

**Testing the Health in Transportation Corridor Planning
Framework in Nashville, Tennessee**

State Route 109 as a Major North-South Connection for the Region

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Notice

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Background

Three interstates cross in Nashville, Tennessee: I-40, I-24, and I-65. The Nashville outer loop, State Route 840 (SR 840) provides a connection between I-40 and I-24 to the south of the downtown area. The northern section of SR 840 was eliminated from further consideration as part of the outer loop based on past transportation studies. The transportation system therefore depends on the arterial network to provide connections between I-40 and I-65, allowing northbound freight traffic to bypass Nashville. State Route 109 (SR-109) is a major arterial corridor in the region, carrying significant amounts of freight traffic, and is identified by the Nashville Area Metropolitan Planning Organization (MPO) as a key truck route for the region.



SR-109 in Sumner and Wilson Counties

The 39-mile corridor supports the transportation needs of several small communities in addition to the freight need. The corridor traverses Sumner and Wilson Counties in a predominantly rural setting. Tennessee Department of Transportation (TDOT) has identified SR-109 as a Strategic Regional Corridor in their Long Range Plan and therefore continues to improve sections to meet safety and mobility needs. Because of these improvements, the cross-section varies throughout the corridor, with wide lanes and shoulders in isolated areas. However, most of the corridor represents a traditional two-lane rural highway with limited shoulders and limited passing opportunities.

Although improvements are generally welcomed by the local communities, there is concern that SR-109's evolution as a major highway to support through-traffic will come at the expense of local quality of life. Anticipated growth in the region is significant, and SR-109 is identified as a Growth Corridor in the MPO *Tri-County Transportation and Land Use Study*. Travel demand will continue to escalate along the corridor, and unmanaged growth threatens to undermine efforts to improve safety, capacity, and travel times. Access management was identified as a means to address some of the local concerns, and the MPO initiated the SR-109 Access Management Study to identify strategies to balance the access demands with safety along the corridor.

TDOT's interest in using the Health in Transportation Corridor Planning Framework (Framework)¹ in this corridor planning study was two-fold. First, by identifying public health needs, setting specific goals and objectives, and developing evaluation criteria for SR-109, the potential exists to impact growth and development significantly along the corridor in a positive way. Second, the primary product of this study is a guidance document that will outline a process to evaluate and select future corridor plans based on public health features. TDOT decided to test the Framework concurrent with the Access Management Study to maximize the use of available data and public input, and to provide recommendations informed by a full understanding of the corridor needs and challenges.

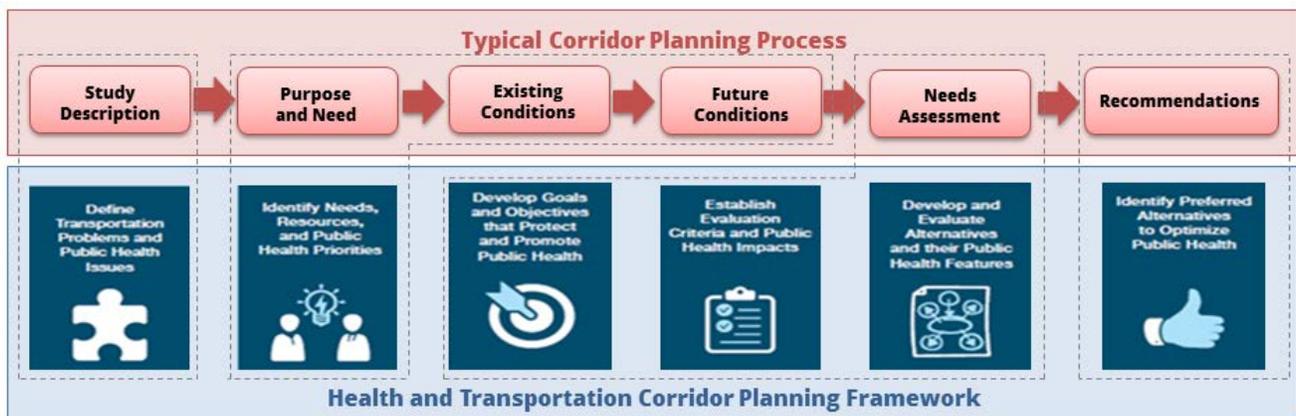
Although safety issues and freight needs are dominant features of the corridor, TDOT and its partners have considered the corridor's full multimodal needs. The Music City Star provides commuter rail service

¹ Health in Transportation Corridor Planning Framework: FHWA 2016
http://www.fhwa.dot.gov/planning/health_in_transportation/planning_framework/the_framework/index.cfm

with a station at one end of the corridor that includes a park-and-ride lot. The corridor serves bicycle transportation in some segments, and a multicounty transportation and land use study calls for sidewalks, bike lanes, or a multiuse path along different segments. The MPO Regional Bicycle and Pedestrian Study identifies SR-109 as a bicycle route, and it connects to a State bicycle route in Sumner County.

