

Test-and-Treat Has Cost Versus Benefit Considerations

July 24, 2012 By Laura Whitehorn

✖ Where financial resources are limited, targeting groups at high risk for HIV infection for testing and immediate treatment is more cost effective than a community-wide test-and-treat initiative, according to New York City modeling data presented Monday, July 23, at the XIX International AIDS Conference in Washington, DC.

Public health initiatives are moving away from risk-based testing to identify people in need of care and antiretroviral (ARV) therapy and now beginning to focus on testing all adults living with HIV in the general population, said Jason Kessler, MD, of New York University School of Medicine, the lead author of the presented research. Whether or not this should be a priority in areas where the resources may be limited in terms of providing adequate care and support for people found to be living with the virus remains a matter of controversy.

TLC-Plus is a test-and-treat initiative being evaluated in HIV Prevention Trials Network study 065 (HPTN 065), currently under way in New York City and Washington, DC. It involves community-wide HIV testing and, for those found to be positive for the virus, linkage to care, immediate treatment and supportive services.

Kessler and his colleagues at the New York City Department of Health and Mental Hygiene used statistical modeling to determine the usefulness and cost-effectiveness of TLC-Plus, executed according to its original design or modified to focus primarily on populations at high risk for HIV infection (e.g., men who have sex with men and/or injection drug users).

Over a 20-year period, Kessler and his colleagues estimated that there would be roughly 59,000 new HIV infections in New York City in the absence of TLC-Plus.

TLC-Plus with immediate ARV therapy could avert 20 percent of these infections in New York City—roughly 47,600 new infections, down from 59,000—provided that it is implemented in the general population of city residents.

More “focused” prioritization, the researchers’ modeling found, resulted in fewer infections averted overall. Prioritization to populations at higher risk for HIV transmission and or acquisition, Kessler explained, only retained 14 to 68 percent of the overall effect.

These compromises, however, came with reduced total costs and cost-per-infection averted. Whereas the cost-per-infection averted would be more than \$1.5 million under the general community roll-out of TLC-Plus, a roll-out of TLC-Plus targeting high-risk individuals would come with a cost-per-infection averted of \$360,000.

“Without consideration of costs it makes most sense to roll [TLC-Plus] out to as many people as you can possibly reach,” Kessler said. “When you bring cost into the equation—you want to optimize the bang for your buck—it makes the most sense to prioritize your intervention on the highest risk groups.”

Given limited budgets, he concluded, the analysis favors targeting high-prevalence populations and neighborhoods for TLC-Plus.