

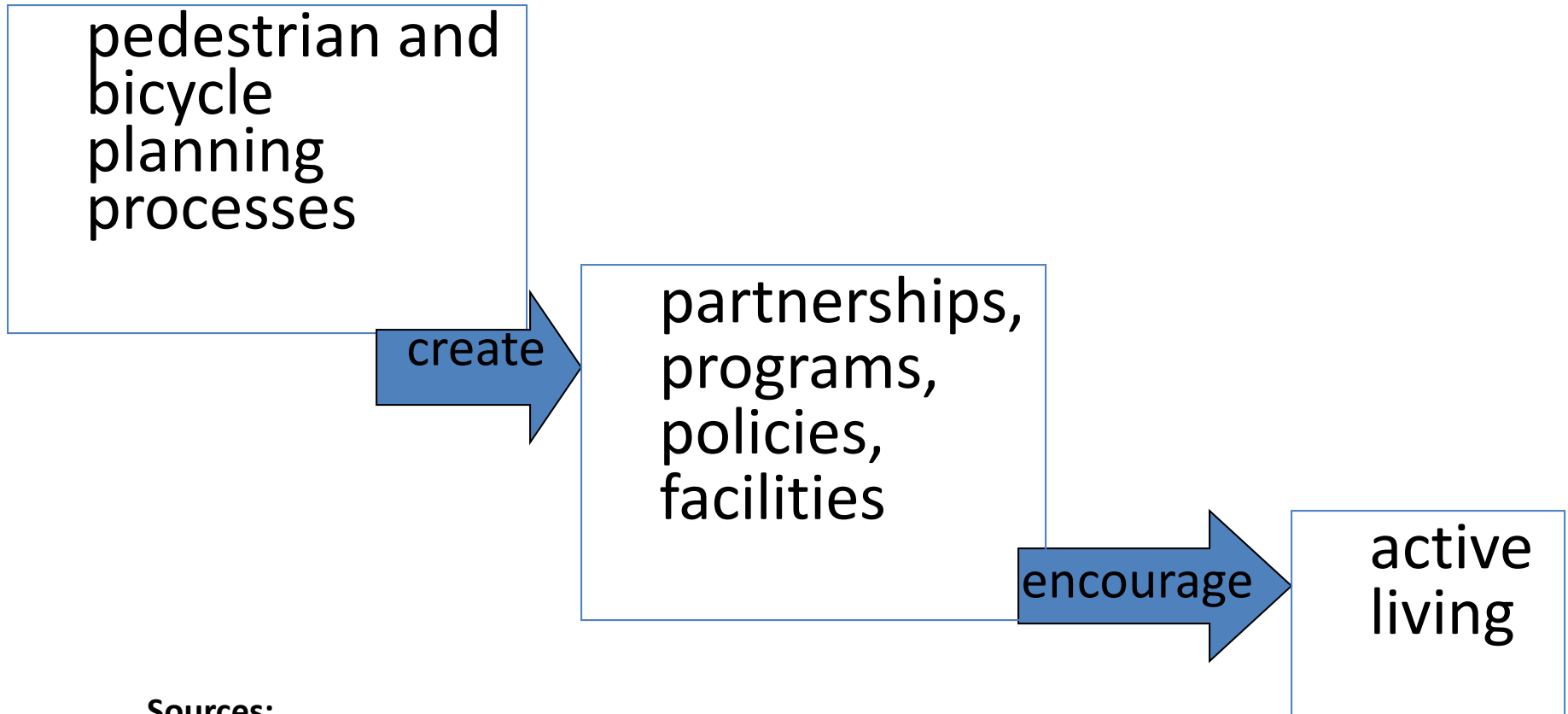
Creating Partnerships for Active Living: Comparing Pedestrian and Bicycle Planning in Rural and Urban Communities

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Background (1)



Sources:

CDC (2009): Community Strategies and Measurements to Prevent Obesity
<http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>

Convergence Partnership (2008): Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living <http://www.convergencepartnership.org>

Background (2)

PERSPECTIVE #1:
urban/suburban



PERSPECTIVE #2:
considers the needs
of **both** rural and
urban communities

Sources:

CDC (2009): Community Strategies and Measurements to Prevent Obesity
<http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>

Convergence Partnership (2008): Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living <http://www.convergencepartnership.org>

Objectives

- 1) Explore the prevalence of local pedestrian/bicycle plans in North Carolina (NC)
 - Geography, regional planning, sociodemographics
- 2) Examine variations in **plan quality** between rural and urban areas
 - e.g., public participation, stakeholder involvement , implementation elements
- 3) Assess correlations between plan prevalence and population levels of walking/bicycling to work
 - Rural and urban municipalities



Methods (1)

- Identified pedestrian and bicycle plans in North Carolina (NC)
 - Web searches
 - Listserv request to NC planners
 - Survey of NC planners
 - Library at the NC Department of Transportation
 - Follow-up telephone contacts
 - Regional planning information collected from Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs)

Methods (2)

- U.S. 2000 Census data collected for each NC municipality (n=543)

- Rurality

- Defined in two ways:

- 1) Areas excluded from Census-defined urbanized areas or urban clusters;



- 2) Areas including rural farm land (Census)

- Sociodemographic indicators

Methods (3)

Plan Content Analysis:

- All municipal-level pedestrian or combined pedestrian/bicycle plans in NC
- Coding protocol developed to assess plan content and quality

North Carolina Pedestrian and Bicycle Plan Coding Tool, 2011
http://www.unc.edu/~keverson/_NCPedBikePlanCodingTool.pdf

-Plans were coded by 2 people, with the same person checking all plans throughout for consistency (n=41)

- Merged Census data with content analysis data

Aytur S, Satinsky S, Evenson K, Rodríguez DA. *Pedestrian and Bicycle Planning in Rural Communities: Tools for Active Living*. Journal of Family and Community Health. In press.

