Factors Associated with Acceptance of Genital Herpes Testing for Black Patients Presenting for Care at an STD Clinic
Elmore L, Van Der Pol B, Van Wagoner N, Whitfield M, Hook E
University of Alabama at Birmingham, Birmingham AL USA

Introduction
- 15.5% of the population in the United States (U.S.) is infected with herpes simplex virus-type 2 (HSV-2).¹
- HSV-2 rates are disproportionately high in black Americans, with seroprevalence approaching 50% in some communities.²
- Previous studies have shown HSV serological test acceptance rates for patients presenting to STD clinics as high as 92%. Factors associated with acceptance included white race, female sex, older age, history of an STD, perceived risk for infection and having more than 1 sexual partner in the past 6 months.³ Few data describe rates for blacks or for persons living in the Southeastern U.S.
- Knowledge of infection status is an important prevention tool for herpes related morbidity and risk of HIV infection.
- We evaluated barriers to acceptance of serological testing for HSV-2.

Results
Population Characteristics:
- 165 black patients were enrolled into the study who had not prior history of genital herpes or genital ulcerative disease
- Median age was 25, 65% female, 64% had a high school diploma or less, and 78% accepted HSV2 testing
- Of those who accepted testing, 32% were positive for HSV2

Factors Associated with Acceptance (Bivariate Models):
- Female sex, moderate to severe depression, history of STDs, perceived risk of infection and previous testing for HIV

Factors Associated with Acceptance (Multivariate Models):
- Moderate to severe depression and history of STDs

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Accepted Herpes Testing (n = 128)</th>
<th>Declined Herpes Testing (n = 37)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Age, years (Q-Q)</td>
<td>25 (19-51)</td>
<td>25 (19-43)</td>
<td>0.2</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>15 (5-29)</td>
<td>15 (12-22)</td>
</tr>
<tr>
<td>Female</td>
<td>40 (69.0)</td>
<td>88 (82.3)</td>
<td></td>
</tr>
<tr>
<td>Sexual Behavior</td>
<td>MSM</td>
<td>3 (60.0)</td>
<td>4 (10.0)</td>
</tr>
<tr>
<td>MSW</td>
<td>25 (69.4)</td>
<td>14 (37.8)</td>
<td></td>
</tr>
<tr>
<td>WSM</td>
<td>46 (79.3)</td>
<td>19 (52.4)</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>None to Mild</td>
<td>64 (70.3)</td>
<td>27 (29.7)</td>
</tr>
<tr>
<td>Moderate to Severe</td>
<td>64 (86.5)</td>
<td>10 (13.5)</td>
<td></td>
</tr>
<tr>
<td>Condoms Last Sex</td>
<td>Yes</td>
<td>57 (79.2)</td>
<td>15 (20.8)</td>
</tr>
<tr>
<td>No</td>
<td>28 (70.0)</td>
<td>12 (30.0)</td>
<td></td>
</tr>
<tr>
<td>Number Sex Partner (prior 3 months)</td>
<td>1 (0-6)</td>
<td>1 (1-3)</td>
<td>0.06</td>
</tr>
<tr>
<td>History of STD</td>
<td>No</td>
<td>20 (51.7)</td>
<td>15 (42.9)</td>
</tr>
<tr>
<td>Yes</td>
<td>71 (80.7)</td>
<td>17 (19.3)</td>
<td></td>
</tr>
<tr>
<td>Perception of Infection Risk</td>
<td>No Risk</td>
<td>92 (73.6)</td>
<td>33 (26.4)</td>
</tr>
<tr>
<td>At Risk</td>
<td>36 (90.0)</td>
<td>4 (10.0)</td>
<td></td>
</tr>
<tr>
<td>Previous HIV Testing</td>
<td>Yes</td>
<td>4 (40.0)</td>
<td>6 (60.0)</td>
</tr>
<tr>
<td>No</td>
<td>81 (79.4)</td>
<td>21 (20.6)</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Population Characteristics (N = 165) by Acceptance of Genital Herpes Testing

Methods
Study Design:
- Cross-sectional analysis of an ongoing study at an STD Clinic located in a health department in the Southern U.S.
Population:
- Patients presenting for care at an STD Clinic
  - Entering care from 2014 – 2015
  - > 19 years old
  - No history of genital herpes or current genital ulcerative disease
Outcomes:
- Acceptance of genital herpes serological testing

Independent Variables:
- Age, sexual debut, sex, sexual orientation (defined by behavior), education, visit reason (dichotomized as screening/family planning or contact/symptomatic), depression (none to mild vs. moderate to severe based on PHQ-9), condom use during last sex, number of sexual partners (past 3 months), previous history of an STD, perceived risk of infection (dichotomized as no risk vs any perceived risk), previous testing for HIV

Data Analysis:
- Pearson’s χ² and Wilcoxon rank sum tests were performed. Bivariate and multivariate regression modeling, using stepwise regression with forward selection (enter 0.05, removal 0.1), to identify predictors of acceptance of genital herpes testing.

Discussion
- Only 78% of black patients presenting for care accepted herpes testing at an STD clinic in the Southern U.S, compared to 92% in other studies.
- Factors associated with acceptance were previous STD testing and moderate to severe depression.
- Further studies need to be done to understand the decreased acceptance seen in this population.
- Limitations: This analysis was likely underpowered due to small sample size

References:

a. Pearson’s χ² and Wilcoxon rank sum tests
b. Multivariate logistic regression modeling was done using stepwise regression with forward selection (enter 0.05 and exit 0.01). The pseudo-R squared of 0.12.

* p-value < 0.01
** p-value < 0.05