

7 out of the 9 (78%) adults and all children interviewed were supportive of the idea of HPS. 8 out of the 9 adults (89%) are ready to participate in HPS. The most recurrent themes are nutrition, hygiene, mental health, and family relationships.

Summary/Conclusion: This is the first study that assessed needs for HPS in underserved rural China. Rural students exhibited more health risk behaviors compared to urban students. Adults and children welcomed the idea of HPS. HPS can be piloted in underserved areas of rural China and, if shown to be effective, can help improve children's health in similar areas worldwide.

Implementation of an asthma treatment program for children in a remote community of Honduras

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Background: The disproportionate prevalence of asthma morbidity and mortality in Latin America has been documented in several studies. Latin America has a significantly increased prevalence of asthma/wheeze compared to other regions of the world, and only 2.6% of children with asthma meet criteria for control. The Global Initiative for Asthma (GINA) guidelines provide treatment recommendations for management of asthma worldwide, but Latin America falls short of goals established by GINA. Inhaled corticosteroids are recommended for all patients with persistent asthma, but only 6% of patients in Latin America are prescribed inhaled corticosteroids. Although inhaled corticosteroids are on the World Health Organization's Essential Medication List and the Honduras National Formulary, the availability and pricing of these medications is not standard. This hinders treatment, especially in remote, rural villages of low-income countries, such as Honduras.

The purpose of this project is to develop a sustainable, culturally sensitive protocol consistent with guideline recommendations that allows for appropriate diagnosis, education, treatment, and follow-up of asthma in a remote community of Honduras. The primary outcome is change in asthma control. Secondary outcomes include adherence to guideline recommendations, program costs, and satisfaction.

Structure/Method/Design: Protocols for diagnosis, treatment, medications refills, and asthma exacerbations are being developed. Children, up to age 16, from San José, Honduras, will be screened for asthma, and all children diagnosed with asthma will be eligible. Participation in the program includes a formal asthma education session, free medications and supplies, and structured monitoring and follow-up. Medications will be prescribed based on asthma severity. All patients with persistent asthma will be prescribed as needed inhaled albuterol. Inhaled corticosteroids will be prescribed for patients with moderate persistent asthma (beclomethasone 100 mcg twice daily) and severe persistent asthma (beclomethasone 200 mcg twice daily). Monthly assessments and medication refills will be performed by a community health worker. An asthma action plan will be provided to patients with moderate and severe persistent asthma, and the community health worker will be trained to follow an exacerbation protocol for assessment and treatment of exacerbations. Asthma control will be assessed based on patient report of symptoms, Asthma Control Test scores, need for oral corticosteroids, and peak flow readings. Program records will be reviewed to determine adherence to protocols and program costs. Surveys will be used to assess satisfaction.

The project is ongoing. Preliminary results will be presented at the conference.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Shoulder-to-Shoulder Pittsburgh, a nonprofit organization, supports a permanent clinic in San José and sends medical brigades biannually.

Summary/Conclusion: Program pilots have revealed need for an asthma treatment program. Moreover, community acceptance for the program is high. The largest challenge has been cost-effective medication/supply procurement.

Providing chemotherapy in severely resource-limited settings

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Background: Cancer is rapidly emerging as a major source of morbidity and mortality in countries with limited resources and infrastructure. Ethiopia has only three oncologists and one oncology unit for a population of 80 million. A breast cancer center was recently established at the Hawassa College of Medicine and Health Sciences (HCMHS) as a satellite unit to the only existing source of cancer care at Addis Ababa University (AAU). With growing interest to treat cancer globally, safe protocols for the provision of chemotherapy are essential. Our group analyzed current safety practices at HCMHS to ascertain the current level of resources and potential restrictions for safety and patient care.

Structure/Method/Design: We observed the chemotherapy protocols at the Oncology Department at Jacobi Medical Center (JMC), Bronx, NY. Subsequently, we observed the current practices at HCMHS for 4 weeks. We worked closely with the physicians and nurses at HCMHS to gain an understanding of their current protocols and the limitations they face. We divided the protocols for handling chemotherapy into four categories: storage, preparation, administration, and disposal.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Desta Ataro, Tezazu Tekle, and Areta Bunare at the Hawassa College of Medicine and Health Sciences (HCMHS).

Summary/Conclusion: Due to a lack of pharmacists, nurses prepare chemotherapy at the patient's bedside. The unit has no ventilated cabinet for preparation of chemotherapy and lacks a reliable electricity source. There are a limited number of syringes, and IV tubing systems are rudimentary. The same nurse both prepares and administers the chemotherapy to all patients. Nurses use gowns, goggles, surgical masks and non-chemotherapy-approved gloves while preparing and administering the drugs. All of the chemotherapy agents are stored in a pharmacy located outside of the oncology unit. Due to lack of reliable electricity, some medications may not have constant refrigeration. Currently there is no protocol for proper and safe disposal. Excess medication is often flushed down toilets or sinks. There is a cardboard safety box designated for sharp material; a separate disposal container is reserved for instruments that may have trace substances. The final disposal of this material is by incineration.

