

50th International Making Cities
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A Holistic Approach to
Community Connectivity

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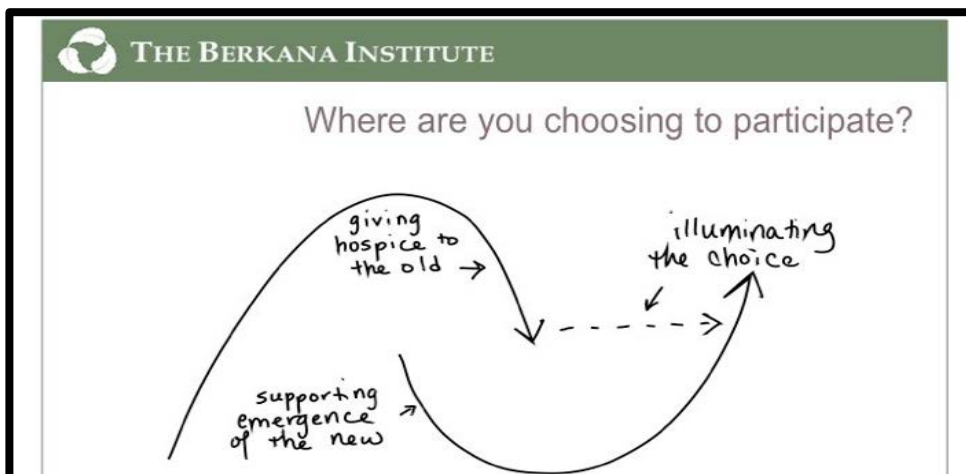


The positive health impacts of a built environment designed for active transportation and recreation have been well documented. However, designing intentionally for connectivity using human-powered travel to important community destinations is often overlooked by public health practitioners, transportation designers, and community planners.

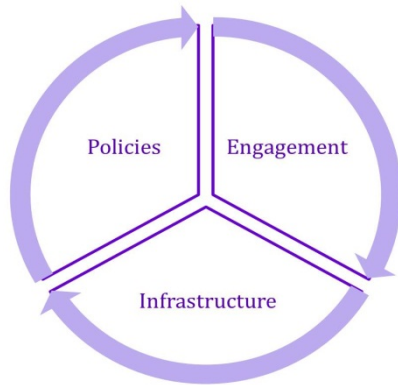
Why? One theory - with the overwhelming number of assessment tools, impact measurement systems, research initiatives, programs, and design strategies, architects of change have become specialists, focusing on implementing the latest tools and measurements designed by researchers for their particular niche. We have been creating pockets of brilliant, though disconnected, advancements in this nascent movement known as 'active transportation'. The time has come to begin thinking and planning intentionally and holistically about connectivity on a broader scale. Connecting community leaders to each other to effect policy changes, connecting active transportation systems to desired community destinations, and most important, connecting people to their choices for safe, convenient, and active transportation.

Where does an advocate for active transportation and community connectivity begin? How does one sort through the maze of research, assessment tools, and case studies for the best practices? Important changes often happen with a lot of patience, hard work, and one meaningful conversation at a time. A shift in how we think about, design, and plan communities can occur gradually and with intention, or sadly, very quickly in response to a wake-up call like a pedestrian or bicyclist injury or death caused by unsafe travel conditions human powered travel modes.

How does this essential change in thinking occur from a myopic viewpoint to an inclusive, holistic approach? One of the simplest explanations of change theory, the two loops theory of change by the Berkana Institute, asks us to decide what role we play in effecting change. Are we thought leaders, supporting the emergence of a new approach, or mediators between old and new, or outspoken champions, shedding light on why change is good and necessary?



An inclusive, connected system of transportation design requires innovation in public policy, a commitment to social equity, an opportunistic philosophy, substantial long term investment, and energized leaders. Fortunately, numerous community success stories, engineering strategies, and time tested best practices exist in the field of active transportation with a focus on community connectivity. These strategies can be organized into three broad categories:



- **Policies:** Connecting community leadership to effect policy change
- **Infrastructure:** Connecting community destinations using active transportation designs
- **Engagement:** Connecting people to the active transportation system

The key to implementing these vitally important concepts is to embrace the overarching goal of making the choice for active transportation easy and safe.