The MPO has been nationally recognized for its successful integration of health in transportation decision making for several years. The agency brought a wealth of health-related data to the corridor study to identify specific areas where health concerns intersect with transportation needs. The Tennessee Department of Health (TN DOH) was also eager to participate, and TDOT met with staff at the outset of the test to explain both the purpose and process for the beta test. The “Nashville Team” is a partnership of the MPO, FHWA Division, Department of Health, and TDOT.

Framework Steps Completed



Proposed Framework Beta Test Steps for Completion

From the outset, TDOT intended to test the first four steps in the Framework to provide the basis for the proposed guidance document. Specific changes along SR-109 in the form of alternatives were predicted to come much later due to the lessons learned from both the Access Management Study and the beta test outcomes. Near the end of the study period it became clear that Step 4 to establish evaluation criteria and identify public health impacts would not occur within the 9-month beta test period. The study partners requested additional time to develop corridor goals and objectives more fully under Step 3. Partners also had differing ideas of the next steps to be taken with regard to Step 4. Although only Steps 1 through 3 were completed during the beta test, TDOT and project partners are working to complete the remaining steps.

Steps 1 and 2 were undertaken generally in parallel, primarily in response to the initial relationship with the Access Management study. An initial meeting with public health educators and directors marked the initiation of the beta test period, with subsequent activities focused largely on data gathering and building on the public/stakeholder interest the Access Management Study generated.

Partnerships and Stakeholders

Representatives from the Nashville Team, along with the access management consultant, met monthly throughout the project. The MPO provided data as well as technical and public involvement support. The FHWA Tennessee Division was active in meetings and provided input on decisions.

One of the first actions the Nashville Team took was to solicit the involvement of the TN DOH. In the early stages of the beta test, TN DOH began an initiative to focus more on health and the built

environment and added staff to focus on this area throughout the beta test period. This new focus provided an opportunity to engage Department of Health staff on this project. TDOT staff made a presentation to the health educators and directors in the region to explain and promote the beta test opportunity. During the beta test, public health representatives changed, depending on the activity and individual staff interest and availability. For example, an important segment of the corridor is located in Portland, TN. A TN DOH representative from the city of Portland participated in site visits and meetings involving this segment. As the project was focused more on long-range corridor planning, staff from the TN DOH's central office were engaged to help identify overarching themes and long-term goals, rather than steps for immediate impact.



Presentation to Mid-Cumberland Health Region Staff

Additional stakeholders were recruited before the project began by contacting local and regional groups with a known transportation or health interest in the corridor. These groups included bicycle and pedestrian advocacy groups, local government officials, and regional transit agencies. City and county officials from the two counties comprise the Corridor Management Agreement (CMA), which was established to participate in oversight and approval for planning decisions in the corridor. The team worked with this committee primarily to identify and establish key stakeholder groups. During regular CMA committee meetings and other public meetings for the SR- 109 Corridor, stakeholders were actively engaged and encouraged to participate.

At every public meeting held for the SR-109 corridor study, information was collected about the stakeholder and public attendees, including contact information. This information proved very useful in later stages of the beta test to help develop an outreach study and inform the selection of goals and objectives.

Ongoing staff changes across all State departments hindered activities during the last part of this project. TDOT believes the support and interest remains across the partnership, and involvement ultimately will improve. A key staff change during the beta period will be instrumental in supporting this continuing engagement. Some discussion of ways for TDOT and Health to work together better has already occurred.

Detailed View of Activities

TDOT began the beta test period in conjunction with the Access Management Study led by the MPO. This connection supported information sharing and common public involvement. Public meetings were used to introduce the health aspect of planning for the SR-109 corridor and to solicit input from those who lived in the area about what mattered most to them.

