



Active Living Research

Building the Evidence to Prevent Childhood Obesity and Support Active Communities

Welcome to ALR 101

James F. Sallis, Ph.D., Active Living Research, SDSU

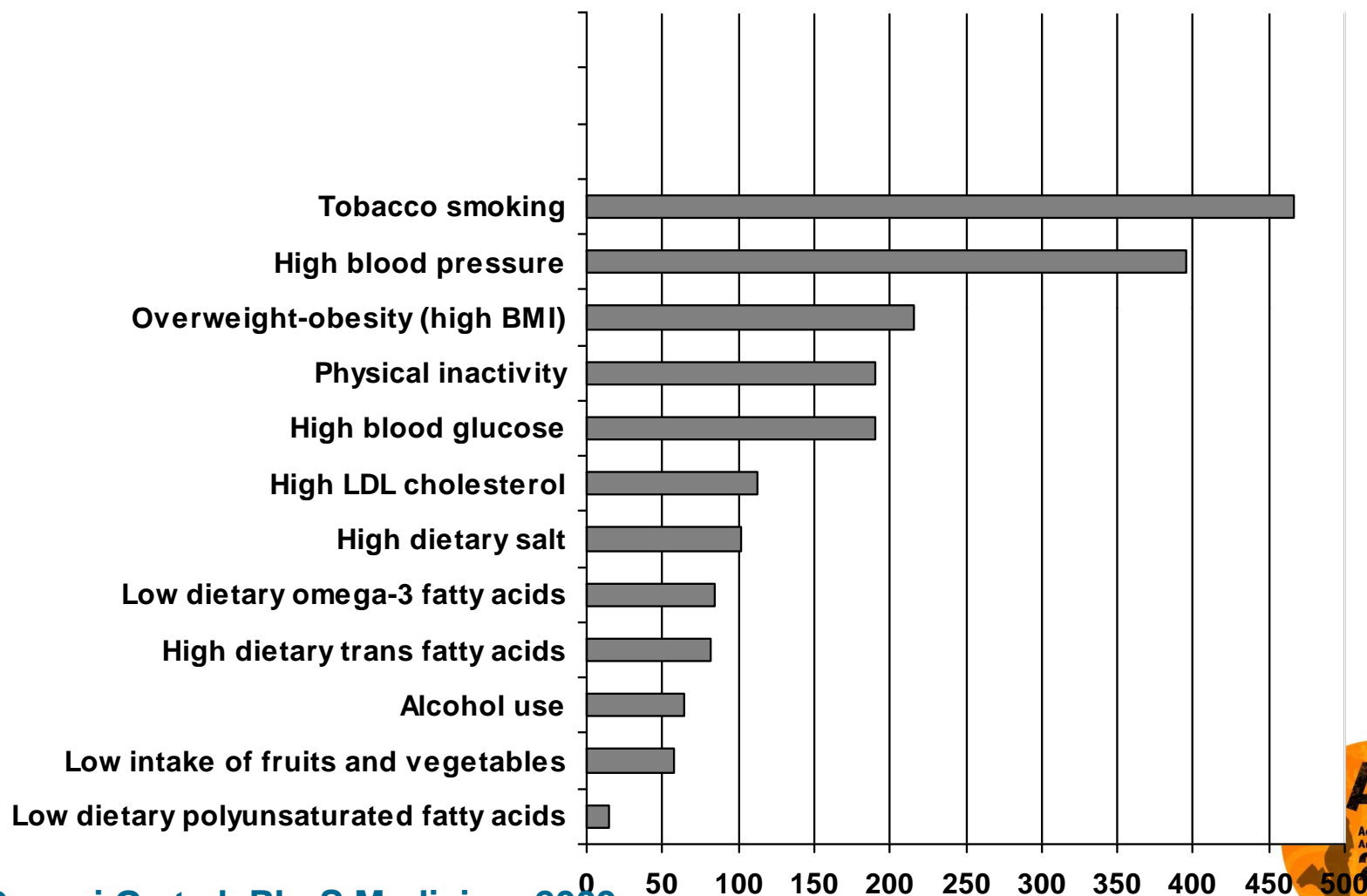
Robert Cervero, Ph.D., UC Berkeley

Andrew Mowen, Ph.D., Penn State Univ

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Deaths (thousands) attributable to individual risk factors in both sexes

