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2-13-2018

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Recommended Citation

Leuchanka, N., Aytur, S., Copeland, C. 2018. A collaborative MPO approach to performance based planning: Implications for active living. Active Living Research Conference. February 13, Alberta, Canada. https://scholars.unh.edu/hmp_facpub/144/

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A collaborative MPO approach to performance based planning: Implications for active living



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Background

- Multi-sectoral collaboration has been recognized as an important mechanism for advancing active living plans, projects, and policies.
- The federal transportation reauthorization bill, *Moving Ahead for Progress in the 21st Century*, requires Metropolitan Planning Organizations (MPOs) and state Departments of Transportation (DOTs) to incorporate **performance based planning** and **performance measures** into their transportation planning and programming practices.



Background (2)

- However, engagement processes that utilize a **collaborative MPO approach** for implementing performance based transportation planning have not been well described in the practice-based literature.



Purpose

- This presentation will describe the process and results of the "*Stakeholder and Context Assessment Phase*" of a collaborative stakeholder engagement process.

Description

- The process was led by the Strafford Metropolitan Planning Organization (SMPO) in collaboration with the New Hampshire Interagency Performance Based Planning (PBP) Workgroup
 - Includes all four of New Hampshire's MPOs, a rural RPO, and the state DOT
 - Multi-sectoral partners
 - 25 stakeholder interviews with 86 individuals representing 50 diverse institutional entities



Description (2)

- Utilized novel qualitative research methods in the practice setting
 - Qualitative Analysis using NVivo software
 - Social Network Analysis (SNA)
 - Hierarchical tree mapping; cluster analysis

Lessons Learned (1)

- The collaborative process gave MPO staff the opportunity to extend the boundaries of traditional engagement practices to initiate a new mixed-methods stakeholder engagement approach
- Facilitated the consideration of diverse perspectives



Lessons Learned (2)

- The themes of "Environment, Public Health, and Sustainability" and "Mobility, Connectivity, Accessibility" were coded most frequently out of the performance measure themes.



Hierarchical Tree Map of Key Themes



Hierarchical tree map showing most frequently coded themes for performance measures.
Orange=Environment, Public Health, and Sustainability; **Gray=Mobility Connectivity and Accessibility**; **Blue (top)=Transportation Equity**

Collaborating for Co-benefits



- Example: Strategies that maximize synergies between active transportation and climate change adaptation can enhance the “environment, public health, and sustainability” theme and connect it to equity.
- Public health data, such as the Social Vulnerability Index (SVI), may be helpful to the process. For example, in highly vulnerable coastal NH census tracts, **31% of the population lives in poverty, 23% has a disability, and 13% do not have a car.** Infrastructure is also very vulnerable to flooding.
- (SVI: <http://nhdphs.maps.arcgis.com/home>)

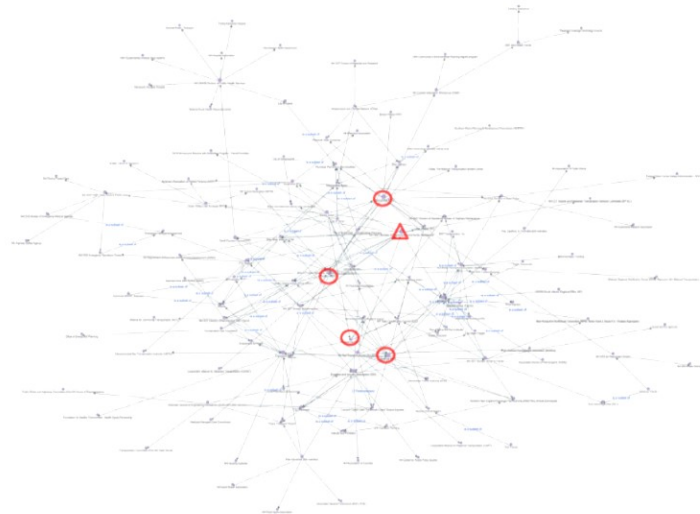
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Lessons Learned (3)

- Social Network Analysis (SNA) enabled visual interpretation of the stakeholder network and how each organizational relationship contributes to the network.



Social Network Analysis constructed in NVivo and demonstrated via a sociogram. The sociogram shows the identified stakeholder network, where lines represent relationships and dots/nodes represent organizations referenced for interview.

Social Network Analysis - Sociogram



SNA measures of *betweenness* revealed key communication paths between organizations, as well as paths that could be improved.

Social Network Analysis constructed in NVivo and demonstrated via a sociogram. Measures of Betweenness were highest for the NH DOT Bureau of Planning and Community Assistance. Two of the MPOs (Rockingham and Nashua) received the second and third highest measures of betweenness, respectively.

