# Integrated Infectious Disease Capacity-Building Evaluation (IDCAP): Executive Summary

In strong partnership with the Ugandan Ministry of Health, Accordia Global Health Foundation and its partners aim to investigate the most cost-effective way to build capacity for the care and prevention of infectious diseases among mid-level practitioners in sub-Saharan Africa. Through the staggered introduction of an integrated package of infectious disease capacity-building activities at 36 sites throughout Uganda, consisting of a core curriculum of integrated infectious disease training for mid-level practitioners and on-site support for multidisciplinary teams at the clinic level, the program will evaluate the impact of training on individual and clinic performance, and definitively test whether the incremental impact of on-site support services relative to classroom training alone can be cost-effective.

The World Health Organization has recently endorsed "task shifting" as an appropriate response to the acute health workforce crisis in sub-Saharan Africa. In partnership with the US President's Emergency Fund for AIDS Relief (PEPFAR) and UNAIDS, the World Health Organization (WHO) has developed guidelines for countries that plan to scale up its organized implementation.[i] Training mid-level practitioners to perform tasks conventionally assigned to doctors, and enabling non-professional personnel to perform less technical tasks such as counseling and adherence monitoring, can expand the total output of formal and informal health systems,[ii] and could play a vital role in helping sorely strained health workforces in resource-limited settings better address the needs of their patients.

Task shifting is already a reality, partly out of sheer necessity. In Uganda, a national HIV/AIDS Training Needs Assessment performed by the Infectious Diseases Institute revealed that responsibilities usually reserved for a doctor, such as prescribing, are routinely performed by clinical officers and nurses. The study also showed, however, that the majority of those mid-level practitioners report feeling *insufficiently trained* to carry out such activities.[iii]

Little has been done to evaluate disparate approaches to improving healthcare service delivery through human resource development: training efforts vary in course content, duration, target recipient, and educational methodology. Despite evidence suggesting that knowledge gained through intensive classroom training courses is not fully applied once the trainee returns to his/her real-world clinical setting,[iv] and that on-site training[v] and supervision[vi] can favorably impact clinical practice, *investment in human capacity-building continues to be concentrated on classroom training with little or no follow-up reinforcement.*

The global health community is now poised to exponentially expand training efforts, as evidenced by plans to train 140,000 health workers in the recently approved PEPFAR reauthorization bill. However, unless action is taken, such programs may commence without the prerequisite understanding of which training approaches yield the best and most lasting results. Major funders, organizations implementing training programs, and African governments urgently need to know what type of training program to implement with their precious resources.

Accordia Global Health Foundation (Accordia) and its implementing partners have extensive experience in the advanced training of medical personnel in Africa. Accordia's partners include: Uganda's Ministry of Health, WHO, Infectious Diseases Institute at Makerere University (IDI), University Research Co. LLC's Center for Human Services (URC-CHS), and the International Training and Education Center on HIV (I-TECH).

- Accordia has a strong working relationship with Uganda's Ministry of Health, substantial experience in providing tailored training to healthcare workers from 26 countries in Africa, and access to a network of leading infectious disease scholars and practitioners from North America, Europe and Africa (Accordia's Academic Alliance).

- IDI, a center of excellence in Uganda, has developed a training program, supported by Accordia, that is the product of international expertise painstakingly refined by formal and informal feedback from its graduates, instructors and other stakeholders. The program's various training courses each contain innovative design elements that are proving particularly effective in building lasting capacity among healthcare workers of all cadres.[vii] IDCAP integrates these outstanding training programs and their innovative delivery mechanisms to determine the best approaches for the training of mid-level practitioners.
- URC-CHS is currently performing Continuous Quality Improvement activities and tracking multiple indicators in nearly 100 health facilities in Uganda in partnership with the Ministry of Health.
- I-TECH, based at University of Washington, has proven expertise in curriculum development, program monitoring and evaluation, and cost-effectiveness analysis.

Together, our combined expertise and position provide an unprecedented opportunity to test the efficacy and cost effectiveness of an integrated training program in equipping mid-level practitioners with the knowledge and skills to perform key tasks associated with the care and prevention of infectious disease.

Objective #1 - Create an optimal capacity-building program for the integrated care and prevention of infectious disease, built on the hypotheses that a core curriculum of infectious disease training, complemented by on-site support services for multidisciplinary clinic teams, can cost-effectively improve individual and clinic performance.

At 36 health facilities throughout Uganda, IDCAP will deliver an integrated package of capacity-building activities for appropriate prevention and care of infectious disease. Accordia and IDI have six years of experience developing locally relevant curricula for the prevention, care and treatment of infectious disease in Africa. With our key partners, we are building on existing training programs including the WHO's *Integrated Management of Adult Illnesses* program and the Joint Uganda Malaria Training Program (JUMP), and the substantial expertise of our partners and others, to develop an optimal, integrated package of capacity-building activities for appropriate care and prevention of infectious disease, including two main components:

1. Core Infectious Disease Training (IDT) - An integrated core curriculum for mid-level practitioners – clinical officers and nurses – on the care and prevention of infectious disease and the practice of continuous quality improvement (CQI), delivered at IDI with extensive clinical sessions.
2. On-Site Support Services (OSS) – CQI activities and a set of responsive Multidisciplinary Team Training modules for use at the clinic level for teams of medical officers, clinical officers, nurses and midwives, laboratory technicians and records keepers

After each core and booster course, trainees will participate in distance learning activities to reinforce their classroom training. As part of their distance learning modules, trainees will consult the AIDS Treatment Information Center (ATIC), a pharmaceutical warm line at IDI that responds to healthcare worker inquiries.

