BACKGROUND

• The SEARCH Study is an HIV test-and-treat cluster-randomized trial which includes 32 communities of approximately 5000 individuals each. 

• SEARCH has achieved >90% HIV testing and >90% antiretroviral (ART) treatment for all HIV+ stable adult residents. 

• Streamlined HIV care utilizes: a patient-centered, multi-disease approach in a supportive environment; nurse-driven appointments (≥ 3 months) with co-located clinical/phlebotomy/laboratory services; appointment reminders; telephone access to clinicians; and viral load (VL) testing and counseling (q 6 months). 

• We estimated costs of streamlined HIV care within the SEARCH test-and-treat trial were similar to or lower than previous standard HIV care.”

METHODS

• We estimated the cost ppy of streamlined HIV care delivery in 17 health facilities in intervention communities in Kenya and Uganda within the SEARCH Study (NCT 01864603). 

• Streamlined HIV care utilized: • a patient-centered, multi-disease approach in a supportive environment; • nurse-driven appointments (≥3 months) with co-located clinical/phlebotomy/laboratory services; • appointment reminders; • telephone access to clinicians; and • viral load (VL) testing and counseling (≥6 months). 

• We calculated costs using standard micro-costing techniques, time-and-motion studies, interviews of supervisory staff, and administrative records review. 

• Cost categories included clinical and supervisor staff salaries, ART medications, VL testing, and fixed and recurring costs. 

• We modeled HIV care costs under optimal scale-up conditions. 

• Cost of Streamlined Care (ppy)

• Cost of Optimized Streamlined Care (ppy)

RESULTS

Effort of Clinic Staff toward Streamlined Care (Percent Effort) • Implementation of streamlined care differed by region: • In Uganda-West, streamlined care was nurse-driven with support from clinical officers, laboratory technicians and other staff (reserectors and community health workers). 

• In Uganda-East, streamlined care also included support from data officers to manage clinical care data. 

• In Kenya, implementation of streamlined care was more evenly distributed among nurses, clinical officers and laboratory technicians with substantial support from research assistants and lay health workers (peer educators and other staff). 

• Transition to government salaries would have a modest impact on overall costs (-$11 ppy). 

• National procurement of ART would have a substantial impact on the cost of streamlined care in Uganda (-$50 ppy). 

• Annual VL testing in centralized laboratories would have the most impact on overall costs (-$50 ppy). 

• Transition to government salaries would have a modest impact on overall costs (-$11 ppy). 

CONCLUSIONS

• Optimize scale-up may include: • lowest available ART costs ($100 ppy); • annual centralized VL testing ($24 ppy); and • transition to government salaries ($27 ppy). 

• The overall cost of streamlined HIV care in this optimized model would drop to $340 ppy. 

• National procurement of ART would have a substantial impact on the cost of streamlined care in Uganda (-$50 ppy). 

• Annual VL testing in centralized laboratories would have the most impact on overall costs (-$50 ppy). 

• Transition to government salaries would have a modest impact on overall costs (-$11 ppy). 

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Cost of Streamlined Care (ppy) • Streamlined HIV care delivery averaged $275 ppy. 

• ART medications (TDF/3TC/EFV) and VL testing dominated costs. 

• Staff salaries ($38 ppy for clinical (0.25) and supervisor ($1) staff); fixed costs (for infrastructure and equipment) and other recurring goods and services made up a smaller portion of costs. 

• Personnel costs were lowest in Uganda-East and highest in Kenya. 

• ART costs were lower in Kenya because of MOH procurement of medications.

Cost of Optimized Streamlined Care (ppy) • Observing scale-up may include: • lowest available ART costs ($100 ppy); • annual centralized VL testing ($24 ppy); and • transition to government salaries ($27 ppy). 

• The overall cost of streamlined HIV care in this optimized model would drop to $340 ppy. 

• National procurement of ART would have a substantial impact on the cost of streamlined care in Uganda (-$50 ppy). 

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