SEASONAL INFLUENZA VACCINATION AMONG MEXICAN MIGRANTS TRAVELING THROUGH THE US-MEXICO BORDER REGION

Ifna Ejebe
MD/PhD Student, Department of Population Health Sciences
10th Annual Global Healthy Symposium
Seasonal Influenza

- Annual influenza affects 5-15% of global population
- Causes severe illness in 3-5 million people
- 250,000-500,000 deaths annually
Seasonal Influenza Vaccination Guidelines in the US and Mexico

**United States**
- Center for Disease Control
- Yearly vaccination for all persons aged 6 months and older, with rare exceptions.

**Mexico**
- Pan American Health Organization
- Yearly vaccination for adults > 60, chronically ill, immunocompromised, health professionals, pregnant woman, and children age 6-23 months

**World Health Organization**
- Among healthy adults the vaccine is very effective in reducing influenza morbidity, health-care costs, and productivity losses associated with influenza illness.
Seasonal Influenza Vaccination Rates

United States
- 42% of all adults
- 54% of high-risk adults
- 34% of Hispanic adults

Mexico
- 44% of all adults
- 59% of high-risk adults

Research Question: What is the seasonal influenza vaccination rate among Mexican migrants traveling between and within US and Mexico?
Circular Mexican Migrants: A Unique Population

1. Potentially increased risk for seasonal influenza
2. Increased likelihood of transmitting influenza between borders
3. Presents significant research challenges
Migrante Survey

- 2013 cross-sectional population-based survey of Mexican migrant flows on the US-Mexico border in Tijuana, Mexico (N = 2,164)
- Survey participants represent four different migration flows
Analysis

- Describe the rates of receipt of seasonal influenza vaccination in the past 12 months by flow
- Assess the association between receipt of seasonal influenza vaccination and important characteristics (sociodemographics, health status, access to health care) using multivariable logistic regression
## Results: Sample Descriptive Statistics

<table>
<thead>
<tr>
<th>Total (n)</th>
<th>2164</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>18-59 years</td>
<td>88.1%</td>
</tr>
<tr>
<td>60+ years</td>
<td>11.9%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>77.1%</td>
</tr>
<tr>
<td>Female</td>
<td>22.9%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>61.2%</td>
</tr>
<tr>
<td>Greater than HS</td>
<td>38.8%</td>
</tr>
</tbody>
</table>
Seasonal Influenza Vaccination Rates by Migration Flow

Goal: 80.0%
Current US Level: 42.0%
Combined: 16.5%
Southbound: 19.2%
Deported: 13.9%
Border: 14.6%
Northbound: 18.5%
Seasonal Influenza Vaccination Rates by Selected Characteristics

- Goal: 80.0%
- Age above 60: 26.9%
- High-Risk Adult: 28.9%
- Health Insurance: 22.8%
More likely to receive the influenza vaccination
- Health insurance OR 2.2; 95% CI 1.9-3.2
- High risk adult OR 2.4; 95% CI 1.7-3.0

Less likely to receive the influenza vaccination
- Border flow OR 0.6; 95% CI 0.4-0.9
- Work fulltime OR 0.8; 95% CI 0.6-1.0
Conclusion

- Overall, the rates of seasonal influenza vaccination in circular Mexican migrants are low, underscoring the need of binational efforts to increase influenza vaccination among this highly mobile population.
Acknowledgements

- Migrante Team
  - Dr. Ana Martinez-Donate (PI)
  - Dr. Xiao Zhang
  - M. Gudelia Rangel
  - Melbourne F. Hovell
  - Natalie Rhoads
  - Norma-Jean Simon

- Funding Source: This study was funded by the National Institute of Child and Human Development (Grant #1 R01HD046886-01A2, PI: Martinez-Donate)