is limited evidence regarding the impact of women's empowerment in Nigeria on use of modern contraception. The aim of this study was to assess the impact of women's empowerment on their use of modern contraception in Nigeria.

Methods: This study used the Nigerian Demographic Health Surveys from 2003, 2008, and 2013. The final analytic sample was restricted to women: who expressed no desire to have children within the two years of the survey, and who reported no desire in having more children. Women's empowerment was measured as their ability to partake in healthcare decisions, large household purchases, and visiting relatives. Chi-square tests and logistic regression models were used to assess the relationship between women's empowerment and contraception use. Multiple regression models adjusted for respondent's age, religion, education, wealth status, and area of residence. Analyses were conducted using SAS 9.4, and statistical significance was set at $p<0.05$.

Findings: The final sample consisted of 29,630 respondents. Modern contraceptive use in Nigeria increased from 2003 (8.7%) to 2013 (51.0%). In 2008, respondents who reported involvement in decision-making around large household purchases (aOR=1.27; 95% C.I=1.11-1.46), healthcare (aOR=1.41; 95%C.I-1.21-1.64), and visiting relatives (aOR=1.40; 95% C.I=1.17-1.66) had higher odds of using modern contraception than respondents who were uninvolved. Similar observations were observed in 2013 where women's involvement in large household purchases (aOR=1.68; 95% C.I=1.43-1.97), healthcare (aOR=1.48; 95%C.I-1.28-1.71), and decision to visit relatives (aOR=1.74; 95% C.I=1.50-2.02) were positively associated with use of modern contraception. Pooled data from 2003-2013 revealed a positive association between the three measures of women's empowerment and use of modern contraception.

Interpretation: It is important to consider women's empowerment when designing interventions to address gaps in health and in particular, reproductive health. By empowering women and improving their chances of using modern contraceptives, they are more likely to space births and reduce unplanned pregnancy, sexually transmitted infections, and infant and maternal mortalities.

Funding: None.

Abstract #: *1.005_MDG*

Can community health workers improve male involvement in maternal health: evidence from rural Tanzania

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Background: Male involvement in maternal health is recommended as one of the interventions to improve maternal and newborn health. There have been challenges in realising this action, partly due to the position of men in society and partly due to health system challenges in accommodating men. The aim of this study was therefore to evaluate the effect of Home-Based Lifesaving Skills training by community health workers on improving male involvement in maternal health in terms of knowledge of danger signs, birth preparedness and escorting wives to antenatal and delivery care, and joint decision-making in a rural community in Tanzania.

Methods: A community-based intervention consisting of the training of the community in Home-Based Lifesaving Skills by community health workers was implemented using one district as the intervention district and another as comparison district. A pre/post intervention using quasi-experimental design was used to evaluate the effect of Home-Based Lifesaving Skills training on male involvement and place of delivery for their partners. The effect of the intervention was determined using difference of difference analysis between the intervention and comparison data at baseline and endline.

Findings: The results show there was improvement in male involvement (39.2 % vs. 80.9%) with a net intervention effect of 41.1% (CI: 28.5 − 53.8; $p < .0001$). There was improvement in the knowledge of danger signs during pregnancy, childbirth and postpartum periods. The proportion of men accompanying their wives to antenatal and delivery also improved. Shared decision-making for place of delivery improved markedly (46.8% vs. 86.7%), showing a net effect of 38.5% (CI: 28.0 − 49.1; $p <.0001$). Whilst facility delivery for spouses of the participants improved in the intervention district, this did not show statistical significance when compared to the comparison district with a net intervention effect of 12.2% (95% CI: -2.8 − 27.1: $p = 0.103$).

Interpretation: This community-based intervention employing community health workers to train the community in Home-Based Lifesaving Skills program is both feasible and effective in improving male involvement in maternal health care.

Funding: Swedish International Development Cooperation Agency (SIDA) provided financial support through Muhimbili University of Health and Allied Sciences.

Abstract #: *1.006_MDG*

Reducing loss to follow-up of HIV exposed infants in Central Mozambique

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Background: Preventing mother-to-child transmission (PMTCT) remains a challenge in central Mozambique, where HIV prevalence is over 15% and where over 50% of exposed infants are lost to follow up (LTFU) before receiving appropriate diagnostic testing or treatment. In collaboration with UW and HAI, CIOB undertook a study to identify weaknesses within the cascade of care and designed a targeted intervention to reduce LTFU of exposed-infants.

