Evidence of HIV Care Following STD Clinic Visits by Out-of-Care HIV-Positive Persons

Olga Tymejczyk1, Kelly Jamison2, Preeti Pathela2, Sarah Braunstein3, Julia Schillinger2, Denis Nash1,4

1 Department of Epidemiology and Biostatistics, City University of New York School of Public Health, New York, NY; 2 Bureau of STD Prevention and Control, New York City Department of Health and Mental Hygiene, New York, NY; 3 Bureau of HIV/AIDS Prevention and Control, New York City Department of Health and Mental Hygiene, New York, NY; 4 HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute and Columbia University, New York, NY

Background

• About 80,000 New York City (NYC) residents are infected with HIV. Only 81% of those receiving HIV care achieved viral suppression in 2014 and disparities in HIV outcomes persist. Among black and young New Yorkers, the proportion virally suppressed is particularly low (1).

• In 2012, over 1,200 HIV+ patients, largely low income, uninsured, and black, accessed services at the nine publicly funded sexually transmitted disease (STD) clinics. The clinics provide counseling, linkage, and social services to HIV+ patients in need of HIV medical care.

• HIV+ people with a newly diagnosed STD are important to focus on to prevent further spread of HIV, as STD acquisition suggests recent sexual activity and likely unsafe sex practices. Confinement with other STDs also renders HIV+ patients more infectious by augmenting shedding of the virus (2).

• As part of the Focused Action towards Suppression and Stopping Transmission (FASST) study, we describe HIV care outcomes among HIV+ patients who sought services from an NYC STD clinic in 2012.

Methods

• Data sources: Matched STD clinic electronic medical record and longitudinal data on HIV-related laboratory tests (CD4, viral load) reported to the NYC HIV Surveillance Registry.

• Population: Known to have HIV+ for at least 1 year at the time of last STD clinic visit in 2012 (index visit), either by clinician/lab report to the HIV Surveillance Registry or by STD EMR (including prior testing at STD clinics and self-report).

• Aged ≥15 years.

• Residents of NYC or NYC Metropolitan Statistical Area (3) at the time of index visit.

• Key exposures:
  - HIV care status prior to index visit: "in HIV care": ≥2 viral load (VL) or CD4 results within 3 months after index visit
  - Residence in Metro NYC (vs. within NYC) and STD diagnosis at index visit
  - Age
  - Sex at birth
  - Socioeconomic characteristics (Table 1).

• Outcomes:
  - Evidence of HIV care after index visit: ≥1 viral load (VL) or CD4 result within 3 months after index visit
  - Viral suppression after index visit: Last VL value within 1 year after index visit ≤200 copies/mL. Absence of a viral load was treated as lack of VL suppression.

• Statistical methods:
  - Descriptive statistics (chi-squared test, Mann-Whitney test)
  - Logistic regression to assess correlates of: 1) evidence of HIV care, and 2) viral suppression after the STD clinic visit.

Table 1. Characteristics of HIV+ STD clinic patients at their index visits in 2012, by HIV care status prior to index visit (N=1,043).

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Male/female</th>
<th>Metro NYC</th>
<th>Virus infection</th>
<th>Socioeconomic status</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>627</td>
<td>201</td>
<td>3.12</td>
<td>0.45</td>
<td>0.21</td>
<td>0.05 (0.03-0.27)**</td>
</tr>
<tr>
<td>25-34</td>
<td>162</td>
<td>76</td>
<td>2.16</td>
<td>0.40</td>
<td>0.20</td>
<td>0.04 (0.01-0.15)**</td>
</tr>
<tr>
<td>35-50</td>
<td>593</td>
<td>254</td>
<td>2.32</td>
<td>0.39</td>
<td>0.19</td>
<td>0.04 (0.02-0.08)**</td>
</tr>
<tr>
<td>50+</td>
<td>15</td>
<td>7</td>
<td>2.14</td>
<td>0.35</td>
<td>0.13</td>
<td>0.03 (0.01-0.07)**</td>
</tr>
</tbody>
</table>

• Previous out-of-care patients (32%) were less likely to be engaged in HIV care prior to the index visit (p-value < 0.05). The proportion virally suppressed was lowest among those with 2 or more STDs diagnosed at the index visit (vs. no STDs: 11% vs. 22%; p-value < 0.001; 34% vs. 64%; p-value < 0.001).

• Evidence of subsequent HIV care among patients out of HIV care prior to index visit:
  - Those with no evidence of HIV care within 3 months after index visit were less likely to have a VL measurement or achieve viral suppression at 1 year than those with evidence of care within 3 months (21% vs 64%; p-value < 0.001).

• Presence and number of diagnosed STDs at index visit:
  - The 237 patients who did not subsequently achieve viral suppression had a median VL of 7,168 copies/mL at last measurement within a year after index visit. The highest median VLs were observed among patients who:
    - Only received an HIV test at index visit (n=9, 41,832 copies/mL)
    - Had heterosexual HIV transmission risk (n=17, 22,260 copies/mL)
    - Spoke a main language other than English (n=24, 13,539 copies/mL)
    - Were not in HIV care in the year prior to index visit (n=91, 13,282 copies/mL). (Data not shown)

Results

• Many HIV+ STD clinic patients are not engaged in HIV care in the period leading up to the clinic visit. These patients are less likely to achieve viral suppression in the year after their visit, pointing to an important opportunity for STD clinics to play a greater role in re-linking patients to HIV care.

• Subsequent viral suppression was also markedly less frequent among patients testing positive for 2 or more STDs (46%), indicating an appreciable risk of onward HIV transmission.

• Despite all patients in our study having received HIV diagnoses at least a year prior to their STD clinic visit, 7% were still tested for HIV by the STD clinic, suggesting that they did not opt out or inform the provider about a previous diagnosis prior to testing.

• After a positive test at the STD clinic visit, these patients would have received intensive (re-)linkage assistance, resulting in increased likelihood of re-linking to HIV care.

• While this group was more likely to have evidence of care in the 3 months following the STD clinic visit than those not tested for HIV, they were less likely to be virally suppressed within 12 months after the visit.

• A better understanding of HIV testing and care access patterns is needed to elucidate the lower likelihood of subsequent viral suppression in this group.

• To help STD clinic staff identify patients who are out of HIV care, a more systematic and rigorous assessment of HIV care information (e.g., from the HIV Surveillance Registry) should occur at the time of the STD clinic visit. A similar system in Louisiana (Louisiana Public Health Information Exchange – LaPHIE) has proven highly successful at re-linking patients to HIV care.

Conclusions

The study was funded by a National Institutes of Health grant P30MH084362 via HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute and Columbia University, New York.

References