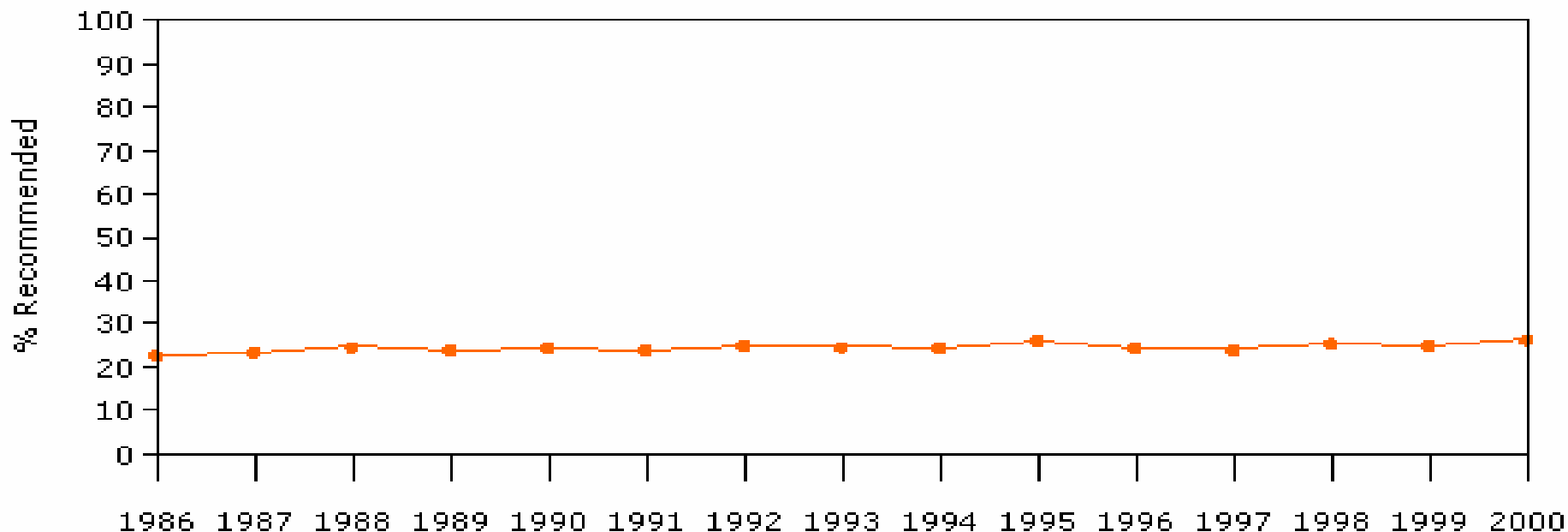


Danaei G et al, PLoS Medicine, 2009



Promoting exercise has not worked

Trend in Recommended Physical Activity for U.S. Overall



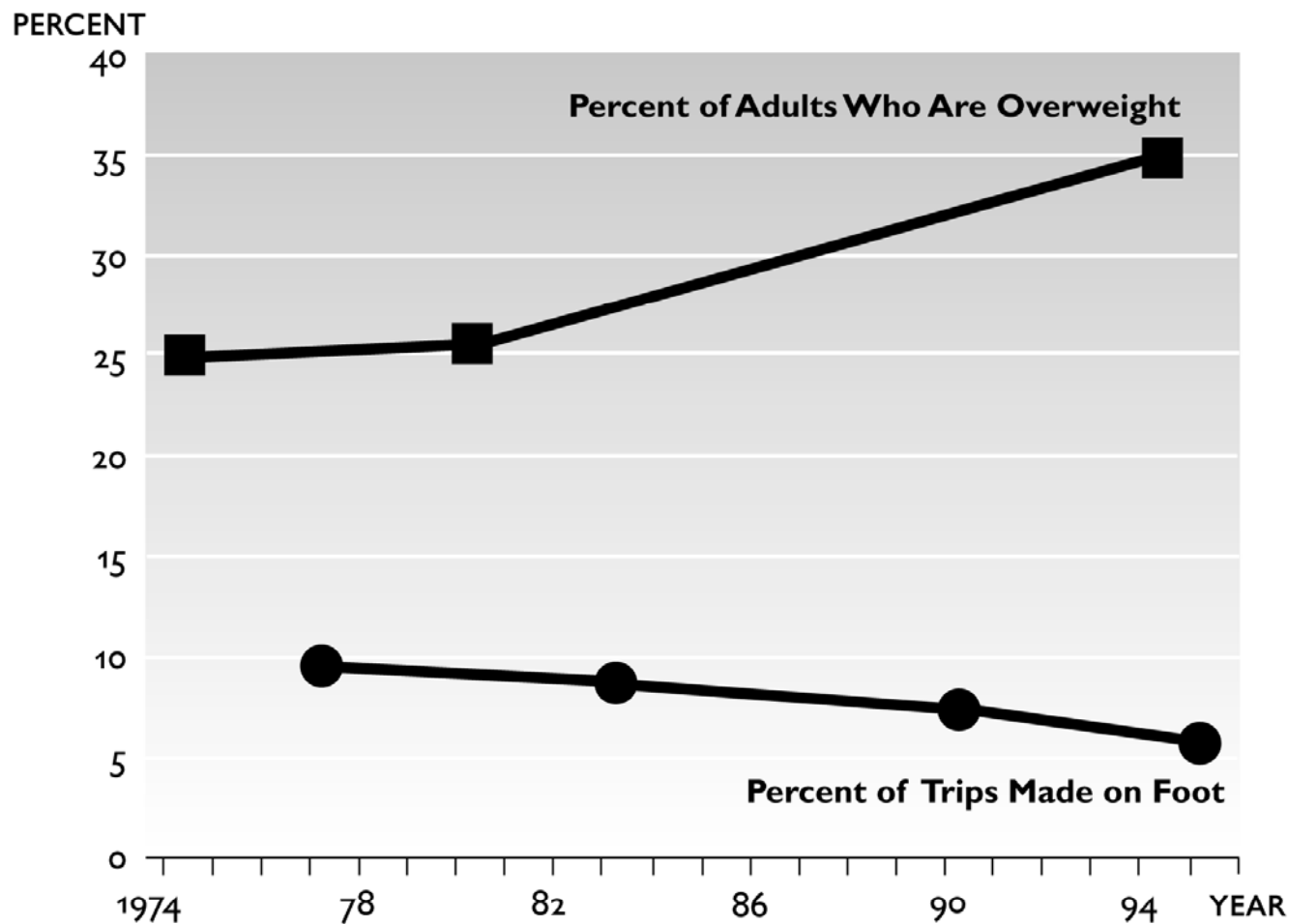
Source: Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System



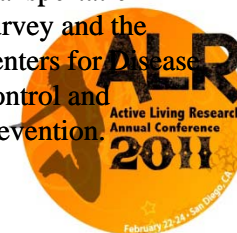
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Walking for Transport Is Declining



Based on data from the Nationwide Personal Transportation Survey and the Centers for Disease Control and Prevention.

