**Interpretation:** Costs of treatment for femur fractures are driven largely by personnel costs and length of stay. Despite long delays from injury to surgery, the cost of IM nailing was nearly equal to skeletal traction. Reducing time from injury to surgery would make IM nailing cost saving relative to conservative treatment.

Source of Funding: None.

Abstract #: 2.010 HHR

## Developing and Refining the MSGH Degree Program: A Theory and Competency-Driven, Multi-Phase Curriculum **Development and Alignment Process**

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Program/Project Purpose: This paper will discuss a theorydriven, five-phase process for curriculum development and alignment in a Master of Science in Global Health (MSGH) degree program. Northwestern University's MSGH degree is an interprofessional, competency-driven program that prepares students for careers in the field through generalist, leadership-focused, realworld, practical professional education.

Structure/Method/Design: This five (5) phase curricular process included multiple program stakeholders (faculty, staff, students, practitioners and alumni) engaging in a variety of participatory activities. Phases included: 1) Unit Assessment, 2) Literature and Expert Review, 3) Faculty Course Assessment, 4) Program Implementation, and 5) Alignment/Revision. These processes were a) led by a multidisciplinary faculty and staff team, b) anchored in adult education philosophy and theory, and c) aligned with the degree's guiding vision, mission, and values.

Outcome & Evaluation: Curriculum development and ongoing implementation, alignment and refinement efforts highlight the unique opportunity that global health educators and practitioners possess to collaboratively reexamine, evaluate and restructure educative preparations for future leaders in the global health workforce. Twenty (20) lessons learned identifying best practices and areas for improvement from the five phases will be shared.

Going Forward: Future directions for 2016-2017 implementation, a five-year curriculum development planning cycle, and program sustainability will be highlighted.

Source of Funding: None.

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## Strengthening Health System - Evidence from the use of Bi-directional SMS-based Screening and Feedback System to Improve Efficiency and Quality of Disease Surveillance in Vietnam

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Background: Mobile health (mHealth) has recently become the emerging and feasible practice to strengthen health systems, especially in low-resource settings. However, most mHealth initiatives are pilot efforts and only conceptually illustrate how to address determinants of health interventions using mobile technologies. Therefore, there is still an urgent need of vigorous evidence about mHealth and its use in public health. This study examined the use of bi-directional Short Message Service (SMS) in disease surveillance in Vietnam, and its evidence in improving efficiency and quality of reporting task.

Methods: 80 health staff from 40 communes of Hoa Binh and Hung Yen provinces got training and participated in two 6-month pilots: one with one-way, and one with bi-directional SMS system to report two diseases: influenza and diarrhea using cell phone. After each examination and checking-in onto the paper logbook, participants were asked to report the case by texting an SMS to a designated number and make notes of successfully reported cases. A central data repository server was set up to collect SMS reports, and aggregate reported patient data. Efficiency and quality of the reporting work were assessed by the evaluation of the qualitative questionnaires, and the comparison of the texted SMS reports to the patient logbooks. Data entry was conducted using EpiData, and data analysis were performed using STATA.

**Findings:** With the use of bi-directional SMS system for assisting in error screening and reminder and feedback provision vs one-way system, participants were 4.62 times more likely (95% CI 3.93-5.44, p<0.0001) to send correctly formatted text reports, and 3.42 times more likely (95% CI 2.72-4.33, p<0.0001) to have precise information in their texted messages. Results also revealed that while positions, ages or gender of participants did not statistically influence the results, ethnicity and management role did.

**Interpretation:** The deployment of the bi-directional SMS-based reporting system both significantly improved participant's engagement in SMS texting protocol, and greatly enhance their reporting quality. The study demonstrated a robust evidence of a practical utilization of SMS in disease reporting system to replace the traditional paper-based one that has great potential for the scale-up and national-wide implementation.

Source of Funding: Dartmouth College; Institute of Population, Health and Development.

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Learning Across Borders: Developing a Pharmacist-Driven **Continuing Professional Development Program Through the Baylor College of Medicine International Pediatric AIDS** Initiative Pharmacy Network (BIPAI-PN)

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**Program/Project Purpose:** As the leading provider for pediatric HIV care and treatment in the world, BIPAI has been building