Annals of Global Health, VOL. 83, NO. 1, 2017
January–February 2017: 3–11

their needs and organizing strategies to meet those needs to a desired performance. There is inadequate evidence on interest, level of influence and effects of participation on facility performance. This study sought to explore the structures, intrests and level of influnce of collaborative level representatives in provision of primary care services in Uasin Gishu County

Structure/Method/Design: Case Study Methodology. Five primary health care facilities were selected purposively, from the six different sub-Counties. Study population included health facility committee representatives and other stakeholders working to represent community members in health activities. Data collection was through observation, Key Informant interviews, informal group discussions and review of documents including minutes. . Data was captured using audio recording, pictures, notetaking and a reflective journal. Data was and transcribed cleaned coded and analyzed into emerging themes.

Findings: A total of 26 respondents were interviewed, and minutes of 5 facilities for s reviewed of the past 2 years starting 2014. Attended 3 public health public participation activities, and sat in three meetings. Health Facility Committee is the main formal government structure for community members to participate. There was no formal schedule for meetings attendance except for one facility.

Committee mainly meet when there is funds for facility or any project going on. The facility committee's members participated majorly in projects as opposed to day to day functioning of facility. The committee members generally attended all meetings funds.

Committee members with bigger influence were former political leaders or retired government officials. They are also able to lobby with government for mainly infrastructure support

Sometimes the committee members whistle blow on lack of drugs or shortage of facilities to political leaders like Governor.

Outcome & Evaluation: Structures of collaborative representation should be strengthened. A coordinated and collaborative response is required to tackle the complexity collaborative participation. Collaborative participation is a delicte process and needs strentnening for representation of community inteests

Going Forward: Community has some level of influce which utimately affects the service delivery.

Source of Funding: Consortium for Advanced Research Training in Africa (CARTA). Future heath systems.

Abstract #: *LAN.003*

TEAM Malawi: Low Cost Digital Microscopy for Automated Lab Testing

D. De La Torre Campos[1], *J. Achempong*[2], *A. Atta*[1], *S. Claybon*[1], *D. DeVincentis*[1], *A. Edrees*[1], *D.L. Jones*[1], *S. Mackey*[1], *R. Schliemann*[1], *S. Tahir*[3], *J. Bird*[4], *A.A. Muelenaer*[5], *P. Muelenaer*[3]; [1]*Virginia Tech School of Engineering, Blacksburg, USA,* [2]*Virginia Tech, Blacksburg, USA,* [3]*Virginia Tech Carilion School of Medicine, Roanoke, USA,* [4]*Cardinal Mechatronics, Blacksburg, USA,* [5]*Virginia Tech Carilion School of Medicine, Roanoke, Virginia, USA*

Background: Today, Malawi is suffering from a major shortage of qualified lab technicians to scan, diagnose, and treat its population. Increased accessibility of accurate diagnostic mechanisms is the first step towards better specialized treatments which ultimately can lead to a healthier global population. Although not prevalent in developed countries, Tuberculosis affects 281 people per 100,000 in lesser developed nations, particularly in Africa. Current conventional light microscopy that examines Ziehl-Neelsen-stained direct smears requires trained staff and time. Fluorescence microscopy (FM) can be applied for specific situations and has shown to have high sensitivity, short examination time, and requires less sample magnification, rendering it more efficient. However, its widespread use has been limited by its high equipment cost, which warrants the need for automated, low cost digital fluorescence microscopy and systems for the detection and diagnosis of Tuberculosis.

Methods: The system we propose to build must be capable of running on battery power for an extended period of due to the limited reliability of power grids in Malawi. It will be able to use its on board computer to automatically focus, scan and process the fluorescing sample to accurately give a diagnosis by the WHO standards; freeing up to six hours of the technicians' time per day to perform other tasks. To increase its durability and assure reliability, the device will be designed to withstand a fall from chest height. Furthermore, the applications of this automated, low cost digital fluorescent microscopy unit are not limited to just Tuberculosis and can be potentially used to scan for neglected tropical diseases such as Schistosomiasis.

Findings: Interviews with lab technicians on past trips to Malawi indicated a clear benefit for improved technology to process and screen lab samples. Most of the technicians had a high workload and many did not have access to the equipment to manage that. This test platform will provide low-cost light-field and fluorescence digital microscopy that can take auto-focused images to scan slides for automated computer vision screening of samples.

Interpretation: The development of this low cost device will significantly increase the accessibility to FM techniques and improve global health overall.

Source of Funding: Pediatric Medical Devices Institute and Virginia Tech College of Engineering.

Abstract #: *LAN.004*

Development and Testing of a Low Cost Videolaryngoscope in a Resource Limited Setting

A.V. John[1], *S.C. John*[2], *C. Lambert*[3]; [1]*University of Michigan, Ann Arbor, Michigan, USA,* [2]*University of Michigan, Ann Arbor, MI, USA,* [3]*Royal Free Hospital, London, United Kingdom*

Background: The role of videolaryngoscopy has been increasingly recognized for training and management of difficult airways. Videolaryngoscopes improve visualization of the glottis for the anesthesia team and enhance supervision of intubation technique. Videolaryngoscopy requires less force than direct laryngoscopy, reducing cervical spine movement and permitting awake airway inspection and intubation. Current commercial videolaryngoscopes are too expensive for many resource-limited settings. We sought to address this problem by developing an inexpensive, reusable videolaryngoscope.