

TRANSPORTATION AND HEALTH

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1.0 Introduction and Summary

1.1 Report Objectives

The objectives of this research report are to investigate how states and metropolitan planning organizations (MPO) are addressing health issues – and in particular, physical activity – through their transportation planning process, and to document emerging practices and working relationships in this area.

Public health concerns related to the transportation sector have traditionally focused on safety and air pollution. While efforts are continuing to address these issues, researchers and advocates increasingly also are looking at a broader range of public health concerns that may be related to transportation and the built environment. In particular, a lack of physical activity has been implicated as a significant factor contributing to obesity as well as to related health concerns including respiratory diseases, hypertension, diabetes, high cholesterol, and heart disease. In turn, recent trends in transportation and community design have been hypothesized to contribute to declining physical activity among the general population. In response to these concerns, new partnerships are being formed and additional efforts undertaken to address physical activity and related public health issues within the transportation planning process.

While many local communities are engaged in efforts to promote physical activity and improve public health through changes to the transportation system and the built environment, less attention has been paid to how these issues can be addressed at the levels of metropolitan and statewide transportation planning. This report – developed for the American Association of State Highway and Transportation Officials (AASHTO) – is especially intended to serve as a resource for interested transportation agencies at these levels. It also should be useful for local planning agencies as well as for state and local public health agencies, organizations, and other groups interested in engaging in the transportation planning process around issues of physical activity and health.

To accomplish the research objectives, an Internet-based survey was conducted of state departments of transportation (DOT), MPOs, and public health agencies to identify activities that they are undertaking to address physical activity and health through transportation planning. National experts on this topic also were contacted to identify noteworthy activities at the state and regional level. Based on this outreach, case studies were developed of four agencies – two state DOTs and two MPOs – that are at the leading edge of incorporating health and activity issues into planning. The report concludes with lessons learned from the case studies as well as recommendations for state DOTs and MPOs interested in addressing health issues in their transportation plans.

1.2 State of the Practice

The research for this project discovered that a surprising number of MPOs and DOTs – including at least 33 MPOs or regional planning organizations and 16 DOTs responding to the Internet survey – are beginning to explicitly address health and physical activity within their transportation activities, and that others are considering doing so. Practices include discussing

health and activity in the vision statements, goals and objectives, and policies included in long-range transportation plans; forming working relationships with health agencies and other organizations; and identifying health and activity as a motivating factor in undertaking specific projects and programs. Some agencies also are expressing interest in developing health and activity-related performance measures and evaluation methods. Support for transportation practices that promote physical activity and improve health has come from citizens and elected officials as well as agency leadership.

While explicit consideration of health issues is only in the initial stages, many transportation agencies have long been undertaking activities that implicitly support health and physical activity objectives, or have recently increased their focus on these activities. Numerous examples have been observed in recent years in which MPOs and state DOTs are leading regional scenario planning and visioning efforts, working to coordinate transportation and land use, revising road design policies to support bicycling and walking, and increasing funding for bicycle and pedestrian improvement projects. These initiatives are ultimately changing the transportation system and the built environment in a way that promotes bicycling and walking and, as a result, should improve public health through increased opportunities for physical activity.

The research also found that public health agencies and organizations are becoming involved in transportation planning at all levels – including statewide and regional planning as well as local planning. Health agencies are increasingly realizing the connections among transportation, the built environment, and physical activity, and in many cases believe that their engagement in the transportation planning process may result in positive outcomes for public health.

Significant barriers exist to expanding linkages between the transportation and health fields, however. Lack of funding, especially for projects, as well as limited agency staff time and resources for planning are commonly cited reasons why more is not being done to promote physical activity through transportation. Many agencies also are uncertain about the magnitude of the expected benefits (to both transportation and health indicators), and existing data and evaluation methods are often insufficient to evaluate the success of projects and programs. While most survey respondents tended to be supportive of the concept of using transportation to promote physical activity and health, a few – perhaps reflecting a broader viewpoint held by many who did not respond to the outreach effort – were skeptical that transportation agencies had either the resources or mandate to address these issues.

1.3 Benefits of Addressing Physical Activity and Health in the Transportation Planning Process

The case studies and survey findings from this research identified a number of benefits that may result from efforts to address physical activity and health through transportation planning. These potential benefits include:

- **Support for Mutual Objectives** – Transportation and health organizations both have an interest in increasing walking and bicycling. Walking and bicycling for transportation purposes supports objectives of reducing vehicle-travel, improving air quality, and reducing infrastructure investment needs, as well as increasing physical activity. Both disciplines also have mutual interests in improving traffic and pedestrian safety.

- **Sharing of Knowledge and Communications Resources** - Partnerships between transportation and health organizations can yield a number of benefits for both sides, including access to different skill sets (such as public health practitioners' extensive experience with education and outreach campaigns), shared funding opportunities, and access to partner agencies' communication channels.
- **Greater Public Support for Transportation Plans and Projects** - Projects that improve conditions for walking and bicycling are popular with citizens in many communities, for their quality of life as well as health benefits.
- **Improved Understanding of Engineering Issues** - Methods that engage nontraditional stakeholders in transportation planning and design, such as walkable community workshops, can improve the public's understanding of the issues and tradeoffs facing engineers when they design roadways - establishing a more sympathetic relationship between the public and the transportation agency.
- **Improved Quality of Life** - Ultimately, both the transportation and public health professions are interested in improving people's quality of life - whether through mobility improvements, better health, or other means. Collaboration across disciplines increases the chances that public policies and investments will result in actions that benefit the public in all possible ways.

1.4 Strategies and Actions for Linking Transportation Planning, Physical Activity, and Health

A variety of strategies and actions are available by which transportation and public health agencies can work to integrate physical activity and health considerations into transportation planning. Table 1.1 summarizes actions for transportation agencies while Table 1.2 summarizes actions for public health agencies and organizations. Strategies such as coordinated land use and transportation planning and a context sensitive solutions approach already are being undertaken by many transportation agencies for a wide range of objectives, of which promoting physical activity and health may be just one. Other strategies, such as forming partnerships with public health organizations and addressing health and activity objectives in plans and policies, are likely to serve as a core component of any effort to link these issues.

The actions in Tables 1.1 and 1.2 are organized by the "5P" strategies commonly used by the public health community:

- **Preparation** - Identifying critical partners and planning actions by which to achieve transportation, health, and physical activity goals and objectives;
- **Policies** - Changing policy to create a more supportive social and physical environment for promoting physical activity;
- **Promotions** - Communications, marketing and social marketing actions to affect behavior;
- **Programs** - Formal programs that address transportation, health, and physical activity; and
- **Physical Projects** - Built environment enhancements such as trails, sidewalks, bikeways, gardens, and parks that encourage physical activity.

Table 1.1 Actions for Transportation Agencies

Type of Action	Action Strategies
Preparation	<ul style="list-style-type: none"> • Partnership Development: Form multidisciplinary partnerships and working relationships (formal or informal) among disciplines and interests such as transportation, urban planning, parks and recreation, public health, public safety, health care, and bicycle and pedestrian advocates. • Transportation Planning: Recognize health and physical activity as goals within a state-wide or regional transportation and/or land use planning process; develop bicycle and pedestrian transportation plans. • Stakeholder and Public Participation: Include health interests on transportation advisory committees. • Data Collection: Improve data collection, assessment, and analysis methods to support nonmotorized travel. • Assessments: Develop planning tools such as health impact assessments and pedestrian impact statements.
Policies	<ul style="list-style-type: none"> • Agency Mission/Mandate: Adopt and implement context-sensitive solutions and flexible highway design policies; adopt “complete streets” policies to accommodate all modes/all users. • Facility Policy: Adopt policies for provision of bicycle and pedestrian accommodations; adopt traffic calming policies, guidelines, and/or standards. • Funding: Revise transportation project prioritization and selection criteria to reward projects that support “active” transportation options such as walking and bicycling. • Ordinances, Codes, and Regulations: Develop model local land use and zoning ordinances and/or street design guidelines for local jurisdictions.
Promotions	<ul style="list-style-type: none"> • Media Campaigns: Undertake media campaigns to advertise opportunities for walking and biking and promote these as modes of transportation and recreation. • Incentive Programs: Implement incentive and recognition-based campaigns to reward individuals or government agencies for actions that enhance physical activity. • Wayfinding: Implement wayfinding projects to help people navigate on foot or by bicycle.
Programs	<ul style="list-style-type: none"> • Funding: Implement transportation-land use, safety, traffic calming, and other funding programs to support community plans and projects that promote transit use, walking, and bicycling. • Technical Assistance: Undertake technical assistance programs to assist local agencies with code revision, road design policy, bicycle and pedestrian facility design, safety and security programs, etc. • Seminars and Workshops: Conduct walkable and active community workshops to educate local planners, elected officials, and citizens about how to design and implement environments that promote activity. • Targeted Programs: Undertake Safe Routes to School programs in coordination with health agencies and organizations; undertake Commuter Choice programs to provide incentives for alternative mode use. • Comprehensive Programs: Develop comprehensive program campaigns that make physical activity and health an integral consideration in all transportation planning activities.

Table 1.1 Actions for Transportation Agencies (continued)

Type of Action	Action Strategies
Physical Projects	<ul style="list-style-type: none"> • Pedestrian Improvements: Construct or improve sidewalks in areas with existing or potential pedestrian activity; fund traffic calming, pedestrian enhancement, and transit access improvement projects in areas with significant pedestrian activity. • On-street Bicycle Improvements: Include bike lanes in new roads or reconstruction projects; restripe existing roads to include bike lanes where possible. • Bicycle Support Programs: Implement other projects to facilitate bicycle travel, such as a bike station program to serve major commuter destinations, or grants to communities for bicycle parking. • Multimodal Street Design: Implement road diets and lane width reductions where feasible and appropriate, to provide more on-road space for bicyclists and calm traffic. • Shared-use Paths: Provide funding and assistance to local jurisdictions for the planning, design, and construction of rail trails.

Table 1.2 Actions for Public Health Agencies and Organizations

Strategy	Action
Preparation	<ul style="list-style-type: none"> • Citizen Participation: Inform the public about how the domains of transportation and land use influence public health outcomes. • Partnership Development: Form multidisciplinary partnerships and working relationships among disciplines and interests that influence public health outcomes, including transportation, urban planning, public safety, and others. • Data Collection: Enhance current surveillance and data collection systems to monitor trends and capture data relevant to behavior and environmental change. • Assessments: Develop tools such as Health Impact Assessments that could inform land use development and roadway design. • Planning: Implement goals and objectives within state, county, and local health plans that address the impacts of transportation and the built environment on public health outcomes. • Resource Development: Cultivate resources that would enhance funding, personnel, and materials to respond to the need for public health agencies to work in these domains.
Policies	<ul style="list-style-type: none"> • Agency Mission/Mandate: Refine program missions and agency mandates to support efforts to do work in these domains. • Governing Bodies: Change policies for state, county, and local boards of health to require multidisciplinary representation on boards of health. • Policy Assessment Tools: Adopt policy assessment tools such as Health Impact Assessments and Pedestrian Impact Assessments as part of planning processes to inform of potential impacts of transportation, school, commercial, and residential development.

Table 1.2 Actions for Public Health Agencies and Organizations (continued)

Strategy	Action
Policies (continued)	<ul style="list-style-type: none"> • Funding: Revise public health program selection and funding criteria to benefit organizations, agencies, and institutions that support multidisciplinary collaboration and active transportation approaches. • Ordinances, Codes, Regulations: Provide feedback regarding the impacts of local and state regulations on public health. • Facility Policy: Work to influence policies regarding work sites, schools, shopping centers, and other heavily frequented places to support people walking or bicycling to them. • Higher Education Degree Programs: Work to influence curriculum design to include course requirements for city planning, transportation, and other nonpublic health disciplines.
Promotions	<ul style="list-style-type: none"> • Communications: Collaborate closely with traditional media outlets to communicate issues relevant to active transportation and active living. • Media Campaigns: Collaborate with other agencies to educate the public about the relationships between transportation and the built environment. • Social Marketing Campaigns: Undertake campaigns targeted at specific audiences to influence social behaviors such as active transportation and active living. • Conference Presentations: Communicate trends toward active transportation in various conference venues, and present findings of research on this topic.
Programs	<ul style="list-style-type: none"> • Technical Assistance: Develop a process for referring people to appropriate resources for technical assistance, and an internal program and process to address simple assistance issues. • Seminars and Workshops: Partner with other disciplines to offer a speaker-series or more structured workshop to professionals and the general public on active transportation or active living topics. • Celebrations and Observances: Promote events and issues through a coordinated effort to celebrate or observe something of significance (e.g., International Walk to School Month). • Sustained Programs: Establish ongoing programs that work to institutionalize active transportation and active living in the larger public context.
Physical Projects	<ul style="list-style-type: none"> • Built Environment Design: Collaborate with other disciplines about how design issues (e.g., school siting, sidewalk and trail connectivity, transit availability, and mix of land use) influence public health outcomes, especially those related to walking and bicycling. • Resource Materials: Document and communicate research, policy, and assessment outcomes and share best practices through multidisciplinary channels.

2.0 Linkages Among Transportation, Physical Activity, and Public Health

2.1 Historical Linkages

The inclusion of public health in transportation and city planning is not entirely new. Transportation planners have traditionally been concerned about the health and welfare of the public. Until recently, however, the health impacts of transportation were primarily viewed as related to safety and air quality. Consequently, actions focused on reducing the number and severity of fatalities and injuries from motor vehicle-related incidents, as well as reducing emissions from motor vehicles. The focus on air quality, in particular, has largely been driven by the 1963 Clean Air Act and subsequent amendments adopted in 1970, 1977, and 1990, which emphasized the protection of public health; as well as by the 1991 Intermodal Surface Transportation Efficiency Act, which more closely linked transportation and air quality planning.

The focus on health within the city and environmental planning professions also is not new; in fact, many early city planning initiatives – dating to the late 1800s – were undertaken with the express purpose of improving public health through improved sanitation and living conditions. Beginning in the 1980s, however, an important shift in orientation occurred within the public health profession. This change began to develop with the incorporation of a sociological and environmental analysis of health and disease; as research evolved, it supported the hypothesis that a range of socioenvironmental conditions were important health determinants. In parallel, a new approach to the creation of communities began to emerge in architecture and urban planning that endorsed a development philosophy known as “new urbanism.” The result of these changes in thinking was an emerging belief that the built environment, particularly the transportation infrastructure, may have important implications for health-promoting behaviors such as physical activity obtained through walking and bicycling.

2.2 Current Issues

“**Active living**” is a new way of framing an old concept of how people have historically obtained physical activity through daily routines. For example, walking is the most regular physical activity for most people. As a result of transportation investments, other new technologies, and changes in community design, this basic mode of transportation and form of physical activity has largely disappeared from daily routines. Data from the 2001 Nationwide Household Transportation Survey, for example, reveals that automobiles account for 89.3 percent of all trips, whereas walking and bicycle trips account for only 6.4 percent.

At the same time, health issues related to sedentary lifestyles are increasingly being recognized. Recent estimates suggest that nearly 70 percent of American adults do not obtain recommended physical activity levels – 30 minutes of moderately intense physical activity for five or more days a week (U.S. Department of Health and Human Services, 1996). A sedentary lifestyle is believed to be a primary contributing factor in at least 200,000 deaths annually (Hahn et al, 1990; Powell and Blair, 1994), a number that is equivalent to approximately 25

percent of all chronic disease deaths and 10 percent of all deaths in the United States annually. Similarly, sedentary lifestyles are associated with the rapid increase in the percentage of adults that are overweight and obese. Sixty-four percent of American adults are now overweight and nearly one in three is obese (Flegal et al, 2002).

There is considerable debate about the causes of a sedentary lifestyle, and research is now shifting its focus toward the impact of environmental conditions and social circumstances on behavioral choices related to physical activity. While the impact of transportation decisions in particular is not known, many researchers believe that the design of most communities in the latter half of the 20th century has contributed to environments that are unsafe and inconvenient for walking and bicycling, thereby influencing decisions not to adopt those behaviors for transportation or recreation. While continual progress has been made over the 20th century to improve motor vehicle safety, over 43,000 fatalities were still experienced in 2005, of which nearly 5,000 were pedestrians or bicyclists. Furthermore, poor air quality continues to be a health concern in many metropolitan areas despite major advances in air pollution control technology. Public health also may be affected through the impacts of transportation on water quality, noise, urban heat islands, and ecosystem damage.

Why are these data important? There is mounting evidence that moderately intense physical activity, walking and bicycling in particular, can improve health and prevent disease and disability. The evidence from many studies on walking and bicycling demonstrate that regular participation in these activities provides a health benefit for people of all ages, genders, and races (Vuori, Oja, and Paronen, 1994; Dunn et al, 1999). The basic assumption is that by changing trip-making behavior to include more nonmotorized trips (walking and bicycling), the behavioral change can translate into favorable public health outcomes. For people who are sedentary, choosing even moderately intense activities such as walking and bicycling may provide substantial improvements in health status. As a result, public health officials are increasingly interested in developing a transportation and community design infrastructure that supports these behaviors. Related to “active living,” the term “**active transportation**” can be used to describe policies, programs, and projects that promote physical activity for transportation purposes, especially by improving conditions and opportunities for walking and bicycling and increasing the number of trips taken by these modes.

2.3 The Role of Transportation

While structured and organized programs can be undertaken to encourage people to become more active, many health researchers believe that integrating additional walking and bicycling into a daily routine may be a better public health strategy than traditional structured and organized programs. Several studies evaluating physical activity promotion programs have shown that programs which require the participant to alter daily routines to accommodate the program (e.g., joining and participating in a fitness facility) have been less effective in promoting regular physical activity than solutions that integrate physical activity more easily into a person’s daily routine (Sallis, Baumann, and Pratt, 1998; Owen, 1996).

Transportation investments and community design practices show great promise for supporting this shift in routines. Despite the dispersed nature of current land use patterns, there may be significant potential to increase the amount of walking and bicycling. Nearly 25 percent of all trips are less than one mile, yet approximately 75 percent of these trips are made

by automobile. Less than 30 percent of trips to school (children ages 5 to 15) less than one mile are made by walking or bicycling (U.S. DOT, 1999). These data suggest that it is reasonable to assert that a significant number of auto trips could be shifted to walking and bicycling if communities were designed accordingly (Handy, 1996). A renewed trend toward the development of more compact and walkable communities with convenient transit options has the potential to further increase the use of “active transportation” modes.

The renewed creation of walkable and bikeable communities has the potential to support transportation agency objectives as well – including reducing vehicle miles of travel (VMT), reducing congestion, reducing infrastructure investment needs, and improving air quality. In recent years, transportation agencies throughout the country have been revising policies and shifting funding priorities to place a greater emphasis on nonmotorized transportation. According to FHWA, between Fiscal Years 1992 and 2005, the number of new Federally funded stand-alone pedestrian and bicycle projects grew significantly, from 50 in 1992 to over 1,000 in 2005, with total annual obligations for these projects of nearly \$400 million (FHWA, 2005). Recent initiatives by public health agencies, nonprofit organizations, and foundations have provided further resources to change transportation and community design practices to better support active transportation. Examples include the Robert Wood Johnson Foundation’s Active Living by Design (ALbD) program, which is funding 25 community partnerships across the country to demonstrate how changing community design will impact physical activity.

Numerous studies have examined the importance of various factors, including environmental factors, in affecting levels of physical activity. The barriers to meeting adequate physical activity levels include personal reasons (disabilities and other health impairments), concerns for safety and security, and time constraints and environmental impediments (long distances between destinations, limited travel choices). Impediments to walking, cycling, and other forms of physical activity are likely to differ greatly among an inner-city neighborhood, a typical suburban development, and a remote rural community (Transportation Research Board and Institute of Medicine, 2005). These findings suggest that investments in transportation facilities, changes to land use patterns, addressing security through crime prevention and facility design, and education and outreach programs are all important components of creating more active lifestyles – further suggesting that a multidisciplinary approach is required.

Safety, Security, and Physical Activity

Various studies have suggested that actual and/or perceived concerns about personal safety and security can sometimes pose a significant barrier to physical activity in outdoor settings.¹ A wide range of strategies can improve safety and security as well as address negative perceptions – including not only traditional policing and law enforcement but also community design, lighting, litter and graffiti control, transit stop location and design, and the strengthening of community organizations and social relationships. Providing access to crime data can help to dispel perceptions that areas are unsafe. Strategies that encourage physical activity in other ways can help to address security concerns as well, since the simple lack of human activity in an area is often one of the reasons that it is perceived as unsafe.

Litman (2006) lists a number of “best practices” for transportation security programs. Some of these include:

- Involve community members in crime prevention program planning and implementation;
- Use urban design features to maximize visibility in pedestrian, cycling and transit areas;
- Revive downtowns as public gathering places, and create mixed-use centers with both commercial and residential development, so people are in the downtown at night;
- Encourage “eyes on the street” by designing buildings with windows and public areas that have good views of the sidewalks and streets;
- Support programs that help create community cohesion, including the development of organizations and services that foster activities involving local residents and businesses;
- Eliminate litter, garbage, weeds and graffiti;
- Maximize visibility of public areas and remove visual obstructions where appropriate;
- Maintain good lighting in pedestrian areas and transit centers;
- Encourage shops to stay open and well lit in the evenings;
- Provide space for youth activities such as skateboarding;
- Encourage street life by supporting special events and diverse activities in public spaces; and
- Locate transit stops near shops to increase informal surveillance.

¹See citations in TRB Special Report 282, Chapter 4 (Transportation Research Board and Institute of Medicine, 2005).

3.0 Overview of Planning Roles and Responsibilities

As previously noted, this report is intended as a resource not only for transportation agencies, but also for public health professionals and others interested in health and activity issues. The general approaches, terminologies, and institutional and regulatory frameworks differ widely between the transportation and public health fields. This section, therefore, is intended to serve as a brief introduction to roles and responsibilities in each field.

3.1 Transportation Planning

Planning Agencies

Transportation planning agencies are responsible for developing and adopting transportation plans that incorporate elements such as goals and objectives, detailed planning activities, specific projects, nonproject actions (e.g., educational programs, transportation operations), and timelines and funding sources for projects. Types of planning agencies and their responsibilities include:

- **Metropolitan Planning Organization (MPO)** - Per Federal planning requirements, the MPO is the designated regional organization responsible for comprehensive transportation planning and programming for any urbanized area with a population of at least 50,000. The MPO's objective is to coordinate project planning and delivery across the various local jurisdictions, state agencies, transit service providers, and other agencies responsible for implementing transportation projects and services within the region. The MPO typically is comprised of staff plus a policy board with decision-making authority. The policy board is usually comprised of local elected officials. The MPO, through these planning products, determines the allocation of Federal and state transportation funds to specific projects and programs within the metropolitan area.
- **State Department of Transportation (State DOT)** - Per Federal planning requirements, the State is responsible for transportation planning at a statewide level. The state DOT determines the allocation of Federal and state transportation funds to specific projects and programs in nonmetropolitan areas. The State also plays a role in determining the overall allocation of Federal and state funds to individual metropolitan areas. State DOTs also participate in the metropolitan planning process through representation on the MPO policy board, serving as a project proponent, and other involvement.
- **Local Jurisdictions** - Local governments carry out many transportation planning functions, such as scheduling improvements and maintenance for local streets and roads. There are no Federal requirements for local transportation *planning* (although Federally funded *projects* must meet various criteria such as environmental review, contracting, accessibility). Some states require the development of local transportation plans and may set various criteria or requirements for these plans.

- **Regional Planning Agencies (RPA)** – In some states, regional planning agencies may be designated to conduct transportation planning outside of metropolitan areas. RPAs do not have Federally assigned authority and typically serve only in an advisory role, providing input into the state transportation planning documents. RPAs also may be known by other names such as regional planning organizations (RPO) or regional transportation planning organizations (RTPO).
- **Other Agencies** – Modal agencies, such as transit agencies, conduct planning for their own facilities, services, and operations. Other agencies such as tribal governments may conduct transportation planning for their respective areas of jurisdiction. The Federal government conducts planning for Federal lands.

Planning Products

Federal requirements specify the products that must be produced by MPOs and states. State and MPO responsibilities are parallel, as shown in Figure 3.1. These products include:

- **Long-Range Plan (LRP) or Long-Range Transportation Plan (LRTP)** – A document that establishes broad goals, objectives, and policies for transportation, and identifies major transportation programs and projects over at least a 20-year time horizon. LRPs are developed at a metropolitan area level by the MPO, and at a state level by the state DOT.
- **Transportation Improvement Program (TIP)** – A listing of specific projects that will be funded over a period of at least four years for a metropolitan area, including all Federally funded projects, and the sources of funds for each project.
- **State Transportation Improvement Program (STIP)** – A listing of specific projects that will be funded over a period of at least four years statewide, including all Federally funded projects, and the sources of funds for each project. The STIP must incorporate projects listed in metropolitan TIPs adopted by MPOs in the State.
- **State Planning Work Program or Unified Planning Work Program** – A listing of specific planning studies that will be funded over at least the next year for a metropolitan area or state.

At a local level, documents such as comprehensive or general plans may include a transportation component, and official maps can lay out the transportation network and proposed improvements. Projects are often scheduled through the local Capital Improvement Program (CIP) which can be compared to the TIP or STIP.

Typical responsibilities for these and other types of planning activities are shown in Figure 3.2. In addition to statewide and metropolitan planning, plans are often developed for transportation corridors, subareas or neighborhoods, and for specific modes (e.g., bicycle, pedestrian, transit) or other specialized topics. The term “project development” refers to the process of taking a project concept from the planning stage to the point at which it is ready for construction.

Figure 3.1 Federally Mandated Planning Products

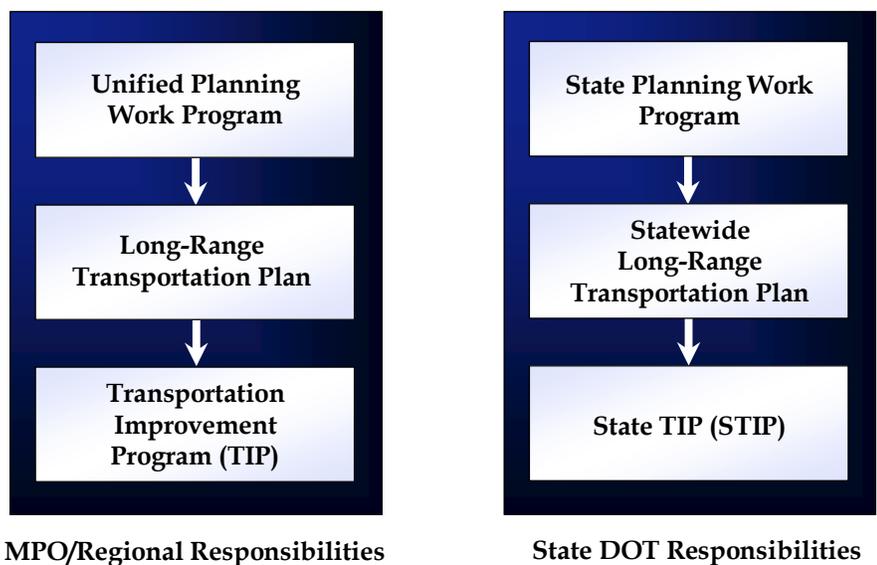


Figure 3.2 Typical Transportation Planning Responsibilities

Transportation Planning Activity	State DOT	MPO	RPA	Transit Agency	City/County
State LRP, STIP	○				
Metro LRP, TIP		○			
Regional Plan (Non-Metro)			○		
Local Transportation Plan, CIP					○
Corridor Plan	○	◇	◇		○
Subarea/Neighborhood Plan	◇	◇	◇		○
Specialized Plans (Modal, ITS, Freight, Safety, etc.)	○	○	○	○	○
Project Development	○	◇	◇	○	○

○ Typical/Common Responsibility ◇ Occasionally Responsible

Under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005, state and regional planning agencies are required to consider eight “planning factors” in developing their transportation plans. These factors include:

- Support the economic vitality of the United States, the states, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and nonmotorized users;
- Increase the security of the transportation system for motorized and nonmotorized users;
- Increase the accessibility and mobility of people and for freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.

The importance of planning for pedestrians and bicyclists has been increasingly strengthened in recent transportation authorizing legislation. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 recognized the increasingly important role of bicycling and walking in creating a balanced, intermodal transportation system and provided new funding programs as well as expanded eligibility for funding under existing programs. The Transportation Equity Act for the 21st Century (TEA-21) of 1998 further strengthened Federal policy by requiring that:

- Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and state;
- Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction and transportation facilities, except where bicycle and pedestrian use are not permitted; and
- Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians.¹

¹ Transportation Equity Act for the 21st Century, Section 1202(a).

Implementing Agencies

Implementing agencies are agencies that are responsible for planning, designing, constructing, and operating specific transportation projects and programs. In many cases, transportation agencies fulfill both planning and implementation responsibilities. Transportation implementing agencies and their responsibilities include:

- **State DOTs** – State DOTs are responsible for constructing, operating, and maintaining all roads under state ownership, including Interstate highways, National Highway System routes, and other state roads. State DOTs also may have other project and nonproject responsibilities related to the statewide transportation system, including planning (and in a few cases, operations) of other modes, including transit, rail, ports, and airports.
- **Local Jurisdictions** – Local governments are responsible for constructing, operating, and maintaining all roads under local ownership. Local governments also may have other project and nonproject responsibilities related to the local transportation system, such as construction and maintenance of off-street bicycle and pedestrian paths, or operation of local transit services.
- **Other Agencies** – Transit agencies implement and operate transit services within their area of authority. State and local recreation agencies (such as parks departments) may implement trails serving bicyclists and pedestrians for both recreational and transportation purposes. Port and airport authorities typically implement and operate services such as airports, intermodal terminals, and ferries. Tribal governments, as well as Federal agencies, including the Bureau of Indian Affairs, Bureau of Land Management, U.S. Forest Service, and National Park Service, implement and operate projects on lands within their jurisdiction. In some states, transportation projects such as toll roads are increasingly being financed, constructed, and operated through partnerships with private sector entities.

Funding

Federal-aid highway funds are authorized by Congress to assist the States in providing for construction, reconstruction, and improvement of highways and bridges on eligible Federal-aid highway routes and for other special purpose programs and projects. These funds come primarily from Federal motor fuel tax revenues which are deposited in the Highway Trust Fund. The principal statutes establishing the Federal-aid highway program are found in Title 23, United States Code (USC). Regulatory requirements are generally found in Title 23, Highways, of the Code of Federal Regulations (CFR). The Federal Transit Program provides funding for capital investment and operations of transit and related facilities, as specified in Title 49 USC and CFR.

Bicycle and pedestrian projects are potentially eligible for funding from most major Federal-aid highway, transit, and transportation safety programs (FHWA, 2006). Among these are the Congestion Mitigation and Air Quality Improvement Program (CMAQ), the Surface Transportation Program (STP), the National Highway System (NHS), the Federal Lands Highways Program (FLH), and Federal Transit Capital, Urban, and Rural funds. Many of these programs, including CMAQ, STP, and NHS, specifically only cover transportation (i.e., nonrecreational) projects, while the Recreational Trails Program specifically funds recreational projects. Transportation Enhancements (TE) is a set-aside under the STP program that is often

used to fund bicycle and pedestrian projects. Some Federal funds may only be used for eligible construction projects, while others may be used for training (e.g., CMAQ), promotion of safety (e.g., STP, TE, State and Community Traffic Safety Program), and planning (e.g., STP, CMAQ, State Planning and Research, and Metropolitan Planning funds) (de Cerreño and My Linh H. Nguyen-Novotny, 2006).

Thus, a wide array of possible funding is available from Federal programs. Eligibility does not, however, guarantee that bicycle and pedestrian projects, plans, and programs will be funded. States and MPOs retain broad control over project selection procedures and choices and can set their own priorities for funding. Also, most Federal funding programs require a state and/or local match, typically 20 percent, although this may vary by program.

3.2 Public Health Planning

Overview

In general, public health can be described as the science and art of promoting health, preventing disease, prolonging life and improving quality of life through the organized efforts of society. Public health combines sciences, skills, and beliefs directed to the maintenance and improvement of the health of all people through collective action. The programs, services, and institutions involved tend to emphasize two things: the prevention of disease, and the health needs of the population as a whole. The United States' public health infrastructure is generally divided among Federal, state, tribal, county, and local agencies, and where they exist, state and local boards of health.

The totality of the public health infrastructure includes all entities that provide a variety of services that influence public health such as environmental health, occupational health and safety, chronic disease prevention, injury prevention, mental health, and substance abuse. Service providers, such as managed care organizations, hospitals, nonprofit corporations, schools, faith organizations, and businesses, also are allies to and an integral part of the public health infrastructure in many communities.

All public health services depend on the presence of basic infrastructure. Every categorical public health program - childhood immunizations, infectious disease monitoring, cancer and asthma prevention, drinking water quality, injury prevention, and many others - requires health professionals who are competent in cross-cutting and technical skills, public health agencies with the capacity to assess and respond to community health needs, and up-to-date information systems. Federal public health agencies rely on the presence of infrastructure systems at the local and state levels to support the implementation of their programs.

The Federal government has constitutional responsibility for preventing entry of disease into the United States and, under the Interstate Commerce clause of the Constitution, for preventing the interstate spread of disease. The United States has specific legislation (the Public Health Threats and Emergencies Act, 2000, also known as the Frist/Kennedy Act) aimed at countering bioterrorism through the improvement of public health systems and communication at state and local levels. Other relevant legislation governs immunization and vaccine purchase, and includes several long-standing "categorical" programs to fund-specific nationwide programs, usually with an emphasis on vulnerable populations such as low income, minorities, and youth, often in partnership with states.

