Active Living Research: Making the Case for Parks and Trails
Providing National Leadership and Services for Advancing the Outdoor Recreation Profession

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Host & SORP President

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www.RecPro.org
Webinar Outline

Amanda Wilson, MS, Strategic Engagement & Project Manager
- Overview of Active Living Research program and resources
- Brief Research Summary

James F. Sallis, PhD, Director
- Identify environmental features with the strongest evidence of co-benefits.
- Explain how understanding the co-benefits of activity-friendly environments could affect decision making processes.

Discussion
Active Living Research Overview

Amanda Wilson, MS, Strategic Engagement & Project Manager

- To establish a strong research base regarding environmental and policy correlates of physical activity.
- To build an interdisciplinary and diverse field of physical activity policy and environmental researchers.
- To facilitate the use of research to support changes in practice and policy.
Challenges in Research Translation

- Peer-reviewed journal gold standard for credibility
- Policy-makers do not read scientific journals, which often include technical terms
- Scientific publishing is long process; rarely synchronized with policy debates
- Single study seldom represents definitive evidence on a topic
- Researchers are not trained in or rewarded for communicating to practitioners
Actions to Build Evidence

• Calls for proposals 1-10 and Rapid Response
  – Funding rates, 8%-25%. Higher for dissertations
  – 230 grants funded. About 400 papers published so far.

• Annual Conference
  – Only venue for all relevant disciplines to come together
  – Highly competitive abstract selection
  – Best papers in journal supplement with wide distribution

• Website
  – Free access to journals & conference slides
  – Measurement resources
  – Literature searches; article database
Research is Not Easy to Put into Practice
ALR Research Briefs and Syntheses

**Parks**
- Parks & playgrounds
- Trails

**Schools**
- Academic performance
- Classroom activity breaks
- Shared use agreements
- Recess
- School physical activity policy

**Transportation**
- Safe routes to school programs
- Increasing biking for daily travel
- Counting cyclists & pedestrians

**Cross cutting**
- Summertime Weight Gain
- Sedentary Behaviors & Youth
- Economic benefits
- Disparities
Parks & Recreation Research Briefs

Research Brief Topics

• Parks, Playgrounds and Active Living
• Power of Trails to Promote Physical Activity
• Safe, Secure and Accessible Playgrounds
• Economic Benefits
• Disparities in Park Space
• Funding and Resource Disparities (LA Region)
• Shared Use Agreements
• Cost Analysis for Improving Park Facilities
Infographics

Additional Infographic Topics:

- Communities
- Transportation
- Schools
- Safe Routes to Schools
- Sedentary Time
- Academic Achievement
- Disparities
- What Works to Get Kids Active
Translation Products: Webinars & Videos

I-PARK:
http://activelivingresearch.org/i-park-investigating-parks-active-recreation-kids

Eight Ways Parks Improve Your Health:
http://activelivingresearch.org/blog/2014/05/eight-ways-parks-improve-your-health
Brief Summary of Research
Youth who had recreation or open space facilities close to home were two to three times more likely to take a walk over a two-day period than were youth who had no parks nearby.
Access & Disparities

Percent of Census Tracts* without a Recreational Facility by Race/Ethnicity

*Data from 685 census tracts in Maryland, New York and North Carolina

- African American: 70%
- Hispanic: 81%
- White: 38%
Amenities

Parks with paved trails were almost 26 times more likely to be used for physical activity than were parks without trails.
Recent studies suggest that trails make economic sense as an approach for physical activity promotion.

For every $1 spent on trails, there was almost a $3 savings in direct medical costs.
Putting it All Together:
Using Evidence to Impact Practice/Policy

• 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.
  – Study Link: http://activelivingresearch.org/if-they-build-it-will-they-come-evaluation-effects-redevelopment-inner-city-school-grounds-physical

• Evaluation of family fitness zones in parks led to Trust for Public Land support for 40 more installations in LA County
  – Study Link: http://activelivingresearch.org/family-fitness-zone-evaluation

Summary of Parks & Recreation Resources
http://activelivingresearch.org/taxonomy/parks-recreation
Research on Multiple Benefits of Parks and Trails

James F. Sallis, PhD, Director

www.activelivingresearch.org
Co-Benefits: Better Basis for Decisions

- Much research on the environmental attributes likely to contribute to physical activity
- Many recommendations for environment and policy changes based on the research
- Physical activity is likely not a priority for decision makers such as mayors who have to address many topics
- Understanding the potential co-benefits of environments designed for active living could raise the priority among decision makers
- The goal was to explore literature on potential co-benefits of environmental features with evidence of links to physical activity
These settings must be considered in the design of Active Cities.

