

**Program/Project Purpose:** Epilepsy is an important cause of morbidity, unemployment, poverty and stigma in Sierra Leone. The burden of disease is high with more than 60,000 people affected, but the disease is not prioritized within the national health-care system. People living with epilepsy – especially in rural areas – have virtually no access to healthcare providers, medications, or psychosocial support for their condition. Partners In Health / Wellbody Alliance (PIH/WBA) has developed a program in the rural Kono district to meet these essential needs for epilepsy patients.

**Structure/Method/Design:** In collaboration with the Epilepsy Association of Sierra Leone, in March 2015, PIH/WBA led a nation-wide training for community health officers (CHOs), including a CHO from our staff, on the diagnosis and evidence-based management of epilepsy. The PIH/WBA health center has provided free services to epilepsy patients for many years. To address the problem of limited access in rural areas, after the national training, PIH/WBA organized a regularly scheduled outreach clinic in Sewafe, one of the hardest-to-access areas in the Kono district.

**Outcome & Evaluation:** As part of the national program, these outreach clinics are organized monthly by CHOs from the Epilepsy Association of Sierra Leone. Medication is provided at a cost of two dollars per month. Given poor outcomes associated with epilepsy, PIH/WBA aimed to strengthen this program in Kono district. Regular physician supervision was provided to the CHO for program management and implementation. Supply chain for medications was ensured and all medications provided at no cost to the patient. Given the rural nature of our community, eliminating the barrier of medication cost has improved adherence. There has also been a significant increase in the number of visits and we now have 200 patients on treatment.

**Going Forward:** Untreated epilepsy is associated with a high risk of complications, including cognitive impairment, mental illness and injury. The expansion of the epilepsy program in our rural district using midlevel healthcare workers with supervision and supply chain support is a promising model to improve the outcomes for these vulnerable patients.

**Funding:** Funded by PIH/WBA.

**Abstract #:** 2.018\_HRW

### Evaluation on the impact of an observational study regarding functional capacity evaluation in Mexican population on 2014

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**Background:** Facing the drastic increase in the last years of sedentary lifestyle and obesity it is necessary to look for tools that help us confront these two entities and show people that through physical activity they can achieve beneficial results for their health, drastically reducing the risk of suffering degenerative conditions such as cardiovascular diseases, diabetes and cancer, among others.<sup>(1)</sup>

**Methods:** This program consists of a simple interview about nutritional and physical activity habits, somatometric measurements, simple physical tasks among which, we find the Course-Navette, an

internationally accepted test for cardiorespiratory capacity that can be easily done in large areas with pre and post measurements of vital signs. We used a written informed consent based on the International Conference of Harmonization guidelines and approved by the Anáhuac University Investigation and Bioethical Committee, obtained from the participants or legal guardians. Data analysis was made with the statistical program, SPSS, searching basically for central tendency measures. Functional capacity evaluation (FCE) is a set of tests that includes four parameters: oxygen consumption, nutritional, psychopedagogical status, and anaerobic tests status. This is a transversal, observational, descriptive study with a random sample of 1,200,453 individuals selected from different institutions across México (inclusion criteria: anyone older than four years old willing to participate; exclusion criteria: anyone that notified being pregnant, have any chronic lung or cardiac disease, or psychomotor disorder).

**Findings:** Its objective was to measure, evaluate and implement a FCE measuring system in which personal measures were established. Our analysis outcome showed that most of our population has results for poor and low FCE (<59%), followed by those with a result for healthy FCE (60-79%). Our median for FCE was 58.09%, average of 57.32%, mode of 53%.

**Interpretation:** The aim of building up regional, state and national strategies is to offer preventive care if any alarming data is detected and build up a diagnosis tool for Mexican population. Obtaining data from a sample big enough to represent Mexican population allowed us to make a general diagnosis which may be used for the creation and improvement of models for FCE measurement and preventive measures.

**Funding:** None.

**Abstract #:** 2.019\_HRW

### The state of the surgical workforce in Brazil: Distribution and migration

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**Background:** The overall distribution of surgeons in Brazil is uneven, with high concentrations in the cities and little to none in rural regions. This study aims to map and characterize the surgical workforce in Brazil, in order to stimulate discussion in future surgical policy reforms.

**Methods:** Using data from the Ministry of Health and professional medical societies, surgeons, anesthesiologists and obstetricians (SAO) were identified. The physicians were geo-located and mapped against the population density and distribution of Brazil. Migratory patterns were analyzed to determine donor and recipient areas of the surgical workforce.

**Findings:** There are 92,556 SAO in the surgical workforce (density of 45.26/100,000 population), 53,044 surgeons (25.94/100,000 population), 19,355 anesthesiologists (9.47/100,000 population) and 26,274 obstetricians (12.84/100,000 population), in Brazil. 56.1% of the surgical workforce, 55.9% of surgeons, 59.9% of