The lead agency for public health activity at the Federal level is the U.S. Department of Health and Human Services (DHHS). The DHHS oversees several key agencies, including the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH). DHHS must work with state, local, and tribal governments to fulfill its mission of protecting the health of all Americans. The U.S. Public Health Service (PHS) combines eight DHHS agencies with the Office of Public Health and Science (OPHS) that houses the Office of the Surgeon General.

Public Health Mission and Functions

The primary mission of public health is to provide and support conditions in which society can be healthy. Public health engages both private and public organizations and individuals in accomplishing this mission. The general funding support for public health is almost entirely aligned with the missions and functions below, but recently have been expanded to include the emerging domains of active transportation and active living, but these areas can be classified as healthy lifestyle or behavioral issues. The core mission responsibilities of public health agencies are vast, but primarily include:

- Preventing epidemics and the spread of disease;
- Protecting against environmental hazards;
- Preventing injuries;
- Promoting and encouraging healthy behaviors;
- Responding to disasters and assisting communities in recovery; and
- Assuring the quality and accessibility of healthy services.

The population or societal functions of public health distinguishes it from the medical practice which focuses on the individual patient. In this regard, public health actions are directed at protecting, maintaining, or enhancing the health status and well-being of the general population and rarely focus on individuals except when such actions are for the benefit of the community. According to some estimates, as much as 95 percent of the nation's spending on health – roughly \$1.3 trillion in 2000 – goes to personal medical care and biomedical research. Only one to two percent of the health care budget is spent on prevention. Public health encompasses three core functions:

- **Assessment** of information on the health of the community: This function includes the regular collection, analysis, and sharing of health data and information about risks and resources in a community. The purpose of this function is to identify trends in illness, injury, and death, including the factors that may cause these conditions.
- Comprehensive public health **policy development**: Information collected during the assessment phase is often used to develop local and state health policies. Good public policy development involves the consideration of political, organizational, and community values.
- **Assurance** that public health services are provided to the community: This function includes the assurance of the availability of quality and effective programs and services necessary to achieve the agreed-upon goals in health protection, health promotion, disease prevention, and injury prevention.

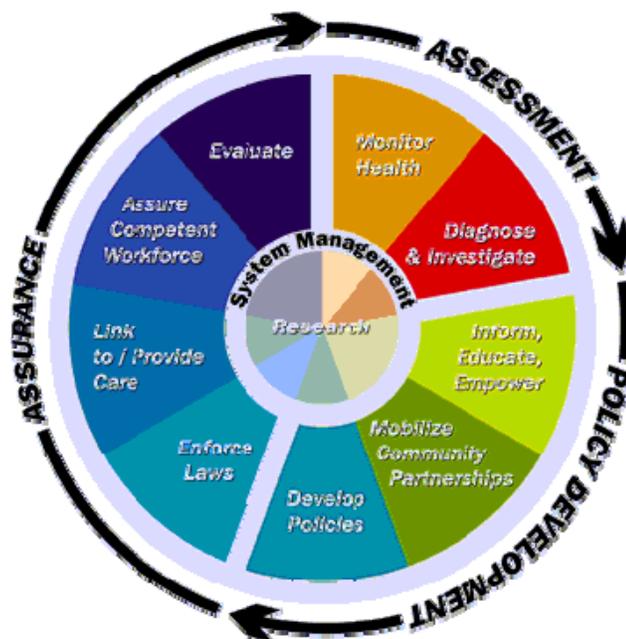
Essential Public Health Services and Activities

There are 10 generally agreed upon essential public health services and activities. These are public health activities that should be undertaken in all communities and were developed as a companion to the three core public health functions. The “essential services” (Figure 3.3) provide a working definition of public health and a guiding framework for the responsibilities of local public health systems. They include:

1. **Monitor** health status to identify and solve community health problems;
2. **Diagnose and investigate** health problems and health hazards in the community;
3. **Inform, educate, and empower** people about health issues;
4. **Mobilize community partnerships** and action to identify and solve health problems;
5. **Develop policies** and plans that support individual and community health efforts;
6. **Enforce laws** and regulations that protect health and ensure safety;
7. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable;
8. **Assure a competent workforce** for public and personal health care;
9. **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services; and
10. **Research** for new insights and innovative solutions to health problems.

These “essential services” provide a starting point for discussion when collaborating with public health agencies and/or organizations. It is best to identify the service that is most aligned with the work that needs to be performed when trying to identify which public health organization to approach. The primary public health agency to contact to explore collaboration opportunities at the local level is the county or city health department. The county or city public health official can provide important guidance on partnering opportunities and which active transportation issues would align with their priority items. If the county or city health department is not responsive and committed to collaborate and partner on any specific project, alternative partners might include well-respected nonprofit organizations such as the American Heart Association and the American Diabetes Association.

Figure 3.3 Public Health Functions



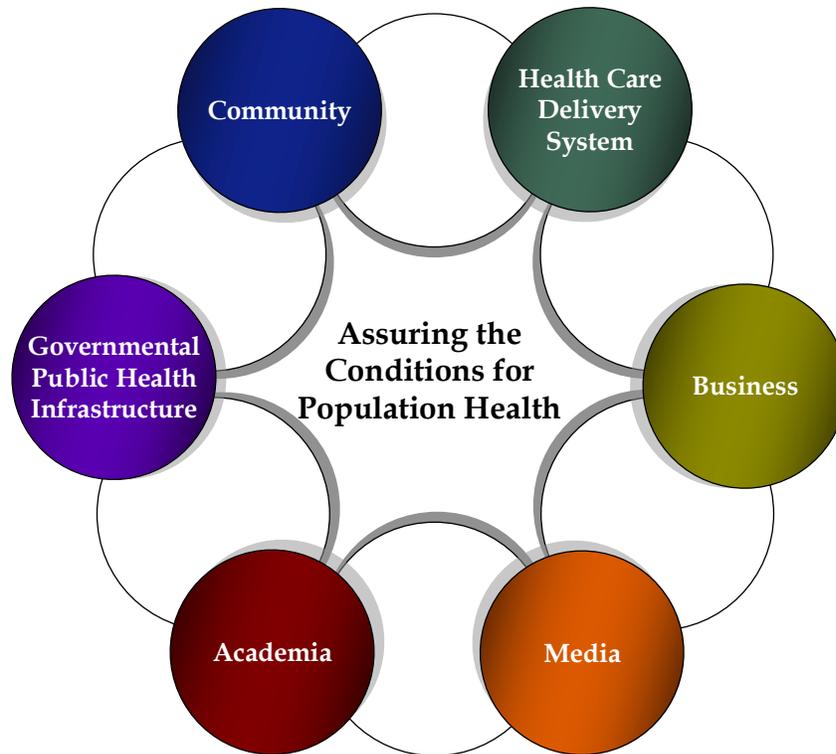
Intersectoral Public Health Partnerships

Public health practice relies heavily on intersectoral partnerships. Public health professionals must be able to work with a range of disciplines, and form coalitions to advocate for mitigation of health risks or implement health-enhancing changes in various environments. The voluntary sector is a key partner in public health today. This includes nongovernmental agencies (such as health charities and professional associations), local associations of all kinds, community development groups, recreational associations, business groups, organized labor unions, together with the governmental structures which partly support and fund them. According to the Institute of Medicine there are six major bodies which are in a position to act in a powerful manner to improve and protect the nation's health:

- **Government** (Federal, state, and local) monitors health and enforces laws;
- **Health care providers** aid in public health surveillance and assessment of community health status;
- **Communities** (people and organizations) can become engaged in policy development and local partnerships;
- **Academia** helps to inform people about important issues, and play a substantial role in educating the workforce, and conducting research and evaluation;
- **Businesses and employers** have the opportunity to promote health and safety of employees; and
- **Mass media** can help to educate, inform, and empower the public about important health issues.

The figure below identifies the intersectoral public health system. The colored ovals represent actors who can work individually or collectively as part of a public health system. The white ovals indicate other sectors that the Institute of Medicine committee did not elect to single out, and could include nontraditional partners in public health such as transportation, city planning, parks and recreation, architecture, law enforcement, and so on.

Figure 3.4 Intersectoral Public Health System



Public Health and Transportation

Public health does not have a direct mandate to work specifically on or with transportation-related issues beyond the traditional scope of injury prevention and air quality control. Recently, however, the absence of a mandate or clear directive on public health’s role with “built environment” related issues such as transportation, land use, or urban design has opened the doors to innovative collaboration.

The Centers for Disease Control and Prevention was the major public health agency to begin formal efforts designed to explore the impacts of the built environment on public health. CDC launched the Active Community Environments (ACE) initiative in 1998.² From this effort,

² CDC’s initial research into the connection between transportation, urban form, and public health is summarized in Frank and Engelke (2000).

several state health departments, including California, Michigan, Minnesota, New York, North Carolina, and South Carolina, began statewide initiatives focused on promoting active transportation and active living. More recently, the National Association of City County Health Officials (NACCHO) adopted a resolution to support public health's involvement in land use planning, including zoning, growth and development policies, and community design. NACCHO even called for increased resources for improving local public health agency capacity for beneficial land use planning through training, development of tools, technical assistance and other support. The National Association of Local Boards of Health (NALBOH) released a guide in 2006 on *Land Use Planning for Public Health: The Role of Local Boards of Health in Community Design and Development*. This guide is designed for local board of health members and others interested in ensuring that their community's land use planning decisions do not compromise the public's health.

This new area of practice and research for public health is growing very rapidly. Major philanthropic organizations (The Robert Wood Johnson Foundation, W.K. Kellogg Foundation), health care providers (Blue Cross and Blue Shield, Kaiser Permanente), advocacy groups (American Heart Association, American Diabetes Association), governing bodies (American Public Health Association, Society for Public Health Education, American College of Sports Medicine) and academic institutions (University of North Carolina, University of Minnesota) are advocating for and supporting a wide range of programs and efforts to impact transportation and the built environment.

The “5P” Framework for Addressing Physical Activity

The public health community often uses a framework known as the “5P” framework to classify actions to promote active living. This framework is introduced in survey questions (as described in Section 4.0) and used as the organizing framework for the case studies presented in Section 5.0 and the appendices to this report. The 5Ps include:

- **Preparation** – Preparation is the foundation of all the action categories because it involves critical planning, partnership development and assessment of the issues. This is where organizations identify critical partners and plan which actions they might begin to implement to achieve their goals and objectives.
- **Policies** – Changing policy can be critical to the goal of creating a supportive social and physical environment for active transportation. Transportation agencies may implement policy changes through long-range plans as well as policy directives on specific topics such as highway design practices, project development, or involvement in land use and community design issues. Agencies also can work to influence other policies at a state or local level.
- **Promotions** – This action includes traditional communications (print, radio and television), marketing and social marketing actions. It serves as a tool by which agencies can connect with the public to raise awareness of transportation alternatives and encourage behavior changes.
- **Programs** – Formal programs have been a longstanding intervention method in most social and environmental change efforts. The partnerships that form in the preparation “P” will focus on organizing efforts that could lead to formal agency and community programs that expand active transportation options and promote active living.

- **Physical Projects** – This action category seeks to create built environment enhancements such as trails, sidewalks, bikeways, gardens, parks, and other similar outcomes that encourage physical activity for transportation and recreation.

4.0 State of the Practice: Survey and Outreach Findings

The research for this project was accomplished primarily through an Internet-based survey targeted to state and regional transportation practitioners as well as public health practitioners. In addition, informal contacts were made with officials at national organizations (such as FHWA, the National Association of Regional Councils, and the Centers for Disease Control) to identify any noteworthy examples of state and regional transportation agencies addressing physical activity and health in transportation planning. Organizations directly contacted for this outreach effort are listed in Appendix B. Recent literature on the topic also was reviewed, although a comprehensive literature search was not performed. Most of the literature on transportation and public health relationships has focused on research findings on links between physical activity and the built environment, whereas the current report is focused on planning methods and applications. Appendix A contains some useful bibliographic references as well as web sites with additional information and references.

4.1 Literature Review and Informal Outreach

FHWA and FTA organized a roundtable in Portland, Oregon in January 2004 to bring together transportation and public health professionals to discuss opportunities and strategies to include health and activity goals within the transportation planning process. Participants identified a number of obstacles to incorporating health and activity goals and health agency participation in the transportation planning process. These included: limited communication, understanding, and collaboration; different missions; state DOT reluctance; lack of understanding of health impact assessments; unreliable data and measures for physical activity; limited attractiveness of the current built environment for bicycling and walking; and lack of funds. At the same time, they identified a number of promising methods, including: data and technical methodologies; communication; land use changes; further evolution of health impact assessments; and innovative state and regional planning work that already is underway in a number of areas (Volpe National Transportation Systems Center, 2004).

Concurrent to this roundtable, FHWA and FTA prepared a bibliography on health and physical activity in transportation planning (Rasmussen and Lyons, 2004). The review found that while physical activity goals were not typically integrated throughout the transportation planning process in a holistic manner, nevertheless, a number of transportation agencies have undertaken specific methods – such as scenario planning, community impact assessments, safety planning, and outreach and communication – that support physical activity objectives. The report concluded that there may not be a single best way to incorporate physical activity concerns within the transportation planning process, but that a range of methods might be applied based on local circumstances and priorities. The report also identified the need for future capacity building, partnership formation, expanded mutual awareness between the transportation and health disciplines, and documentation of practical applications.

Active Living by Design, Active Living Research, Active Living Resource Center, and Active Living Leadership, all national programs of the Robert Wood Johnson Foundation, have assembled a comprehensive set of resources on linking community planning and health, including research documents, fact sheets, case studies, and other materials. For the most part, the focus is on practices at a community level. This is not surprising given that most implementation of projects and programs to promote physical activity through community design is either conducted by city and county agencies or by other local organizations such as schools, medical institutions, and advocacy groups. Promoting change in policies and programs at a state or regional level, however, is sometimes a part of these locally based efforts.

Other organizations that have compiled extensive resources on active living and active transportation include the International City/County Management Association, American Planning Association, National Governor's Association, National Conference of State Legislators, and the Local Government Commission.

The informal contacts with national practitioners helped to identify some regional and state transportation agencies that have performed innovative work in linking transportation, activity, and health. Examples of many of the practices identified through this outreach are highlighted in Section 5.2. These contacts also confirmed that work on linking these areas is still in the initial stages, and that few agencies have taken explicit steps or developed a comprehensive approach to consider and address activity and health issues throughout the transportation planning process.

4.2 Survey Findings

As the primary information-gathering effort for this project, an Internet-based survey was conducted, targeted primarily at state and regional transportation planners and public health professionals. Public health stakeholders were included not only to identify examples of innovative partnerships and collaboration with state and regional transportation agencies, but also to identify barriers to collaboration from their perspective. A list of target groups for the survey is provided in Appendix B, and the complete survey findings are reported in Appendix C.

The survey included over 30 questions regarding approaches to considering public health and physical activity objectives in transportation planning; other activities (such as nonmotorized data collection) that support physical activity and "active transportation"; participation of non-transportation agencies in the transportation planning process; and barriers to greater consideration of health and activity through transportation planning. The survey findings are summarized below and are documented in full in Appendix B. Survey respondents were given extensive opportunity for free-response comments, as well as responding to specific questions.

Different respondents answered different questions, depending upon the type of agency they worked for and its responsibilities. Survey responses are discussed for four groups:

- Group 1 - All survey respondents;
- Group 2 - Transportation agency respondents indicating that their agency was addressing public health, including physical activity;

- Group 3 - All transportation agencies, including those not explicitly addressing physical activity; and
- Group 4 - Public health and other nontransportation agencies.

Group 1 - All Survey Respondents

The Internet survey received 157 total responses, 151 of which were complete, providing usable data. Of this set, there were 10 agencies that had more than one response. In order to capture agency-based data, the duplicates were removed. This process left 141 individual agency responses that were used in the analysis.³ The majority (84) came from professionals who categorized themselves as being in the transportation field, while 42 were received from public health professionals (Table 4.1). Fifty-seven of the responses represent MPOs or RTPOs, and 50 represent state-level organizations, including 23 state DOTs. Twenty-three nonprofits, private sector groups, alliances/partnerships, and “other” types of organizations also are represented (Table 4.2).

Table 4.1 Primary Professional Field

Primary Field	Number	Percentage
Transportation	84	60%
City Planning	5	4%
Public Health	42	30%
Other	8	6%
Total	139	100%

³ Two of the respondents did not identify which type of agency they represent, but provided enough information to warrant including their information in the overall analysis.

Table 4.2 Organization Type

Organization Type	Number	Percentage
Federal Government	2	1%
State Government	50	35%
<i>State DOT</i>	23	16%
Local Government	9	6%
MPO or RTPO	57	40%
Nonprofit	13	9%
Alliance/Partnership	1	1%
Private Sector	5	4%
Academic	0	0%
Other	4	3%
Total	141	

Sixty-five percent of all survey respondents identified themselves as working for agencies responsible for conducting transportation planning, with a total of 90 transportation agencies represented. Thirty-five percent work for public health organizations or other agencies not responsible for transportation planning.

Of the 90 transportation agencies represented in the survey, 60 percent (54 agencies) noted that they currently are addressing physical activity and related public health impacts in the transportation planning process. These agencies include 16 state DOTs, 33 MPOs or RTPOs, two local governments, and three nonprofit agencies.

The most significant overall barrier to addressing physical activity and health impacts cited by survey respondents was insufficient resources for project and program implementation. In one respondent's words: "*Funding is always an issue....*" The second most commonly cited barrier was the fact that transportation agencies do not see this work as a priority. A lack of knowledge about the topic was most frequently listed as a minor barrier.

Not surprisingly, given the barriers identified, the action most often listed as critical to overcoming barriers was to increase funding for transportation projects that increase physical activity. Other frequently identified actions include implementing policies that mandate addressing physical activity in the transportation planning process, and promoting collaborations among agencies and organizations to address these issues. Individual survey responses reveal that there are some actions that transportation agencies can take to bring public health and transportation officials together. When asked specifically what could be done, one respondent suggested, "*Incorporation of public health into the review/approval process for comprehensive plans at the MPO/RTPO level. This legitimizes public health and physical activity as an issue, better utilizes public health expertise, improves relationships, and builds in greater accountability.*"

Group 2 – Transportation Planning Agencies Addressing Public Health, Including Physical Activity

Responses to the Internet survey revealed that many transportation agencies are in the initial phases of incorporating public health concerns into the transportation planning process. While there are many types of activities that these agencies are undertaking, the most frequent activities cited by the 58 agencies in this group involve discussion and formation of partnerships.⁴ For example, 41 agencies – including 13 state DOTs and 23 MPOs and RTPOs – stated that they are conducting outreach and establishing partnerships with public health agencies. Individual survey responses suggest that these partnerships can lead to physical projects and program implementation. For example, one respondent noted that, *“New nontraditional partnerships have resulted in new stakeholders being at the table, new projects being funded, and broad-based community education efforts which extend throughout the region and State.”*

Thirty-eight agencies noted that they are discussing the consideration of public health as a motivation for undertaking specific transportation projects and/or promoting land use change. Thirty-one, including seven DOTs and 19 MPOs/RTPOs, currently are including public health or physical activity-related goals in their long-range plans. Although only six respondents said they already have established performance measures, 20 noted that they are considering doing so in the future (Table 4.3).

Of the 58 respondents who indicated that their agency is addressing physical activity in the transportation planning process, 33 indicated that community and public input was a primary motivating factor for addressing physical activity concerns. Twenty-three agencies listed the response to political and administrative leadership as a primary factor as well, illustrating the fact that there is support for this work from many sides (Table 4.4). One survey respondent noted that *“There has been recent recognition by upper management of the need to accommodate bicycle and pedestrian modes as legitimate users of public rights-of-way.”*

Transportation agencies involved in creating opportunities for active transportation are partnering with a range of agencies to accomplish their goals. Based on the survey responses, transportation agencies are most likely to partner with public health agencies, parks and recreation departments, advocacy groups and city planning departments, among others (Table 4.5).

⁴ In addition to the 54 agencies who identified themselves with this group, four transportation agencies answered that they did not know whether their organization is currently addressing physical activity. These respondents were prompted to respond to the same questions, resulting in 58 total responses.

Table 4.3 Specific Methods for Addressing Physical Activity in the Transportation Planning Process^a

Method	Already Doing		Considering for the Future		Not Currently Doing or Considering		Don't Know	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mentioning public health or physical activity in a vision statement or policy statement	28	48%	14	24%	9	16%	5	9%
<i>State DOTs</i>	6		2		4		3	
<i>MPOs and RTPOs</i>	17		11		4		0	
Including public health or physical activity-related goals and objectives in a long-range plan	31	53%	17	29%	4	7%	2	3%
<i>State DOTs</i>	7		5		2		0	
<i>MPOs and RTPOs</i>	19		11		2		0	
Conducting outreach to or establishing partnerships with public health agencies or advocacy groups promoting physical activity	41	71%	10	17%	4	7%	1	2%
<i>State DOTs</i>	13		3		1		0	
<i>MPOs and RTPOs</i>	23		6		3		0	
Discussing public health as a motivation for undertaking specific transportation programs, projects, or initiatives to increase physical activity	38	66%	12	21%	3	5%	1	2%
<i>State DOTs</i>	9		5		1		0	
<i>MPOs and RTPOs</i>	25		6		2		0	
Discussing public health or physical activity as a motivation for undertaking policies or initiatives to promote land use change (e.g., walkable communities, compact development)	38	66%	7	12%	7	12%	2	3%
<i>State DOTs</i>	8		3		4		1	
<i>MPOs and RTPOs</i>	26		4		3		0	
Establishing performance measures and/or targets related to physical activity and/or its health impacts	6	10%	20	34%	19	33%	7	12%
<i>State DOTs</i>	0		6		6		3	
<i>MPOs and RTPOs</i>	3		13		13		3	
Incorporating physical activity and/or its health impacts into project prioritization/selection criteria	12	21%	18	31%	19	33%	4	7%
<i>State DOTs</i>	1		6		8		0	
<i>MPOs and RTPOs</i>	7		12		11		3	
Employing analytical methods to estimate physical activity and/or its health impacts	4	7%	15	26%	28	48%	5	9%
<i>State DOTs</i>	0		3		10		2	
<i>MPOs and RTPOs</i>	2		10		18		2	
Other	8	14%	0	0%	1	2%	1	2%
Total Respondents								58

^a In addition to state DOTs and MPOs/RTPOs, this table includes agencies classifying themselves as “other.”

Table 4.4 The Importance of Specific Factors for Addressing Physical Activity in the Transportation Planning Process

Factor	Not a Motivating Factor		A Secondary Motivating Factor		A Primary Motivating Factor	
	Number	Percent	Number	Percent	Number	Percent
Supports other agency objectives (reduce VMT, improve air quality, etc.)	3	5%	16	28%	3	5%
Agency views public health as an important objective	5	9%	29	50%	22	38%
Responds to community/public input	3	5%	19	33%	33	57%
Responds to political/administrative leadership	11	19%	18	31%	23	40%
Takes advantage of funding opportunities	14	24%	16	28%	22	38%
Other	3	5%	18	31%	32	55%
Total Respondents	58					

Table 4.5 Other Organizations Transportation Agencies Have Worked with to Address Physical Activity Issues

Type of Organization	Number	Percent
Public Health Agencies	43	74%
City Planning	36	62%
Parks/Recreation	38	66%
Landscape Architecture	9	16%
Advocacy Groups	37	64%
Healthcare/Hospitals	20	34%
Educations/Schools	27	47%
Other Transportation Agencies	34	59%
Other	14	24%
Total Respondents	58	

Transportation agency respondents were asked what changes to transportation plans, programs, and projects have resulted from the agency's attention to physical activity and its health impacts. More than half (28 of 48) stated that the primary changes had to do with bicycle and/or pedestrian planning and infrastructure. The survey also revealed that as a result of considering physical activity and health, transportation agencies are forming new partnerships, typically with health organizations (often with the department of public health). The inclusion of new and related goals into planning documents also surfaced as a new trend (see Appendix C for full text responses).

“We are working in schools, work sites, healthcare facilities, and communities through policy and environmental changes. I am forming a statewide bicycle/pedestrian advisory council to provide training, technical assistance, and some funding (through grant writing and assistance in grant writing) to local coalitions focused on changing their communities to be more oriented towards nonmotorized transportation. We also will provide some training for Safe Routes to School projects.” – Cathy Costakis, Physical Activity Coordinator, Nutrition and Physical Activity Program, Montana State University

Group 3 – All Transportation Agencies, Including Those Not Explicitly Addressing Physical Activity

Even those transportation agencies that did not identify themselves as actively promoting physical activity are frequently engaged in related efforts. These agencies most often cited bicycle and pedestrian improvements as efforts they are undertaking that impact physical activity. More than 90 percent of the 90 respondents who identified themselves with transportation agencies (regardless of whether they are explicitly addressing activity and health) stated that they are working in this area. More than 60 percent also are changing design policies and practices, and linking land use and transportation planning to create more walkable and bikeable places. The action most commonly cited as something they are considering for the future is improving pedestrian and bicycle travel data collection or modeling techniques, furthering the ability to incorporate nonmotorized travel into the established transportation planning process (Table 4.6).

Table 4.6 Transportation Agency Activities that Indirectly Support Physical Activity

Activity	Already Doing		Considering for the Future		Not Currently Doing or Considering		Don't Know	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Improving pedestrian and bicycle travel data collection or modeling techniques	38	42%	36	40%	16	18%	0	0%
Linking land use and transportation planning to create more walkable/ bikeable places	58	64%	21	23%	8	9%	3	3%
Developing plans for pedestrian and bicycle improvements	82	91%	7	8%	0	0%	1	1%
Changing design policies and practices to better accommodate pedestrian and bicycle travel	59	66%	15	17%	11	12%	3	3%
Increasing funding for pedestrian and bicycle projects or outreach programs	47	52%	29	32%	11	12%	2	2%
Other	10	11%	0	0%	0	0%	2	2%
Total Respondents	90							

Transportation agency respondents were asked to identify the main motivations behind supporting efforts to promote physical activity. The most commonly cited primary motivating factor was community livability. VMT reduction and air quality concerns also were selected frequently. The only factor that stands out as *not* a motivating factor was infrastructure costs and savings (Table 4.7).

Table 4.7 Motivating Factors for Promoting Physical Activity by Transportation Agencies Not Actively Engaged in This Effort

Factor	Not a Motivating Factor		A Secondary Motivating Factor		A Primary Motivating Factor	
	Number	Percent	Number	Percent	Number	Percent
VMT Reduction	16	18%	27	30%	45	50%
Air Quality	12	13%	32	36%	45	50%
Public Health	13	14%	51	57%	25	28%
Infrastructure Cost Savings	29	32%	35	39%	23	26%
Community Livability	5	6%	21	23%	63	70%
Other	2	2%	1	1%	9	10%
Total Respondents	90					

Forty-seven percent (42) of transportation agency respondents stated that physical activity concerns were raised in the course of the transportation planning public involvement process. According to one respondent, “*it is not uncommon to hear the public voice concerns about the auto-dependent infrastructure in place in Atlanta and the desire to see more bicycle/pedestrian facilities for recreation, commuting to work, etc.*”

The most frequently cited barrier to addressing physical activity for transportation organizations was funding. The second most frequent, time, may be related to insufficient funds and resources.

Group 4 – Public Health and Other Nontransportation Agencies

Forty-nine respondents who did not define their agency as a transportation planning organization responded to the web survey. Almost half (23) classified their agency as a state government organization. Twenty percent (10) work for nonprofits and 12 percent (6) work for a local government. Of all 49 public health/nontransportation planning respondents, 34 stated that their organization has a primary goal to promote physical activity using transportation plans, programs, and other projects as a method of achieving this goal. When asked about the focus of their current work in the area of physical activity and transportation using the “5P” categories (Section 3.2), most agencies described their work as falling under the categories of preparation, promotion and programs (Table 4.8).

Table 4.8 Public Health/Nontransportation Agencies' Current Physical Activity Work

Type of Work	Number	Percent
Preparation (e.g., partnerships, assessments, meetings, surveys)	41	84%
Promotions (e.g., fact sheets, news stories, signage, media campaigns)	37	76%
Programs (e.g., safe routes to school, commuter choice, complete streets, livable communities planning)	37	76%
Policy (e.g., incentives to walk/bicycle, roadway or trail design manuals, plan goals and objectives, land use policy)	28	57%
Physical projects (e.g., sidewalks, bikeways, trails)	18	37%
Other	9	18%
Total Respondents	49	

The public health/nontransportation agency respondents were asked to summarize their organization's major work regarding physical activity and transportation. The answers varied widely (see Appendix C for complete answers), but there were a few themes that set this group apart from the transportation agencies. As a group, the public health/nontransportation agencies are more likely to put their resources toward programming and education, and to specifically focus on making behavioral changes, as compared to the transportation agency focus on projects. Nontransportation agencies also frequently listed health impact assessments as something they are undertaking. Finally, this group more frequently included partnership creation as a focus of their efforts related to physical activity.

Comments submitted by survey respondents in this group illustrate the types of partnerships being formed, how the collaboration is taking place, and the focus of the work. One respondent noted that, *"We have been working on educating our elected officials, planners, park officials and others on the health impacts resulting from land use decisions. We also have been convening communities to get them involved in local planning issues."* Another commented that, *"The major work involves promoting the use of alternative transportation. We do this through a partnership with a local agency with the same goal. Our Environmental Health Division focuses on this as part of their air quality program, and our obesity prevention grant focuses on this issue with work sites."*

All but 12 of the responding public health/nontransportation organizations have been involved in the transportation planning process to develop programs that promote physical activity. Table 4.9 shows the levels of planning at which they have been involved. It is interesting to note that the involvement has spanned, and is equally represented among, local, regional and statewide transportation planning processes. This evidence suggests that the nontransportation agencies see value in engaging with transportation agencies on multiple levels.

Table 4.9 Level of Involvement in Transportation Planning Process by Public Health/Nontransportation Agencies

Transportation Planning Level	Number	Percent
Statewide Planning (State DOT)	22	45%
Metropolitan or Regional Planning (MPO or regional planning agency)	23	47%
Local Planning (city or county)	24	49%
We have not been involved in a transportation planning process	9	18%
I Don't Know	3	6%
Total Respondents	49	

The public health/nontransportation agency respondents that have engaged in the transportation planning process have done so through a number of avenues. Almost half of the respondents reported working in partnership with a transportation agency on a specific policy or project. Engagement through the traditional public participation process (meeting attendance and the submission of comments) also is common (Table 4.10).

Table 4.10 Nature of Involvement in Transportation Planning Process by Public Health/Nontransportation Agencies

Nature of Involvement	Number	Percent
Attended meetings, public hearings or provided written comments on a draft transportation plan or program (long-range plan, transportation improvement program, or capital investment program)	26	53%
Provided input/comment into the design of a specific transportation policy, project, or initiative (e.g., highway design manual, road reconstruction project, safe routes to school program)	23	47%
Advocated for specific transportation policy, project, or initiative	17	35%
Worked in partnership with a transportation agency to develop and/or implement a specific policy, project or initiative	22	45%
Other	5	10%
Total Respondents	49	

The public health/nontransportation agencies that have not engaged in the transportation planning process noted most frequently that a lack of interest on the part of the transportation agency was the main barrier. This implies that if transportation agencies made an effort to reach out to the public health agencies, the level of involvement and collaboration would increase (Table 4.11).

Table 4.11 Barriers to Public Health/Nontransportation Agency Involvement in the Transportation Planning Process

Barrier	Number	Percent
Unfamiliar with/unaware of how transportation planning process works	4	24%
Lack of time/resources	3	18%
Don't see it as an effective way of accomplishing our organization's objectives	1	6%
Transportation agencies are not interested in or have not solicited our involvement	8	47%
Other	6	35%
Total Respondents	17	

Overall Conclusions

Some overall conclusions that can be drawn from the survey results include:

- A surprising number of MPOs and DOTs – including at least 33 MPOs and 16 DOTs responding to the survey – are beginning to explicitly address health and physical activity within their transportation activities, and others are considering doing so.
- The most common MPO and DOT practices include discussing health and activity in vision statements, goals, and objectives in long-range plans; forming working relationships with health agencies and other organizations; and discussing health and activity as a motivating factor in undertaking specific projects and programs.
- Fewer transportation agencies are identifying health and activity-related performance measures or evaluation methods, but nonetheless there is interest in these actions as well.
- Transportation agencies are addressing physical activity and health issues largely in response to interest in the topic from the general public and elected officials, but also because it supports other agency objectives directly related to transportation outcomes, such as reduced vehicle-travel and improved air quality.
- Public health agencies and organizations are becoming involved in transportation planning at all levels – including the statewide and regional level as well as with local governments.
- Barriers to expanding linkages include: Lack of funding, especially for projects; limited agency staff time and resources for planning; and unwillingness to expand mission or responsibilities into nontraditional areas.

5.0 Examples of State and Regional Agency Efforts

This section highlights examples of state and regional transportation agency efforts to address public health and physical activity in their transportation planning activities. Four case studies – focusing on two state DOTs and two MPOs – are summarized here and described in detail in Appendices D through G. Section 5.2 includes other examples of state, MPO, and local agency activities to address this linkage.

5.1 Summary of Case Studies

The first case study focuses on the **New Jersey** Department of Transportation (NJDOT). Since the mid 1980s, the State of New Jersey has been crafting and implementing statewide initiatives that guide and shape growth and development. Especially since the late 1990s, NJDOT has been on the forefront of linking transportation and land use in support of the state plan. The agency's focus has recently expanded to include consideration of the impacts of the transportation network on physical activity. NJDOT has integrated a number of ongoing efforts – including corridor transportation and land use planning, context sensitive solutions practices, support for transit-oriented development, and bicycle and pedestrian planning – under the umbrella of the New Jersey Future in Transportation (NJFIT) program. The agency also has engaged with a variety of planning and health stakeholders, for example, by sponsoring conferences on healthy community design and supporting the formation of a Mayors' Wellness Campaign to promote opportunities for physical activity at a local level.