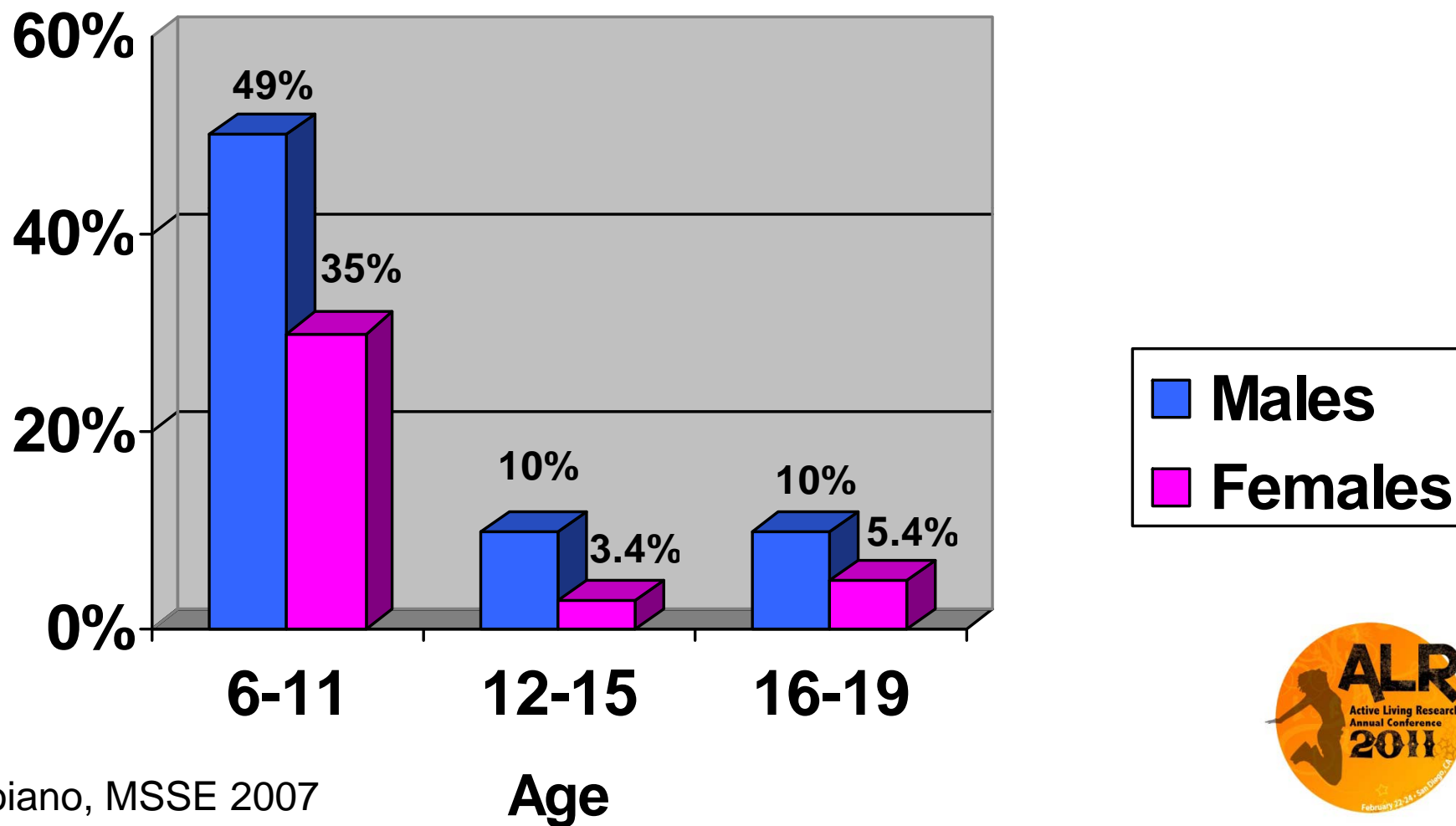


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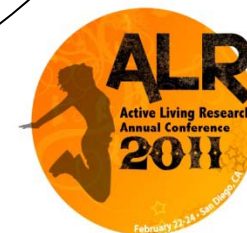
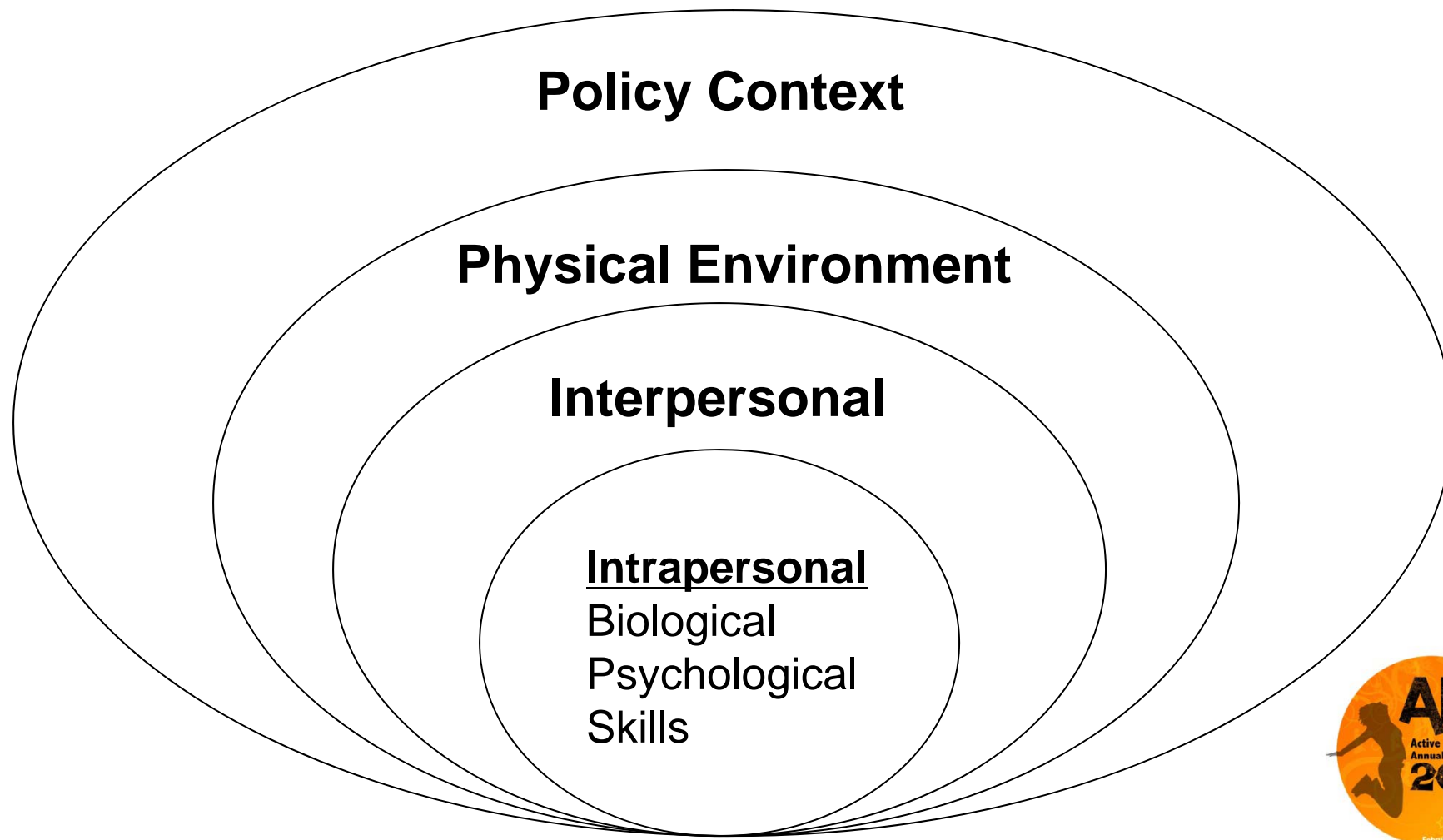
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Percentage of youth ages 6-19 meeting 60 min/day physical activity guidelines.

