



Paths To A More Active America

James Sallis

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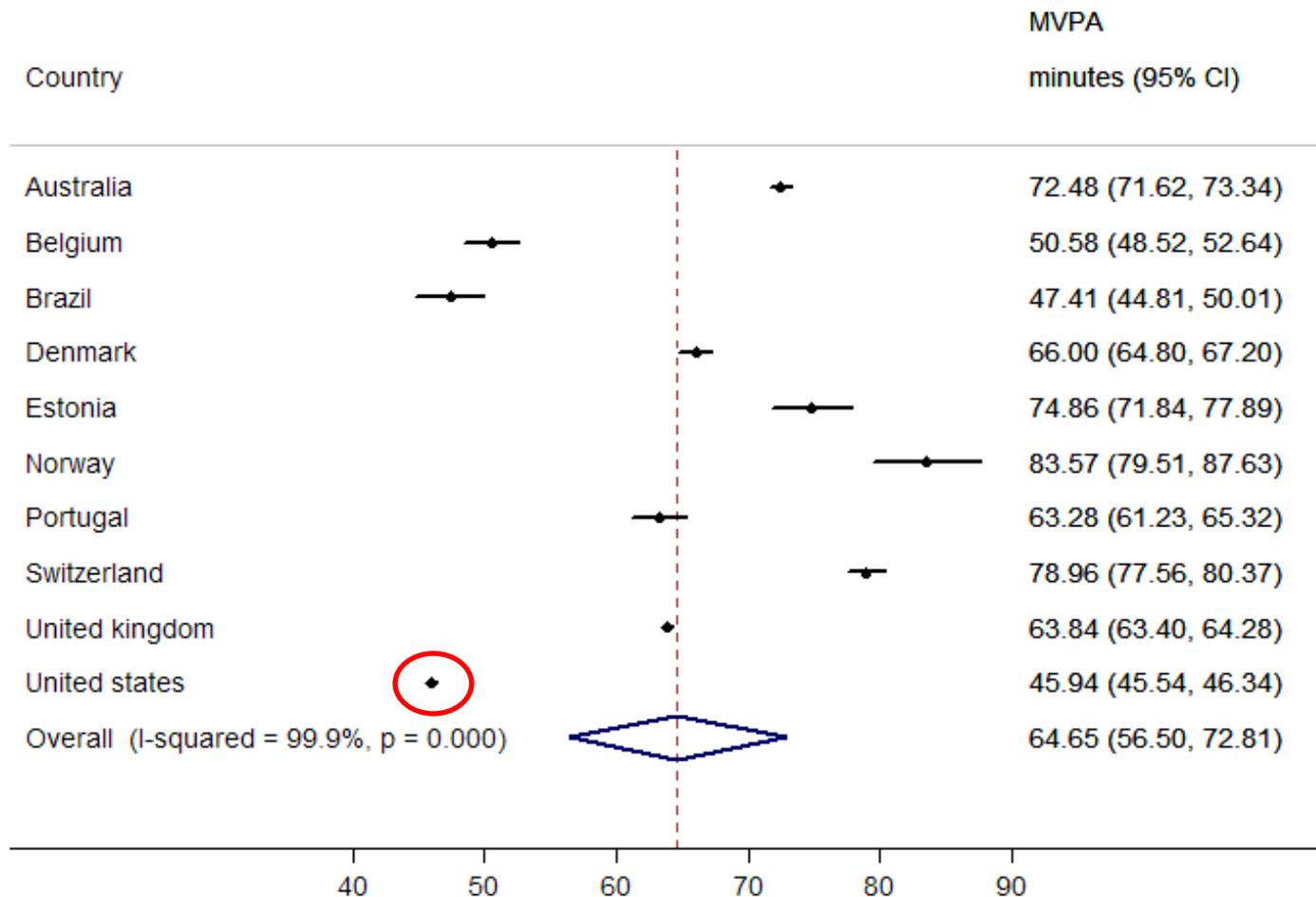
For ROOS Workshop. September 27, 2015

Outline of Talk

- The PA landscape in the US
- Improving PA among Youth in Structured Settings
 - Schools
 - Early Childhood and Education (ECE)
- Improving Walking and Walkability
- Recommendations

Accelerometer-based MVPA for Adolescents. From Hallal, Lancet, 2012

Time Spent in MVPA adjusted for age, sex



Leisure-time physical activity

Figure 7.1. Percentage of adults aged 18 and over who met the 2008 federal physical activity guidelines for aerobic activity through leisure-time aerobic activity: United States, 1997–2014

