female sex workers (FSWs) to instances of violence and disease. This paper analyzes factors associated with gender disempowerment and lack of condom use among FSWs in Salvador (Bahia), Brazil who engage in heterosexual interactions with male clients. An understanding of the sources of gender disempowerment is key to developing culturally-appropriate and effective policy interventions.
Structure/Method/Design: Over two, three-month periods (October-December 2011; May-August 2012), interviews were conducted with sixteen female sex workers and focus group discussions were conducted with 35 female sex workers at Projeto Força Feminina. The latter is an organization located in Pelourinho, the Historic District of Salvador, that works with FSWs to promote safe sexual practices and combat gender-based violence. Three life histories were also conducted with three of the sex workers. Additionally, Dr. Edivania Landim, the former head of the HIV/AIDS program of Bahia was also interviewed.
Outcomes & Evaluation: Of the 35 FSWs interviewed, all except one were Salvador natives. The median age was 27 (inter-quartile range: 19-56), with the majority of the women being in their mid twenties to early thirties. Most participants (56%) identified as single or not dating. None was married at the time of the study. Ten of the women had children with whom they lived. Over one-third (37.5%) of the women reported always using condoms. The top three reasons reported for lack of condom use were (1) clients offered higher wages for unprotected intercourse, (2) women were sexually assaulted by clients/police, (3) women offered unprotected sex to clients in order to steal clients from other FSWs.
Going Forward: Increased emphasis should be placed on female-specific forms of protection, e.g. female condoms, microbicides. Because organized prostitution is illegal in Brazil, the results indicate that lack of organization drives competition among FSWs, increasing health risks. Unionization is necessary to gain political acknowledgement of sex worker rights. Legalization of the trade will allow for regulation of the profession and increase the ability of FSWs to unionize.
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Abstract #: *01SEDH028*

Assessment of household water purification practices in the Milot Valley, Haiti

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Background: Haiti has faced a cholera epidemic since 2010. Government and non-governmental organizations have been promoting the importance of household water purification. In Northern Haiti's Milot Valley, recent research demonstrated high E. coli levels in public water sources, including those that would be considered "improved" by the World Health Organization. Given the high risk of waterborne infection, our research assessed current household water purification practices in the Milot Valley.
Methods: We performed a cross-sectional study via home visits in Milot and surrounding communities. From June to July 2014, 64 households were enrolled using convenience sampling and bilingual interpreters. Each household was represented by a single respondent at least 18 years old. Households were asked if and how they purified their drinking water. Presence of water purification products in the home was ascertained. If chlorination of drinking water was reported, a sample was tested for chlorine. To measure perceived personal risk, we asked if households knew someone who had been sick and/or died of cholera. The study was approved by the Institutional Review Board at Tufts University School of Medicine, Boston, MA. Informed consent was obtained using an audio recording and verbal agreement.
Findings: Thirty-nine percent (25/64) of households reported "always" treating drinking water, 25% (16/64) reported "sometimes," and 11% (7/64) reported "never." Another 25% (16/64) reported obtaining pre-treated water. Sixty-four percent (41/64) reported chlorination as their treatment method; no households reported filtration or boiling water. Twenty-five percent (16/64) had a chlorine-based water purification product at home, and of these, 86% (14/16) knew its correct usage. Twelve of 41 (29%) households reporting chlorination had water available to test. Of these 12, three households did not currently have a water purification product at home, and all three tested negative for chlorine. The remaining nine households had a water purification product at home, and seven tested positive for chlorine (78%). Fifty percent (8/16) who reported "sometimes" treating their drinking water cited "cost" as a barrier. Eighty percent (51/64) knew someone who had been sick and/or died of cholera.
Interpretation: Our data suggest that Milot Valley communities recognize cholera's threat and their own high risk. Households with water purification products at home demonstrate correct usage. Despite this knowledge, a large proportion of households are not treating their drinking water. While our data suggest that cost remains an important barrier, future studies should focus on perceived self-efficacy of water purification methods among households not regularly purifying their water. Limitations of this study include households not having water available to test, relatively small sample size, and use of convenience sampling.
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Assessing early childhood nutrition knowledge and practices and perspectives in rural Kenya

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Program/Project Purpose: Early childhood nutrition is a critical determinant of physical and cognitive development. According to the Kenya Bureau of Statistics, in 2011, 23.7% of children under 5 in the Kisumu district were stunted, and 4.1% were wasted. In order to gain a better understanding of the etiology of this childhood malnutrition, University of British Columbia's Global Health Initiative (GHI), in collaboration with the local NGO Partners in Community Transformation (PCT), conducted focus group discussions (FGDs) with male and female caregivers, and community health workers (CHWs) over a six week period between June-July 2014. The project aimed to find ways to optimize early childhood nutrition practices such that overall health in Kisumu improves.
Structure/Method/Design: FGD questions were designed to assess general nutrition knowledge, and nutrition practices specifically related to mothers with children < 5 years old. All participants were selected by the PCT Community Health and Education Coordinator based on the following criteria: age ≥ 18, child caregiver or CHW status, and Kisumu district residency. A total of five FGDs were held in Kaila, Kit Miyaki, and Kajulu Koker; three FGDs were held with female caregivers, one with male caregivers, and one with CHWs. Each FGD had a maximum of 15 participants. In addition, nutritionists and representatives from the Ministries of Health and Agriculture were interviewed to gain a better understanding of the societal

barriers and support systems influencing childhood nutrition. Data collected from the discussions were analyzed for common themes in nutrition knowledge and practice. Future GHI teams will use this information to design nutrition education seminars capable of mitigating gaps in nutrition knowledge to improve nutrition practices. Using a train-the-trainer model, GHI plans to equip the CHWs with the tools to deliver these educational seminars, ensuring the sustainability of this project.