Based on accelerometers. NHANES 2003-4



An Ecological Model of Health Behavior



Key Points from Ecological Models

- Interventions that work at all levels likely to be most effective
- Environment and policy changes likely to have most widespread and longest-lasting impacts
- We have the least evidence about environmental and policy influences on active living
- First, create activity-friendly environments. Then motivate & educate people to be active



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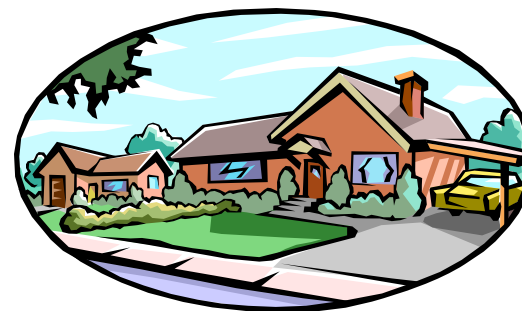
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Elements of An Active Living Community

Comm Design
Destinations



Home



School & Preschool



Park & Rec



www.activelivingresearch.org



Active Living Research

Goals: 2001-20012

- Establish a strong research base
 - Administer a \$28 million research budget
- Build a transdisciplinary field of researchers
- Stimulate & inform policy change



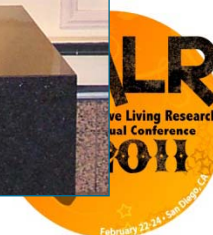
Building Evidence

- Calls for proposals 1-10
 - Funding rates, 8%-25%. Higher for dissertations
 - Approximately 200 grants funded
- Conference
 - Highly competitive abstract selection
 - Best papers in journal supplement with wide distribution
- Website
 - Free access to journals & conference slides
 - Measurement resources
 - Literature searches, reference lists; article database
 - Information for policy makers and media



Field Building: Cultivating New Relationships

- Architecture
- Environment & Behavior
- Geography
- Landscape Architecture
- Parks & Recreation
- Planning
- Transportation
- Criminology
- Economics/Law/Policy
- Advocates/ Policymakers



Building a Transdisciplinary Field: Academic Diplomacy

- Multidisciplinary advisory committee
- Recruiting non-traditional partners through talks at conferences
- Broad distribution of Calls for Proposals
- Seminar grants to organizations to bring speakers from other fields
- Principal Investigators from 25+ fields



ALR Conference Evaluations: 75-95% rated 4 or 5

Conference Goals

Stimulated ideas likely to lead to changes in my research

Learned new concepts from another discipline likely to enhance my work

New contacts might lead to collaboration

Builds capacity to conduct transdisciplinary studies



Translating Research into Policy

- Regular input from policy makers on research priorities & communication strategies
- CFPs for case studies & policy studies—targeting policymakers
- Research briefs for policymakers & advocates
- Sessions at ALR Conference with policymakers to show how they use research



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G u t m a n
Research Associates

