

**Funding:** Medical Education Partnership Initiative and Emory Global Health Institute

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### **Improving monitoring and evaluation capacity in an organization with a global reach: A mentoring and thought leadership approach**

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**Program/Project Purpose:** PATH, an international non-profit, working in over 70 countries, has initiated a program to build capacity in global Monitoring and Evaluation (M&E) staff. Like many non-profits, PATH has limited funds to build capacity of its staff and partners. Tools such as orientations, trainings and e-learning courses continue to be great channels to communicate best practices. However, the challenge remains how a decentralized organization can create an active learning environment that enables professionals to assess their competencies, identify priority areas for improvement, and create opportunities to apply and eventually master new skills. The M&E Professional Development Pathway (PREP), is a structured mentoring and thought leadership cultivation initiative. PREP originated out of the experience that e-learning courses alone were failing to provide adult learners with enough information for lasting capacity building in M&E skills; and that short-term technical assistance was not enough to provide opportunities for applied learning. PREP was created to bring together multiple learning approaches. The aims of this program are to work with a cohort of professionals to increase knowledge of M&E, provide structured opportunities to build skills, and cultivate a cohesive M&E discipline by formally connecting professionals from different parts of the organization.

**Structure/Method/Design:** This new and unique approach, was a nine-month long blended learning and mentorship program. Through the program, PATH staff from 22 offices worldwide apply to participate. After acceptance, the program features monthly webinars on 10 key competencies in M&E, mentor meetings on one particular competency area, and a community of peers to support growth.

**Outcomes & Evaluation:** PREP was designed to systematically track the progress of skill development by individuals at PATH. By following and evaluating the professional development of a few individuals, the M&E Dept. was able to understand the effects of capacity building for the organization. In addition to strengthened core competencies, the program evaluated progress against a learning plan outlining the intended development of the participant. During the pilot year (6 mentees), and an implementation year (10 mentees), progress has been tracked on outcomes from these individuals. Increases in both knowledge and experience were found. Relevant outcomes include capacity built, connection across countries and projects established, and contributions to the M&E at the organization. All of these improvements contribute to establishing an M&E discipline at the organization and will improve quality of work.

**Going Forward:** The challenges include continuing to recruit the appropriate level of staff member, with some foundational M&E skills and practice, but the need to improve and invest in other competency areas or broaden experience. Related to this, M&E staff who are skilled and competent do not have a similar program that will invest in building relationships and a community to share work with.

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### **Creciendo sanos (“Growing Up Healthy”): An early childhood health and development program in southwest Guatemala**

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**Program/Project Purpose:** The first three years of a child’s life are a critical period for brain growth and development with significant consequences for long-term future functioning. The importance of integrated interventions to improve early childhood health and development is widely recognized at an international level with the potential to enhance a child’s physical growth, socio-emotional and cognitive development, and the overall economic productivity of a society. Creciendo Sanos (“Growing Up Healthy”) is an integrated Early Childhood Health and Development Program that was specifically designed for use in southwest Guatemala since 2013. The program combines a series of neonatal home visits, mother-child interactive care groups, and community education sessions to enhance the health and development of children from 0-3 years of age.

**Structure/Method/Design:** The Trifinio area is an impoverished region with a population of approximately 25,000 inhabitants in the coastal lowlands of southwestern Guatemala. Creciendo Sanos participants include workers and the families of workers of a local private sector agricultural corporation. The program has three components: (1) Three Neonatal Home Visits made by community health workers (CHWs) to examine neonates and screen for maternal depression; (2) A series of four Group Health Visits (at 6, 12, 24, and 36 months of age) given by CHWs to educate caregivers on age-appropriate anticipatory guidance and perform growth monitoring/promotion and developmental screening; (3) Monthly mother-child interactive Care Groups from 2 months – 3 years of age that use participatory learning to promote responsive parenting techniques, provide peer support for mothers, reinforce caregiver knowledge of health topics, and perform growth monitoring/promotion.

**Outcomes & Evaluation:** Creciendo Sanos utilizes a mobile phone data collection system using the platform Open Data Kit (ODK). Information is collected by CHWs and then transmitted electronically through the ODK database and imported into a SAS statistical database for analysis. This system will facilitate an overall program evaluation with targeted and timely programmatic responses and rapid cycle feedback. The program evaluation will rely on time series comparisons of registry data from baseline when the program begins to changes in child health outcomes at regular intervals. We will assess program inputs, i.e. Neonatal Home Visits and participation in both Group Health Visits and Care Groups. Developmental screening tools (ASQ, MacArthur Communicative Development Inventory) will be included as indicators for child development, and parent behavior scores (HOME Inventory) will be used to assess exposure to development-promoting behaviors.

**Going Forward:** Creciendo Sanos is in an early implementation phase. We currently have ~150 children enrolled. Ongoing challenges include turnover and training of CHWs and designing a cluster randomized pragmatic effectiveness trial.

