Public Health Research, Program Implementation & Evaluation Inclusive of Latino Immigrant Populations

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Latino Research and Policy Center

**Vision:** Improve the health of Latino Communities in Colorado & the nation to achieve equity in health and opportunity for Latinos

- **Latino-focused education**
  - Certificate in Latino Health to provide students from a variety of disciplines with knowledge and practical skills to promote Latino health equity
  - Support of programs to increase Latino scholars in public health and medicine

- **Community Engagement:** Partnering with Latino-serving community based organizations to support program implementation and evaluation

- **Research Leadership:** Pursue creative and innovative research to develop, implement and disseminate sustainable interventions to improve the health of Latinos

- **Policy Translation:** Translate evidence gathered through research, and in collaboration with community partners, to develop policies that benefit the health of Latino communities.
Latinos in Colorado

- 21% of Colorado’s population
- 31% of children in Colorado
- 5% of Colorado’s population is Latino immigrants
- Mexico primary country of origin
- Median age of Latinos is 27 compared with 42 for non-Hispanic whites
- Counties with highest Latino population increase (2010-14): Adams, Arapahoe, El Paso, Jefferson, Weld

Distribution of U.S. Latino population by counties as of ACS 2015 (5-year estimates). Hispanic Map of the United States - 2017
## Latinos in Colorado: Economic & Health Disparities

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Hispanic/Latino Coloradans</th>
<th>All Coloradans</th>
<th>Disparity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income¹</td>
<td>$40,606</td>
<td>$58,823</td>
<td>Worse</td>
</tr>
<tr>
<td>Percent of population living below poverty¹</td>
<td>23.0%</td>
<td>13.0%</td>
<td>Worse</td>
</tr>
<tr>
<td>High school graduation rate²</td>
<td>66.7%</td>
<td>77.3%</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Maternal Child Health</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Infant mortality (Infant deaths per 1,000 live births)²</td>
<td>7.5</td>
<td>5.5</td>
<td>Worse</td>
</tr>
<tr>
<td>Low birth weight births²</td>
<td>8.4%</td>
<td>8.8%</td>
<td>Same</td>
</tr>
<tr>
<td>Unintended pregnancy⁴</td>
<td>47.9%</td>
<td>37.6%</td>
<td>Worse</td>
</tr>
<tr>
<td>Births to teens ages 15-17 (births per 1,000 population)⁴</td>
<td>30.7</td>
<td>15.0</td>
<td>Worse</td>
</tr>
<tr>
<td>Women reporting 3 or more stressors during pregnancy³</td>
<td>28.7%</td>
<td>26.7%</td>
<td>Same</td>
</tr>
<tr>
<td>Women who drank during last three months of pregnancy³</td>
<td>5.0%</td>
<td>10.7%</td>
<td>Better</td>
</tr>
<tr>
<td>Women who smoked during last three months of pregnancy³</td>
<td>5.0%</td>
<td>8.5%</td>
<td>Better</td>
</tr>
<tr>
<td>Childhood obesity (ages 2-14)⁵</td>
<td>20.5%</td>
<td>14.8%</td>
<td>Worse</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health and risk behaviors³</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cigarette smoking</td>
<td>17.6%</td>
<td>17.9%</td>
<td>Same</td>
</tr>
<tr>
<td>Binge drinking (5 or more drinks in one sitting)</td>
<td>20.3%</td>
<td>19.2%</td>
<td>Same</td>
</tr>
<tr>
<td>No physical activity</td>
<td>26.1%</td>
<td>17.2%</td>
<td>Worse</td>
</tr>
<tr>
<td>Eat fewer than 5 fruits and vegetables per day</td>
<td>79.6%</td>
<td>77.7%</td>
<td>Same</td>
</tr>
<tr>
<td>Obese (BMI&gt;=30)</td>
<td>27.0%</td>
<td>20.8%</td>
<td>Worse</td>
</tr>
<tr>
<td>Overweight (BMI&gt;=25)</td>
<td>66.4%</td>
<td>56.1%</td>
<td>Worse</td>
</tr>
<tr>
<td>Mental health was not good 8 or more days (in the past 30 days)</td>
<td>12.2%</td>
<td>13.7%</td>
<td>Same</td>
</tr>
</tbody>
</table>

