**BACKGROUND**

**HIV IN PERU**
- Peru does not have a generalized HIV epidemic, but there are micro-epidemics among subpopulations.
- Transgender women (TW) have the highest prevalence at approximately 30%, compared to 12-18% in men who have sex with men (MSM) and <1% in the general population.
- Injection drug use is low, so HIV is primarily spread through sexual transmission.

**TRANSMISSION TO TW**
- TW report high prevalence of behavior associated with HIV risk, but it is unclear who is transmitting HIV into the population.
- Other risk groups transmit within their network (e.g., MSM, injection drug users) but TW primarily report cisgender male sexual partners who they identify as bi- or heterosexual.

**METHODS**

**STUDY DESIGN**
- TW and their sexual partners recruited using a modified respondent-driven sampling study (RDS) design:
  - RDS: sampling mechanism for "hidden" populations in which population sampling cannot be conducted, often due to stigma or discrimination.
  - Sampling begins with "seeds" (known participants), who recruit eligible contacts within their network.
  - Forward recruitment continues by each participant until target sample size reached.
- To protect anonymity, data collected using online survey combined with WhatsApp-based recruitment.
- Data collected on sexual identity, demographic characteristics, sexual partnerships, risk behavior, and drug and alcohol use.

**DATA ANALYSIS**
- We examined descriptive statistics for TW, partners of TW, and MSM.
- To identify difference between partners of TW who are and are not part of MSM sexual networks, we examined predictors of having a male partner among partners of TW.
- Calculated odds ratios with Fisher’s exact test to examine predictors of having a male partner.

**RESULTS**

**POPULATION CHARACTERISTICS**
- Recruitment conducted February – July 2018 in Lima.
- 470 eligible respondents completed the survey, including:
  - 203 partners of TW (reported ≥1 TW partner in the past 3 months).
  - 196 TW (who did not report a TW partner).
  - 43 MSM (cisgender men with male partners and no TW partners).
  - 13 seeds were selected; 8 reached ≥3 waves of recruitment.
- Recruitment reached a maximum of 10 waves.

**PARTNER CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>TW &amp; male partners (n=203)</th>
<th>Only TW partners (n=196)</th>
<th>OR</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity as homosexual</td>
<td>5 (28.6)</td>
<td>13 (44.2)</td>
<td>0.3</td>
<td>0.004</td>
</tr>
<tr>
<td>Don’t know HIV status</td>
<td>4 (21.4)</td>
<td>32 (56.6)</td>
<td>2.37</td>
<td>0.02</td>
</tr>
<tr>
<td>‘Bought’ sex (last 3 mos)</td>
<td>8 (4.6)</td>
<td>16 (51.5)</td>
<td>1.97</td>
<td>0.01</td>
</tr>
<tr>
<td>‘Sold’ sex (last 3 mos)</td>
<td>14 (7.0)</td>
<td>16 (51.5)</td>
<td>3.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**

- Partners of TW are a unique population separate from MSM social and sexual networks.
- Few partners of TW reported male partners; these partners are more likely to identify as homosexual, know their HIV status, engage in unprotected receptive anal sex, and “sell” sex for money, goods, or services.

**STRENGTHS AND LIMITATIONS**

- Our use of non-population sampling may have resulted in a study population that doesn’t adequately represent the general population of partners of TW.
- Online ‘anonymous’ data collection was used to protect confidentiality, limiting ability to conduct longitudinal analyses or HIV testing.

**DISCUSSION**

- Partners of TW may not be benefiting from the HIV prevention interventions heavily targeted to gay men and TW.
- HIV prevention interventions specifically targeting partners of TW for HIV testing, education, and PrEP are needed.

**ACKNOWLEDGEMENTS**

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