What are the key modifiable features of these settings that have evidence of association with physical activity?

ALR led a lit review to document co-benefits of active design—and found many...
The benefits of active design cut across every dimension of civic life – productivity, education, safety, economic development, health, and more.
<table>
<thead>
<tr>
<th>Outcome/Co-Benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical health</td>
<td>Chronic diseases, obesity</td>
</tr>
<tr>
<td>Mental health</td>
<td>Depression, anxiety, other disorders</td>
</tr>
<tr>
<td>Social benefits</td>
<td>Neighborhood/social cohesion, human capital</td>
</tr>
<tr>
<td>Environmental benefits</td>
<td>Carbon dioxide emission, pollutants</td>
</tr>
<tr>
<td>Injury prevention</td>
<td>Crime, violence, car crashes</td>
</tr>
<tr>
<td>Economic benefits</td>
<td>Land value, governmental infrastructure costs, real estate profitability, productivity/job performance, health care costs, economic performance of cities</td>
</tr>
<tr>
<td>Other</td>
<td>Automobile congestion, findings related to disparities, polls showing public support or opposition to an environmental feature</td>
</tr>
</tbody>
</table>
Findings

• 221 sources were identified, yielding 521 relevant findings
  – 418 findings from higher-quality sources contributed to quasi-quantitative scoring

• All findings are detailed in tables and scored for quality

• Summary tables/matrices were developed to summarize the strength of available evidence
## Direction of Association

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>A favorable association was found between feature and co-benefit (feature associated with &quot;better&quot; level of co-benefit)</td>
</tr>
<tr>
<td>-</td>
<td>An unfavorable association was found between feature and co-benefit (feature associated with &quot;worse&quot; level of co-benefit)</td>
</tr>
<tr>
<td>0 (zero)</td>
<td>No association or inconsistent evidence was found between feature and co-benefit</td>
</tr>
</tbody>
</table>
## Summary of Scores & Color Codes for Each Level of Evidence

<table>
<thead>
<tr>
<th>Level of Evidence</th>
<th>Range of Scores</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong evidence of positive effect</td>
<td>15 and above (+)</td>
<td></td>
</tr>
<tr>
<td>Good evidence of positive effect</td>
<td>10-14 (+)</td>
<td></td>
</tr>
<tr>
<td>Moderate evidence of positive effect</td>
<td>4-9 (+)</td>
<td></td>
</tr>
<tr>
<td>Insufficient evidence</td>
<td>3.5 (-) to 3.5 (+)</td>
<td></td>
</tr>
<tr>
<td>Moderate evidence of negative or null effect</td>
<td>4-9 (-)</td>
<td></td>
</tr>
<tr>
<td>Good evidence of negative or null effect</td>
<td>10-14 (-)</td>
<td></td>
</tr>
<tr>
<td>Strong evidence of negative or null effect</td>
<td>15 and above (-)</td>
<td></td>
</tr>
</tbody>
</table>
## Summary Table by Sector – Summing across Features