Methods: Formative research was undertaken in six health centers in Manica and Sofala provinces between September and November 2014. Weaknesses in the cascade of care were identified using health

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system data from registries, qualitative interviews, focus groups and flow mapping between post-partum (CPP), high-risk child clinic (CCR), and HIV clinic (TARV).

Findings: Poor linkage between CPP and CCR (55%), slow turn-around time of PCR results (6-8 weeks), and low rates of ART initiation in HIV+ infants (24%) were crucial shortcomings identified in the system. Obstacles to optimal care, as elucidated by interviews and focus groups, included long wait times, stigma, acceptability, and poor male involvement.

Going Forward/Interpretation: After identifying key weaknesses in the cascade, a targeted intervention was designed. First, to strengthen linkage between CPP and CCR, a patient tracking system was introduced. Infant forms are filled at the first CPP visit, and nurses review these forms daily to identify any infants remaining in CPP over 4 weeks of age. Mothers of infants whose charts remain in CPP over a month are contacted and referred to CCR, where PCR testing occurs. Secondly, to reduce the likelihood that infants will become lost in transition between services and to improve retention once ART is initiated, HIV services were integrated within CCR, thus eliminating a separate referral to TARV. This integration allows both mother and baby to receive HIV care in CCR for several months, where they are already linked to care and known by staff. Both components utilize community health workers (*activistas*) to accompany, track, and seek out lost infants using SMS, phone calls, and home visits. This intervention is being piloted at six health centers using a stepped-wedge design, and will conclude in early 2017.

Funding: USAID.

Abstract #: *1.007_MDG*

Demographic and mortality analysis of hospitalized children at a referral hospital in Addis Ababa, Ethiopia

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Background: Global childhood mortality rates remain high. Millennium Development Goal 4 focused efforts on reducing rates by two-thirds between 1990 and 2015. In Ethiopia, child mortality rates dropped 69% from1990 to 2013, however it is estimated that 196,000 Ethiopian children die each year. There is limited information about pediatric hospital admissions in Ethiopia. Our aims were to examine the temporal relationship of mortality to admission, describe the demographics, and identify cause mortality of children admitted to the Zewditu Memorial Hospital (ZMH).

Methods: A four-year retrospective review of pediatric admissions was conducted at the pediatric emergency room and pediatric hospital ward at ZMH in Addis Ababa, Ethiopia. Admission entries from 2011-2014 of children age 29 days-14 years were reviewed. Age, gender, admission date, disease classification, discharge status and date were obtained. Chi-square analysis was used to compare patient gender and a descriptive analysis was used for age, mortality, early mortality (death occurring within 2 days of admission), and cause mortality.

Findings: A total of 6,866 patient entries were reviewed. The proportion of admissions younger than age 5 was 0.75 (95%CI 0.74-0.76). Overall mortality was 0.042 (95%CI, 0.04-0.05). The proportion of recorded deaths occurring within 2 days of admission was 0.44 (95%CI 0.43-0.45). The proportion of male admissions was significantly higher than female admissions in all age groups (Males 57.5%, Females 42.5%, $p<0.0001$, 95%CI 0.56-0.59). The main causes of mortality were pneumonia (25.3%), severe acute malnutrition (22.2%), HIV/AIDS-related complications (5.6%), spina bifida (4.9%), and hydrocephalus (4.5%).

Interpretation: Our study revealed a lower mortality rate than previously reported in Ethiopia. Despite this, 44% of pediatric hospital mortality occurred early during hospitalization, higher than reported at other Ethiopian hospitals. This adds further evidence that systematic efforts should be dedicated to improve pediatric emergency care. Admissions included 58% male patients, similar to other reports in Ethiopia implying that this may be a nation-wide phenomenon. The observed disparity may be due to societal factors regarding care-seeking behaviors or male predilection for respiratory illness warranting further investigation. Cause mortality patterns were similar to reports in analogous settings.

Funding: One Hour for Life, Inc. provided limited funding.

Abstract #: *1.008_MDG*

Advancing a science of sustaining health in Madagascar

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Program/Project Purpose: PIVOT is a new global health NGO implementing a health system strengthening initiative in Ifanadiana,