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HEALTH SYSTEMS AND HUMAN RESOURCES

Teach Back Method: Improving Healthcare Provider Counseling of Pediatric Patients with TB and their Caregivers in Chongqing, China

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Program/Project Purpose: The world's medical community is launching a dramatically accelerated fight against tuberculosis (TB) and those most affected by it: the poorest, most vulnerable, socially marginalized, and inequitably served. From among these vulnerable groups are children. The purpose of this quality improvement project was to provide technical assistance to a large pediatric hospital in Chongqing, China to improve the way they counsel their patients with TB and their caregivers.

Structure/Method/Design: Focus groups composed of staff nurses and physicians were asked how they currently approach TB and TB counseling. Caregivers of children with TB were also asked how they would like to be counseled.

Outcome & Evaluation: Two gaps were discovered: (1) lack of patient education materials such as handouts or posters and (2) the need for healthcare provider training on patient education delivery. To address these gaps, hospital staff were trained on the Teach-Back Method, an effective, time efficient, and widely used patient education technique targeted to improve patient adherence to treatment. Likewise, staff were supplied with simple and culturally-appropriate patient education handouts detailing TB signs and symptoms, treatment, follow-up care, and prevention.

Going Forward: It is the hope that these two approaches will lead to the continued implementation of the Teach-Back Method with the broader goal of empowering patients with TB and their caregivers and improving their adherence to TB treatment.

Source of Funding: Center for Health Equity-Dickey International Health Fellowship, Dartmouth College.

Abstract #: *1.001_HHR*

The Effects of Traditional Gender Roles and Perceptions on the Post-Graduation Choices of Female Medical Students in Khartoum University, Sudan

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Background: Traditional Gender roles and the perceptions of what is expected of women in society, heavily influence women's career choices in Sudan. Female medical students constitute more than two third of the student population at the University of Khartoum and other universities in Sudan. However, the number of working female doctors is less than half of the workforce. Moreover, more female doctors specialize in the fields of Paediatrics and Obstetrics and Gynaecology in comparison to Surgery. The disproportion between the student population and working doctors as well as the aggregation in one or two specialities constitute an additional burden to an already weak healthcare system. This study aims to identify the causes of such disproportion and the community preference for female doctors in different specialties.

Methods: A cross sectional study with two sets of questionnaires. One questionnaire gathered data from 150 female medical students with clinical experience (4th, 5th, and 6th year students) at the University of Khartoum. The questionnaire focused on preferences after graduation. The second questionnaire targeted two counties, Alriaad (high income) and Abuadam (low income) with a total of 320 participants to assess the community gender preferences for doctors in different specialties.

Findings: 2.7% of female students stated that they will not work after graduation. Additionally, 18.7% of female students will not work after graduation if they get married or are to work in remote areas with strong views on women roles in society. The perception of female medical students about the community's preference for male surgeons is in contrast with the community's stated preferences. While 19.1% of female students list surgery as their first option, they list fear of community acceptance as a factor in choosing their specialty. However, the vast majority of people express no preference for male over female surgeons and only 16.9% stated that they will only go to a female surgeon if no male surgeon was available.

Interpretation: The disproportion in numbers of female medical students and female doctor affects the workforce and the healthcare system and is an issue that needs to be addressed by the Ministry of Health in Sudan.

Source of Funding: None.

Abstract #: *1.002_HHR*

Outcomes and Predictors of Mortality in Neurosurgery Patients at Mbarara Regional Referral Hospital, Mbarara, Uganda

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Background: The unmet surgical need, specifically neurosurgical need, in Uganda is significant, yet only two public hospitals currently perform neurosurgery in the country. This study examines the epidemiology and outcomes of neurosurgical conditions presenting to one of 12 regional referral hospitals in Uganda, in an effort to understand the neurosurgical needs of this population.

Methods: The study was conducted at Mbarara Regional Referral Hospital (MRRH), in southwestern Uganda. Demographics,

clinical characteristics and outcomes were retrospectively collected for all patients that presented to MRRH with a neurosurgical condition between January 2012 to September 2015.