Evaluation of Active Living Research 2001-2007

Marjorie Gutman, PhD

Dianne Barker, MHS

Faith Samples-Smart, PhD

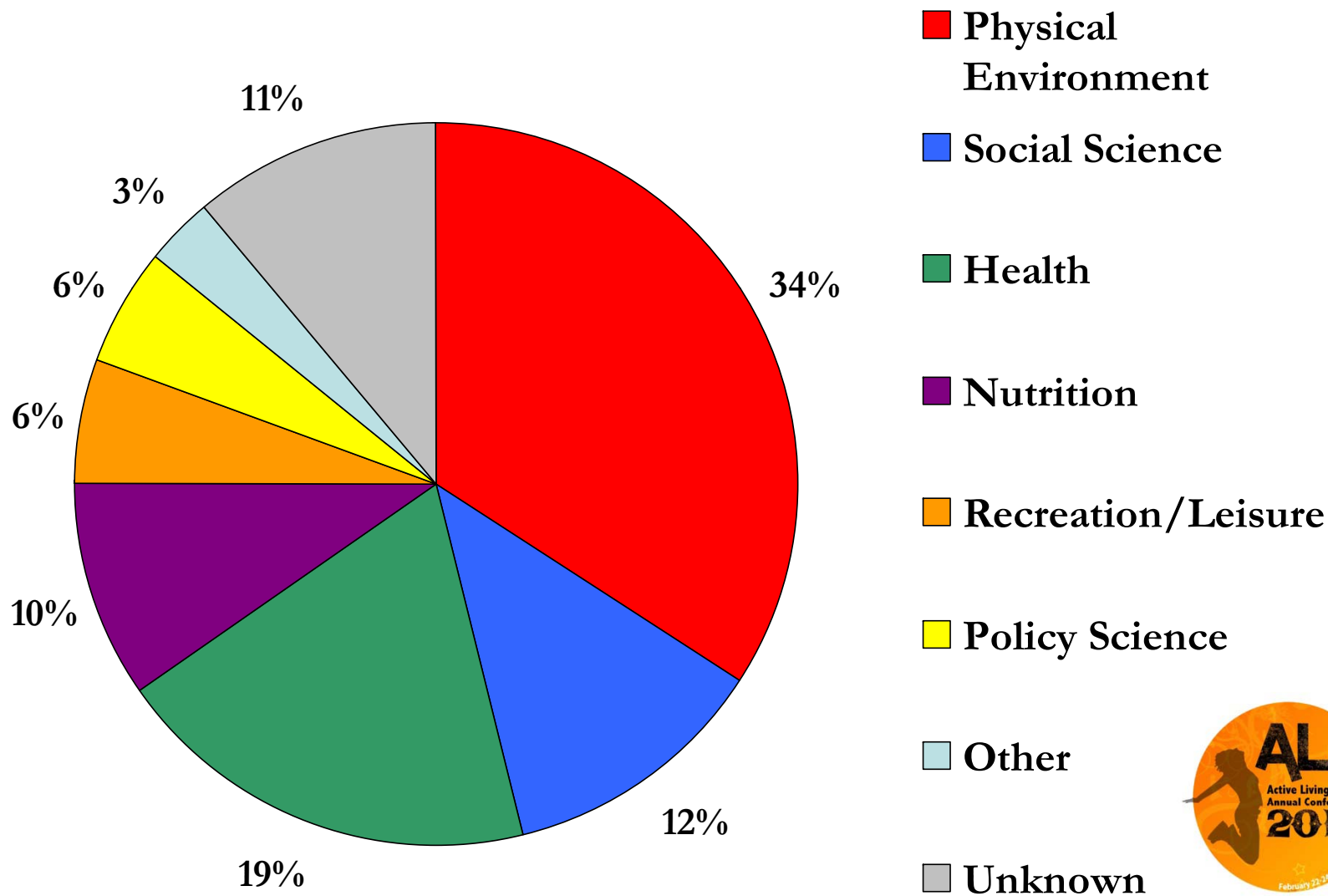


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Investigator Disciplines



Growing Human Capital

- **Attracted, nurtured new/young researchers**
- **31% of PIs had 5 years or less research experience**
- **77% of all investigators reported professional advancement**
- **Dissertation and other small grants led to pilot data, preparation for larger grants**
- **Diversity - 30% of PIs are persons of color**



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Group Health Community Foundation

Evaluation: RWJF Active Living Research Program

Bill Beery, Judith Ottoson, Lawrence Green,
Sandra Senter



www.activelivingresearch.org

Awareness of ALR Key Informant Interviews

	State KI (n=50)	Policy KI (n=26)
Heard of Active Living Research	88%	77%
Aware of at least 1 ALR study	66%	↓
Had contact with an ALR researcher	42%*	70%**
Visited ALR Web site (last 6 mo.)	70%	35%

* n=31; ** n=20



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Renewal of Active Living Research 2007-2012

- Contribute to RWJF's goal of reversing the childhood obesity epidemic by 2015
- Focus on groups at highest risk
 - African American, Latino, Native American, Asian/Pacific Islander, lower income



What we know through ALR-funded research on PA/PE in schools

Mississippi and Tennessee:

- Wellness policies are actively resisted because of schools' exclusive focus on academic achievement
- Physical Education (PE) is marginalized by all actors in education
- High school PE teachers are much more concerned about varsity sports than PE



What we know through ALR-funded research on PA/PE in schools

Texas

Evaluation of State Law on PA and Coordinated School Health Policy

- 97% of principals & district officials are aware of physical activity requirements
- 179 average minutes of structured student physical activity per week
 - Exceeding the 135 minutes required by the bill
- Strong implementation of policy was due to support from local community organizations



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What we know through ALR-funded research on PA/PE in schools

