

in 2015–16, and were given a single station, pass/fail, end-of-block OSCE in English. Palpitations and abdominal pain OSCE cases were adapted with permission from New York University. Six American teachers from the KU English Learning Center and five faculty from KUSOM were recruited and trained as SPs and faculty assessors, respectively, in 3 training sessions per OSCE. NYU's competency-based assessment checklists were used. To prepare students, specific bedside teaching sessions were delivered during the clinical block. Data was analyzed in REDCap and ethical approval was obtained at KUSOM.

**Outcome & Evaluation:** For each block, 58–100% students passed the OSCE. SPs gave well done marks to 50–88% for eliciting the story with appropriate questions, 8–20% for providing clear explanations about diagnosis and treatment, 58–76% for managing the physical exam respectfully, 66–80% for using clear and easy to understand English, and 50–64% of students would be recommended or highly recommended to a friend, respectively (N=48 divided into two blocks). Students who failed scored poorly on medical English anchors (N=10). Students most strongly agreed that the OSCE helped them identify strengths and weaknesses and stimulated them to learn more (3.24 and 2.96 averages, Likert scale 1=strongly disagree, 4=strongly agree).

**Going Forward:** KUSOM's OSCE pilot program exceeded expectations. Education and counseling was more challenging than information gathering or conducting physical examination. The second block performed better than the first block. The large increase in performance between blocks is likely explained by better attendance at bedside sessions. Offering OSCEs in both English and Turkish next year will help clarify whether their performance reflected clinical skills or English language alone. These findings inform expansion of curriculum and faculty development in bedside teaching at KUSOM.

**Source of Funding:** Koç University School of Medicine.

**Abstract #:** 1.014\_HHR

### Effect of Ethiopia's Health Development Army on maternal and newborn health care practices: A multi-level cross-sectional analysis

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**Background:** Addressing the shortfall in human resources for health, Ethiopia launched the community health extension program (HEP) in 2004 by establishing a health post and deploying two female health extension workers (HEWs) in every kebele (i.e., community) of the country to ensure universal access to primary health care. In October 2010 the HEP incorporated the health development army (HDA) strategy. The strategy was adopted based on the experience that using a network of the community health volunteers increased the efficiency of the HEWs in reaching households with actionable health messages. The strategy involves women from every 30 households led by one HDA team leader with

subgroups of six households each led by one HDA member, empowered to learn about the HEP from each other's experience. This study assesses the effectiveness of the HDA strategy in improving maternal and newborn health (MNH) care behaviors and practices.

**Methods:** Using cross-sectional survey of 4,246 women with children 0 to 11 months from 354 communities representing 140 rural districts, i.e., about 20 million people, of four regions of Ethiopia; an internal comparison group study design is applied to assess whether household-level MNH care practices were comparatively better in communities with comparatively higher level of HDA team leader to household density. Multi-level regression models, adjusted for possible confounders, were used for the purpose.

**Findings:** The average numbers of households per HDA team leader in the 25th, 50th and 75th percentiles of the communities under study were respectively 39, 49 and 71. HDA density was significantly associated with nine of the 16 MNH indicators considered. Communities with one HDA team leader for at least every 40 households were associated with 12.4, 10.0, 8.4 and 7.9 percentage-points higher ( $p < 0.05$ ) coverage of antenatal care, institutional deliveries, clean cord care and thermal care than those in communities with one HDA team leader for every 60 or more households.

**Interpretation:** We conclude that the HDA strategy effectively engaged communities to improve the efficiency of the HEP to deliver MNH services. Fostering community engagement through a network of voluntary community is a promising strategy to improve the efficiency of community-based health programs in resource poor settings.

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### Effectiveness of Using Community Mental Health Workers in a Community Mental Health Programme of a Rural Health Center in a Lower Middle Income Country

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**Background:** This paper highlights the experiences of a rural community based mental health programme (Maanasi Project) in providing essential mental health services to rural populations through community based health workers (CBHWs). The role of CBHWs in rendering psychiatric care is the bedrock for stymying a plethora of myths, misconceptions and stigma associated with mental illnesses. In this study we assessed their effectiveness in providing primary mental health services in a rural area.

**Methods:** Four literate, multilingual women from the rural field practice area of the study institution who were active members of women's self-help groups and were acceptable to the local communities were chosen.

CBHWs were trained for three weeks in the medical college hospital under the aegis of the department of community health and psychiatry. Post this training a mental health survey was conducted followed by once a week mental health clinics.

The effectiveness of CBHWs was assessed by conducting Key Informant Interviews (KII) with Medical Officers and four Focus Group Discussions (FGDs) with patients utilising these services.