Findings: During the study period, 1854 patients presented to MRRH with a neurosurgical condition. Over 50% of patients were between 19 and 40 years old and the majority of were males (76.10%). The overall median length of stay was 5 days (IQR:2.50-10.00). The majority of admissions were due to trauma (87%), with almost 60% due to road traffic incidents (RTIs). The overall mortality rate was 12.75%, with a 9.72% mortality rate for patients who underwent a neurosurgical procedure, and 13.68% mortality rate for patients who did not undergo a neurosurgical procedure. A multivariable logistic regression model revealed that age, ICU admission and admission GCS have a strong positive correlation with mortality while getting a diagnostic image and surgical treatment were negatively correlated with mortality.

Interpretation: Neurosurgical conditions, especially traumatic brain injury, represent a huge disease burden in Uganda, yet neurosurgical capacity is lacking. Currently, the ratio of neurosurgeons in Uganda is 0.02 per 100,000 people. Establishing training programs in order to expand the surgical workforce, improve surgical capacity, and ultimately improve outcomes is a necessary step to meet the demand for neurosurgery given the current burden of disease. In addition, targeted injury prevention programs are needed to reduce the overall burden of neurosurgical trauma.

Source of Funding: Funding was provided by the Duke Global Health Institute and Duke University Division of Global Neurosurgery and Neuroscience.

Abstract #: *1.003_HHR*

Emergently Accessing a Higher Level of Care: Referral System Strengthening Efforts to Improve Maternal and Child Health in Cambodia

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Program/Project Purpose: Despite advances in BEmONC and CEmONC services in Cambodia, referral of women and children suffering from emergencies is often significantly delayed due to systemic barriers. These shortfalls disproportionately impact poor and rural patients.

In 2014, Stanford Emergency Medicine International partnered with University Research Co. in the 5-year, USAID funded Quality Health Services Project to improve maternal and child health outcomes in nine Cambodian provinces.

Working closely with the Ministry of Health (MOH), gaps in the current referral system were identified and capacity building interventions were crafted to address them. Implementation and follow up was also done in conjunction with government partners to maximize uptake and long term sustainability.

Structure/Method/Design: Recognition of sick patients: A simple, Cambodia specific triage system was effected at referral hospitals to help providers rapidly identify and prioritize sick patients. Emergency care and referral guidelines were also distributed to hospital providers to assist them in recognizing critical patients and administering evidence based treatments.

Enhanced communication: A standardized, MOH approved, referral slip was implemented to communicate clinical data between treating providers at each level of care. Provincial referral hotlines were established at all referral hospitals, streamlining the referral process and facilitating real time communication between providers at referring health centers or hospitals and higher level receiving hospitals. An ambulance Patient Care Report form was also created to relay ambulance care information.

Education, quality improvement and feedback: Utilizing a quality improvement approach, quarterly education and feedback forums were established, assembling providers from each level of the referral system to analyze referral data, discuss difficult cases, provide feedback and address systems challenges. Prehospital care training was also given to previously untrained ambulance providers to enhance their transports care skills.

Outcome & Evaluation: Impact metrics related to these efforts are 1) the number of complicated deliveries referred to a higher level of care and 2) the number of newborn complications referred to a higher level of care.

Going Forward: Gains are being made, however progress has been gradual. Incorporating proposed changes into institutional culture has been a challenge. Thus, project partners are restructuring reinforcement strategies to better align with provider values and facility goals.

Source of Funding: USAID.

Abstract #: *1.004_HHR*

Social Media and disease surveillance in Nigeria – the Role of WhatsApp

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Program/Project Purpose: Disease surveillance requires multiple avenues for data collection, information dissemination and connecting people to experts (Forster, 2012). Nigeria currently maintains a paper based surveillance system with vertically transmitted facility-based reports (FMOH, 2005). There are limited ways for the public to learn about trending disease outbreaks and the information is not readily available. University of Maryland Baltimore, Nigerian program implemented a CDC funded Strengthening Emergency Response Systems (SERS) project aimed at strengthening existing reporting surveillance systems. To address inefficiencies in the system we introduced the concept of a Connect Center that integrated people, information technology and social media to improve access to critical disease surveillance information.

Structure/Method/Design: We engaged and trained 8 customer care agents' to respond and provide feedback to the public on incidences or emergencies. In the event of a disease outbreak. They received weekly education on notifiable and non-communicable