country programs. USAMC staff with necessary expertise and experience conducted the project. High-level SSAAMC assessments were carried out followed by the selection of two sites for two 10-day surgical care, teaching and capacity building pilots. In addition to utilizing standard data collection tools, the design of the assessment itself was a means to gather additional data relevant to assessing capacity building objectives. To collaboratively test surgical feasibility, USAMC faculty and trainees worked shoulder-to-shoulder with SSAAMC staff to triage patients, conduct surgeries, provide postoperative care, and establish treatment plans. Additionally, the USAMC team led didactic presentations and participated in surgical rounds. SSAAMC and USAMC leadership evaluated relative value of a partnership and subsequently developed long-term, shared program goals assuring program ownership by all parties.

Outcomes & Evaluation: During the project year, 45 SSAAMC faculty and trainees participated in capacity building activities, 42 surgical training cases were conducted, 10 USAMC health professionals gained global experiences, and a long-term institutional relationship was established.

Going Forward: Challenges include: faculty and trainees at SSAAMC and USAMC lack dedicated time to participate in program activities; alignment and coordination of several local and international stakeholders; supply chain and equipment needs unique to care of pediatric.

Funding: USAAMC provided direct and in-kind funding for the project; SSAAMCs provided in-kind support; donations of medical equipment and supplies came from a non-governmental organization.

Abstract #: *01NCD005*

Stillbirth inequalities among American Indians and Alaska Natives, 2003-2012

K.E. Freese[1], L.M. Bodnar[1], J.A. Hutcheon[2]; [1]University of Pittsburgh Graduate School of Public Health, Department of Epidemiology, Pittsburgh, PA/US, [2]University of British Columbia and the Children's and Women's Health Centre of British Columbia, Department of Obstetrics & Gynaecology, Vancouver, BC/CA

Background: Worldwide, 3.2 million stillbirths occur every year, nearly equaling the yearly total of early neonatal deaths (3.0 million) and more than the annual number of deaths from HIV/AIDS (1.8 million). While the vast majority of stillbirths occur in low- and middle-income countries, indigenous populations in high-income countries also are disproportionately burdened. The rate of stillbirth among American Indians and Alaskan Natives is 6 per 1,000 births—similar to rates observed in less developed nations such as Columbia, Uzbekistan, and Brunei Darussalam—but little is known about stillbirth among this indigenous population. We sought to investigate inequalities in the timing of stillbirth between American Indians / Alaska Natives and non-Hispanic whites in the U.S.

Methods: Data on live births and fetal deaths were obtained from United States vital statistics records (2003-2012). Analyses were restricted to those who self-identified as non-Hispanic white (n=22,555,342) or American Indian/ Alaskan Native (n=469,337). Stillbirth was defined as an in-utero death of a fetus at ≥20 weeks of gestation. Gestational age was based on best obstetric estimate. Logistic regression was used to estimate gestational age-specific inequalities in stillbirth by race/ethnicity (20-27, 28-36, ≥37 weeks). Risk ratios with 95% confidence intervals (CI) were calculated for American Indians / Alaska Natives versus non-Hispanic whites. Denominators were based on ongoing pregnancies at each gestational age.

Findings: The overall stillbirth rate was 5.9 per 1,000 live births (2760/469,337) among American Indians / Alaska Natives and 4.8 per 1,000 (109,115 / 22,555,342) among non-Hispanic whites, a risk ratio of 1.22 (95% CI: 1.17, 1.26). Stillbirths tended to occur later among American Indians/ Alaskan Natives (49% at 20–27 weeks; 31% at 28–36 weeks; 20% at ≥37 weeks) compared with non-Hispanic whites (54%, 29%, and 17%, respectively; $p < 0.0001$). Risk ratios (95% CI) for stillbirth at 20–27, 28–36, and ≥37 weeks for American Indians/ Alaskan Natives versus non-Hispanic whites were 1.11 (1.05, 1.17), 1.29 (1.21, 1.39), and 1.42 (1.31, 1.55), respectively.

Interpretation: American Indians and Alaskan Natives were at higher risk of stillbirth compared with non-Hispanic whites. The racial/ethnic inequality in stillbirth widened with increasing gestational age, and was greatest at term gestation. The racial/ethnic inequality was wider for stillbirth at ≥28 weeks than 20–27 weeks, with a marked difference at term gestation. These results are important because stillbirths occurring at ≥28 weeks are more amenable to intervention than those occurring earlier in gestation. Future studies should investigate differences in the quality of obstetric care among American Indians / Alaska Natives and other indigenous groups as a possible avenue for reducing global health disparities and improving health equity.

