

income. Articles from 2000 to 2015 that included data on the clinical use of ultrasound in resource limited settings were eligible for inclusion. Data on country of origin, medical specialty, US modality, clinical impact, and potential barriers to implementation were recorded.

**Findings:** Thirty-nine articles were eligible for inclusion. The majority of studies were observational with Africa as the most common site, accounting for 19 included articles. Radiology was the most common specialty, accounting for 13 articles, followed by Cardiology and Emergency Medicine. The most commonly used ultrasound modalities were cardiac and obstetric, accounting for 28% and 23% of included studies, respectively. The majority of data on cardiac ultrasound pertained to its role in the diagnosis of Rheumatic Heart Disease. Obstetric ultrasound, both transabdominal and transvaginal, was primarily used for pregnancy dating and diagnosing fetal abnormalities. Three studies examined clinical impact of ultrasound in resource-limited settings and showed that its use dramatically altered differential diagnosis and patient disposition. Most common barriers to implementation of ultrasound were the high cost of equipment and maintenance, lack of skilled personnel, and lack of formal training programs. Some commonly cited consequences of ultrasound in the resource poor setting included sex-selective abortions and overuse of technology for monetary gain.

**Interpretation:** Ultrasound has widespread clinical applications, particularly as a diagnostic tool in the developing world. Significant barriers exist with respect to access and training of US in resource-limited settings. Further research is needed to study its impact on medical decision-making, patient disposition and outcomes.

**Source of Funding:** None.

**Abstract #:** 1.057\_HHR

### Global Health Certification for Obstetric and Gynecology Residents

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**Program/Project Purpose:** To improve competency of OB/GYN residents as quality global health providers.

**Structure/Method/Design:** The Global Health Scholars program was started in 2010 as a comprehensive curriculum and training program focused on improving women's health. Incoming OB/GYN residents are invited to apply, beginning the program as a PGY-2. The program consists of a 30 month educational and clinical curriculum running concurrently with the traditional ob/gyn residency.

Monthly didactic sessions cover global burden of disease, social and environmental determinants of health, ethics, healthcare systems and economics, and sociocultural awareness. Specific topics have included: infectious disease, noncommunicable disease, global health research ethics, surgery in developing countries, maternal health/ family planning, climate change, disaster relief/ emergency preparedness, health systems resources, and traditional medicine. Textbooks and current journal articles are used with guest lecturers, resident and faculty presentations, analyzing and discussing in

context of both underserved populations at home and low-resource areas abroad.

Each scholar is required to present a project or Grand Rounds on a Global Health topic of their interest.

Global Health Book Club and Film Series open to the community are scheduled throughout the year to complement core didactics. The residents also participate in outreach education to public schools and homeless shelters.

GHS are required to attend one international conference, and to spend a 4 week elective travelling internationally to a sustainable program in global health. We have a collaboration with Guyana, but residents may travel elsewhere if programming, supervision and safety can be confirmed. Objectives include: demonstration of competency in diagnostic, procedural and surgical skills using limited resources, culturally-competent collaboration, and identification of both local resources and barriers to care.

**Outcome & Evaluation:** Scholars are evaluated at least once annually including discussion of their individual goals.

A Final Exam must be passed at the end of each year.

Eight residents have graduated from the program; six met the requirements for the Global Health Certificate. Residents have traveled to Guyana, Phillipines, Ghana, Malawi. One graduate has started a global health program at her current institution and one is completing a global health fellowship in Malawi.

**Going Forward:** We plan to track the global health work graduates continue post-graduation.

**Source of Funding:** University Hospitals of Cleveland, private donors.

**Abstract #:** 1.058\_HHR

### Trust as a Determinant of Intervention with Brucellosis in the Bedouin Community of the Negev

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**Background:** Brucellosis is a zoonotic disease that is transferred from livestock to humans through exposure to milk and animal secretions. It is the most common bacterial zoonosis worldwide, and its incidence among the Bedouins of the Negev desert of Israel is among the highest in the world, raises up to 1:400. Current interventions, led by the Ministry of Agriculture (MoA), are focused mainly on vaccination and culling of infected herds.

**Methods:** This paper draws on a qualitative study that explores the perceptions of stakeholders towards collaboration and decision-making in Brucellosis, and includes interviews and document review. Thus far, 10 interviews were conducted with members of MoA, Ministry of Health (MoH), the Negev's main HMO, Bedouins and private veterinarians. Israeli Parliament Protocols, policy and media documents were analyzed.

