

and neonatal care (EmONC) simulation-based mentoring curriculum to improve the quality of care in low-resource settings. In conjunction with an initiative led by CARE India, these curricula are being implemented in 320 primary health clinics (PHCs) and 56 district hospitals (DHs) in Bihar, India between 2015 and 2017.

Methods: To supplement bedside clinical mentoring and provide emergency training, PRONTO International developed a comprehensive EmONC simulation-based curriculum package, tailored to the Indian context for nurse midwife mentors (NMM) to replicate in Bihar that includes simulation scenarios, simulation facilitation, and teamwork training activities. Nurse midwife mentors were trained in emergency management and in how to replicate the curriculum contents. All nurse midwife mentors participating in the training completed the pre- and post-training assessment to evaluate knowledge in management of obstetric and neonatal emergencies, teamwork and communication, and simulation facilitation skills. We measured the change in overall and topic-specific knowledge after each PRONTO training session.

Findings: PRONTO training sessions were held in January 2015 and September 2015. To date, 115 mentors have been trained and are active at all 320 primary health clinics. Overall knowledge across the two training sessions improved (26.5% and 15.8%, $p < 0.001$). Scores for obstetric hemorrhage (38% and 12.2%, $p < 0.001$), teamwork and communication (29.5% and 25.4%, $p < 0.001$), simulation facilitation (18.3% and 11.1%, $p < 0.001$), pre-eclampsia/eclampsia (31.2% and 16.5%, $p < 0.001$) and neonatal resuscitation (15.4% and 13.7%, $p < 0.001$) improved at both sessions.

Interpretation: The results of the pre- and post-training assessments from January and September both demonstrated significant overall knowledge improvement across all modules. If data to be collected are consistent with current results, the integrated mentoring curriculum may represent a sustainable and scalable approach to improving EmONC knowledge among midwife mentors for replication in the field that could be replicated in other low-resource settings.

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Abstract #: 1.036_HRW

A mixed-methods analysis of the health-seeking behaviors of people in rural Makwanpur, Nepal

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Background: To understand how and why people utilize their health services and to facilitate planning for health programs and systems, it is useful to examine health-seeking behaviors (HSB). Nepal, with its dearth of health providers and funding provides an interesting setting in which to examine HSBs. More, little formal research has been done there on this topic.

The aim of this research was to describe the HSBs of people in rural Makwanpur, Nepal, and to analyse the various factors that may explain peoples' healthcare choices.

Methods: This study involved a mixed-methods design consisting of two phases. Quantitative data was collected using a cross-sectional survey carried out in 2,334 households across 10 villages

in Makwanpur district between March 2011 and January 2012. Households were selected using a two-stage random sampling method, and an informed consent procedure was followed. The survey asked about care-seeking in response to an acute episode of illness. Qualitative data was then collected using semi-structured interviews in 90 purposively selected households across 3 villages.

Regression analyses were performed on the quantitative data, and those analyses were then used to construct themes for the coding of the qualitative data.

Findings: Of the 2,334 households surveyed, half had an episode of illness in the month prior. Of those, the majority chose to seek care outside the home; 22% used traditional healers, 37% used allopathic providers and 12% opted for pharmacies as a first option. Sixteen percent did nothing, sighting geography, finances, and workload as reasons. Adjusted regression models indicate illness severity and illness type as the most important factors in dictating household choices regarding government provider usage. Qualitative results revealed the importance of health facility quality in determining decision-making.

Interpretation: Data shows households often use government providers in parallel with traditional healers. More, use of traditional providers does not appear to delay necessary care-seeking. While illness and household factors are important in dictating provider choice, the qualitative results revealed that in order to change care-seeking behaviors and increase care utilisation, the focus should be on improving government health service delivery and decreasing rampant provider absenteeism.

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Abstract #: 1.037_HRW

Retaining nurses at rural sites through distance learning, the University of Nairobi experience

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Background: A highly skilled health work force is critical for improved HIV care and health outcomes. In Kenya, nurses form the backbone of health service and there is constant need to provide continuous training to them. However, such training usually takes them out of their working stations. University of Nairobi (UoN) in partnership with African Medical Research Foundation (AMREF) and Nursing Council of Kenya (NCK) embarked on a program for upgrading diploma nurses by offering a Bachelor of Nursing (BSN) degree using a blended distance learning approach. We describe the process of developing and implementing this course.

