

reversible contraception; which many of these workers eschew themselves. The research aim was to understand women's perspectives on reproductive health and family planning in order to increase utilization of perinatal hospital services through community education and health worker training.

**Methods:** This research also included health care workers, a population not previously studied in this community. Qualitative interviews with health staff and quantitative oral surveys with married women (18-45) assessed reproductive health histories, cultural beliefs, and practices surrounding family planning. Women were recruited at the hospital and village health outreach clinics. The survey was conducted in Hindi and incorporated questions from the DLHS-3 as well as specific program and community information.

**Findings:** 118 women from 19 villages were interviewed (mean age=27 years, mean education=6 years). 94% knew at least one method of family planning. Knowledge of male methods was low: 53% of women knew male sterilization compared to 86% female sterilization. 41% had female sterilization and 31% planned sterilization when they had their desired number of children (usually two). 8% of women were currently using a reversible method; 24% had ever used reversible methods with sterilization, side effects and inconvenience as the main reasons for discontinuing. Education was positively correlated with fewer children: mother's education ( $R=-0.272$ ;  $p=0.003$ ) and father's ( $R=-0.295$ ;  $p=0.002$ ). Education was not related to sex preference because all women viewed having a son as a necessity.

**Interpretation:** This research suggests that affordable and accessible schooling and comprehensive education regarding family planning can lead to smaller family size and better planning of pregnancies, thus contributing to reduced maternal and child mortality.

**Funding:** This research was funded by the UConn School of Medicine and approved by UConn SOM and the Mahatma Gandhi Institute of Medical Sciences.

**Abstract #:** 02SEDH034

### A structural equation modeling of factors influencing HIV related risky behaviors and mental health among MSM in Malawi

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**Background:** Men who have sex with men (MSM) bear highly disproportionate burden of HIV/AIDS epidemic in Malawi, where criminalization of same-sex practice has caused sufferings of their human rights and mental health status as well as placing huge barriers to effective biomedical and behavioral interventions. The objective of the study is to understand the relationship between social factors, such as stigma, human rights status, social support, with HIV related risk behaviors and mental health status, informing future design of comprehensive intervention packages in similar epidemic and resource-limited area. We proposed External Effect Model and validated it in this highly stigmatized setting.

**Methods:** 338 MSM were recruited in Blantyre, Malawi from April 2011 to March 2012 using Respondent Driven Sampling (RDS) strategy as a baseline and were followed up for a year. Participants who provided informed consent were administered structured questionnaires at baseline to collect information about demographic characteristics, sexual behavior, condom usage, social capital, and depression. Then structural equation models were built using the generalized linear method to test the hypothesized associations between latent factors.

**Findings:** The sampled 338 MSM were from 19 waves of recruitment with the mean age of 25.13 years old ( $SD=5.16$  years). More

than 30% of them had experienced some form of human rights violation or depression symptom. The model shows adequate fit of the data ( $\chi^2(556)=1626.27$ ,  $p < 0.001$ ;  $CFI=0.85$ ;  $RMSEA$ ).

**Interpretation:** MSMs experiencing stigma and human rights violations are more likely to have risk behavior and symptom of depression, while those participating in social activities related to HIV education or MSM rights are less likely to be depressed. Although the study is limited in validation of the measurement and causal interpretation from cross-sectional data, it is meaningful in identifying social and psychological determinants associated with HIV related risk behaviors and mental health in the context of severely stigmatized group of individuals and an area largely affected by HIV/AIDS epidemic. Results also indicated depression is currently a serious issue among MSM in Malawi. Prioritizing preventive interventions targeting structural factors and promoting community-based campaign, especially involving friends and family members, may be more effective in creating a friendly environment and improving health outcomes of Malawi MSM.

**Funding:** Funded by the US Agency for International Development under Contract No. GHH-I-00-07-00032-00.

**Abstract #:** 02SEDH035

### Tip the scale from confusion to confidence: Assessing the effectiveness of interprofessional lifestyle intervention through community-university partnership

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**Program/Project Purpose:** Loyola University Chicago (LUC) is located in Maywood, a lower-income community whose residents are primarily racial and ethnic minorities. Access to care and extremely elevated prevalences of obesity across all population segments are primary health concerns. With the presence of a Health System, a University Campus, and many community partnerships, all invested parties have experienced confusion around the status of various health-related initiatives. The project, Grand Family Challenge (GFC), began in Fall 2012 and is delivered through a community-university partnership during the academic term. The program is in its third year. The interprofessional (IP) approach to community-university partnerships utilized by GFC has streamlined community outreach initiatives, improving outcomes for participants and increasing the value of both IP education and outreach to the community. GFC aims to effect positive lifestyle change through the relationship of an IP team (dietetic intern, medical student, exercise science student) with a family through health coaching, personalized health goals, self-monitoring, skill development. Evaluation is completed through quarterly assessments. Families earn points for communication, participation, and improved health measures. The family with the most points per person at the end of the program wins \$1,000.

**Structure/Method/Design:** Program/Project Goals: Reduce obesity and chronic disease in the community, Develop relationships for motivational, positive lifestyle change, Identify barriers to positive lifestyle, Foster reliance interprofessionalism in health training. Families are recruited through Maywood Fine Arts, a local 501c3. Lifestyle teams are recruited through faculty members and training programs at LUC. This academic-community partnership has existed for over 10 years, students commit to programming for 1-2 years, 30% of families have maintained enrollment for 3 cycles.

**Outcomes & Evaluation:** GFC participants have lost over 100 pounds total, many inches on waist and hip circumference, and have improved fitness measures. Students report increase in knowledge

around barriers to positive lifestyle and appreciate IP learning opportunity. Presentation includes weight and BMI change, fitness changes, self-reported improvements in lifestyle from families, qualitative feedback from families and lifestyle team members.

**Going Forward:** Challenges include realistic yet effective programming for busy families and busy students, assessing program benefits in a largely self-report system, reaching families who are most in need/most at risk. Unmet goals include thorough assessment of family

health knowledge, tracking health behaviors longitudinally, addressing trends in participation and health barriers through the program cycle. Programming and structured lifestyle team guidance of participating families will have more explicitly stated quarterly goals to address with families, predictors of success will be addressed at quarterly assessments.

**Funding:** Institutional

**Abstract #:** 02SEDH036