Imagine a community in which a 10 year old wakes up on a school day. She joins her aunt for a scooter ride along the sidewalk to pick blueberries for breakfast from her family’s community garden plot a short distance from home. They’re greeted cheerfully by an active senior citizen who has ridden his cargo-bicycle to the garden to pick up compost. After breakfast, she and her Dad get



on their bicycles and ride along a quiet, low-traffic volume, tree-lined bicycle boulevard with sharrow markings to connect to the rail trail less than 1/2 a mile away. Along the trail, they pick up 3 of her friends, one in a wheelchair, one on a scooter, and one on a bicycle and they all travel independently to school on the separated pathway. Today’s bicycle safety lesson in physical education class is keeping your bike properly tuned. After class she fills up her water bottle at the bottle filling station outside the gym.

After school, the community recreation leader meets her and the rest of the soccer team at school. Together they jog, ride, and scooter to the practice field a mile away on a separated pathway. At the end of practice, her Mom arrives with her child-carrying bicycle, and together they ride the connector path from the field to the rail trail, stopping at the pre-school along the way to pick up her 4 year old brother. Then it’s off to the playground along the trail for a few minutes before riding on to the farmers’ market at the hospital just off the trail to buy the day’s groceries for dinner. Safely returning home along the designated bicycle boulevard marked with sharrows, they store their bicycles and helmets and play outside until dinnertime.



Sound impossible? The Healthy Eating Active Living Convergence Partnership is working to make this scenario a reality across the nation. The Partnership consists of national foundations dedicated to healthy eating and active living

initiatives, and is supported with technical assistance, research, and program management by the Centers for Disease Control, Policy Link and the Prevention Institute. The Convergence Partnership envisions a nation in which every community fosters health, prosperity, and well-being for all, by promoting:

- **Equity** as the means to ensure that everyone has the opportunity to participate and prosper;
- **Policies and practices** that create conditions that sustain healthy people and healthy places;
- **Connections** among people across multiple fields and sectors that catalyze and accelerate the work.

A holistic approach to community connectivity can transform the way active transportation systems and community assets are perceived and used. It also expands the potential to influence positive behavior change, inspire community-building social interactions, and address active access equity issues. Assessing existing transportation and recreation trails, greenways, bicycle lanes, and sidewalks in concert with community assets and amenities advances the holistic planning and design process. Visioning and implementing an inclusive and connected transportation system serving everyone, including children, seniors, and people with disabilities, is a vital component of healthy, whole communities.

There are numerous options available to community and transportation planners to make the transition from a car-centric community to a more holistic, active and connectivity-centered environment. Active Living Research has compiled more than 34 tools and measures designed to collect data on streets, schools, parks, or other community settings to see how well they support physical activity. How do community builders choose the most effective and relevant strategies and tools to effect positive social, environmental, and policy change? Reviewing the myriad strategies, the following lists, focused on the three components of policies, infrastructure and engagement are offered:

Specific Strategies to Advance a Holistic Approach to Community Connectivity

1. Policies

- a. Adopt Complete Streets policies at the local and state level
- b. Amend Zoning & Planning Regulations to support non-motorized travel, including connected routes, pathway access from cul de sacs and neighborhoods
- c. Conduct bicycle and walk friendly audits for businesses, communities, academic institutions
- d. Safe Routes To School, Safe Routes to Play, and Complete Streets language in comprehensive and transportation master plans at the local, regional, and state level
- e. Up to date bicycle and pedestrian design guidelines – adopt NACTO/ASHTO Guidelines
- f. Develop specific active transportation master plans
- g. Create open space policies to support green infrastructure
- h. Adopt Smart Growth principles
- i. Include equity, environmental sustainability and healthy community policies into regional and local comprehensive plans

2. Infrastructure

- a. Sidewalk improvements and safe street crossings, safe islands
- b. Traffic calming measures, road diets, bicycle boulevards, landscaping
- c. Separated bicycle lanes and cycle tracks on roadways
- d. Reclaiming vacant properties for green infrastructure and community uses
- e. Develop park access for underserved communities
- f. Explore rails to trails conversions where possible
- g. Utilize conservation easements in land acquisition to protect green transportation corridors
- h. Incorporate amenities – shade trees, benches, water fountains, signage (educational and directional)
- i. Site schools and parks in proximity to one another, and connect with trails/greenways
- j. Bicycle/pedestrian friendly traffic signals
- k. Utilize GIS mapping to identify gaps in connectivity and resident proximity to trails, greenways, and active transportation systems

3. Engagement – Internal & External

- a. Install bicycle/pedestrian specific signage and road markings
- b. Conduct public education campaigns
- c. Work toward Bicycle Friendly Community designations
- d. Work toward Walk Friendly Community designations
- e. Develop and promote Trail Town branding strategies
- f. Community Park Audit Tool (CPAT)
- g. Built Environment Assessment Tool (BEAT)
- h. Crime Prevention Through Environmental Design (CPTED)
- i. Develop an online active transportation presence or website, with active travel maps
- j. Consider street closings for active transportation friendly events
- k. Centers for Disease Control Health Impact Assessment Tool (HIA)
- l. Utilize Smart Growth, Smart Energy Toolkits
- m. Review Leadership for Healthy Communities Action Strategies Toolkit
- n. Incorporate Placemaking Strategies (Project for Public Spaces)