Funding: The authors declare no source of funding that supported this work.

Abstract #: *01NCD006*

Surgeons OverSeas Assessment of Surgical Need (SOSAS) Methodology Update and mobile-assisted data dissemination system (mADDS) Platform for Scale in Larger Low- and Middle-income Countries

A. Fuller[1], E.K. Butler[2], T. Tran[3], F. Makumbi[4], S. Luboga[5], C. Muhumuza[4], J. Chipman[6], M. Galukande[7], M. Haglund[8]; [1]Duke Global Health Institute, Durham, NC/US, [2]University of Minnesota, Minnapolis, MN/US, [3]University of California Haiti Initiative, Los Angeles, CA/US, [4]Makerere University School of Public Health, Kampala, UG, [5]Department of Surgery, Mulago Hospital, Kampala, UG, [6]University of Minnesota, Twin Cities, MN/US, [7]Makerere University College of Health Sciences, Kampala, UG, [8]Duke Global Health Institute, Duke University Medical Center, Durham, NC/US

Background: The first step in improving surgical care in low- and middle-income countries (LMICs) is quantifying the prevalence of surgical disease. The Surgeons OverSeas Assessment of Surgical Need (SOSAS) survey has been previously implemented in 3 smaller LMICs with great success. We implemented the SOSAS survey in Uganda, a medium-size country with comparatively more language and ethnic group diversity. We assessed performance of data collection by a large team of resident enumerator, smart phone platform to demonstrate potential global reach of SOSAS.

Methods: To implement SOSAS Uganda, the investigators partnered with the Performance Monitoring and Accountability 2020 (PMA2020) Uganda project, hiring 114 data collection staff. Ninety nine research assistants were trained and deployed to sample 2,520 households in 105 randomly selected enumeration areas. Due to the larger size and ethnic and language diversity in Uganda, SOSAS' methodology was updated in three significant dimensions (1) technology, (2) management, and (3) questionnaire adaptations.

Findings: The SOSAS survey was successfully implemented in a medium-sized low-income country. Of the target 2,520 households, 2,402 households were eligible and data was obtained for 2,315 households (response rate of 96·4%). There were 4,248 individual respondents out of 4,374 individuals possible (97·1%). Benchmark measures were used to evaluate data quality. The female-to-male ratio was 51·1% to 48·9%. Age distribution of respondents was consistent with official statistics with

median age 18 (IQR 8-30). Modern contraceptive use rate was 19·1% (95% CI: 16·2 — 23·9, p = 0.387), consistent with Demographic and Health Survey 2011 rate of 20·7%. Results are currently being analyzed and prepared for government approval before public dissemination.
Interpretation: SOSAS Uganda has demonstrated that non-medically trained, but university-educated, experienced researchers supervised by academic surgeons can successfully achieve the primary indicator of SOSAS: prevalence of existing, untreated conditions that require surgical consultation and may require surgical intervention, as a practical surrogate measure for surgical need at the national level. This study indicates that SOSAS can be adapted and successfully implemented within larger and more diverse LMICs. Furthermore, it provides insights on how SOSAS can be executed 1) within other PMA2020 program countries and/or 2) partially integrated within future DHS deployments.
Funding: Duke Global Health Institute, Duke University Department of Neurosurgery, Johnson and Johnson Family of Companies, Doris Duke Charitable Foundation, University of Minnesota Department of Surgery.
Abstract #: *01NCD007*

Prevalence and factors associated with antenatal depression among women following antenatal care at Shashemane health facilities, South Ethiopia

