



Transportation and Public Health Peer Exchange

Summary and Key Findings

February 9, 2015

ICF International

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Acronym and Abbreviation List

AASHTO	American Association of State Highway and Transportation Officials
Center	The Center for Environmental Excellence
CIMS	Corridor Investment Management Strategy
DOT	Department of Transportation
FHWA	Federal Highway Administration
HIA	Health Impact Assessment
HiAP	Health in All Policies
MOU	memorandum of understanding
NEPA	National Environmental Policy Act
SCOE	Standing Committee on the Environment
SCOP	Standing Committee on Planning
SCOPT	Standing Committee on Public Transportation
SCOHTS	Standing Committee on Highway Traffic Safety
TZD	Toward Zero Deaths

Executive Summary

On December 16, 2014, the Center for Environmental Excellence by AASHTO hosted a Transportation and Public Health Peer Exchange to facilitate dialog around the growing interest in health at state departments of transportation (DOTs). Over the past year, several AASHTO Standing Committees began to explore the integration of public health into transportation practice. Both the Center and the Federal Highway Administration (FHWA) have an interest in this topic, and a peer exchange was deemed an appropriate initial step to better understand and coordinate public health efforts within AASHTO.

Although the peer exchange's primary purpose was to lay the foundation for future conversations among Standing Committees, additional value for participants was the opportunity to share experiences across planning, environment, public transportation, and safety in support of public health. The diversity of state DOTs participating in the peer exchange and the breadth of current activities presented illustrate how public health is both supporting and influencing common transportation practice. Topics ranged from the impact of policies and mandates to incorporate health to the specific challenges and opportunities of engaging public health professionals in existing plans and programs.

The outcome of the Transportation and Public Health Peer Exchange was a list of key findings along with specific activities to advance consideration of this topic. Participants were united in their interest in moving forward—to address the issues, answer the questions, and show how public health matters to transportation professionals.

Key Findings

Build on Success

Context sensitive solutions, Complete Streets, and Congestion Mitigation and Air Quality are examples of existing policies and programs directly connected to public health. Toward Zero Deaths and the Strategic Highway Safety Plan are similar in their ability to provide new ways to solicit public health support and input while advancing the state DOT mission. Public transportation is another area where a public health connection is already established. Transit is particularly important in providing access for rural and disadvantaged populations. By joining forces with bicycle and pedestrian supporters, transit can help expand the interest in active transportation. Communicating these starting points to transportation colleagues and to public health practitioners sends the message that health matters to the transportation community.

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Actions: Build, reinforce, and leverage partnerships with public health. Share success stories with transportation peers and public health practitioners to raise awareness of current DOT activities that support health.

It Starts with Planning

Experience with environmental decisions has demonstrated that earlier is better. The same is true for public health. The long range planning process provides a structure that allows health to be introduced even before projects are defined. It provides a collaborative forum for sharing information and defining scenarios that support public health goals and priorities. Many agencies have a strong interest in linking planning decisions to the National Environmental Policy Act process, which will ensure that health information captured and documented in planning is used to inform the selection and analysis of alternatives.

Actions: Invite public health professionals to participate in the long-range planning process and capitalize on their strengths in outreach and education. Document and share data, information, and decisions made in planning to help identify the potential public health impacts of individual project alternatives.

AASHTO Standing Committee Forum

The Standing Committees provide a forum for open and honest discussion among peers and the opportunity to adjust expectations within AASHTO so that a common message can be delivered to the various functional areas within the state DOTs. Creating a structured interface between committees enables health to be discussed broadly with multidisciplinary input. The committees also identify and advance new research ideas essential for addressing the knowledge gaps and uncertainties associated with incorporating health. Such research then can be presented in "one voice" for the Transportation Research Board, AASHTO, and FHWA to consider.

Actions: Establish a structure and approach to ensure all Standing Committees receive the same information and have the opportunity for discussion across committees. Create communication materials to ensure consistent messaging. Support research that addresses challenges faced by transportation practitioners interested in advancing public health.

Participants in the Center's Transportation and Public Health Peer Exchange confirmed many of the challenges and uncertainties identified in Standing Committee discussions over the past year, while highlighting some unexpected positive outcomes of incorporating public health. These practitioners were invested in continuing current activities that support public health with the potential to build interest and commitment throughout the transportation field. The diversity of state DOTs represented in the peer exchange highlights the potential to advance this topic within the industry.

Overview

Recognizing the growing interest in health at state departments of transportation (DOT), several Standing Committees within the American Association of State Highway Officials (AASHTO) have begun to explore the integration of public health into transportation practice. These efforts derive primarily from connections to health professionals made in individual functional areas within the state DOTs. As a result, the efforts tend to be largely disparate and unfocused. The Federal Highway Administration (FHWA) shares this interest in public health and seeks to understand how the topic is being considered within state DOTs. The Center for Environmental Excellence (Center) offers an opportunity to facilitate dialogue between the individual Standing Committees on this topic of broad interest. Working together, the Center and FHWA identified a peer exchange as an appropriate initial step to better understand and coordinate public health efforts within AASHTO. From the outset, the primary purpose identified for the peer exchange was to lay the foundation for conversations among AASHTO Standing Committees to share existing successful practices and to identify common challenges and needs.