**Findings:** The four CBHWs were actively involved in organising weekly psychiatry clinics. Thus far about 1600 patients from 206 villages have utilised this clinic. In the year 2015 alone, a total of 52 clinics were conducted accomplishing 1013 consultations. The CBHWs have made 556 village visits with 3795 patient and family contacts and travelled a distance of 6921kms.

The KIIs with doctors revealed that the CBHWs are a valuable resource for the centre's multitude of services. The FGDs with patients revealed that home visits by health workers have resulted in changing the attitude of their care givers and family members towards their problem, clearing of misconceptions and reduced stigma.

**Interpretation:** Continued recruitment of new patients, regular follow-up visits, data collection skills indicates the effectiveness of CBHWs in delivering primary mental health care services. CBHWs are acceptable to the community and health functionaries. CBHW have played a vital role in this service and the same model can be used in lower and lower middle income countries in improving the mental health of a rural community.

**Source of Funding:** The rural mental health programme "Maanasi" is funded by Rotary Clubs of Midtown, Bengaluru, India and Howard West, USA.

**Abstract #:** 1.016\_HHR

### **Challenges Faced by a Pre-vocational and Vocational Training Center for Adults with Autism-Spectrum Disorders (ASD) and Intellectual Disabilities (ID) in a Town in Northern India**

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**Background:** There is limited knowledge about adults with ASD in India and even less is known about their pre-vocational and vocational rehabilitation with a few exceptions (e.g. Daley, Weisner, & Singhal, 2014). This study examines the challenges faced in a center set up in one medium-sized town in North India with the aim of providing rehabilitation to this population during the course of three years.

**Methods:** Qualitative study.

**Findings:** These challenges included diagnosis of ASD and other IDs, parental motivation, transport, staffing recruitment and retention, behavioral challenges and lack of professional guidance, and societal awareness. One of the first major challenges faced by the center was the lack of definitive diagnosis of individuals with ASD. As there were no psychiatrists who diagnose ASD in town, parents were directed to another major city about three hours away. Several parents lacked motivation to alter their children's routine and were more likely to prefer the status quo. Almost all of the adults with ASD and IDs had been primarily staying at home for several years and did not have a social life or major interaction with people outside their homes. Some parents did not seem eager to alter their lifestyles to accommodate their children's need for rehabilitation. Problems in transportation cropped up with limited public transport options available in the town. Staff

recruitment and retention was a challenge with relatively few educational institutions catering to special education, as well as fewer graduates, who have to grapple with salaries lower than the average entry-level positions. Behavioral challenges in trainees at the center included self-injurious behavior, aggressive behavior towards their trainers, soiling themselves, and inability to change their repetitive and disruptive behavior. Professional guidance to manage these behavioral challenges was difficult to obtain consistently.

**Interpretation:** A lot of the above-mentioned challenges are directly or indirectly influenced by lack of societal awareness for these disorders in this cultural context. For instance, van drivers hired for transportation of trainees have been erratic in their attendance and punctuality, not realizing the need for a more fixed routine for the trainees and the havoc it may cause in the latter's training.

Solutions are proposed which include collaboration with local health systems.

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### **Training and Recruitment Strategies for Developing Sustainable, Global, Research Workforces in Low-Resource Settings: Perspectives From The International Family Study**

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**Program/Project Purpose:** As our world has undergone globalization, individuals, institutions, and organizations now have the ability to launch campaigns, research projects, and interventions throughout the world. Thus while this has presented tremendous opportunities in global health, it also raises challenges of how workforces will be recruited to achieve these goals. With our global research collaboration, The International Family Study, we have been able to recruit and train global teams to carry out essential research functions and achieve continual project growth.

**Structure/Method/Design:** The starting point for building local teams and workforces begins with the recruitment process. We have primarily used a partnership approach where institutions and other organizations are used as hubs to find the ideal people to get involved. Different workforce models have also been used successfully throughout implementation of the project, which include volunteer, contract-based, and mixed-funding. Models are chosen based on resources, educational experience and geographical settings. For training methods, the 'train the trainer' approach has been heavily utilized, allowing for growth and sustainability within local groups. Evaluation after training is also critical for project success and conducted through personalized quality control reviews.

**Outcome & Evaluation:** Through our various methods of team building, we have recruited a global workforce to carry out essential research functions. With over 100 individuals trained (75% of which represent unpaid volunteers) throughout the world it has allowed our project great flexibility to gather large-scale amounts of data. In evaluating recruitment, partnership pipelines with other volunteer