The second case study focuses on the **Washington State** Department of Transportation (WSDOT). Within the overall framework of linking transportation and land use, the WSDOT has actively engaged with the Washington State Department of Health (DOH), the Washington State Department of Community, Trade and Economic Development, and the Regional Transportation Planning Organizations from around the State to create communities that provide citizens with opportunities to be physically active. The Washington State Nutritional and Physical Activity Plan led to a series of follow-on efforts and projects through which WSDOT and DOH have addressed public health and physical activity challenges throughout the State. The Washington Transportation Plan (WTP) contains aggressive goals relating to bicycling and walking, including increasing biking and walking to at least 15 percent of all trips while reducing the number of bicyclists and pedestrians killed or injured in traffic crashes by at least 10 percent over the next 20 years. WSDOT realizes that engagement with municipalities as well as state programs and projects will be necessary to achieve these goals, and has crafted guidelines for municipalities to promote bicycling and walking through infrastructure, land use planning, and outreach programs. WSDOT also has participated in programs, including the Active Community Environments Program, Active Living Task Forces, and the Washington Coalition for Promoting Physical Activity.

The third and fourth case studies highlight different approaches taken at two medium-size MPOs. The Tri-County Regional Planning Commission (TCRPC) in **Lansing, Michigan** has

taken a leadership role in working with public health agencies on issues of mutual interest, including regional transportation and land use planning and visioning. In 1997, TCRPC initiated a regional growth visioning and implementation process involving numerous citizens and stakeholder groups, including health officials and advocates. The agency has worked to incorporate policies into its transportation plans that address public health and increase opportunities for physical activity through nonmotorized travel and land use strategies. Partnerships with a county health department and other stakeholders have helped the MPO support the objectives of the growth visioning process by training and educating a network of public agency staff and citizens, through activities such as walkable communities workshops and conferences, to support changes to transportation and land use at a local level.

Similar to the other agencies profiled, the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) in **Charleston, South Carolina** has been a leader in regional land use and growth management planning initiatives and in conjunction with these initiatives has incorporated programs and policies that address health issues. In 2003, the COG successfully applied for a foundation grant to develop a plan for an accessible, interconnected, regional bicycle and pedestrian network, and to encourage the use and expansion of these facilities. While many areas have developed a bicycle and pedestrian plan, the Charleston region's efforts may be unique in its focus on working with public health partners to develop and implement the plan. Rather than focusing only on bicycle and pedestrian facilities, the plan is based on a "complete streets" philosophy in which streets are designed to accommodate all modes and all users. The plan also includes outreach programs to inform and educate people about the opportunities for and benefits of walking and bicycling. The plan identifies a series of action steps involving efforts to be led by the COG and a range of partners, including the South Carolina DOT, local public health agencies, and advocacy groups. The COG and its partners are now working to implement the plan as well as securing agency funding to ensure that work continues.

5.2 Other Examples

The four case studies describe some of the leading practices in linking transportation planning, health, and physical activity at a state and regional level. However, they are far from the only examples of innovative work in this field. Numerous other state and regional initiatives were identified during the course of this research and are identified below. In addition to state and regional examples, this section highlights some noteworthy examples of actions at the local level. These examples of practice can be supported through transportation agency policies as well as the allocation of transportation funds for specific purposes in state and metropolitan transportation plans and programs. The examples in this section also help to further define and categorize the various ways in which transportation agencies may work to address health and activity, within the 5P framework – preparation, policies, promotions, programs, and physical projects (see Section 3.2).

Preparation

Examples of “preparation” activities by transportation agencies include:

- The formation of multidisciplinary partnerships;
- Regional visioning and scenario planning;
- Bicycle and pedestrian transportation plans;
- Citizen transportation advisory committees;
- Data collection, assessment, and planning;
- Health impact assessments; and
- Pedestrian impact statements.

Multidisciplinary Partnerships – Multidisciplinary partnerships – such as **Lansing’s** Regional Land Use and Health Resource Team or **Washington State’s** Nutrition and Physical Activity Advisory Group – are an important means by which to initiate and maintain a collaborative and inclusive approach to community change. Broad-based networks of local organizations can effectively work to build community capacity and solve complex transportation and health problems. Community partnerships provide a vehicle for convening a diverse group of collaborators and stakeholders who can engage their organizations to develop and contribute to solutions. For comprehensive efforts, collaboration should include transportation, urban planning, design, environmental health, parks and recreation, public safety, public health, health care, and possibly other disciplines. In **California**, the Department of Health Services collaborated with Caltrans on several active transportation projects and programs, especially those oriented to safe routes to school. In **Utah**, the DOT made an initial effort a few years ago toward collaboration with the Department of Health, resulting in a joint web site and a “Utah Walks” brochure. UDOT participates in the DOH’s cardiovascular alliance working group, and recently collaborated with the department on a bicycle safety campaign. The MPO in **Cleveland, Tennessee** notes that coordination efforts are beginning with health department officials who previously expressed interest in increasing physical activity among students through walking and biking. This coordination will support them in integrating an upcoming bicycle and pedestrian plan with the Safe Routes to School program.

Partnerships initiated at the local level also have led to changes in regional- and state-level practices. For example, in **Cabarrus County, North Carolina** the involvement of the Cardiovascular Health Coordinator on a multijurisdictional parks and recreation land use planning team brought significant new resources and perspective to the planning effort and led to the inclusion of bicycle and pedestrian transportation facilities and routes in a broader “Livable Community Blueprint.” As a result, the bike plan portion of the blueprint was adopted in the MPO transportation plan, and design guidelines were created for bicycle facilities.

Regional Visioning and Scenario Planning – In recent years, many MPOs as well as nonprofit and state agencies have led broad-based efforts to develop a regional vision or analyze alternative regional growth scenarios. These efforts seek to identify a community’s shared values and develop transportation, land use, and other strategies that will support those values. Community values and goals identified in these processes often relate to creating healthy and livable communities, including providing options for physical activity, as well as addressing other health impacts such as traffic safety and air quality. Outcomes often involve changes to transportation

priorities to support walking, bicycling, and transit, as well as land use strategies to create more walkable communities. A recent FHWA survey identified over 80 regional scenario planning efforts that have been undertaken in recent years throughout the country (Bartholomew, 2005). Experience in **Lansing**, **Charleston**, and **New Jersey** shows how health issues can specifically shape growth goals and objectives, and conversely how growth visioning efforts have supported the formation of partnerships and programs that support implementation of “healthy communities” principles.

Bicycle and Pedestrian Transportation Plans – Numerous states, MPOs, and local jurisdictions have created bicycle and pedestrian plans that inventory existing facilities and conditions, assess needs, and make recommendations and set priorities for improvements. These plans serve as an important basis for making specific funding and programming decisions, helping ensure that projects are prioritized to support a comprehensive set of network improvements, rather than simply implemented on an ad hoc basis. They also may describe appropriate facility design practices and establish policies to guide the implementation of bicycle and pedestrian improvements, and create maps and other information that is useful to the public. These plans can support physical activity as well as moving people; for example, the Maricopa Association of Governments in **Phoenix, Arizona** is developing a bikeway master plan with a special emphasis on health and exercise opportunities, and assists local jurisdictions with bicycle and pedestrian facility design. Bicycle and pedestrian studies can focus on small areas as well. For example, the **Boston** MPO has used Federal planning funds to study and recommend bicycle and pedestrian improvements in six small town centers in the region.

Citizen Transportation Advisory Committees – Advisory committees provide transparency and inclusivity to a process that directly impacts the beneficiaries of the work, and provide an opportunity for involving health constituencies. The **Washington State** Department of Health has been one of the most proactive government agencies fostering this action. The health department recruited a county health department (Skagit County) and a municipality (Mount Vernon) to test the idea of how citizen advisory committees could enhance the local transportation planning process and focus on physical activity-related outcomes, especially those that affected youth. The outcome resulted in policy approaches in three key areas – access to healthy food choices, zoning and land use policies that influence physical activity, and increasing community-based physical activity options for youth. In **Rhode Island**, the state department of health is a relatively new member of the Rhode Island DOT transportation advisory committee. The agency sees public health benefits to be realized not only in physical activity, but also safety and air quality.

Data Collection, Assessment, and Planning – This is an often overlooked step in the preparation process, and gets at the key issue of “what do we really know.” Most organizations and committees bypass this critical opportunity because of time or funding constraints, even though the process of doing it usually alleviates these concerns down the road. Even simple data collection of how many people walk, bike or use transit for certain types of trips can support planning activities. Another key aspect of this preparation piece is using assessment as a method in the planning process. This is the process by which either professionals or volunteers evaluate key infrastructure and connectivity issues to determine what areas of the work will be most critical in the planning process.

Citizen-led data collection has been extraordinarily beneficial to the City of **Seattle, Washington’s** “Spot Improvement” program. The program solicits citizen feedback by asking people to complete postage-paid suggestion cards at bike shops and public buildings asking for

input about street facilities and network issues. City maintenance crews fix problems indicated on the “report cards,” usually within a matter of days. Seattle’s GIS database of sidewalk facilities has been invaluable to their efforts to improve pedestrian conditions. The **Boston, Massachusetts** MPO, with the help of volunteer labor, has collected counts of bicycle and pedestrian traffic on key routes, including bridges, bicycle paths, and major streets. The counts have been used to identify routes with high levels of pedestrian and bicycle traffic and to help justify the improvement of conditions for bicyclists and pedestrians. The New York Metropolitan Transportation Commission, the MPO for the **New York City** area, conducts annual counts at more than 100 locations, both on trail and street facilities.

Health Impact Assessments – The health impact assessment (HIA) is a cross-cutting action and emerging approach to assessment and policy implementation. HIAs are used to evaluate the impact on health of policies and projects in community design, transportation planning, and other areas outside traditional public health concerns. The Centers for Disease Control and Prevention and a few state and county health departments, including the Ingham County Health Department in **Lansing**, are advancing the method. **San Francisco** (led by the Department of Public Health) is a pioneer in this work and is developing a tool that could be used by many areas in comprehensive planning and community health analysis. Counties in **Colorado** also are testing the HIA concept. A few transportation agencies, such as the Lansing MPO, **Washington State** DOT, and **Atlanta** Regional Commission, have expressed interest in the method and how it might be integrated into the transportation planning process.

Experience to date, though, has indicated that considerable work remains to develop a practical and usable HIA tool. HIAs have evolved from the related and relatively well-developed field of environmental impact assessment (EIA); however, few, if any EIAs consider human health outcomes. HIA could contribute to EIA in several areas, including assessment of cumulative impacts and impacts to environmental justice. HIA offers considerable benefits that may advance the work of local health departments in meeting essential services and improving the quality of life and health outcomes attributed to land use planning and community design decisions. While many health departments have been involved in community design decisions through the development review process, this has only been at a very rudimentary level (e.g., inspections and permitting). HIA provides the opportunity for health departments to expand their purview to address a broader range of public health considerations, such as addressing transportation sector issues that may impact the public’s health. HIA also may provide a tool that transportation agencies can use to screen transportation or development projects for their impact on health and active living.

Pedestrian Impact Statement – This assessment tool requires developers to produce a written report of their project’s impact on walking and bicycling before the project is approved. The assessment typically includes impacts on the following project components:

- The connectivity and potential linkage to sidewalks within two miles;
- A master plan for sidewalks, bikeways, and streetscape requirements;
- Recommended pedestrian improvements;
- An assessment of existing crosswalk, sidewalk, lighting, and signal conditions; and
- An assessment of additional costs, and impacts to be placed on the project by provision of pedestrian or bike accessibility and safety.

Montgomery County, Maryland implemented this approach, and as a result pedestrian and bicycle issues are now considered in new construction proposals and in any existing facility expansions.

Policies

Policy implementation and change is critical if active transportation is to be supported and institutionalized. In general, policy approaches are those that culminate in a policy change or organizational procedure, such as revising street design guidelines, adopting a downtown master plan, revising development review procedures, or allocating increased funding for pedestrian and bicycling projects. Policy change may occur at a state, regional, and/or local agency level. Many state and regional transportation agencies have undertaken policy revisions since 1998 especially to respond to TEA-21, which expands Federal requirements related to the consideration of bicycle and pedestrian facilities in transportation plans and project design (see Section 3.1).

State Transportation Agency Policies – For state transportation agencies, policy changes that support active transportation may involve:

- Policies in statewide transportation plans to provide a range of transportation alternatives and support land use practices that encourage nonmotorized travel;
- Transportation project selection criteria that include promotion of physical activity and “active transportation” alternatives, and reward communities that are implementing land use changes;
- Increased and flexible use of funding for transit, street maintenance, nonmotorized transportation improvements, and safety programs;
- Policies for provision of bicycle accommodations and sidewalks in conjunction with the construction or reconstruction of state highways, including policies for sidewalk cost-sharing with local governments;
- Traffic calming policies, guidelines, and standards;
- Context-sensitive solutions and flexible design policies for transportation project development and design; and
- Fostering regional cooperation through policy incentives on issues such as transit-oriented development, jobs/housing balance, affordable housing, travel demand management, and rail transit.

The **Virginia** DOT is implementing a Policy for Integrating Bicycle and Pedestrian Accommodations, adopted in 2004. The policy recognizes cycling and walking as “fundamental travel modes,” and explicitly makes the argument that these “enhance the quality of life and health, strengthen communities, increase safety for all highway users, reduce congestion, and can benefit the environment.”⁵ The **Utah** DOT has integrated bicycle and pedestrian checklists into

⁵ <http://www.virginiadot.org/infoservice/bk-default.asp>.

its Roadway Design Manual of Instruction, and requires that designers consider bicycle and pedestrian accommodations for projects on a state route. The **New Jersey** DOT's Context Sensitive Solutions policy and revised highway design manual represent another example of policy changes.

MPO Policies - For metropolitan planning organizations, policy actions can similarly involve policies contained in the long-range transportation plan, project selection criteria, priorities for transportation funding, and fostering regional cooperation. **Charleston's** "complete streets" policy is an example of an MPO-level policy that supports active transportation. The MPO in **Columbus, Indiana** is requiring that bicycle and pedestrian facilities be incorporated into all future construction projects for urban facilities classified as urban collector or higher. The Policy Board of the Capital Area MPO in **Austin, Texas** reserves approximately 15 percent of the agency's annual set-aside from STP Metropolitan Mobility funds for stand alone bicycle and/or pedestrian projects.

Local Policies - Local policy advocacy may include educating elected officials, building relationships with members of policy boards, and influencing employer or school transportation policies. At a local level, examples of policy changes that support active transportation include:

- Changing or adding flexibility to zoning ordinances to encourage infill and redevelopment, greater density, a mix of uses, and more pedestrian-friendly orientation and design;
- Requiring street or pedestrian connectivity in the design of subdivisions, local street networks, and other new development;
- Reviewing and altering street standards to encourage a safer and more pleasant pedestrian environment and slower traffic;
- Establishing environmental design standards and guidelines that support crime prevention and public safety;
- Changing parking policies to reduce parking requirements, manage parking supply, and improve parking design to create more pedestrian-friendly environments; and
- Establishing school siting policies to locate schools in walkable neighborhoods.

State and regional agencies can develop guidance or take steps to influence local policy, such as the case study example of the **Charleston** COG's technical assistance to local governments on local plan and code development, and New Jersey Transit's Transit Friendly Communities program. In **Rochester, New York**, the Genesee/Finger Lakes Regional Planning Council and Genesee Transportation Council is developing "Bicycle and Pedestrian Supportive Code Language" that will be adopted by local governments in the region. The language covers design standards, land development code, financial commitments, and other issues. The **San Diego** Association of Governments is developing urban design guidelines to support walkable communities.

Promotions

Examples of promotional activities include:

- Media campaigns;
- Incentive and recognition-based campaigns; and
- Wayfinding projects.

Media Campaigns - Using the media to get the message out (smog alerts, flu season) or to emphasize a certain behavior (buckle up, quit smoking) has been a significant part of communication for both transportation and public health. Only recently have the two disciplines collaborated on promoting walking and bicycling. For public health practitioners, this provides the opportunity to promote the benefits of increased physical activity. For transportation planners, it provides a forum to communicate the benefits of nonmotorized alternatives. This type of strategy has been used extensively in Safe Routes to School programs across the United States. The materials are largely supported by the National Center for Safe Routes to School,⁶ but users can customize the materials to fit their individual campaign. Many state and local examples are provided on their web site, along with other resources. Car-free days, bike to work days, and “alternative transportation weeks” are other examples of campaigns to promote active transportation. Transportation agencies are finding that they can benefit from the extensive experience that public health agencies have with promotional campaigns, as well as the expanded educational channels provided by their communications network.

Incentive and Recognition-Based Campaigns - Providing incentives, whether they be monetary, products, or recognition, can encourage people involved in active transportation as well as local governments to change policy. Most programs, especially those at the state level, have used recognition awards as a method to build interest and excitement at a local level. Several national umbrella associations for governing bodies such as the National Governor’s Association, International City/County Management Association, U.S. Conference of Mayors, National Association of Counties, National Conference of State Legislators, and the Local Government Commission have made active transportation and active living an important part of their agenda and have promoted work in these areas. For example, the Local Government Commission has developed a prestigious awards program called the Ahwahnee Awards. This program recognizes model programs that further the creation of more livable, transit-oriented, and pedestrian-friendly communities. First presented in 1991, this award has become highly sought because of the recognition it brings to the gaining community and the organizations who assisted in the work. The **Dallas-Fort Worth** MPO has established the Center of Development Excellence which makes awards to exemplary “sustainable development” projects that support walking and transit use. **New Jersey** DOT’s Transit Village Initiative also exemplifies this type of campaign. The positive recognition provided by these programs has provided an incentive for local governments to change development regulations, as well as for private developers to adopt new practices.

⁶ <http://www.saferoutesinfo.org>.

Wayfinding – Wayfinding is a relatively new approach to promoting walking and bicycling behavior. Wayfinding, which involves much more than just simply putting up signs, means developing a comprehensive process of helping people navigate (or move through) an unfamiliar environment and assist travelers in their journey. For example, a traveler in a new environment needs to know the location of her destination, her own location relative to that destination, and the overall layout of the environment. Well designed systems make this information clear through architecture, sign placement, graphic design, and text. An example of a wayfinding project is the **City of Los Angeles’** Downtown LA Walks. The project involved developing pedestrian signage to direct people to hundreds of destinations in the city’s downtown core. A group of nine business improvement districts spearheaded the project and sought to improve walkability and access to other transportation systems, especially bus and subway. Thirteen pedestrian districts were identified and color-coded wayfinding icons were developed to represent each one. The icons became key elements in the resulting signage program and were featured on the more than 1,300 directional signs and street corner maps that make up the Downtown LA Walks project.

Programs

Examples of programs to promote active transportation include:

- Transportation-land use funding programs;
- Walkable and active community workshops;
- Safe Routes to School;
- Commuter Choice; and
- Comprehensive program campaigns.

Transportation-Land Use Funding Programs – Many MPOs and states are creating funding programs that support active transportation through changes to land use patterns as well as infrastructure improvements. These programs provide Federal and state transportation funds to communities for activities such as transit-oriented development, “smart growth,” or “livable communities” planning. They also target funds for infrastructure improvements, such as transit, bicycle, and pedestrian improvements that support the resulting land use plans. Examples include the **Atlanta** Regional Commission’s Livable Centers Initiative, the Capital District Transportation Committee’s Community, and Transportation Linkage Planning Program in **Albany, New York**, and **Massachusetts’** Transit-Oriented Development Infrastructure and Housing Support Program.

Walkable and Active Community Workshops – A number of MPOs and regional agencies, including MPOs in **Boston** and **Atlanta**, have sponsored “walkable community workshops” that train local planners, citizens, and elected officials to identify and implement pedestrian improvements that are needed to improve safety and promote walking. One of the desired outcomes of these workshops is to promote active living to improve quality of health. **Washington State’s** “active community environment” workshops are another example of this action. In a number of areas, health departments have been important cosponsors or participants in these workshops.

Safe Routes to School (SRTS) – This is the most popular and widespread of active transportation programs that promote walking and bicycling. This program has provided the catalyst for state health departments to partner with state DOTs. **California** has been a leading State in promoting SRTS programs, and has done so effectively through promotion of the annual international Walk-to-School Day event usually celebrated the first week in October. A model community program is located in **Marin County**, California. The county organizes school-specific teams and community-wide task forces to comprehensively create a safer environment that encourages walking and biking. Parents and neighbors map the routes, identify problem areas, and develop recommendations. Safe Routes task forces collaborate with public works and law enforcement staff to develop and implement an improvement plan, apply for funding and make easy improvements like crosswalks and signage. Children are taught bicycle and pedestrian safety in the classroom as well as information on health and the environment. Drivers are educated through Share the Road campaigns launched by community task forces.

Dedicated funding and requirements under the 2005 SAFETEA-LU are leading to the development of state-led SRTS programs in all 50 states. SAFETEA-LU legislation provides guaranteed funding of \$612 million for SRTS programs over the 2005-2009 period. Funding is distributed to states in proportion to the number of primary and secondary school students in the State, with no state receiving less than \$1 million annually. Communities are able to use the funds to fix hazards and slow traffic on roads that serve schools, as well as to build pathways, bicycle lanes, and sidewalks near schools. Between 10 and 30 percent of the funding in each state must be used for noninfrastructure activities such as enforcement, encouragement, and education programs. The **California** Department of Transportation (Caltrans) and the Department of Health Services have entered into an agreement whereby the health department administers the noninfrastructure grants awarded through the program.

Commuter Choice – Commuter Choice⁷ is the common description that has been established for workplace-oriented commuting programs. Commuter Choice programs are designed to help employers create customized and incentive-based solutions to their employees' commuting challenges. In some cases, commuter choice includes communities working with residents, schools working with students, and even developers working with future tenants to provide and promote transportation choices for travelers. An example of a successful program is in **Palo Alto, California**. The city offers an Employee Commute Program that includes financial incentives for using alternative modes. Employees that walk or bicycle to work are given a taxable \$20 monthly cash incentive. Employees must use the non-SOV commute mode at least 60 percent of their scheduled days to qualify for the program. Employees that are not eligible for benefits but who still use an alternate commute mode are encouraged to turn in a commute log and enter a drawing to win a prize each month.

Comprehensive Program Campaigns – Campaigns are essentially comprehensive approaches that include actions from all of the 5Ps. The program campaign approach provides the greatest opportunity for reach and sustainability, especially when trying to promote physical activity as a major theme. A widely recognized program is the City of **Boulder, Colorado's Go Boulder**. The program has clear goals for replacing single occupant car trips with nonmotorized trips. It has included significant physical improvements to pedestrian and dedicated bicycle infrastructure (e.g., shelters, sidewalk links, benches), a community transit network of high-frequency buses,

⁷ See: www.commuterchoice.com and www.commuterchoice.gov.

promotion through media campaigns, financial incentives for transit commuting, and recognition incentives such as bicycling, walking, and transit “commuters of the year” awards. Recently the program also has highlighted the importance of active transportation in health.

Physical Projects

Examples of physical projects that support active transportation may include:

- Rail trails;
- Bike lanes;
- Bike support facilities;
- Road diets and lane width reductions;
- Sidewalk improvements; and
- Traffic calming, pedestrian enhancements, and transit access improvements.

Rail Trails – Rail trails are rapidly becoming a popular approach to promote active transportation as well as provide recreational opportunities. The conversion of abandoned rail lines into trails addresses several needs, especially linking destinations of interest such as parks and schools to residential areas. The Capital Crescent Trail in **Washington, D.C.** is probably one of the most utilized rail-trails in the United States, and is an impressive example of cooperation between civic groups and local governments. It connects Georgetown, D.C. to Silver Spring, Maryland, and is 11 miles long. The trail is used for both recreational and commuting purposes, connecting residential, commercial, and employment centers. MPOs in Washington, Boston, and other cities throughout the United States have provided transportation funding to support rail trail conversion.

Bike Lanes – Surveys have repeatedly shown that bike lanes can help encourage people to bicycle. They also can provide a buffer between motor vehicles and pedestrians and direct motorists to be alert to the presence of bicycles. Where roadway width permits, bike lanes can be included on existing roads through restriping. They also can be included as a matter of standard practice on new or rebuilt roadways. A comprehensive network of lanes and other accommodations is much more effective than individual, isolated facilities. Beginning in 1991, the **Florida** Department of Transportation committed to convert most urban and rural highways to new designs with shoulders and bike lanes. The **Oregon** Department of Transportation documents 24 benefits from shoulders and bike lanes. Many state DOTs are realizing that the most efficient, safe and workable roadways include paved space that can be used for bicycling, and are establishing policies and design guidelines that require the accommodation of bicycle traffic through lanes or other means as appropriate.

Bike Support Facilities – Providing facilities to support bicycling has always been a major hurdle to overcome. One recent trend that seems to have provided a catalyst is the concept of providing safe and secure storage for bicycles (racks, lockers, and storage areas). The Millennium Park Cycle Center in **Chicago** is a full-service bicycle station that provides secure bicycle parking, showers and lockers, bicycle rentals, repairs, and a snack bar. With its convenient location in the heart of downtown, it serves thousands of commuters who may not

have access to these facilities at their workplace.⁸ Other areas are expanding bicycle parking. The **Boston** MPO is providing Federal CMAQ Program funds to assist local jurisdictions in purchasing bicycle racks. In addition, transit agencies in many cities are placing bike racks on buses to assist people in using a combination of bicycling and transit for longer trips.

Road Diets and Lane Width Reductions – “Road diets” and lane width reductions can provide additional road space for bicyclists, especially where road widths are constrained, and also can help to slow traffic, creating a more bicycle and pedestrian friendly environment. Road diets involve reducing the number of travel lanes and converting excess space to medians, turn lanes, and/or bicycle lanes. For example, a four-lane arterial can be restriped to two lanes, plus a center turn lane, plus bicycle lanes. In situations where traffic volumes are moderate and there are a significant number of left turn movements, road diets can improve safety with little or no impact on capacity. Cities such as **Lexington, Kentucky** and **East Lansing, Michigan** have implemented road diets on streets near universities where many bicyclists are present. Many cities also are finding that narrower travel lanes in urban areas can reduce speeds. For example, 12-foot lanes can be reduced to 11 or even 10 feet, with the extra space allocated to a wider outside lane, shoulder, or bicycle lane to accommodate bicyclists. **Bellevue, Washington**’s SE 148th Street is a significant four-lane, median divided parkway that moves 41,000 vehicles per day with 10-foot travel lanes. The roadway has an impressive safety record and has been operating this way for 20 years.

Sidewalk Improvements – Sidewalks need adequate width, buffers, continuity, connectivity, and edges. However, most cities do not emphasize the importance of good sidewalk design. Most areas permit sidewalks to be built in pieces. A house or store is built, and a portion of sidewalk is built. In contrast, roads and utilities are built in advance of an entire commercial center or neighborhood. Well designed and complete sidewalk systems will advance the interests of increasing walking and bicycling. Many state DOTs, such as **Delaware, Florida, Idaho,** and **South Carolina,** include sidewalk construction as standard practice when reconstructing state roads within municipalities; others are moving towards doing so on a broader basis.

Traffic Calming, Pedestrian Enhancements, and Transit Access Improvements – Traffic calming and pedestrian enhancement treatments such as bulb-outs, neck-downs, raised crosswalks, traffic circles, and median refuges can improve safety and make pedestrians more comfortable by slowing traffic and shortening street crossings. Transit improvements such as shelters and access pathways to stations can enhance the viability of transit, with its corresponding walk access trip. These treatments are especially appropriate in residential neighborhoods and commercial districts; near schools, hospitals, parks, and other pedestrian trip generators; and in corridors with frequent transit service. While traffic calming is usually implemented at a local level, some state DOTs have developed policies and guidance on the application of traffic calming. For example, the **Delaware** DOT has adopted its Traffic Calming Design Manual as part of its Road Design Manual. The manual covers standard procedures, application warrants, typical designs, and signage and markings. Cities including **Cambridge, Massachusetts** have implemented citywide programs to integrate traffic calming and pedestrian enhancements into scheduled street reconstruction, as well as at other key locations.

⁸ <http://www.chicagobikestation.com/>.

6.0 Conclusions

6.1 State of the Practice

The outreach for this project discovered that a surprising number of MPOs and DOTs – including at least 33 MPOs and 16 DOTs responding to the survey – are beginning to explicitly address health and physical activity within their transportation activities, and that others are considering doing so. For the most part, these efforts are still in the formative stages. Practices include discussing health and activity in vision statements, goals, and objectives in long-range plans; forming working relationships with health agencies and other organizations; and discussing health and activity as a motivating factor in undertaking specific projects and programs. Fewer agencies are identifying health and activity-related performance measures or evaluation methods, but nonetheless there is interest in these actions as well. Transportation agencies are addressing physical activity and health issues largely in response to interest in this topic from the general public and elected officials, but also because it supports other agency objectives directly related to transportation outcomes.

“In the short term, increased attention to physical activity/health in the planning process will simply provide further support for best development practices that our agency currently supports for other reasons (VMT reduction, air quality improvement, etc.). As further research becomes available to identify relationships between the built environment and health, and health becomes an integral part of transportation planning, specific programs or projects related to physical activity will likely be incorporated. This would occur above and beyond standard bicycle/pedestrian planning that occurs as part of the transportation planning process.” – Tracy Clymer, Program Manager, Atlanta Regional Commission

Whether or not they are explicitly addressing health and activity objectives, many transportation agencies have long been undertaking other activities that implicitly support these objectives, or are increasing their focus on these activities. Numerous examples have been observed in recent years in which MPOs and state DOTs are leading regional scenario planning and visioning efforts, working to coordinate transportation and land use, revising road design policies to support bicycling and walking, and increasing funding for bicycle and pedestrian improvement projects. These initiatives have largely been undertaken for other transportation objectives, such as reducing congestion and improving air quality. However, they are ultimately changing the transportation system and the built environment in a way that promotes bicycling and walking and, as a result, should improve public health through increased opportunities for physical activity.

The survey also found that public health agencies and organizations are becoming involved in transportation planning at all levels – including the statewide and regional level as well as with local governments. Health agencies are increasingly realizing the connection between transportation, the built environment, and physical activity, and in many cases feel that their engagement in the transportation planning process can result in positive outcomes for public health.

Significant barriers do exist to expanding linkages, however. Lack of funding, especially for projects, as well as limited agency staff time and resources for planning are commonly cited

reasons why more is not being done to promote physical activity through transportation. While most survey respondents tended to be supportive of the concept of using transportation to promote physical activity and health, there remains a significant viewpoint within the transportation profession that this issue is either outside of the scope of the transportation agencies' mission, or that insufficient resources are available to adequately address it. Perhaps expressing a sentiment that represents many nonrespondents, the planning manager at one mid-size MPO noted, "It is my opinion that transportation planning agencies are being asked to do too many things, and planning for 'physical activity' is one of them. We are in the business of moving people and goods, not improving public health."

6.2 Benefits, Success Factors, and Lessons Learned

The case studies and survey findings suggest a number of benefits resulting from efforts to address physical activity and health through transportation planning. The case studies also suggest some factors that support successful collaborations between transportation and health disciplines, as well as lessons learned for agencies interested in furthering their efforts in this area.

The potential benefits of collaborations between transportation and public health disciplines include:

- **Support for Mutual Objectives** – Transportation and health agencies both have an interest in increasing walking and bicycling. Walking and bicycling for transportation purposes supports transportation objectives of reducing vehicle-travel and infrastructure investment needs, as well as public health objectives of increasing physical activity. These disciplines also have mutual interests in improving traffic and pedestrian safety as well as improving air quality.
- **Sharing of Knowledge Resources** – Public health practitioners often have extensive experience with strategies, such as public outreach and education campaigns directed at modifying behavior, that can benefit transportation agencies. At the same time, transportation agencies' knowledge of transportation and community planning practice can assist health practitioners and other advocates in working to change transportation and land use policy at a local level.
- **Sharing of Financial Resources** – Partnerships may open up new funding opportunities that were not previously available. Bringing shared financial resources to bear in support of a common objective can lead to more being accomplished than either profession could accomplish by acting on its own. Money can sometimes be saved by combining similar efforts that would otherwise have been undertaken independently.
- **Expansion of Target Audience** – Access to partner agencies' communication channels can greatly expand the number of people who are reached with an agency's message. For example, people interested in health issues can be made aware of a transportation agency's regional planning initiative, while people interested in transportation can be made aware of a health department's physical activity campaign.
- **Greater Public Support for Transportation Plans and Projects** – Projects that improve conditions for walking and bicycling are popular with citizens in many communities, for their

quality of life as well as health benefits. By including a broad base of stakeholders – including health interests – in planning, as well as by designing projects that improve bicycle and pedestrian infrastructure, transportation agencies can achieve greater public support for their activities.

“SANDAG has a history of advancing walkable, bicycle-friendly facilities and community design as a means of providing transportation alternatives. Recognizing the need to support projects that promote physical activity will strengthen our ability to gain political and financial support for these programs.” – Stephen Vance, Senior Regional Planner, San Diego Association of Governments

- **Improved Understanding of Engineering Issues** – Walkable community workshops, as well as other methods of engaging nontraditional stakeholders in transportation planning and design, can improve the public’s understanding of the issues and tradeoffs facing engineers when they design roadways. This can help establish a more sympathetic relationship between the general public and the state or local transportation agency.
- **Improved Quality of Life** – Ultimately, both the transportation and public health professions are interested in improving people’s quality of life – whether through mobility improvements, better health, or other means. Collaboration among disciplines increases the chances that public policies and investments will result in actions that benefit the public in all ways, rather than working at cross-purposes with each other.

