



TRAINING AND MENTORING CLINICAL HEALTH WORKERS IN KENYA

Efficiency Gained from the Proposed Harmonized HIV Curriculum

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E²—improving efficiency and effectiveness for health

Key Points

- When decentralizing services, there is a need to expand HIV training and mentoring for more healthcare workers.
- The harmonized HIV curriculum proposed for in-service training and mentoring will be more efficient and effective than the current training program.
- The harmonized curriculum utilizes a skills-building strategy that consolidates self-learning through off-site training and ongoing mentoring.
- The most efficient model of ongoing mentoring still needs to be identified.

Research Questions

1. What is the total efficiency gained when comparing the off-site components of the proposed harmonized curriculum and the current program?
2. What is the unit cost per person per day of different models for ongoing mentoring?
3. What is the impact of the different mentoring models on the number of missed patient encounters in the HCW's home facility?

Background

To address the inefficiency of uncoordinated off-site training and limited mentoring for healthcare workers (HCWs), the National AIDS & STI Control Programme (NAS COP) and its partners have proposed a new, harmonized HIV curriculum. The curriculum uses a blended skills-building strategy that combines *self-learning*, *placement* (off-site face-to-face interaction with mentors), *ongoing clinical practice*, and *ongoing mentoring* (see Figure 1). For the curriculum to be adopted and used effectively, stakeholders need to understand the potential benefits of the strategy. Further, NAS COP needs to identify the most efficient model for ongoing mentoring.

Methodology

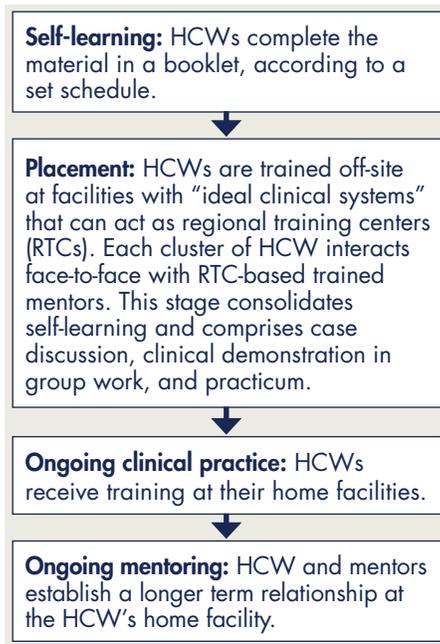
In collaboration with key stakeholders in NAS COP, the Health Policy Project identified and answered several research questions. In the new curriculum, HCWs are divided into *clusters*: clinical, pharmacy, laboratory, nutrition and counseling, and social work. We focused on the *clinical cluster* (doctors, clinical officers, nurses).

For the first research question, efficiency was defined in terms of the relative costs of the placement stage. For both the current and new strategies, we calculated the direct costs of the off-site component, which relates to the time spent away from the HCW's home facility. Cost data from the current program were used along with the design of the new curriculum and skills-building strategy. For the research questions on mentoring, we identified two models (see Box 1):

1. District Health Mentorship Training (DHMT)
2. Roving Clinicians Model (RCM)

For the *ongoing mentoring* analysis, we gathered cost data from two Kenyan pilots related to the models. We analyzed the indirect cost of ongoing mentoring as the estimated missed patient encounters due to an HCW or mentor being away from their home facilities.

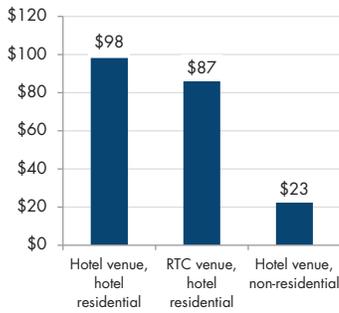
Figure 1. A new blended skills-building strategy



Source: Mukui, I. 2012. "Implementation of the Harmonized HIV Curriculum." Presentation made at the Kenya HIV Training Stakeholders Meeting, August 28, 2012.

