

was developed and incorporated into a comprehensive educational program to reduce dengue fever.

Structure/Method/Design: The project consisted of education and instruction about mosquito reduction strategies including the elimination of unnecessary standing water, identification of mosquito larvae in water, the development of an educational brochure, and the construction of a simple mosquito larvae trap. Techniques for trapping mosquitoes and larvae were researched and with the assistance of Thai villagers, a simple design for building a mosquito trap from local bamboo was developed.

The trap was based on lethal ovitraps, which research suggests effectively reduce mosquito populations. During the initial phase of the project, traps were distributed throughout subdistrict Srivichai: the local government office, health clinic, schools, and houses of village chiefs. After several periods of observation and mosquito larvae counting, interest in the project grew and a larger project was organized. During this time, the author applied for and was awarded funding from the government of Thailand. A brochure was created in both English and Thai that explained dengue fever, mosquito reduction strategies, and how to build the mosquito trap. Once interest in the program gained momentum, trainings were conducted with Village Health Volunteers (VHVs) in each of the 16 communities in Srivichai Subdistrict. VHVs are villagers who receive a small stipend in exchange for participating in health trainings and disseminating health information to their village. During the first round of trainings, approximately 4 hours were spent in each village building mosquito traps with VHVs and teaching them about other mosquito reduction strategies. During the second round of trainings the VHVs taught other villagers how to build the traps and educated on mosquito-reduction strategies.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): The project was completed in collaboration with the staff of the Non Udom Health Promotion Hospital.

Summary/Conclusion: The project was completed over the course of 6 months. The total number of participants (including the VHVs) was approximately 440, and approximately 2300 traps were constructed.

Recommendations include 1) continuing trap construction until each household has at least five traps, 2) testing new pesticides such as BTI, a bacteria that is effective in mosquito reduction, 3) encouraging the use of larvae eating fish in standing water that cannot be eliminated. Challenges for the project included scheduling during the rice planting season, language (although the project was conducted in Thailand, most VHVs only spoke Lao), and lack of motivation among VHVs in certain villages.

Outreach and portable ultrasound—A novel method of improving antenatal turnout, maternal health, and preventing mother to child transmission of HIV in rural Uganda

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Background: Uganda currently has the 20th highest rate of maternal mortality in the world due to a large portion of its rural communities being isolated due to mountainous topography, a lack of adequate access to health care, a population that seeks treatment predominantly from traditional healers and is mistrustful of modern medicine.

Structure/Method/Design: A Canadian medical and dental not-for-profit corporation engaged in a partnership with a Ugandan

not-for-profit nongovernmental community development organization to develop a structured maternal health camp (sMHC). The four-pronged approach of elimination of mother-to-child transmission (MTCT) of HIV was followed in the design of the sMHC. The clinic centered on providing expectant mothers in rural Uganda with a free obstetric ultrasound (OBU) using portable ultrasound technology. Patients rotated through registration, pre-test counseling, testing for HIV and syphilis, family planning, intermittent preventative therapy for malaria, provision of iron and folate supplements, OBU and, for the women identified as being high risk by triage, dental and/or medical services.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): In 1 day, 45 pregnant women rotated through the clinic. Each woman received an OBU along with standard antenatal care. In total, 10 women identified themselves as being HIV+ at registration. An additional two women were diagnosed as being HIV+ during the health camp. All HIV+ women received counseling and were started on antiretroviral medications. Only seven women had ever previously had an OBU, and all 45 women verbally identified that the reason for attending the antenatal health camp was to receive a free OBU. All 45 women verbally identified that they would return to seek health care from a medical provider in the future.

Summary/Conclusion: By creating an sMHC centered around a free OBU, women who rely almost exclusively on traditional healers were successfully encouraged to seek medical care during pregnancy. These women all received invaluable prenatal care including screening for HIV, syphilis, and malaria in addition to an OBU along with medical and dental services. Barriers to health and education were broken down through community partnership and innovative health care strategies.

By providing a stimulus for pregnant women to seek out health care providers, OBU may help to eliminate MTCT of HIV, improve the health of both mother and child, and build trust and understanding between the rural Ugandan population and the national health care system. This strategy is easily up scalable and implementable across a wide range of rural landscapes. Further studies to confirm this approach on a larger scale are needed.

A randomized controlled trial to determine the efficacy of portable ultrasound in increasing antenatal care attendance is currently being designed and awaiting approval from an ethics review board to be launched in February 2014.

Dispatching community-based first responders via text message in violent areas of the Western Cape Province, South Africa

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Background: The Western Cape province of South Africa lacks resources to provide timely prehospital emergency care for its citizens. Ambulances can take hours to respond to critical emergencies, and community members report that people often die waiting for ambulance care. To alleviate this problem, the provincial government relies on 3000+ community-based emergency first aid responders (EFARs) to assist with emergencies. EFARs, however, are often unaware of local incidents; and they asked for a way the provincial EMS could alert them to local medical emergencies.

Structure/Method/Design: Under the supervision of EFARs in the townships of Manenberg and Lavender Hill, we designed and tested a software program that text messages EFARs the locations of medical