Factors identified that support successful collaboration and linkage between the transportation and health disciplines include:

- **Leadership** – Positive working relationships and collaborations among disciplines are initiated – and sustained by – individual initiative, where key staff in leadership positions have expressed an interest in working together and invested personal as well as agency resources in doing so.
- **Regional Planning** – Regional visioning and scenario planning efforts that link land use and transportation can provide an important starting point for addressing health and activity concerns. Transportation agencies, especially MPOs, play a logical role in facilitating these efforts.
- **Funding** – The provision of resources is an important catalyst. Many of the activities documented in the case studies were funded through outside programs such as Active Living by Design or grants from the Centers for Disease Control. Once the initiatives are underway and their value is demonstrated, however, agencies have worked to set aside additional funding from existing sources (such as transportation planning funds), to continue these activities.
- **Cross-Training and Information Sharing** – Cross-training and sharing of expertise with other professionals across disciplinary boundaries can be critical in helping transportation and public health agencies work towards their mutual objectives, especially given the traditional differences in approaches and language between the two professions.

Some lessons learned from agencies' experiences to date include:

- **State DOTs as well as county and local governments are critical partners** in initiatives to link transportation planning and physical activity. MPOs and other regional agencies may conduct transportation planning, but they do not have responsibility for the details of transportation project design or implementation, or for land use regulations and development projects. Supportive state and local agency policies are therefore critical to any initiative to improve public health through transportation and community design.
- **There may be value in developing a coordinated approach to transportation and physical activity.** Most efforts to date by transportation agencies have been a loose collection of related activities. Much can be done by building on existing activities such as planning for nonmotorized travel or transportation-land use coordination. On the other hand, grouping programs in a coordinated approach (such as the NJFIT program) can help create a set of unified messages that improves public understanding, improve program focus, and coordinate programs by different agencies or departments that are undertaken with similar objectives.
- **More attention is required to monitoring and evaluation.** Agencies are just beginning to consider how to monitor and evaluate health and activity outcomes, but are realizing this is an important task. The public health field has traditionally placed a strong emphasis on evaluation and outcome measurement. Interest among transportation agencies in performance-based planning and performance measurement has grown significantly in recent years, providing a foundation for incorporating activity and health-based measures into transportation planning. For most agencies, monitoring and evaluation of physical activity outcomes may require greater investments in data collection as well as modeling tools.
- In general, **concrete outcomes remain to be demonstrated** (e.g., increased physical activity and resulting health benefits). Changing practices takes time, especially to the point where changes to the built transportation infrastructure and community environment are extensive enough to measurably affect behavior. Measurement of health outcomes is further complicated by numerous other intervening factors. Research is still in progress to establish firmer links among the built environment, activity, and ultimately health outcomes.
- **Failures are to be expected, and adaptability is important.** Especially when treading into unfamiliar territory, agencies recognize that they learn from their experiences and may need to make mid-course adjustments – for example, to address partnerships that are not being productive, or programs that they are not finding effective.
- **Long-term attention is required.** It takes time to build strong working relationships among different disciplines and change practice in a meaningful way. Persistence, however, can pay off when the opportunity for significant policy change arises – for example, with a change in political or administrative leadership.

6.3 Strategies for Implementation

As illustrated in the case studies as well as the examples described in Section 5.0, a variety of strategies and actions are available by which transportation agencies can work to integrate physical activity and health considerations into transportation planning. These actions are summarized in Table 1.1 of Section 1.0. It is not necessary to undertake all - or even the majority - of these actions in order to improve opportunities for active transportation. A comprehensive approach, however, will include actions from each of the five “P” strategies. Also, some actions - such as partnership formation, street design policies, and implementation of physical projects - are likely to be fundamental components of any agency’s efforts. Furthermore, actions such as coordinated land use and transportation planning and a context sensitive solutions approach are being undertaken by many agencies for a wide range of objectives, of which promoting physical activity and health may be just one.

The task of integrating health and activity issues into transportation planning should not fall only on the transportation agency. A variety of actions also are available that public health organizations can take, both through their own projects and work programs, and by collaborating with transportation agencies (as well as land use planning agencies) and working within the statewide, regional, and local transportation and land use planning processes. Some of these possible actions are described in Table 1.2 of Section 1.0. Again, a comprehensive program to link these issues will not include every action, but will probably include actions supporting each of the five “P” strategies. Collaboration with other supportive agencies especially on issues such as research, data collection, policy development, and outreach is most likely to result in actions that benefit each agency’s mutual interests and make more effective use of limited resources.

Appendix A

Resources

Resources

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Web Sites

Active Living by Design Program, Robert Wood Johnson Foundation. <http://www.activelivingbydesign.org/>. Includes research, publications, fact sheets, tools, and other resources related to changing environments to support physical activity.

Centers for Disease Control and Prevention. Physical Activity Resources for Health Professionals: Active Environments: ACES – Active Community Environments Initiative. http://www.cdc.gov/nccdphp/dnpa/physical/health_professionals/active_environments/aces.htm.

Complete the Streets. <http://www.completestreets.org/index.html>. Includes information on the adoption and benefits of "complete streets" policies.

National Association of City and County Health Officials. Land Use and Health Toolbox: Resources on Health and the Built Environment. http://www.naccho.org/topics/hpdp/land_use_planning/LUP_Toolbox.cfm.

Transportation Planning Capacity Building Program, Federal Highway Administration, and Federal Transit Administration. <http://www.planning.dot.gov/> Includes resources on transportation planning methods and programs.

Appendix B

Survey Target Groups and Other Contacts

Survey Target Groups and Other Contacts

Survey Target Groups

A request to complete the Internet survey was distributed to the following organizations' members through their e-mail listservs:

- Association of Metropolitan Planning Organizations;
- Association of Pedestrian and Bicycle Professionals;
- Institute of Transportation Engineers Transportation Planning Council;
- National Association for Health and Fitness; and
- National Association of County and City Health Officials.

E-mails also were sent to the following lists of individuals:

- National Coalition for Promoting Physical Activity – State Affiliate Contacts;
- Rails to Trails Conservancy – Regional Affiliates;
- State Departments of Health – Physical Activity Coordinators;
- State Departments of Transportation – Planning Directors/AASHTO Standing Committee on Planning Membership; and
- State Departments of Transportation – Bicycle and Pedestrian Coordinators.

Other Contacts

As part of the outreach to identify innovative practices on linking transportation planning, physical activity and health, informal contacts were made with officials from the following organizations:

- Active Living Network and Active Living Research;
- Association of State and Territorial Directors of Health Promotion and Public Health Education;
- Association of State and Territorial Health Officials;
- Centers for Disease Control and Prevention;
- U.S. Environmental Protection Agency – Office of Smart Growth;
- Federal Highway Administration – Safe Routes to School Program;
- Federal Highway Administration – Bicycle and Pedestrian Program;
- Federal Highway Administration – Transportation Planning Capacity Building Program;

- Federal Transit Administration;
- Institute of Transportation Engineers;
- League of American Bicyclists;
- Livable Streets, Inc.;
- Local Government Commission;
- National Association of Regional Councils;
- National Center for Bicycling and Walking;
- National Coalition for Promoting Physical Activity;
- National Park Service – Rivers, Trails, and Conservation Assistance Program;
- National Safe Routes to School Partnership;
- Rails to Trails Conservancy;
- Shaping America’s Health Campaign;
- Smart Growth America;
- Surface Transportation Policy Project;
- Volpe National Transportation Systems Center;
- Walkable Communities Inc.; and
- YMCA Activate America Campaign.

Contacts also were made with practitioners at the following state and local agencies:

- City of Boulder;
- City of Cleveland;
- City of Oakland;
- Michigan Governor’s Council on Physical Fitness, Health and Sports;
- Minnesota Communities on the Move;
- Minnesota Department of Health;
- New Orleans Regional Planning Commission;
- Pennsylvania Advocates for Nutrition and Activity;
- State of Oregon;
- State of Washington Department of Health;
- Town of Chapel Hill;
- Upstate Forever – South Carolina;
- Walk Sacramento;
- Wellness Institute of Greater Buffalo; and
- Wilkes Barre, Pennsylvania.

Appendix C

Detailed Survey Results

Detailed Survey Results

1. From the list below, which category best describes your organization?

Respondents: All

	Number	Percent
Federal Government	2	1%
State Government	50	35%
<i>State DOT</i>	23	16%
Local Government	9	6%
MPO or RTPO	57	40%
Nonprofit	13	9%
Alliance/Partnership	1	1%
Private Sector	5	4%
Academic	0	0%
Other	4	3%
Total	141	

2. Is your organization responsible for transportation planning?

Respondents: All

	Number	Percent
Yes	90	65%
No	49	35%
Total	139	

3. Is your organization explicitly addressing – or considering addressing – physical activity and related public health impacts within the transportation planning process? Examples might include: Public health or physical activity-related goals; objectives; policies; or performance measures; Partnerships with public health agencies or advocacy groups promoting physical activity; Health or physical activity-related project prioritization/selection criteria.

Respondents: Transportation Agencies (answered “yes” to Q2)

	Number	Percent
Yes	54	60%
No	32	36%
I Don't Know	4	4%
Total	90	

4. In what ways is your organization explicitly addressing – or considering addressing – physical activity and related public health impacts within the transportation planning process? (Check one response for each row.)

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “yes” or “I don’t know” to Q3

	Already Doing		Considering for the Future		Not Currently Doing or Considering		Don't Know		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Mentioning public health or physical activity in a vision statement or policy statement									
	28	48%	14	24%	9	16%	5	9%	
State DOTs	6		2		4		3		
MPOs and RTPOs	17		11		4		0		
Including public health or physical activity-related goals and objectives in a long-range plan									
	31	53%	17	29%	4	7%	2	3%	
State DOTs	7		5		2		0		
MPOs and RTPOs	19		11		2		0		
Conducting outreach to or establishing partnerships with public health agencies or advocacy groups promoting physical activity									
	41	71%	10	17%	4	7%	1	2%	
State DOTs	13		3		1		0		
MPOs and RTPOs	23		6		3		0		
Discussing public health as a motivation for undertaking specific transportation programs, projects, or initiatives to increase physical activity									
	38	66%	12	21%	3	5%	1	2%	
State DOTs	9		5		1		0		
MPOs and RTPOs	25		6		2		0		
Discussing public health or physical activity as a motivation for undertaking policies or initiatives to promote land use change (e.g., walkable communities, compact development)									
	38	66%	7	12%	7	12%	2	3%	
State DOTs	8		3		4		1		
MPOs and RTPOs	26		4		3		0		
Establishing performance measures and/or targets related to physical activity and/or its health impacts									
	6	10%	20	34%	19	33%	7	12%	
State DOTs	0		6		6		3		
MPOs and RTPOs	3		13		13		3		
Incorporating physical activity and/or its health impacts into project prioritization/selection criteria									
	12	21%	18	31%	19	33%	4	7%	
State DOTs	1		6		8		0		
MPOs and RTPOs	7		12		11		3		
Employing analytical methods to estimate physical activity and/or its health impacts									
	4	7%	15	26%	28	48%	5	9%	
State DOTs	0		3		10		2		
MPOs and RTPOs	2		10		18		2		
Other	8	14%	0	0%	1	2%	1	2%	
Total Respondents								58	

“Other” Responses:

- Also, working with safety and injury/accident prevention side of public health.
- Brief mention in the Long-Range Plan/Nonmotorized Transportation section.
- Health Impact Assessment Tool being developed for site plan review; Regional Land Use health Team.
- Incorporating into area plan for age-friendly community.
- Involving health as a factor in citizen education about environmental factors for physical activity.

- Mobilized and chair 22 county Susquehanna Greenway Partnership.
 - Providing direct funding to multiple state agencies and partners.
 - We facilitate safe routes to school and have a Bicycle Mobility Advisory Committee and a Pedestrian Mobility Advisory Committee and were instrumental in getting bicycle racks on 100 percent of the buses.
5. If your organization is addressing or considering addressing physical activity and/or its public health impacts, please rate the importance of each motivating factor.

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “yes” or “I don’t know” to Q3

	Not a Motivating Factor		A Secondary Motivating Factor		A Primary Motivating Factor	
	Number	Percent	Number	Percent	Number	Percent
Supports other agency objectives (reduce VMT, improve air quality, etc.)	3	5%	16	28%	3	5%
Agency views public health as an important objective	5	9%	29	50%	22	38%
Responds to community/public input	3	5%	19	33%	33	57%
Responds to political/administrative leadership	11	19%	18	31%	23	40%
Takes advantage of funding opportunities	14	24%	16	28%	22	38%
Other	3	5%	18	31%	32	55%
Total Respondents	58					

“Other” Responses:

- Helps establish new power configurations that enable policy change.
 - It’s just the right thing to do - tying land use and transportation planning together.
 - Promotes public health safety and welfare and regional land use vision.
 - Reduces/eliminates need for large expensive transportation infrastructure projects.
 - Safe Routes to School.
 - Supports quality of life and thus economic development.
6. Has your organization conducted outreach to or worked in partnership with other disciplines on physical activity issues? If so, which ones? (Check all that apply.)

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “yes” or “I don’t know” to Q3

	Number	Percent
Public health agencies	43	74%
City planning	36	62%
Parks/recreation	38	66%
Landscape architecture	9	16%
Advocacy groups	37	64%
Healthcare/hospitals	20	34%
Educations/schools	27	47%
Other transportation agencies	34	59%
Other	14	24%
Total Respondents	58	

“Other” Responses:

- Bicycle club; greenway committee.
- County Planning; community service organizations – Rotary Clubs.
- Driver education and traffic safety education organizations.
- Governor Council of Physical Fitness; Statewide Conference Committee representing numerous professional organizations; very lengthy list which includes developers, planners, ITE and numerous environmental and other stakeholder groups (nutrition advocates, etc.).
- Governor’s Commission on Physical Activity.
- Governor’s Council on Physical Fitness, Governor’s Traffic Safety Advisory Committee, Cool Cities.
- In the future, will be working with a regional coalition of groups dedicated to promoting healthy and active lifestyles.
- Local universities.
- MPO and rural regional planning groups.
- National work with FHWA and other partners.
- Only in conjunction with the Safe Routes to School Program.
- Public health researchers.
- Regional Greenways Commission.
- YMCA.

7. What accomplishments have been achieved so far as a result of this collaboration?

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “yes” or “I don’t know” to Q3

	Number	Percent
Preparation (e.g., partnerships, assessments, meetings, surveys)	34	59%
Promotions (e.g., fact sheets, news stories, signage, media campaigns)	28	48%
Programs (e.g., safe routes to school, commuter choice, complete streets, livable communities planning)	37	64%
Policy (e.g., incentives to walk/bicycle, roadway or trail design manuals, plan goals and objectives, land use policy)	40	69%
Physical projects (e.g., sidewalks, bikeways, trails)	40	69%
Other	8	14%
Total Respondents	58	

“Other” Responses:

- Bicycle/pedestrian integration into all urban projects, collector and above.
- BTW 2005 and now 2006.
- Designing Healthy Communities Conference, Design Guidelines for Active Living.
- Greenway Master Plan Update (in progress).
- Health Impact Assessment Team, jointly funded position, numerous others.
- Planning and studies supporting bicycle trails and walkable communities.
- Scope of work for integrating Health Impact Assessment into transportation planning process.
- Walkable/Smart Growth Incentive programs.

8. What changes (if any) to transportation plans, programs, and projects have been realized, or are being considered, because of your organization's attention to physical activity and/or its health impacts?

Respondents: Transportation Agencies (answered "yes" to Q2) AND answered "yes" or "I don't know" to Q3

- 1) A Nonmotorized Transportation Advisory Committee (TAC) has been formed; 2) TAC-sponsored Dan Burden Active Communities Environment workshops for seven local cities and a college to help incorporate more walkable environments into their planning; 3) county bicycle map is being completed; 4) prioritized trails and connectivity list has been created for county. Active Community Environment Assessments have been conducted in three local cities and shared with mayors, council and planning commissions; and 5) wrote a Safe Routes to School Grant to Washington DOT, which was funded. Will complete streets, gutter, curb, and sidewalks in two school zones, a pedestrian education program and yield to pedestrian enforcement campaign.
- A Pedestrian Design Assistance Program, Bicycle Design Assistance Program, Elderly Mobility Program, regionwide mid-block crossing policy, Pedestrian Policies and Guidelines, collaborations with community partners.
- Adopted department-wide "smart growth" policy; added related goals and objectives to LRP; created "pipeline" process that focuses resources more clearly on small and nonauto projects; adopted statewide bicycle and pedestrian master plan; more!
- An integrated plan for the future greenway, sidewalk/pedestrian, and on-street bicycling facility needs is under development. public health has been an important consideration, and we have had participation from health officials and interests.
- Awareness of the problem.
- Bicycle/walk components receive higher priority than before; some projects get extra points for including bicycle/walk components.
- Collaborative approach at operations level within Department and across agencies, commitment to Context Sensitive Solutions, more attention to trails as transportation, emphasis on nonmotorized safety objectives.
- Establishing a Safe Routes to School Program working in cooperation with 11 MPOs and 12 RPOs. Emphasis within the Enhancement Program has been bicycle/pedestrian-funded projects.
- Focus on "livable" communities has increased. Focus on air quality will become increasing factor.
- Health professional involvement in various department programs and committees has affected project funding and Department objectives, policies, etc.
- Implemented bicycle and pedestrian checklists into the Roadway Design Manual of Instruction; designers must consider bicycle/pedestrian accommodations for projects on a state route.
- In the short term, increased attention to physical activity/health in the planning process will simply provide further support for best development practices that our agency currently supports for other reasons (VMT reduction, AQ improvement, etc.). As further research becomes available to identify relationships between the built environment and health, and health becomes an integral part of transportation planning, specific programs or projects related to

physical activity will likely be incorporated. This would occur above and beyond standard bicycle/pedestrian planning that occurs as part of the transportation planning process.

- Include health care professionals on advisory boards to the MPO.
- Incorporating the concept of a sustainable transportation system in our long-range transportation plan.
- Increased interest in Trails development. Recent education of local staff into the positive effects of trails and future on road bicycle routes.
- May provide direct health targets in next long-range plan. May consider a program in joint with health care agency.
- More emphasis on bicycle/pedestrian projects than previous as alternative modes of transportation.
- Negotiation of rights-of-way for trails at development plan approval stage, especially through commercial and institutional uses.
- New nontraditional partnerships have resulted in new stakeholders being at the table, new projects being funded and broad-based community education efforts which extend throughout the region and at a statewide basis-MPO has primary partnership with Health Department-Executive Director Chairs Regional Land Use Health Team, Transportation Director Participates on Statewide Conference Committee currently planning third Designing Healthy Livable Communities Conference, APA PAS Best Practices Community.
- None except the increased interest in certain Transportation Enhancement-funded projects.
- Numbers of physical design changes have been made as a result of the ALbD program. Crossing walks, stop lights, stop signs, flashing school zone lights as well as a number of other changes.
- One of our three goals outlined in our update to the Long-Range Transportation Plan is 'quality of life.' While 'quality of life' incorporates many aspects we believe physical activity is a major component.
- Our Policy Board reserves approximately 15 percent of our annual set-aside from STP Metropolitan Mobility funds for stand alone bicycle and/or pedestrian projects.
- Pedestrian connections are considered in all new subdivision plans reviewed by City staff whereas a few years ago this was not necessarily the case and the assumption was that all travel would be made by car even the short trips.
- Recognition by upper management of need to accommodate bicycle and pedestrian modes as legitimate users of public right-of-way.
- Safe Routes to School program is integrated into transportation planning processes.
- SANDAG has a history of advancing walkable, bicycle-friendly facilities and community design as a means of providing transportation alternatives. Recognizing the need to support projects that promote physical activity will strengthen our ability to gain political and financial support for these programs.
- Several municipalities have created Walkability and Bikeability plans, or incorporated such into their Comprehensive Plans. We also have seen several trail construction projects. Numerous road projects have added pedestrian and bicycle accommodations. BC Walks program – see www.bcwalks.com
- Sidewalk construction and rehabilitation is now a standard element in all City street projects. Shared use bicycle and pedestrian paths have been designed and funded (but not yet built) to provide linkages between recreation areas and residential concentrations.

- The Boston Region MPO conducts Walkable Community Workshops in municipalities interested in pedestrian and bicycle improvements. It also is conducting a study to recommend bicycle/pedestrian improvements in six small town centers in the region. The MPO has conducted several bicycle path feasibility studies over the years and has provided significant support for the bicycle/pedestrian mode through counts, surveys, coordination, and participation in seminars, workshops, and conferences. The MPO also considers whether a project will improve bicycle or pedestrian facilities as it considers projects for the TIP.
- The department's long-range strategic plan is working with organizations like the walkable community, biking groups, and other nonmotorized groups to enhance our planning process.
- The LRTP requires the development of a bicycle/pedestrian plan within the next one to three years, but additional resources are being put into this project now (a paid intern). The intention is to mesh the bicycle/pedestrian planning process with the Safe Routes to School program as soon as guidelines are announced by state DOT. The MPO has requested to serve on the advisory committee to assist the SRTS Coordinator in preparing guidelines. Schools and surrounding land use and population within two miles are being studied. Coordination efforts are beginning with Health Department officials who previously expressed interest in increasing physical activity among students through walking/biking.
- The physical activity goals are embedded within the larger goals of healthy communities – walkable, bikeable, transit-accessible, with compact development in and around existing communities. All MPO and (nearly all) TJPDC (surrounding rural counties) plans, programs, and projects embody these goals and work towards implementation. Built projects are lagging behind goals due to statewide transportation funding crisis, and a legacy list of unbuilt roadway projects. Significant effort is going towards agency action agenda to expedite new multimodal solutions. UnjAM 2025 long-range plan allocated 10 percent of funding towards walk/bicycle/transit projects (believe it or not, a significant increase), as well as new policy of building sidewalks and bicycle lanes at same time as new roads. Just two years later, MPO's Funding Options Working Group confirmed a \$100 million project priority list with one-third of the funds for walk/bicycle/transit.
- The state department of health is a relatively new member of our transportation advisory committee. There are public health benefits to be realized not only in physical activity, but also safety and air quality.
- Too many to list right now.
- Traffic calming measures have been and will be implemented by Department of Roads, trails funded for construction.
- Very little at this point. We are just beginning to update our Long-Range Transportation Plan, so there might be changes there. And while we are just starting up a state SR2S Program, the State has been involved with a pilot program with our one MPO for the last two years, so we are able to hit the ground running. Also, the State's administration has been looking at health issues related to the elderly, and our Agency (primarily Transit) has been part of that task force.
- We are bringing the idea that there are viable alternative transportation modes that do not use energy and do not pollute. We also are bringing pedestrian and cyclist issues into the focus for future planning.
- We currently are developing the first MPO plan for this area. As such, "changes" will be included in that first document.
- We are incorporating ALBD (initially funded through RWJF) into plans and regular ongoing work program of MPO, including partnership with Health and Activity agencies

and advocacy groups, increased effort of policy to assure implementation of goals for complete streets/multimodal/streets as public spaces and gathering places rather than just to move autos, facility design program to assure context sensitivity and environment/social justice to make sure design of facilities change as the adjacent neighborhood/land use changes. Also, incorporating advocacy and promotion of compact mixed use/walkable/transit-oriented development patterns into general regional and local land use/urban design projects; in an effort to decrease future/unnecessary transportation facilities. We are a regional planning agency where an MPO is housed/staffed.

- We are incorporating bicycle and pedestrian facilities into all future construction projects for urban facilities classified urban collector or higher.
 - We have a policy for context sensitive solutions that may direct some activity of the organization towards provisions for physical activity.
 - We will hopefully expand our planning capability for bikeways and pedestrian projects in the near future by forming an active advisory group for implementing and recommending projects. To date very little has been done here because of this agency’s attention to physical activity, but there is interest in changing this paradigm but it will be a long process.
 - While health has not served as a primary motivation, it has often served as warrant for the need to include alternative transportation as a consideration.
 - Working on a “bicycle-friendly community” designation for the area.
 - Yearly Walkable Community Workshop program; Concept Plans for key corridors that include pedestrian amenities.
9. Are there other ways in which you believe your organization could better address physical activity and/or its health impacts through transportation decisions?

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “yes” or “I don’t know” to Q3

	Number	Percent
Yes (if so please specify in the field below)	33	59%
No	3	5%
I Don’t Know	20	36%
Total Respondents	56	

Note: Comments with “yes” responses were not captured due to a problem with the survey functionality

10. If your organization currently is not addressing physical activity or its health impacts as part of the transportation planning process, are you considering doing so in the future?

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “no” to Q3

	Number	Percent
Yes	8	25%
No	24	75%
Total Respondents	32	

11. Has your organization undertaken or considered other activities that indirectly support physical activity? If so, please identify. (Select one response for each row.)

Respondents: Transportation Agencies (answered “yes” to Q2)

	Already Doing		Considering for the Future		Not Currently Doing or Considering		Don't Know	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Improving pedestrian and bicycle travel data collection or modeling techniques	38	42%	36	40%	16	18%	0	0%
linking land use and transportation planning to create more walkable/bikeable places	58	64%	21	23%	8	9%	3	3%
Developing plans for pedestrian and bicycle improvements	82	91%	7	8%	0	0%	1	1%
Changing design policies and practices to better accommodate pedestrian and bicycle travel	59	66%	15	17%	11	12%	3	3%
Increasing funding for pedestrian and bicycle projects or outreach programs	47	52%	29	32%	11	12%	2	2%
Other	10	11%	0	0%	0	0%	2	2%
Total Respondents	90							

“Other” Responses:

- A highly detailed bicycle and pedestrian plan is part of the next MPO work program.
 - Bike to Work Day promotion, NCBW Walkable Workshop series and Safe Routes to School program hosting, etc.
 - Broad regional education efforts in process.
 - Currently reviewing VDOT’s “Policy for Integrating Bicycle and Pedestrian Accommodations” to ensure full implementation and department-wide consistency.
 - Developing urban design guidelines to support walkable communities.
 - Greenways planning and implementation.
 - Increased funding for bicycle and pedestrian facilities is coming through Federal funding. The State hasn’t increased any funding towards those goals.
 - Initiating statewide Transportation and Housing Alliance.
 - Linking land use and transportation is required in Oregon. Additionally, Oregon requires that new or reconstructed arterial and collector streets accommodate bicyclists and pedestrians.
 - PA WILDS outdoor physical activity marketing.
 - Transforming driver education with our New Mobility Education initiative.
 - Walkable community audits, Training Wheels (training engineers to design bicycle facilities and incorporating bicycle tours of various bicycle facilities into the training).
12. If you answered “yes” to any of the previous activities that support physical activity, please rate each of the following considerations as a motivating factor for doing so.

Respondents: Transportation Agencies (answered “yes” to Q2) AND answered “yes” to Q11

	Not a Motivating Factor		A Secondary Motivating Factor		A Primary Motivating Factor	
	Number	Percent	Number	Percent	Number	Percent
VMT reduction	16	18%	27	30%	45	50%
Air quality	12	13%	32	36%	45	50%
Public health	13	14%	51	57%	25	28%
Infrastructure cost savings	29	32%	35	39%	23	26%
Community livability	5	6%	21	23%	63	70%
Other	2	2%	1	1%	9	10%
Total Respondents	90					

“Other” Responses:

- As noted on the prior question, linking transportation and land use is required in Oregon is as providing sidewalks/bicycle lanes on arterial and major collector roadways.
- Availability and applicability of CMAQ funds.
- Availability of dedicated funding. The Governor’s focus on “quality of life.”
- Creating transit-supportive communities.
- Environmental and natural resource protection (fields, forest, streams).
- Improved safety for pedestrians and bicyclists.
- Increasing technological literacy for improved democracy.
- Mandate of state law and Federal funding and Department Guiding Principal.
- Moving to Sustainability.
- Providing for a multimodal transportation system.
- Public demand.
- To promote a balanced mix of transportation alternatives.
- Transportation choice requires pedestrian and bicycle infrastructure (transit requires pedestrian infrastructure).

13. Have health issues related to physical activity been raised as concerns within the transportation planning public involvement process?

Respondents: Transportation Agencies (answered “yes” to Q2)

	Number	Percent
Yes	42	47%
No	32	36%
I Don’t Know	16	18%
Total Respondents	90	

“Yes” Responses:

- ALBD health partners/LOWV/general citizens.
- At public events sponsored by the organization.
- By Bicycle groups.

- By Blue Ridge Bicycle Club.
- By members of former citizens advisory committees for our bicycle and pedestrian plan.
- By parents, Legislators, many others.
- Citizens, planners, advocacy groups, elected officials.
- Comments received at public meetings.
- County Commissioners and City Council people and MPO staff.
- Elderly and handicapped advocates, Department of Health.
- Health advocates and citizens.
- Health, cycling/walking advocacy groups.
- Issue raised as part of public outreach activities with the development of the 25-year multi-modal, long-range transportation plan.
- It is not uncommon to hear the public voice concern about the auto-dependent infrastructure in place in Atlanta and the desire to see more bicycle/pedestrian facilities for recreation, commuting to work, etc.
- Mentioned at a bicycle/pedestrian focus group meeting in preparation of the LRP was “need to educate students about the benefits of biking and walking” (health-related).
- MPO members (very limited basis).
- NYS Department of Health.
- Obesity Research by UIC as a result of public interest.
- On individual projects in the NEPA process.
- Our Transportation Commission has brought this up during discussions of long-range plan and bicycle/pedestrian plan.
- Overall health, childhood health, obesity, pedestrian safety.
- Public health officials.
- Public health officials and schools.
- Public health partners and community members; also under Comprehensive Transportation Safety Plan process and as required under SAFETEA-LU.
- Public interest groups.
- Representatives of the aging population, and health sector professionals.
- Rogue Valley Transportation District TDM Planners.
- RTPPO Transportation Manager.
- Seniors, advocates, universities.
- Some community people may raise concerns about the walkability of a project.
- Some members of the public have raised the concern for improved public health in their requests for improved bicycle and pedestrian accommodations.
- The bicycling community.
- The MTPO-Technical Advisory Committee and others have raised the issue of the link between obesity and the design of our land use and mobility systems and the need to better design them so that nonmotorized transport is a more viable option.
- There is definite interest among regional organizations in this issue, with advocacy folks pushing for more bicycle/pedestrian and transit. Many advocate for projects that support more compact, mixed-use “livable” communities.

- We are just beginning development of the first MPO plan. This issue has not been raised in the limited public process to date. I expect it to be raised in the future.
 - We have broadly engaged and partnered with public health and other advocacy groups on this issues. It is a focus that is directly on the MPO stage.
 - When I say health, I mostly mean survival.
14. What barriers, if any, exist to your organization addressing physical activity in transportation planning?

Respondents: Transportation Agencies (answered “yes” to Q2)

	Number	Percent
Funding	61	68%
It’s not a priority for my agency	29	32%
Time	40	44%
The public wasn’t interested in this topic	12	13%
Other	17	19%
Total Respondents	90	

“Other” Responses:

- A priority, but not the Department mission.
- Awareness.
- Cultural attitudes, public and institutional apathy, ignorance, preference for auto.
- FHWA guidance, still cascading through organization.
- Funding is always an issues and in some cases the public does not support the additional right-of-way necessary to provide bicycle and pedestrian facilities.
- Funding is more of an implementation problem for us.
- I think physical activity has always been considered an indirect benefit of our well-developed bicycle, pedestrian, and greenways program.
- It is considered to be implicitly addressed, but not explicitly at this time. There are no real barriers other than transportation planning is our priority.
- Knowledge of how to approach the topic.
- More inertia than anything.
- No barriers to addressing; probably limits to how deeply it can be addressed.
- Prioritizing “new” emphasis areas as outlined by SAFETEA-LU have been and will be the highest priorities over the next year or so (e.g., improved connection with land use, consultations, environmental linkages, etc.).
- Public opposition to dense development.
- Quantifying the results.
- Skepticism regarding “direct” causality.
- State DOT and FHWA.
- State DOT support does not exist.
- This is only a partial barrier. The MPO funds bicycle and pedestrian activities, but funds are not unlimited.
- This issue is just emerging in the consciousness of decision-makers.

15. Does your organization have a primary goal for doing work that promotes physical activity through transportation plans, programs, and/or projects?

Respondents: Nontransportation Agencies (answered "no" to Q2)

	Number	Percent
Yes (If so, please specify below)	34	69%
No	13	27%
I Don't Know	2	4%
Total Respondents	49	

"Yes" Responses:

- 2005 Board of Health resolution contains calls to action to: Revise comprehensive plans/zoning codes to increase PA opportunities in new areas; and Prioritize capital improvement projects to increase physical activity opportunities in existing areas.
- A very small program of our Health Department focuses on increasing active living among our general population and increasing use of alternative transportation to worksites (air quality and obesity prevention funds).
- Community Development assists with Preventative Health Initiatives that promote healthy lifestyles for low-income families.
- Disseminate Safe Routes to School, engagement in town land use planning.
- Incorporating physical and the built environment.
- Indirectly. PA is our top priority. We support PH PA workers in state health departments, who advocate changes to the environment that promote PA.
- Involved in City Long-Range Transportation Plan.
- It's in our CA Obesity Prevention Education Plan and in several policy statements.
- My job involves changing the environment and policies to promote physically active lifestyles around the State of Montana. Promoting active transportation is one of the primary ways we will be doing this.
- Our agency has developed a community assessment tool that looks at the built environment and how it impacts physical activity. The tool was designed to assist communities in future planning efforts to increase PA within in the community population.
- Physical activity promoted through various settings, including land use and transportation planning.
- Promote bicycle/pedestrian section in transportation plans.
- Promotes physical activity through programs, and links with departments of transportation, TMAs, and other projects looking at the environment and how it supports the individual to be healthy.
- Promotes through all efforts.
- Promoting a walkable community.
- Reduce obesity.
- Review and comment on local master plans and development applications.
- Safe Routes to School Highland PTA.