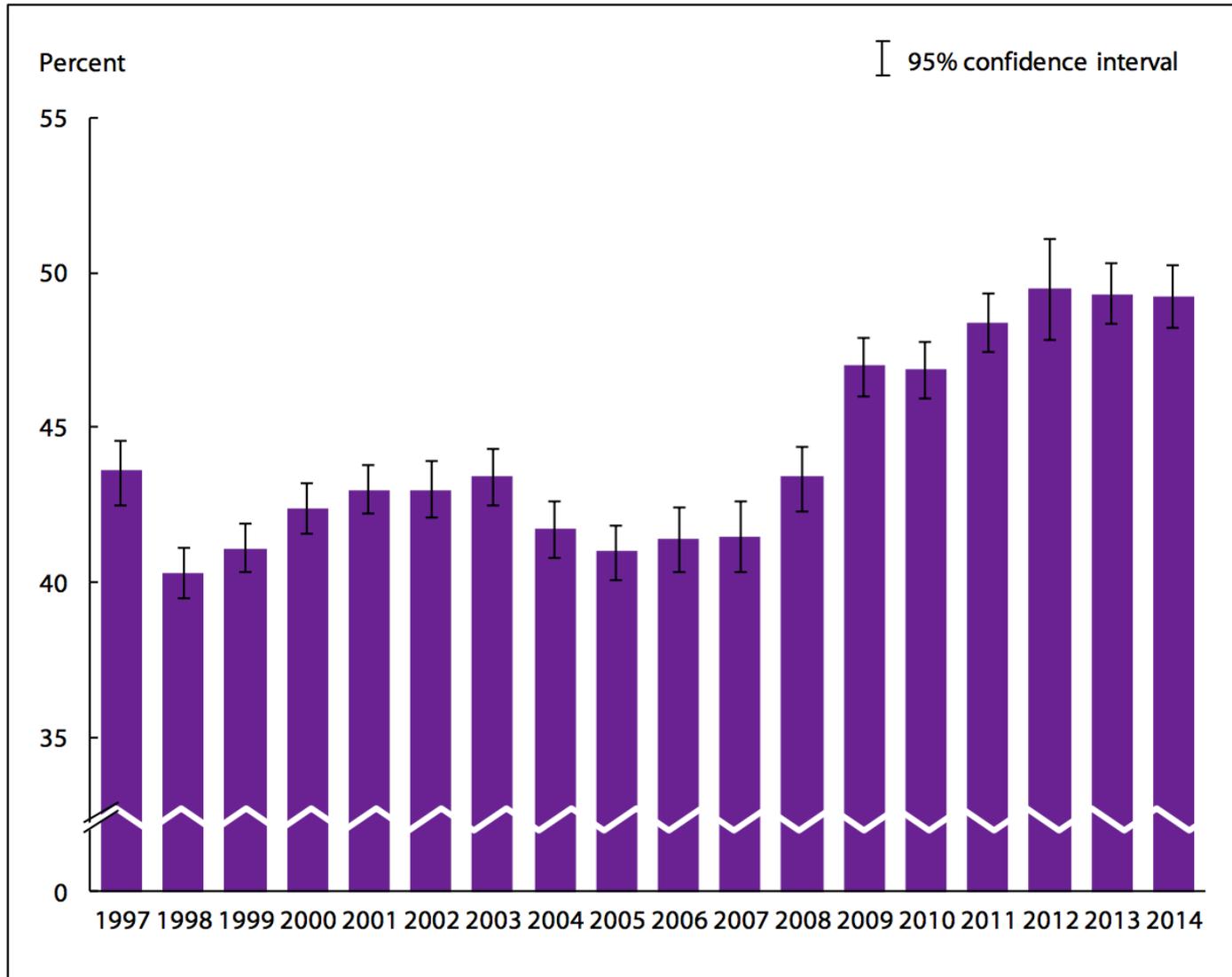
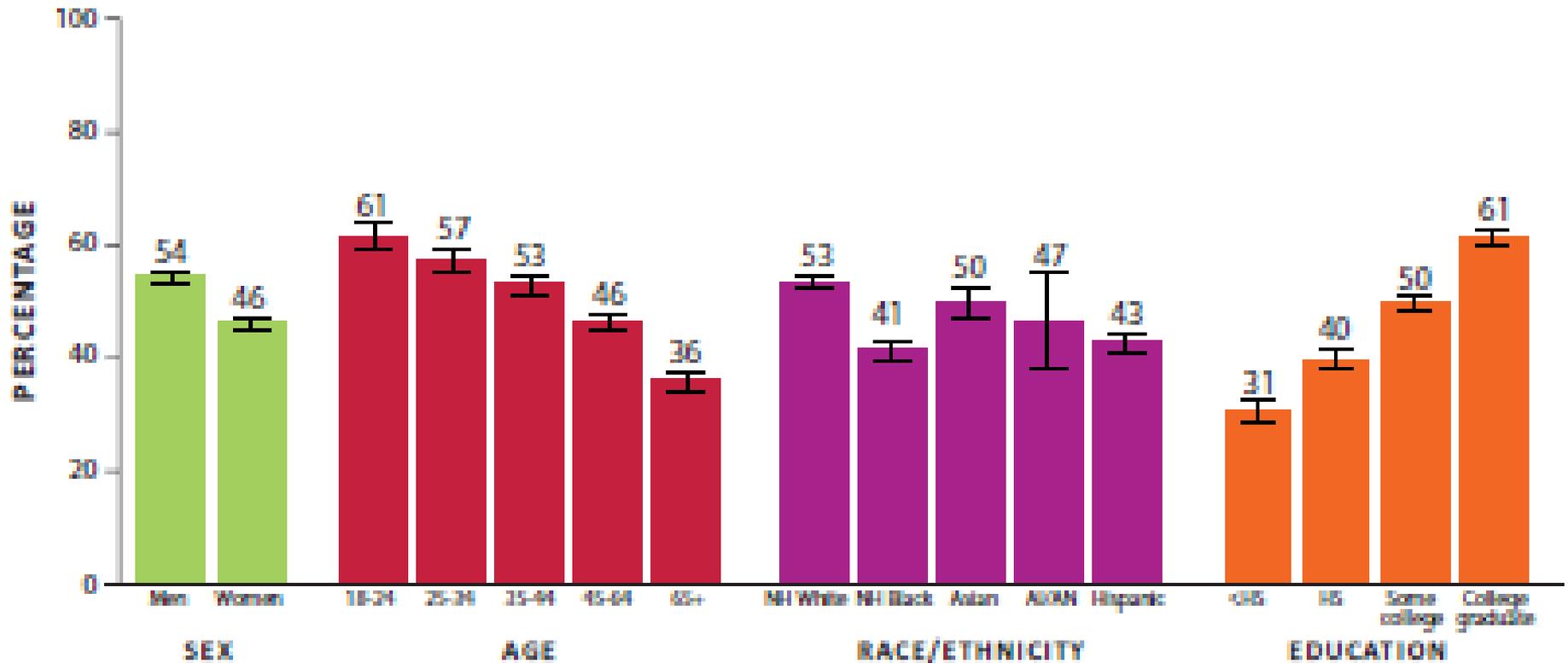