Information on the ongoing mentoring models was incomplete; therefore a few assumptions were made. DHMT was assumed to involve three mentors per team, reaching five HCWs per facility and each facility five times per year. The team is drawn from the district, hence travel costs are minimal. Mentors receive a three-day refresher training. The RCM was assumed to involve 10 clinical officers who travel to 45 lower-level sites. On average, each clinical officer visits five sites per week (one per day) to train five HCWs per facility. The clinical officers receive a three-day refresher training at the start and mentor for half of the year.

Figure 2: Range of off-site training cost per HCW per day



Source: GFATM Round 10 Proposal and Mukui, I., 2012. Estimates include cost of trainers, venue hire, stationery, per diem, and transport.

Efficiency of the Harmonized Curriculum

The cost of off-site training depends largely on the need for accommodation (see Figure 2). We assumed that placements under the harmonized curriculum are residential.

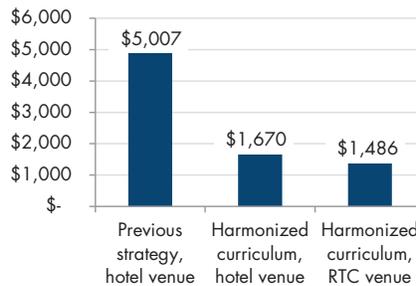
The venue for placements hosts group learning, face-to-face interactions with a mentor, and case discussions. When the RTC is a public district or provincial hospital, no venue hire costs are incurred; this reduces the cost per HCW by \$11. When accommodation is not required, the cost is reduced by \$75 (see Figure 2).

Table 1. Comparison of off-site training schedules for clinical health workers

Previous program	Harmonized curriculum
Adult antiretroviral therapy: 5 days	Orientation: 1 day
Pediatric antiretroviral therapy: 6 days	Placement #1: 5 days
Prevention of mother-to-child transmission: 10 days	Placement #2: 5 days
Psychosocial care: 5 days	Placement #3: 5 days
Tuberculosis/HIV integration: 5 days	Evaluation: 1 day
Nutrition: 5 days	
HIV testing and counseling: 15 days	
Total off-site: 51 days	Total off-site: 17 days

Source: Mukui, I., 2012.

Figure 3. Total cost per HCW of off-site training under the previous program vs. the harmonized curriculum



Source: Authors' calculations.

Capacity constraints at district and provincial hospitals will mean that some placement meetings will be held at hotels for the foreseeable future. Regardless of venue, the off-site training schedule for the clinical cluster is more efficient under the harmonized curriculum—evident by the significantly reduced number of off-site days (see Table 1 and Figure 3).

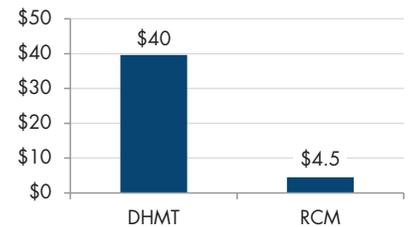
Based on these results, the new harmonized curriculum and skills-building strategy represent a cost-efficient choice for the Kenyan HIV program.

Comparison of Two Ongoing Mentoring Models

Figure 4 compares the unit costs of the DHMT and RCM. Program management costs were excluded. The RCM was less expensive than the DHMT, as it requires only one mentor for many trainees and the upfront re-training cost is spread over more days.

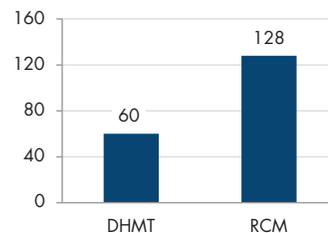
We analyzed the indirect costs (see Figure 5). We assumed mentors would provide services when not engaged in mentoring. The RCM value would rise if clinicians were roving full time.

Figure 4. Ongoing mentoring cost per HCW per day



Sources: DHMT: NASCOP (personal communication). RCM: Centre for Health Solutions. Daily mentor allowance: 8,000 KSh.

Figure 5. Missed patient encounters per HCW



Source: Authors' calculations. Assumed five days of off-site training.

Limitations of this analysis include the lack of a measure of training or mentoring quality and the use of data from pilot designs.

Given our knowledge and assumptions, the DHMT model provides the best balance of lower cost and less disruption to the health system for ongoing mentoring.

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