By observing the current practices of a new oncology unit in HCMHS, we made strides in understanding the limitations of providing chemotherapy in developing countries. There are currently no established international guidelines for storing, mixing, administering, and disposing of chemotherapy in resource-poor settings. It is necessary to establish protocols to provide chemotherapy in a manner that is safe for both patients and staff. Incorporating clinical oncology

pharmacists as key members of the oncology team should be considered for safety and to enable the nurses to focus on patient care.

Integration of WASH and nutrition: Successes, challenges, and best practices

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Background: The water, sanitation and hygiene (WASH) sector and nutrition sector have common goals: to increase child survival and improve maternal and child health. Both sectors' work achieves these goals to some extent, but new evidence suggests that neither is sufficient to fully improve maternal and child health. This study explores how the two sectors, WASH and nutrition, can integrate intervention activities to more effectively achieve their common goals.

Structure/Method/Design: Twenty semi-structured in-depth interviews with members of the WASH and nutrition sectors were conducted to investigate: 1) if and how organizations have integrated WASH and nutrition activities; 2) perceptions of members of the two sectors on integration and co-location of interventions; 3) barriers to integration of the activities; and 2) potential steps to overcome barriers and more effectively integrate WASH and nutrition. Interviews have been completed and data analysis is ongoing, and is estimated to be completed by February 2014.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Preliminary results indicate that the majority of current initiatives to integrate WASH and nutrition programs are those that incorporate co-messaging of hygiene behaviors into nutrition interventions, followed by geographic co-location of WASH and nutrition programs. Key barriers to integration include vertical funding streams, lack of common indicators on which to report, limited knowledge of nutrition in the WASH sector and vice versa, and the challenge of promoting too many new behaviors in a target population. The main recommendations from those working in the two fields are that donors should require collaboration between sectors in their requests for proposals, common indicators for programs should be developed, and sharing of knowledge between sectors and programs should occur in order for integrated programs to succeed. **Summary/Conclusion:** It is widely recognized in the WASH and nutrition sectors that the two are both compatible and intertwined; however, integration of the two programs is less common among organizations, and if it is done, it is still novel. In order to integrate WASH and nutrition and to do so more effectively, donors should require integration, knowledge among sectors should be shared, and incentives should be given for the two sectors to work together toward common goals.

Increasing knowledge and practical skills in CPR, first aid, and basic emergency care in Hawassa, Ethiopia: A workshop review and assessment

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Background: The purpose of this program is to educate Ethiopian youth at the Awassa Children's Project about the importance of natural disaster preparedness, wound care and bandaging, compression-only CPR, and basic hygiene in an interactive and engaging

workshop. In addition, youth demonstrate a desire to share the skills and knowledge learned in the workshop with others in the community. By increasing youth awareness about and practical skills in the aforementioned areas, this program ultimately aims to make CPR, first aid, and basic hygiene a more prioritized area of health in Ethiopian families and communities.

Structure/Method/Design: The information is delivered in a four-part workshop given over a 3-hour time span. The workshop includes games, role playing scenarios, demonstrations, and other interactive methods of communication that interest the 12- to 16-year-old audience the workshop is designed for. Workshop script and pre/post-examinations available upon request.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): This project was implemented in collaboration with advisors from the University of Wisconsin-Madison Department of Surgery as well as two translators, one from Awassa University College of Medicine and Health Sciences, Biniam Melese, and one from the University of Wisconsin-Madison, Selamawit Zewdie.

Summary/Conclusion: The youth at Awassa Children's Project were able to demonstrate practical skills in all four previously identified areas as well as verbally answer questions each of the topic areas discussed in the workshop. Pre-workshop written assessment showed a huge lack of knowledge in the four areas discussed, particularly CPR and wound care/bandaging. Post-workshop verbal assessment revealed a drastic improvement in knowledge; however, statistical significance could not be determined due to the absence of a written post-workshop assessment.

This workshop would serve as an effective model for future endeavors in educating rural populations about emergency care skills on a global scale.

Challenges and potential changes include an additional training workshop for translators to better adapt the workshop to the various languages spoken in Ethiopia. Revision of the pre and post surveys to better consider age and language barriers as well as exploration of the cultural relevance of pre- and post-surveys have also been discussed.

Pre-ART loss to follow-up in HIV-positive adults at a primary health care center in urban Mozambique

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Background: HIV-positive patients in Mozambique continue to miss chances in initiating antiretroviral therapy (ART) despite eligibility and rapid expansion in testing and availability of ART in recent years. Thus, the stages of HIV care between diagnosis and ART initiation remains an important area for improving program attrition. Our quality improvement project aims to establish a baseline of loss to follow-up (LTFU) through stages of early HIV care against which to measure future procedural interventions to improve retention in HIV care.

Structure/Method/Design: A process analysis of a primary health care center providing HIV care in Beira, Mozambique was conducted to estimate the frequency of HIV-positive adults who were LTFU before initiating ART. Retrospective cross-sectional data from July 2012 to June 2013 were collected to estimate the frequency of all adult patients with an HIV-positive test (n = 1354) who completed and received an absolute CD4 count, hemoglobin, and biochemistry results before being considered enrolled in care. A retrospective chart audit of randomly selected adults (n = 261) receiving an initial HIV-positive test from January 2012 to November 2012 and enrolled in HIV care were used to estimate the frequency of LTFU after enrolling in HIV care. These data were also used in χ^2 and Fisher exact tests to