

Product Type: Meeting and Conference Presentation

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Title of Presentation: More with Less or Less with More? Understanding the Costs of Integrating HIV/STD Prevention Programs in New York State (Invited Roundtable Presentation)

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Key Findings:

- ◆ From 2010 to 2012, the overall cost of providing partner services and HIV testing programs dropped 8%.
- ◆ HIV testing efficiency improved, with cost/HIV test down 47% (\$226/test to \$120/test).
- ◆ Partner services case efficiency worsened, with cost/interview increasing 38% and cost per notification increasing 45%.
- ◆ New cases of HIV identified through HIV PS activities cost less than new positives identified through the HIV Clinic testing (\$24,252 vs. \$56,967).
- ◆ Staffing costs accounted for 50-60% of total program costs before and after integration. Allocating staff effort to cost-effective interventions is key to ensuring the appropriate use of limited resources.
- ◆ More research is needed on the cost-effectiveness of partner services for STDs such as chlamydia and gonorrhea.

“Combining interrelated prevention services rather than delivering [them] independently provides prevention service providers with greater flexibility when responding to changing disease epidemics or policy priorities by allowing them to build upon existing program infrastructures, and lowers the total cost of service provision.”

- CDC (PCSI White Paper)

The Context

Inspired by the CDC’s Program Collaboration and Service Integration (PCSI) initiative, the New York State Department of Health integrated its HIV Counseling and Testing and STD Disease Intervention Programs in April 2010. Staff providing client level services were cross-trained to conduct HIV testing in clinic and field settings, and to carry out partner services (PS) disease investigations for HIV and STDs. With the advent of rapid HIV testing, integrating historically separate HIV and STD programs provided the opportunity to enhance PS and its public health impact at the point of contact with clients.

In order to measure the impact of integration on service delivery and quality, the New York State Public Health Practice-Based Research Network conducted a multi-phase evaluation of the integrated HIV/STD program. A key component of this evaluation was to assess how integration impact the costs of delivering:

- ◆ HIV testing in non-healthcare settings, and
- ◆ HIV/STD partner services.

Research Findings

Program costs and effort (measured by weighted full-time equivalents (FTEs)) were allocated separately for each prevention service. As integration progressed, workers spent more time on Partner Services activities and less time conducting HIV Counseling & Testing Clinics.

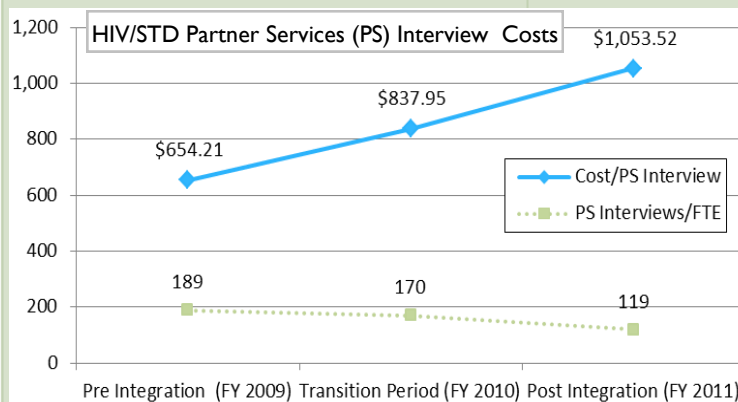
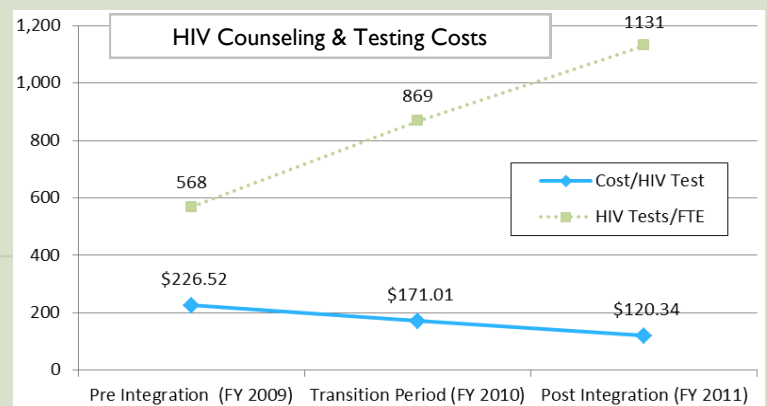
While overall HIV testing numbers declined in clinic and community settings, testing efficiency improved. With less staff effort allocated to HIV Counseling & Testing clinics, the cost per HIV clinic test decreased during and after integration (shown).