Figure 2. Percentage of U.S. Adults Aged 18 Years or Older Who Met the Aerobic Physical Activity Guideline, 2013



There is a plan to get America active: Revised this year



NATIONAL Physical Activity Plan

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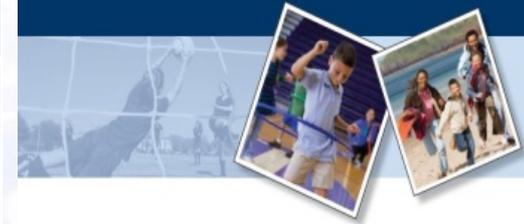
[Projects](#)

NPAP Sectors

The National Physical Activity Plan is comprised of recommendations that are organized in nine societal sectors:

- [Business and Industry](#)
- [Community, Recreation, Fitness, and Parks](#)
- [Education](#)
- [Faith-Based Settings](#)
- [Healthcare](#)
- [Mass Media](#)
- [Public Health](#)
- [Sport](#)
- [Transportation, Land Use, and Community Design](#)

Physical Activity Guidelines for Americans Midcourse Report
**Strategies to Increase
 Physical Activity Among Youth**



www.health.gov/paguidelines



Strategy	Level of Evidence
Multi-component school programs	Sufficient
Physical education	Sufficient
Active transportation	Suggestive
Activity breaks in classroom	Suggestive
School physical environment	Insufficient
After school	Insufficient
Preschool & childcare settings	Suggestive
Built environment	Suggestive
Home & family	Insufficient
Primary care	insufficient

School practices and children's physical activity during school: Study of 100 elementary schools

