men. Although current palliative care management practices are aimed at improving the quality of life, little has been documented on the lived experiences of men with prostate cancer in Uganda. This study explored the experiences of men with prostate cancer enrolled into palliative care in rural southwestern Uganda.

**Methods:** An exploratory study was conducted among 8 prostate cancer patients enrolled into palliative care in Mbarara district, southwestern Uganda. Data was collected between March and April 2015. Data obtained was analyzed using Colaizzi phenomenological approach along key themes; family and social relationships, spiritual life, care and treatment before palliative care and care at hospice.

**Findings:** The five key themes generated different subthemes with some reported examples from participants. **Family relationship:** subthemes; Good family relationship, "I would not be surviving if not for this family of mine"; lost functionality, "I feel uncomfortable for not being able to do anything as a man"; Feeling of hopelessness, "this disease made me lose my manhood!" **Social relationships:** subtheme; Good social support, "this sickness created for me very

many friends especially health workers from hospice, my room was always having classes, I mean my hospital room was always full". **Spiritual life:** Generally, participants reported frequent praying and increased interaction with religious leaders. **Care and treatment before palliative care:** subthemes; unknowledgeable of condition, suffering and financial constraints. **Care at hospice:** subthemes; pain controlled, knowledgeable, hospitality and affordability.

**Interpretation:** Although family and social support networks play a prominent role in provision of support, patients continue to experience gaps in psychological wellbeing, As a result solace is sought from spiritual support. Interventions to improve the quality of life of patients with prostate cancer should take into consideration the prominent complimentary roles of family, social and spiritual support.

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### Global health in action: Chronic disease outreach in Armenia

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**Program Purpose:** The purpose of the Armenian Global Health program is to create collaborations between health organizations to allow better access to medicine for Armenians. The program had the opportunity to host the first Armenian Global Health Conference at Yerevan State Medical School. Prior to this conference, the program conducted meetings with Armenian dignitaries to determine which medical concerns are the top priority to Armenians. Armenians chose to focus on how to prevent and treat chronic diseases.

**Design and Methodology:** The World Health Organization estimated that 55.5% of Armenian adults were overweight and 24% were obese in 2008 (1). Obesity is the largest contributor to preventable chronic diseases such as diabetes and hypertension. The Global Health Armenia program at the University of Utah collaborated with the Ministry of Health of Armenia and Yerevan State Medical University to reach over 517 men and women between the ages of 18 and 89. Outreach events were open to the public and held at medical centers in Gyumri, Dilijan, Ararat, Yerevan, and Sevan during the summer of 2015.

**Outcome and Evaluation:** Six booths provided one-on-one education about nutrition, body mass index, cholesterol, hypertension, type 2 diabetes and breast cancer. Blood pressure, blood glucose, and BMI screenings were provided as a tool to increase each individual's awareness regarding their health status. In addition, workshops were organized to provide in-depth information and practical tools about disease prevention and management for cardiovascular disease, cholesterol, and type 2 diabetes. The Global Health Armenia team were well-received by attendees who gave the presentations an average of 4.8 and 4.7 out of 5 for the helpfulness of the information and likelihood of sharing what was learned with their friends and family.

**Going Forward:** The prevalence of non-communicable chronic disease states within Armenia continues to rise and remains the leading cause of death among adults (WHO, 2014). Health

education and outreach programs are essential for addressing the rising epidemic of obesity in CIS countries such as Armenia. The Global Health Armenia program continues to focus its efforts in education to raise awareness and empower individuals to make healthier life choices.

**Funding:** None.

**References:**

1. World Health Organization (2014). Noncommunicable Diseases (NCD) Country Profiles. Retrieved from [http://www.who.int/nmh/countries/arm\\_en.pdf?ua=1](http://www.who.int/nmh/countries/arm_en.pdf?ua=1).

**Abstract #:** 2.044\_NEP

### Traumatic head injury in a low resource country: Profile and predictors of mortality in a tertiary care center in South-Eastern Nigeria

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**Background:** Head injury is of significant concern to resource poor countries due to the paucity of neurosurgical services and subpar healthcare system, which can lead to poor outcomes. Yet few studies have been conducted that systematically examine head injuries in these countries. The Glasgow Coma scale (GCS) is used as a tool to determine the severity of head injury and response to treatment. Despite its usefulness, GCS has inadequacies and attempts have been made to enhance its functionality and simplicity. Our objective is to assess the strength of admitting GCS in predicting mortality among head injury patients in South-Eastern Nigeria.

**Methods:** This is a retrospective review of clinical head injuries admitted from January 2007 till December 2012 into the wards of Federal Medical Center Owerri, Nigeria: a regional referral center in the South-Eastern Nigeria. Charts were reviewed to obtain data on demographics, admitting GCS, mechanism of injury, hemoglobin, hospital stay and treatment. Binary logistic regression was performed to examine factors predicting mortality in SPSS V 21.

**Findings:** Of 194 cases analyzed, 86.6% were male while 13.4 were female. Average age was 30.2 years  $\pm$  18.5 and the most affected age group was 21-30 years (30.4%). The most common mechanism of injury was the road traffic accident (84.5%) followed by assault (7.3%), and then falls (6.7%). Overall mortality was low, 2.6 % (n=5). Sixty-percent of fatal cases had severe head injury and 40% had moderate injury. Mean admitting GCS was 11.78  $\pm$  3.80 for the survival group and 7.20  $\pm$  3.11 for the mortality. Mannitol use in treatment was the strongest predictor of mortality. Older age and higher admitting GCS were additional independent predictors of mortality.

**Interpretation:** Head injuries affect mostly young male in productive age groups and road traffic accident (RTA) is the most common cause. Higher death rates were seen in the elderly, patients with low GCS at admission and those who receive mannitol as treatment. Policies aimed at making roads safer and a review of protocols for