The cost per newly-identified HIV positive case remained high (\$55,967 in 2011), but still within the CDC threshold for cost-effectiveness (\$63,053). However, if positivity rates in tested populations decline in the future, testing under this program may no longer be a cost-effective intervention.

FTEs by Program (Based on Effort Allocation)

	Pre Integration	Transition Period*	Post Integration
HIV Counseling & Testing	23.5	13	7
HIV/STD Partner Services	17	21	30

*FTE totals are lower during transition due to staff time spent cross-training.



HIV/STD partner services costs increased during and after integration for multiple performance measures, including case assignments, interviews and partner notifications. Despite more staff time allocated to PS activities, there was only a small increase in case assignments, interviews, and notifications.

The graph (left) combines interviews for HIV, syphilis, gonorrhea, and chlamydia, but over 90% of cases assigned were chlamydia and gonorrhea diagnoses. Given that each PS interview currently costs >\$1,000, further research is needed to determine whether this is a cost-effective use of staff time and program resources.



Conclusions and Recommendations

Integration and cross training of staff has resulted in lower HIV testing costs in non-healthcare settings. However, this may not be a cost-effective public health services in the future if the ability to identify new HIV cases decreases.

Partner services has the potential to be a cost-saving method of identifying new cases of HIV, but challenges such as an antiquated surveillance system, lack of automated searches and limited access to information and data impacts staff activities. The need to revise priorities regarding case investigations that staff focus time on also impacts cost and performance. Further research needs to be done on the cost-effectiveness of PS for curable infections such as chlamydia and gonorrhea when compared to other PS activities, such as re-engaging HIV+ individuals that have been lost to follow-up.



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The cost savings and efficiency gains hypothesized by program collaboration and service integration may not be easily realized. While the overall costs of administering the HIV and STD programs declined after integration, this was likely due to staff attrition and other budgetary cuts, and not necessarily a consequence of improvements in service delivery.

It is important to note that program integration only focused on the delivery of front-line client level services, and did not include the integration of data systems, forms, paperwork, or administrative and management structures. Qualitative research on the integration process suggests that this lack of structural integration may have a negative impact on the ability of staff to efficiently deliver services. Improvements in these areas may result in more effective program operations, and potentially, lower overall program costs.

Limitations

The data shown represent outcomes averaged over five integrated offices, but there likely exists regional variation in integrated program performance, due to variations in effort spent on different program activities and the populations served by each program.

FTE estimates assume 100% of staff time is divided between activities related to these two programs, and does not reflect time spent on special projects or initiatives outside the scope of partner services and/or HIV testing in non-healthcare settings.

Evaluation Methodology

Program costs were collected based on a microcosting-staff allocation methodology. Direct and indirect full-time equivalent (FTE) staffing costs were collected from publicly available salary schedules, administrative and travel data, purchase orders, and grant records. All costs were inflation-adjusted and are presented in 2009 dollars.

Staff effort allocation was assumed to be 100% in each individual program before integration, with changes in effort phased in over a one year training period. Effort allocation under integration was based on a review of monthly schedules and averaged over all regional offices.

Outcome measures selected for cost comparison were based on key metrics used by the CDC in evaluating program performance for HIV counseling and testing and HIV/STD Partner Services. Key outcome measures selected include:

HIV Counseling and Testing Services

- ◆ Cost per HIV test
- ◆ Cost per newly identified HIV-positive

HIV/STD Partner Services

- ◆ Cost per index interview
- ◆ Cost per partner notification
- ◆ Cost per newly-identified positive (HIV), or cost per treated partner (syphilis, chlamydia, and gonorrhea)

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