University of California, San Diego

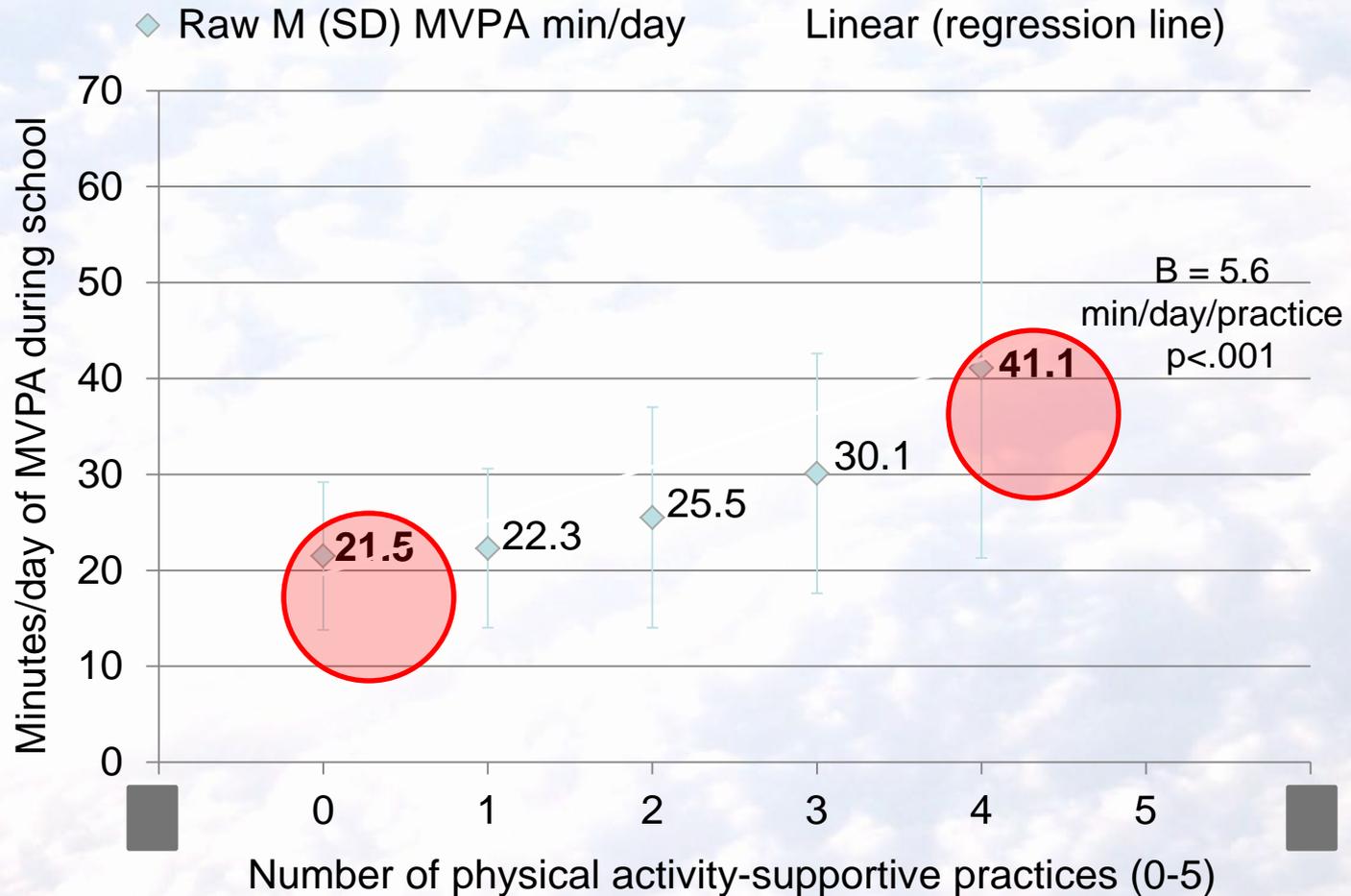
Jordan A. Carlson
And colleagues

Preventive Medicine,
2012

Supported by The
California Endowment



School practices index and MVPA during school



The 5 index practices were:

- having a PE teacher y/n
- providing ≥ 100 minutes/week of PE y/n
- having recess supervised by non-classroom teacher y/n
- providing ≥ 20 minutes/period of recess y/n
- having ≥ 75 students/supervisor in recess y/n

Socioeconomic Disparities in Elementary School Practices and Children's Physical Activity During School

Jordan A. Carlson, PhD; Alexandra M. Mignano, BA; Gregory J. Norman, PhD; Thomas L. McKenzie, PhD; Jacqueline Kerr, PhD; Elva M. Arredondo, PhD; Hala Madanat, PhD; Kelli L. Cain, MA; John P. Elder, PhD, MPH; Brian E. Saelens, PhD; James F. Sallis, PhD

Am J Health Promotion 2014

What does this article add?

The main SES disparity found was for having a PE teacher. Low-SES schools were less likely to have a PE teacher than were high-SES schools, and having a PE teacher was related to children's physical activity.

Ward, D.S., Welker, E., . . . Sallis, J.F. (Accepted). Strength of obesity prevention interventions in early care and education settings: A systematic review. *Preventive Medicine*.

- Review of 43 studies of obesity prevention, diet, & PA interventions in early care & education settings, published 2010-2015. Ages 3-5 years.
- Strength of obesity prevention quantified
 - Each intervention strategy was coded for
 - Intensity (low=educational; high=policy, environment)
 - Frequency of use (low=once; high=daily)
 - Duration of entire intervention (low=<3 months; high=>9 months)
 - Scores computed for diet, PA, parent components. Plus overall intervention score
- Supported by Healthy Eating Research

Ward, D.S., Welker, E., . . . Sallis, J.F. (Accepted). Strength of obesity prevention interventions in early care and education settings: A systematic review. *Preventive Medicine*.

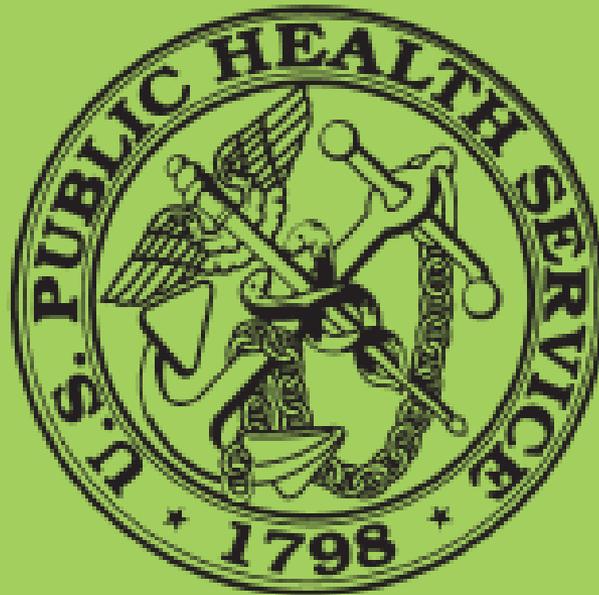
- Results

- **Intervention strength scores for diet, PA, and combined interventions were correlated $r > .30$ with at least 1 anthropometric outcome**
- **Strength of parent engagement added to effectiveness of each intervention category**
- Mixed results about whether combined vs separate diet and PA interventions were more effective
- Intervention strength was negatively (unexpectedly) correlated with diet and PA outcomes, though not often significantly