### Table 13: Quantitative Estimates of Co-Benefits by Setting

<table>
<thead>
<tr>
<th>Built Environment Attribute</th>
<th>Physical Health</th>
<th>Mental Health</th>
<th>Social Benefits</th>
<th>Environmental Sustainability</th>
<th>Safety / Injury Prevention</th>
<th>Economic Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open spaces / Parks / Trails</td>
<td>57.5+ 3.5(0)</td>
<td>93+</td>
<td>42.5+ 4(0)</td>
<td>20+ 4(0)</td>
<td>23+</td>
<td>19+ 4(0)</td>
</tr>
<tr>
<td>Urban design / Land use</td>
<td>105+ 54(0)</td>
<td>31+ 4-</td>
<td>80.5+ 29(0)</td>
<td>265.5+ 45.5(0)</td>
<td>13.5(0) 18.5-</td>
<td>69+ 10.5(0) 4-</td>
</tr>
<tr>
<td>Transportation systems</td>
<td>7+ 3.5-</td>
<td>3+ 3.5(0)</td>
<td>23+</td>
<td>70+ 21(0)</td>
<td>67+ 14(0) 4-</td>
<td>56+ 3.5(0) 4-</td>
</tr>
<tr>
<td>Schools</td>
<td>19.5+ 3.5(0)</td>
<td>21+</td>
<td>11+</td>
<td>21.5+</td>
<td>4+ 3-</td>
<td>15+</td>
</tr>
<tr>
<td>Workplaces / Buildings</td>
<td>55+ 3.5(0)</td>
<td>18.5+</td>
<td>20.5+</td>
<td>48+ 3.5(0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Open Spaces / Parks / Trails Summary Scores

<table>
<thead>
<tr>
<th>Built Environment Attribute</th>
<th>Physical Health</th>
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<th>Economic Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence, proximity</td>
<td>54+</td>
<td>88.5+</td>
<td>26.5+</td>
<td>16+</td>
<td>11+</td>
<td>7.5+</td>
</tr>
<tr>
<td></td>
<td>3.5(0)</td>
<td>4(0)</td>
<td>4(0)</td>
<td></td>
<td></td>
<td>4(0)</td>
</tr>
<tr>
<td>Design features</td>
<td>3.5+</td>
<td>7.5+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trails</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.5+</td>
</tr>
<tr>
<td>Physical activity programs/promotion</td>
<td>4.5+</td>
<td>4+</td>
<td>4+</td>
<td>4+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incivilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.5+</td>
</tr>
<tr>
<td>Public gardens</td>
<td>4.5+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.5+</td>
</tr>
</tbody>
</table>

69 entries. Of 36 cells, 3 had strong evidence of co-benefits, 3 had good evidence, and 7 had moderate evidence.
Example Findings from Parks

• Mental Health
  – People living more than 1km away from a green space had 42% higher odds of experiencing stress than those living less than 300m from a green space.

• Safety
  – In one city, crime decreased by 74 percent when a street running through a park was converted into a car-free space on weekends.

• Social
  – Parks and playspaces offer enormous social benefits, including decreased feelings of loneliness and a stronger sense of social integration.
Example Findings from Parks

• **Environmental**
  – In the United States, trees in urban areas have been estimated to remove 783,000 tons of pollutants every year.

• **Economic**
  – A $70 million investment in the Platte River Greenway in Denver fueled $2.5 billion in residential, commercial, and other development along the corridor.
  – Businesses along a trail on the Atlantic coast of the United States attributed 30 percent of their gross revenues to being located along the trail.
Designed to Move: Active Cities

Blueprint for city leaders to create an active city

• Comprehensive summary of the evidence base on co-benefits
• Proven interventions
• Recommendations, checklists, practical steps/ideas, sample metrics
• Talking points for city leaders
• Case studies of ‘bright spots’
• Tools and resources
THIS IS ABOUT MAKING OUR CITIES MORE COMPETITIVE

OUR BODIES ARE DESIGNED TO MOVE. OUR CITIES SHOULD BE TOO.

• *Designed to Move: Active Cities* report:
designedtomove.org/resources

• *Making the Case for Designing Active Cities* report:
activelivingresearch.org/making-case-designing-active-cities
Questions?
Type questions in the QUESTION pane of the Control Panel.
Join SORP in Boise, Idaho for the National Outdoor Recreation Conference
May 16-20, 2016

Watch for “Best Practices in Outdoor Recreation Planning” coming soon from Sagamore Publishing
THANK YOU!

Watch for a follow up email and survey about this webinar.

Check out the SORP website (www.RecPro.org) to become a member and for more outdoor recreation technical resources.