**Findings:** "Trust", or lack thereof, was a reoccurring theme in many of the interviews. Informant perceptions showed that Bedouin herders distrust MoA due to perceived failure of herd vaccination, delayed or insufficient compensation for animal culling and frequent use of financial penalties. Belonging to a politically disadvantaged group, Bedouins suspect whoever perceived as "identified with the establishment", they misinform the MoA about herds status and

use the Palestinian veterinarian services at the West Bank. The MoA, on the other hand, refrains from informing Bedouins about Brucellosis status at their herds, concerning that herders will trade infected animals in the “black” market. The MoA does inform the MoH about Brucellosis interventions, however perceives its actions and actual usage of this information as insufficient. Medical doctors and private veterinarians who work at the Negev distrust the current Intervention and perceive it as incomplete, insufficient and discriminatory against the Bedouin.

**Interpretation:** This is a work-in-progress, that aims to uncover political and historical factors that influence intervention in Brucellosis in the Negev. “Trust” was found to be a significant factor, and originates from processes that cannot be altered solely through MoA’s work. As also suggested by the “One Health” approach, which aims to establish cooperation between multiple governmental, private and community stakeholders, “trust” should require better consideration in planning interventions to control this preventable disease.

**Source of Funding:** None.

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### The Implications of Donor Engagement with Faith-Based Organisations for Health Systems: A Case Study Example from Cameroon

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**Background:** Faith-Based Organisations (FBOs) have a long history of providing indispensable social welfare to many Sub-Saharan African countries, including Cameroon. Over the past decade, donors have engaged FBOs in numerous sub-Saharan African countries in the context of health system reforms and health programmes. However, there is very little knowledge about the implications of this engagement for FBOs and health systems. The aim of this research is to understand these implications in the context of donor engagement of FBOs in Cameroon.

**Methods:** This is a mixed-method study that examines a case study whereby three FBO networks have received a significant amount of funding from a donor. 29 semi-structured interviews with FBOs, donors and the Ministry of Health, as well as a Knowledge, Attitude and Practice (KAP) survey among all FBO facilities in the North-West region in Cameroon were conducted to address this question.

**Findings:** Funding from the donor in question had the intention to strengthen FBO networks and facilities, however, this research shows that there were mostly negative effects on both FBOs and the health system. Firstly, funding was centralised and many FBO facilities in the periphery were unaware of funding opportunities, this caused tensions between FBO facilities and FBO networks. Secondly, with some funding unaccounted for, FBO networks and some members of government involved in the steering committee of this programme have acquired a reputation for poor governance of those funds. Consequently, this programme has resulted in a poor reputation of FBO networks amongst most donors in Cameroon and FBO facilities in the periphery, which has undermined their position in the health system and their ability to qualify for grants. Thirdly, health system governance has been negatively

affected by the accentuated tensions between FBOs and government, as a result of the problems inflicted by this programme.

**Interpretation:** The findings of this research illustrate that donor engagement of FBOs can potentially be harmful for both FBOs as active contributors to the health system and health system governance. Further research is required to improve our understanding of how donors should best engage with FBOs in health programmes.

**Source of Funding:** None.

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### Global Alliance for Nursing and Midwifery’s (GANM) Virtual Library: Knowledge Sharing and Capacity Building Rooted in the Sustainable Development Goals (SDGs)

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**Program/Project Purpose:** The Global Alliance for Nursing and Midwifery (GANM) is a World Health Organization (WHO)/Pan American Health Organization (PAHO) Collaborating Center (CC) at the Johns Hopkins University School of Nursing (JHUSON). The GANM’s main aim is to develop innovative approaches to knowledge dissemination that build the capacity of nurses and midwives around the world. Currently the GANM has nearly 4,000 members consisting of practitioners, policymakers, researchers, and academics.

**Structure/Method/Design:** One tool the GANM has developed to encourage knowledge exchange is the virtual library. Originally, the library was organized by general subject tags with a plethora of documents and resources added by members. It has recently been redesigned to increase utility as an educational tool for the GANM community, with a focus on the Sustainable Development Goal (SDG) 3. The SDG 3 focuses on ensuring health and well-being for all and its targets form the organizational foundation of the new virtual library. The virtual library will serve as a guide for future education, training, and capacity building. With this new structure, the GANM aims to create stronger bridges between the GANM community and health professionals worldwide, including educational institutions, WHO Collaborating Centers, professional associations, and regulatory bodies.

**Outcome & Evaluation:** Through the new organization and development of the virtual library, the JHUSON CC will increase GANM membership and expand the number of open-access resources available to advance knowledge dissemination and achievement of the SDGs. This will allow nurses, midwives, and other healthcare providers to access valuable evidence to inform their practice and incentivize interprofessional dialogue.

**Going Forward:** The JHUSON CC will focus on developing the virtual library, providing linked, open-access resources for each SDG Goal 3 Target, and expanding the visibility and viability of the virtual library as a resource for the GANM community. This will be accomplished through the GANM’s various avenues of knowledge dissemination, including the Knowledge Gateway GANM discussion board (<https://knowledge-gateway.org/ganm/>), the GANM blog site (<http://ganm.nursing.jhu.edu/>), and social