**Funding:** Seed funding has been provided by the Jose F. Bolaños Foundation in Guatemala City for a five year period.

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### **72hr patient follow-up as a metric for measuring outcomes and quality of emergency care provided in resource-limited settings: An outcomes study from a rural Ugandan district hospital’s emergency department**

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**Background:** In 2007, the World Health Assembly passed Resolution 60.22, highlighting the role for strengthening Emergency Care (EC) systems in reducing the burden of acute illness, injury, and acute decomposition of chronic disease. In 2014 Emergency Care (EC) training remains largely un-funded in low and middle-income countries (LMICs), where there is little consensus on reasonable quality metrics for EC. Creating contextually appropriate and cost effective programs for data collection enables development of quality metrics to demonstrate EC training program and Emergency Department (ED) efficacy. This study's aim is to assess the success of utilizing a 72 hour post-ED disposition follow-up (f/u) interview as a tool to calculate ED visit mortality and efficacy of care via a self-reported patient assessment of health status.

**Methods:** This is a retrospective review of an IRB-approved and prospectively collected Quality Assurance (QA) database, including all patient visits to the rural Karoli Lwanga District Hospital's Emergency Department, in Rukungiri Uganda between November 2009-March 2014. The ED is staffed by a unique cadre of specially trained mid-level Emergency Care Practitioners (ECPs), as a part of the hospital's novel education collaboration with Global Emergency Care Collaborative. 72 hour outcomes were assessed via review of hospital records and patient (or patient attendant) interviews by trained Ugandan staff. Interviews occurred in hospital wards for admitted patients and via mobile phone for patients discharged home from the ED or the hospital wards before 72hrs. When initial attempted follow-up was unsuccessful, daily phone calls were made until successful or 10 days status-post ED disposition. 72hr f/u success, mortality and subjective self-reported health status are represented as proportions and percentages.

**Findings:** The ED's QA database contained 23,180 patient visits. 15,084 (65.1%) patient visits had successful 72hr follow-up. There were 279 deaths in 23,180 total patient visits, giving a total ED mortality of 1.20% and 1.85% mortality for patient visits with successful 72hr f/u. Of 15,084 visits with successful 72hr f/u, 12,641 (83.80%), 1752 (11.61%), and 404 (2.67%) patients reported feeling "better", "the same", or "worse", respectively, compared to the time of ED presentation.

**Interpretation:** This study demonstrates successful 72hr post-ED f/u in a majority of patient visits to this rural Ugandan district hospital ED, thereby enabling the calculation of simple mortality as well as patient perception of patient health status 72hrs after ED disposition. Mortality is an unambiguously important outcome measure that will enable further derivation of case-specific metrics used to evaluate quality of care and eventual assessment of cost effectiveness. Developing a consensus for and implementing patient-centered and setting appropriate quality metrics will robustly demonstrate the positive impact EC has on the health status of patients and communities in LMICs.

**Funding:** No federal or private grant funds were utilized.

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## The impact of an elective on disability and global health on the perception of medical students regarding persons with disabilities

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**Program/Project Purpose:** Both domestically and abroad, physicians work with physical and mental disability on a daily basis. As a result, knowledge of disability rights and disability culture should be of utmost importance in medical training. Many efforts have been made to teach physicians about disability, including at the medical school, residency, and post-residency levels. However, few efforts combine both physical and mental disabilities and even fewer have encompassed a global theme in focusing on health disparities regarding persons with disabilities in the US and abroad. We set out to examine the impact of an elective course on disability and global health in a medical school pre-clinical curriculum. Our hypothesis was that students' competency regarding disability and attitude towards persons with disability would become more positive following completion of the course.

**Structure/Method/Design:** Participants were University of Michigan second-year students who selected this 2012 global health disability elective as one of their top three elective choices and were assigned to the course. The course, covering 4 hours over two days, focused on international laws, culture, and ethical challenges. It was taught by a psychiatrist, physiatrist, and disability advocate; all experts in global issues. Students completed pre- and post-course surveys. Primary outcomes included the previously validated Disability Attitudes in Health Care (DAHC) survey and a new 10-question survey of competency regarding physical and psychiatric disability issues on a national and global scale. Average pre- and post-course scores for items in both the DAHC and competency surveys were analyzed via student t-test in Excel. This retrospective study of de-identified data was exempt from our ethical review board review.

**Outcomes & Evaluation:** Nine of 11 students completed pre-and post course surveys. The average change in competency score was +3.23 (SD 0.66, 99%CI 2.49-3.97), with significantly positive changes in each question ( $p < 0.005$ ). The average change on the DAHC survey was +1.88 (SD 6.01; 99%CI -4.84-8.60) with no significant positive improvement ( $p=0.188$ ).

**Going Forward:** An elective course about disability attitudes and competency in a global health context has not been documented in the literature. Competency regarding physical and psychological disabilities both domestically and globally increased significantly. The lack of DAHC improvement likely represented a ceiling effect as scores were high compared to previous studies and this elective course preselected for interest. Acknowledging that the small population and non-validated competency survey leave room for debate, this early demonstration seems to have changed the competency of future physicians who already are interested in disability. This competency may make them better physicians and stronger advocates for people with disabilities.

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## Utilizing educational programming as a foundation for sustainable collaboration in resource-limited settings

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**Program/Project Purpose:** Academic Medical Centers (AMCs) have a unique opportunity to sustainably benefit resource-limited