State Route 109
Public Health and
Transportation Corridor
Planning Framework
Beta-Test

TDOT
Centennial 1915-2015

NASHVILLE AREA
Metropolitan Planning Organization

DEPARTMENT OF TRANSPORTATION
TENNESSEE DEPARTMENT OF HEALTH

Outreach Materials

As the Access Management Study completed, refocusing stakeholders and the public specifically on the health needs and issues in the corridor was necessary. A public survey facilitated broad input from this diverse audience to help frame the health goals in the corridor.

Step 1: Define Transportation Problems and Public Health Issues

A kick-off meeting was held on February 6, 2015 to bring together the primary transportation partners for the beta test and Access Management Study. Partners agreed that monthly meetings or conference calls were necessary to share information and ensure that the two projects remain mutually supportive throughout the planning process. Representatives from the TN DOH would be invited to future meetings of this group. The beta test was to focus on three elements of public health: safety, air quality, and multimodal transportation.

A series of public meetings for the Access Management Study was held during the beta test period in various locations across the corridor. The Nashville Team used these opportunities initially to engage the public. The team set up an area to share materials and talk to participants about the study's health aspects. Through the course of the beta test, three meetings of this type were held at the three cities along the corridor.

TDOT found the most successful engagement strategy for stakeholders to be small group and individual interactions. In conjunction with opportunities to drive the corridor, the team was able to solicit more specific input about sections of the corridor as viewed from the perspective of the various stakeholders. This approach was particularly useful with the elected officials from the cities and counties represented. This flexibility was an initial strength of the Nashville Team in gathering information.



*SR-109 at Cumberland River Bridge
Significant improvement providing access to a marina and
recreational trails for walking and biking*

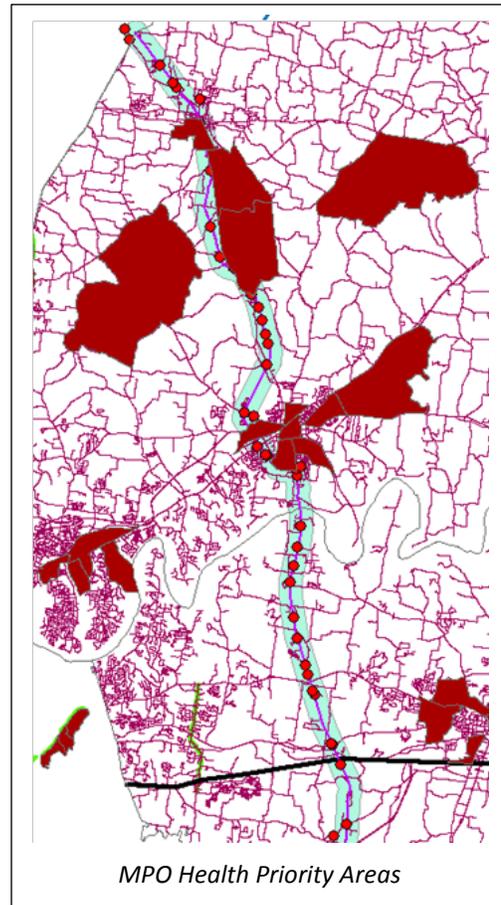
Step 2: Identify Needs, Resources, and Public Health Priorities

From the outset, the Nashville Team began collecting data to inform the health aspects of the corridor. Mapping of data was a central activity, in conjunction with engaging the public and stakeholders. The partners began the beta test with an understanding of the needs and priorities from several existing sources. The Access Management Study provided a technical understanding of the transportation issues connected with access and mobility. Crash data were available to help understand safety challenges in the

corridor, particularly with respect to truck traffic. In addition to typical crash data, TDOT mapped non-motorized crashes between 2011 and 2013 to understand bicycle and pedestrian issues. Land use data were available to support an understanding of planned growth along the corridor. Although transportation and land use data were readily available, health data were not available at the same scale and format.

The MPO had health data in specific areas of focus that aligned well with the SR-109 corridor. The MPO data included disadvantaged populations, access to healthy foods, bicycle and pedestrian levels of service, active travel trips per day, and other information on the area population. Based on this information, the MPO has identified Health Priority Areas throughout the region. Many of these priority areas intersect the corridor study area. Through collaboration with the Centers of Disease and Control and Prevention, these and other data allowed for a scaled application of the Integrated Transportation and Health Impact Modeling Tool. By applying this tool to the corridor, the team could show the positive impacts of increased physical activity for the population in the area.