Methods (4)

Plan Quality Scores

- **Elements of high quality plans:**
 - Identify **objectives and goals**
 - **Public participation**
 - Reflects community input and feedback
 - Analyze **current conditions and future trends**
 - **Prioritize proposals** for infrastructure investments
 - **Implementation**
 - Recommends programmatic and policy changes
 - Propose **evaluation** strategies



Tools:

Elements of a high quality pedestrian master plan (2009)

http://www.unc.edu/~kevenson/_ElementsPedPlan.pdf

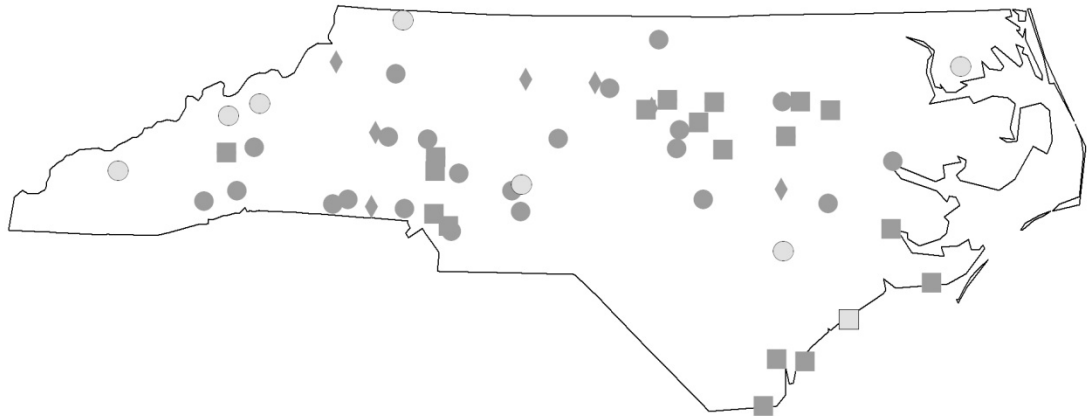
North Carolina Pedestrian and Bicycle Plan Quality Scoring (2011)

http://www.unc.edu/~kevenson/_NCPlanQualityScoring.pdf

Results

Municipalities with pedestrian and/or bicycle plans (NC, through 2008)

- n=55 municipalities with 1 or more plans
- Rural: n=13



Legend

Pedestrian plans through 2008

- Municipality in urban area with pedestrian plan in use
- Municipality outside urban area with pedestrian plan in use

Bicycle plans through 2008

- Municipality in urban area with bicycle plan in use
- Municipality outside urban area with bicycle plan in use

Combined plans through 2008

- ◆ Municipality in urban area with combined pedestrian/bicycle plan in use

N



Results (2)

Goals

Goal	Rural (Non-Urban) % (n=7)	Rural Farm Land % (n=8)	Urban % (n=34)
Improve public health	43	75	53
Encourage physical activity for leisure	33	17	11
Encourage physical activity for transportation	29	63	24
Improve safety; prevent injuries/accidents	86	88	94
Support walkable communities, active living, or “active community environments”	57	63	41
Create a “sense of place”	14	25	12
Enhance aesthetics and community appearance	29	25	44
Support historic preservation/ cultural values	14	13	9

Results (3)

Goals (con't)

Goal	Rural (Non-urban)	Rural Farm Land	Urban
Instigate a cultural and attitudinal shift to accept pedestrian travel	43	38	50
Enhance pedestrian network connectivity	71	88	88
Reduce congestion	29	25	18
Promote economic development	43	38	47
Improve policies to guide future investments	14	50	41

Results (4)

- Despite lower plan prevalence, rural areas achieved **higher plan quality** scores compared to urban areas

– Public participation

– Implementation

– Analysis of current conditions and trends



Results (5)

- Rural areas were more likely to **engage diverse partners** in the planning process
 - Economic development, non-profits
 - Business/private sector
 - Local transportation planners

Results (6)

Example of Partnerships: Rural Community)



- Town Manager
- Visitor's Bureau/Chamber of Commerce
- Developers
- School System
- Parks and Recreation
- Civic Organizations

Results (7)

- However, certain groups were *less* involved in rural planning processes than in urban ones
 - Public health professionals
 - Law enforcement
 - State transportation planners
 - Regional transportation planners

Results (8):

Correlations Between Plan Prevalence and Active Commuting

- Correlations were strongest in rural, lower-income municipalities, compared to other areas

<u>Group</u>	<u>n</u>	<u>Kendall's tau</u>	<u>p</u>
Rural, income < \$30,000	76	0.30	<0.01
Non-rural, income < \$30,000	134	-0.06	0.47
Rural, income ≥ \$30,000	92	0.13	0.21
Non-rural, income ≥ \$30,000	241	0.13	<0.05

Conclusions

- Pedestrian and bicycle planning may benefit both rural and urban communities through partnerships between residents and other stakeholders
 - Engaging diverse partners may help build community capacity for active living



Support and Acknowledgements

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Questions?