ALR 101

- A few measurement issues
- Tools & resources
- Findings in the literature
- Grantee findings

Measurement issues

- Perceived vs objective environment
  - Built environment variables (e.g. distance) are usually moderately correlated
    - .09 - .36
  - Both explain variance in behavior
  - But sometimes perceptions are a stronger predictor of behavior (e.g. parental perceptions of safety)

Measurement issues cont.

- Objective or self report physical activity e.g. accelerometer or survey data
  - Objective is gold standard as self report is subject to over-reporting
    - NHANES accelerometer data indicate 5% meeting guidelines vs 50% by self report!
  - But accelerometer data can not show activity domains; e.g. walking for transportation, walking for recreation
    - Built environment walkability measures more likely to be related to walking for transportation

Specificity is important

- Specific environment attributes or policies tend to be related to specific PA domains

- Identify locations where physical activity occurs
  - GPS, Active Where survey

- Identify specific barriers in those locations

- Measure environments in detail using audit tools available on ALR website
  - In low income communities there may be parks available, but it may be the quality of the park that predicts use

Active Where? Example of specific measures

- Developed survey for adolescents and parents of younger children
  - 3 cities
  - N=200+
- Environmental barriers to activity in specific locations
  - In person interviews in place
- Test re-test reliability & validity
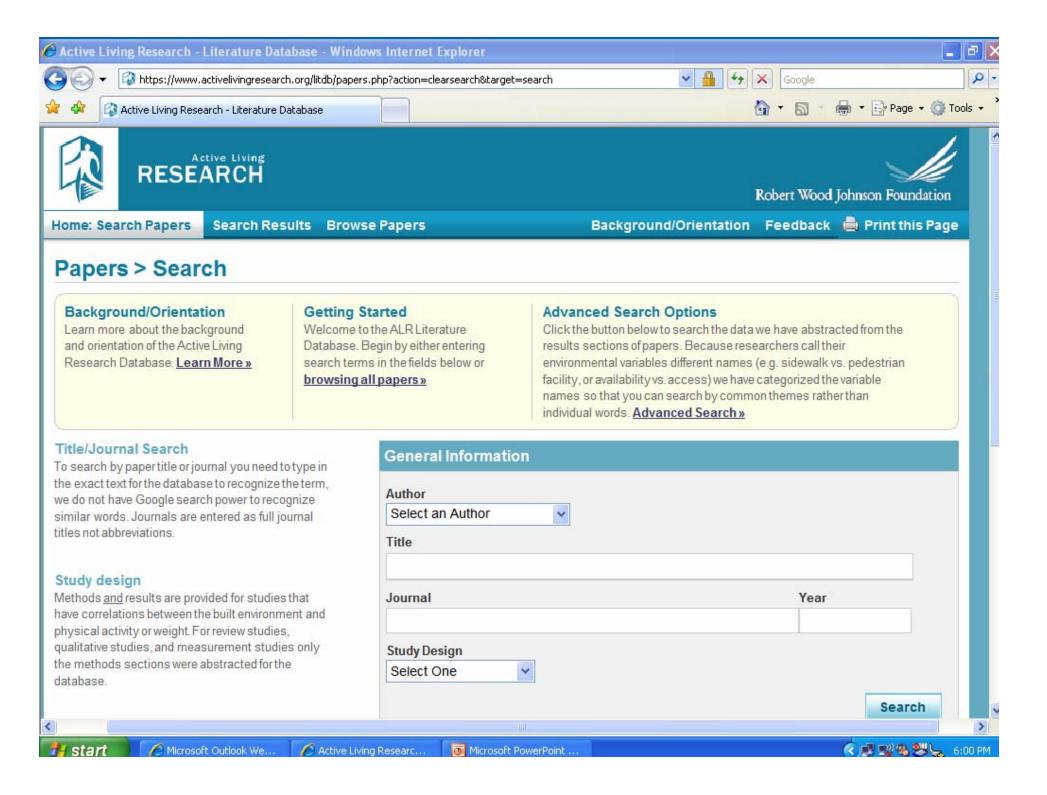- Parent vs adolescent report
  - Rules
  - Safety

Active Living Research

	overall activity	walk to school	walk to park	walk to shops	active in streets	active in parks
shop access		+		+	-	
recreation facilities		+	+	+		+
pedestrian facilities		+	+	+		+
transit services			+	+		
street connectivity			+	+	-	
crime				-	-	
aesthetics	+					+
traffic						

ALR Website Resources:
www.activelivingresearch.org

- Conference slides

- Tools and measures

  – Reliable & valid

  – Best to use common measures across studies

- Annual reference lists

- Database of findings www.activelivingresearch.org/litdb

- Research summaries & briefs (for policy makers)

