influence health systems and increase impact at scale. This paper presents a novel conceptual framework through which INGOs can catalyze the integration of community-based maternal, newborn, and child health (MNCH) strategies into existing health systems at the district, national and global level.

Structure/Method/Design: The framework is based on practical experiences of INGOs that have been engaged in community-based MNCH programs for over 25 years as well as current literature on scale-up, implementation science, and evidence-informed policy making. We present three complementary pathways that have been shown to be critical to the uptake of community-based MNCH strategies across time and context. Six case studies illustrate the operationalization of the three pathways within the context of community-based MNCH projects. The cases represent six countries from three regions (Latin America and Caribbean, sub-Saharan Africa, and South Asia) and six INGOs ranging in size.

Outcomes & Evaluation: The first pathway for integration, "learning for leverage," was demonstrated by Future Generations in Peru and CARE in Bangladesh. These two INGOs used community health strategies as sources of experimentation, innovation, and demonstration to influence changes in health systems and policy at a national level. The second pathway, "thought leadership," was made evident by the Haitian Health Foundation in Haiti and Hellen Keller International in Nepal, where they captured and diffused lessons learned to advance better ways of solving MNCH challenges. The third pathway, "joint venturing," was exemplified by two INGO consortiums: one in Rwanda and one in Senegal. These two consortiums worked in partnership with one another (as well as other public and private institutions) and used their collective voice to integrate community-based approaches into national health systems at scale.

Going Forward: Future community-based MNCH strategies must also address the primary components that drive their integration into existing health systems, including strategic responsiveness to national health priorities, partnership with policymakers and other stakeholde

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Abstract #: *01ETC055*

Neurosurgical educational and training support in DPRK

O. Lee-Park[1], S. Park[2], K.B. Park[3]; [1]Cornell University, Ithaca, NY/US, [2]Hope International School, Phnom Penh, Cambodia, Walnut, CA/US, [3]Department of Neurosurgery, Preah Kossamak Hospital, Phnom Penh, Kingdom of Cambodia, Walnut, CA/US

Program/Project Purpose: The Democratic People's Republic of Korea (DPRK) has been one of the most isolated and inaccessible nations in the world since the end of the Korean War in 1953. The amount of knowledge and interaction with North Korea doctors still remains minimal for the most part. However, in recent years, DPRK has been more receptive towards the global community—primarily those of non-governmental organizations (NGOs). One example is the North Korea Doctor to Doctor Initiative of the Korean American Medical Association (KAMA). In 2007, Korean-American neurosurgeons established contact and built a relationship with the neurosurgeons in North Korea. The aim of this project is to support neurosurgical education and training in DPRK as well as to foster a respectful and trusting relationship that can lead to other areas of engagement both in healthcare and beyond.

Structure/Method/Design: In order to maximize the impact, the Pyongyang Medical College Hospital, the main training facility for DPRK physicians was chosen with the goal of training the trainers. Initial thorough assessment of the existing capabilities allowed a systematic approach to build the neurosurgery capacity. Support for educational material including books, journals and media was supplemented with series of lectures. Medical equipment was delivered to coincide with the biannual visits to demonstrate proper use in surgery. To facilitate international exchanges, The Korean Neurosurgical Association (DPR) became a member of the World Federation of Neurosurgical Societies. To foster publishing, joint authoring of academic research has begun.

Outcomes & Evaluation: Endoscopic treatment of hydrocephalus has been introduced and is being performed routinely thus obviating the need for ventriculoperitoneal shunts in most cases. Spine stabilization techniques, from simple wiring to complex constructs are now available although the sustainability of complex implants remains an issue. With aid of new operating microscope, bipolar cautery and high speed drill, modern microneurosurgery expands the safety and the scope of surgeries that can be performed. A jointly co-authored vignette has been submitted to an international neurosurgery journal.

Going Forward: Although the progress made so far has been tangible and significant, the healthcare system in DPRK remains severely challenged. With the exception of actual travel to and from DPRK, no other means of communication is possible with the DPRK doctors. They are unable to access the internet or journals. Economic realities mean reusing of disposable blades, IV catheters, gauze, needles, Foleys etc until they are unusable. Through the channels opened by KAMA as well as others, it is hoped that the international community expand the exchanges with our North Korean colleagues and support them in caring for their patients.

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Electronic health record integration in an interdisciplinary short term medical service to the dominican republic

A. Lim[1], S. Williams[1], E. Kane[1], M. Vu[2], F. Villanueva[1], A. Birs[1], D. Feradov[1], J. Simms-Cendan[1]; [1]University of Central Florida College of Medicine, Orlando, FL/US, [2]University of Central Florida College of Medicine, Gulfport, FL/US

Program/Project Purpose: Medical Students Providing Across Continents (MedPACt), of the University of Central Florida College of Medicine (UCF COM), began developing a medical service trip to the Dominican Republic in 2011. Their project is to implement a portable, self-contained Electronic Health Record (EHR). Since 2012, the EHR program used is an OpenMRS module built by Partners in Health and the Regenstrief Institute. MedPACt is in partnership with UCF Undergraduate — Information Technology, in order to manage the EHR modifications specific for this service trip. The purpose of the EHR is to deliver a long-term patient record that is transportable and customizable to the local communities of the Dominican Republic for sustainable healthcare and assessment of community needs. In addition, MedPACt aims to implement the EHR to expose future clinicians to it and improve their patient interviewing and record keeping skills.