Context-sensitive design – a transportation based approach - incorporates multiple elements to address community connectivity and balance automobile travel with other modes. Livability, sense of place, designing for people not just cars, and environmental protection are considered in transportation projects. Traditional objectives of safety, efficiency, capacity, and maintenance are maintained, while taking a more holistic approach, including public engagement.

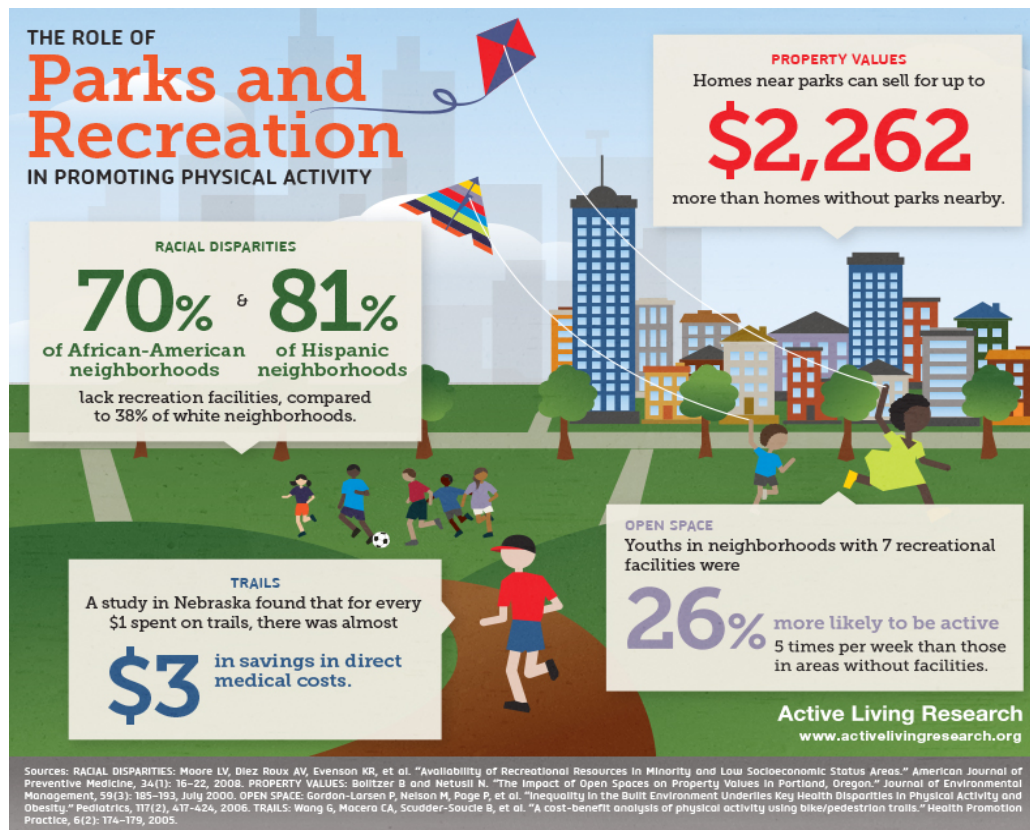
Communities must consider several key questions when deciding which strategies to implement using a holistic approach to community connectivity:

- Does the strategy improve access to destinations?
- Does the strategy make it safe and comfortable for all users to get around without a car?
- Will the strategy increase the number of non-motorized/multi modal trips?

