

treatment. Complete response was seen in 36.8% of treated patients. Median overall survival of the treated patients was 7.5 months; of treated patients showing a partial response or greater was 11.5 months. The most common cause of death was progression of disease in 47.4%.

**Interpretation:** The prevalence of HBsAg positivity of 11.5% in the PCNSL patients is higher than the current reported seroprevalence in East Asia of 8.6%. While these data suggest an association, suitable case control studies should be designed to further investigate. Larger epidemiological studies comparing the incidence of PCNSL in hepatitis B endemic versus non-endemic regions will also be of value.

**Funding:** NYU School of Medicine International Health Program and Chinese University of Hong Kong Summer Undergraduate Research Program.

**Abstract #:** 2.038\_NEP

### Knowledge, attitudes and practices regarding care of newborn umbilical cord among healthcare workers and mothers in the Volta region of Ghana

J.J. Nutor<sup>1</sup>, G. Kayingo<sup>2</sup>, J.F. Bell<sup>2</sup>, J.G. Joseph<sup>2</sup>; <sup>1</sup>Drexel University, Philadelphia PA, USA, <sup>2</sup>University of California Davis, Sacramento, CA, USA

**Background:** Umbilical cord associated child mortality is a serious problem in sub-Saharan Africa, including Ghana where the neonatal mortality rate in Ghana is 30/1000 live births. The objective of this study was to investigate the knowledge, attitudes, and current practices regarding care of the newborn umbilical cord among healthcare workers and mothers in the Volta region of Ghana.

**Method:** This was a cross sectional study of 102 mothers and 66 health workers in 11 health centers and health centers in the Volta region of Ghana. Survey data were collected through face-to-face semi-structured interviews. Data collected from mothers included their socio-demographic characteristics, the cord care treatment they used for the most recent child, and their sources of information regarding the treatment method. Healthcare workers were asked about their education and credentials, and their recommendations for cord care. Descriptive statistics were used to summarize the survey findings.

**Findings:** While the most commonly used practice for cord care was methylated spirits (68%), a significant number of mothers used non-recommended practices including shea butter (18%), toothpaste (4%), oil (2%), water (2%) and 6% used nothing. Overall 79% of the mothers surveyed received recommendation from healthcare workers on the best medical practice. Mothers residing in the southern Volta region or in urban areas and those with higher education levels were most likely to follow recommended best practices for cord care. Distrust in healthcare workers and low education levels were found to be the main barriers for adherence to the recommended practices. Health workers reported they were knowledgeable and confident in cord care practices (61%) and most (97%) supported medically recommended practices for cord care. Nurses and midwives were taught best practices of newborn cord care during their pre-licensure training.

**Interpretation:** More than one in five mothers are not following the recommended practices in newborn cord care. Public health interventions are needed to promote best practices for cord care

especially in the northern Volta, in rural areas and among women with low education levels.

**Funding:** University of California Davis Blum Center.

**Abstract #:** 2.039\_NEP

### Effect of a maternal infant HIV care clinic for HIV-infected mothers and exposed infants on follow up postnatal HIV testing and care in Southeastern Nigeria: A retrospective review

A. Nwandu<sup>1</sup>, D. Watson<sup>2</sup>, J. Ilozumba<sup>3</sup>, J. Egharevba<sup>3</sup>, A. Osuji<sup>3</sup>, C. Onuoha<sup>3</sup>, U. Okonkwo<sup>3</sup>, C. Ezeaku<sup>3</sup>, O. Mbab<sup>4</sup>, I. Okafor<sup>5</sup>, E. Justin<sup>6</sup>; <sup>1</sup>University of Maryland School of Medicine Institute of Human Virology- Nigeria Program, Enugu, Nigeria, <sup>2</sup>University of Maryland School of Medicine, Pediatrics, Baltimore, United States, <sup>3</sup>Center for Clinical Care and Clinical Research, Nigeria, <sup>4</sup>Enugu State Teaching Hospital, ART clinic, Enugu, Nigeria, <sup>5</sup>Enugu State Teaching Hospital, Obstetrics and Gynecology, Enugu, Nigeria, <sup>6</sup>Ebonyi State Teaching Hospital, Obstetrics and Gynecology, Abakaliki, Nigeria

**Program Purpose:** Adherence to care and evaluation of HIV-exposed infants remains a challenge. We evaluated the effect of a Maternal Infant HIV Clinic (MIHC) model of care on adherence to a prescribed set of interventions for infected mothers /exposed infants. Objective was to increase proportion of HIV-exposed babies tested for HIV DNA PCR at 6–8 weeks postpartum.

**Methods:** Review of records of 123 HIV-infected pregnant mothers and their infants at 2 PEPFAR-supported teaching hospitals in SE Nigeria. 22 pairs excluded due to missing data. Two groups defined according to whether infant born in the 14 months before or after intervention: Group 1 (July 2009 - Aug 2010) and Group 2 (Sep 2010 - Oct 2011). Group 1 mothers received HIV care at the adult ART clinic and their infants received HIV services within the child welfare clinic however there was no structured approach to care. Group 2 mother-infant pairs received monthly comprehensive HIV services by trained MIHC team (doctor, nurse, counselor) using an interventions checklist until 18–24 months postpartum. Interventions include HAART for all pregnant women, infant diagnostics at 6 weeks and 9–12 months, infant feeding counseling, family planning, and family HCT.

**Outcome and Evaluation:** There was a large and significant increase in completion of timely first PCR ( $p=0.0023$ ). Although only 12 Group 2 infants reached 12 months of age, completion of second PCR has not improved.

**Going Forward:** Implementing a MIHC model of care increases infant testing at two months. Implementation research required to identify critical components of the model, whether it can be generalized, and how to further improve completion of care.

**Funding:** PEPFAR.

**Abstract #:** 2.040\_NEP

### Contextualizing randomized trials in lower income countries

B.O. Ochieng<sup>1</sup>, D. Gibson<sup>2</sup>, E.K. Wangechi<sup>2</sup>; <sup>1</sup>Kenya Medical Research Institute and Centers for Disease Control and Prevention (KEMRI/CDC), <sup>2</sup>Johns Hopkins University, Baltimore, MD, USA

**Background:** This presentation reveals implementation considerations for mHealth interventions trials through the lens of the

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.

**Funding:** This is part of the M-SIMU study that was funded by the Bill and Melinda Gates Foundation.

**Abstract #:** 2.041\_NEP

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

A.R. Oddo<sup>1</sup>, E. Ruedrich<sup>1</sup>, C. Zust<sup>1</sup>, L. Marugg<sup>1</sup>, E. VanderWal<sup>2</sup>, H. VanderWal<sup>2</sup>, R. Sartori<sup>2</sup>, M.C. McCarthy<sup>1</sup>; <sup>1</sup>Wright State University, Boonshoft School of Medicine, Dayton, Ohio, USA, <sup>2</sup>The Luke Commission, Miracle Campus, Box 41, Sidvokodvo, Swaziland

**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

A.O. Odiru; Mbarara University of Science and Technology, Uganda

**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