- The Healthy Heart Programs aims to reduce mortality due to heart disease by improving physical activity levels and good nutrition in the populace. Walking, biking, hiking, kids walking to school, etc. – all fit into this plan.
- Through 25 grants to increase PA through community design.
- We advocate for transportation infrastructure that supports walking and walkable communities.
- We currently are working with MA Metropolitan Planning Districts, City/Town Planners, and promoting activities such as “Rails to Trails.”
- We are doing research and community outreach projects for livable communities.
- We are promoting smart/sustainable growth which is inherently linked to health and well being.
- We collaborate with our Department of Transportation on bicycle and pedestrian projects, Safe Routes to Schools programs, and other built environment plans or projects relevant to health.
- We have been actively promoting and conducting P.A. programs emphasizing the impact that transportation has on one’s ability to be physically active for over five years.
- We have this as a goal, though not primary.
- We help local health departments have the capacity to engage with local planners and transportation planners to insert health considerations into a variety of planning processes.
- We lobby local government for pedestrian and bicycle safety.
- We recently allocated funding, and created a position to hire a professional who would begin efforts in this areas.
- We work with transportation and land use partners to promote greater accessibility to places for physical activity, including sidewalks, trails, parks, etc.

16. How would you describe the focus of your current work on physical activity in relation to transportation (walking, bicycling, etc.)? (Check all that apply.)

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
Preparation (e.g., partnerships, assessments, meetings, surveys)	41	84%
Promotions (e.g., fact sheets, news stories, signage, media campaigns)	37	76%
Programs (e.g., safe routes to school, commuter choice, complete streets, livable communities planning)	37	76%
Policy (e.g., incentives to walk/bicycle, roadway or trail design manuals, plan goals and objectives, land use policy)	28	57%
Physical projects (e.g., sidewalks, bikeways, trails)	18	37%
Other	9	18%
Total Respondents	49	

“Other” Responses:

- Assistance in incorporating public health issues into the FHWA State Highway Strategic Plan.
- Created state obesity prevention plan that includes recommendations for transportation planning and physical activity.
- Currently, pushing update of local land use plan and working for incorporation of sidewalks into specific projects.

- Encourage alternative means of transportation as a way to increase PA.
- Facilitate networking of the state PH PA workers (and their bosses), who are variously involved in all of the above.
- Health education.
- Health impact assessments of transportation and redevelopment projects.
- Staffing Coalition infrastructure and providing related training.
- Trainings on what planning is and how local health departments can become involved in planning efforts to promote physical activity.
- Use of market research data to understand transportation characteristics relative to public health.

17. From the same list, what is your primary focus? (Choose one response.)

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
Preparation (e.g., partnerships, assessments, meetings, surveys)	10	20%
Promotions (e.g., fact sheets, news stories, signage, media campaigns)	9	18%
Programs (e.g., safe routes to school, commuter choice, complete streets, livable communities planning)	7	14%
Policy (e.g., incentives to walk/bicycle, roadway or trail design manuals, plan goals and objectives, land use policy)	21	43%
Physical projects (e.g., sidewalks, bikeways, trails)	2	4%
Other	3	6%
Total Respondents	49	

“Other” Responses:

- All of these.
- Facilitate networking of PH PA workers.
- Health Impact Assessments.

18. Please summarize in a few sentences your organization’s major work regarding physical activity that is related to transportation.

Respondents: Nontransportation Agencies (answered “no” to Q2)

- None.
- The Columbia/Boone County Health Department is a major partner in the Columbia ALbD project. ALbD looks at how the built environment promotes or hinders an individual’s activity level—through programs, policies and communications.
- I am working with SCDOT, local Councils of Governments, and county governments to promote more policies supportive of active transportation. One effort for the City of Columbia is to receive a Bicycle Friendly designation from the League of American Bicyclists. An excellent bicycle and pedestrian plan for Central Midlands COG has been completed and the Berkley, Charleston, Dorchester COG has received an Active Living By Design Grant from the Robert Wood Johnson Foundation.
- We are still in the planning stages. We will be working with the Iowa Department of Transportation, and promoting physical activity as a feasible form of transportation.

- Increase the number of safe and enjoyable walkable and bikeable communities within Warren and Washington Counties.
- Injury prevention: wear the gear when physically active (helmets, pads, etc.), have safe areas to walk, bicycle, etc.
- Not much direct work related to transportation per se, but encouraging physical activity generally, to include walking or biking rather than driving, etc.
- Helped sponsor active community design seminars and have included community assessments and environmental change in state plan and program initiatives.
- Partnering with Washington State Department of Transportation and Community Trade and Economic Development in implementing Active Community Environments in the community throughout the State.
- Department of Health is represented on the state transportation advisory committee. We have received a Transportation Enhancement award to promote safe active commuting. We also are very involved in Safe Routes to School promotion.
- Most of our work has been in relation to primary prevention of chronic diseases and increasing physical activity among citizens.
- We have been working on educating our elected officials, planners, park officials and others on the health impacts resulting from land use decisions. We also have been convening communities to get them involved in local planning issues.
- Promote awareness of the issues among Federal and state leadership.
- Cascade advocates for built environments and infrastructure that support and encourage bicycle transportation.
- Health Impact Assessment of redevelopment plans to estimate effect of modifications to transportation system on physical activity. Assistance with incorporation of physical activity components into municipality comprehensive plans (implementation of SB 5186).
- The major work involves promoting use of alternative transportation. We do this through a partnership with a local agency with the same goal. Both our Environmental Health Division focuses on this as part of their air quality program and our obesity prevention grant focuses on this issue with worksites.
- Currently, I serve as President of the Wyoming Valley Wellness Trails Partnership and Project Director for an RWJ Foundation Active Living By Design Demonstration Project to promote the expansion and use of local trails and pathways to increase access and opportunities for all citizens to become physically active and enjoy local recreational resources in their local community.
- We fund 31 community-school partnerships to promote physical activity and school health through changing policies and environments, including Built environment.
- Mobilizing people throughout communities, in schools, at worksites or in health care settings to be more physically active.
- Coordinating Bike to Work week; Represented public health objectives in the transportation plan; Represent Muni in the land use plan changes.
- We are a capacity building grant funded through the Centers for Disease Control. Our primary focus for the next two years is to form partnerships and try to build capacity around the State to increase physical activity in schools, worksites, healthcare, and communities through policy and environmental changes. I am forming a statewide bicycle/pedestrian advisory council to provide training, technical assistance, and some funding (through grant writing and assistance in grant writing) to local coalitions focused on changing their

communities to be more oriented towards nonmotorized transportation. We also will provide some training for Safe Routes to School projects.

- We have provided and developed resources for local communities to use in increasing PA by addressing changes in the built environment. The agency has been working with local communities to think of physical activity as a form of transportation and not a recreational activity.
- Advocacy and Partnership with state and local land use and transportation planners for policy and environmental changes to provide opportunities for physical activity.
- Providing resources to organizations to add bicycle/pedestrian and physical activity elements to comprehensive plans.
- Participation in MTP update process; initiative for TIP set aside for Walkable Neighborhoods Grant Program at COG level; Great Streets initiative at city level; participation in new ‘sector plans’ and other city-based plans that reflect multimodal orientation toward transportation system.
- We are part of the Active Living Partnership at Stapleton. We focus all of the TMA work in the area of promoting alternative methods of transportation while promoting health benefits.
- Our local health department serves three counties (over one million people) in the Metro Denver area. Our Land Use Program goal is to work toward our cities and counties, including public health considerations in all planning and development activities. We work very closely with all three of our counties and several of our cities to conduct community planning for active living. We address master planning issues as well as specific development applications. We sponsor and facilitate educational activities, and educate a good deal ourselves, by speaking at local, state, and national conferences on the topic. I manage our Land Use Program, and cochair the Active Community Environment Task Force of the State Physical Activity and Nutrition Program, which educates, promotes, and funds efforts statewide to promote active communities and community designs. We collaborate with NACCHO, CDC, ALR, and its programs to inform our work. Our agency recently received a multiyear “Thriving Communities” grant to promote healthy eating and active living in one of our core cities.
- We have been working on Safe Routes to School over the past three years. I also am involved with a NPO Alliance for Trails that is concerned with increasing the number and accessibility of trails throughout the city/county.
- Increasing physical activity is not possible without a safe and convenient environment. Sidewalks, trails, safe routes to school – all make it possible for increases in daily physical activity. Incorporating physical activity into a daily routine is most effective. We try to influence the parts of the day when we are all pedestrians. Between the house and car, the car and work, the car and the mall entrance. We also hope to encourage biking as a form of reliable transportation, and link it to buses, trails and trains. We also are working in schools and worksites to develop walking and biking programs and lifetime sports in PE classes.
- WALKSacramento directs the Partnership for Active Communities in advocating for and developing policies and programs to increase physical activity. We review and comment on land use and transportation development projects to support changes to increase walkability (and bikeability). We support walk and bicycle to school programs. We work with neighborhood organizations to assess the walkability (and bikeability) of specific neighborhoods in the vicinity of schools and along major transportation corridors. We actively

promote land use and transportation policies to support increased walking and bicycling such as pedestrian master plans and metropolitan transportation plans.

- We are assessing the health impacts of BeltLine, a primary transportation project in Atlanta. We explore the effects of walkability on people with all ability and age levels, in addition to other direct and indirect health effects.
- We recognize that transportation can play a major role in reducing or preventing overweight or obesity as well as increasing physical activity so this is quickly becoming a priority for us. We plan to assist with trainings for town planners, develop a toolkit for community organizations, and work on creating and establishing appropriate policies related to development, the built environment, and transportation.
- We have promoted Walk to School Day for six years. Trained on the Walking School Bus. Worked with local health department to put in count down lights at busy school intersection. Provided trainings to local public health departments and coalitions on the impact transportation design can have on physical activity.
- Partnering with organizations on improving walkability in the community.
- Conducted community assessments, statewide a few years ago to obtain baseline information. The new practitioner we recently hired will continue work in this area, and begin efforts in other areas related to this issue.
- I guess the best quick summary would be: Increase the demand among the public for more places to safely walk, bicycle and recreate (i.e., parks).
- We have melded injury prevention with physical activity to promote safer, more walkable communities. We are active in many, many areas such as participating on key transportation committees (CALPed, Alternative Transportation for Livable Communities, Safe Routes to School Task Force, conducting professional training (e.g., for local health departments on how to become part of community design and transportation decision-making processes), providing walkability workshops/audits for local communities, funding Healthy Aging Task Forces that promote PA for seniors, working with transportation colleagues to introduce elder-friendly measures into the CA supplement to the MUTCD and CA design manuals (e.g., more time on signal count-down for seniors, children, and people with disabilities to be able to cross the street, working on related policy initiatives, funding mini-grants to enhance walking and bicycling, administering statewide Walk to School headquarters, conducting demonstrations such as our Home Zones project, providing TA to local electeds to promote walkable communities, funding walk and bicycle advocacy organizations to educate their communities, serving on America Walks Board, etc.
- Developed a state obesity prevention plan with partners, including transportation that addresses the need for increased physical activity among the population using all possible strategies and venues. This would include promoting active transportation, safe routes to schools programs, and long-range planning that sets aside funds for pedestrian projects.
- We are lobbying for a pedestrian bicycle plan to be incorporated into any new development in town and for the town board to make all commercial areas accessible to bicycles and pedestrians. In addition, we are lobbying for off-road trails to be created through establishment of a conservation zoning ordinance and a fund for open space and trails to be created.
- Through the promotion of small change in everyday lifestyle we promote the use of alternative means of transportation as a way to increase PA and prevent weight gain.
- Health education materials promoting physical activity given to research participants.

- We are conducting a health impact assessment of Atlanta’s BeltLine (a citywide redevelopment and transit project) and we are conducting a health impact assessment as part of a transportation plan for a local city government.
- Promoting safe routes to schools and any other walking-related activities.
- We work to encourage and support efforts of local health departments to engage in working with planners and transportation planners to include physical activity elements in planning processes.
- Promoting the need for walkable communities. Try to influence policy and/or environmental systems changes to promote physical activity; supporting rails to trails initiative.
- We fund 25 community partnerships to increase PA through community design using the 5Ps mentioned in the last two Qs. A majority of these grantees focus on increasing safe opportunities for pedestrian and bicycle transportation.
- Funding for DNPA is our top advocacy priority, with testifying and making visits on the Hill. Coordinating meetings and strategic activities for state health department PH PA workers is our programmatic priority. This work indirectly relates to transportation in that we are providing forums for PH PA workers to discuss all aspects of promoting PA and to learn from each other. We also provide funding for these same workers to attend training that covers a variety of topics, including transportation/PA.
- Promoting transportation choices that increase physical activity and other health outcomes and health behaviors.

19. What is the target population(s) of your transportation/physical activity initiative? (Check all that apply.)

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
General Public	39	80%
Youth (0-17)	24	49%
Adults (18-59)	20	41%
Older Adults (60+)	17	35%
Low-income communities	20	41%
Specific racial and ethnic populations	14	29%
Physically challenged	13	27%
Other	8	16%
Total Respondents	49	

“Other” Responses:

- Elderly.
- Elected officials and staff.
- Employees at specific worksites.
- Local decision-makers and planners.
- NA.
- Participate in Walk to School promotions.
- Public health physical activity workers.
- Rural populations.

- Varies depending on project/policy.
- We currently organize walks for elders.

20. Has your organization worked within a transportation planning process to develop or advocate for programs and projects that promote physical activity?

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
Statewide Planning (state DOT)	22	45%
Metropolitan or Regional Planning (MPO or regional planning agency)	23	47%
Local Planning (city or county)	24	49%
We have not been involved in a transportation planning process.	9	18%
I Don’t Know	3	6%
Total Respondents	49	

21. What has been the nature of your involvement in transportation planning?

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
Attended meetings, public hearings or provided written comments on a draft transportation plan or program (long-range plan, transportation improvement program, or capital investment program)	26	53%
Provided input/comment into the design of a specific transportation policy, project, or initiative (e.g., highway design manual, road reconstruction project, safe routes to school program)	23	47%
Advocated for specific transportation policy, project, or initiative	17	35%
Worked in partnership with a transportation agency to develop and/or implement a specific policy, project or initiative	22	45%
Other	5	10%
Total Respondents	49	

“Other” Responses:

- Community grants; training for health professionals.
- Have provided information to local communities to work with local planning efforts.
- Partnering with our state DOT on an interagency agreement in which we administer the noninfrastructure Safe Routes to School Grants Program.
- Provided tools and resources for our members to do these things.
- Serve on state committee.
- We also produce reports on network, nodal connectivity, and benchmarks for the region.

22. If you have worked in partnership or collaboration with a transportation agency, what accomplishments have been achieved so far through this participation or collaboration? (Check all that apply.)

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
Preparation (e.g., partnerships, assessments, meetings, surveys)	26	53%
Promotions (e.g., fact sheets, news stories, signage, media campaigns)	14	29%
Programs (e.g., safe routes to school, commuter choice, complete streets, livable communities planning)	18	37%
Policy (e.g., incentives to walk/bicycle, roadway or trail design manuals, plan goals and objectives, land use policy)	20	41%
Physical projects (e.g., sidewalks, bikeways, trails)	16	33%
Other	2	4%
Total Respondents	49	

“Other” Responses:

- Currently in process and no outcomes have been achieved yet.
- Linkage to state land use planning team; Injury Prevention Program also collaborates with DOT.

23. If you have not become involved in the transportation planning process, why not? (Check all that apply.)

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
Unfamiliar with/unaware of how transportation planning process works	4	24%
Lack of time/resources	3	18%
Don’t see it as an effective way of accomplishing our organization’s objectives	1	6%
Transportation agencies are not interested in or have not solicited our involvement	8	47%
Other	6	35%
Total Respondents	17	

“Other” Responses:

- Does not fit with purpose, networking.
- NA.
- Not a high priority.
- Not our mission to do this directly.
- We hope to in the future.

24. Whether or not you have been involved in the planning process, has your state, regional, or local transportation planning agency addressed physical activity and/or related health issues in transportation plans, programs, or projects? If so, please specify at which level(s).

Respondents: Nontransportation Agencies (answered “no” to Q2)

	Number	Percent
State (state DOT)	21	43%
Metro/Regional (MPO or regional planning agency)	22	45%
Local (city or county)	28	57%
None of the above	2	4%
I Don’t Know	15	31%
Total Respondents	49	

25. If your state, regional, or local transportation agency has addressed physical activity and/or related health issues, what changes (if any) to transportation plans, programs, and projects have been realized as a result? Can you provide a reference or link to the specific plan?

Respondents: Nontransportation Agencies (answered "no" to Q2)

- A number of cities have specific pedestrian plans. Oakland and Sacramento County plans are superb.
- Addition of specific sidewalk funding category to the TIP. Incorporation of goals in state plan revision <http://www.planning.ri.gov/transportation/cover.pdf>.
- At state level, bicycle/pedestrian planning grants require partnership with health community. At local level, health advocates have been instrumental in policy and environmental changes to support physical activity. (This success has great variability depending on the community.)
- Bikes on Busses (www.cdta.org) Pedestrian Flag Project – Route 4 in Hudson Falls (klvarney@glensfallshosp.org).
- Currently, our MPO (Denver Regional Council of Governments) is revising/updating its Regional Bicycle and Pedestrian Plan to promote more physical activity. It included health (specifically, obesity and physical activity) in its first Indicators Report last year. Two of our cities have included active community design policies in their Comprehensive Land Use Plan and Proposed Bicycle and Pedestrian Plans, respectively. The Parker Master Plan is on the Town of Parker web site at http://www.parkeronline.org/community_development/comprehensive_planning/master_plan_update/parker2025.aspx. See Section 11.15, but policies are throughout. Other documents are not yet adopted.
- Hard to answer this one. I work at the state level, and I can't say that our work has changed state-level policies. But many of our partners (and organizations that we fund) have been successful in getting changes in policies at the MPO and local level. For instance, we provide funding to Parks and Trails New York for their Healthy Trails/Healthy People project (www.ptny.org).
- <http://www.metrokc.gov/ddes/compplan/docket/2001.htm>&LF;<http://www.metrokc.gov/exec/news/2005/0927smartHealth.htm>.
- I don't know the link, but I know that our local community has been active in earmarking funds to increase bicycle lanes.
- It is too early to say at this point – still in development.
- It varies by region and community. Many areas have walking and biking advocates involved with transportation planning.
- More connected pathways/trails.
- MPO Bicycle and Pedestrian Plan, The Town of Queensbury and City of Glens Falls Bicycle Facility Improvement Plan.
- Not applicable to our national organization.
- Not at this time. I would have to go into program record archives.
- Only mandated by statute as of 2005. No substantive changes to date.
- Rails to trails.
- SACOG's metropolitan transportation plan includes a health and safety goal and has adopted budget targets for pedestrian and bicycle infrastructure.
- Seminars for local government, planning boards and citizens. Specific transportation with state/Federal funds now require pedestrian component. Local planning board has required sidewalks on some projects (with a lot of persuasion from us). Awaiting completion of

comprehensive land use plan and new zoning code to see whether this will be applied universally to new development and/or whether older areas can be retrofitted. We've just scratched the surface at this point. A local traffic study being done on an important road near Queensbury School is being done by regional transportation council but has not yet got off the ground.

- Sidewalks and refuge islands on Buford Highway.
 - Some communities have implemented walkability surveys, some communities have applied for transportation enhancement funding to develop or improved walking and biking systems in their community.
 - State DOT has a pedestrian/bicycle planning grant program. Regional and municipal transportation planners try to increase pedestrian and bicycle facilities.
 - State law now requires consideration of physical activity and inclusion of bicycle/pedestrian plan in each municipalities comprehensive growth management plan.
 - The City of Columbia has worked closely with the PedNet Coalition to develop a plan for a network of trails, bicycle paths, and pedways.
 - There are several safe routes to schools programs, two rails to trails programs, but I don't have those links. We primarily provide TA to local initiatives through our community liaisons.
 - They make sure physical activity is included in the growth management plan for every city and county. We have a state senate bill 5186 that states that every city and county must include physical activity in their growth management plan. Our active community environment project active living task force advises RTPOs and MPOs on their bicycle/pedestrian plans.
 - Updated bicycle/pedestrian master plans, improvements to sidewalks, building trails, active transportation links (stapletontma.org).
 - Washington State DOT - increased funding for pedestrian and bicycle safety projects; http://www.wsdot.wa.gov/TA/ProgMgt/Grants/Pedestrian_Bicycle.htm; TPO (PSRC) - Issue paper on health; <http://www.psrc.org/projects/vision/pubs/issuepapers.htm>; Local - addition of physical activity components into municipality comprehensive plans.
 - www.healthymainepartnerships.org; www.healthymainewalks.org; www.maine.gov/mdot/opt/srts.php; www.maine.gov/mdot/passenger-transportation-planning/passenger-transportation-planning.php; www.maine.gov/spo/landuse/resources/health.php.
 - www.muni.org/transplan/nonmotorized.cfm.
26. How significant would you consider each of the following barriers to addressing physical activity and its health impacts through transportation planning?

Respondents: All

	Significant Barrier		Minor Barrier		Not a Barrier		Don't Know	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Insufficient resources for transportation planning activities (funding, staff time, staff expertise)	69	49%	52	37%	16	11%	4	3%
Insufficient resources for project and program implementation	98	70%	30	21%	9	6%	4	3%
It's not a priority for transportation agencies	74	52%	44	31%	18	13%	5	4%
Insufficient resources for public health organizations and/or advocacy groups to engage in transportation planning (funding, staff time, staff expertise)	57	40%	39	28%	13	9%	32	23%
It's not a priority for public health agencies	19	13%	41	29%	55	39%	25	18%
Lack of interest from the general public	33	23%	57	40%	38	27%	12	9%
Incomplete knowledge base (e.g., which programs are most effective; benefits of programs and projects)	43	30%	68	48%	21	15%	8	6%
Lack of collaboration among agencies and organizations to implement projects and programs	49	35%	70	50%	18	13%	4	3%
Other (please specify below)	8	6%	1	1%	0	0%	1	1%
Total Respondents	141							

“Other” Response:

- Car dependent culture and rural settings.
- Entrenched interests that prefer funds be spent to improve (?) and expand road systems.
- Funding for projects.
- I really think all of these are significant barriers.
- Most of these barriers are being overcome as partnerships expand, but they do have impacts on start.
- Not enough regional versus local perspective; ME has 496 towns.
- Retrofitting areas where road reconstruction is not planned is a minor barrier.
- SHDs want data. Also, many SHDs discourage policy work.
- Trouble achieving paradigm shift that transportation is not just about motorized vehicles.
- We are addicted to the automobile. Drastic change in habits needed.

27. How important would you consider each of the following actions for overcoming barriers to addressing physical activity and its health impacts through transportation planning?

Respondents: All

	Very Important		Somewhat Important		Not Important		Don't Know	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Increasing funding for transportation planning activities	61	43%	68	48%	9	6%	3	2%
Increasing funding for transportation projects and programs that increase activity	122	87%	16	11%	2	1%	1	1%
Providing resources (funding and/or technical assistance) to help public health organizations and/or advocacy groups engage in transportation planning	76	54%	50	35%	7	5%	7	5%
Implementing Federal or state policy mandates to address physical activity and health in transportation plans	88	62%	31	22%	16	11%	5	4%
Growing and disseminating the research/knowledge base	73	52%	54	38%	10	7%	4	3%
Enhancing messaging, media, and communications	68	48%	55	39%	12	9%	4	3%
Promoting collaborations among agencies and organizations to implement projects and programs	87	62%	46	33%	7	5%	1	1%
Other (please specify below)	7	5%	0	0%	0	0%	1	1%
Total Respondents	141							

“Other” Responses:

- Attach transportation funding to working with states in making improvements in this area.
 - Continued research and training across transportation/health disciplines.
 - Developing data and modeling to fully integrate pedestrian and bicycle mode into planning.
 - I think we are working together; but it would be nice to have it a policy.
 - Lots of bicycle and pedestrian, but little coordination with health agencies.
 - Shift funding away from roads and towards pedestrian/bicycle.
 - Training provided to transportation professionals re the link between PA and transportation.
28. Are there additional actions that you feel transportation agencies could or should undertake to improve the extent to which physical activity is addressed through transportation decisions?

Respondents: All

	Number	Percent
Yes	57	43%
No	31	23%
I Don't Know	45	34%
Total Respondents	133	

“Yes” Responses:

- Above all the need for training and personal commitments to make this a priority among all the others which compete for scarce staff time and resources; design guide changes.
- Adopt “Complete Streets” Policy.

- Allocate x% of budget toward pedestrian and bicycle modes of transportation.
- Assess the impacts on physical activity of providing (or not providing) full pedestrian/bicycle mode access to the transportation system.
- Asset mgmt data collection include data important to pedestrian/bicyclist safety (i.e., shoulder surface type/width/condition). Safety data – include bicycle injury crashes even if no car involved.
- Better address the need for safety education to overcome resistance to bicycling and walking as transportation.
- Better land use planning that makes walking an option. This is a land use/zoning problem, not just a transportation problem.
- Carry out the wishes of the public – after the PA plan is created, don't go back on it and/or bow to other special interests.
- Concrete policies and not wishy-washy policies as often can be found.
- Could put emphasis on physical activity as a criteria for selecting projects. Could establish separate funding source for projects that provide physical activity.
- Cross training for engineering and planning staff so that they understand that transportation planning is for people as much as vehicles, and specifics on how to do it. Also, academic institutions should include training for transportation engineers.
- Education for transportation engineers, city officials, and developers of how developments can deter physical activity/pedestrian movement/safety.
- Emphasize the link between needed nonmotorized facilities and community health benefits.
- Engineers need to be more knowledgeable about the health benefits.
- Expand infrastructure and collaborative programs promoting nonmotorized transportation.
- Expanded coordination between transportation and health agencies.
- Financial incentive for biking to work.
- Forming an advisory committee with representatives from all organizations that should be involved.
- Fully integrate transit and highway planning.
- Give those DOT professionals involved in Bicycle/Pedestrian issues as much authority/power/respect as “road” focused professionals.
- How to work with local health departments and understanding each other organization.
- Implement land use and transportation codes that, over time, erase the auto-bias and make it easier to walk or bicycle than to use a vehicle in all circumstances.
- In our situation, they just need to be more involved. This is not viewed as a priority for them and therefore we have gotten very little response or collaboration from our transportation agency.
- Include kids, schools, parents in community visioning.
- Incorporate PA principles into transit planning and transit-ready development.
- Incorporate public health into review/approval process for comprehensive plans at the MPO/RTPO level. This legitimizes public health/PA as an issue, better utilizes public health expertise, improves relationships, and builds in greater accountability.
- Increased collaboration with public health agencies.
- Input from the general public.

- Institutionalize the importance of physical health in planning.
- Investigate ways in which highways can be preserved, environment can be less polluted, and fuel can be conserved by building walk-/bicycle-friendly roads and highways.
- Mandate developers of new housing to include sidewalks, bicycle paths as part of development. Ex: HUD homes do not allow sidewalks, bicycle paths in the construction. They require a playground in a development but you have to walk on the road.
- Mandate pedestrian accommodations for every project. Utilize highway right-of-way for separate bicycle path. Require count down lights at every intersection where traffic volume warrants it. Plan for pedestrian use – then the roadway will work forever.
- Mandate-related performance measures at both the program and the project level.
- More agency awareness.
- More extensive consideration of all health impacts of transportation plans – one tool that could be used is Health Impact Assessments.
- More involvement from the health department in promoting inclusion of their issues in transportation plans.
- More partnering with other agencies to put this more on the horizon. It will be a long slow process, but the discussions should begin now.
- More sidewalks.
- More transportation/health partnerships.
- My opinion is that the economics of active transportation will drive this more than health. Policy-makers talk in \$. Health will be a by-product of creating safe places for people to transport to given locations via nonmotorized transportation.
- Need to have engineers that actually walk to work themselves sometimes do more of the work so they don't design roadways that do not have details worked out with the pedestrian in mind.
- Our local transportation body believe in roads at all costs; even the health of it.
- Publicize health benefits of walkable community projects more aggressively.
- Raise the priority at the top level.
- Require all Federal agencies receiving transportation and/or health funding to be part of planning and implementation process.
- Require land use practices that enhance alternative transportation and partner with more private and public agencies on Smart Growth issues.
- Require public health representation on planning bodies.
- Routine accommodation of pedestrians in road projects (sidewalks, etc.) in urban/urbanized accommodations should be required.
- Set aside specific funds to promote nonmotorized transport.
- Sharing of ideas between MPOs and convincing state DOTs.
- Strengthen linkage between transportation and municipal land use planning; strengthen regional planning processes; support smart growth initiatives.
- Strong design standards.
- Too much bureaucracy. Not enough action.
- Transportation staff/consultant education; revision of design, construction, and maintenance standards.

- Transportation agencies should have performance measures related to physical activity – e.g., how many additional people will likely use active modes of transportation as a result of this project.
 - We should be able to quantify the benefits using acceptable, standardized approaches.
 - Weigh in on local decisions for siting of new schools – often in bus- or car-friendly locations, but not bicycle or pedestrian-friendly.
 - Work closer with land use regulatory agencies.
 - Work with other agencies such as animal control. If there are sidewalks but safety because of stray dogs is a factor; people still won't walk or bicycle. Also, lighting. Must have sufficient lighting.
29. With regard to transportation-related physical activity initiatives, what direction do you see your organization heading over the next five years?

Respondents: All

- Increasing priority of transportation-related physical activity initiatives, depending on public interest and/or Federal/state directives. Continuing support of nonmotorized transportation facilities with CMAQ and Enhancement funding.
- 1) Partnership and collaboration with transportation agencies; 2) promoting specific projects/ programs (active living, kids walk to school, etc.); and 3) training and technical assistance for Health Impact Assessments.
- A somewhat greater emphasis on pedestrian and bicycle scale developments and provisions for more bicycle and pedestrian facilities. These will likely be justified for reasons other than physical activity (i.e., overall quality of life, school children safety, cost of highway infrastructure, etc.).
- A source of information, but not a leader.
- Actively expanding our involvement and partnerships into new areas, particularly as they pertain to safe routes to schools and safety, “5E” safe routes to schools activities and into redesign of communities and neighborhoods.
- Advocacy.
- Advocating and impacting planning processes that include health and a clean environment as a clear component of the planning process.
- As a planning agency, we have been ahead of this curve for quite some time. Funding implementation and creating a strong political constituency to demand greater resources are keys to success on the ground.
- Becoming a “Walkable” Community.
- Becoming more health conscious.
- Being more involved in trying to quantify the results.
- Building working relationships with state transportation agency, and with local city governments in making zoning and community planning changing to improve opportunities in this area.
- Completing a bicycle/pedestrian plan; adjusting plan to Safe Routes to Schools requirements; implementing some bicycle/pedestrian projects (sidewalks, greenway, bikeway); facilitating bicycle/pedestrian modes in other ways (e.g., bicycle racks on transit buses).

- Continuation of promotion in Walk Our Children to School, Safe Routes to School, Walkable Community promotion and improvement of the built environment. Working to help school districts improve air quality and control costs through reduce bussing/drop offs and increased foot power. Promoting walk and bicycle to work days.
- Continue to fund and construct bicycle/pedestrian facilities through the Transportation Enhancement program. An initial effort was made a few years ago toward collaboration with the department of health, resulting in a joint web site, a “Utah Walks” brochure was produced/distributed. UDOT participates in the DOH’s cardiovascular alliance working group. UDOT and the department of health recently collaborated on a bicycle-safety campaign (funded through a NHTSA grant). Although everyone agrees there is a health problem due to inactivity and that the departments of transportation and health working together could get more done, it does not seem to be a high priority for either department. Much of the progress in Utah has been made by trails advocacy groups. We support their vision and do what we can to help their projects move forward in the context of multimodal transportation system, but are not likely to get into the business of planning for health within the next five years.
- Continue to promote walking and biking as alternate modes of transportation.
- Continued development of bicycle/pedestrian facilities and increasing agency awareness of issue.
- Continued incremental improvement of policy and project implementation, mainly for the sake of improved “livability” and improved safety.
- Continuing existing efforts to mainstream facilities and overcome DOT reluctance to support anything on its system.
- Continuing on partnering with the state transportation to implement programs that impact local communities that promote physical activity. The key is to evaluate the projects as well.
- Continuing the emphasis on bicycle/pedestrian projects when streets are retrofitted, requiring private developers construct bicycle/pedestrian facilities, and possible local sidewalk program.
- Continuing to consider all modes but there is a recent reluctance on the part of policy-makers to be innovative and progressive.
- Continuing to incorporate bicycle and pedestrian transportation planning in our multimodal regional transportation planning program. Encouraging bicycle travel by providing equipment with our safe bicycle parking program for businesses and agencies (bicycle racks and lockers). Promoting and providing technical assistance for the new Safe Routes to School program. Eventually implementing the regional land use priorities into our transportation project evaluation criteria.
- Continuing to provide assistance and information; serving as a clearing house to collect information on current projects and coordinate statewide efforts.
- Developing a more comprehensive bicycle and pedestrian plan.
- Educating the public better so that they become more active and communicate their will about building a more walkable town and less urban sprawl. Public health does not do a good enough job connecting the dots for the public.
- Encouraging all nonmotorized transportation.
- Encouraging transit (which goes hand in hand with walking), TOD, complete streets, safe routes to school; measuring progress in mode split (census JTW data).
- Expanded coordination is certainly a possibility.

