**Structure/Method/Design:** This fellowship addresses two interrelated, unmet needs in nursing education: post-graduate global health training for US-based APNs; and clinical, didactic and leadership support for nursing staff in low-resource settings. The one-year fellowship is based at Hinche Hospital in Haiti. Two NP fellows are selected annually from an applicant pool of NP graduates. Medical and nursing leadership in Haiti are engaged through our partner, Partners In Health. The NP Fellowship was invited by and designed in collaboration with Partners In Health. We are positioned to work as a true interprofessional partnership, as the model is based on the UCSF Global Health Hospitalist Fellowship program, which has been in place at Partners In Health's Hinche Hospital for two years and has shown successful outcomes.

**Outcomes & Evaluation:** The desired outcomes for this project are: a) an improvement in the NP fellows' efficacy in global health competencies; and b) an increase in clinical and leadership skills and job satisfaction by Haitian nurses. Collaborating with UCSF and Haitian physician colleagues, the NP fellows will contribute to interprofessional capacity building through clinical and management training with nursing leadership and staff in Hinche. Ongoing monitoring and quarterly evaluation criteria include qualitative data from Fellow and Haitian nurse interviews, surveys and clinical observation, as well as quantitative data from supplemental charting of clinical activities.

**Going Forward:** As of the submission of this Abstract, the fellowship program has just been launched (September 2014). At conference time, we will share our successes, challenges and program modifications.

**Funding:** The project is funded for three years by a private donor. Using a robust monitoring and evaluation strategy, we will be prepared to apply for further funding when the initial grant period is complete.

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## Evidence-based scale-up of mSakhi community health worker mHealth system in Uttar Pradesh, India

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**Background:** India's accredited social health activists (ASHAs) receive 33 days of classroom training on maternal, newborn, and child health (MNCH) and have access to paper-based job aids. However, many ASHAs' knowledge, counseling skills, and ability to diagnose sick newborns are inadequate, and use of job aids for counseling and newborn danger sign assessment is ineffective. In one study, ASHAs misclassified 7 out of 8 infants as normal although investigators detected signs requiring home-based care. The Uttar Pradesh (UP) government expressed interest in using mHealth technology to improve ASHA performance. In 2012−2013, the IntraHealth International-led Manthan project assessed the feasibility and effectiveness of mSakhi, an mHealth application, to improve ASHAs' capacity in counseling, assessment, and identification of care or referral needs.

**Methods:** The Manthan project conducted two studies evaluating mSakhi functionalities. IntraHealth's institutional research review committee reviewed protocols and determined that the research adhered to human subjects protection requirements. The first study (Bahraich District) tested mSakhi feasibility and effectiveness as a self-learning and counseling tool with 86 ASHAs (46 experimental, 40 comparison). The second study (Jhansi District) evaluated mSakhi effectiveness for postnatal newborn care assessment and referral with 57 ASHAs (29 experimental, 28 comparison). ASHAs in experimental arms used mobile phones preinstalled with mSakhi and received usage training; comparison ASHAs received training on paper-based tools. All ASHAs received routine monitoring and feedback. At baseline/endline, the studies assessed MNCH knowledge and observed counseling and assessment skills. Differences-in-differences were tested for significance using Z-scores.

**Findings:** ASHAs were more likely to use mSakhi (55%) than flip-books (22%) during home visits. Knowledge of key MNCH topics improved significantly ($p < 0.001$) among ASHAs using mSakhi, who also demonstrated greater recall of at least six critical newborn conditions warranting referral. Counseling quality, measured as completeness of messages delivered (i.e., message given AND told about message importance AND tool used for reinforcement/illustration), improved significantly in the mSakhi group. ASHAs using mSakhi showed significantly better newborn assessment skills (weighing*, measuring temperature*, identifying breastfeeding difficulties***, examining pustules**, examining pus in umbilicus*) (*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$), and identified 10% of births as needing referral (versus 2.4% in the comparison arm).

**Interpretation:** The results indicate that the mSakhi mHealth application is more user-friendly and effective than paper-based job aids for ASHA activities including self-learning, counseling, assessment, and diagnosis. The design of the two studies did not permit measurement of community-level effects, but the findings make a case for implementing and evaluating mSakhi at scale. Given the evidence of mSakhi effectiveness in improving ASHA performance, the UP government is scaling up mSakhi in five of 75 districts (12,000 ASHAs) to inform statewide scale-up.

**Funding:** The Bill & Melinda Gates Foundation.

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## Outcomes of the NIH fogarty international clinical research program: Early alumni publications

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**Program/Project Purpose:** In order to train global health researchers, between 2004 and 2012, the NIH Fogarty International Clinical Research Scholars and Fellows (FICRS-F) Program offered one-year mentored clinical research training experiences in low- and middle-income countries (LMICs) for competitively selected doctoral Scholars (n=413) and postdoctoral Fellows (n=105) in health-related professions from the US (n=256) and LMICs (n=280). Some trainees (n=18) were supported as both Scholars and Fellows (thus, total n=536).

**Structure/Method/Design:** We evaluated publications data from Fogarty International Center's CareerTrac database (a minimum estimate of the true number), entered through 15 October 2013 from alumni self-reports and CVs, and Internet and PubMed searches. We used linear regression to explore factors associated with numbers of publications.

**Outcomes & Evaluation:** Trainee research topics were 68% in infectious (47% HIV/AIDS), 18% in non-communicable, and 15% in infection-related non-communicable diseases ("combined"). Non-communicable and combined disease topics increased from 17% in 2004-2007 to 40% in 2008-2011. At least 10% of projects focused on each of these: basic science, health behavior, health care systems, pulmonary diseases, parasitology, sexually transmitted infections, tuberculosis, maternal and/or child health, and cancer. Of 1617 papers in PubMed, FICRS-F alumni were first author of 501 (31%).