Objective #2 – Evaluate the effectiveness of the Core IDT, and the incremental impact and cost-effectiveness of OSS, through their staggered introduction across sites and by testing key hypotheses

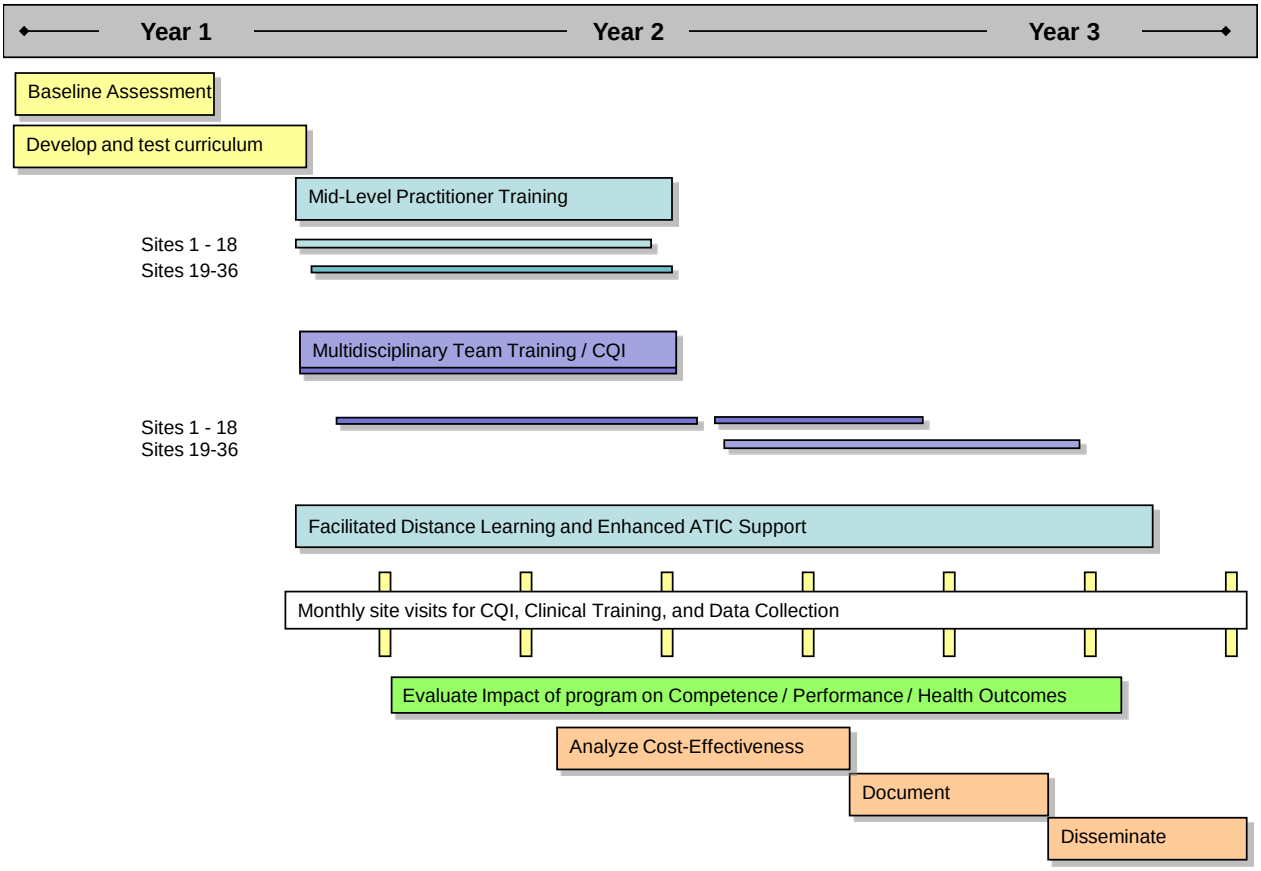
Two arms of 18 clinics will receive randomized and staggered introduction of IDT, OSS, and reinforcement. (See evaluation design in Figure 1.) The two arms will be compared to test three hypotheses:

1. An integrated IDT course can prepare mid-level practitioners to perform key clinical tasks at acceptable standards of care
2. OSS will significantly improve clinic performance and health outcomes
3. OSS can be conducted cost-effectively

The evaluation will ultimately identify the most effective and cost-effective blend of classroom training and follow-up on-site support for creating an optimized infectious disease training program and enabling the considerable amount

of global resources to focus on its replication throughout Africa and the developing world. The results of the evaluation would potentially benefit a significant number of the more than 620,000 nurses and an estimated 100,000 mid-level providers in Africa as well as the patients they treat.

Figure 1: Evaluation Design

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[ii] Global Health Workforce Alliance. Kampala declaration and agenda for global action. From the participants at the first Global Forum on Human Resources for Health inKampala, 2-7 March 2008. Available online at: http://www.who.int/workforcealliance/forum/2_declaration_final.pdf Accessed on March 26, 2008.

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