Introduction

Proyecto Puentes de Salud (Project Health Bridges): The Relationship of Economic Migration and HIV Risk Factors in Rural Mexico

Amanda L. Rollins, Ian J Nelligan, Allan D Nanney III, Trista D Snyder, Pamela Y Frasier PhD MA MSPH, Alfred Reid, Kris Patterson MD, Bron Skinner PhD, Daniel Reuland MD, Mauricio G Cohen MD, Shannon Skinner

School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC

Acknowledgements: Kia Williams MD, Evan Ashkin MD, Amy Denham MD, UNC Dept of Family Medicine, UNC CAMPOS, US Dept of Health and Human Services, departmental grant

It is documented by the Centers for Control and Prevention (CDC) that HIV/AIDS has a devastating impact on minorities in the U.S.

In 2005 CDC reported Latinos constitute the demographic with the fastest growing incidence.

A study in Latino Apartment complexes in Durham, NC found that; “46% of single men and 40% of married men living apart from their wives visited commercial sex workers” [within the last year]

According to an article in Salud Publica; “A total of 25% of the rural cases of AIDS are migrants who have been to the US.”

The rural AIDS epidemic in Mexico is more recent and growing faster than that occurring in the urban setting.

There is a direct correlation between this growth and migration, which will have repercussions for public health both in Mexico and the US.

States like North Carolina shoulder a greater burden due to the exponential growth of the Hispanic population (estimated 1200% in Durham at last NC census in 2000)

Implications: This research will prompt further studies into rural Mexican health:

- to obtain a comprehensive picture of HIV risks in NC and in Mexico
- Augment screening programs which target Hispanic populations
- Sensitivity: 99.1% with oral fluid
- Post-test/rapid test counseling

Methods

Cross-sectional study design

- The six communities around Juventino Rosas were selected based on two criteria:
  - High rate of economic migration to the US.
  - Limited access to health care.
- During June-July 2006, a convenience sample of 169 participants from these pueblos were:
  - Convenience sample from 6 communities
  - Recruitment: church announcements and introductions, loud speaker announcements, flyers
  - Participants recruited during health fairs
  - Pretest counseling
  - Oraquick® Advance™ Rapid HIV 1/2 Antibody Test
  - Specificity: 99.6% with oral fluid
  - Sensitivity: 99.1% with oral fluid
  - Orally administered questionnaire
  - Post-test/rapid test counseling
  - All subjects were verbally consented and the project was approved by the IRB at the School of Medicine – University of North Carolina at Chapel Hill

Fig. 1: Proportion of participants by number of sexual partners (n=169)

Fig. 2: Proportion of women engaging in sexual relationships with migrants (n=137)

Fig. 3: Proportion of men and women reporting condom use

Results

Demographics:

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>144</td>
<td>24</td>
</tr>
<tr>
<td>Age Range</td>
<td>19-83</td>
<td>39</td>
</tr>
<tr>
<td>Average Age</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Average Age (both genders)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>None</td>
<td>7%</td>
</tr>
<tr>
<td>≤ 6th grade</td>
<td>73%</td>
<td>65%</td>
</tr>
<tr>
<td>&gt; 6th grade</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Sexually Active</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committed Relationship</td>
<td>90%</td>
<td>79%</td>
</tr>
<tr>
<td>Needle Use in US</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Needle Use in MX</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>Migrated to US</td>
<td>3%</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship</th>
<th>No Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>26%</td>
<td>74%</td>
</tr>
</tbody>
</table>

- 90% of women reported monogamous relationships
- 74% of women are in a relationship with a migrant to the US
- 90% “Never” or “Almost Never” use condoms
- 58% of married male Hispanic migrants participated using commercial sex workers in U.S.
- 57% of those men “Never” or “Almost Never” use condoms with commercial sex workers

Limitations: The study was a convenience sample, the sample size was small, and males were underrepresented.

Conclusions

The study suggests that the majority of rural Mexican women in the Juventino Rosas area are “at risk” for HIV infection via their monogamous long-term relationships.

This study provides North Carolina’s physicians with a broader picture of their patients’ health risks and behaviors that should be considered when treating and educating in the clinic.

Future plans for this project include expanding work in Juventino Rosas Mexico in 2007. Additionally, the project is currently expanding to provide screenings to and obtain data from underserved Latino immigrants in North Carolina.

Pamela Y Frasier PhD MA MSPH, Alfred Reid, Kris Patterson MD, Bron Skinner PhD, Daniel Reuland MD, Mauricio G Cohen MD, Shannon Skinner

School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC

Acknowledgements: Kia Williams MD, Evan Ashkin MD, Amy Denham MD, UNC Dept of Family Medicine, UNC CAMPOS, US Dept of Health and Human Services, departmental grant