Inclusion of Racial/Ethnic Minorities in Research

• Racial/ethnic minorities often underrepresented in research
• Limits generalizability of research findings to diverse populations
• Underrepresentation may not be uniformly distributed

• Ethical framing of research participation by racial/ethnic minorities
  • Diverse populations should have the opportunity to participate in medical/public health research
  • Research should not unduly burden or exploit certain population groups
  • Cost/logistical burden of inclusion not acceptable reason for exclusion

\(^1\text{Fischer JA AJPH 2011}\)
Barriers to Inclusion of Immigrants in Research & Program Evaluation
What is the definition of Limited English Proficiency?

A. Report a “primary” or “native” language other than English
B. Report a non-English home language
C. Report speaking English less than “very well” when asked: How well do you speak English?
D. Report having more than “no trouble” when asked: How much trouble do you have speaking, understanding or writing English?
14. Does this person speak a language other than English at home?

- Yes
- No → SKIP to question 15a

b. What is this language?

For example: Korean, Italian, Spanish, Vietnamese

If the answer is no to the above question, the person is not considered LEP.

14. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

If the answer is not well or not at all, the person is considered LEP.
Characterizing Language beyond LEP

- Language spoken at home
- Preferred healthcare language
- Preferred language for survey completion
Study Sample Decisions

- Setting inclusion criteria for immigrants vs. by language
- Criteria for distinguishing participants by language
  - How will you define a “Spanish-speaking” participant?
- Sample size determination, recruitment, and analysis plan will differ depending on your primary areas of interest
- Consider possibility of differential loss to follow-up for immigrants or LEP participants
Materials Development
Survey Development

- Survey questions likely need to be modified for inclusion of LEP populations
- Consider inclusion of these topics
  - Language screening & identification
  - Length of stay in the US
  - Country of origin
  - Acculturation measure
  - Documentation status
- Review English language questions for applicability in your target population
Survey Translation

• Identify a professional translator
  • Health related experience preferred
  • Be very clear with your translator about the study population

• Don’t use machine translation (e.g. Google translate)

• Seek feedback after professional translation: Pilot, pilot, pilot!!
Use Existing Spanish-Language Survey Measures!
Survey Administration

- Limited literacy of immigrant Latino populations of significant concern for self-administered written surveys
- Options for oral administration
  - Via research assistant
  - Audio Computer-Assisted Self-Interview programming
  - Touch screen with audio assistance
- Participant technology burden should be low with readily available assistance
What is transcreation?

A. A spiritual belief held by some immigrants to the US
B. Creating translated materials or documents
C. The process of creating of sign or image that can be understood by people of differing national origin who do not share a common language
D. The process of adapting a message from one language to another, while maintaining its intent, style, tone and context
The goal of transcreation isn’t to say the same thing in another language. Indeed, it is often not possible to say exactly the same thing in another language. The aim of the game with transcreation is to get the same reaction in each language, something that translation in itself won’t be able to achieve.\(^1\)
Transcreation in Advertising

- https://www.youtube.com/watch?v=jLqv4BEshds
- https://www.youtube.com/watch?v=wmSPKN392Dw
Transcreation of Educational Materials
Data Analysis Considerations
Maintain Lens of Culture and Language in Quantitative Data Analysis

- Mean P-PAM Score (p<0.001)
  - English: 79.1 (SD: 16.2)
  - Spanish: 70.7 (SD: 17.9)
- Measure Reliability (Cronbach’s Alpha)
  - English: $\alpha = 0.90$
  - Spanish: $\alpha = 0.92$
- Parental education, family income, parental nativity (English), years in US (Spanish) not associated with mean activation score
- Confirmatory factor analysis demonstrated no reported PAM models fit data

