The Challenges of Study Design, Implementation, and Data Collection for Physical activity in Urban Latino Neighborhoods in the United States, Colombia, Mexico, and Brazil

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International Symposium
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Physical Inactivity in the World

- Not just a first-world problem
  - 9% of premature deaths worldwide (5.3 million)
  - Similar to tobacco
  - Responsible for ≥15% of all cause mortality in countries as diverse as Argentina, Saudi Arabia, Namibia, Turkey, Japan, Dominican Republic, Malaysia, and the UK

- Why try to change it?
  - 25% reduction in inactivity = 1.3 million lives saved
  - Even making a dent makes a big difference!
Inactivity in Latinos

- Inactivity-related deaths are among the highest in Latin America

- In the U.S., Latinos report high levels of physical inactivity (59.8% vs. 47.4% in Non-Latino Whites)
Unique Challenges

- Heterogeneity of subgroups
  - Inactivity varies greatly (66% in Cubans vs. 47% in Mexicans)
  - Diverse cultural influences on behavior
    - Translating isn’t enough!
  - Varying levels of acculturation within groups
Environmental Barriers

- Transportation
- Walkable neighborhoods
- Safety
- Heat
- Immigration worries
Incorporating Technology

- “Digital Divide”
- Differs by media channel
  - Web vs. cell phones vs. smart phones
- Cultural preferences for technology use
Internet Use and Cellphone Ownership Trends, 2009-2012
(% saying they use the internet or send or receive email at least occasionally)

Internet use is on the rise among all racial and ethnic groups...

Uses the internet

<table>
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<tr>
<th>Year</th>
<th>Hispanic</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
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<td>2009</td>
<td>84</td>
<td>86</td>
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<td>84</td>
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<tr>
<td>2012</td>
<td>90</td>
<td>87</td>
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...but only minority groups are seeing a rise in cellphone ownership

Owns a cellphone

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Smartphone Ownership, Mobile Internet Use, and Social Networking Site Use, 2012
(% saying they ...)

Among all adults

- Own a cell phone
  - Hispanic: 49
  - White: 46
  - Black: 90

- Own a smartphone
  - Hispanic: 76
  - White: 60
  - Black: 73

Among internet users

- Access the internet on a cellphone, tablet or other mobile handheld device, at least occasionally
  - Hispanic: 68
  - White: 66
  - Black: 69

- Use Facebook, Twitter or other social networking sites
  - Hispanic: 68
  - White: 66
  - Black: 69
Men?

- What about Latino men?
  - 80% overweight or obese in US
  - Excluded from most interventions
- Gender & cultural adaptations
  - Qualitative interviews
  - Demonstration trial of modified intervention
  - Follow-up interviews
- Technology-based intervention?
The Challenges of Study Design, Implementation, and Data Collection for Physical activity in Urban Latino Neighborhoods in the United States, Colombia, Mexico, and Brazil

Chair: Bess Marcus, Ph.D., University of California, San Diego

Speakers:

Rodrigo Reis, PhD, Pontiff Catholic University of Parana, Curitiba, Brazil

Deborah Salvo, PhD, Stanford University, California, and National Public Health Institute, Cuernavaca, Mexico

Olga Lucia Sarmiento, MD, PhD, Ios Andes University, Bogota, Colombia

Elva Arredondo, PhD, San Diego State University
Seamos Activas

- Culturally adapted print-based individually tailored physical activity intervention
- Mostly Colombian, Dominican, Puerto Rican women
- Cultural adaption
  - Translation & back-translation
  - 25 cognitive interviews
  - Focus groups to identify cultural themes
Seamos Saludables

- Primary Aim: To test the efficacy of a culturally adapted print-based individually tailored physical activity intervention in fully-powered RCT

- First PA intervention with Latinas using mailed printed intervention materials

- Effective in hard-to-reach groups: majority of the women were low income, first generation, low acculturation

- Next step: incorporating technology with web-based activity intervention with Latinas
Pasos Hacia La Salud

- Culturally adapted web-based physical activity intervention
- All Mexican American women
- Adaptations for technology AND cultural differences
Lingering Issues

- Recruitment & retention of “hard to reach” populations
- Targeting multiple behaviors
  - Diet
  - Sedentary Behavior
- Beyond leisure time physical activity
- Whole family activity