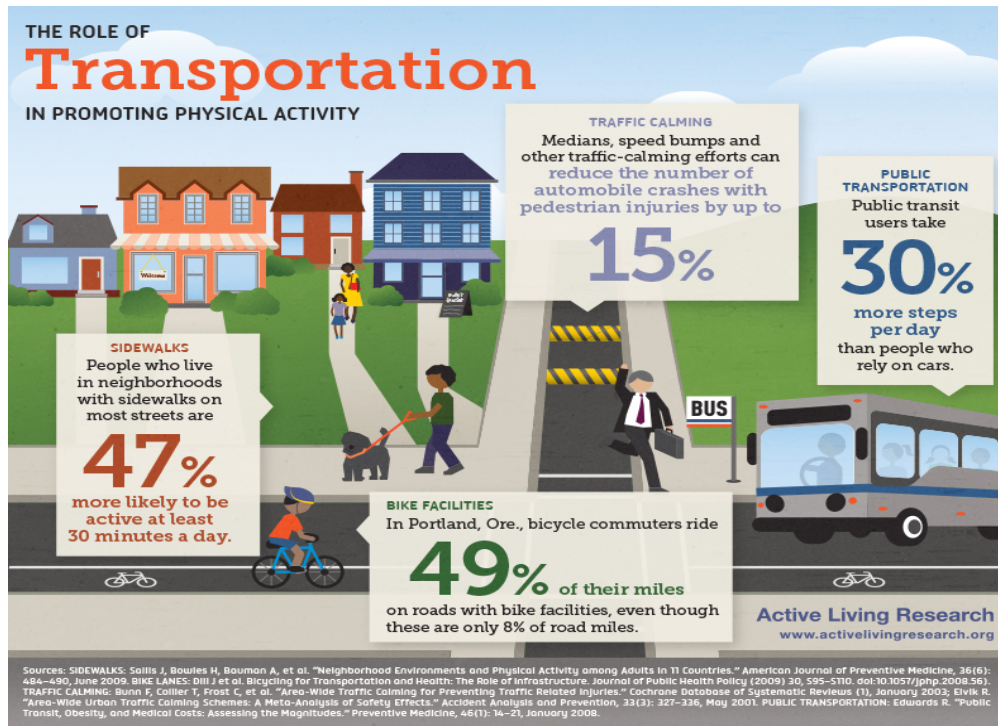
Recent research¹ has explored the assessment of community contextual characteristics that are believed to impact population health and disparities in healthy community development:



These indicators suggest that all community sectors play a role in supporting community connectivity. In particular, the intersection of planning & design, transportation, public health, and parks and recreation has significant impacts. Below are two infographics illustrating this concept:



¹ Hillemeier, Marianne M, Lynch, John, Harper, Sam, and Casper, Michelle. "Measuring Contextual Characteristics for Community Health", Health Serv Res. 2003 December; 38(6 Pt 2): 1645-1718.



Community Engagement To Understand Connectivity Gaps

The City of Portland, OR asked a key question of residents in developing “The Portland Plan” to address community connectivity:



Along with a mapping and photo exercise, the answers to this question helped the City develop targeted neighborhood level improvements to address walkable access to services, schools, public transportation, and healthy food sources.

The Centers for Disease Control advocates active transportation systems that connect the places where people live, learn, work, shop, and play by providing safe and convenient walking and bicycling facilities.

CDC Recommendations To Develop Community Connectivity Through Active Transportation System Design²

- Promote safe and convenient opportunities for physical activity by supporting active transportation infrastructure, such as:
 - ✓ Well-lit sidewalks, shared-use paths, and recreational trails
 - ✓ Safe roadway crossings
 - ✓ Safe pedestrian and bicycling connections to public transportation
 - ✓ Safe and convenient pedestrian and bicycling connections to public park and recreation areas
- Provide states with tools necessary to evaluate and effectively increase investments in bicycle and pedestrian infrastructure and programming. Activities to be evaluated could include:
 - ✓ Complementary systems of shared-use paths connected to roadways that provide safe places to walk and bicycle for children, the elderly, and the general public
 - ✓ Bicycle-supporting infrastructure including shared use paths and interventions that reduce motor vehicle traffic and speed on neighborhood streets to provide direct, safe routes for bicyclists
 - ✓ “Safe Routes to School” initiatives including the development of sidewalks, shared-use paths and bicycle infrastructure to ensure that children can walk and bicycle safely to school. Safe Routes to School programs also include support activities, such as education, encouragement, enforcement, and evaluation
- Bring health, transportation and community planners together to develop safe, convenient, and complete pedestrian and bicycle master plans, including an inventory of current sidewalks, bicycle facilities, recreational trails, and shared-use paths, which can be incorporated into city general plans and capital improvement programs.
- State and local policy-makers can re-evaluate comprehensive plans and develop a bicycle master plan to identify ways to expand trails and connections. They also can integrate the connection of paths, sidewalks, trails, services and facilities into broader transportation planning.

In conclusion, it’s fair to say that we know how to approach healthy community design holistically, and many communities are adopting the practice after years of using a sector silo approach. Communities are starting to realize that a focus on active transportation and connectivity is an evolved goal, which integrates transportation, public health, parks and recreation, and planning/design strategies. Community connectivity occurs when visionary professionals and engaged citizenry think beyond their boundaries and pool resources to achieve success.

² <http://www.cdc.gov/transportation/recommendation.htm>

