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Assessing community health worker capacity to appropriately identify and refer malnourished children in rural India

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Background: The two primary aims of this study are 1) to assess the ability of Community Health Workers (CHWs) to correctly identify and refer undernourished children and 2) to verify that patients seek care at the appropriate referral treatment center. Assesment was done of an existing Community Health Worker program implemented in 2009 by Seva Mandir in rural tribal Rajasthan, India. The CHWs were trained to identify undernourished children and refer them to treatment centers. This is particularly important given that 43% of children in the working area are underweight.

Methods: This study undertakes implementation research to better understand the capabilities of CHWs and the challenges faced by beneficiaries in accessing higher levels of care. Semi-structured interviews were conducted with randomly selected CHWs to assess their knowledge of childhood nutrition and identification of malnutrition. They were also tested on their ability to use growth charts. Purposive sampling was then used to identify mothers whose children had been identified as underweight by the same CHWs in the past 6 months.

Findings: Interviews were done with 10 randomly selected CHWs and 24 mothers whom had been referred. 100% of CHWs surveyed were able to demonstrate correct use of growth charts, though 33% reported using a method other than the taught weight-for-age to identify malnourished children. 38% of the mothers referred to physicians for malnutrition treatment did not seek care, with the most common reasons cited involved misconceptions about undernutrition.

Interpretation: CHWs are able to accurately use growth charts, however the use of charts as the primary method of identifying malnourished children should be emphasized during training. In counseling mothers of malnourished children CHWs should help dispel myths and stress the importance of treating undernutrition as a medical condition that needs to be treated a physician.

Abstract #: *2.071_HRW*

Assessing trauma care at Naivasha County Hospital, Nakuru, Kenya

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Program/Project Purpose: The Accident and Emergency Department at Naivasha County Hospital opened in July 2015 funded by Bloomberg Philanthropy in collaboration with John Hopkins University International Injury Research Unit. Naivasha has one of the highest percentages of road traffic accidents (RTA) in Kenya and was selected as a location for the Bloomberg Philanthropies Global Road Safety program.[2] Road traffic accidents account for between 3000 to 13,000 deaths per year in Kenya alone.[3] According to Bloomberg Philanthropies, Kenya is one of the top ten countries that account for the majority of road traffic deaths annually,[4] and 90% of the worlds traffic accident fatalities occur in low and middle income countries.[5] The study assesses the needs and opportunities for growth related to trauma care, and compares findings to a previous study performed in 2013.

Design: This was a mixed-methods needs assessment. Informal key informant interviews focused on the participants understanding and experience of trauma care at Naivasha County Hospital. Observations of practices and management of trauma care were performed over a one-month period. A literature review was conducted on trauma training, trauma and injury management in Kenya and road traffic accidents and provided the context for recommendations.

Outcome & Evaluation: Three key areas were identified for improvement in trauma care: expanded staffing and additional resources; formal and informal trauma and emergency training for all staff; and improved utilization of current trauma registry. Additional findings included a lack of a formal triage process and unclear guidelines and expectations for the Accident and Emergency Department.

Going Forward: Major limitations of the case study were the short duration of observation and interviews; language and cultural barriers; and lack of access to trauma registry data for further analysis. Future interventions would benefit from longer duration and continued development of partnerships at Naivasha County Hospital as well as analysis of the trauma registry that is in place. Further development of the trauma registry would help guide training and practice.

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Abstract #: *2.072_HRW*

Physician influence on the signing of do-not-resuscitate orders in surgical intensive care units in Taiwan

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Background: Decisions to withhold or withdraw life-supporting treatments (LSTs) at the end of life are respected when patients or their surrogates decline them. In Taiwan, the Hospice and Palliative Care Act, issued in May 2000, gives patients with terminal illness or their surrogates the right to refuse CPR by signing DNR orders. Although laws may permit the practice of DNR orders when appropriate, the way in which DNR orders are operationalized may influence whether they enable treatment plans to match patient goals. Factors such as physicians' religious beliefs, medical specialty, and level of communication may influence patients' decisions to sign DNR orders. This study seeks to determine whether patterns of patient DNR status vary among attending physicians.