- Special issue journals
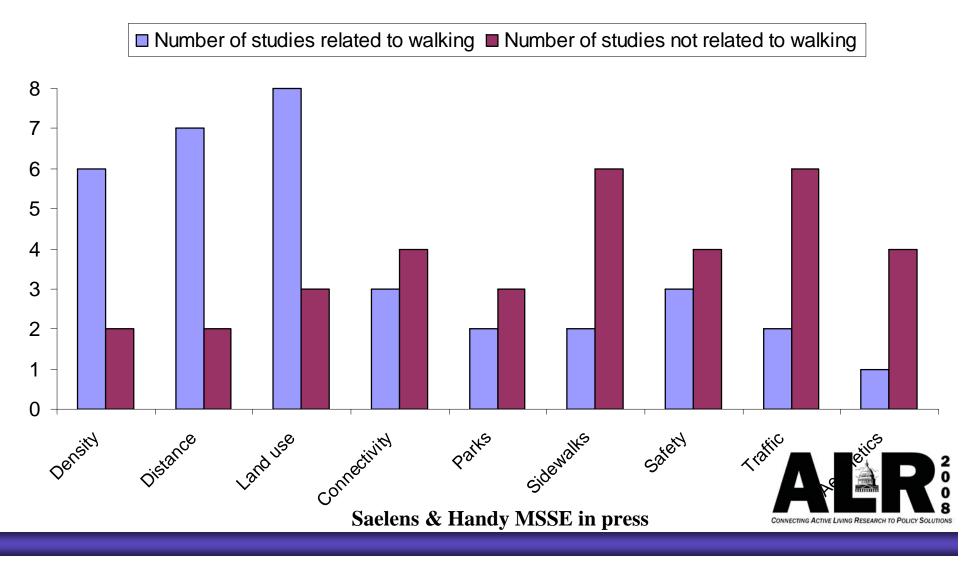
- Search resources & grants

Active Living Research

**Number of studies with findings significantly
related to walking for transportation**

Legend: ▢ Number of studies related to walking ▪ Number of studies not related to walking

Saelens & Handy MSSE in press

Findings for adults

Built Environment Attribute	Active Transport	Active Recreation or Total PA
Walkability: mixed land use, street connectivity, residential density	++	0
Sidewalks	?	+
Proximity of recreation facilities (parks, trails, private facilities)	0	++
Aesthetics of recreation facilities	xx	++

Findings for youth

Built Environment Attribute	Active Transport	Active Recreation or Total PA
Walkability: mixed land use, street connectivity, residential density	+	+
Street connectivity	?	?
Sidewalks	+	+
Proximity of recreation facilities (parks, trails, private facilities)	xx	++
Aesthetics of recreation facilities	xx	+

Findings for older adults

Built Environment Attribute	Active Transport	Active Recreation or Total PA
Walkability: mixed land use, street connectivity, residential density	+	+
Sidewalks	xx	xx
Proximity of recreation facilities (parks, trails, private facilities)	xx	+
Aesthetics of recreation facilities	xx	xx

ALR 2008
CONNECTING ACTIVE LIVING RESEARCH TO POLICY SOLUTIONS

Special Issue Findings 2005:
American Journal of Preventive Medicine

- Hoehner: Transport & recreational PA have different environmental correlates

- Frank: Accelerometer data - 37% met PA guidelines in high walk areas vs 18% in low walk

- Giles-Corti: Distance to park, attractiveness & size as important as # parks

Special Issue Findings 2006: Physical Activity & Health

- Norman: # nearby parks & rec centers positively related to accelerometer PA in adolescent girls, intersection density inversely related

- Cohen: for every mile girls lived from school, they engaged in 13 fewer MET minutes per week

ALR 2008
CONNECTING ACTIVE LIVING RESEARCH TO POLICY SOLUTIONS

Special Issue Findings 2007:
American Journal of Health Promotion

- Liu: Increased distance from supermarket related to increased risk of overweight in children; greener neighborhoods related to decreased risk of overweight.

- Rundle: Mixed land use, density of bus & subway stops, & population density related to BMI in adults

Special Issue Findings 2008:
American Journal Of Preventive Medicine

- Miles: Parents 2x more likely to encourage their children to use local playground in neighborhoods with low vs high physical disorder (litter, graffiti, lack of greenery)

- Roman: Violent crime & gangs were related to fear of walking outside, but this was explained by concentrated poverty

ALR 2008

CONNECTING ACTIVE LIVING RESEARCH TO POLICY SOLUTIONS

Special Issue Findings 2008 CONT: American Journal Of Preventive Medicine

- Spivock: People with physical disabilities living in neighborhoods with more environmental buoys (e.g. access ramps, adapted transportation) more likely to report leisure time PA

- Kirchner: People with disabilities reported barriers to PA including sidewalk pavement problems, puddles/poor drainage, & curb cut problems

Building the Evidence: A Few Grantee Findings

- New observational measures

  – Parks, trails, streetscapes, urban design qualities

- Trail characteristics & trail use—Kim Reynolds

  – Streetlights, mixed views, good conditions, cafes, lack of dense vegetation related to trail use

- Relation of land use & transport planning to PA—Semra Aytur (dissertation grant)

  – Quality of local land use planning was related to leisure & transport PA

  – Low income residents of quality planning areas were 3 times as likely to do active transport

Building the Evidence: A Few Grantee Findings

- High- and low-income walkable neighborhoods are not the same—Xuimei Zhu (dissertation grant)

  - Low income neighborhoods were more walkable, but worse in safety, crime, aesthetics

- Low income women who move to new neighborhoods--Nancy Wells

  - African American women who moved to neighborhoods with fewer cul-de-sacs walked more

  - But moving to more mixed used was linked with lower PA

- Understand the background and basics of ALR

- Aware of the resources

- Enjoy the conference and don't hesitate to ask questions, we all come from different areas of expertise

Questions?

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