POTENTIAL BRIDGING GROUP FOR HIV TRANSMISSION: SEXUAL BEHAVIORS AND HIV PREVALENCE AMONG MOTORCYCLE-TAXI DRIVERS IN CAMEROON

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BACKGROUND

Ending the AIDS epidemic is now discussed, which was unthinkable a few years ago. However, such objective can be achieved only if all affected populations are identified, reached and have access to immediate antiretroviral therapy. While motorcycle-taxi drivers have been identified as a potential bridging group in the late 90s, little is known on their characteristics and sexual behaviors. This work aims to fill this gap by adding to the recently emerging body of information on HIV risk among motorcycle-taxi drivers.

MATERIAL AND METHODS

Design A cross-sectional survey conducted in 4 major cities of Cameroon (Yaoundé, Douala, Kribi and Bertoua) between February and May 2016.

Sampling method A stratified time-location sampling conducted according to the following steps:
- Step 1. A mapping pre-study to identify and characterize places where motorcycle-taxi drivers gather and could be recruited
- Step 2. A random sampling of motorcycle-taxi gathering places with probability proportional to the estimated frequented times of these places
- Step 3. Selection of participants from these places at regular time intervals

Study population Motorcycle-taxi drivers aged 21 to 59 years and consenting to participate.

Data collected - Socio-Alcohol and substance use
- Knowledge and attitude in the area of HIV
- Demographics and work characteristics
- Perceived norms about multiple relations
- Sexual behavior
- HIV status (Telomewil confirmed with INSTI if positive)

Analysis Participants characteristics were described using weighted estimators and compared to historical data (DHS and ANRS 12302 study conducted respectively in 2011 and 2015). Factors associated with HIV infection were assessed using mixed-effects logistic regression.

RESULTS

1798 motorcycle taxi drivers were approached. 1411 interviewed (Yaoundé: 392, Douala: 570, Kribi and Bertoua: 288) and 1003 included in the sub-study on prevalence on page 1.

Table 1. Participants characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>DHS 2011</th>
<th>ANRS 12302</th>
<th>Men only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years, median (IQR))</td>
<td>32.1 (25–42)</td>
<td>31 (26–39)</td>
<td>31 (28–35)</td>
</tr>
<tr>
<td>Education level, % (95% CI)</td>
<td>4.1 (2.1 - 5.1)</td>
<td>2.1 (3.6 - 4.5)</td>
<td>3.8 (1.8 – 5.5)</td>
</tr>
<tr>
<td>Marital status, % (95% CI)</td>
<td>24.4 (22.2 – 26.6)</td>
<td>19.8 (15.5 – 24)</td>
<td>25.0 (19.7 – 30.4)</td>
</tr>
<tr>
<td>Occupation, % (95% CI)</td>
<td>5.3 (4.2 – 6.4)</td>
<td>14.3 (37.9 – 48.4)</td>
<td>60.9 (60.6 – 71.2)</td>
</tr>
<tr>
<td>Living with wife / partner, % (95% CI)</td>
<td>66.7 (59.6 – 73.8)</td>
<td>47.6 (42.2 – 53.6)</td>
<td>57.6 (52.9 – 62.8)</td>
</tr>
<tr>
<td>Length of working as motorcycle-taxi driver (months, median (IQR))</td>
<td>-</td>
<td>-</td>
<td>5 (2 – 8)</td>
</tr>
<tr>
<td>Status of employment, % (95% CI)</td>
<td>-</td>
<td>-</td>
<td>83.6 (80.6 – 86.6)</td>
</tr>
</tbody>
</table>

Sexual behavior
- Motorcycle-taxi drivers reported frequent sexual risk behaviors (Table 2):
  - Relation with casual partners more frequent
  - Multiple concurrent relationships (45% [40 – 50])
  - Sexual behaviors with clients (32% [29 – 36])
  - Condoms use
  - High with casual partners (69.1% [84.5 – 73.9]) or sex workers (91.9%, [89.4 – 94.3])
  - Less common when the partner was a client (58.9% [45.3 – 72.6])

HIV testing
- 78% [73.1 – 83.3] had been tested at least once versus 64.5% [62.2 – 66.9] in the DHS 2011 and 73.9% [69.1 – 78.6] in the ANRS 12302 study
- 88% [84.3 – 91.7] reported having shared their results with partners
- 71% [67 – 75] feared that HIV status disclosure might have major consequences on their life

Table 2. Sexual risk behaviors of motorcycle taxi drivers and men in the DHS 2011 and ANRS 12302 studies (% with 95%CI)

<table>
<thead>
<tr>
<th>Behavior</th>
<th>DHS 2011</th>
<th>ANRS 12302</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever heard about HIV</td>
<td>100%</td>
<td>99.7 (99.1 – 100)</td>
</tr>
<tr>
<td>Knowledge of HIV</td>
<td>100%</td>
<td>97.9 (96.5 – 98.8)</td>
</tr>
<tr>
<td>Absence</td>
<td>95.5 (91.0 – 99.6)</td>
<td>27.9 (23.1 – 32.5)</td>
</tr>
</tbody>
</table>

CONCLUSION

This study showed that in this population of motorcycle-taxi drivers:
- The prevalence of HIV infection is relatively high
- Sexual risk behaviors are frequent

These results are consistent with the other data available (see references) and confirm that motorcycle-taxi drivers could be a bridging group for HIV transmission among other populations.

Therefore interventions tailored to this group are urgently needed

References

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