For a 2-month period, the Nashville Team collected qualitative data through individual and small group meetings with stakeholders. These “drive-the-corridor” opportunities targeted individual sections of the corridor and the special interests that they served. Stakeholders ranged from local elected officials to bicycle advocates and helped identify other detailed corridor connections that could be improved.



Step 3: Develop Goals and Objectives that Protect and Promote Public Health

The Nashville Team began preparing to identify health goals and objectives before receiving results from the Access Management Study and the transportation goals. The primary input to health goals for the corridor was survey response from the public. More than 200 individuals, who participated in either CMA meetings, corridor study meetings, or site visits, were engaged with a web-based survey. Ultimately, the survey collected 338 responses. This success was the outcome of the time and resources devoted to outreach and stakeholder collaboration.

TDOT analyzed the survey responses to develop draft goals for partner discussion and consideration. In the team meeting to discuss goals and objectives, TDOT staff provided an overview of data that was collected, discussed the site visits, and presented some results from the survey. The intent was to develop goals and objectives during the meeting, but partners decided to set goals via email correspondence.

TDOT developed a goal setting exercise which used a template for each person to identify potential goals and objectives. Although many responses were received, not everyone participated in the exercise. At the end of the beta test period, staff were in the process of combining and editing goals and objectives into a single list. The general consensus among partners was to follow the

Nashville Team Health Goal Setting

Goal: *Increasing safety for all roadway users*
Objective: *Strengthen coordination with local and State emergency incident response partners.*
Objective: *Design roadways and other transportation facilities to accommodate all users*

Goal: *Increase multimodal transportation opportunities along the corridor*
Objective: *Accommodate bicyclists by providing dedicated travel lanes, pavement markings, signage, traffic signals, parking facilities, multi-use pathways, and educational services*

priorities identified through the surveys; building on that information with some measurable goals.

TDOT determined the most efficient way to conduct Step 4 was through online polling using the goals and objectives from the survey discussed in the Step 3 meeting. The success of the survey and the interactive goal setting exercise proved to be a beneficial approach to reaching agreement on the goals and objectives.

Step 4: Establish Evaluation Criteria and Public Health Impacts

Although the initial intent was to complete Step 4 during the beta test period, this did not occur. Staff uncertainties and competing job requirements were factors that impacted the active participation of public agencies across sectors in Tennessee toward the end of the beta period.

The MPO uses a specific project evaluation criterion that is being considered by the Nashville Team to complete Step 4. Assigning point values for the goals/objectives identified as part of the health and transportation project can inform potential prioritization of resources. For example, a project that improves safety through intelligent transportation system improvements would score differently than a project that connects residential developments to a park.

Decision Maker Support

Like many State DOTs, TDOT has mixed interest in transportation and health at the decision making level. The Deputy Commissioner Chief of Environment and Planning at the time of the beta test was highly interested in the topic. Staff in this area of the organization were encouraged to participate at the national level and to support individual community interests. The Environment and Planning Bureau structure supports this commitment. The agency as a whole, however, is undergoing a large transition. In this environment, core responsibilities receive the greatest attention. The TN DOH is experiencing similar challenges; however, the agency recently hired an experienced planner from the MPO to lead the interface with transportation. In this context the team did not seek high-level decision maker input during the SR-109 corridor study. The intent for the Framework is to inform the overall corridor planning process used at TDOT. This will help institutionalize the incorporation of health along with continued collaboration with the TN DOH and other health stakeholders.

Outcomes

Using the Framework to study the SR-109 corridor assisted the Nashville Team in several ways. Initially, it provided a purpose for individual partners to work together toward a single common goal. The national attention boosted the interest of other transportation agencies in the State, providing the potential for more activity in the future. Participating in the beta test also helped with public engagement: It identified the basis of TDOT's interest in public health, which was an unfamiliar connection for this audience. The high level of response to the survey suggests the public was receptive to this interest. The SR-109 corridor is fully within the MPO boundary and therefore will continue to receive support to improve health as individual improvements are identified. Because this corridor is strategically important in the region, more opportunities to improve safety, air quality, and multimodal transportation options are likely in the future.

Case Study Synopsis

The Framework was used to develop a standard process for ongoing consideration of public health as transportation improvements were identified and prioritized in Tennessee. The Nashville Team's approach to stakeholder engagement used every opportunity available to solicit input in determining health and transportation priorities for the corridor. The survey results illustrate the significant interest in this approach by those who depend on the corridor for transportation.

For More Information

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