

post intervention. Process evaluation data will be collected throughout the RCT. Final products will include educational tools for CHWs, health providers and policy makers, outreach programs for underserved populations, and policy recommendations.

Going Forward: After completion of the evaluation, community and policy workshops will be convened to exchange program experiences, engage multiple stakeholder in data interpretation, and determine next steps within Thailand and Vietnam and elsewhere in the region. As part of the project, we are organizing a regional scientific and policy advisory board inclusive of representatives from Myanmar, Nepal, India, Cambodia, and the Philippines to facilitate broader dissemination of the project.

Funding: Funding applications are under review.

Abstract #: 02ETC043

Estimating caregivers' malaria-related treatment-seeking behaviors in Ugandan children under 5: A rural field study

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Background: With 95% of the population living in high malaria transmission areas, malaria remains an important health challenge in Uganda. To-date, government programs and policy changes have by enlarge focused on medication delivery systems and communication strategies to increase knowledge about malaria and its first line treatments, but little has been done to improve communities' and families' capacities to access effective antimalarials. As part of a larger study, the objective of this study was to quantify caregivers' treatment-seeking behaviors for management of malaria in children under 5 in the rural and remote District of Butaleja, where caregivers' treatment-seeking behaviors were largely unknown.

Methods: During June/July 2011, an in-depth cross-sectional household survey recorded information from 424 households across 35 different villages sampled from 27 of Butaleja's 66 parishes. Target population included caregivers with a child 5 years or younger reporting fever during the past two weeks. Sample size calculation had shown that 380 households from an estimated population of 20,620 assured an error rate less than 5%. Guided by elements of the Health Belief Model, by the literature on caregiver treatment-seeking behavior, and by measurement experts, malaria content experts and key informants from the target population, seven educational and environmental factors were identified a priori for developing an inventory of questions to be included in the survey. These factors included: malaria-related knowledge (disease and treatment), episode management, assistance with critical decision, access to information sources, problems with accessing advice, problems with obtaining the best antimalarial, and perceived ability to initiate/redirect actions. Reliability analysis then assisted in developing quantitative profiles to assess Assets and Challenges facing caregivers when managing malaria in children under 5 years.

Findings: District-wide, 31.8% of children received an appropriate antimalarial – far below the government's target of 85%. Overall, results showed that the average caregiver accumulated less than half the total possible number of Asset points and about half the possible number of Challenge points. As expected, caregivers with higher Asset scores obtained overall lower Challenge results ($p < 0.000$). Of the six Asset scales, caregivers averaged highest on Caregiver Knowledge (65%) but only 21% of possible encounters with health professionals to assist in treatment decisions. The average caregiver reported problems with 74% of the 7 issues they might encounter in Accessing Advice about treatment for their child, and 55% of the 9 Problems in Obtaining the Best Antimalarial.

Interpretation: The ever-present threat of malaria does not automatically translate into informed treatment-seeking by family caregivers. Our study suggests two sets of interventions are required: one to minimize barriers to obtaining advice and treatment, and the other to improve caregivers' perceived benefits about ACT and their ability to navigate current health system to obtain ACT in prompt and efficient fashion.

Funding: With 95% of the population living in high malaria transmission areas, malaria remains an important health challenge in Uganda. To-date, government programs and policy changes have by enlarge focused on medication delivery systems and communication strategies to increase knowledge about malaria and its first line treatments, but little has been done to improve communities' and families' capacities to access effective antimalarials. As part of a larger study, the objective of this study was to quantify caregivers' treatment-seeking behaviors for management of malaria in children under 5 in the rural and remote District of Butaleja, where caregivers' treatment-seeking behaviors were largely unknown.

Abstract #: 02ETC044

Palliative care education in Belarus: Development and delivery of a cost-efficient, streamlined and targeted palliative care curriculum

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Program/Project Purpose: Worldwide, only 10% of the 20.4 million people who need palliative care currently receive it. A major barrier in lower and middle-income countries (LMIC) is insufficient knowledge of and experience in palliative care for healthcare workers. We report the development and implementation of a first-in-country palliative care curriculum in Belarus. The field of palliative care is relatively new to Belarus, with the first adult hospice founded in 2005. Palliative care was formally introduced into the National Healthcare Law in 2014. While government support is increasing, the country faces a shortage of trained palliative care providers and significant barriers to opioid availability. The goal of our initiative was to introduce palliative care to a broad group of providers and administrators and then train a smaller group of physicians, intended to be future country-leaders in palliative care, in advanced palliative care techniques.

Structure/Method/Design: We first conducted a needs assessment that examined physician knowledge and attitudes towards end of life care, previous palliative care training, current practices and drug availability. With this input, we developed, modified, and translated a 25-lecture palliative care curriculum. We conducted a one-day "Introduction to palliative care" workshop for a group of 80 administrators and physicians to introduce basic palliative care topics and gain support and publicity for palliative care. Subsequently, we conducted a four-day advanced palliative care seminar for a cohort of 25 physicians – including oncologists, internists, pediatricians and palliative care specialists. In our continued mentorship role, we plan to support this cohort as they advocate for palliative care and train additional healthcare providers in the country of Belarus.