Denver

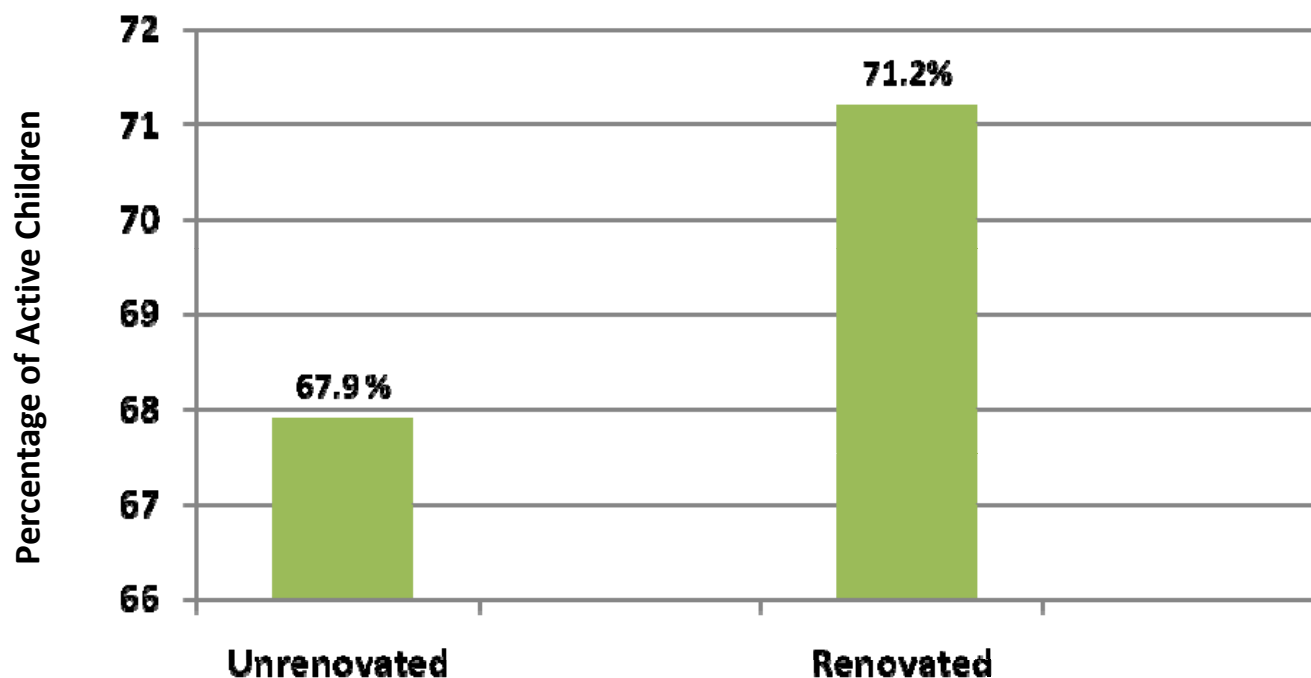
- Schoolyards at 47 low-income schools have been redesigned with community input and transformed into community parks.



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Building the Evidence to Prevent Childhood Obesity and Support Active Communities

A study of 9 public elementary schools in Denver found that children were more likely to be physically active in schoolyards renovated by Learning Landscapes* than in schoolyards that were not renovated.



*Learning Landscapes is a program of the College of Architecture and Planning at the University of Colorado, Denver that transforms old, neglected schoolyards into attractive, safe, multi-use schoolyards tailored to the needs and desires of the local community.

Brink LA et al. Influence of Schoolyard Renovations on Children's Physical Activity: The Learning Landscapes Program. *Am J Public Health* 2010; 100(9): 1672-1678.



What we know through ALR-funded research on built environment

▪ Los Angeles County

- Children's BMI increased more over 8 years if they had roads with heavy traffic near their homes
- Poor cities tend to spend less on parks
- States do not equalize funding
- Nonprofits concentrate funding in affluent areas, worsening disparities



Where do people bicycle?

The role of infrastructure in determining bicycling behavior

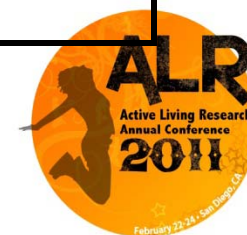


Jennifer Dill, Ph.D.
Center for Transportation Studies



Where do people bicycle in Portland, OR? Based on GPS.

Type of road	% of bicycle miles	% of road miles
Without bicycle facilities	51	92
With bicycle facilities (lane, separate path, bike boulevard)	49	8




What we know through ALR-funded research on built environment

- **Baltimore**
- Interviews with African American high school students
- Key environmental barriers to PA
 - Lack of places for PA
 - Crime, violence, drugs
 - Unsafe places for PA

ADOLESCENT MATTERS

Issues Focus

SPRING 2008



CENTER for
ADOLESCENT
HEALTH

**BALTIMORE CITY'S PARKS AND RECREATION CENTERS:
AN UNDERUTILIZED RESOURCE FOR URBAN TEENS**

Baltimore City's system of more than 300 city parks and 45 recreation centers offers urban youth 6,000 acres of green space and plentiful ways to exercise their bodies and minds.

The opportunities for physical activity found at parks and recreation centers are more important than ever for Baltimore's youth. Obesity rates in the city are rising, especially among adolescents. Eighteen percent are overweight, according to the 2007 Youth Risk Behavior Surveillance Survey. Moreover, green spaces may help young people think more clearly and

cope more effectively with life's stresses.

Baltimore City youth are not using indoor and outdoor public spaces for physical activity as much as they could. Only 35 percent of adolescent girls in the BALTS study report they frequent recreation centers, as opposed to 52 percent of boys. Park usage is 54 percent for the girls and 66 percent for the boys surveyed.

The BALTS study of 350 high school students in Baltimore documented what draws teens to Baltimore's parks and recreation centers and what drives them away.

ABOUT THIS STUDY

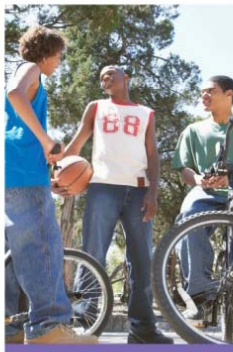
Material for this Issues Focus comes from a survey of 350 youth ages 14 to 18 from two Baltimore City public high schools. 48 in-depth interviews with these youth, and observations of recreational facilities. The study, conducted by Amy Vastine Ries, was part of the Baltimore Active Living Teens Study (BALTS), led by Carolyn Voorhees of the University of Maryland.

