

**Interpretation:** In order to improve ANC adequacy in the study area, the policymaking, planning, and implementation processes should focus on the inadequacy of ANC among the disadvantaged groups in particular and the slum residents in general.

**Funding:** University of South Africa provided some financial support for data collection.

**Abstract #:** 2.041\_MDG

### Reproductive health contribution to the burden of surgical conditions in Uganda

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**Background:** Reducing maternal mortality is a prominent area of global health policy and investment. In relation to surgery, cesarean sections often represent a plurality of surgical output in low-income countries, such as Uganda. We describe access to maternal health care, family planning and the burden of surgical conditions represented by reproductive health needs.

**Methods:** A 2-stage cluster-randomized sample was designed to represent the Ugandan population at a national level. The validated Surgeons Overseas Assessment of Surgical Needs household survey was used. At each household, the head of household was asked about deaths within the previous 12 months; through a random selection of 2 household members, if either member was a female above age 12, she was asked about her reproductive health needs. Variance estimation of proportions and rates were determined by Taylor Series Linearization.

**Results:** We analyze data for females above age 15 years. There were 1,043 women of reproductive age (15–49 years) who recalled 1,726 deliveries; 50.2% (95%CI, 44.2 – 56.1) of deliveries occurred at a health facility. Among women age 15–35 years, facility deliveries comprised 57.1% (95%CI, 50.8 – 63.4). The cesarean delivery rate was 6.8% (95%CI, 4.0 – 9.7), and 1.0% (95%CI, 0.5 – 1.5) of deliveries occurred by instrumental assistance. Three point eight percent (3.8%) (95%CI, 2.2–6.5) of women of reproductive age reported at least one instance of difficulty delivering without receiving a caesarean; financial constraints were cited by 31% of these women (10/32). Modern contraceptive prevalence rate among married and single women was estimated at 19.8% (95%CI, 16.4–23.8). Of 153 household deaths within the previous month, we report only one maternal death.

**Discussion:** This study reaffirms low rates of cesarean and instrument deliveries in Uganda. Despite universal access to maternal care, individuals are still citing financial barriers, raising questions about

service availability and effectiveness of programs to provide universal coverage. Family planning uptake is still low in Uganda. The extremely low maternal death is due to a sample size not originally powered to acquire maternal mortality rate or ratio.

**Abstract #:** 2.042\_MDG

### Factors affecting acceptance of day care center-based mass drug administration for preschool-age children in the Philippines

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**Background:** Chronic soil-transmitted helminths (STH) infection in children can cause nutritional, growth and cognitive deficits<sup>1</sup>, remaining a significant public health problem in the Philippines. A 2006 baseline survey conducted by the Department of Health showed 43.7% of preschool-aged children (PSAC) had at least 1 STH infection<sup>2</sup>. A school-based, teacher-assisted mass drug administration (MDA) program decreased the prevalence of heavy infection among school-age children<sup>3</sup>, suggesting a day-care center (DCC)-based, DCC worker-assisted MDA may decrease STH burden among PSAC<sup>4</sup>. Before implementation, acceptability of this program must be determined. In regions with better knowledge among parents about MDA and STH infections, we hypothesize there is higher acceptability of DCC-based MDA for PSAC.

**Methods:** Knowledge, Attitudes, and Practices (KAP) surveys were distributed to parents of PSAC in 2 regions of Western Visayas, Iloilo (N=59) and Guimaras (N=98), evaluating the beliefs and knowledge of MDA for STH. Written consent was obtained and study received exempt status by institutional review board. KAP scores were evaluated with descriptive statistics and compared by region using the Mann-Whitney U Test. Acceptability was defined as willingness to consent to MDA currently and in future, and was compared by KAP score using Chi-squared test in the 2 regions.

**Findings:** KAP data showed that parents in Guimaras had significantly higher knowledge scores than those in Iloilo (p=.001). Acceptance was significantly higher for Guimaras with 83% of parents accepting of immediate MDA compared to 65% in Iloilo (p=0.013), although not significant for consenting future rounds of MDA (p=.061). A higher knowledge score was associated with higher acceptance of current (p=.014) and future (p=.005) DCC-based MDA.