Methods: This is a retrospective observational cohort study using the medical records of patients admitted to surgical intensive care units (SICUs) in a hospital in northern Taiwan. After excluding patients

below the age of 20 and patients with incomplete health, a total of 1,859 patients and the 11 physicians who took care of them were included in the study. For each physician, a Kaplan-Meier survival curve was constructed to compare the time between SICU admission and issuance of DNR order for each patient. A multivariate Cox proportional hazards model was established to evaluate the relationship between physician-associated factors and DNR order patterns.

Findings: Results suggest that patients' DNR statuses are associated with the identity of their respective attending physicians. Future studies may elucidate reasons behind these findings.

Interpretation: Possible sources of difference between physicians are differences in levels of experience, training, competence, approach, and influence regarding DNR status. Interventions that enhance medical professionals' and patients' understanding of DNR orders and facilitate physician-patient communication may be instrumental in improving end-of-life care.

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Abstract #: *2.073_HRW*

Spreading the word: Dissemination of research ethics education, policies and practices in Bolivia

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Program/Project Purpose: An effective strategy for implementing the ethical conduct of research in Bolivia is developing. The Universidad Mayor de San Andrés (UMSA) de la Paz-Bolivia was awarded a 2 year NIH/FIC International Research Ethics Education and Curriculum Development Planning Grant in 6/2013. The goal of the grant was to strengthen the Bolivian research culture to integrate ethical research into the education and practice of health providers and investigators. One aim was to determine components of dissemination activities emphasizing the importance of ethical research.

Structure/Method/Design: Expected outcomes included an improved perception of the importance of research ethics among Bolivian researchers, academics, health workers and citizens. Representatives of 4 public Bolivian Health Science Universities, PAHO, and Touro University California (TUC) established a Steering Committee. The committee highlighted dissemination activities to increase interest and knowledge for ethically responsible health research. The Research Ethics Symposium entitled, *Constructing Ethics in Health,* was conducted in September 2015 by UMSA, TUC, PAHO and the UMSA Medical School Ethics and Bioethics committee. Themes addressing intercultural issues and vulnerable populations; the responsible conduct of research; and the development of research ethics education and practices in health science universities were presented and discussed in working groups. The wide range of conference participants (N = 126) included members of research ethics committees, research institutes, health science students, faculty and leaders of governmental and civil society organizations.

Outcome & Evaluation: In a self-administered evaluation, participants highlighted the usefulness of topics covered, the importance of multi-cultural perspectives of health, and the importance of continuing bioethics and research ethics education. Only 20% of participants had previously participated in research ethics workshops. Participants commented that increased support for research and the development of publications is needed. Participants emphasized that bioethics and research ethics education should be competency-based across health science programs. An 85% of respondents stated they would make changes in the application of research ethics in their work as a result of what they learned in the symposium.

Going Forward: These dissemination activities demonstrate the ongoing commitment of Bolivian research ethics leaders to expand the network of health science faculty, researchers, health professionals and health leaders with bioethics and research ethics expertise.

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A qualitative exploration of misperceptions, expectations and attitudes towards professional midwifery in Guatemala

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Background: Despite Ministry of Health (MOH) recommendations that all women give birth with a skilled birth attendant (SBA), 70% of births in Guatemala take place outside health facilities with traditional birth attendants (TBAs), who are not formally trained. To increase SBA in rural, indigenous communities, the MOH opened a professional midwifery school in 2015—the first of its kind since 1960. This paper aims to identify possible threats and facilitators to this strategy's success in Guatemala by assessing attitudes, misperceptions and expectations for the introduction of midwifery to the healthcare system among diverse cadres of stakeholders.

Methods: Qualitative, in-depth interviews were conducted with 32 physicians, nurses, and TBAs in six health centers and with key decision makers and midwives in Guatemala City. We conducted open and axial coding and thematic analysis in Atlas.ti informed by grounded theory. We performed normative comparisons of participants' attitudes, misperceptions, and expectations for midwifery with the National Vision and relative comparisons of these themes within and across disciplinary subgroups of participants in order to elucidate facilitators and threats to the success of midwifery.

Findings: Physicians, nurses and TBAs were unable to define professional midwifery. There was both an acceptance and anticipated resistance toward professional midwifery by all subgroups. Most stakeholders were aligned in terms of expectations for the midwife in the health facility, the need for her to coordinate with TBAs, and with intercultural care. However, there were notable differences in expectations toward supervision of and by the midwife, the specific roles of the midwife in the community, and the nature of the midwife's relationship with TBAs.