

Supplementary Online Content

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eMethods. Cost Analysis Methods

This supplementary material has been provided by the authors to give readers additional information about their work.

eMethods. Cost Analysis Methods

We applied micro-costing methods¹ to determine costs for rapid HIV testing and counseling, excluding research-related costs, in each clinic. Costs were designated as start-up, variable, or time-dependent. Labor time was calculated from centralized study records and during on-site interviews. Rapid test costs and labor rates were from national sources^{2,3} and other equipment costs were from the sites or central study depending on where they were purchased.

Start-up costs were primarily labor costs, including study staff time to create a rapid testing manual; local clinic staff time for on-line training, state-required training on HIV test administration and HIV counselor certification (which varied by state); study staff and clinic staff time on start-up calls on topics related to either or both interventions; an Antiretroviral Treatment Access Study (ARTAS) linkage to care training via conference call; in-person centralized training on risk-related counseling; in-person booster training sessions at two clinics; and clinic staff time to practice counseling sessions.

Variable costs included labor and materials for conducting each rapid HIV test. Labor costs were based on mean counseling session durations of 745 sessions (19% of all sessions) that were recorded for fidelity assessments, as well as estimates of clinic staff time for retrieving and setting up HIV tests, obtaining test specimens, and documenting test results. Variable material costs included the cost of the rapid HIV test, gloves, gauze, alcohol wipe, bandage, and condoms and lubricant packets (counseling intervention only). Time-dependent costs were labor and materials costs for inventory management (checking test temperatures and restocking inventory), quality control (running HIV test external control kits), and on-going local training. Time-dependent materials costs included the cost of rapid HIV test external control kits.

Non-facilities overhead was applied to all variable and time-dependent labor for activities that took place at the clinics. We first identified patient-related labor costs, other patient-related costs (e.g. supplies), non-patient related labor costs, and rent payments from each clinic budget. We defined non-facilities overhead as the ratio of non-facilities overhead to patient-related labor costs. Facilities overhead cost was calculated by multiplying the average market-value rental cost per square foot by the square feet of space used during rapid HIV testing and was added to the total variable rapid HIV testing cost.

For each intervention, we calculated start-up costs per clinic and variable and/or time-dependent costs per patient tested. Total start-up costs are reported as the median and range across the 9 clinics. Average cost per patient tested was calculated as the weighted average across all 9 clinics (weighted by number of patients enrolled in each clinic); we report this weighted average cost as well as the range across all 9 clinics. Finally, we calculated the cost per HIV patient detected to compare this outcome to costs reported in the literature.⁴ This is the cost per patient tested divided by the proportion of all tests conducted at baseline in the trial that resulted in a newly identified HIV infection. All costs are reported in 2010 US dollars from the STD clinic perspective.

References

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