Implications and Next Steps

- This work will pave the way for implementing performance based transportation planning in New Hampshire via qualitative and quantitative approaches and equitable stakeholder engagement strategies.
 - May provide a replicable way to improve cross-sector collaborative planning, leading to holistic, sustainable solutions.



This work provides a foundation for the Federal Highways Administration (FHWA) Strategic Highways Research Program 2 (SHRP2) award, which was awarded to Strafford MPO and other partners of the PBP Workgroup.

Selected Quotations

- *“If you make less than \$19,500 a year, you are three times more likely to bike or walk to a job than if you make a median income. So, looking at economic data as you plan for bike and ped infrastructure. **Those poorer census tracts have typically had the worst infrastructure when they are the most needy of it.**”*
- *“We're trying to unlock that 60% of the population that wants to ride, would get on a bicycle if it was safe and is basically scared off the roads.”*



Intended Use and Application of Performance Measures (Selected Examples)

(1)

- Influence Funding and Investment
- Communication and Public Engagement

(2)

- Project prioritization and programming
- Evaluation
- Identify needs and gaps
- Cross-agency consistency

(3)

- Increase transparency and accountability
- Develop recommendations, strategies, and implementation actions



Acknowledgements and Funding

- *Funding for the Synthesis Report was provided by the Federal Highways Administration and Federal Transit Administration of the U.S. Department of Transportation, and by the dues-paying members of the Strafford Regional Planning Commission.*



Reference: The Collaborative MPO Approach to Performance Based Planning in New Hampshire: Stakeholder and Context Assessment Synthesis Report. (2016).

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The origin of this report stems from the transportation performance based planning initiative and project undertaken by the Interagency Performance Based Planning Workgroup.

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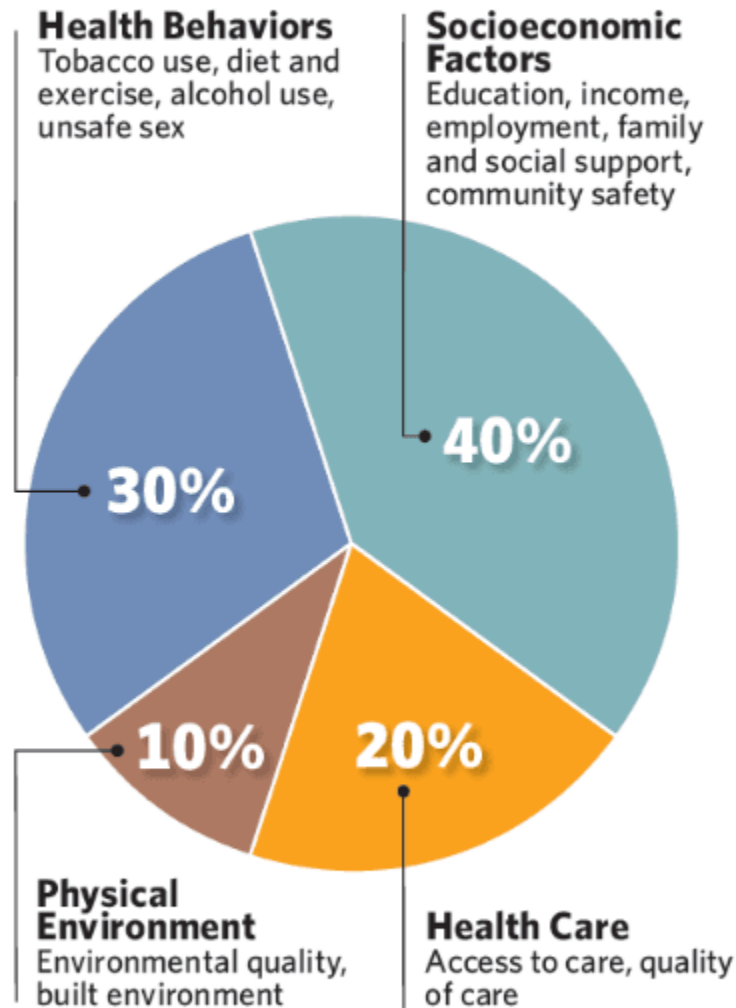
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<https://www.denvergov.org/content/denvergov/en/environmental-health/community-health/health-impact-assessment.html>

Social Determinants of Health



Source: Author's analysis and adaptation from the University of Wisconsin Population Health Institute's County Health Rankings model, 2010. <http://www.countyhealthrankings.org>

Questions?

