THE COST OF IMPLEMENTING RAPID HIV TESTING IN SEXUALLY TRANSMITTED DISEASES CLINICS IN THE UNITED STATES

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**Supplementary Information on Costing Methods:**

*Variable and Time Dependent Costs*

Variable labor costs were based on pre-test and post-test information and counseling session durations for 745 participants (19% of all participants) that were recorded for fidelity assessments. Variable costs also included estimates of counselor time for retrieving and setting up HIV tests, obtaining test specimens, and documenting test results estimated during on-site interviews with counselors. Time for patients with non-reactive results was 6 minutes for information only, and 36 minutes for risk-reduction counseling. Time-dependent labor costs for checking test temperatures and restocking inventory, running HIV test external control kits, and on-going local training were also estimated during on-site interviews. The duration of fidelity assessments and on-going training calls conducted by trainers were from trial records; these activities were considered to be representative of time-dependent quality assurance activities that would be required if brief risk-reduction counseling was to be implemented outside of a trial setting. Both variable and time-dependent labor time estimates for counselors and trainers were multiplied by the national labor rate for the corresponding job categories from the US Bureau of Labor Statistics (BLS), assuming HIV testing would be conducted by counselors, as occurred in the trial, or other clinic staff members at a similar level. We used a 43.1% national fringe benefit rate\(^1\) and local labor and fringe rates for counselors were considered in sensitivity analyses. We assumed that counselors conducting rapid tests would work on other tasks unrelated to testing during “downtime;” therefore, counselor labor costs only include the portion of time spent on testing-related activities. In sensitivity analyses we varied the labor cost for these staff members, reflecting different assumptions about utilization of “downtime” for other tasks.

Materials required to conduct each rapid test (variable costs) include the cost of the rapid test and materials distributed during the counseling sessions. The unit cost of the rapid HIV test was the median cost ($12.00) reported in a survey of 58 state and local health departments for the
OraQuick Advance Rapid HIV-1/2 Antibody fingerstick rapid HIV test. The costs of materials provided as part of brief risk-reduction counseling (male and female condoms, lubricant packets) were from the clinics. The costs of other supplies and confirmatory tests (variable costs) and of rapid test control kits and condom demonstrators (time-dependent costs) were from study records or published sources. Individual clinics in the study used a variety of HIV testing algorithms. In this analysis, we assumed that a staff member conducted a rapid HIV test with or without brief risk-reduction counseling followed by a Western Blot confirmatory test if the rapid test was reactive. We assumed clinics already conducting pooled RNA testing would continue to do so, and that costs and outcomes of pooled testing would not be affected by implementing either of the rapid testing approaches evaluated in the trial.

**Overhead**

Overhead was applied to all activities that occurred at the clinic, including activities related to start-up, variable, and time-dependent costs. Overhead costs included two components: non-facilities overhead, calculated as a percentage of labor costs, and facilities costs, calculated based on square footage. The non-facilities overhead percentage applied to labor costs was calculated from clinic budgets as the ratio of non-facilities overhead costs (e.g. supervisory and administrative labor and fringe, telecommunications, utilities) to labor costs directly related to delivering patient care. The mean non-facilities overhead percentage across all 7 clinics, weighted for patient enrollment, was 68.2%. The facilities overhead cost was calculated by applying the local market-value rental cost per square foot to the clinic space used for each testing strategy. Local market-value rent was used because rent or mortgage payments reported in clinic budgets may not represent economic cost. Clinic space usage was calculated based on exam room square footage and the estimated proportion of exam room time used for each test. The weighted average market value rent among clinics was $13.71/square foot,
resulting in an average facilities cost per rapid HIV test offer of or $0.47 with information only or $2.33 with brief risk-reduction counseling.

References
