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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Abstract #: *01SEDH031*

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

moderating effects between household SES and three forms of social capital—network ties to health providers, network ties to teachers, and ties to bridging organizations—such that the effect of household SES on child underweight was buffered by social capital.

Interpretation: Social capital is not only an important factor for the improvement of child health, it can also play an important role in mitigating socioeconomic disparities in child underweight. In particular, social connections to health providers and teachers might benefit households by increasing knowledge about better feeding practices and disease prevention or by connecting families to medical care and supplementary feeding programs. In addition, membership in bridging organizations may facilitate access to useful information for raising a child as well as improve the economic situation of the household, thereby providing access to food and other household necessities.

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Abstract #: *01SEDH032*

Feasibility of using world health organization standard verbal autopsy to assess causes of neonatal and post-neonatal death in Enugu Nigeria

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Background: The study aims were to assess the feasibility verbal autopsy (VA) interviews to identify causes of neonatal and post-neonatal mortality in a community-based setting in Enugu Nigeria. The following were assessed 1) adaptability of the World Health Organization (WHO) standard VA tool to regional language, Igbo 2) logistical implementation of the interviews and 3) cultural acceptability of the tool. This study was nested under the Healthy Beginning Initiative (HBI) a randomized control trial that examined the uptake of HIV testing during pregnancy when conducted during a baby shower. Participants who experienced neonatal and post-neonatal death after enrollment into the study were identified. VA interviews were conducted with parents or close relatives who provided care to the deceased using the WHO VA questionnaires. Interviews were conducted in Igbo language, Pidgin, English per participant preference. Interviews were conducted in June and August 2014. A total of 30 neonatal and post-neonatal deaths were assessed. Data collection issues: 1) field workers skipping questions during interviews resulted in missing data necessary to identify probable causes 2) caregivers inability to remember events due to time lapse before interview. Logistical constraints included: 1) time to complete the interview 2) lack of a private place to conduct the interview 3) inadequate transportation networks 4) study participant relocated. Barriers to cultural acceptability included 1) conflict with religious beliefs 2) presence of additional person and 3) problems with the adaptability of the WHO survey were primarily related to some concepts not adequately translated into Igbo. Positives of using VA: 1) causes of some infant deaths assessed 2) participants with history infant loss identified. Solutions for addressing some of the difficulties in implementation include: 1) Field workers should use VA questionnaire to guide the interview and form completion before interview ends 2) review of interview data within a few days after completion by supervisor completion. Logistics: 1) establishment of a central location where interviewees can meet 3) transportation stipend to defray travel cost for participant 4) understanding of terrain and road conditions of communities for interviews that need to be conducted closer to a participants' residence Follow-up interviews can be conducted by telephone. Cultural awareness: 1) prior conversation with primary caregiver or interviewee, detailing the purpose of the verbal autopsy prior to interview, this conversation may help improve trust and guide who would be present with primary caregiver/ relative responder during the interview 2) separate interviews if several caregivers are willing to provide information and then analyzed together to determine if discrepancies in answers exist 3) consulting traditional medicine practitioners on local terms for some illnesses. W.H.O standard verbal autopsy questionnaire may be feasible in Enugu Nigeria, if problems and solutions identified in the pilot study are taken into consideration.

Abstract #: *01SEDH033*

Do health programs contribute to security of a society? A historical metanalysis

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Background: Establishment of a causal link between health and security in a society is problematic. Creating a secure environment clearly facilitates access to health services, but the reverse linkage is not confirmed. In insecure situations, such as civil resistance campaigns, health interventions applied to improve security are often a component of a multi-factorial effort, and the specific progress attributable solely to health programs is murky. Health interventions may stabilize a society indirectly, through economic progress, or in a non-linear relationship that can be optimized.

Methods: As a proxy for 'security', the authors have performed an open-source meta-analysis of the NAVCO 2.0 database of civil resistance campaigns, assembled by Chenoweth and Stephan. (Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict — E Chenoweth and M J Stephan, Columbia U Press, 2011.) The database of 323 civil resistance campaigns over a recent 87-year period worldwide showed that 'non-violent' campaigns were more successful and more broadly-based in society than 'violent' campaigns. Even when nonviolent campaigns failed, society was more stable and peaceful (better "security") than in the aftermath of a violent campaign. We used a series of online search techniques to examine each campaign for a health component (provision of care, improved access to care).

Findings: Using Chenoweth and Stephan's judgments of campaign success, we found that having a health component was rarely documented, and the lessons learned were also unlikely to be available. In those campaigns where a health component could be determined, there was an association with the ultimate success of the campaign.

Interpretation: Even though we determined association, not causation, we believe that any link - or no link - between health and resultant stability and security is notable. Huge resources in personnel, equipment, and funding are directed toward health programs under the banner of better mutual security. We believe that our technique merits additional research efforts, and can yield new insights for better health programs in unstable environments.

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Pediatric facial fractures in South Africa

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