Methods: The UoN, AMREF and NCK developed a curriculum for a 2.5-years blended e-learning which includes a two week face to face course each trimester. Course development involved: (1) establishing learning needs and determination of course objectives (2) designing of module/assignment instructions (3) development

of the e-learning platform. Student assessment is done together with the full time pre-service BSN students.

Findings: The first intake of 98 was done in 2012 and 65 (66%) will be graduating in December 2015. A total of 449 nurses have been enrolled into the course and there is a high demand with applications exceeding current capacity. The performance by the e-based students is comparable to their full-time counterparts.

Interpretation: Blended RN-BSN potentially increases numbers, qualification of nurses while providing rural HIV care, primary health services and remaining available for their families. This model not only improves nurses retention but also unlocks growth opportunities for nurses and may be adapted for direct entry training. Deeper evaluation of the program is underway to determine satisfaction, appropriateness of learning methods and content.

Abstract #: 1.038_HRW

Engagement of decentralized health facilities in research and training

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Background: Prior to Medical Education Program Initiative (MEPI) funding, undergraduate training of medical professionals at the University of Nairobi (UoN) was mainly conducted at Kenyatta National Hospital (KNH), the National referral facility that is in an urban setting. Clinical research by residents was also mainly concentrated in KNH with little interdisciplinary collaboration. External partners also often led research activities conducted in the rural health facilities with little local participation. As part of the MEPI activities, we endeavoured to involve rural hospitals in medical education and research. We describe the process used to introduce and advocate for clinical training and research at decentralized clinical sites.

Methods: A stakeholder's analysis that included the Ministry of Health (MOH) identified facilities and the strategies for integrating decentralized clinical training into existing medical education programs. The training and research infrastructure was strengthened in the 17 sites that were identified sequentially. Potential adjunct faculty underwent medical education principles and together with junior staff taken through interpretation and use of data generated locally for purposes of generating research questions and decisions. Priority research topics were developed from broad areas in the MOH-MNCH research agenda that were relevant to each site.

Outcomes: Each site now has adjunct faculties appointed by UoN. Part of the undergraduate student's clinical rotations now happens in these devolved sites and the feed back provided from the adjunct faculty and students indicates a symbiotic relationship. Fifteen teams consisting of 83 Postgraduate students have conducted interdisciplinary researches and 55 have so far completed. Twenty-seven conference abstracts have been presented and 9 articles published with the rest being in the process. Out of 9 research proposals led by staff from decentralized training sites, 4 have received ethical approval and are currently ongoing.

Interpretation: Peripheral facilities that traditionally are not teaching hospitals can be developed to undertake this role in addition to conducting research. Engagement with leadership at Ministry and potential satellite teaching sites is essential in implementing decentralized training. Establishment of these sites enhances the student's diverse teaching environment and expands research scope for students and can catalyse local staff to engage in research.

Abstract #: 1.039_HRW

Creation, implementation and impact of an evidence based medicine curriculum in Kazan, Russia

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Program/Project Purpose: Until the early 90's, medical practice in Russia relied heavily on community or national experts' opinion. However, critical evaluation suggested that these practices did not reliably assimilate scientific information into clinical decision-making. Kazan State Medical University (KSMU) leaders have acknowledged the validity of a structured EBM course in their curriculum after becoming familiar with this discipline through collaboration with American Medical Schools.

Structure/Method/Design: A 22-hour course similar to an American Medical School EBM curriculum was designed, and introduced into KSMU's international curriculum in 2007. This EBM course originally was mandatory for English-speaking 5th or 6th year medical students at KSMU. Since then, this curriculum was translated into Russian and offered to Russian students, interns, and residents.

Outcomes & Evaluation: 196 foreign students, from seven different countries, have completed the English program. The number of students enrolled in the English and Russian EBM course grows annually. Verbal feedback from graduates suggests that they feel more prepared to search literature and to find answers to their daily clinical questions, as compared to their peers. More objective data is being collected via surveys. Instructors of this course have also noted significant improvement in the students' skills in searching medical literature. In addition, pre and post-course evaluation tools have been implemented to measure participant EBM knowledge. A post-graduate survey has been designed and circulated among alumni of the program to assess their current EBM knowledge. Preliminary data show mild improvement in mean scores; more data is being collected to assert statistical significance.

Going Forward: One challenge to be addressed is the low voluntary participation of Russian-speaking students. In order to make this course mandatory, permission from the Russian government is required. From a logistical standpoint, access to reliable digital medical information in both languages needs to be improved, and course schedule still needs to be optimized to be more convenient for all students. Finally, additional feedback will be elicited to increase data sample size, and to further assess strengths and weaknesses of the course.

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