Translate research into practice

- Many PA interventions are effective, but few are being widely implemented. “Translation” is the key
- For both schools and ECE settings, evidence supports multi-component policy and environment interventions, but these are challenging and can be costly to deliver.
- How can we be more effective in attracting commitment & support for whole-of-school and multi-component ECE approaches to PA intervention from education decision-makers?
- **New federal education bill makes funding available for school PA**

STEP IT UP!
THE SURGEON GENERAL'S CALL TO ACTION
TO PROMOTE WALKING
AND WALKABLE COMMUNITIES

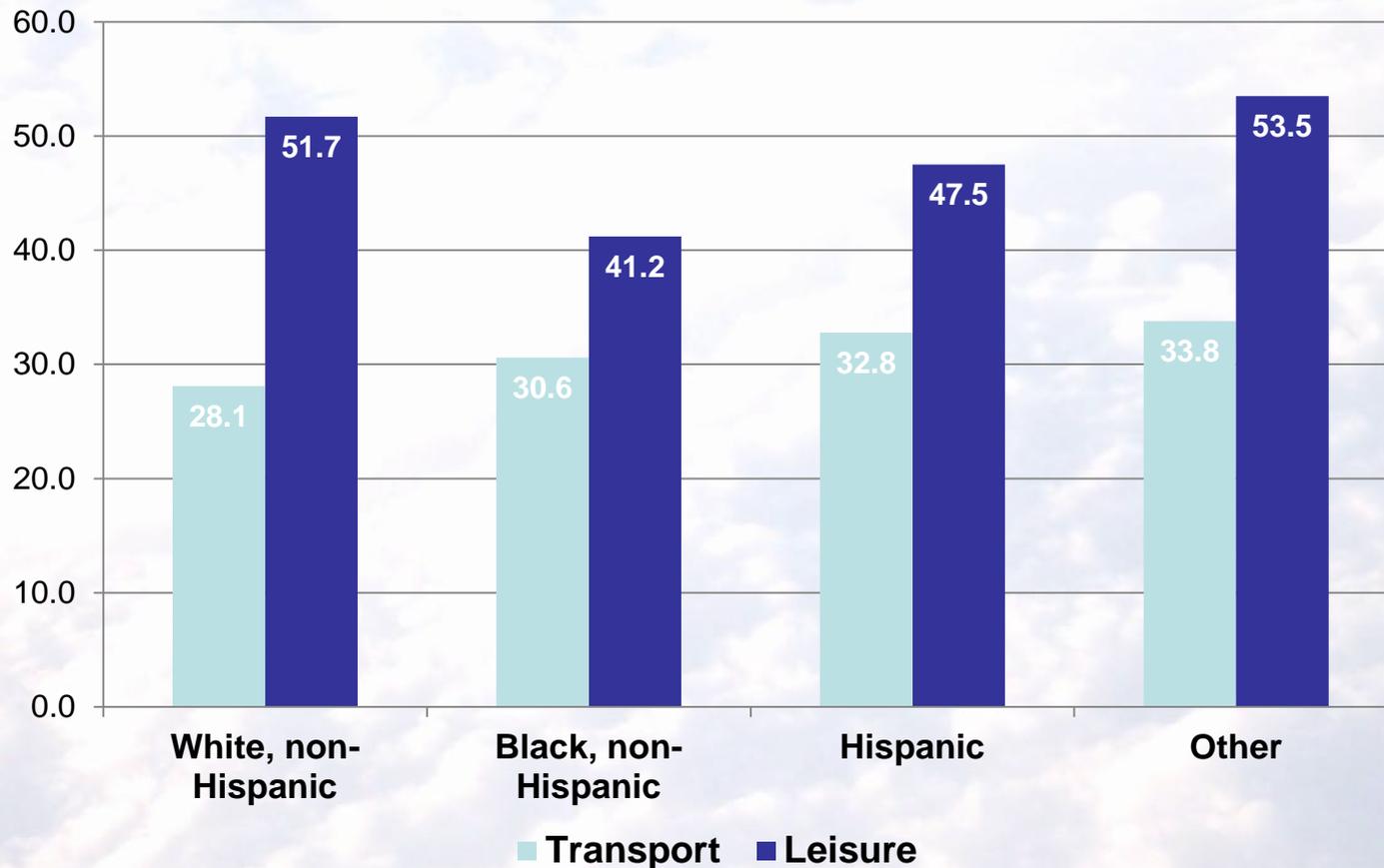


U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

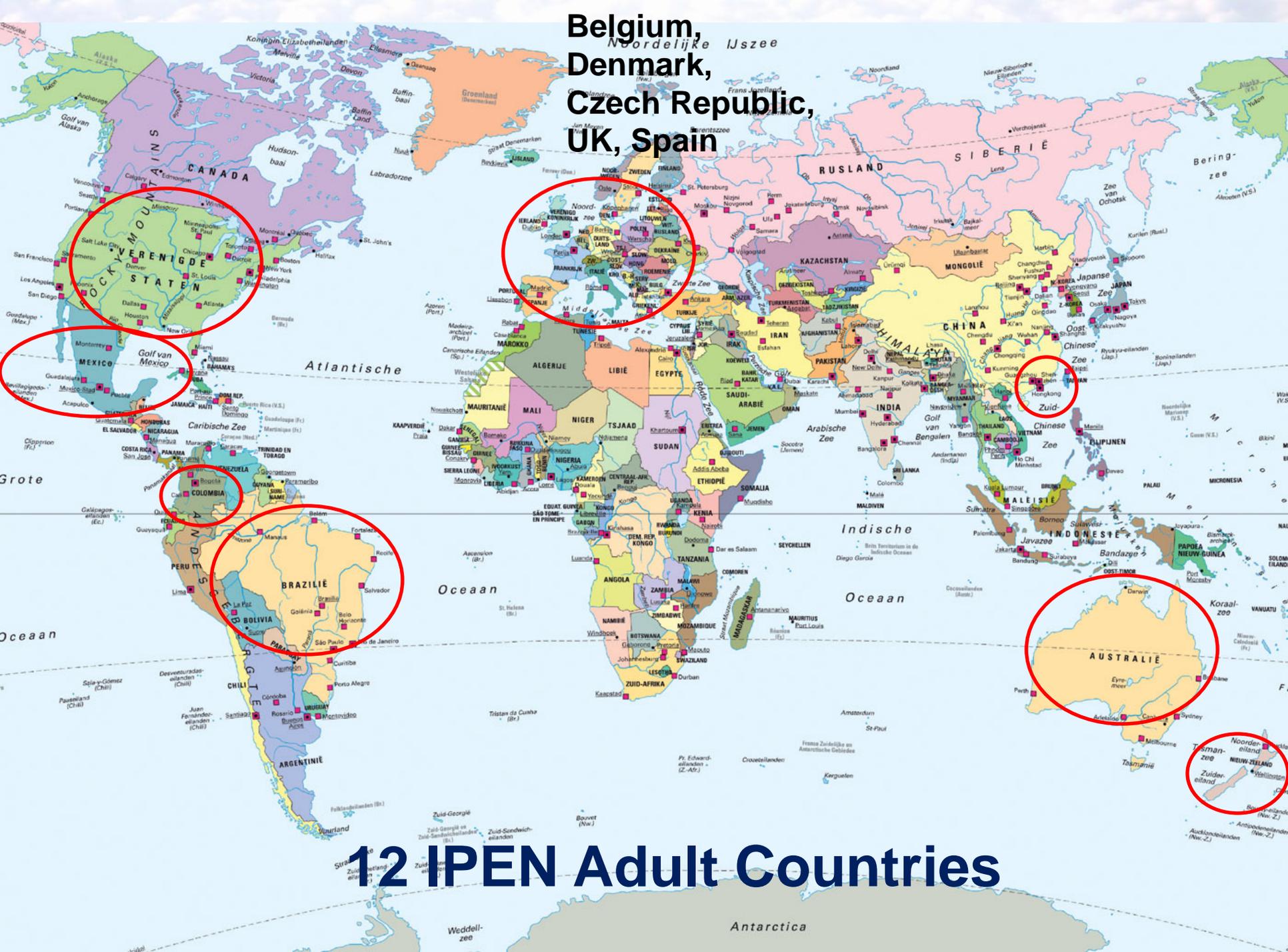
Released
2015

Walking for Transportation and Leisure in NHIS 2010: Differences by Race/Ethnicity

