HIV Self-Test (HIVST) Awareness, Pharmacy Exposure and Use, New York City, 2015-16

Paul M. Salcuni1, Zoe R. Edelstein1, Demetre C. Daskalakis1, Julie E. Myers1,2

1New York City Department of Health and Mental Hygiene, Queens, NY; 2Division of Infectious Diseases, Department of Medicine, Columbia University Department of Medical Center, New York, NY

Background

- The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) conducted an HIVST giveaway (HTG) to distribute free HIVST online*
- Potential participants were recruited on MSM-centric dating mobile apps and LGBTQ-interest websites
- Eligible participants provided email addresses for HIVST redemption and a follow-up survey
- The HIV self-test (HIVST) can increase status awareness in domestic urban settings, but barriers to access exist along a proposed continuum from awareness, to pharmacy availability, to use
- The HTG follow-up survey presented an opportunity to explore the HIVST continuum among a large, urban sample of men and transgender people who have sex with men (MSM)

Objectives

We examined associations between sociodemographic and behavioral factors and:
- Prior HIVST awareness
- Exposure to HIVST in pharmacies
- Ever using HIVST

Methods

Study population: Eligible HTG participants (≥18 years old, assigned male sex at birth or currently identifies as a man, not previously diagnosed with HIV, living in NYC) who completed a follow-up survey

Data collection: Self-administered online surveys at eligibility (11/2015-12/2015) and follow-up (3/2016-4/2016)

Outcomes: Self-report of the following prior to participation in HTG (“Before the Home Test Giveaway, I had...”):
- HIVST awareness (“...had of the home HIV test”)
- HIVST pharmacy exposure (“...seen the home HIV test at a pharmacy”)
- HTST use (“...used at least one home HTST”)

Characteristics examined:
- Sociodemographic: Age, race/ethnicity (non-Hispanic Black, Hispanic, non-Hispanic white, other); education (high school equivalent, some college, 4-year degree, graduate degree); annual income (<$40,000, ≥$40,000); borough of residence (Manhattan, other); doctor’s visit in the past year (yes, no); income and time since last HIV test were associated with pharmacy exposure
- Sexual identity: (gay, non-gay)
- Insurance status: (insured, uninsured)
- Ongoing HIVST Giveaways in NYC
- Exposure to HIVST in pharmacies
- Doctor’s visit in the past year (yes, no); (non-Manhattan, other); residence vs. other
- Data analysis: Factors associated with outcomes in bivariate analysis (p<0.05)

Results

Continuum

- Eighty-five, 57% and 23% of respondents were aware of, had seen, and had used the HTST, respectively
- Age and race/ethnicity were associated with pharmacy exposure and use, but not awareness

Factors associated with awareness

- Pharmacy exposure in the past 6 months (aOR 1.85, 95% confidence interval (CI) 1.64-2.08)
- HIV positive partner in the past 6 months (aOR 2.39, CI 2.02-2.81)
- Time since last HTST used associated across the continuum (Table, Figure 2)

Figure 1. Proportion of HIV Self-Test Giveaway Participants Reporting HTST Continuum Outcomes, Overall, New York City, 2015-16

Table. Select Associations with HIV Self-Test Continuum Outcomes among HIVST Giveaway Participants, New York City, 2015-16

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Awareness aOR* (95% CI)</th>
<th>Pharmacy exposure aOR* (95% CI)</th>
<th>Use aOR* (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>0.82 (0.79 - 1.74)</td>
<td>1.01 (0.96 - 1.06)</td>
<td>1.40 (1.08 - 1.78)</td>
</tr>
<tr>
<td>25-34</td>
<td>0.96 (0.90 - 1.03)</td>
<td>1.01 (0.96 - 1.06)</td>
<td>1.05 (1.01 - 1.09)</td>
</tr>
<tr>
<td>35+</td>
<td>1.04 (0.97 - 1.12)</td>
<td>1.02 (0.98 - 1.06)</td>
<td>1.07 (1.01 - 1.14)</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black, NH</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>Hispanic Black</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>White, NH</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>Other</td>
<td>0.75 (0.64 - 0.88)</td>
<td>0.80 (0.73 - 0.87)</td>
<td>0.91 (0.82 - 1.02)</td>
</tr>
<tr>
<td>Income</td>
<td>≤$40,000</td>
<td>≥$40,000</td>
<td></td>
</tr>
<tr>
<td>&lt;$40,000</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>≥$40,000</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>Time since last HTST used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never tested</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
<td>1.00 (1.00 - 1.00)</td>
</tr>
<tr>
<td>1 y ago</td>
<td>1.25 (1.07 - 1.47)</td>
<td>1.18 (1.03 - 1.34)</td>
<td>1.08 (1.02 - 1.15)</td>
</tr>
<tr>
<td>≥2 y ago</td>
<td>1.35 (1.16 - 1.57)</td>
<td>1.23 (1.07 - 1.41)</td>
<td>1.10 (1.03 - 1.19)</td>
</tr>
</tbody>
</table>
| Adjusted for | aOR: adjusted odds ratio; NH: Non-Hispanic

Discussion

- Overall, most respondents were aware of the HTST prior to HTG, but fewer had seen one in a pharmacy, and only 1 in 4 had ever used one
- Associations with:
  - Income across the continuum suggest that socioeconomic status may affect HIVST use through mechanisms beyond its own
  - Recent HIV testing across the continuum suggest that less frequent testers may not be adequately informed about the HTST
  - Recent CAS (awareness, use) suggest those at risk may have greater access to HTST
- The lack of association with insurance status across the continuum suggests that self-testing can provide a suitable alternative to those without adequate access to health care
- Further research to assess residual confounding is warranted

Limitations

- Data based on self-report and thus subject to social desirability bias, recalling, or misrepresentation
- Advertisement and email recruitment strategy introduces self-selection bias
- Convenience sample of those participating in a NYC HIVST giveaway and thus may not be generalizable to other settings or populations
- Continuum does not account for all possible methods of HIVST access, though data (not shown) suggest the impact of alternative access pathways is minimal

References

3. Verma, Anmika Khwaja, Jay Bala, Reyes Garcia Guzman, Grant Roth, Arie Rosat, Paul Santos, Anishca Adams, Adriana Andaluz, Paul Kobrak, Ben Tsou, Estella Yu, Jennifer MacGregor, Anjana Giraudy, Faisal Ahmad, Kathleen Weiler, Rick Kula, Adrian Miller-Coffey, Oxaline, Girard, Scott, Facebook, Twitter, Gay Aid Network and HTG participants

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Contact: Paul Salcuni
paulcuni@health.nyc.gov
347-306-7734