Structure/Method/Design: The primary goals of this year's trip were to improve both student EHR utility and clinic accessibility and efficiency. Participants that used the EHR included UCF students — medical, nursing, and engineering — and University of Florida

pharmacy students. The students were chosen based on international medical service trip experience. Sustainability was created through medical student created workshops which involved platform setup and interface walkthrough. EHR use in a clinical setting was practiced with Spanish speaking standardized patients in the Clinical Skills and Simulation Center at the UCF COM. Additionally, Wi-Fi extenders and a patient routing system were added to improve the clinic. During the service trip, the data was recorded on UCF COM issued iPads with portable keyboards which then delivered data wirelessly to a Latitude E6410 server laptop powered by a transportable gasoline generator.

Outcomes & Evaluation: Improved server function allowed the EMR to fully function for the duration of the trip without unmanageable outages, which was an improvement compared to previous years. A total of 573 patients were seen over 5 days and all were successfully recorded into the EMR, which is more than any previous year. A post-trip survey was conducted and indicated an improvement of the user interface compared to prior years, however there is still a need to improve EHR use during times of large patient intake.

Going Forward: The challenge of improving the interface for future service trips involves further interface customization to a more concise yet equally effective, student-friendly version, and improving the routing of patients. Unmet goals include implementation of a photo identification system, which would enhance documentation and overall clinic privacy and functionality.

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Translating data into actionable information: A network-centered approach to building data visualization capacity

A.B. Makulec, K. Morgan; JSI, Arlington, VA/US

Program/Project Purpose: Global health programs generate monitoring data, evaluation findings, and implementation research in order to share insights and knowledge to empower evidence-driven decisionmaking. When results are buried in long-form reports, the translation of information to action often falters: creating compelling data visualizations and visual reporting formats increases the likelihood of stakeholder uptake and use of learning. Building individual and organizational capacity for data visualization design provides a sustainable, team-centered approach to translating information into action through a network of visualization champions. Starting in March 2014, JSI developed and implemented an evolving strategy to build visualization capacity through facilitating workshops, developing targeted resources, and creating an internal data visualization learning network. As a result, staff are increasingly taking responsibility for and developing improved information sharing products through print, web, video, and interactive tools. This presentation will highlight the process and challenges of building individual and organizational data visualization capacity, highlight how our strategy can be adapted to other organizational contexts, and share tools and resources for data visualization design.

Structure/Method/Design: The strategy aimed to build individual and organizational capacity to create effective data visualizations and promote the use of evidence being generated through JSI's global health programs and research. Activities targeted all interested persons across the organization, with an emphasis on M&E, communications, and program management staff. Routine invitations to join the interest group were circulated electronically, and new staff are invited to connect with the network. Training and idea-sharing events were open to all staff, and resources are shared on web portals including Google Drive and SlideShare. A network facilitator manages ongoing capacity building events and material development.

Outcomes & Evaluation: JSI staff are increasingly experimenting with and using innovative platforms, tools, and approaches to visualize data, including videographic design in PowToon, transitioning from long form narrative reports to highly visual SlideDocs, and using Piktochart to design visualizations to augment presentations and reports. The resources produced as part of this initiative have received more than 2,000 views on SlideShare, and the internal interest group now boasts more than 200 members.

Going Forward: Finding meaningful ways to reach field-based staff is a continued challenge, due technology limitations and time differences. Creative approaches to addressing these challenges include piloting an ambassadorial approach, liaising directly with field-based

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Development of a family medicine specialty training program (FMSTP) in Lesotho

S. Malope[1], E. Nkabane-Nkholongo[2], R. Schumacher[1], B. Jack[3], L.P. Babich[4], B. Penti[5], K. Shaw[6]; [1]Lesotho-Boston Health Alliance, Boston University, Leribe, LS, [2]Lesotho-Boston Health Alliance, Maseru, LS, [3]Department of Family Medicine, Boston University Medical Center, Boston, MA/US, [4]Boston University School of Medicine, Murrysville, PA/US, [5]Boston University School of Medicine, Boston, MA/US, [6]Boston University Global Health Collaborative, Boston, MA/US

Program/Project Purpose: Lesotho suffers from a severe shortage of human resources for health. With no medical school and no postgraduate training for physicians, young and talented Basotho have had no other choice but to leave the country to attend medical school. Few return, in part because of the lack of opportunity for continuing education and specialty training in Lesotho. The purpose of the Family Medicine Specialty Training Program (FMSTP) is to increase the number of well-trained physicians in Lesotho who have the knowledge, skills and commitment needed to meet the health needs of the people of Lesotho, particularly in district hospitals.

Structure/Method/Design: The FMSTP is the first and only physician specialty training program in Lesotho. The FMSTP accepts Basotho doctors after they have completed medical school and at least one year of internship and who intend to stay in Lesotho long term. The four year program includes training in maternity care, pediatrics, adult and geriatric care, HIV/AIDS and TB, surgery, mental health, preventive care, community care, public health, health management, and working as a team within the districts. The FMSTP operates as a partnership between the Lesotho Ministry of Health, the Boston University School of Medicine (BUSM), and the University of the Free State in Bloemfontein, South Africa. The teaching is consistent with international best practices. The first two years of the four year program are focused intensely on clinical training at district hospitals in the north. Second year trainees also have specialty learning experiences for 1-2 month rotations in Maseru and in Bloemfontein, South Africa. The third and fourth years have a greater focus on community health with more rotations in community health centers. During the last two years, trainees also prepare a relevant research project. The FMSTP was accredited by the Council on Higher Education (CHE) in Lesotho, and graduates of the program are able to get