- Expanding modal opportunities, improving safety particularly regarding pedestrian safety, and implementing Safe Routes to School Program.
- Expanding the long-range plan to include more on this subject. Partnering with public agencies and advocacy groups to promote healthy lifestyles.
- Focus on effective planning and prioritization; working with member jurisdictions to aggressively implement improvements; continue dialog with public health, schools, and community groups and support member jurisdictions in such activities; explicitly address infrastructure needs in long-range plans and acknowledge the promotion and social marketing activities of the health agencies.
- Focused more on individuals right now, probably not going to get more into transportation initiatives.
- Focusing energies and resources on maintaining the current system. Little to no change from status quo.
- Fully engaging specific communities in identifying what infrastructure changes are needed to have a fully accessible, walkable, bikeable community and then building the support to gain the funding priority to gain the needed infrastructure. We will continue to raise awareness about the needs of pedestrians for infrastructure changes at regional, local and neighborhood level.
- Getting more input from nonmotorized organizations.
- Greater emphasis building upon lessons learned as we implement the Safe Routes to School Program. Especially useful will be the evaluation tools/measures and the new partnerships.
- Greater emphasis on incorporating biking/walking accommodations into existing and new facilities.
- Greater general awareness, more effective partnerships with health and aging organizations, more delivered projects, better coordination with state funding priorities.
- Greater integration of land use and transportation planning. Promoting cycling and walking as a form of transportation.
- Greatly increased in importance generally as part of overall TDM plan. Specifically, how we deal with aging population, physical activity, and livability in conjunction with each other will be a focus.
- Health and quality of life are important parts of planning for quality growth and sustainability.
- Helping to facilitate activism and involvement at the local level.
- I believe the Columbia/Boone County Health Department (CBCHD) will continue to advocate for collaboration with our Planning Department for input on transportation planning issues. Additionally, the CBCHD will continue to work with the PedNet Coalition on programs such as the Walking School Bus and continue to raise awareness of other active living issues.
- I believe we would be open to this, as it would fit in perfectly with our Healthy Arkansas Initiative.
- I could see us beginning to explore the connections between land use, transportation decisions and the implications on public health. Somehow working those connections into discussions on funding decisions and prioritizations.
- I don't know. We have never discussed this. However, we do have programs in place that address the air quality issues.

- I see our agency making inroads to working more closely with the Department of Transportation and providing them technical assistance to increase physical activity and promote physical activity as a form of transportation.
- I see us burdened with many layers of bureaucracy and many utterly ridiculous regulations for every interest group known to man. This is a bad idea.
- I see us focusing on making physical activity part of daily life, promoting the doable goal of 3 10-minute chunks every day.
- If funding is available, or science-based programs we would be interested in promoting these among our membership.
- Implementation of Federal Safe Routes to School Program will make additional funding available and bring about significant changes.
- Implementation of Safe Routes Program, we continue to emphasize bicycle/pedestrian projects in our Transportation Enhancement Program and continued involvement in partnerships between schools, public health officials, and MPOs in reducing congestion and auto dependent use.
- Improved PH workforce understanding of role of built environment; improved linkage to support PA-related state transportation policies; improved understanding of transportation at nexus of multiple health outcomes: PA, asthma, clean air, safety, etc. and more support for multisector regional planning; more support for smart growth policies.
- Improving.
- In the next five years, in collaboration with partners, I see this becoming a major focus of our work – becoming “experts” on this topic and providing technical assistance, training and resources to communities throughout the State.
- Incorporating bicycle, pedestrian and all alternative mode users’ needs into transportation projects.
- Increase partnership; increased training; increased advocacy.
- Increased involvement.
- Increased involvement in the policy and environmental change arenas on a national level. At present, the involvement has been very localized.
- Increased partnership with the Atlanta Regional Health Forum, integrating Health Impact Assessment into transportation planning process to aid in project selection (possibly), integration of health/physical activity terminology into regional goals and objectives.
- Increasing direct outreach efforts to communities to build a vocal support base for these changes.
- Increasing emphasis on bicycle and pedestrian opportunities.
- Increasing level of what we currently are doing (expanding into other municipalities) and more work on programs and physical projects.
- Integrating health-related topics in regional vision, regional policy, and perhaps regional decision-making.
- Keeping abreast of the developments in the field, and perhaps investigating the potential for collaboration between public health organizations and transportation projects.
- Limping along. We currently have limited staff and no dedicated funding for this work. Those of us who are interested try to carve out time to work on this issue, but it’s tough.
- Looks like we need to include it in our planning efforts.

- Maintain, strengthen, and expand partnerships with the health sector. Coordinate and foster more cooperative efforts between municipalities.
- Maryland DOT recognizes bicycling and walking as important modes of transportation and addresses the needs of cyclists and walkers as part of all roadway projects where it is appropriate and feasible to do so.
- More integration of public health, transportation, land planning, health care, and others to simplify and offer options.
- More long distance trails and greenways and competitive and noncompetitive events for outdoor recreation.
- More park-and-ride lots.
- More promotions and programming.
- More systematic application of what we already are doing across our service area, testing intervention models, incorporating emerging evidence-based research into our program.
- More transportation/health partnerships with better data to support program decisions.
- Moving slowly toward incorporating concepts.
- My agency is heavily invested in policy and systems change. Promotion of physical activity through policy and systems change is a significant priority.
- My organization will continue to address these initiatives, providing funding and interested personnel continue to exist.
- Developers and planners do not see this as a priority. They only see four walls and that makes a community.
- No plans.
- Nonmotorized transportation promotion.
- Not sure.
- Not sure – However, pedestrian and bicyclist SAFETY will be a top priority over the next year or so.
- Number of roadway projects are utilizing context sensitive solutions in the early planning stages and implementing context sensitive design in the implementation stages. Additional emphasis on incorporating bicycle and pedestrian access in new and retrofit projects where practical and cost feasible.
- Our organization will continue to identify projects and planning to make safe connections for bicyclists and pedestrians to access paths and trails for access to shopping, work, or recreation areas.
- Promoting Safe Routes to School around the state (and trying to provide additional funding since we are a huge state with very few people and therefore have lots of needs but are a minimal apportionment state). Work hard at changing the culture within our DOT to be more supportive of bicycle/pedestrian projects and perhaps get them to flex more STP funds toward bicycle/pedestrian. Developing local coalitions to address physical activity barriers in terms of the built environment in rural settings. Working with Native American communities to increase active transportation pathways/sidewalks/bicycle lanes.
- Promotion of bicycle/pedestrian as legitimate modes.
- Pursue initiatives previously listed. Work toward a serious public transportation system in region (current system serves only tiny fraction of population). Set example for community by our actions. Hold elected officials accountable (we have had some success with this).
- Safe routes to school is current driver.

- Safe Routes to School. New bicycle maps for entire state. Park and bicycle lots. Statewide Trail Master Plan. Strengthening partnerships with Governor's Council on Physical Fitness. League of Michigan Bicyclists. Michigan Trails and Greenways Alliance. Michigan Mountain Bike Association.
- Significantly addressing this issue.
- Similar to current status unless additional funding or legislative concerns influences project allocation.
- Similar to now – facilitate networking and training.
- Some additional consideration.
- Supporting the bicycle lanes and routes, supporting linear parks and sidewalk improvements. Also, we are going to begin working towards education and enforcement or safety issues for pedestrians and cyclists.
- The Georgia DOT is getting slightly more progressive but there are a lot of obstacles to overcome.
- The MPO is regularly considering, including bicycle/pedestrian facilities as part of overall projects. I could see, within the next 5 to 10 years, them be regularly included, as well.
- The MPO will continue to pursue its goal related to promoting a healthy lifestyle, increasing sustainability, and supporting the bicycle and pedestrian modes. This will be evidenced in the regional plan and in the TIP project selection process.
- This will be a priority for our MPO planning process with the Safe Routes to School legislation.
- This will become a much more important aspect of the transportation agenda.
- Trying to educate the public about how community design impacts transportation choices.
- Trying to improve bicycle/pedestrian walkways and trails. More funding being spent on this type of project.
- Uncertain. A few people understand the necessity of working together but most don't.
- Updating/Implementing Bicycle/Pedestrian Plan and Open Space, Recreation and Greenway Plan.
- Using market research studies to understand transportation issues; using GIS systems to understand environmental challenges to physical activity (e.g., new subdivisions without sidewalks).
- We are getting more engaged with the county and cities to help them prepare their transportation projects. We always emphasize walkability, universal design, context sensitive design, while integrating land use and community involvement into the process.
- We are getting more involved with health impact assessments and they eventually will make a difference with our transportation project choices.
- We are planning more and better bicycle and pedestrian facilities and more transit-oriented development.
- We are taking an engineer's approach to the problem: 1) define the goal; 2) analyze current conditions; 3) define influencing factors; and 4) define solution. We will need 15 to 20 years to accomplish our goals.
- We may implement a Safe Routes to School Program. I don't foresee a significant shift of funding to develop bicycle and pedestrian facilities.
- We may include something in our 2009 to 2034 RTP update.

- We may not lead any initiatives, but we do plan to be involved with local initiatives and be a partner when appropriate/feasible. There are many local initiatives being led by various groups (Safe Kids Coalition, Healthy/Active Central Oregon Coalition, Oregon Bicycle Transportation Alliance, etc.). In the future, my organization will be more involved with these efforts and hopefully help prioritize needed projects and identify funding sources.
- We see our MPO finally achieving true intermodalism/multimodalism in planning and programming. Also, we see a major effort to link land use and transportation planning (The best transportation planning is good land use planning) paying of in a decrease in sprawl and extension of infrastructure needs.
- We will be focusing on better collaboration between local land use authorities and ourselves as the MPO to ensure our transportation funding decisions and their local land use decisions support one another. We also will be setting aside more funding specifically for smart growth incentives, bicycle and pedestrian infrastructure and traffic calming.
- We will be incorporating complete streets and smart growth ideas and the idea that we must have a multimodal transport system in place that is intricately tied to the land use system into our planning documents and our project selection process.
- We will be very active in promoting PA through the Safe Routes to School project and in senior mobility issues (which will be huge as baby boomers age).
- We will continue to implement our action plan.
- We will continue to look for opportunities through programs such as the transportation enhancement program to provide funding for such projects as bicycle and pedestrian facilities.
- We will continue to promote Bike to Work Day each year. At the same time, we will promote trails development and on road bicycle routes. While incorporating all of these items into our Long-Range Transportation Plan.
- We will continue to support the grantees we have funded – to promote PA through community design – and we will likely consult with other funders to provide technical assistance to other communities interested in similar approaches.
- We will continue to work in this arena. It is a major focus for our physical activity promotions and programs.
- We will continue to work with our local Active Transportation partners to promote sound policies and programs with demonstrably significant measures of effectiveness.
- We will continue to work with state and local governments to change policies in support of active transportation.
- Without increased funding dedicated to bicycle/pedestrian facilities, I don't foresee the DOT making great strides in this area. We will continue to review bridges as they are replaced, for possible bicycle/pedestrian crossings but adding a crossing to a bridge will require either partnering with the locals or additional funding from the Federal government.
- Working more closely with local government agencies.
- Working to integrate in the policy arena. Being present in discussions at the onset of the program or project.
- Working with local governments to implement policy and program initiatives; expanding Safe Routes program in city, county and school district and initiating local funding support; monitoring and requesting support from SAFETEA/NMDOT SR2S programs.
- Would like to accommodate pedestrians and bicyclists to the extent possible, while still meeting the needs of other users of the transportation system.

Appendix D

Case Study: New Jersey Department of Transportation

New Jersey Department of Transportation

Overview

New Jersey is the most densely populated State in the United States, with an overall average density of 1,100 people per square mile. Despite the overall high population density of the State, however, New Jersey continues to grow mostly as a suburbanized region. Between 1970 and 1990, the amount of land considered to be “urbanized” by the U.S. Census Bureau increased by 36 percent, while the population living in these areas increased by only 9 percent. While there have been instances of urban revitalization during the past few decades, the majority of the “urbanization” has occurred in low-density areas, far from traditional urban centers. The trend of increasing sprawling development has tracked closely with the trend of rising rates of obesity. According to recent estimates, nearly 30 percent of adults in New Jersey are physically inactive and 55 percent are classified as obese or overweight.

Since the mid 1980s, New Jersey has been crafting and implementing statewide initiatives that guide and shape growth and development, resulting in the adoption of the first State Development and Redevelopment Plan (SDRP) in 1992. Especially since the late 1990s, the New Jersey Department of Transportation (NJDOT) has been on the forefront of linking transportation and land use in support of the state plan. This more comprehensive, holistic approach to transportation planning led NJDOT to begin to think about the impacts of the transportation network on physical activity. NJDOT sees a link between two trends they have classified as epidemic: increasing congestion and strain on the existing infrastructure, and the rates of obesity among residents. NJDOT has realized that many of the efforts already underway to reduce traffic congestion, conserve open space, and create more vibrant communities also can have a significant and positive effect on the health of New Jerseyans.

With the groundwork for coordination laid through the SDRP, focusing on the issue of transportation and physical activity was a logical next step for NJDOT. Efforts such as the Common Ground Conference on walking, bicycling, and healthy community design spun off into the Mayors Wellness Campaign and the New Jersey Future in Transportation (NJFIT) programs, leveraging existing and related efforts at the DOT and other state agencies. Meanwhile, the New Jersey legislature has continued to adopt policies emphasizing the importance of choosing land use patterns and transportation systems that support mobility and physical activity by providing the choice to walk and bike.

Preparation

New Jersey state agencies have been laying a strong base for efforts to connect transportation and physical activity since the **State Development and Redevelopment Plan**⁹ was adopted. The purpose of the SDRP is to “guide public and private development toward compact, mixed-use

⁹ The New Jersey State Development and Redevelopment Plan was revised and readopted in 2001.

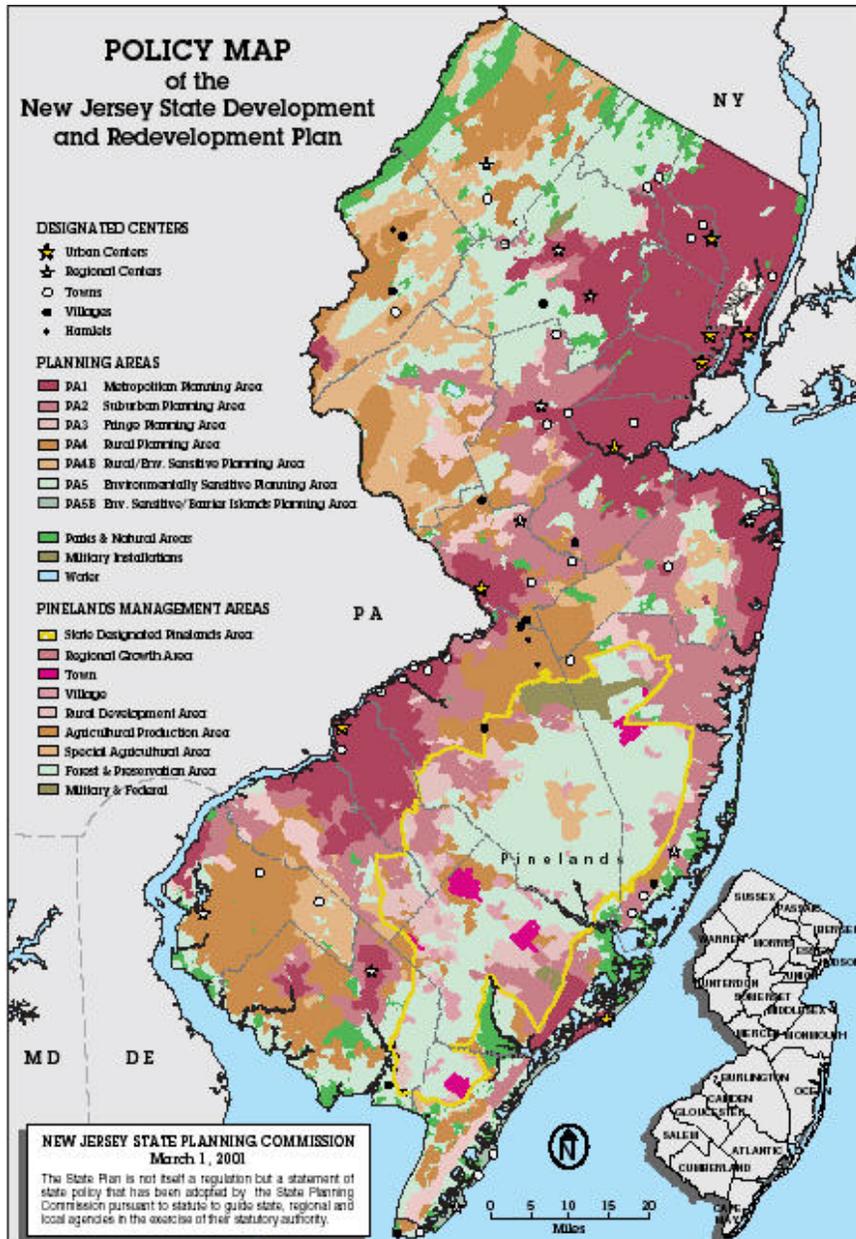
landforms that make the most efficient use of existing and planned infrastructure, as well as other systems to meet present and future growth projections.” Acceptance and implementation of this plan requires cooperation between state and local government agencies. The SDRP led to the creation of related policies and programs specifically targeted toward the integration of transportation and land use. Therefore, even as transportation leaders throughout the United States were only beginning to make the connection between the transportation system and the rise in obesity rates, NJDOT already was supporting initiatives promoting active transportation. To further address physical activity, NJDOT has continued to partner with other agencies on initiatives geared toward improving public health.

In February 2004, the NJDOT and the Robert Wood Johnson Foundation (RWJF) sponsored **Common Ground: A Leadership Conference to Advance Walking, Biking, and Healthy Community Design**. More than 170 leaders from many fields and levels of government attended the conference to discuss the relationship between community design and healthy lifestyles. Specifically, “the Common Ground Conference sought to illuminate the existing and potential roles of land use, health, transportation, education, and related disciplines in fostering more active lifestyles to counter the epidemic of obesity afflicting New Jersey and the rest of the nation.”¹⁰

During the one-day conference, elected officials and experts in the field of transportation and health outlined the problem, described the challenges, and provided a list of reasons to be optimistic about the future. The discussions over the course of the day led to six recommendations: updating policies, developing local leadership, educating local governments, providing opportunities with strategies and tools, illustrating the link between good health and economic growth, and engaging additional stakeholders in community design to promote active living.

Since the initial Common Ground conference, a number of small roundtable discussions have been convened with specific stakeholder groups to address particular issues. For example, in the spring of 2006, a group met to discuss partnerships between state agencies and developed a list of existing partnerships to document work currently underway.

¹⁰Common Ground Conference Report, September 2004.



The New Jersey State Development and Redevelopment Plan designates areas according to their suitability for new development.
Source: New Jersey Office of Smart Growth.

Policies

New Jersey has a relatively unique approach to planning, one that has mechanisms in place to coordinate transportation and land use on a statewide basis. Many of these efforts simultaneously create places that promote physical activity through compact and mixed-use development centered around a transit system. In addition to affecting the built environment, these policies have laid the groundwork for strong collaboration between state agencies and local governments.

The **1985 State Planning Act** established the **New Jersey State Planning Commission**, which includes representation from state government, local government and the public. The Commission is responsible for coordination of state land use policies and implementation of the SDRP. The State Planning Commission recognized early on the importance of coordinating land use and transportation in order to reach the intended goals of the SDRP. The Commission recognized that New Jersey could no longer continue to add transportation infrastructure to combat increasing congestion, but needed to make a shift to efficiently using existing capacity through supportive land uses. Even before the formal adoption of the SDRP, policies were put in place to facilitate this coordination.

The **Transportation Development District Act**, established in 1989, requiring counties interested in establishing a transportation development district to have a state-endorsed county master plan, and to create the district in coordination with the county master plan and SDRP. The **1992 Department of Transportation Act** requires that NJDOT consult with

Common Ground Conference Recommendations

1. Update and improve state policies and regulations that present barriers to the promotion of walking, biking, and healthy community design.
 - a. Consider legislation that mandates circulation planning, including elements for walking and cycling, and provides state financial support to municipalities for the extra work.
 - b. Consider an initiative with the Department of Education to update its Facility Efficiency Standards for the Abbott Schools, so they incorporate Safe Routes to Schools Concepts.
 - c. Consider reexamining and recodifying Title 39 and other relevant state statutes that govern bicycle, pedestrian and motor vehicle traffic regulation and use.
2. Develop local leadership.
 - a. Establish networks of mayors to advocate for policy change and public agencies.
 - b. Increase opportunities for experienced mayors to “mentor” mayors newly engaged in addressing community design for health and a better quality of life.
 - c. Get the success stories out.
 - d. Give mayors information.
3. Create knowledge at the municipal level and support continuing education of mayors and planning boards.
 - a. Tap into resources like the New Jersey State League of Municipalities and the New Jersey Planning Officials.
4. Give communities effective strategies, models, and tools.
 - a. Support academic and other nonpartisan centers to collect clear and high-quality information and disseminate it as widely as possible.
 - b. Engage not only the mayors’ affiliate groups but also professional groups.
5. Bolster the “health case” with the “business case” (i.e., provide evidence to local leaders that healthy community design can have a positive impact on real estate values, the ability to attract employers, and the viability of downtown business districts).
6. Engage New Jersey’s regulatory, business, advocacy, and philanthropic communities in supporting and devising strategies to achieve healthy community design.

the New Jersey Office of Smart Growth (OSG) in an effort to coordinate the State Transportation Plan with statewide transportation needs. In 1999, NJDOT established a **State Plan Implementation Team** (“I-Team”) to devise operational guidelines for the agency to implement the SDRP. In conjunction with this initiative, NJDOT formally incorporated **Context-Sensitive Design** into its practices. **The Transportation Relief and Trust Fund Renewal Act** was adopted in 2000. To further the goals of congestion relief and enhanced mobility throughout the State, this act provides a mandate that “the State should consider and utilize, where appropriate, transportation approaches and concepts to reduce congestion, enhance mobility, discourage sprawl, and assist in the development of our cities, enhance suburbs and town centers, and otherwise improve the quality of life of our citizens.”¹¹

NJDOT and the State’s three MPOs have created a **Statewide Bicycle and Pedestrian Master Plan**. The original plan was developed in 1995. A recent Phase 2 version presents an updated vision and action plan for improving the bicycling and walking environment throughout the State. The plan recognizes health as one of the reasons to create an environment where biking and walking are viable transportation options. Representatives from the New Jersey Department of Health and Senior Services (DHSS) participated in the development of the plan. The plan makes a number of policy recommendations that include collaboration with the DHSS. It provides specific action items that stakeholders can take to implement the plan, some which relate directly to the health benefits of physical activity. For example, employers are encouraged to advocate the health and fitness benefits of walking and bicycling to their employees.

Promotion

A direct action resulting from the Common Ground Conference was the formation of the **Mayors’ Wellness Campaign (MWC)** in November of 2005. The MWC’s goal is to increase opportunities for New Jersey residents to participate in daily physical activity with a long-term goal of reducing health care costs secondary to obesity. Involving mayors from throughout the State was seen as an effective way to develop local leadership, and get people addressing physical inactivity and health on the community level. A diverse group of partners supported the formation of the MWC: the New Jersey Health Care Quality Institute, the Alan M. Voorhees Transportation Center at Rutgers University, the New Jersey State League of Municipalities, and the Ramapo College Nursing Program. Seed money for the program was provided by NJDOT. Additional funds have since been made available by Aetna and Benecard, both private sector health care companies.

With support from the New Jersey League of Municipalities, the MWC has focused its major efforts to date on creating a **Toolbox** providing ideas and strategies for implementing techniques to address the rising obesity rate. It is broken into four target audiences: youth, seniors, communities, and employers. In addition to providing information on healthy community design, the Toolbox provides information on programmatic strategies. The Toolbox is available on the Mayors’ Wellness Campaign web site.

¹¹State of New Jersey (1999), 208th Legislature, Senate Bill No. 16.

The MWC also developed the *Networking Guide to a Healthier New Jersey: Directory of New Jersey Interest Groups concerned with Obesity and Inactivity Issues*. The guide provides information on 13 groups' missions and goals, history, how to get involved, and contact information. Member rosters also are included for some of the organizations.

NJDOT's direct role in promoting physical activity has primarily been to provide resources to encourage bicycling and walking. NJDOT's Office of Bicycle and Pedestrian Programs has funded and teamed up with the Alan M. Voorhees Transportation Center at Rutgers University to create the **New Jersey Bicycle and Pedestrian Resource Center**. The center hosts a web site with information on bicycle and pedestrian planning and events throughout the State. The web site includes an on-line library, an image library, links to interest groups, and other information. Also, a submissions and request form allows web site visitors to submit feedback, request technical assistance, suggest an announcement, or contribute a document, web site link or photo to the clearinghouse.

Programs

NJDOT launched the **New Jersey Future in Transportation** program to combine all of its ongoing efforts linking transportation and land use coordination while attempting to increase the level of physical activity among residents of New Jersey. Momentum for this initiative grew out of local planning work with an emphasis on community engagement. NJDOT staff repeatedly heard from residents that they were concerned with the design of their communities, and the impact of design not only on mobility and livability, but also on opportunities for physical activity. NJDOT is working with the Office of Smart Growth, the Department of Health, the Office of Community Affairs, and the three MPOs in the State to further the goals of affordable and sustainable transportation that breaks the sprawl cycle and satisfies the needs of users. The agency has recognized that this framework can increase the effectiveness of taxpayers' dollars and positively impact the economy while improving the quality of life throughout the State.

The NJFIT program includes four components: case studies highlighting success stories and examples of NJFIT-related projects, a list of anticipated outcomes with associated benefits to the transportation system and communities, a toolbox of recommended strategies and techniques, and a list of potential partnership opportunities.

The **NJFIT case studies** highlight areas around the State that have undertaken integrated land use and transportation studies, many of them funded through NJDOT's Smart Growth Pilot Corridor Program, which is funding eight corridor studies with a focus on integrating transportation and land use corridors ranging from two to 30 miles in length. A key



NJFIT projects, such as Route 9 Lakewood Study of Ocean County, will ensure that transportation is safe, convenient and accessible to everyone in the community.

component of these studies is to encourage towns to partner with state agencies to create a transportation and land use balance. The case studies highlight the ways in which the various strategies and partnerships can work together to create communities that lend to more active and therefore healthy lifestyles.

NJDOT and the New Jersey Department of Environmental Protection (DEP) are collaborating to update the **New Jersey State Trails Plan** (expected to be completed by the end of 2006). NJDOT was interested in linking the plan to its Statewide Bicycle and Pedestrian Plan, which was significantly outdated. Using CMAQ funds provided by FHWA, NJDOT partnered with DEP to update the plan. NJDOT completed the planning update, and DEP is paying the cost of printing and distribution of the plan. The State Trails Plan will mirror the Statewide Bicycle and Pedestrian Plan, aligning goals and objectives with the same goal of making the State more accessible via foot and bicycle.

“The partnership and funding agreement between NJDOT and DEP provides a good example of how agencies with common purposes can work together to benefit multiple parties.” – Sheree Davis, Bicycle and Pedestrian Program Coordinator, New Jersey DOT

New Jersey has two programs specifically aimed at promoting the use of transit through supportive land uses. The **Transit-Friendly Communities Program**, initiated in 1999 by New Jersey Transit (NJ TRANSIT), OSG, and a number of regional nonprofit agencies, provided 11 communities with technical and financial assistance to better link stations with their surrounding areas. NJ TRANSIT continues to provide limited funding to a variety of communities working on integrating their transit stations with surrounding land uses. In addition, NJ TRANSIT funds a newsletter, **Transit-Friendly Development**, that highlights transit-oriented development and land use in New Jersey. The newsletter is targeted to municipal officials, planners, and advocates to provide the latest information on development and redevelopment opportunities around transit stations.

Also in 1999, NJDOT launched the **Transit Village Initiative** in partnership with 10 other state agencies and departments. Municipalities that have an existing passenger rail or bus facility and have prepared a master plan or redevelopment ordinance around their station area (or were part of the Transit-Friendly Communities Program) are eligible to be designated a Transit Village. Transit Villages receive assistance in implementing their planning goals and priority consideration for a variety of transportation and downtown revitalization-related grants. To date, the Transit Village Initiative has designated 17 towns that have met a variety of requirements, including redevelopment and zoning around a station area. The towns also must document their agreement to accept growth, in jobs, housing, and population. Currently, the Transit Village Initiative is revamping its criteria in the way towns are selected, and will include a requirement for affordable housing in redevelopment.

The RWJF funded the **NJ Walks and Bikes!** program in 2002 for two years. The goals of the program were to “increase walking and biking in our state and, eventually, to make New Jersey the most walkable, bikeable state in the nation.” The program monitored nine pilot programs that received RWJF grants to increase biking and walking at the community level, helped fund the Common Ground Conference, and created **A Partner’s Guide to Who’s Who in Walking and Bicycling in New Jersey**. The guide provides information on state bicycle and pedestrian initiatives, programs and resources. It lists each of the state partners involved in walking and biking, and describes their associated programs and resources. The document offers useful information for agencies in collaboration and partnership with other state agencies.



New Jersey has an extensive network of multi-use paths and trails. NJDOT promotes them as part of the State’s transportation system through the Statewide Bicycle and Pedestrian Plan and the State Trails Plan. This photo shows a trail in Highland Park, New Jersey. Source: Voorhees Transportation Center. Photographer: Petra Staats.

Physical Projects

NJDOT has funded physical projects through the **Transit Village Initiative** to localities interested in improving bicycle, pedestrian and transit facilities. NJDOT began developing a statewide **Safe Routes to School Program** and released a Phase I report with program suggestions in 2004. Since that time, Federal funding has been made available for these efforts. NJDOT is utilizing much of the Phase I plan to implement the Federal funds. These funds will be used for infrastructure improvements to improve biking and walking conditions in areas around schools. In addition, these funds can be used for education and enforcement purposes.

NJDOT has a number of programs that provide funds which can be used for bicycle and pedestrian infrastructure projects. For instance, the **Local Aid for Centers of Place** was launched in 2000. Municipalities designated as Centers through the SDRP are eligible for funds to support nontraditional transportation improvements. The projects must fall into one of the following categories: pedestrian and bicycle facilities, scenic or historic transportation program, parking and circulation management, landscape/beautification of transportation-related facilities or rehabilitation of transportation structures. Additional programs with funding that allows for bicycle and pedestrian infrastructure improvements include the **County Aid Program, Municipal Aid Program, Discretionary Aid Program, Locally Initiated Bike Projects, and Locally Initiated Pedestrian Projects**.

Benefits of Transportation, Physical Activity, and Health Linkages

According to Camille Crichton-Summers, Bureau of Research Manager at NJDOT, the agency's motivation to become involved in addressing public health concerns related to physical activity is due to what they have identified as a byproduct of good land use and transportation planning. The agency understands the implications of their actions on the health of New Jersey citizens, but their programs are not driven by that concern. NJDOT staff described it as an "added benefit resulting from good planning." However, NJDOT recognizes the value in collaboration, and is therefore interested in continuing to build partnerships and work with other stakeholders to achieve their goal of improving the quality of life, and therefore health of residents throughout the State.

Success Factors and Lessons Learned

NJDOT's efforts illustrate the value of engaging the community early and often. The NJFIT initiative sprung out of the public concern for lack of facilities for physical activity. Many of the programs now in place are designed to give local communities the tools to take steps toward changing the built environment to provide more opportunities for walking and biking. For example, the MWC is creating toolboxes for use by communities, youth, employers, and the elderly. Engaging each stakeholder group offers a range of benefits.

"If communities, stakeholders and related government agencies are not involved throughout the process, they should not be expected to be satisfied or be held accountable for new programs and infrastructure. Collaboration by all interested parties serves the good of the whole." – Camille Crichton-Summers, New Jersey DOT

NJDOT has experienced some difficulty in collaborating directly with public health groups due to the way that projects are often defined. As a transportation agency, NJDOT must only provide resources for work that relates to transportation. Therefore, if a project's primary goal is to reduce obesity, NJDOT is not able to get involved unless the project also serves a transportation function. However, if a project's goal is to influence the transportation system to provide more opportunities for physical activity, NJDOT is able to engage. As the partnerships expand and grow, people on both the health and the transportation side are learning how to negotiate these challenges.

Another challenge that NJDOT and the other involved agencies face is a lack of evaluation of tools and projects. For example, as the MWC created their Toolbox, they had a hard time picking out the "most successful" projects to highlight. The MWC has applied for funding from the National Governor's Association, part of which would be used to conduct evaluations of the projects they are funding.

The Municipal Land Use Center (MLUC) at the College of New Jersey has been granted funding to conduct ethnographic research on the NJFIT program. MLUC will work with the Surface Transportation Policy Project (STPP) to analyze and track the integrated transportation and land use projects underway in New Jersey. The information will provide NJDOT with a better understanding of the community dynamics at work that influence the outcome of a project. This work will include two components. First, the research team will produce qualitative research on selected NJFIT projects to highlight the core values of NJDOT constituents,

phenomena that lead to culture change among groups of people, and effective communication strategies for utilization by smart growth advocates and community planners. Second, the project will create a web site to host these findings and other pertinent transportation and land use information for use throughout the State and elsewhere.

Conclusion

NJDOT's involvement in creating active transportation has built upon a number of initiatives to coordinate transportation and land use. Many of the same strategies are effective measures to increase opportunity for physical activity in communities. Therefore, it was a relatively easy step for NJDOT to begin working with public health agencies and adding increased physical activity to the list of benefits of these related programs and policies. NJDOT's efforts are a clear example of the importance of collaboration among state agencies to achieve common goals. The following conclusions provide useful and transferable insights:

- New Jersey's statewide coordinated effort has allowed NJDOT's approach of making use of existing infrastructure without adding roadway capacity to permeate all levels of government.
- NJDOT had initiated many programs that support the promotion of physical activity with other goals in mind. Utilizing public health as a unifying factor has helped to leverage these related efforts and offer additional benefits.
- Identifying common goals among state agencies can lead to innovative partnerships and funding opportunities, such as NJDOT's agreement with DEP on updating the New Jersey State Trails Plan.
- Compiling guides providing agency background and contact information offers an excellent tool to facilitate partnerships. The *Networking Guide to a Healthier New Jersey: Directory of New Jersey Interest Groups concerned with Obesity and Inactivity Issues*, and *A Partner's Guide to Who's Who in Walking and Bicycling in New Jersey* are good examples.

