INNOVATIVE APPROACHES AND TECHNOLOGIES IN GLOBAL HEALTH

Midwives' perceptions of an innovative mHealth technology's impact on their work and job satisfaction

G. Barnabee[1], M. Harrison[2], M.A. Mercer[3], G. O'malley[4]; [1]University of Washington, Department of Global Health and School of Public Affairs, Seattle, WA/US, [2]Health Alliance International, Dili/TL, [3]University of Washington, Health Alliance International, Seattle, WA/US, [4]University of Washington; International Training and Education Center for Health, Seattle, WA/US

Background: In 2013, Health Alliance International, in collaboration with the Timor-Leste Ministry of Health, implemented Liga Inan, a comprehensive pilot program to reduce maternal and neonatal mortality. The program's mHealth component is designed to increase one-way and two-way communication between midwives and mothers. The study objective is to understand midwives' experiences in adopting and using Liga Inan and its impact on workload and job satisfaction. Understanding the experience of midwives, who are charged with using the program's mHealth technology, is critical to effectiveness and scalability. Results also highlight potential health workforce considerations in designing and implementing mHealth programs.
Structure/Method/Design: The study used primarily qualitative methods: semi-structured interviews with available midwives using Liga Inan (17), facility observations (8), and program monitoring data, interpreted through content analysis. Quantitative data analysis used to assess workload and potential correlation between selected midwife characteristics and program use.
Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Preliminary analysis revealed midwives generally perceived decreased workload, due to efficiencies of using cell phones versus other methods of contact, and increased job satisfaction. Perceived increases in job satisfaction were a result of self-reported improvement in their ability to control care given, provide continuity of care, provide quality care, access professional support, and reach MOH targets. Access to transportation was perceived as the main challenge, which affected midwives' ability to assist mothers in delivering in facilities and in the home and was a source of significant frustration and dissatisfaction. Other key factors affecting perceived impact included mobile signal consistency, number of health care providers in the facility, period in program implementation and individual midwife characteristics.
Summary/Conclusion: Liga Inan increases midwives' access to communication and two-way information exchange—midwife—mother and midwife—midwife. This empowers midwives, which, in systems where health workers have little control, is critical to providing quality services and maintaining job satisfaction. While many mHealth programs focus on improving healthy behaviors or data collection, using mHealth to empower health workers in ways relevant to their context may promote sustainable health system improvement.

Validating a need for a teledermatology partnership in the Toledo District of southern Belize

M. Bobbs[1], M. Bayer[2], W. Vann[1], T. Frazer[1], B. Wilson[2], E. Olasz[2], K. Holland[2], S. Humphrey[2], S. Leib[3], J. Kuzminski[4]; [1]Medical College of Wisconsin, Milwaukee, WI/US, [2]Medical College of Wisconsin, Department of Dermatology, Milwaukee, WI/US, [3]Hillside Healthcare International, Milwaukee, WI/US, [4]Medical College of Wisconsin, Department of Pediatrics, Milwaukee, WI/US

Background: Hillside Healthcare International (HHCI) is a US-based nonprofit organization dedicated to providing health care, education, and community outreach to the medically underserved of rural southern Belize. This region has a high incidence of cutaneous diseases and a paucity of dermatologists, necessitating dermatologic training and education for providers at HHCI. The purpose of this study is to characterize and quantify dermatologic disease presentation, patient characteristics, and disease management by HHCI providers. Additionally, this information assesses the need and provides a framework for a teledermatology partnership between the Medical College of Wisconsin (MCW) and HHCI.
Structure/Method/Design: A retrospective chart review of patient medical records at HHCI was completed from January to July 2013. Eligible patients were identified from the HHCI diagnosis database as having a dermatologic chief complaint or a diagnosis of a dermatologic disease. To narrow the field, the focus was patients with the diagnosis of "rash, unspecified" or "other dermatitis." Data was then analyzed to find the most common diagnoses and what was used, if anything, to treat them.
Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): In collaboration with HHCI, this project was funded by the American Academy of Dermatology Skin Care for Developing Countries, the MCW Department of Emergency Medicine, and The Dr. Elaine Kohler Summer Academy of Global Health Research.
Summary/Conclusion: In this study, the most common diagnoses and treatments at HHCI were described. More than 1 out of every 10 patients within the 279 charts reviewed had a vague diagnosis of "dermatitis" or "unspecified rash." This data illustrates HHCI providers' strengths and areas for improvement in diagnosing dermatologic diseases. Furthermore, the data successfully highlights the utility of a teledermatology partnership as a modality to better characterize and treat challenging skin conditions. In addition, this program will be educational for providers and trainees in both Milwaukee and Belize.

Some challenges to the partnership include the teledermatology interface, which is a store and forward method lacking three-dimensional imaging. Additionally, challenges specific to telemedicine in rural Belize include unreliable and inadequate Internet service to transfer the information and images, limited time to complete background consult information, as well a method for securing HIPPA compliant information transfer. This partnership also relies on the participation of physicians working at HHCI and their comfort levels with dermatology, which varies with physician turnover.

Dengue fever prevention strategies through community participation and the innovative use of local resources in Northeast Thailand

E.S. Brannon[1], M.R. Brubaker[2]; [1]Tulane University, School of Public Health and Tropical Medicine, Epidemiology, New Orleans, LA/US, [2]U.S. Government, Peace Corps, Thailand, Eugene, OR/US

Background: A low-cost, multifaceted mosquito reduction project was implemented in a rural district of Sakon Nakhon Province in northeastern Thailand. A novel mosquito trap using local materials