{ "There's a lot of glass. There's trash and needles and things. You have to have somebody clean up and walk the entire field before you can do anything. It's really more trouble than it's worth." —Young man, 15 }

TEENS SAY PARKS ARE NOT SAFE, PRETTY, OR CLEAN

	% agree
Parks are not safe.*	38
There are unsafe people at parks.	49
Parks are not pretty.*	38
Parks are not clean.*	50
Parks have the facilities that I like to use.	45
Parks are poorly maintained.	45
Parks get a lot of use*	44

*Item has been reversed



ALMOST HALF OF TEENS HAVE USED PUBLIC RECREATION CENTERS

	% agree
I use recreation centers for physical activity.	42
Recreation centers are open when I want to use them.	40
It is too expensive to use recreation centers.	15
Recreation centers have facilities I like to use.	60

ACKNOWLEDGEMENTS

The Center for Adolescent Health is a member of the Prevention Research Centers Program, supported by the Centers for Disease Control and Prevention

cooperative agreement number 1-U48-DP-000040. Additional funding for this project is provided by The Charles Crane Family Foundation, The Sigmund and Barbara K. Shapiro Fund, the Robert Wood

Johnson Foundation Active Living Research Program (Grant # 55761) and Grant # 52338).

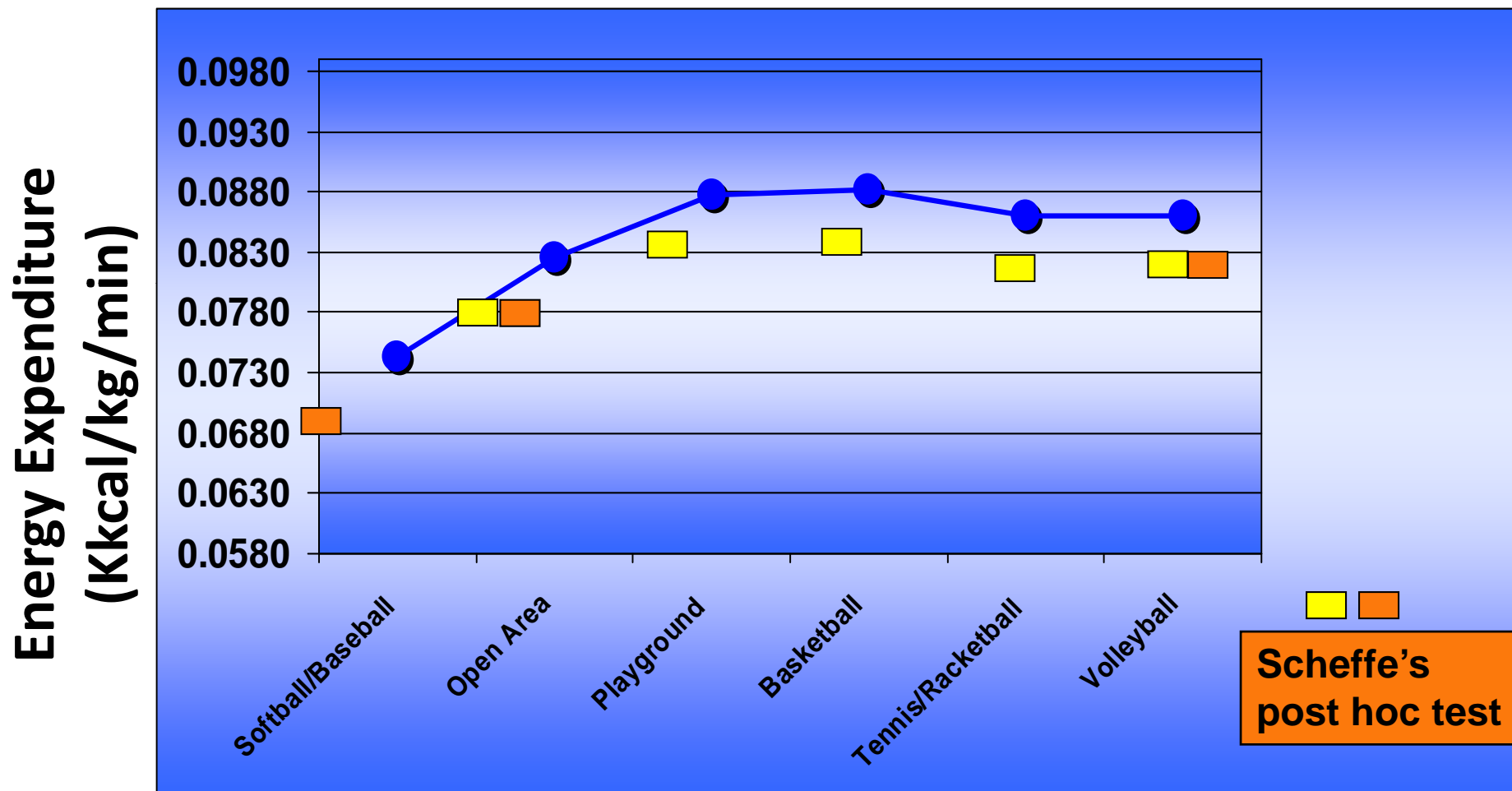
Authors:
Jayne Blanchard, Amy Vastine Ries, PhD

What we know through ALR-funded research on built environment

- Chicago
- Parks in African American and Hispanic neighborhoods



Mean Energy Expenditure by Park Activity Zones



Chicago, $F = 10.20, p < .001$



What we know through ALR-funded research on built environment

- **Missouri Health Impact Assessment (HIA)**
- Few key informants had any knowledge of HIAs prior to this one
- HIAs can spur community groups to improve sidewalks near transit stops
- HIA's can also encourage local government to provide staff for post-HIA activities



What we know through ALR-funded research on built environment

- **Rural Mississippi, Kentucky, South Carolina and California**
- Input from children & parents
- Barriers to activity
 - no shoulders on roads
 - heavy truck traffic
 - no access to school grounds
 - lack of parks
 - lack of safety, crime and wild animals



