

Promoting Active Living in Rural Communities

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INTRODUCTION

Rural children and adults have significantly higher rates of obesity than their urban counterparts,¹⁻⁵ even after accounting for differences such as socioeconomic factors, eating behaviors, and physical activity.^{4,5} Higher rates of overweight and obesity among rural residents, even after accounting for these demographic and behavioral factors, suggests that rural environments themselves may somehow promote obesity.^{6,7}

Based on recent national body mass index (BMI) data, the obesity rate for rural children ages 2-18 is 22 percent, compared to 17 percent for urban children.⁵ Among children, rural black children have the highest risk of all subgroups, with a higher obesity rate than both rural white children⁵ and urban black children.⁸ Among adults, 40 percent of rural adults are obese, compared to 33 percent of urban adults, with rural black adults having higher rates of obesity than urban black adults.⁴ Hispanic populations, especially those of Mexican heritage living in rural areas along the U.S.-Mexico border and in similar *new-immigrant* communities across the U.S., are also disproportionately burdened by high rates of obesity.^{9,10}

Overview

- Purpose of Research Brief & Methods
- Introduction
- The Evidence
- Conclusions & Policy Implications



Purpose of Research Brief & Methods

- To summarize current research on elements of the rural built environment that may be related to obesity or physical activity
- Literature search for studies published between 2000-early 2015
- Much of research summarized in brief is qualitative:
 - rural focus groups
 - PhotoVoice
 - policy statements
 - observations from the field
 - lessons learned from rural active living interventions



Introduction

- Rural children & adults have significantly higher rates of obesity than their urban counterparts
 - 22% rural vs 17% urban children (Davis, et al. 2011)
 - 40% rural vs 33% urban adults (Befort, et al. 2012)
- Higher rates remain after accounting for socioeconomic factors, eating behaviors, and physical activity
- Suggests that rural environments themselves may somehow promote obesity - “obesogenic”

- Davis AM, Bennett KJ, Befort C, Nollen N. Obesity and related health behaviors among urban and rural children in the United States: Data from the National Health and Nutrition Examination Survey 2003–2004 and 2005–2006. *J Pediatr Psychol*. 2011.

- Befort CA, Nazir N, Perri MG. Prevalence of obesity among adults from rural and urban areas of the United States: findings from NHANES (2005-2008). *J Rural Health*. 2012;28(4):392-7.

The Evidence

- Evidence is not clear regarding whether rural-urban differences in obesity rates are due to differing physical activity levels
- Some studies indicate that rural children engage in less physical activity than urban, some report inconsistent findings, and some show no difference.
- Rural adults have been shown to be less active than urban adults when physical activity was measured objectively, however self-reported activity levels yielded opposite results, and regional differences have also been reported (rural adults less active in the south, but more active in the western US)

The Evidence

- Reported rural barriers to physical activity include:



The Evidence

- **Active transportation** (walking and biking to destinations) is sometimes not an option in very dispersed rural and remote areas
- Therefore there is an added need in rural communities for environments that support **active recreation**, even if rural residents have to drive to reach those environments
- Physical activity areas such as playgrounds, parks, bike paths, trails, and other recreational facilities can provide opportunities for active recreation
- In a cross-sectional study of rural youth in two rural GA counties, the odds of youth participating in physical activity increased by 20% when they had access to one physical activity area. Youth reporting access to multiple areas were twice as likely to be physically active than those with no access (Shores, et al. 2010)

The Evidence

- Successful models for active living in dispersed rural communities should consider community and school **programs and policies** that promote physical activity
 - Complete Streets Policies/Approaches
 - Community-wide snow clearing policies
 - Shared-use agreements
 - Sliding-fee scales
 - Walk to school programs/policies



The Evidence

- Sometimes schools are one of the only locations for rural children to be active
- Strategies for increasing access to school physical activity resources:
 - Investment in physical activity infrastructure on school grounds
 - Before- and after-school, weekend, and summer physical activity programming on school grounds
 - Shared-use agreements between schools, communities, and other organizations
 - Safe Routes to School programs adapted for rural areas
 - Additional transportation options that allow rural children living in remote areas to access after school programming on school grounds



The Evidence

- Existing community centers such as churches and worksites are venues where encourage physical activity for adults and families can be encouraged
- Data from a cross-sectional survey in rural GA revealed that adults who reported high levels of physical activity also reported significantly more facilities and activity programs at their church than those with low levels of physical activity
- Support from others for physical activity and companionship in the church community were associated with more walking and total physical activity
- Social support for physical activity at work was modestly associate with physical activity (Kegler, et al. 2012)

The Evidence

- When identifying barriers to and opportunities for active living in rural communities, it is important to bring many different voices and ideas to the table.
- For strong public participation and buy-in, collaboration from community members, leaders, and stakeholders is needed.



