BACKGROUND

- People who inject drugs (PWID) experience high HIV burden globally and many are not engaged in HIV services.
- Diagnosis is largest drop off in the HIV care continuum for PWID.
- Novel strategies are needed to identify and engage PWID living with HIV in order to reach UNAIDS 95-95-95 targets.
- Respondent-driven sampling (RDS) is a type of chain-referral sampling using peer network connections.
- Network-based approaches are already used in routine programming (e.g., FPDA-NHS).
- RDS might be leveraged as an intervention to reach undiagnosed people living with HIV.

AIM: To examine whether identification of undiagnosed HIV-infected PWID via RDS can be enhanced through a precision RDS (pRDS) approach.

METHODS

PREDICTING RECRUITMENT OF UNDIAGNOSED HIV-INFECTED PWID

- Date: Previously collected RDS data from northern India as part of NCA Study (2013, n=402).
- Outcome: Recruiting at least one eligible and enrolled undiagnosed HIV-infected PWID into the RDS.
- Candidate predictors: Recruiter's HIV and HCV status, socio-demographics, and network size.
- Analysis: Univariable logistic regression (AUROC) and a random forest (VIMP) identified predictors of recruiting undiagnosed PWID.

pRDS APPROACH EVALUATION

- pRDS approach tested in Morinda, Punjab among PWID.
- Participants receive a recruiting coupon system (n=402).
- Wave 1: Individual randomization and coupon distribution.
- Two seeds initiated recruitment, each receiving 2 recruitment coupons.

RESULTS

Figure 3: RDS recruitment tree by approach, Morinda.

Table 1: PWID recruited via standard vs. pRDS in Morinda, Punjab.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Median (IQR)</th>
<th>pRDS (n=102)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>34 (22-32)</td>
<td>24 (23-33)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
<td>pRDS vs standard</td>
</tr>
<tr>
<td>Injection drug use in prior 6 mo.</td>
<td>None (54.7)</td>
<td>22 (21.8)</td>
</tr>
<tr>
<td>Less than daily</td>
<td>34 (34.6)</td>
<td>59 (59.1)</td>
</tr>
<tr>
<td>Daily</td>
<td>14 (13.3)</td>
<td>19 (19.1)</td>
</tr>
<tr>
<td>HCV-infected</td>
<td>13 (12.8)</td>
<td>24 (23.5)</td>
</tr>
<tr>
<td>HIV/HCV co-infected</td>
<td>46 (7.5)</td>
<td>10 (10.0)</td>
</tr>
<tr>
<td>HIV test in prior year</td>
<td>19 (31.1)</td>
<td>77 (76.4)</td>
</tr>
<tr>
<td>NNR</td>
<td>615 (100)</td>
<td>1012 (100)</td>
</tr>
</tbody>
</table>

CONCLUSIONS

- pRDS identified nearly twice as many undiagnosed PWID and cost ~USD 10 less to identify one undiagnosed PWID than the standard approach.
- pRDS identified undiagnosed PWID significantly faster than the standard approach.
- pRDS may be particularly useful in outbreaks, when rapidly reaching undiagnosed individuals is needed.

REFERENCES


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