**Interpretation:** There was a high rate of acceptance of MDA by parents in the Western Visayas, suggesting health education and advocacy efforts of programs like War on Worms are working. Especially in Guimaras, higher scores reflected higher acceptability. Although MDA acceptance for PSAC is high, local health leaders continue to be concerned over the high infection rates, emphasizing the need for improved sanitation programs in the region.

**Funding:** Dean's Summer Research Grant; Stanley Prostednik Award.

## References:

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**Abstract #:** 2.043\_MDG

## Mentoring birth attendants to improve skills with neonatal resuscitation in Gambia

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**Program/Project Purpose:** Misidentified stillbirths, unattended deliveries, and few trained birth attendants contribute to the slow decrease of neonatal mortality in resource-limited countries. Gambia, West Africa, ranks amongst the highest in the world for neonatal deaths before the first day life.

**Structure/Method/Design:** In July 2015, in partnering with the Gambia Ministry of Health (MOH) and SJ General Hospital, public health students from Drexel University School of Public Health conducted a Helping Babies Breathe (HBB) training workshop targeting 25 community outreach team members and midwives. The HBB 'train the trainer model' tasks these birth attendants to in turn train other providers in their communities with their newly acquired skills, utilizing a simulator mannequin, bulb suction, and bag/mask.

A pre and post course survey was administered to participants to assess comfort level with neonatal resuscitation. All participants described feeling 'completely comfortable' with resuscitation as a direct result of the training session.

**Monitoring/Evaluation:** We will return to Gambia in 6 months to meet with the same providers, and conduct resuscitation skills refresher stations, follow up provider comfort level, and identify barriers faced while training other providers in the community. Future training workshops will be provided for Essential Care for Every Newborn (ECEB) and Essential Care for Every Preemie (ECEP) with similar follow up in 6 months. Through this ongoing mentorship model, we are striving to provide rural Gambian villages serviced by SJ General Hospital with the necessary tools to improve the health of their communities by decreasing neonatal deaths due to unattended deliveries and unskilled providers.

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**Abstract #:** 2.044\_MDG

## Transitioning from the MDGs to the SDGs: a practical decision-making tool for leaders

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**Project Purpose:** While the Sustainable Development Goals represent ideals for the future and offer countries flexibility, they do not provide practical guidance on where and how to invest. Leaders need guidance on how to prioritize, manage, run, and deliver programs to achieve the SDGs. Since 2007, the Global Health Delivery Project at Harvard has been working to learn from leaders who have successfully implemented health care delivery efforts and to transform this knowledge into guidance and management tools.

**Methods:** We have interviewed over 700 informants—including high-level government officials, organizational leaders, health administrators, frontline providers, and community members—across 32 low- to middle-income settings on how decisions were made. We reviewed relevant quantitative data on health, demographics, and finances. We documented real-life situations, including the ambiguous information at hand and the politics, economics, and geography at play, as well as the role of the MDGs in informing the decisions, in over 35 teaching case studies.

Cases are published through Harvard Business Publishing, and accompanying analytical teaching notes show how value—or social benefit per cost—can guide decisions to attain maximum impact with limited resources. Working with business school colleagues, we synthesized findings from the cases into a widely applicable Global Health Delivery Framework.

**Outcome:** The Framework can aid leaders in mapping and prioritizing activities. It includes four principles: using a care delivery value chain to identify system gaps along the care continuum; integrating vertical interventions into a shared delivery infrastructure that utilizes personnel and facilities efficiently; aligning care delivery with the local context; and ensuring investments in care delivery promote economic development.

**Going Forward:** A focus on value can guide decision-making and strategy management as countries shift from the MDGs to the SDGs. The principles we have developed through our research give leaders a greater understanding of value and how it can be applied to achieve better, more sustainable health programs and outcomes.

**Funding:** The Abundance Foundation.

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## Maternal chlamydia infection, preterm birth, and travel time to clinic associated with increased infant mortality: a nested case-control study in Kenya

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