Preparing for PA Interventions in Rural Communities

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Why me?
Literature Search

• Google Scholar
  • “Physical activity or exercise”
    • 2.01 million results
  • “Physical activity or exercise and rural”
    • 1.24 million results

• University Library
  • “Physical activity or exercise”
    • 22.75 million results
  • “Physical activity or exercise and rural”
    • 3.57 million results

• Clinical Trials
  • “Physical activity, exercise”
    • 16,168 studies
  • “Physical activity, exercise, rural”
    • 106 studies
Life Expectancy Gap

Singh & Siahpush, 2014
Cosby et al., 2019
Why Physical Activity (PA)?

- Adenocarcinoma of the Esophagus
- Colon Cancer
- All-Cause Mortality
- Renal Cancer
- Cardiovascular Disease
- Bladder Cancer
- Lung Cancer
- Obesity
- Endometrial Cancer
- Gastric Cancer
- Breast Cancer
- Diabetes
## Table 3. Prevalence of Meeting a Physical Activity (PA) Recommendation* and Prevalence of Physical Inactivity (PIA) by Degree of Urbanization and by Region of the Country

<table>
<thead>
<tr>
<th>Region</th>
<th>Most Rural</th>
<th>Rural</th>
<th>In-Between</th>
<th>Urban</th>
<th>Most Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactive</td>
<td>26.3%</td>
<td>26.7%</td>
<td>25.9%</td>
<td>24.5%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Meeting PA recommendation</td>
<td>29.8%</td>
<td>28.3%</td>
<td>25.7%</td>
<td>30.7%</td>
<td>30.2%</td>
</tr>
<tr>
<td>Midwest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactive</td>
<td>28.4%</td>
<td>26.3%</td>
<td>27.0%</td>
<td>24.6%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Meeting PA recommendation</td>
<td>27.6%</td>
<td>29.5%</td>
<td>29.5%</td>
<td>29.6%</td>
<td>28.9%</td>
</tr>
<tr>
<td>South</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactive*</td>
<td>43.1%</td>
<td>37.3%</td>
<td>30.3%</td>
<td>27.5%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Meeting PA recommendation</td>
<td>15.4%</td>
<td>23.4%</td>
<td>25.1%</td>
<td>28.7%</td>
<td>28.5%</td>
</tr>
<tr>
<td>West</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactive</td>
<td>19.7%</td>
<td>21.5%</td>
<td>21.9%</td>
<td>24.5%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Meeting PA recommendation</td>
<td>34.4%</td>
<td>32.7%</td>
<td>35.9%</td>
<td>52.7%</td>
<td>31.9%</td>
</tr>
</tbody>
</table>

* Moderate-intensity PA: ≥5 days per week, ≥30 minutes per session of aerobic activity of moderate-intensity (≥3 metabolic equivalents), and/or vigorous-intensity PA: ≥3 days per week, ≥20 minutes per session of aerobic activity of vigorous-intensity (≥60% of maximum capacity).
More U.S. Adults Are Moving, but Not Enough!

Adults Need at Least

150 minutes a week

Moderate-intensity aerobic activities

2 days a week

Muscle-strengthening activities

Adults: Only 24% Get Enough Physical Activity

Urban
19% to 25%
2008 to 2017

Rural
13% to 20%
2008 to 2017

Communities: Make Activity Easy for All

Improve
Community design

Increase
Access to recreational facilities

Deliver
Proven programs

Data from National Health Interview Survey, 2008-2017 as described in Whitfield et al., MMWR 2019

For more information: https://www.cdc.gov/physicalactivity/community-strategies/index.htm

Whitfield et al., 2019
“If you build it, they will come”

We built walking trails, people will use them…right?
Background
Research Article

A Qualitative Study Identifying Barriers and Facilitators of Physical Activity in Rural Communities

Amanda S. Gilbert, Dixie D. Duncan, Alan M. Beck, Amy A. Eyster, and Ross C. Brownson

1Prevention Research Center in St. Louis, Brown School at Washington University in St. Louis, St. Louis, MO, USA
2Department of Surgery (Division of Public Health Sciences) and Alvin J. Siteman Cancer Center, Washington University School of Medicine, St. Louis, MO, USA
Findings

Trail Users
- PA Motives
  - Social well-being
  - Mental well-being
- Physically active with others
- Promote PA
  - Education
  - Enjoyment of nature
  - Mental well-being

Non-Trail Users
- PA Motives
  - Physical health
  - Weight loss
- Physically active alone
- Promote PA
  - Education
  - Convenience
  - Available indoor spaces
Findings Continued

• Stakeholders
  • Towns of 6,000 or less
    • Fewer resources
    • More informal organizations
    • A few key residents involved in multiple aspects of community health
  • Towns of 6,000 or more
    • Greater resources
    • More formal organizations
  • HOWEVER, poverty rates found to mitigate population size
A multilevel approach for promoting physical activity in rural communities: a cluster randomized controlled trial

Alan M. Beck, Amy A. Eyler, J. Aaron Hipp, Abby C. King, Rachel G. Tabak, Yan Yan, Rodrigo S. Reis, Dixie D. Duncan, Amanda S. Gilbert, Natalicio H. Serrano and Ross C. Brownson
Take Home Messages

- Disparities between urban and rural areas are expanding
- Get feedback from the community
- Not all rural communities are created equal
- Be prepared for plan B, C, and D


