Grassroots global health: An Ethiopian experience

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Program/Project Purpose: Our aim was to form an American/Ethiopian research collaborative using the principals of contextual fit (Damschroder et al., 2009; English, 2013). Contextual fit matches strategies and procedures of research to values, needs, and skills of individuals experiencing the project. The program occurred in June-August 2014 and focused on epidemiological research questions.

Structure/Method/Design: The goals of the program were to (1) initiate international collaboration at a student level (2) perform public health research and (3) improve the capacity of students and faculty to perform future studies. American students traveled to Addis Ababa and established research collaboration with Ethiopian students and faculty. Ethiopian students and faculty were selected based on their interest in international collaboration and research expertise. Through this partnership, we established joint ownership of a monetary-independent initiative. Ethiopian faculty assisted in research planning, gaining ethical approval, connecting students to prominent figures within the medical system, and supervising research. Using Ethiopian mentors, we promoted project sustainability and set the stage for future student-led research.

Outcomes & Evaluation: Outcome of Goal (1): We signed a MOU between an American student-founded NGO and Addis Ababa University School of Public Health. We designed research studies and gained ethical approval from U.S. and Ethiopian academic institutions and the Ethiopian government. Close involvement of Ethiopian faculty was essential during the review process. Outcome of Goal (2): Students completed data collection that assessed methods of pre-hospital transport to Black Lion Hospital, the temporal association between hospital admission and pediatric mortality and the prevalence of pediatric illnesses. Data analysis is ongoing. Outcome of Goal (3): Students gained hands-on experience in research conduct, writing proposals, study methods, analysis and ethical considerations. Students learned about IRB review, acquired governmental approval in Ethiopia, and coordinated/colllected data at multiple sites, including Black Lion and Zewditu Hospital and Teklehyminot, Bole, Kasanche, and Kirkos Medical Centers. Ethiopian students completed most of the data collection after the American cohort left Ethiopia. Evaluation of results is ongoing.

Going Forward: Challenges included communication between American and Ethiopian cohorts. Ethiopian faculty mentors helped navigate the Ethiopian medical system and alleviated many barriers. Unmet goals included using four of seven approved study sites and the impact of Goal (3) has yet to be evaluated. Going forward, we aim to work with Ethiopian faculty and students to design community outreach programs based on research results, assess student capacity and analyze patient outcomes after educational interventions in Addis Ababa. Our unique, student-initiated program builds leadership and research capacity for both American and Ethiopian cohorts. By initiating mentorship with Ethiopian faculty, we contextually fit our project so students may experience and flourish in global health.

Clinical preventive services: Operationalizing tribal consultation priorities and supporting the IHS directors’ initiative

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Program/Project Purpose: The Great Plains Tribal Chairmen’s Health Board (GPTCHB) serves 17 American Indian reservations and one IHS service unit in North Dakota, South Dakota, Nebraska and Iowa; and Indian Health Services (IHS) is the primary healthcare provider for Tribes in the Aberdeen Area IHS region. American Indians in this region have the highest mortality rates compared to other racial and ethnic groups and even other American Indians in the country. As a result, GPTCHB and Tribal leadership deemed clinical preventive services as the second leading health priority in their Budget Formulation for 2015 to focus on upstream causes of morbidity and mortality.

Structure/Method/Design: To operationalize this objective, GPTCHB sought to determine how often high-impact preventive health services were being offered in IHS service units. The focus was on relatively low-cost and high-yield clinical preventive services, and we ultimately decided to use data published by Maciosek et al in 2006 that ranked clinical preventive services based on cost-effectiveness (CE) and clinically preventable burden (CPB). The IHS routinely uses Government Performance and Results Act (GPRA) indicators to demonstrate that IHS is using funds effectively. Therefore, through an assessment of GPRA indicators and a query of the Resource and Patient Management System (RPMS), we evaluated how often the top nine clinical preventive service priorities were offered in one service unit during the 2012 GPRA year.

Outcomes & Evaluation: Overall, we found that preventive services were inconsistently and infrequently documented and/or offered to patients in this region. We used these results to then educate healthcare providers about priorities among preventive services and about how often the facility was offering these services. Information regarding Medicare and Medicaid coverage of these high value preventive services was additionally discussed for each preventive service with healthcare providers and personnel to increase awareness about how to expand and standardize possible billing opportunities.

Going Forward: Several barriers prevent Tribal members from benefitting from these preventive services, and some barriers include silos of care between different branches within a service unit, limited specialist providers to perform invasive screenings, lack of transportation for patients residing in areas further from healthcare facilities, and greater emphasis on acute care services rather than routine preventive services. There are many clinical preventive services that have not been included in the study because research was based on national data and risk profiles, but future studies may also include services related to sexually transmitted disease education and obesity screenings. Although this study was merely an initial step in
addressing preventive health, we hope it will allow for a greater awareness and assessment of the top high value clinical preventive services among IHS and Tribal healthcare facilities in the region and across the country.

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The harvard global anesthesia initiative: A novel training program for developing skills in global health

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Program/Project Purpose: Of the estimated 234 million surgical procedures performed worldwide only 3.5% are performed for the poorest third of the world’s population. While anesthesiologists are often called upon to participate in short-term surgical missions, these efforts are insufficient to meet the global challenges of anesthesia workforce, access, and safety needs. Residency and fellowship training programs are well poised to develop this necessary expertise. Incorporating global health education into residency training has greatly expanded in many specialties, and the availability of a global health residency track is increasingly influencing applicants’ ranking of residency programs. Despite evidence of demand from trainees and a tremendous global need, formalized global health programs in anesthesiology beyond international service trips remain rare. The goal of this program is to develop a novel global anesthesia-specific educational experience for trainees in a US academic setting.

Structure/Method/Design: The program’s primary goals are to acquaint anesthesia trainees with the challenges of practicing in and expanding access to safe anesthesia in austere global environments. Additionally, participants are connected with mentors in global health and encouraged to contribute to global health scholarship. A comprehensive educational experience is provided by three core components of the program: an annual global anesthesia workshop, completion of a global anesthesia project, and continuing education. The global anesthesia project consists of an international experience, research project, or educational initiative. Continuing education opportunities include journal clubs and speakers covering topics including the global burden of surgical disease, medical education, equipment, ethics, and others. Participants are guided by assigned faculty mentors who monitor for completion of a curriculum checklist and provide advice for projects in global health. Participants in the program have been recruited from Boston-area residency programs with faculty sponsors from Children’s Hospital Boston, Brigham and Women’s Hospital, and Massachusetts General Hospital. Active involvement of program directors eager to meet the educational interests of their residents has encouraged prolonged viability of the program.

Outcomes & Evaluation: To date, five global anesthesia journal club meetings have been conducted with participation from 45 students, residents, fellows and faculty. As the formal curriculum is unveiled its success will be evaluated subjectively by participant satisfaction and self-assessment and objectively by monitoring increases in global health activities among residents. The extent to which the availability of such a program positively influences residency applicants’ program rankings will also be evaluated.

Going Forward: As this project moves forward, ongoing challenges include ensuring a quality educational experience providing comprehensive training in fundamentals of global health and anesthesia while remaining flexible to meet the interests of individual participants.

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