Percent Walking in Past 7 Days

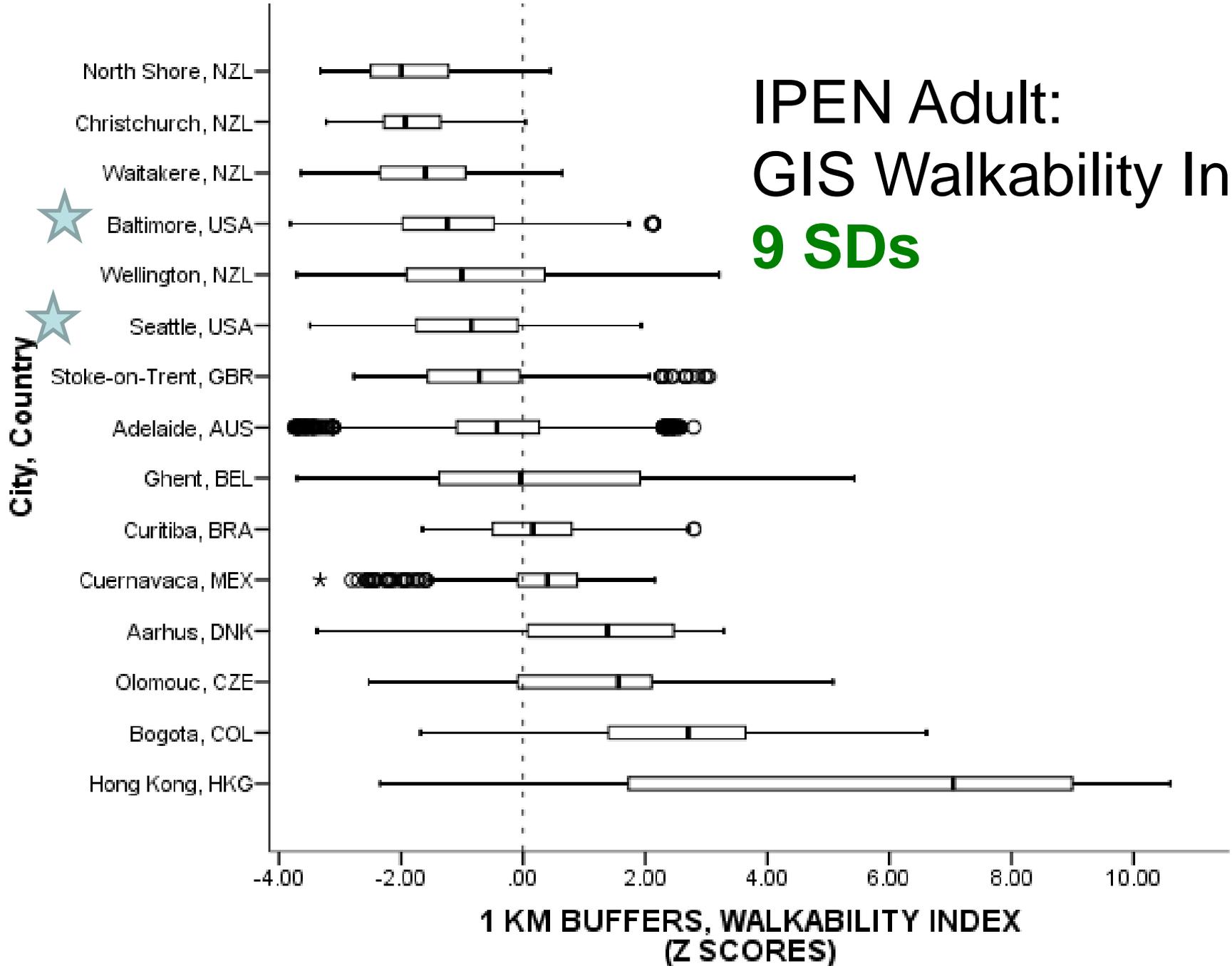


Belgium,
Denmark,
Czech Republic,
UK, Spain

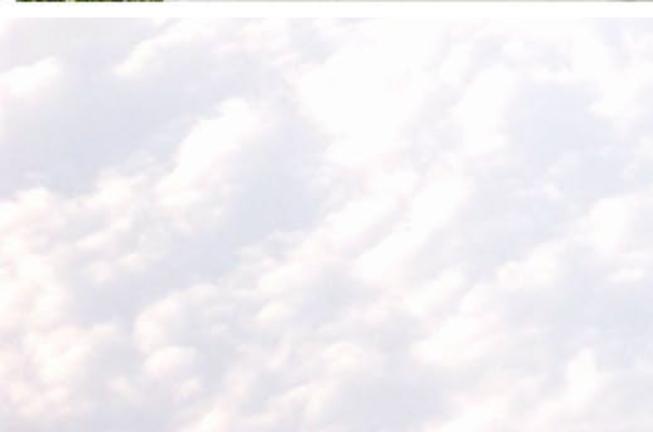


12 IPEN Adult Countries

IPEN Adult: GIS Walkability Index 9 SDs



Getting the Details Right: Streetscape Design



Putting the Pieces Together: Designing an Activity-Friendly Street

Clever, MO:
Clarke Street



Clever, MO: Clarke Street



Clever, MO: Clarke Street



Clever, MO: Clarke Street



Clever, MO: Clarke Street



Clever, MO: Clarke Street



Clever, MO: Clarke Street



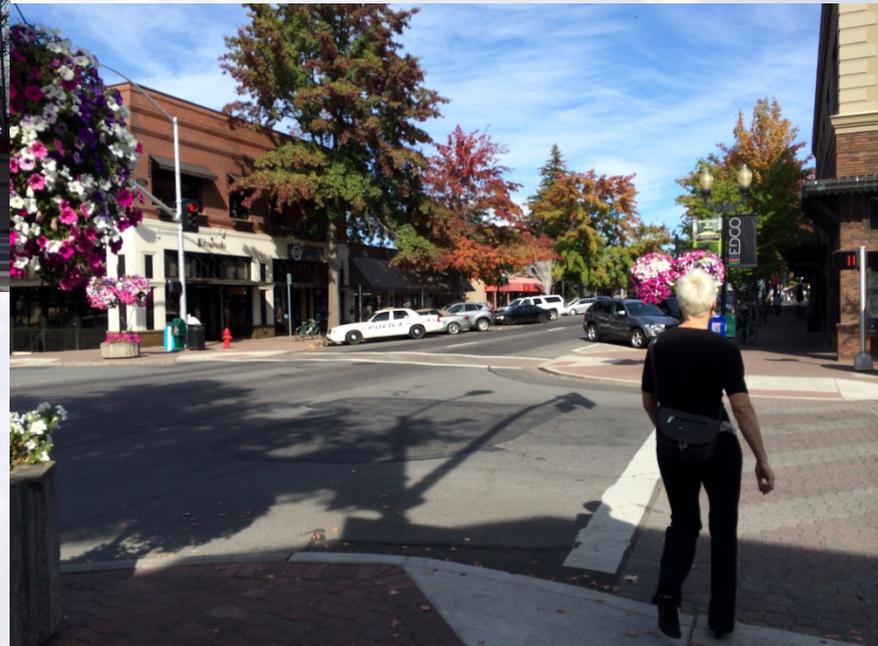
MAPS Mini: Assessing Quality of Streetscapes