- Broad-based partnerships can help address rural-specific barriers to activity such as cultural differences, small population size, limited human capital, and the challenge of connecting social and economic policies to health outcomes.

Conclusions & Policy Implications

- Enhancing features of the rural environment and diminishing challenges such as isolation, climate barriers, safety fears, cost, lack of transportation, are key in addressing active living in rural communities
- Building infrastructure and implementing Complete Streets approaches can help accommodate needs of pedestrians and bicyclists
 - An isolated rural road may be “Complete” if it has safe, wide shoulders or well-worn footpaths for walking/biking
 - Rural communities with denser downtown, school, or residential areas might benefit from more extensive features, such as sidewalks and bicycle lanes
- When resources are limited, communities might start with smaller changes that build on existing resources and build toward larger changes

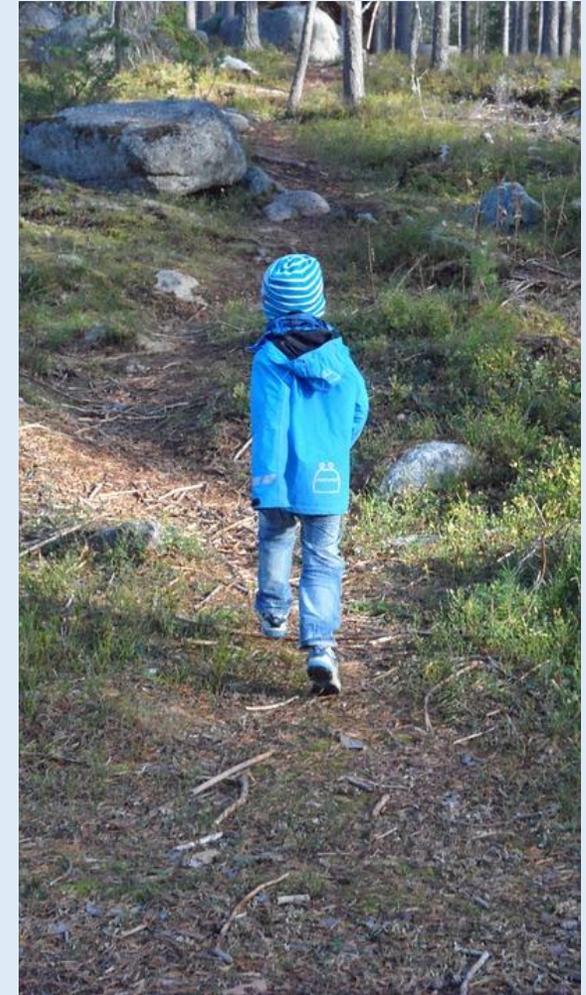
Conclusions & Policy Implications

- **Active transportation** may be difficult for some remote residents
- **Isolation, lengthy travel distances, and lack of transportation** options may be the largest barriers to being physically active for both children and adults in very rural areas
- This increases the importance of investments in active recreation opportunities, and transport options (late school buses, vans and ride-shares) to help rural residents get to those opportunities



Conclusions & Policy Implications

- **Not all rural is the same!** Creative, local solutions tailored to specific community culture, geography, climate, and needs are necessary when promoting active living
- Bringing **local** diverse community members and stakeholders together can help initiate conversations and positive changes in communities
- Important to consider needs of **rural sub-populations** (e.g., minorities, seniors, individuals with disabilities, children) when designing environmental, programmatic, and policy changes related to active living



Conclusions & Policy Implications

- Future rural active living research and interventions should include quantitative measurement and analyses to help build evidence base for environmental, programmatic, and policy changes
- Rural-specific measures have been developed and tested for assessing active living supports, barriers, and perceptions:
 - Rural Pedestrian Environmental Audit Instrument
 - Pedestrian Environmental Data Scan (PEDS)
 - PIN3 Neighborhood Audit Instrument
 - Rural Active Living Assessment Tools (RALA)
 - Rural Active Living Perceived Environment Support Scale (RALPLESS)

Thank You

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Active Living Research - <http://activelivingresearch.org/>

Research brief - <http://activelivingresearch.org/promoting-active-living-rural-communities>

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