DeCamp Pt Educ Counseling 2017, Shah H J Health Disp Research & Pract 2018
Despite best efforts language can be tricky

- Through cognitive interviews we detected less than optimal translation of idiomatic expression
- May have impacted responses by Spanish-language participants
- Cognitive interviews also demonstrated significant influence of “respeto” on healthcare interactions
- Healthcare engagement concept may be somewhat in conflict with Latinos’ approach to healthcare interactions

Estar al pendiente
Sí, estoy de acuerdo porque siempre que les toca vacunas yo pregunto qué tipo de vacuna, en que le van a ayudar y siempre me lo explican. Y siempre estoy pendiente de cuantas vacunas le van a tocar la siguiente vez.

Yes, I agree because whenever it’s time for their vaccine I always ask what kind of vaccine is it, how is it going to help them and they always explain it. And I’m always aware of how many vaccines they’re going to get the next time.
Qualitative Data Analysis

• Transcripts should include non-English language and English-language translation

• Analysis strengthened by bilingual staff

• Translation of critical passages should be reviewed to verify translation accuracy

• Original language can be reviewed for common word patterns

• May need additional assistance to better interpret cultural idioms
Miscellaneous Recommendations
Tips for a Smoother IRB process

Plan for the same consent process for LEP participants

*Know Before You Submit!* IRB Policies and practices vary by institution for certifying and providing translations

Plan a system for translations & version control of study documents and materials in multiple languages

Budget extra time for the IRB process
Research Staff

- Current staff may lack needed language skills
- Plan extra time and effort to hire bilingual staff
- Consider paying a higher wage
- Verify language skills of staff who report non-English language proficiency
- Check your biases: Culture, language, and privilege differences may still be a factor even with bilingual, bicultural staff
Recruitment and Retention Tips

• Consider alternative healthcare facilities & community locations
• In-person recruitment recommended
• Frequent open dialogue with staff about strengths & challenges
• Expect participant address and phone number changes
• Email unlikely to be effective for follow-up
• Many, many reminders will be needed for participant meet-ups
Participant Remuneration (Payment)

- Cash often preferred remuneration
- Immigrants may experience difficulties using gift cards
  - Unfamiliarity with cards
  - Cashiers less likely to be able to assist due to language barrier
  - May not be able to access store
  - Increased risk of being victims of scams
- Study payment receipts may increase participant discomfort and/or risk if they are undocumented
  - Explore ways to avoid collecting social security numbers
  - Make sure participants know what information that may need to provide during the consent process
Additional Information


- General outline for steps in the linguistic adaptation of survey measures:

  - http://www.healthpsychologyresearch.com/linguistic-validation-process
Small Group Discussions Group 1

- A nutrition and physical activity digital health outreach effort to influence healthy eating behavior change for the entire family

- Targets low-income parents of the preschool and elementary school children
Small Group Discussions Group 2

Community Heart Health Actions for Latinos At Risk

- CHARLAR is a shared community program to learn, build skills, and improve health behaviors to lower the risk of heart disease and diabetes among adult Latinos.

- CHARLAR consists of 11 weekly classes facilitated by bi-lingual promotoras (Health Promoters)
Small Group Discussions Group 3

Estamos aquí para ayudarle

Salud al Día: Su hija Marisol tuvo una cita el 10 de Noviembre. ¿Su médico le mandó ver a un especialista o hacerse algún estudio? Marque 1 para Sí o 2 para NO

¿Está programada la cita o el estudio? Marque 1 para Sí o 2 para NO

¿Quisiera ayuda para programar la cita o tiene preguntas sobre eso? Marque 1 para Sí o 2 para NO

Alguien de la clínica le llamará para ayudarle o ud. puede llamar al 410-550-0967.

Colorado School of Public Health