Outcomes & Evaluation: We successfully developed a palliative care needs assessment and curriculum and conducted a one week course. We used daily surveys to improve and customize the course and an end-of-course survey to evaluate satisfaction, relevance, and to identify gaps in our curriculum. The course was well-received – participants reported improved understanding of palliative care, skills in managing symptoms and increased comfort in discussing prognosis. Future surveys will be implemented to evaluate knowledge retention, practice changes, and knowledge dissemination.

Going Forward: A National Palliative Care Center is now being developed in Belarus. We plan to provide additional training courses on advanced topics (e.g., interventional pain management, enhanced communication techniques), improve our translated curriculum, provide video consultations and ongoing mentorship. Furthermore, the needs assessment, intermediate palliative care curriculum and surveys, will be adapted for palliative care education beyond Belarus. Ultimately, we hope that our experience and materials provide resources for additional palliative care education and development worldwide in LMICs.

Funding: The project was supported and funded by the US Embassy, the Belarusian Ministry of Health, Belarusian Post-Graduate Medical Education Academy, Janssen, Gedeon Richter, and Med-Interplast.

Abstract #: 02ETC045

Humanitarian crisis simulation

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Program/Project Purpose: International humanitarian response is a dynamic and immensely challenging field that requires the most of the professionals who provide relief. There is a high level of interest amongst students and health professionals in humanitarian relief, but most prospective humanitarian workers have low levels of knowledge and skills for participating in such work. Faculty in the Medical School and at the Humphrey School of Public Affairs at the University of Minnesota saw an opportunity to create a participatory and multidisciplinary course on Humanitarianism. Our goal is to give prospective humanitarian workers a realistic and hands on introduction to the profession. We held our third annual course in September 2014.

Structure/Method/Design: The course practicum is held over three days in a large outdoor setting. The first morning and afternoon are devoted to interactive didactic sessions on issues common to most humanitarian crises, for example, malnutrition, security, water sanitation and hygiene. This is followed by a two day simulation exercise. 50 participants are then divided into multidisciplinary teams of 5. Students came from many disciplines within the University of Minnesota including Medicine, Public Health, Public Affairs, Engineering, Social Work, GIS, et al, as well as a number of external institutions. Teams must work and live together to navigate a fictionalized area that is experiencing a humanitarian crisis. Seasoned experts from within the University of Minnesota and from other institutions collaborate to organize and conduct the course. Approximately 150 volunteers helped throughout the three-day course with logistics, role playing, and teaching.

Outcomes & Evaluation: The exercise has been enthusiastically received and has strengthened collaborative relationships between disciplines and organizations. This year, for the first time, participants took both pre- and post- tests to assess baseline and post course

knowledge. In addition, a survey was sent to participants one week after the class, and a second one will be administered 3 months following the course. The survey asks students to assess their pre and post course levels of competence, for their opinions of how it will impact their further career plans, and for their general reflections on the experience. The results of this data will be available for presentation at the meeting.

Going Forward: There are innumerable opportunities for improving and expanding our course. Similarly, there are opportunities for collaboration with external partners and conducting research. Lack of protected time and financial resources are the major barriers.

Funding: course fees and tuition, PERL Grant

Abstract #: 02ETC046

Multidisciplinary pediatric oncology training in Botswana

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Program/Project Purpose: 80% of the 175,000 children who develop cancer annually live in low & middle income countries (LMIC) where survival is considerably less than in resource-rich settings. A major challenge in treating pediatric cancer in LMIC is a lack of trained providers. Baylor College of Medicine (BCM) and Texas Children's Cancer and Hematology Centers (TXCH) have had a partnership with Princess Marina Hospital (PMH) since 2007 as the only center in Botswana treating children with cancer. PMH has two full time pediatric oncologists and a care coordinator from BCM/TXCH. Staff including nurses, pharmacists, dieticians and social workers receive very little, if any, pediatric cancer-specific training. We aim to develop a multidisciplinary pediatric oncology curriculum for Botswana in partnership with Botswana RNs/MDs, to train Botswana RNs/MD at TXCH prior to the workshop in Botswana, and conduct a workshop for health workers caring for children with cancer in Botswana.

Structure/Method/Design: We conducted a multidisciplinary workshop to improve cancer care in Botswana. Two nurses and one pediatric resident from PMH were invited to BCM/TXCH for intensive training prior to the workshop. They served as instructors along with Botswana and Houston-based TXCH staff. The novel curriculum designed for this workshop included: an overview of pediatric cancer and treatment; supportive care; chemotherapy safety and administration; pain management; family-centered care; and palliative care presented as case studies, didactic lectures and open forum discussions. The trained nurses and doctors will serve as future trainers to build capacity.

Outcomes & Evaluation: The one week workshop was attended by 30 participants representing nine Botswana institutions. Eight disciplines were represented including physicians, nurses, pharmacists, surgeons, dieticians, and social workers. Pre and post-tests conducted daily demonstrated the curriculum's effectiveness in relaying key principles to learners. Participant evaluations strongly supported the need for this training.

Going Forward: The two major ongoing challenges are to disseminate this training and awareness of pediatric cancer throughout the country and retention of trained nurses in the pediatric oncology ward. We have therefore obtained funding to present 12 mini-workshops throughout Botswana over the next 3 months to improve awareness at local clinics,