

supports other findings in which decreased educational years ($p=0.019$, Fisher's Exact test) and decreased BMI of the mother ($p=0.009$, Fisher's Exact test) relates to more severe childhood malnutrition.

Interpretation: Due to small sample size, low power of the analysis, and other limitations, we cannot draw conclusions on the relationship between maternal age at marriage and childhood malnutrition, but we do see that, even with this underestimated number, 62.96% of the mothers married under the age of 18 (the legal marrying age for Bangladeshi females). The child, mother, and household characteristics we studied allow us to have a holistic perspective on the social situations of hospitalized children at icddr,b. Future study with large sample and adequate power may help in further understanding the health of the mother in obtaining gravidity and parity and the child through collecting health outcomes of the hospitalized children.

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Abstract #: 02SEDH016

Assessing the quality of HIV Counselling, Testing and STI Consultation services for vulnerable populations in Nigeria

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Background: Quality of health services received by Most at Risk Populations was assessed in Nigeria. The goal was to identify barriers to accessing quality sexual and reproductive health services among MARPs in order to improve MARPs HIV prevention services.

Methods: 314 MARPs comprising of 109 Female Sex Workers, 101 Persons Who Inject Drugs and 104 Men who have Sex with Men visited selected health facilities, with the intention of either obtaining HIV Counselling and Testing or STI consultation services. After receiving the service, they completed a questionnaire immediately documenting their experience with the health care providers. Ethical approval for this study was granted by the Nigerian Health Research Ethics committee which regulates all research in Nigeria. All participants in this study were requested to complete and sign an informed consent form to indicate their willingness to participate.

Findings: 85% respondents found the health facilities easily accessible and operations time from Mondays to Fridays convenient. Health communication materials like posters and pamphlets were visible to about 50% of respondents and only about a third believed the materials addressed their needs and concerns. Although a good majority (71%) reported that they were counselled in separate rooms however, confidentiality of interactions could not be guaranteed or was compromised, as 50% of the responses believed that their conversation could be heard by others around. 50% disclosed that registers other clients were kept out of sight during the counselling sessions. On STI consultation and treatment about 50%, adjudged the providers to be friendly, welcoming, non-judgmental and felt comfortable with them.

Interpretation: A critical issue that emerged from this study is a situation of poor information exchange between healthcare providers and their clients. Providers were not eliciting required information

that should inform their interactions with clients and did not guarantee confidentiality of self-reported details provided by the service seekers. This study was conducted in only 10 out of 37 states in Nigeria and the Most at Risk Persons enrolled onto the SHIPS for MARPS project was the population from which the respondents were drawn. The health facilities visited were those that had a memorandum of understanding with the SHIPS for MARPS project. This study was conducted with support from the USAID (Strengthening HIV prevention Services for Most at Risk populations project in Nigeria-SHIPS for MARPS)

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Storage and disposal of poisons in rural Ghana: Community perceptions and perspectives

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Background: A variety of chemicals, including pharmaceuticals, cleaning products, fuels, and agricultural chemicals can be classified as poisons and represent potential threats to human health and the environment. The number of poisoning deaths specific to Africa is not available because of limited reporting; however, the WHO states that 346,000 people died worldwide in 2004 from unintentional poisoning with 91% of those deaths occurring in low- and middle-income countries. The aim of this study is to better understand the storage and disposal of poisons in rural Ghana in July 2014.

Methods: This study in rural Ghanaian communities in the Barekese Sub-district evaluated community members' knowledge of poisons, including their storage and disposal. Convenience samplings were conducted in six communities through 140 interviews of adults as part of the Barekuma Collaborative Community Development Project (BCCDP). Informed consent was provided in Twi by native Twi speakers before conducting each interview. The Committee on Human Research, Publications and Ethics at the Kwame Nkrumah University of Science and Technology approved this research.

Findings: Of the 140 participants, a majority were farmers (44.3%) followed by traders (12.9%). Only 1 person (.7%) could not identify that a poison is something that can cause harm or death. Three respondents (2%) could not give an example of a poison. Agrochemicals were cited most frequently, with DDT mentioned 42% of the time and other agrochemicals mentioned 48% of the time. Participants also described why poisonings occur, with cognitive problems, suicides, or overdoses as the most common responses (35.8%). Next, involuntary ingestion was listed (25.0%), which was followed by poisoning via confusion and improper storage (20.0%).

Interpretation: Awareness of pesticides and other agrochemicals as a poison is high. Farmers make up nearly half of the community members interviewed, and 90% of all respondents named a type of agrochemical as poison. This seems to be because the potential harm of agrochemicals is known because it is used to kill, while the other products are not. Participants were aware of poisonings that had occurred in their communities (23.6% aware of medical poisonings, 22.9% aware of agrochemical poisonings, 14.3% aware of household cleaner poisonings, and 9.3% aware of petroleum poisonings), but few participants thought their own storage and disposal practices could increase the risk of poisonings (11.4% for medical poisonings, 6.4% for agrochemical poisonings, 9.3% for household cleaner poisonings, and 3.6% for petroleum poisonings). This contradicts their

interest in learning improved storage (47.1%) and disposal (49.3%) techniques. Variation in responses shows that education on what can be a poison and on improved storage habits may be important future research topics tied to new policies and interventions as part of the BCCDP.