W. Assefa Gemta; John Snow Inc., Hawassa, ET

Background: World health organization reported that about one third of global disability been attributed to mental health problems. Antenatal depression is one of its forms affecting a woman during pregnancy. Its prevalence is high in Ethiopia with strong predictors. Despite high prevalence, it remains a low priority in research and health care practice in Ethiopia. To examine the prevalence of antenatal depression and factors associated among women following antenatal care in Shashemane town health facilities, South Ethiopia.
Methods: A cross sectional study design was employed to sample pregnant women from four health centers and two Hospitals. Probability proportional to size sampling and Systematic random sampling techniques was used to recruit study subjects until the desired sample size were collected. 660 pregnant women were studied. All who are, able and willing for interview was included while, critically ill, could not speak and/or listen were excluded. Edinburgh Postnatal Depression Scale was used to measure depression. Analysis: Data were summarized using proportions, means with SD as appropriate. Bivariate and multivariate logistic regression was done to identify associated factors, for all statistical tests; level of significance was set at p-value of 0.05. Up on appraisal by Oromia Regional Health Bureau review committee, official letter was communicated to town health office and verbal consent was secured from each study subjects.
Findings: 649 Out of the total 660 participants were studied making the response rate 98.3%. The mean age of 25 years (± 5.2 years). The prevalence of antenatal depression was 25.6 % (95%CI: 22.0, 28.8). Those unmarried were 3 times more likely to have depression than their counter parts [AOR 95% CI: 3.15(1.34, 7.38)] and also those who hadn't negative obstetric history were less likely to have depressive symptom [AOR 95%CI: 0.77(0.35, 0.97)]. The odds of household getting monthly income of above 1000 Eth. Birr are less likely to experience depression than those earning below 500 Eth. Birr [AOR 95%CI: 0.20(0.10, 0.38)]. Factors such as, conflict with husband ([AOR 95%CI: 0.35(0.62, 0.97)], lack of support [AOR 95%CI: 0.35(0.62, 0.97)], and history of intimate partner violence/IPV [AOR 95%CI: 0.19(0.10, 0.37)] were also associated.
Interpretation: Antenatal depression is common among pregnant women, and there are modifiable factors correlated with it. Therefore, public health intervention designed should consider improving socioeconomic status, social support and prevention of IPV. Using cross sectional design it is difficult to infer that the associations reported are causal. Selection bias, women in the rural health facilities were not included.
Funding: No source of funding.
Abstract #: *01NCD008*

Research to reduce the burden of infection-related cancers conducted by the Uganda Cancer Institute/ Hutchinson Center Cancer Alliance

C. Gordon-Maclean[1], S. Ewart[1], J. Orem[2], C. Casper[3]; [1]Fred Hutchinson Cancer Research Center, Seattle, WA/US, [2]Uganda Cancer Institute, Kampala, UG, [3]University of Washington, Seattle, WA/US

Program/Project Purpose: The Fred Hutchinson Cancer Research Center (Fred Hutch) has collaborated with the Uganda Cancer Institute (UCI) in Kampala for the past decade to develop effective prevention and treatment strategies for infection-associated cancers.
Structure/Method/Design: The UCI/Hutchinson Center Cancer Alliance ('the Alliance') addresses the infection-associated cancers burden by conducting clinical research, improving clinical care and building capacity through training opportunities. Our research is increasing the understanding of the biology of cancer and infectious oncogens, which we hope will lead to the prevention and treatment of infection-related cancers in low-income settings. The establishment of resource-appropriate clinical guidelines for care and conduct of rigorous implementation science should contribute to a reduction in morbidity and mortality due to cancer. Our training activities expand the ability of our UCI partners to care for and study cancer in their resource-limited setting through an investment in human capacity and development of better infrastructure.
Outcomes & Evaluation: The Alliance has developed the capacity for infection-related cancer research in Kampala through the training of research teams and the construction of research laboratories and clinics. More than 50 staff in Uganda are contributing to the conduct of a wide variety of research projects, including prospective cohort studies, epidemiologic analyses, cross-sectional translational studies, and randomized clinical trials. A state-of-the-art $10 million research, training and care facility will be completed by the end of 2014. Our research focus includes the AIDS-defining malignancies (Kaposi sarcoma, non-Hodgkin lymphoma and cervical cancer), as well as other infection-related cancers such as endemic Burkitt lymphoma and hepatocellular carcinoma. Additionally, we study viruses associated with cancer, including EBV, HHV-8, HBV, HPV, and HIV. This work has examined many facets of the relationship between infections and cancers, including transmission, viral replication, pathogenesis, immunology, co-infection, HAART, nutrition, proteomics, and immunogenetics. A total of 40 studies have been conducted, are ongoing or are in development, and numerous articles have been published in peer-reviewed journals. More than 150,000 biospecimens have been archived in the Alliance biorepository.
Going Forward: In the coming year, the Alliance's research activities will continue to focus on infection-related cancers and HIV-associated malignancies. The opening of our new building will gradually expand laboratory operations to include clinical chemistry/hematolog.
Funding: The Alliance receives funding from the NIH for research and training activities, and from private foundations and individuals for clinical care. The Fred Hutch and the U.S. Agency for International Development funded the new building.
Abstract #: *01NCD009*