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 Funding: This paper was supported by the USAID-funded Maternal Child Health Integrated Program, under the terms of Cooperative Agreement GHS-A-00-08-0002-00. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.

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Neurosurgical educational and training support in DPRK

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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

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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