ALR-New Connections Grants

- Support new investigators (7 years or less from degree) from historically disadvantaged backgrounds and advance the science on physical activity and childhood obesity.
- Total # of Awards: 12
- Racial/Ethnic Representation of PIs:
 - 4 African American
 - 1 Native American
 - 5 Hispanic/Latino
 - 1 Asian/Pacific Islander
 - 1 Caucasian from lower-income family and 1st generation college graduate



Rapid-Response Grants – Studies in Progress

■ Built Environment

- Effectiveness of Safe Routes to School Interventions (OR)
- Change in School Choice Policy and Active Commuting to School (MN)
- Health Impact of Bike Lanes in New Orleans, LA
- Economics of Implementing Active Design in Family-focused Affordable Housing (NY, GA, TX)

School PA Opportunities

- Case study on LASUD Public School PE Implementation Plan
- Evaluating the Pennsylvania Active Schools Program
- Evaluation of Boston's 'Active School Day' Policy Intervention



Research Briefs at www.activelivingresearch.org

- Power of Trails (new)
- Parks
- Economic benefits of open space & walkable communities (new)
- Growing demand for walkable communities
- Transportation policies
- Active travel to school
- Active education
- School wellness policies
- Designing for active children
- COMING SOON
- School physical activity policies
- Playgrounds
- Disparities in access to active environments



Have ALR research results made a difference?

- Study of School Wellness Policies on physical activity in rural Colorado Schools led to a \$1.8M grant from CO Health Foundation to improve PE in 14 schools in San Luis Valley
- Presentation of an evaluation of MA policy requiring 60 minutes of physical activity in preschools led to NC legislature passing a similar law. Grantee got CDC contract to develop a guide for states on how to develop similar policies
- Evaluation of converting of schoolyards to community parks in low-income Denver neighborhoods helped achieve passage of a \$48M bond issue to convert all schoolyards in Denver



What remains to be done: School PA

- Impact of PE and other PA programs on academic achievement in high risk groups
- How to improve school administrators' perceptions of the academic value of PE and PA programs
- Effectiveness of low cost programs to improve PA in recess
- Identify policies to increase access of low income children to after-school PA programs
- Better understand equity of access to school PA opportunities
- Evaluate local and state school innovations



What remains to be done: Built Environment

- Economics of built environment improvements
 - Complete streets, improved aesthetics, safer street crossings
- How can low-income neighborhoods be made more activity-friendly without causing gentrification & dislocation?
- How can low-resource schools be assisted to compete for Safe Routes to Schools grants?
- Better understand how crime, violence, fear, and disorder affect children's PA
 - Especially in high risk populations
- Evaluate community innovations (including RWJF action programs)



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Active Living Research Annual Conference



“I always enjoy this conference because of the different disciplines that are attracted to attend and the richness of discussions that often challenge my disciplinary perspectives. Overall my involvement in ALR has made me a better researcher.”



Additional Information Not Presented



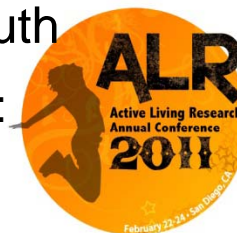
Examples of ALR Policy Input & Impact

- Supported ALR grantees to testify at Congressional hearing on transportation
- Participated in House staff briefing on physical activity, PE, & academic achievement
- Additional briefings & discussions with Congressional & DOE staff on reauthorization of EASA
- ALR is considered a “co-author” of New York City’s Active Design Guidelines
- Sallis spoke at Mississippi Health Summit, made proposals to CA Governor, & presented to NCSL, NASBE, & NACCHO



ALR-New Connections Projects

- School Reform: The Role of School and Physical Education Policy on Children's Physical Activity in Alabama's Black Belt Region
- Healthy Bodies, Healthy Minds: Promoting Early Literacy Skills through Teacher-directed Physical Activity
- Physical Activity Program Effects on Preschool-Age, Low-Income African-American Children
- Low-Income Urban Black Mothers' Perceptions of Neighborhood Safety and its Relationship to their Daughters' Physical Activity
- Filipino American Youth Physical Activity Project
- Youth Soccer League for Latino At Risk Children
- Evaluating Social Marketing and Hip Hop Culture as Mechanisms to Increase Youth Advocacy Amongst African-American and Latino Youth
- Mejorando Nuestros Oportunidades para Recreacion y Actividad Fisica: Engaging Youth in Research and Local Policy Advocacy



Commissioned Analyses - Topics Invited

- Youth sports and afterschool policies with a simulation of different policy options focused on low income children
- Case studies on the passing of complete street policies
- Cost analysis of bike boulevards and other bicycling facilities
- Documenting promotion of sedentary behavior in youth through the media
- Estimating extent to which transportation policies can promote active living



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ALR Seminars 2007 to 2010

- Indian Health Service Making Data Count Conference
- American Educational Research Association
- State of Environmental Justice in America
- American Society of Criminology
- Urban Affairs Association
- Society for Research on Child Development
- Community Indicators Consortium
- Transportation Research Board
- Society for Prevention Research
- New Partners for Smart Growth
- National Planning Conference
- National Initiative for Children's Healthcare Quality
- National Medical Association (African-American focus)
- National Hispanic Medical Association
- ProWalk/ProBike



Outreach and Collaboration

- Association of American Indian Physicians
- Sustainable Communities Initiative
- Promise Neighborhoods
- National Council of La Raza
- National Recreation and Parks Association
- Educational Commission of the States
- American Planning Association
- National Association for the Education of Young Children
- US National Physical Activity Plan
- Institute of Transportation Engineers



Upcoming Synthesis: Disparities in Physical Activity Resources

Minorities and lower-income families:

- Are more likely to live in neighborhoods with fewer and lower-quality street-level features that make walking safer, easier, and more appealing
- Are disadvantaged in access to and availability of parks and other recreation resources
- Experience increased danger from crime and traffic, and face more barriers relating to physical and social disorder
- Face disparities that can account for the higher obesity rates