For Further Information

Web Sites

The Mayors Wellness Campaign. <http://www.mayorswellnesscampaign.org>.

NJDOT: New Jersey Future in Transportation. <http://www.state.nj.us/transportation/works/njfit/about/>.

Alan M. Voorhees Transportation Center: The New Jersey Bicycle and Pedestrian Resource Project. <http://www.njbikeped.org/>.

New Jersey Department of Transportation and Department of Environmental Protection: The New Jersey Trails Plan. <http://www.njtrailsplan.org>.

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New Jersey Department of Transportation. *The New Jersey Statewide Bicycle and Pedestrian Master Plan*. <http://www.bikemap.com/RBA/NJBikePed.pdf>.

New Jersey Office of Smart Growth. *The New Jersey State Development and Redevelopment Plan*. <http://www.nj.gov/dca/osg/plan/>.

New Jersey Transit. *Transit-Friendly Development: Newsletter of Transit-Oriented Development and Land Use in New Jersey*, May 2006, Volume 2, Number 1. <http://policy.rutgers.edu/vtc/tod/newsletter/vol2-num1/>.

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Appendix E

*Case Study: Washington State Department
of Transportation*

Washington State Department of Transportation

Overview

Over the past 50 years, Washington State has faced the same issues as many of its Western neighbors: exploding suburban growth, distribution of employment centers and a subsequent increase in traffic congestion and strain on the transportation infrastructure. Paralleling trends around the country, the State has seen an increase in automobile dependence and a related decrease in walking, biking, and therefore physical activity. In 1990, the Washington State Legislature adopted the Growth Management Act (GMA). This act adopted growth boundaries around urban areas to focus growth in existing centers, required all counties to designate critical areas and resource lands, and introduced concurrency requirements, which stipulate that all new land development must be supported by appropriate transportation infrastructure.

Within the overall framework of linking transportation and land use, the Washington State Department of Transportation (WSDOT) has actively engaged with the Washington State Department of Health (DOH), the Washington State Department of Community, Trade and Economic Development (CTED), and the Regional Transportation Planning Organizations (RTPO) from around the State to create communities that provide citizens with opportunities to be physically active. The Washington State Nutritional and Physical Activity Plan led to a series of follow-on efforts and projects through

Regional Transportation Planning Organizations throughout Washington State are beginning to engage in promoting physical activity through the transportation planning process. For example, The Puget Sound Regional Council (PSRC), Seattle's RTPO, recently published an issue paper titled: *What's Health got to do with Growth Management, Economic Development, and Transportation?* The paper reviews the relationship between transportation planning and health, references relevant research findings on the topic, and offers recommendations for considering public health in the MPO's update of VISION 2020, their comprehensive land use and transportation plan.

which WSDOT and DOH have addressed public health and physical activity challenges throughout the State. The Active Community Environments Program, the Active Living Task Forces, and the Washington Coalition for Promoting Physical Activity, among others, were all influenced by the plan. In addition, the State Legislature has adopted policies to ensure that local-level planning efforts consider the public health impacts of land use and transportation decisions. Together, the number and diversity of efforts illustrates the success of a multipronged approach towards using transportation programs and projects to promote physical activity.

Preparation

In 2001, the Washington State Department of Health led the creation of a Nutrition and Physical Activity Advisory Group. The 35 members of the group included representatives of

state and local agencies and advocacy agencies from throughout the State. DOH solicited participation from WSDOT's Highways and Local Programs Department because of the potential for funding and partnerships with local agencies. The group met over the course of two years to develop the **Washington State Nutritional and Physical Activity Plan**. The stated purpose of the plan is to "provide a framework in which policy-makers can work together to build and support environments that make it easier for Washington residents to choose healthy foods and be physically active. Creating healthy environments in communities across the State will: slow the increase in the proportion of adults who are obese; reduce rates of chronic disease; and improve the quality of life." The defined goals of the plan are to increase the proportion of residents whose lifestyle reflects the Dietary Guidelines for Americans, and who get at least 30 minutes of moderate activity on five or more days per week. In addition to nutrition objectives and recommendations, the plan identifies three physical activity objectives: increase the number of physical activity opportunities available to children, increase the number of people who have access to free or low-cost recreational opportunities for physical activity, and increase the number of "active community environments." Each objective has related goals.

The goals associated with the first two objectives - to increase physical activity opportunities for children and adults - include adopting policies that increase access to recreational spaces, implementing programs that promote activity, and increasing the number of worksites and schools that have policies and facilities to encourage physical activity. The third objective - to increase the number of Active Community Environments - assigns goals that affect the built environment to make it safer and easier to bike and walk. These goals recommend changes to zoning regulations and policies that impact these areas.

The Nutritional and Physical Activity Plan led to the formation of the **Active Community Environments (ACE) Program**. ACE is a grassroots initiative formed through a partnership among the DOH, WSDOT, CTED, and the RTPOs. The plan defines an ACE as a setting where people of all ages and abilities can be physically active on a routine basis. The ACE Program is geared to specifically address the needs of older adults.

The program is formalized through a set of memoranda of understanding (MOU) among the partner agencies, stating that they will be active in the establishment of **Active Living Task Forces (ALTF)**. Participation in the ALTFs varies by community, but is generally comprised of community members (specifically those over 50), elected officials, and transportation and health officials. The ALTFs have two main functions: to advise RTPOs on how to assess and identify community environment changes needed to support residents in being physically active; and to guide other local/regional policy-makers, parks and recreation departments, employers, and school districts in ways to increase opportunities for physical activity. This program has been partially supported through CDC funding.

WSDOT has most recently been working with the Puget Sound Regional Council (PSRC) to establish a new ALTF in Tacoma-Pierce County involving the City and County Planning Departments and the Local Health District who don't traditionally have frequent contact with each other.

Policies

The Nutrition and Physical Activity Plan helped WSDOT employees, staff of related state agencies, and legislators understand the connection between physical activity and weight control. To achieve the goals established in the Nutrition and Physical Activity Plan and associated efforts, agency staff have worked with lawmakers to pass a number of legislative acts.

In 2005, **Engrossed Substitute Senate Bill (ESSB) 5186** was adopted by the legislature, making two amendments to the Growth Management Act to require Washington communities to address barriers to physical activity. Through the **Washington Coalition for Promoting Physical Activity (WCPPA)**, WSDOT was instrumental in crafting these amendments and passing them through the legislature. The first amendment requires communities to consider urban planning approaches that promote physical activity. Communities are permitted to consider both land use and transportation-oriented approaches to promoting physical activity. To assist communities in complying with this amendment, WSDOT has published a guidance document that describes a number of acceptable actions. The suggested land use-based approaches include strategies to mix land uses and increase densities, particularly around transit station areas. Providing ample facilities for bikes and pedestrians also is considered a land use-based strategy. Transportation-based strategies include increasing the connections between destinations through small block sizes, reducing dead-end streets, and linking paths and sidewalks. Increasing transportation safety and crime prevention programs also are recommended methods for making walking and biking more feasible and attractive.

The second amendment included in ESSB 5186 requires that all comprehensive plans include a **bicycle and pedestrian component in their Transportation Element**. This effort is related to the two goals adopted in the 2005 bicycle and pedestrian component of the Washington Transportation Plan: 1) increase biking and walking to at least 15 percent of all trips; and 2) reduce the number of bicyclists and pedestrians killed or injured in traffic crashes by at least 10 percent over the next 20 years.¹² WSDOT's guidance document provides a list of suggested steps for municipalities to follow that are crafting their bicycle and pedestrian components. The steps begin with creating an inventory of local conditions and documenting travel behavior. Providing opportunities for public participation, adopting goals, policies and design guidelines, and developing implementation strategies and monitoring results also are suggested steps. Examples of bicycle and pedestrian planning strategies include designating safe routes to school, utilizing traffic calming measures, and retrofitting streets to include bicycle and pedestrian facilities.

The Washington State Legislature, supported by WSDOT, also has taken other steps to incorporate bicyclists and pedestrians' needs into the transportation planning process. **ESSB 6091** created a new grant program to support pedestrian and bicycle safety projects such as safe routes to schools and bicycle and pedestrian paths. **Chapter 264**, enacted in 2002, requires that all future statewide transportation plans include an increase in access and safety for bicycles and pedestrians on common roadways. **2SHB (Substitute House Bill) 1565**, adopted in 2005, specified that required concurrency improvements (adopted through the Growth Management Act) may include multimodal transportation. Therefore, jurisdictions may include bicycling and walking trips when they review the impact of new development. 2SHB 1565 also requires

¹²This goal follows the Federal Highway Administration's 1994 goal for all state DOTs.

WSDOT to conduct a multimodal concurrency study (due in December 2006) leading to proposals to amend the statute to enable effective multimodal transportation concurrency strategies.

WSDOT's long-range transportation plan, the **Washington Transportation Plan**, lists supporting livable communities as a goal. In this document, the two desirable outcomes which support livable communities are effective community-based design and collaborative decision-making. The plan does not further describe a livable community, or establish a policy to further this goal. Therefore, the Washington State Transportation Commission created a statewide livability community workgroup to draft a set of recommendations. The group has suggested a definition, policy goal, policy statement and strategies, outcomes and performance measures. If accepted, this set of recommendations would establish the **Livable Communities Policy**. Although not specifically related to public health, the proposed definition of a Livable Community is to "provide and promote civic engagement and a sense of place through safe, sustainable choices for a variety of elements that include housing, transportation, education, cultural diversity and enrichment and education." The goal and policy statement relate to other efforts underway that are directly promoting public health. For instance, one of the policy statements is to "foster multimodal transportation systems that enhance communities." One of the outcome statements is to "integrate community design, land use and transportation investments to improve the quality of life."

The Context-Sensitive Solutions (CSS) Executive Order, issued in 2003 and updated in 2006, directs that transportation projects be planned not only from the perspective of meeting a transportation need, but also consider the aesthetic, social, economic and environmental values, needs, constraints and opportunities in a larger community setting. This Executive Order directs all WSDOT employees to employ CSS strategies in all department projects. As projects are developed, WSDOT employees are expected to listen to and address community concerns.

Promotion

The **Washington Coalition for Promoting Physical Activity** is a partnership of public and private sector entities with a goal "to promote regular physical activity to enhance health, fitness, and quality of life for Washington residents in accord with public health recommendations." WSDOT representatives from the Highways and Local Programs Department have a leadership position in this group. Since its formation, WCPPA has pledged to: promote increased awareness about the benefits of an active lifestyle; develop and promote model policies, laws, and regulations supporting physical activity; establish and maintain a physical environment supporting physical activity; and share research/data on effective interventions working with a wide range of organizations. The WCPPA sponsored a study on the costs of physical inactivity in Washington State. The study found that health conditions associated with physical inactivity, including mental health, cost Washington over \$5 billion in 2002. The study quantified these costs using medical care, worker's compensation and lost productivity due to health conditions resulting from inactivity.¹³

WSDOT's involvement with WCPPA has primarily included participation in the subcommittee focusing on **ESSB 5186**. The subcommittee spent time documenting best practices from around

¹³Health Management Associates, 2004.

the State to illustrate the types of projects that ESSB 5186 should promote and support. As a follow-on to these activities, WSDOT has identified a set of “focus communities” using criteria to establish need. These communities will be provided with additional support as they update their comprehensive plans.

Another outcome of the WCPPA ESSB 5186 subcommittee work was the realization that a critical element in the creation of Active Community Environments is to get transportation planners and public health professionals working together on the local level. To these ends, WSDOT now alerts local public health agencies associated with any municipality undergoing a general plan update process. As part of the Growth Management Act, counties and municipalities in Washington are required to update their general plans every six years. CTED tracks the update requirements, and provides WSDOT with a list each year of local jurisdictions that are required to update. Such a simple practice is an effective first step in bringing health and planning officials together. Traditionally, public health officials have not been involved in the local general plan process, but their involvement offers an understanding of the transportation and land use planning process while giving local planners and decision-makers a new perspective.

WSDOT has sponsored research on the impacts of land use and urban form on travel behavior and activity. For example, research by Lawrence Frank, Gary Pivo, and others (2005) explored time-series data on travel behavior collected from the Puget Sound Household Travel Survey and related travel to land use characteristics. Research by Anne Vernez-Moudon and others (1997) has explored similar issues, also using data from the Seattle metropolitan area.

Programs

WSDOT has partnered with DOH and CTED on the Active Community Environments Program, partially funded through the CDC’s Obesity, Nutrition, and Physical Activity Program,¹⁴ to ensure that the necessary infrastructure is in place to support the ACE initiative. The state agencies are supporting this effort in two ways. First, the agencies are providing technical support to nine local ALTFs. The ALTFs advise RTPOs on how to determine community needs, conduct public outreach efforts, shape community environments to support physical activity and to guide other policy-makers and stakeholders in ways to increase opportunities for physical activity. The technical support provided through this funding supports the ALTFs in both of these areas.

Second, WSDOT and DOH are using the CDC funds to directly support the RTPOs in their work to create and enhance ACEs. This funding goes to pay for quarterly meetings with the regional transportation agencies. In addition, the money is used on a discretionary basis determined by the agencies’ expressed needs and interest. For example, in 2006 the RTPOs and

¹⁴The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases funds 28 states to target physical inactivity, poor nutrition, and obesity, which include activities aimed at primary prevention of obesity by providing the population with knowledge, skills, stronger intention, and greater self-efficacy. The programs go beyond individual-level efforts to address the need for supportive environments that provide opportunities for healthy eating and more physical activity. The interventions are designed to foster behavior change by mobilizing multiple levels of the social structure through individual and environmental strategies to affect and sustain a healthier lifestyle.

MPOs decided to pool their CDC/ACE funding to support a **Growth Management Act Amendments Forum**. The workshop was held in the spring of 2006 in both Spokane and Seattle, and drew over 150 attendees. WCPPA, DOH, WSDOT, and CTED each gave presentations on the amendments and their implications for local agencies. The keynote speaker was Ian Lockwood, a nationally recognized expert in the field of transportation planning and livable communities, who spoke on techniques and best practices to support active transportation.

The WCPPA is leading a number of programs supported by WSDOT. WSDOT's work on the ESSB 5186 subcommittee has led to the identification of "focus communities." These communities were identified using a set of three criteria. First, the community must be due to update their general plans during 2006 or 2007. Second, pedestrian and bicycle crash data were analyzed to create a list of "hot spots." Third, DOH provided county-level health indicators showing the levels of obesity, diabetes and other weight-related health issues. The selected "focus communities" are those that had a high number of pedestrian and bicycle "hot spots," fall within the top tier of rates of obesity within the population, and will be updating their general plans. WSDOT has begun contacting these communities to assist them in their general plan update process, with a particular focus on their bicycle and pedestrian elements, now required through ESSB 5186.

"Most of the communities we are assisting have not yet integrated transportation and urban planning approaches that support physical activity into their comprehensive plans. This program will help them and the State to continue to improve the health and vitality of Washington communities through transportation investments." – David Tanner, Growth Management Act Specialist, WSDOT

More formally, WCPPA supports the **Active Living Leadership Program** and the **Safe and Active Trips to School Program**. The ALL initiative is a collaboration between the Robert Wood Johnson Foundation, the National Governor's Association Centers for Best Practices, and the Washington State DOH. ALL supports elected and business leaders to help them promote policies, programs and places to enable active living.

Through the Safe and Active Trips to School Program, the WCPPA has partnered with the Washington Safety Commission, the Safe Kids Coalition, and the Bicycle Alliance of Washington to increase the number of children who walk or bicycle to school. The program has four components: education, engineering, encouragement programs (e.g., Walk to School Day and Walking School Busses), and enforcement.



A Walking School Bus, part of Washington's Safe and Active Trips to School Program.

A related and overlapping effort is the Federally funded **Safe Routes to School Program**. The purpose of the program is to "provide children with a safe, healthy alternative to riding the bus or being driven to school." Projects funded through Safe Routes to School will involve engineering improvements and enforcement efforts within two miles of primary and middle schools. In addition, the funding is available for educational efforts that teach children about how to safely walk and bike to school.

ESSB 6091 also allocated funding to the **Pedestrian and Bicycle Safety Program**. The purpose of this program is “to aid public agencies in funding cost-effective projects that improve pedestrian and bicycle safety through engineering, education, and enforcement.” Eligible projects will address any of the three areas. WSDOT has \$7 million available for 2007 projects.

Physical Projects

Multiple projects already have been funded through the **Pedestrian and Bicycle Safety Program**. In 2006, \$4.4 million was spent on 24 projects throughout the State. All but eight of the selected projects were in locations where at least one pedestrian or bicycle injury or fatality had occurred. Project components include projects such as the construction of new sidewalks, installation of new street lights and overhead crosswalk signs, construction of raised medians to serve as a pedestrian refuge, construction of a bicycle lane or path, ADA retrofits and drainage improvements.

The **Washington State Safe Routes to School Project** has been funding projects in advance of the monies now available through the Federal program. In 2004, the State funded 11 projects with a total of \$1.35 million. Projects included construction and improvement of sidewalks, installation of new pedestrian crossing signs, new mid-block crosswalks, and construction of a multi-use path. With the additional Federal funds, this program will be expanded beginning in 2007.

ESSB 5186 will lead to the construction of additional physical projects, as jurisdictions update their general plans to include a bicycle and pedestrian component. The support that WSDOT is providing to both the ALTFs and the regional transportation agencies will ensure that more projects will be implemented as a result of this work.



As part of the reconstruction of State Highway 99 in SeaTac, WSDOT implemented pedestrian improvements, including contiguous sidewalks, marked crossings, activated signals at intersections, street trees, and bus shelters along this corridor which had previously been marked by a high pedestrian crash rate.

Benefits of Transportation, Physical Activity, and Health Linkages

As evidenced by the breadth and scale of efforts going on to promote active transportation throughout the State, the cooperation among transportation and health officials is benefiting all parties involved. For instance, WSDOT’s access to CDC funds has enabled it to collaborate directly with local organizations and governments to achieve statewide goals. The Growth Management Act Amendment Forum provided an opportunity for transportation and health officials from across the State to discuss how to move forward together. A key message that came out of these discussions is the need to conduct a health screening and analysis at the time that a transportation project is proposed. Clearly, this type of coordination would be impossible without cooperation and communication between health and transportation officials.

Success Factors and Lessons Learned

WSDOT and DOH staff described their efforts towards improving active transportation as having no major obstacles, but requiring a lot of learning. Staff at both agencies emphasized the importance of flexibility and evaluation.

“When working with communities, we have learned the importance of being clear and realistic about outcomes and expectations. The willingness to make mid-stream programmatic changes, based on periodic evaluations, is also important.” – James Kissee, Physical Activity Specialist, Washington DOT

In general, all involved agencies have been willing to put in the required effort leading to significant accomplishments. The one challenge that faces all government agencies is the limited resources and the difficulty in tackling a new issue without an increase in funding. In addition, WSDOT is concerned about the future availability of CDC funding due to the diversion of funds to Hurricane Katrina relief efforts. However, WSDOT and the other state agencies are committed to moving forward with their efforts and will make every effort to provide the necessary resources.

Conclusion

WSDOT’s efforts illustrate a number of strategies which prove effective when adopted together or individually. While some of the strategies involve significant amounts of planning, coordination, and funding, others could be implemented immediately without additional resources. The overall message to be drawn from this case study is that finding ways for partnerships between transportation and health groups can happen at all levels of government. WSDOT provides important lessons about how a state DOT can facilitate these partnerships, and illustrates the fact that collaboration can lead to innovative ideas. The following conclusions can be drawn from WSDOT’s efforts:

- There are a number of **simple and easy steps** that can be taken to further partnerships between the transportation and health fields. For example, WSDOT has begun alerting local health officials when their municipality is undergoing the general plan update process, helping them to get engaged in the planning process.
- Activities and programs at the state level can effectively shape development at the local level. The ACE program, Safe Routes to School, the Pedestrian and Bicycle Safety Program and the partnership between WSDOT and DOH are all good examples.
- Many states already are implementing policies that will promote physical activity (e.g., transit-oriented development initiatives, context-sensitive solutions, and bicycle and pedestrian programs). Incorporating increased physical activity as a goal for existing policies and programs can be easier than passing new legislation. ESSB 5186, amending the GMA, is a good example.
- Creative funding strategies can leverage partnerships. WSDOT’s partnership with DOH and the use of CDC funds brings these agencies together to determine how, together, to best use scarce funding most effectively to achieve a shared goal.

For Further Information

Web Sites

Feet First: Active Community Environments. <http://www.feetfirst.info/aces>.

Washington Coalition for Promoting Physical Activity. <http://www.beactive.org/>.

Washington State: Active Community Environments Program. <http://depts.washington.edu/waaction/Issue2/pa3.html>.

Washington State Transportation Commission: Recommended Livable Communities Policy. <http://www.wsdot.wa.gov/biz/csd/pdf/LivableCommunities.pdf>.

WSDOT: Executive Order for Context-Sensitive Solutions. <http://www.wsdot.wa.gov/biz/csd/ExecutiveOrder.htm>.

WSDOT: Walking in Washington. <http://www.wsdot.wa.gov/walk>.

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Appendix F

Case Study: Berkeley-Charleston-Dorchester Council of Governments, Charleston, South Carolina

Berkeley-Charleston-Dorchester Council of Governments, Charleston, South Carolina

Overview

The Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) in Charleston, South Carolina has been a leader in regional land use and growth management planning initiatives and in conjunction with these initiatives has incorporated programs and policies that address health issues.¹⁵ In 1999, the BCDCOG set the stage for connecting transportation, land use, and physical activity through its Growth Options Initiative regional visioning project, which brought together a broad group of partners from around the region to thoroughly examine the region's growth issues and address growth issues proactively rather than reactively. In 2003, the COG was awarded a five-year \$200,000 Active Living by Design grant from the Robert Wood Johnson Foundation to form the Lowcountry Connections Partnership and develop a plan for an accessible, interconnected, regional bicycle/pedestrian network, and to encourage the use and expansion of these facilities. The Berkeley Charleston Dorchester Regional Pedestrian and Bicycle Action Plan was completed in 2005.

While many areas have developed a bicycle and pedestrian plan, the Charleston region's efforts may be unique in its focus on working with public health partners to develop and implement the plan. Rather than focusing only on bicycle and pedestrian facilities, the plan is based on a "complete streets" philosophy in which streets are designed to accommodate all modes and users of transportation. The plan also includes outreach programs to inform and educate people about the opportunities for and benefits of walking and bicycling. As its third major element, the plan incorporates the region's Safe Routes to School program. The plan identifies a series of action steps involving efforts to be led by the COG and a range of partners, including the South Carolina Department of Transportation (SCDOT), local public health agencies, and advocacy groups. Finally, the plan includes measurable outcomes that will track the success of the agency and its partners at implementing the plan. The COG and its partners are now working to implement the plan as well as securing agency funding to ensure that work continues once the RWJF grant is completed.

What is a "complete street"?

According to the National Complete Streets Coalition, "complete streets" are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and bus riders of all ages and abilities are able to safely move along and across a complete street.

- <http://www.completestreets.org/>

¹⁵The MPO for the Charleston region is the Charleston Area Transportation Study (CHATS). BCDCOG staffs the MPO and provides the transportation planning and programming functions, as well as coordinating transportation planning for the non-metropolitan sections of the three-county region.

Preparation

The BCDCOG set the stage for connecting transportation, land use, and physical activity with its **Growth Options Initiative regional visioning project**. Funded by an FY 1999 grant through FHWA's Transportation and Community and System Preservation Pilot Program (TCSP), the project brought together a broad group of partners from around the region to thoroughly examine the region's growth issues and address growth issues proactively rather than reactively. The Growth Options Initiative, which continues to evolve, has resulted in a number of spin-off implementation activities. For example, the COG has worked with local jurisdictions through its planning assistance program to incorporate "smart growth" principles into comprehensive plans and development regulations. Coordinating committees have worked on specific issues such as the development permitting process, subarea plans, and incorporating land use into the long-range transportation plan. Technical tools have been developed and tested to assess the costs of new development.

Through the Growth Options Initiative and other urban design initiatives, COG staff became involved in the Medical University of South Carolina's (MUSC) yearly Urban Design for Healthy and Prosperous Cities Conferences and Community Leaders Environmental Education Conferences. Staff and partners began to investigate South Carolina health statistics and realized that a case could be made for the need to consider health in transportation planning. South Carolina has the highest stroke death rate in the nation and has the third highest rate of diabetes. Seventy-nine percent of the population is considered at risk for health problems related to limited exercise.

Increasingly, public pressure also was being exerted to improve conditions for bicyclists and pedestrians. In July 2005, SCDOT opened the Arthur Ravenel Jr. Bridge, a three-mile span connecting the City of Charleston and the Town of Mount Pleasant over the Cooper River. In addition to eight travel lanes, the bridge includes a 12-foot bicycle and pedestrian path along the entire south edge of the bridge overlooking Charleston Harbor. The path, however, was not always included in the plans for the bridge; it was added only as a result of a grass roots effort led by local advocacy groups. BCDCOG came away with a new mission after the public input on the new bridge: residents wanted bicycle and pedestrian facilities added to transportation projects. A comprehensive regional bicycle and pedestrian plan was needed to show how such projects could connect neighborhoods and communities.¹⁶

This convergence of issues led BCDCOG, in partnership with the Charleston Bicycle Advisory Group (a bicycle and pedestrian advocacy group now called Charleston Moves), MUSC, Roper St. Francis Healthcare, the South Carolina Department of Health and Environmental Control (DHEC), and SCDOT, to submit a successful \$200,000 proposal to the Robert Wood Johnson Foundation's Active Living by Design Program in 2003 to coordinate a partnership called Lowcountry Connections to promote healthy and active living in the built environment and develop a **Regional Bicycle and Pedestrian Action Plan**. The purpose of the Lowcountry Connections partnership is to raise community awareness and support for active living, to encourage healthy activities and to mobilize residents to support development of new programs and facilities. The Action Plan has three objectives: 1) to ensure that children are able to safely walk or bike to school; 2) to see that transportation facilities provide for car, bike,

¹⁶<http://www.activelivingbydesign.org/index.php?id=399>.

Policies

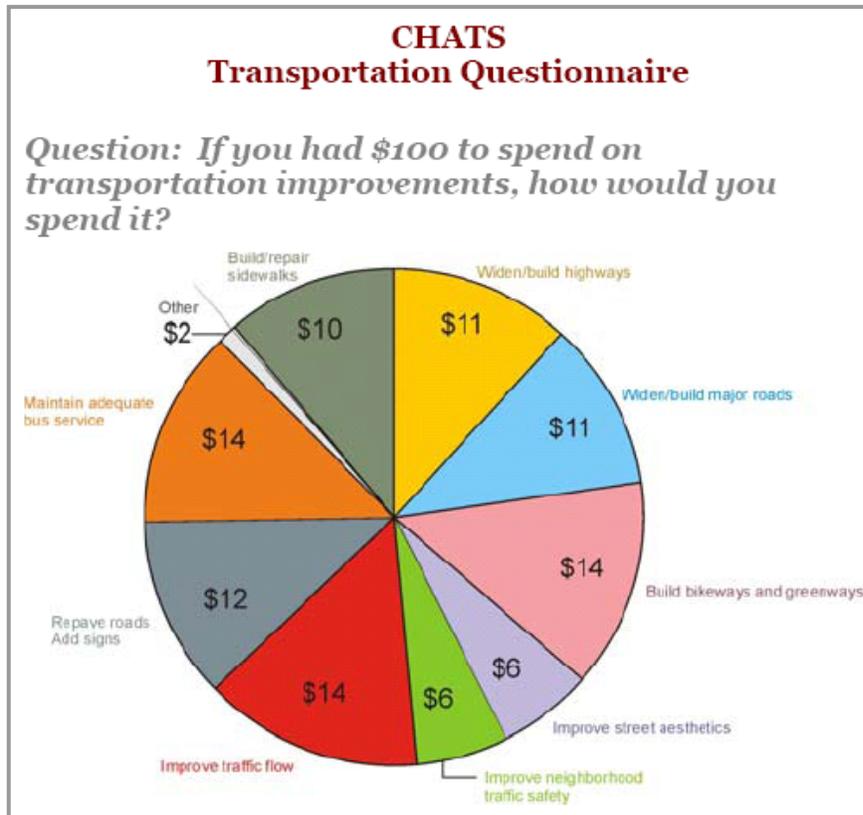
Catalyzed in large part by the success of the Ravenel Bridge project in Charleston, in January 2003, SCDOT adopted a **resolution** affirming that bicycling and walking accommodations should be a routine part of the department's activities and will be included in the everyday operations of the transportation system. The resolution also requires South Carolina counties and municipalities to "make bicycling and pedestrian improvements an integral part of their transportation planning and programming where state or Federal Highway funding is utilized." A subsequent Engineering Directive Memorandum¹⁷ provides guidance on considerations for bicycle facilities and accommodations, including typical cross sections. SCDOT's resolution and guidance are an important step in ensuring that new or reconstructed roads throughout the State will support regional and local objectives for nonmotorized travel and active living. They also harmonize state and MPO policies with respect to pedestrian and bicycle accommodation.

The most recent regional **long-range transportation plan (LRTP)**, adopted by CHATS in 2005, also reflects the region's growing interest in physical activity and health. The plan emphasizes a comprehensive approach to transportation, including consideration of safe and efficient passage of all users of public rights-of-way – reflecting the emerging "complete streets" philosophy in the region, and notes the fitness and health benefits of these modes, both on a personal and societal level. The plan also notes that residents have expressed a strong desire for improvements to the conditions and opportunities for bicycling and walking. For example, respondents to a public survey conducted to inform plan development said they would like to dedicate \$24 of every \$100 spent on transportation improvements to bicycle and pedestrian facilities. In contrast, based on a five-year spending projection of state and Federal funds, only \$0.50 of every \$100 in transportation improvements currently is spent on bicycle and pedestrian projects. To begin to address this discrepancy, the LRTP includes a bicycle and pedestrian element, with \$30 million identified over 21 years to retrofit existing streets and intersections to make them more bicycle, pedestrian, and transit-friendly as well as context-sensitive.

Complementing state and regional policies, policies supporting bicycle and pedestrian travel and "active living" are increasingly being adopted at a local level. Through the technical assistance it provides to local jurisdictions on plan and code development, BCDCOG has worked with communities on incorporating pedestrian considerations into land use and community design policies and ordinances, consistent with the recommendations of the Grown Options Initiative. For example, BCDCOG staff helped the Town of Hollywood rewrite subdivision ordinances to promote connectivity, and assisted the Town of Lincolnton with creating and identifying funding for a phased plan to retrofit the core of the community with pedestrian facilities.

Additional policy changes are proposed in the Bicycle and Pedestrian Action Plan. One recommendation – complementing the SRTS program – is for SCDOT's School Site Engineer and the South Carolina Department of Education to review and revise school transportation guidelines and school siting requirements to promote walking. A second recommendation is for SCDOT to develop design guidelines for pedestrian and bicycle retrofits and safety improvements such as sidewalks, shorter crossing distances, slower automobile speeds near schools, more visible crossing treatments, and traffic calming.

¹⁷No. 22, July 10, 2004.



Respondents to a public survey conducted to inform development of the long-range transportation plan said they would like to dedicate \$24 of every \$100 spent on transportation improvements to bicycle and pedestrian facilities. Source: BCDCOG, 2005.

Promotion

One of the key elements of the Bicycle and Pedestrian Action Plan is community intervention to improve bicycling and walking environments through both social and physical intervention efforts. The plan calls for including walking and cycling in regional health education efforts; for example, by developing a curriculum module on walking and cycling for diabetes and cardiovascular health classes, and by holding walkable community workshops at churches. Examples of **promotional activities** that have been undertaken to date include:

- Five hundred public service announcements on local radio promoting bicycle and pedestrian safety;
- Promotion of Bike to Work Day and Walk to School Day;
- Bike rodeos held at five low-income schools, with over 600 students trained in bicycle safety;

- Coordination with MUSC and Roper St. Francis on an obesity forum to be held in fall 2006; and
- Information booths promoting active and healthy living at various local festivals and expos.

To further implement the plan, BCDCOG is exploring the possibility of working with MUSC and DHEC to implement programs through their existing community partnerships, such as MUSC's partnership with the African Methodist Episcopal church. Media campaigns will be developed to promote walking and bicycling, physical activity, and the connection to the built environment. An additional outreach effort will be a wellness program tested at a specific employer, Alcoa's Mt. Holly facility, to increase the number of employees walking and bicycling to work. This program is intended to serve as a model for worksite wellness programs at other employers.

Programs

The **Safe Routes to School** program is one key element of the Pedestrian and Bicycle Action Plan. South Carolina is scheduled to receive over \$8 million in Federal funds under this program through FY 2009. SCDOT has started planning a statewide Safe Routes to School program to utilize the funds through partnerships with the South Carolina Coalition for Promoting Physical Activity (SCPPA), the South Carolina Department of Education, and the USC Prevention Research Center. SCPPA has provided funding for SCDOT to train 10 people, including a BCDCOG staff person, to conduct outreach and training to schools on SRTS. Through these partnerships, communities will be provided with instruction and guidance to improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Beginning in the fall of 2006, a team of qualified professionals will work with SCDOT to select schools for program implementation.

In the Charleston region, BCDCOG will be partnering with MUSC's Trident Area SAFE Kids Program to plan and implement other elements of the SRTS program, including developing a Bicycle and Pedestrian Safety Curriculum. The SRTS program also includes a training and outreach component. BCDCOG will develop a PowerPoint presentation for use by an interdisciplinary team in facilitating the launch of the program at schools. Four schools have been identified as locations for SRTS pilot projects. These schools are located in largely or primarily minority and low-income areas, where there are relatively high levels of walking activity but substandard pedestrian accommodations and/or observed pedestrian safety problems.