Outcomes & Evaluation: The FGDs highlighted a need for further education about proper nutrition during pregnancy, exclusive breastfeeding, and complementary feeding of infants. Both child caregivers and CHWs commonly reported consuming fewer calories during pregnancy, receiving negligible antenatal care, and beginning breast milk supplementation as early as 3 weeks of age. Barriers to securing adequate nutrition included poverty, lack of breastfeeding support, lack of consistent healthcare, and a lack of general nutrition knowledge. Other factors contributing to poor nutrition included young maternal age and a community commitment to increasing caloric intake without considering nutrient density.

Going Forward: Poor early childhood nutrition in rural Kenya is multifactorial. Having identified some of the contributing factors, GHI will partner with PCT to develop strategies to address the current gaps-in-knowledge. In addition to creating education seminars, GHI may also develop a nutrition manual to assist the CHWs in providing sustainable education and support to their communities.

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Abstract #: *01SEDH030*

Sexual violence among orphaned children in Botswana: identifying risk and protective factors for effective prevention and response

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Background: In context of Botswana's high HIV prevalence and large number of orphan children, sexual violence on children is a significant challenge in the country. Recent research and reports on HIV and orphans have identified sexual violence against orphaned and vulnerable children as a well-known, but largely unacknowledged problem. Through service providers' accounts, this study aims to identify the factors that put children at risk and explore protective factors that can facilitate safety of the children.

Methods: This qualitative study employed semi-structured interviews to gain an in-depth understanding of sexual violence on children from service providers. A convenience sample of 23 service providers were recruited from the community-based organization Stepping Stone International and its partners providing service to children and sexual violence victims. Inductive coding and content analysis were used to identify categories and themes in the transcripts. Coding analyses were conducted using NVivo software (version 10).

Findings: The service providers confirmed that sexual violence against children in Botswana is both pervasive and dire. Correlates and consequences associated with sexual violence included, psychosocial problems (depression, decreased confidence; social withdrawal); teen pregnancy, educational problems (diminished academic performance, school drop-out) and propensity for repeat victimization. Risk factors for sexual violence included household dysfunction (absence or insufficient parental care, lack of family cohesion); economic limitations (poverty, economic dependence on the perpetrator); sociocultural rules/expectations (children lack a "voice" in society; prohibition on discussing sexual matters), lack inadequate support infrastructure. The protective factors include adequate parental care, assertive skills to decline to sexual advances, education about gender issues and safe spaces with adult support. Home was identified as the riskiest places where perpetration occurred with acquaintances and family members as the most likely perpetrators. Schools were identified as both safe and risky, with teachers cited as both buffers against and perpetrators of sexual violence. Service providers called for increased government attention to the issue of sexual violence in the same way HIV/AIDS is being tackled in the country.

Interpretation: Taken together, the culture of silence around sexuality and the social expectation that children should be seen and not heard provoke and perpetuate violence. Neglecting policy and programmatic attention to sexual violence puts Botswana at the risk of being able to sustain its successful HIV management. With large percentage of its population under 18, Botswana must take proactive actions to address sexual violence on children. These risk and protective factors are intended to inform effective prevention and response efforts regarding sexual violence.

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Household social capital and socioeconomic inequalities in child undernutrition in rural India: Exploring institutional and organizational ties

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Background: Social capital—the actual or potential resources available to a household via its members' social ties—has gained attention for its potential to reduce poverty and improve well-being in low- and middle-income countries. Yet, few studies have focused on the relevance of social capital for child health and nutrition outcomes in these settings. This study examines the relationship between social capital and child underweight, and explores the moderating effect of social capital on socioeconomic disparities in child underweight in rural India.

Methods: This study used the 2005 India Human Development Survey and included all children under the age of five who had no missing data, which yielded a final analytic sample of 9,008 children in 6,754 households and 1,347 rural villages. Child underweight was defined as children who were more than two standard deviations below the median weight-for-age. Social capital was divided into three forms: (1) network ties to health care providers, teachers and government officials; (2) ties to organizations that connect similar people (i.e., bonding capital); and (3) ties to organizations that connect dissimilar people (i.e., bridging capital). We utilized multilevel logistic regression analysis in Stata 13.0 to estimate the overall association between child underweight, socioeconomic status (SES), and social capital with adjustment for potential confounding factors.

Findings: Overall, the results showed that higher household SES was associated with lower odds of child underweight (OR=0.94, CI=0.92-0.96, $p < 0.001$). All three network ties were associated with lower odds of child underweight; however, none of the odds ratios were statistically significant. Membership in a bridging organization was associated with lower odds of child underweight (OR=0.81, CI=0.72-0.92, $p < 0.01$), but membership in a bonding organization was not statistically significant. There were significant