

Background: Depression is the most common major mental illness worldwide, affecting an estimated 350 million people [1]. In India, there is only one psychiatrist for every three hundred thousand people [2]. In the rural villages of Gujarat, India, major barriers to depression awareness and treatment exist. Barriers include socioeconomic obstacles, lack of access to care, inadequate budgeting, limited mental health education, and a high stigma of mental illness. This study was executed to gain a stronger understanding of the magnitude of depression in the rural villages of India. Few previous studies have analyzed depression in the general population of Indian villages. The aim of this study was to determine the prevalence of depression in the rural villages of Gujarat, India.

Methods: Study design: This two-month, cross-sectional study was conducted in six rural villages of Gujarat, India in collaboration with the MINDS Foundation, a non-profit organization that utilizes a grassroots approach to eliminate stigma and provide educational, medical, and moral support for patients with mental illness in rural India. Participants: A convenience sample of 190 adults (111 females, 79 males) was recruited door-to-door from their village homes. Participants were included if they were over 18 years old and willing to participate. The sample size was determined based on power, time, and feasibility. Each participant was administered the Patient Health Questionnaire (PHQ-9), a validated 9-question screening tool for depression, with the assistance of a local translator from the MINDS Foundation. Analysis: Each PHQ-9 depression score was categorized as either: none, minimal, mild, moderate, moderately severe, or severe depression. Based on the data collected, the scores were further categorized into total scores of 0 (no depression), 1 (1 depressive symptom), 2 (2 depressive symptoms), and 2+ (greater than 2 depressive symptoms). The covariates of age, sex, occupation, marital status, and education were examined in relation to PHQ-9 score through chi square analysis. This study was IRB approved, and written consent was obtained from each participant. 3. Findings.

Findings: Sex ($X^2=23.906$, $df=3$, $p < .000$) and occupation ($X^2=45.771$, $df=9$, $p < .000$) were found to be significant predictors of PHQ-9 depression score. Females and housewives were significantly more likely to score a 2 or higher on the PHQ-9 than other groups, while farmers were significantly more likely to score “no depression” than other occupations.

Interpretation: The results of this study portray a correlation between both sex and occupation with depression. Limitations to this study include the lack of randomization in the sample and reporting bias for the PHQ-9. However, this study provides an important and unique glimpse into the magnitude of depression in rural India, which few prior studies have examined.

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Abstract #: 01NCD003

One RB world online: a virtual retinoblastoma clinic

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Program/Project Purpose: Retinoblastoma (childhood eye cancer) is curable, but outcomes remain poor in low-and-middle-income countries. Global research collaboration has been identified as key to addressing this survival disparity. In 2009, the first retinoblastoma clinical practice guidelines were published in Canada. Optimal resources and expertise for retinoblastoma management were outlined, and serves as a guide to inform health policy, at national, regional and institutional levels. Subsequently these guidelines were adopted by the

Kenyan National Retinoblastoma Strategy group. In both countries, a situational analysis of key treatment centers has informed systems of patient referral, educational capacity initiatives, and is predicted to result in enhanced patient care. We now apply this approach on a global scale, with an online virtual retinoblastoma clinic.

Structure/Method/Design: We conducted a survey of Global Retinoblastoma Treatment Centers to identify and document expertise and resources available for the care of children with retinoblastoma worldwide. An online platform was developed to disseminate this information in an interactive and data-rich format.

Outcomes & Evaluation: The virtual clinic connects patient families to caregivers, and documents data on 130 centers in 50 countries. Survey functionality allows further data collection and updates. Knowledge of where and how retinoblastoma children are managed worldwide provides an efficient and rapid path for parents to access urgent care. The website indicates the closest expert center and all the contacts. Paths of referral and multicenter co-management aim to keep the children close to home while optimizing access to advanced therapies when needed. Estimated incidence vs location and capabilities of treatment centres reveals opportunities to increase capacity, collaboration and coverage in various regions.

Going Forward: The One Retinoblastoma World Virtual Clinic connects stakeholders and strengthens capacity to care for the global retinoblastoma population. This first-of-its-kind collaboration promotes global standards of care, setting the stage for multicenter clinical trials and other research, thereby accelerating the translation of results from lab to clinic.

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Abstract #: 01NCD004

An approach to assessment of global pediatric surgery partnerships targeting long-term capacity building in resource-limited settings

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Program/Project Purpose: Surgical services are frequently overlooked as part of the essential health care package in low- and middle-income countries resulting in death and disability due to lack of basic surgical care. A United States-based AMC (USAMC) set out to determine the feasibility of developing a collaborative global pediatric surgical program in response to requests from teaching hospitals in Sub-Saharan Africa (SSAAMCs) to build capacity in pediatric anesthesia and surgery and in alignment with internal faculty and USAMC institutional priorities. From May 2013 to April 2014, USAMC implemented a project with the aim of assessing a number of SSAAMCs to determine partnership opportunities for a long-term and sustainable pediatric surgery program that would both improve the capacity of the SSAAMC to provide pediatric surgery and anesthesia services as well as train future leaders in the health sector.

Structure/Method/Design: To determine feasibility, the project had a number of objectives focused on assessing: organizational alignment; existing SSAAMC surgical and anesthetic capacity and needs; USAMC resources and capabilities, and; logistical complexity for implementation. SSAAMCs self-selected as potential program sites by reaching out to the USAMC via USAMC's existing in-

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 post-operative 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

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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.

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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

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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