As one strategy to implement the "**complete streets**" element of the Pedestrian and Bicycle Action Plan, the plan recommends a program of regularly scheduled community workshops in target locations throughout the region. The workshops would integrate walkable/bikeable community concepts into existing programs, development projects, events, training, and research. At least two community workshops and three presentations to community groups about bicycle and pedestrian-friendly concepts are planned by the end of 2006. In addition, the plan recommends that individuals within SCDOT and BCDCOG be designated to review all roadway design projects with respect to accommodation of bicyclists and pedestrians, and that the general staff knowledge base on this topic be expanded. CHATS already has formed a "complete streets" committee, primarily a technical committee of engineers to evaluate DOT projects and make recommendations regarding bicycle and pedestrian accommodation. The COG also has a strong partnership with a local advocacy group, Charleston Moves, which is

represented on the Transportation Enhancements committee as well as the Complete Streets committee and helps review projects.

To support the “**community intervention**” element of the action plan, four neighborhoods have been identified as locations to test pilot design projects as well as targeted education and outreach programs. Three of these neighborhoods reflect a mix of older and newer residential and commercial development, with poor quality or missing pedestrian and bicycle connections but relatively high levels of walking due in part to the presence of lower-income populations. The fourth neighborhood includes the MUSC campus which also is characterized by high levels of pedestrian activity and missing accommodations.

Physical Projects

COG staff note that because their efforts to link transportation, health, and physical activity originated only recently, few examples of projects have actually reached the construction stage. However, a number of plans have been developed and funded for transportation projects that will incorporate facilities for nonmotorized users. For example, COG staff coordinated with SCDOT and the Cities of North Charleston and Goose Creek to identify \$200,000 in additional funding to complete a sidewalk connecting the two cities and a regional park; this project has been funded through agreement of SCDOT and the MPO. The COG has set a goal (as part of its ALbD program requirements) to identify at least three new projects in which to incorporate bicycle and pedestrian facilities by June 2007.



I’On in Mt. Pleasant is an example of a new, walkable planned community in the Berkeley-Charleston-Dorchester region. Photo courtesy Dan Hatley, BCDCOG.

Physical changes also are evident in community design practices. Walkable developments are beginning to be seen throughout the region; for example, I’On in Mt. Pleasant is a new planned community with sidewalks, a walkable layout, and shopping and schools located in close proximity to residences.

Benefits of Transportation, Physical Activity, and Health Linkages

Planners at the BCDCOG note that a definite shift in philosophy is occurring within agencies responsible for transportation at all levels – including the state (SCDOT), region (CHATS), and local jurisdictions – to support pedestrian and bicycle travel options and improved public health through active living. In a region with limited pedestrian and bicycle infrastructure and some of the highest obesity rates in the nation, this shift is significant. While programs are still

evolving and physical projects just beginning to be implemented, agencies at all levels already have established policies and partnerships needed to begin to address citizen desires for improved travel options.

“We see our MPO finally achieving true intermodalism and multimodalism in planning and programming. Also we are seeing a major effort to link land use and transportation planning paying off in a decrease in sprawl.” – Dan Hatley, Planning Director, BCDCOG

BCDCOG’s partnerships with state and local health agencies, as well as university schools of health, have opened up additional outreach channels to the COG and helped the COG include transportation and community design issues in their educational activities – introducing these issues to a broader audience. The health partnerships and focus also have opened up funding opportunities from sources not traditionally accessible to the agency. The involvement of public health partners, especially RWJF, has required a greater focus on evaluation and monitoring of the success of efforts, and BCDCOG has worked with RWJF to identify specific measures of performance for the implementation steps identified in the Pedestrian and Bicycle Action Plan.

Public health agency staff also note that their partnerships with the COG and other transportation agencies throughout the State have been beneficial. Jay Daniels, DHEC State Physical Activity Consultant, notes that the BCDCOG is a terrific “hub” for obtaining information on traffic counts, vehicle miles of travel, and other transportation data, or for identifying appropriate contacts at local agencies for these data. The COG also is a good source of knowledge for DHEC staff, who generally have a public health rather than planning or engineering background, regarding transportation as well as community design and land use issues. The ability to tap the COG for information has been of great value to the state health agency’s efforts to address public health issues through transportation and community planning strategies.

Success Factors and Lessons Learned

BCDCOG’s innovative thinking, willingness to form nontraditional partnerships, and willingness to engage in activities not traditionally tackled by an MPO (such as land use planning), have helped its efforts succeed. Its responsibilities as a COG, which extend beyond transportation planning, have supported its efforts to develop regional policies that promote active living and translate these down to a local level. Specifically, the COG’s provision of technical assistance to municipalities for plan and code development has been a welcome resource for local agencies, and has allowed the COG the opportunity to introduce plan and code elements that promote physical activity both through land use and through transportation facility design.

At the same time, technical activities associated with the LRTP update, including data collection and modeling, have helped to support the ALbD grant as well as the COG’s regional Growth Options Initiative. For example, updated growth forecasts at a traffic analysis zone level, required for regional transportation modeling, were developed based on conversations with local planners. These forecasts were used by the COG at public meetings to discuss the implications of projected growth for transportation, bicycling and walking conditions, and other transportation and community characteristics.

The COG also has been willing to acknowledge the need to make mid-course corrections and adjustments, as might be expected of any pilot program. COG staff note that while the public health agencies have been willing partners in their effort, they (not unlike many transportation agencies) tend to be understaffed and not always able to contribute in every way that they would like. Staff turnover and changing priorities at partner agencies have led to the need to reevaluate the nature of the partnerships and expectations from the relationships. In addition, BCDOG has shifted the focus of the *Bicycle and Pedestrian Action Plan* from its original emphasis on the East Coast Greenway and associated connections, toward a more holistic view of pedestrian and bicycle accommodations and programs from a regional perspective.

“We are always switching gears, shifting focus and tactics as we learn.” – Vonie Gilreath, Senior Planner, BCDCOG

While BCDOG is seeking additional funding from RWJF to implement Lowcountry Connections, the agency also is working to ensure that activities are sustained beyond the lifetime of the RWJF grant. CHATS’ Unified Planning Work Program for Fiscal Year 2007 identifies approximately \$50,000 in various Federal funding categories to support ALbD program activities, and MPO staff are working with SCDOT to ensure that nearly \$1 million in annual Transportation Enhancement funds will continue to be allocated at the regional and local level.

Conclusion

Some of the key messages that can be drawn from this case study include:

- Regional agencies can play a lead role in coordinating transportation and land use planning to support transportation as well as public health objectives – such as reducing vehicle-travel, increasing nonmotorized travel, and affecting the design of communities to provide opportunities for physical activity. A transportation and land use visioning process establishes a framework that supports more specific implementation activities.
- The provision of technical assistance to local jurisdictions for plan and code development is an effective way of working with jurisdictions on a voluntary basis to update plans and ordinances in support of regional transportation and health objectives.
- Transportation and health agencies can benefit from working together by tapping into a broader audience for their respective issues of concern, coordinating on programs and projects that support mutual objectives (such as Safe Routes to School), and tapping into non-traditional funding sources for implementation activities.
- Because of its responsibilities for highway design and the allocation of transportation funding, the state DOT is a critical partner in any regional initiative to link transportation and public health.

For Further Information

Web Sites

Active Living by Design Program, <http://www.activelivingbydesign.org/index.php?id=399>.

Berkeley-Charleston-Dorchester Council of Governments, <http://www.bcdkog.com/>.

Cooper River Bridge, <http://www.cooperriverbridge.org/>.

Documents

Berkeley-Charleston-Dorchester Council of Governments. *Long-Range Transportation Plan*. Prepared by Kimley-Horn and Associates in association with Wilbur Smith Associates, April 2005. <http://www.bcdkog.com/LRP.htm>.

Berkeley-Charleston-Dorchester Council of Governments. *Berkeley Charleston Dorchester Regional Pedestrian and Bicycle Action Plan*. Prepared by Toole Design Group, LLC, 2005.

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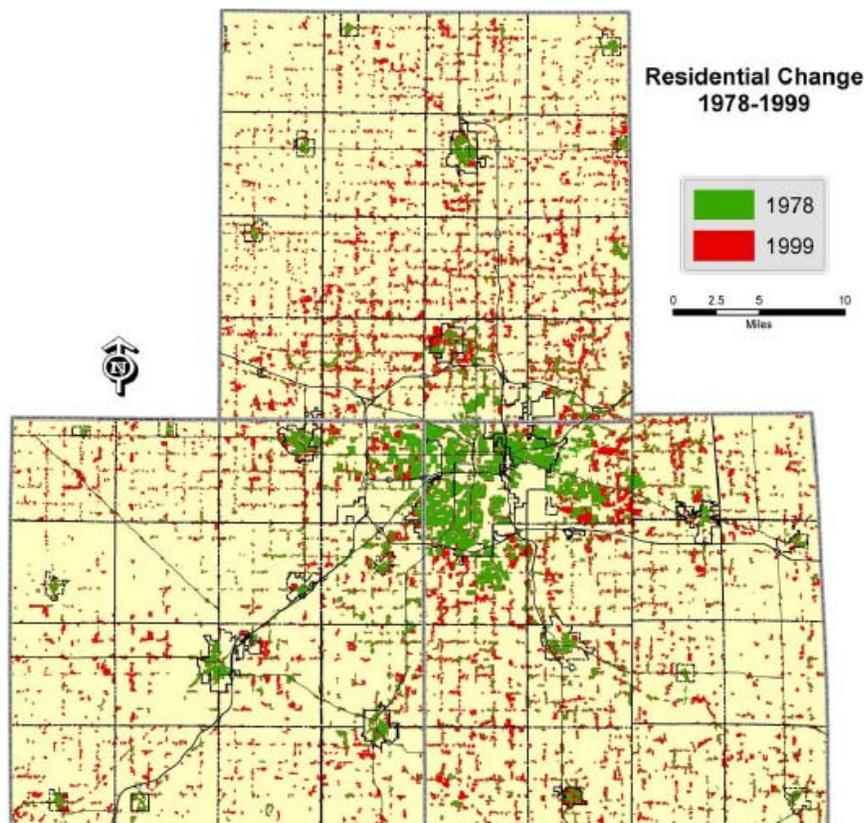
Appendix G

*Case Study: Tri-County Regional Planning Commission,
Lansing, Michigan*

Tri-County Regional Planning Commission, Lansing, Michigan

Overview

The Capital Area of Michigan is a three-county region, encompassing Lansing and 74 other cities and townships, with a population of nearly 500,000. Population growth and development in the region has shifted in recent years from urban centers to rural farmlands. Between 1978 and 2000, the area converted rural to urban land at a rate twice its population growth - mostly in low-density, automobile dependent development at the fringe of existing urban areas. As in many United States cities, these growth trends are leading to increasing VMT and declining rates of walking, bicycling, and transit travel.



Residential Land Development in the Lansing Region. Green represents development as of 1978; red represents new development between 1978 and 1999. Most new development is located on the fringes of the developed area or along state and county roads in rural areas throughout the three-county region.
Source: TCRPC.

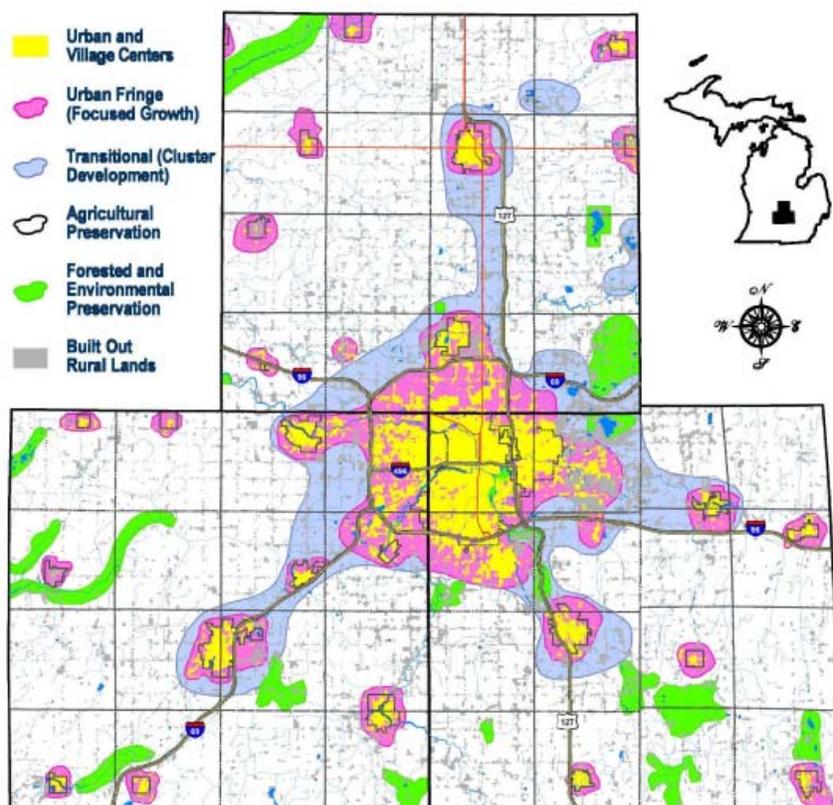
While transportation planners work to address these impacts, local public health officials have become increasingly concerned that the region's growth trends are contributing to obesity and related health problems by reducing opportunities for physical activity. According to the Centers for Disease Control and Prevention in Atlanta, 40 percent of Michigan residents did not achieve the recommended minimum 30 minutes of physical activity per day in 2003, and the State leads the nation in obesity and overweight rates. In the Capital area, the medical costs alone of obesity-related illnesses are estimated to be \$130 million per year; additional economic costs, including lost productivity and workers' compensation, bring the total economic impact to \$390 million annually.

Realizing their mutual interests in changing growth and transportation patterns, transportation and public health agencies in the Lansing region have collaborated since the late 1990s on regional and local planning efforts and programs. The Tri-County Regional Planning Commission (TCRPC), the Federally designated MPO for the three county area, has taken a leadership role in these collaborations. In 1997, TCRPC initiated a regional growth visioning and implementation process involving numerous citizens and stakeholder groups, including health officials and advocates. The agency has worked to incorporate policies into its transportation plans that address public health and increase opportunities for physical activity through nonmotorized travel and land use strategies. Partnerships with a local (Ingham County) health department and other stakeholders have helped the MPO support the objectives of the growth visioning process by training and educating a network of public agency staff and citizens. These staff and citizens have become active, informed participants in the transportation and land use planning and project development processes – working to shape local and regional transportation and land use choices to improve opportunities for nonmotorized travel and physical activity.

Preparation

TCRPC's engagement with the public health community is not new; in fact, staff report that they have worked with the Ingham County Health Department (ICHHD) for decades on issues of mutual concern, such as groundwater management and various other environmental planning issues. (Ingham County encompasses nearly 60 percent of the region's residents, including the Cities of Lansing and East Lansing). In recent years, though, the agency has expanded its partnerships with the health community to address physical activity issues through regional growth, community design, and transportation project selection and design.

A major stimulus for these partnerships was a **regional growth visioning project** initiated by the MPO in 1999. Known as the *Regional Growth: Choices for the Future* project, this effort involved hundreds of citizens as well as numerous public, private, and nonprofit partners in helping to develop a shared vision of future land use to accommodate the region's projected growth. The project resulted in the adoption in 2003 by the Commission of a regional growth vision, including a policy map and guiding principles for regional growth patterns. The project is now being implemented through changes to local comprehensive plans and zoning, transportation plan and project funding priorities, and continued education and outreach.



Adopted Regional Land Use Policy Map from the *Regional Growth: Choices for the Future* project. Source: TCRPC.

“This vision states that policies will be implemented that encourage in-fill in developed urban, suburban, and rural centers. Limited growth at low densities in clustered settings is to occur in mature corridors that connect centers or along corridors where transit ridership is high. The majority of development is expected to occur where public water and sewer services are available. There will be more investment in quality of life/livability factors, including sidewalks, landscaping, and preservation of the tree canopy.” – Vision statement from the Regional Growth project

ICHD participated on the Stakeholder Committee for the Regional Growth project. In addition, the TCRPC and ICHD worked with other stakeholders to establish a **Regional Land Use and Health Resource Team**. The purpose of the team is to educate and engage the community regarding impacts of the built environment on health. Chaired by the MPO’s director and facilitated by ICHD, the team consists of representatives from local planning departments, Michigan State University (MSU), businesses, and other public health agencies. As a land-grant institution, MSU has long been interested in land use activities and for many years has funded a Land Policy Educator position through its Extension program in partnership with TCRPC. Most recently, the position has assisted in the implementation activities for the Regional Growth project.

One major activity of the Resource Team has been to oversee the development and refinement of **Health Impact Assessment (HIA)** tool for local site plan review. The purpose of the tool is to encourage discussion among planners and developers and others about the health impacts of

proposed developments. Funded by an MSU Land Policy Program grant, the HIA development project is taking an HIA checklist for site plan review developed by the National Association of County and City Officials and placing it into a geographic information systems (GIS) environment on an inexpensive platform, appropriate for less resourced endowed planning departments and local environmental health professionals. Testing, evaluation, and refinement of the tool began in 2005 and is continuing in 2006.

Policies

The Lansing MPO is explicitly acknowledging public health in its adopted policies and principles through the long-range transportation plan. The regional growth vision, adopted by the Commission as an integral component of the Regional 2025 Transportation Plan in 2003, includes two principles that directly address health:

- **Principle No. 9 – Environmental Protection** – *For long-term regional health and sustainability, the natural environment (land, air, and water) should be protected.*
- **Principle No. 19 – Greenways and Walkability** – *Pathways, sidewalks, trails, and on-street bike facilities should be developed and enhanced to provide alternatives to motorized transportation, improve linkages to recreational opportunities for regional residents and provide public health benefits by offering opportunities for physical activity.*

In adopting the regional land use vision, the Commission made a finding that implementing the principles and policy map “is necessary to protect public health, safety, and welfare and is in keeping with their fiduciary responsibility to the taxpayers to use Federal transportation dollars wisely and to establish priorities for use of Federal transportation funds.”

The Commission has certified that all projects contained in the Regional 2025 Transportation Plan are consistent with the preferred land use vision and is now working to ensure that transportation projects, programs, and priorities support this vision. In addition, the Commission has indicated its intent to consider whether future transportation project proposals are consistent with the vision’s policy map and principles in setting its project selection and prioritization criteria. While such efforts are likely to encounter some political resistance, especially if it means denying specific locally sponsored projects, TCRPC planner Paul Hamilton notes that the intent of the Commission is genuine – not just lip service. He observes that “recently, several of our commissioners started essentially telling us that *they* wanted to target more funding to nonmotorized projects, that they wanted us to direct more staff attention to reviewing project proposals and adding more weight to projects which were consistent with the Growth Project.”

Promotion

As part of the Regional Growth project, TCRPC has conducted considerable outreach on the impacts of growth patterns on transportation, the environment, and other factors. Resource Team partners have conducted outreach activities specifically on the linkages between growth patterns, physical activity, and public health. In 2005, the team published a report entitled *Our*

Environment, Our Health. The report examines trends in land use, population, and growth, as well as the implications of these trends for walking and bicycling, physical activity, physical (street) safety, air quality, and water quality. The report also identifies ways of addressing health through land use decisions and transportation projects. In February 2006, the team organized a regional “**mini-conference**” entitled *Putting Health Back into Planning*. Conference participants included 23 land use/planning/development professionals, 23 health/environment professionals, 20 neighborhood leaders/activists, five transportation professionals (two from the Michigan DOT, one from TCRPC, one from the local transit agency, and one consultant), and three elected officials. Work groups developed a set of recommendations to be addressed by the Resource Team and discussed these recommendations with the team; follow-up meetings were held to generate and validate a list of objectives based on these recommendations.

ICHHD and TCRPC staff have worked with the Resource Team on other outreach activities, including publishing a quarterly newsletter entitled, *Putting Health Back into Planning*. Resources related to planning and health, including newsletters, Resource Team reports, conference proceedings, and other documents, are made public through the Capital Area Community Voices web site, which is sponsored through a W.K. Kellogg Foundation pilot initiative to improve access to healthcare and healthcare quality. The Power of We Consortium (POWC) is another, related effort supported by ICHHD and TCRPC to engage and mobilize residents, businesses, and community-based organizations in a community change process to create a healthy Capital Area. POWC is supportive of processes that move far beyond traditional “public input sessions” toward real dialogue, genuine engagement, and collaborative decision-making, such as TCRPC’s Regional Growth project.

Lansing area agency staff and volunteers also have been leaders in statewide initiatives to promote community planning with health objectives. For example, TCRPC staff have helped organize a regular statewide “**Michigan Designing Healthy Livable Communities Conference.**” Sponsored by the Michigan Department of Community Health and a host of other agencies and associations (including TCRPC and MDOT), the first two of these conferences – held in 2003 and 2004 – drew over 300 attendees each from across the State, to discuss and learn about ways of designing communities to remove barriers to physical activity and healthy eating. A third conference is planned in November 2006. The conferences have addressed not only traditional issues such as site design and bicycle and pedestrian infrastructure, but also important supporting factors such as designing for personal safety and security and involving youth in planning. Also at the state level, in 1992 Michigan established the Governor’s Council on Physical Fitness, Health, and Sports to improve the health of, and increase physical activity among, Michigan residents. Transportation-related efforts are part of this initiative, such as Smart Commute Week and Safe Routes to School. In addition, the Council is providing resources to change land uses and the transportation infrastructure through its Active Communities Program, including a self-assessment tool and annual awards.

Regional and state agency leadership in the topic, combined with the growing national awareness of the link between community design and health, has led public health, environmental, and community groups in the Lansing area to undertake their own efforts to address health and physical activity through planning. For example, the objective of the “**Moving Our Community toward Health**” (MOCTH) project is to improve cardiovascular health by enhancing opportunities for physical activity. The project is supported by the Michigan Department of Community Health, ICHHD, and other regional and local community and advocacy groups. Projects include: neighborhood groups working to improve the physical

environment around them for safer riding/walking and access to healthy food; grassroots organizations organizing to promote safe and healthy transport options for residents; and regional groups working to include health in policies related to the implementation of TCRPC's Regional Growth project at the local planning unit levels.

Programs

For many years, TCRPC has undertaken efforts to improve conditions for walking and bicycling not only for public health reasons, but also to reduce VMT, improve air quality, and improve bicycle and pedestrian safety. The agency adopted its first nonmotorized plan for the urban area in 1981 and accelerated these efforts with the development of a regional GIS nonmotorized inventory and adoption of a regional nonmotorized system plan in 1995. In 1998 TCRPC successfully applied for a grant through MDOT's nonmotorized training grant program to engage 120 participants in a three-day professional training class. This class was followed by extensive community walkability audits and public education efforts in East Lansing and at MSU. Through additional grants in 1999 to 2002, the MPO sponsored additional community audits and training programs on nonmotorized planning, safety, traffic calming, and walkable and livable communities in virtually all of the communities in the region. TCRPC staff estimate that nearly 1,000 community leaders and agency staff were trained through these programs. TCRPC and MDOT have continued these efforts by sponsoring a National Highway Institute course on pedestrian safety engineering and design in 2006 that reached an even mix of engineers, transportation and land use planners, and public health and active living advocates.

The **Safe Routes to School** program is another program through which TCRPC is working to increase physical activity through community design and transportation. At a statewide level, in 2003 the Michigan Department of Community Health and Governor's Council on Physical Fitness initiated a pilot program, supported by an MDOT/FHWA Transportation Enhancement grant, which included a school in Lansing. At the regional level, TCRPC held its first regional safety forum in fall 2003 to identify and prioritize regional safety issues, problems, and needs from a planning perspective. School safety was identified as the highest regional safety priority by the approximately 70 participants. The MPO is working to implement recommendations of the action plan from that forum, including seeking funding to hire a safety engineer to provide technical support to school districts and local governments, and creating a new Safe Routes to School program category in the Regional 2030 Transportation Plan (adopted in October 2005). The program includes investment strategies, performance measures, a work scope, and project selection criteria, and is being used to shape implementation consistent with the new funding and requirements provided through SAFETEA-LU.

Physical Projects

TCRPC staff note that a number of programs and projects included in the Transportation Improvement Program (TIP) directly support nonmotorized travel. One example is a bicycle parking project funded by an MDOT/FHWA Transportation Enhancement grant that was cooperatively applied for, planned, and implemented using staff support from the MPO, MDOT, transit agency, and a local bicycle club (which also supplied matching funds). The

project, which was implemented as an MDOT construction project, placed approximately 260 bicycle parking racks throughout the region. Some Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds also are being directed at nonmotorized projects or projects with a nonmotorized component. Staff note, however, that it is difficult to assess priorities simply by looking at projects listed in the long-range plan or TIP, since most bicycle and pedestrian improvement projects are not stand-alone projects but rather are integral parts of other projects (e.g., adding sidewalks or bicycle lanes in conjunction with road reconstruction). In addition, much of the impact is through local projects or the use of state funds, rather than projects that appear in the regional plan or TIP.



The Riverwalk in Lansing, Part of the Eight-Mile Lansing River Trail. Courtesy Michigan State University.

TCRPC staff believe that there has been increased local emphasis on projects supporting nonmotorized travel, in part as a result of widespread regional and state-sponsored outreach activities. The previously mentioned MOCTH effort, for example, is engaging community organizations in efforts to redesign neighborhoods and improve transportation alternatives in areas such as Northwest Lansing and the Allen Street Neighborhood.

Benefits of Transportation, Physical Activity, and Health Linkages

TCRPC staff observe that their partnerships with public health agencies – as well as other community, nonprofit, and private-sector partners – have benefited the agency in a number of ways. Perhaps most significantly, these partners have been instrumental in supporting the agency’s efforts to develop and implement a regional growth vision. One form of support has been the provision of funding and in-kind contributions. For example, the MSU Extension provided real-time electronic voting equipment, trained facilitators, and a network of educators and contacts in each county to support the Regional Growth project. Grants from the MSU Land Policy Institute, matched in part by funds from ICHD, are supporting a TCRPC staff position – in its fifth year as of 2006 – to help staff the Land Use and Health Resource Team and implement the regional growth vision. Partner organizations also have been instrumental in assisting with outreach, education, public information, and participation on the Regional Growth project – helping TCRPC reach audiences it otherwise would not have reached. For example, a community newsletter prepared by the Resource Team was cited by nearly one in five participants in the final town hall forum for the project as their source of information and motivation to attend.

An additional benefit that TCRPC notes to these partnerships, and their corresponding education and outreach efforts, is the development of a network of leaders who can articulate and work with elected officials and the public on transportation and community design issues in ways that the MPO cannot. For example, the MPO understands that the details of transportation project development and design, including a context-sensitive solutions

approach, are important to supporting bicycling and walking, yet the MPO is not typically involved in project design and development. However, there is an increasingly broad network of advocates – such as community members and public health agency staff – who are well-versed in transportation project design issues and can work directly with elected officials and other members of the public to influence the project development process and affect decisions that are made at a community level. Similarly, greater citizen expertise is being brought to bear on the local planning and development permitting processes, to support land use decisions that improve nonmotorized transportation conditions and help implement the regional growth vision.

“It’s one thing for me as MPO staff to stand up and talk about implementing the regional growth vision – it is quite another when the various stakeholder groups, advocacy groups, the extension network, public health officials, local agency staff and other participants in the process are carrying that message for us.” – Paul Hamilton, TCRPC

Public health agencies also recognize the mutual benefits of the partnerships that have been formed. ICHD and MSU Extension both initiated their participation in the regional growth visioning process, approaching the MPO and noting that they have strong mutual interests in the outcome of the effort. ICHD recognizes the role that community design and transportation choices can play in improving public health and understands the important role that the MPO can play in shaping these choices. Furthermore, ICHD and others in the health community have become increasingly aware of the relationship between transportation and other public health outcomes such as traffic safety, and they have expressed interest in analyzing local crash data and addressing safety in general (and nonmotorized safety in particular) as a public health problem. The MPO has assisted these efforts by helping health practitioners understand the complex aspects of how traffic safety engineers analyze and address safety issues, as well as how they can be addressed through safety-conscious transportation planning. TCRPC’s Hamilton observes that this is another case in which there is convergence between the two groups’ interests, and where mutual benefits can be realized by sharing the two professions’ expertise and perspective.

Ultimately, the benefits of these partnerships and activities are expected to extend far beyond the agencies themselves. The large majority of participants in the regional growth visioning process (79 percent) selected the preferred growth vision over a “business as usual” scenario that would continue current growth trends. Participants believe that changes to growth patterns will improve community livability, safety, and the environment, as well as transportation conditions. TCRPC’s modeling efforts suggest that implementing the growth vision would reduce congestion by 50 percent at build-out and save between 1.6 and 4.8 billion dollars in road improvement costs. The popularity of the MPO-sponsored community walkability workshops also attests to the citizen interest in this issue. Ultimately, as communities become more walkable and nonmotorized travel options increase, benefits to public health through increased physical activity also should be realized.

“Both we and the health department have been proactively doing our jobs – which converge with regard to land use/transportation/air quality/environmental quality, etc., and with active living/obesity and design as well as crash safety (for all modes) as both transportation and public health problems.” – Paul Hamilton, TCRPC

Success Factors and Lessons Learned

A primary key to successful collaboration among TCRPC, ICHD, and other partners has been agency leadership. Both the MPO staff director and chief transportation planner have been interested in the connections between transportation, physical and environmental design, and public health for many years and began discussing these issues in more detail with ICHD as early as 1999. A key health agency staff person also had a strong personal sensitivity and understanding of the relationships between land use and health, as well as recognition of traffic safety as a health problem. Their willingness to establish personal relationships and share perspectives across disciplines has helped lead to broader interagency working relationships and their associated benefits.

Cross-training and sharing of expertise with other professionals across disciplinary boundaries also has been critical in helping the transportation and public health agencies work towards their mutual objectives. TCRPC's Hamilton notes that transportation and public health professionals tend to speak in different languages, even though their objectives may overlap. Holding conversations across the boundaries of different disciplines can introduce others to the terminology and processes specific to each discipline – making health officials and advocates, for example, more informed participants in the transportation planning process, and increasing engineers' awareness of how their decisions affect the community. Walkability and pedestrian safety workshops have introduced both professionals and citizens to the details of strategies that can make communities more pedestrian-friendly – supporting the implementation of safe and appropriately designed strategies. The skills and viewpoints of health practitioners, in turn, can prove valuable to the MPO. For example, they have proven effective in helping to conduct education and outreach, especially to segments of the population that are difficult to reach such as low-income and ethnic minority populations.

Regardless of how much cross-training and collaboration takes place, changes to transportation and community design practices will not happen overnight. While a number of communities – including the central city of Lansing – have adopted, or are in the process of updating, their comprehensive plans and zoning consistent with the regional growth vision or have increased their emphasis on nonmotorized conditions, many others have not gotten to this point. Hamilton notes that “while the active living and stakeholder communities recognize their stake at the MPO table, they also recognize that they have much more work to do at the local level.” Local transportation professionals and MDOT staff also are gaining a much better understanding of these issues, but similarly, it can take time to change long-established project development and design practices.

The tools to support decision-making by linking transportation decisions, community planning, and health outcomes also are only in their infancy. The health impact assessment tool, currently being tested, is intended to serve as such a decision support tool. However, it is generally acknowledged to require further refinement and technical development before it can be usable on a widespread basis. Traditional transportation forecasting tools still have numerous deficiencies when it comes to predicting changes in travel patterns and mode use as a result of nonmotorized travel improvements. As a result, planners and advocates must rely on their professional judgment (combined with the knowledge of the community) to identify and prioritize the projects and policy changes that will be most effective at reducing VMT, increasing physical activity, and yielding public health benefits.

Conclusion

Lansing's experience provides a number of findings for MPOs and local public health agencies hoping to work together to better address health and activity in transportation planning:

- A regional growth visioning process can serve as the framework and motivation to connect transportation and land use, introduce health issues, create interdisciplinary partnerships, conduct public outreach, and adopt policies and programs to address health issues through transportation planning. Such growth visioning and scenario planning processes have been recently undertaken or planned by many MPOs and other agencies throughout the country, for a variety of motivations.
- Interdisciplinary relationships and collaboration are essential so that practitioners can learn each others' language and processes as well as share their knowledge and expertise. Agency leadership is essential to establishing and maintaining these relationships.
- The MPO strongly believes that these relationships have benefited them – through access to shared resources, expanded public outreach opportunities, and a stronger group of local advocates to implement transportation and land use policies that are expected to reduce transportation investment needs and increase the efficiency of the transportation system, as well as supporting other community objectives.
- The health community also sees a strong benefit to these relationships – through an improved understanding of transportation planning, project development and design principles, greater access to these processes, and the ability to influence transportation and land use decisions to improve public health and safety.

For Further Information

Web Sites

Capital Area Community Voices – www.cacvoices.org/environment. Includes: Land Use and Health Resource Team documents, regional conference proceedings, newsletters, and health impact assessment information.

Tri-County Regional Planning Commission – www.tri-co.org. Includes: information on the Regional Growth project (summary report, map, and links to project web site) as well as the long-range transportation plan.

Governor's Council on Physical Fitness, Health, and Sports – www.michiganfitness.org. Includes: information on Safe Routes to School, Active Community Environments, and other state programs.

Published Documents

Chenoweth, David, et al. (2003). *The Economic Cost of Physical Inactivity in Michigan*. Prepared for Governor's Council on Physical Fitness, Health, and Sports.

Ingham County Health Department (2005). *Our Environment – Our Health*. Lansing, Michigan.

Tri-County Regional Planning Commission (2005). *Tri-County Regional Growth: Choices for Our Future*. Lansing, Michigan.

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