- Observational measure of streets and intersections for activity-friendliness
- **15-item MAPS-Mini was designed for practitioners and advocates**
 - Reduced from 120 items
- Evaluated for validity in 3677 children, teens, adults, older adults
 - 3 regions

How do MAPS-Mini scores relate to active transportation? ADJUSTED

MAPS Mini Score	Children	Adolescents	Adults	Seniors
Commercial Segments				N/A
Public Parks				
Transit Stops				
Street Lights				
Benches				
Building Maintenance				
Absence of Graffiti				
Sidewalk				
Buffer				
Tree, Awning Coverage				
Absence of Trip Hazards				
Marked Crosswalk				
Curb Cuts				
Crossing Signal				
GRAND SCORE				
GRAND SCORE (for Active Transport)				

Income Disparities in Environments

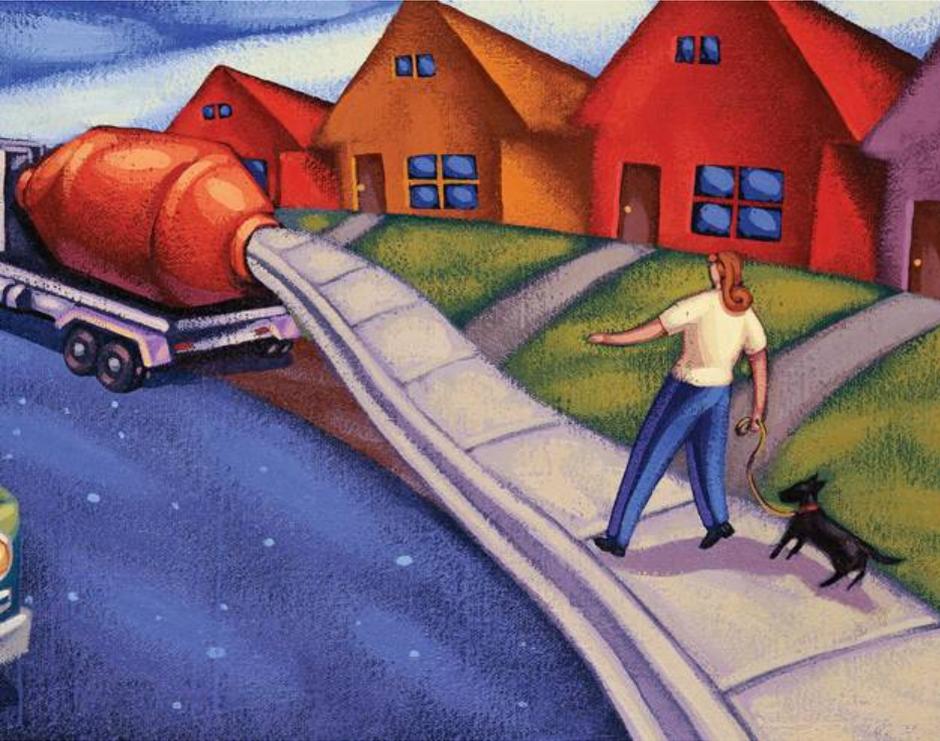


Environmental Disparities: 2 new papers

- **Park Quality Disparities**
Engelberg et al. BMC Public Health, 2016, 16:395.
- **Streetscape Quality Disparities**
Thornton et al. SSM-Population Health, 2016, 2, 206-216.
- Variety of patterns: some disparities, some “equitable differences”
- Different patterns across 3 regions, suggest local policies can be effective
- **Given each city’s unique patterns of environmental disparities, local measures (observations) are necessary to assess local conditions as a basis for remediating disparities in physical activity environments.**



Research is Not Easy to Put into Practice





Urban Land
Institute

Building Healthy
Places Initiative

Ten Principles for
Building Healthy Places



Urban Land
Institute

*Leveraging the power of ULI's global networks to shape **projects and places** in ways that improve the health of **people and communities**.*



Livable Communities

Great Places for All AgesSM



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AARP Network of Age-Friendly Communities Tool Kit

The AARP Network of Age-Friendly Communities: An Introduction

AARP Livable Communities

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As the U.S. population ages and people stay healthy and active longer, communities must adapt.

The AARP Network of Age-Friendly Communities helps participating communities become great places for all ages by adopting such features as safe, walkable streets; better housing and transportation options; access to key services; and opportunities for residents to participate in community activities.

Well-designed, livable communities promote health and sustain economic growth, and they make for happier, healthier residents — of all ages.

The AARP Network of Age-Friendly Communities is an affiliate of the AARP Livable Communities...

The Tool Kit



An age-friendly community is livable for people of all ages. — Getty

Learn how a town, city or...

Livable Communities Free E-Newsletter

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Recommendations

- For PA interventions with good evidence of effectiveness, **shift research emphasis to translation, dissemination, implementation**
- Whole-of-school and multi-component ECE interventions have promising evidence, but with significant **challenges to implementation**
- Promising evidence that **improving quality of parks and streetscapes** can be effective, but with significant challenges to equity of implementation

Recommendations

- To implement the National PA plan we need to:
 - Make PA a higher priority in public health
 - Create an Office of PA and Health at CDC, with funding
 - Strengthen partnerships with multiple sectors
 - Prioritize strategies that will reduce disparities and implement in disadvantaged communities first