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Abstract #: 02SEDH018

Assessment of diarrheal rates in a population of children in the Indian Himalayas: A student initiative

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Background: The Spiti Valley is a highly underserved isolated desert mountain valley in the Indian Himalayas. Following a needs assessment identifying gastrointestinal diseases as a major health concern, sustainable programs were implemented at a local boarding school (Munsel-Ling School) in 2006 by the University of British Columbia (UBC), however, the long term impact of sanitation interventions in the community have not been rigorously addressed. This study evaluated the effectiveness of health education by assessing diarrheal rates, handwashing practices, and helminths infections by comparing it to data collected in 2011.

Methods: This cross-sectional study was conducted at Munsel-Ling School in India. Students 6-18 years of age at the school were recruited if they were participating in the annual health screens. Students who did not meet the aforementioned criteria were excluded. Students were also excluded if language barriers were present. 258 students completed a standardized survey that evaluated hand washing practices, helminthic infections and drinking water sources (independent variables). The survey also included the modified Bristol Stool Scale for Children to identify children with diarrhea and dysentery (dependent variables). The analysis divided students into 3 cohorts (grades 3-5, 6-8, and 9-10) and a univariate logistic regression was performed. Ethics approval was granted by the UBC Behavioural Research Ethics Board (BREB) [certificate number: H14-00823]. Written assent was obtained from both the student and principal if the participant was under the age of 14. Written consent was obtained from students 14 years and older before the survey was administered.

Findings: 51.9% of students reported episodes of diarrhea within the past 14 days using the modified Bristol Stool Scale for Children and WHO definitions and 17.4% reported dysentery. Predictive factors include age, cohort, and unsafe water sources. The oldest cohorts experienced significantly less diseases, with diarrheal and dysentery risk decreasing 11.8% and 8.9% for every year increase in age, respectively. Students who drank unsafe water had a 65% and 138% increased risk of diarrhea and dysentery. Handwashing before meals and toileting decreased diarrheal diseases risk by 78.3% but is not predictive for dysentery. Additionally, helminth infections were reported amongst 8.9% of the students. Diarrheal rates assessed amongst 126 students in 2011 reported 46.6% and 42.7% prevalence within the past 7 and 30 days respectively, and helminthes infections at 22.5%. Children are at an increased risk of malnutrition with diarrhea in many developing countries. It is anticipated that Munsel-Ling school will continue to deliver education surrounding good hygiene behaviour. Finally, the annual preventative anti-helminth treatment was shown to be beneficial in reducing the rates of self-reported helminth infections.

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The association between sexual behavior and disclosure of HIV test results in Central Kenya

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Background: Globally, there are 35 million people presently living with human immunodeficiency virus (HIV). Young adults below 25 years disproportionately account for almost 50 percent of all new infections. Although overall HIV testing has increased, a majority of those tested are unaware of their serostatus, which may lead to transmission of HIV virus to unknowing sexual partners. This paper examines the association between sexual behavior and disclosure of HIV test results, in a rural setting in Central Kenya (Othaya constituency). Sexual behavior is conceptualized as condom use, number of sexual partners and relationship status.

Methods: 302 eligible participants were recruited for a cross-sectional study approved by the Ohio University's Institutional Review Board and the African Medical Research Foundation's (AMREF) Ethics and Scientific Review Committee in Kenya. Eligibility requirements included: 18 years and above, male or female, diverse ethnic and socioeconomic backgrounds and ability to understand English or Kikuyu (local dialect). Sampling of different clusters from six sub-locations in Othaya was undertaken. Each eligible person was explained the informed consent process and then administered the survey in private after the informed consent was signed. Descriptive statistics and logistic analyses were conducted to examine the association among study variables.

Findings: In the unadjusted analysis, among women (compared to those who had not had a sexual encounter in the past 30 days) who practiced safe sexual behavior, they were 10.13 times more likely to share their HIV test results ($p < 0.001$), while the association was not statistically significant for those practicing unsafe sexual behaviors. The association remained the same and became stronger for those practicing safe sexual behaviors when adjusted for possible confounders (OR= 12.03; $p < 0.001$). Among men, in the unadjusted analysis, those who practiced unsafe sexual behaviors were 7.95 times more likely to share their HIV test results ($p=0.02$), while the association was not statistically significant for those practicing safe sexual behaviors. A similar but stronger association was observed in the adjusted analyses for those practicing unsafe sexual behaviors (OR=38.76, $p < 0.001$) and not significant for those practicing safe sexual behaviors.

Interpretation: Based on the findings, a concentrated effort is needed focusing on men in that region to encourage safe sexual behaviors and minimize HIV transmission. Previous interventions have focused on females who readily receive HIV prevention information and services via Prevention-of-Mother-to-Child-Transmission programs and during prenatal and antenatal clinical visits. More needs to be done to increase male involvement in HIV testing and counseling programs to enhance safe sexual behavior, HIV testing and disclosure of results.

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Cultural norms, knowledge and attitudes regarding abortion in rural Ghana

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