To plan for the first peer exchange, information was gathered to identify topics for the agenda and potential participants. The liaisons to the individual Standing Committees were surveyed to identify common interests and needs across the groups. An advisory group to guide peer exchange development was formed with members primarily from the Standing Committee on the Environment (SCOE). FHWA and AASHTO staff also participated in project leadership.

On December 16, 2014, 25 people participated in the peer exchange in Washington, DC. The morning sessions focused on broad issues related to the consideration of health in AASHTO Standing Committees and state DOT functional areas. During the afternoon, participants shared experiences about the integration of health at their agencies in breakout group discussions.

This White Paper summarizes the background information, development of the agenda, and selection of participants. Peer exchange presentations are summarized, and key findings from the overall project are presented. This information is intended to help AASHTO Standing Committees work more collaboratively and efficiently in approaching public health. In addition, AASHTO and FHWA can use this information to consider research and resource needs to help state DOT meet the needs of all transportation system users.

Background

Background information on recent interest among AASHTO Standing Committees on public health provided a starting point for identifying the peer exchange topics and participants. Information was derived from three Standing Committee meetings held in 2014, a brief survey of Standing Committee liaisons, and interviews with select DOT staff identified by the liaisons. Common themes across Standing Committees were identified to inform topics and speakers for the peer exchange.

2014 Meeting Information

In 2014, the public health topic appeared on the meeting agendas of the Standing Committee on Environment (SCOE) and the Standing Committee on Planning (SCOP).

1. SCOE: Air Quality Peer Exchange (May 6–7) and Annual Meeting (June 23–26)
2. SCOP and the Subcommittee on Performance Management: Beyond the Mainstream Peer Exchange (June 20)

Common themes across these discussions were:

- ◆ The need for better collaboration between transportation and public health professionals
- ◆ Clarification of the role of state DOTs in considering public health
- ◆ Challenges to practitioner’s ability to analyze and consider impacts at the project level
- ◆ Understanding the impacts of transportation decisions on public health
- ◆ The role of health impact assessments (HIAs)

Survey of Committee Liaisons

AASHTO Committee liaisons were surveyed about the level of engagement around integrating public health into transportation in the Standing Committees (see Appendix A for the survey).

A brief online survey was sent to 14 committee liaisons, and 4 Standing Committees are represented in the results: SCOE, SCOP, Standing Committee on Public Transportation (SCOPT), and Standing Committee on Highway Traffic Safety (SCOHTS). The Standing Committee on Finance and Administration indicated that public health currently was not a topic of discussion in that committee and did not complete the survey.

The most popular areas of interest among the respondents included performance measures, identifying positive public health impacts, and the role of state DOTs. The Committee liaisons perceived two key challenges to integrating public health into transportation practice: (1) the uncertainty surrounding the state DOT role and (2) the lack of understanding between public health and transportation communities. Survey results indicated potential benefits of integrating public health for transit improvements and improving public involvement. All liaisons reported identifying best practices for partnerships as the most important topic to be covered during the peer exchange. Appendix B presents the full analysis of the survey results.

Individual Interviews

Individual interviews were conducted with the SCOHTS liaison and with several specific state DOT staff suggested by the AASHTO liaisons. These interviews were used to inform the selection of specific participants for the peer exchange and topics for presentation.

Implications for the Peer Exchange

The background information revealed common interests, challenges, and opportunities at state DOTs pertaining to public health and transportation.

Role. State DOTs might not fully understand their roles in public health. Health issues such as air quality and safety are well ingrained in DOT decision making. Many factors that are outside the control of transportation agencies, however, affect public health.

Partnership. Collaboration and information exchange between transportation and public health professionals is essential. In addition, partnerships with non-government organizations actively engaged in health are possible.

Challenges. State DOTs recognize challenges to incorporating public health:

- ◆ **Timing.** Different opportunities arise during planning, project development, design, operations. What is the best point in the transportation process to incorporate health more explicitly?
- ◆ **Education.** Transportation practitioners and public health practitioners have individual processes, common practices, and terminology that require education on both sides to support collaboration.
- ◆ **Data and Analytical Support.** Most health data are available at the county level, making both project-level and regional analyses difficult. Methods for quantifying the impacts of individual transportation decisions are needed to incorporate health into the evaluation of transportation choices.

Transportation and Public Health Peer Exchange

The peer exchange was held on December 16, 2014 in Washington, DC with the stated purpose to:

- ◆ Develop next steps/action items that AASHTO Standing Committees can take to advance the discussion of health and transportation decisions for state DOTs.
- ◆ Create a list of research needs and action items for FHWA/AASHTO Standing Committees to consider for future projects and tasks.
- ◆ Discuss potential roles and responsibilities for state DOTs and potential internal and external partnerships that support state DOT consideration of health.

Participants

Along with AASHTO and FHWA staff, 25 people representing 12 state DOTs participated. Liaisons of the four AASHTO Standing Committees with an interest in public health—SCOE, SCOP, SCOPT, and SCOHTS—initially identified participants. The intent was to include diverse agencies to exchange ideas across a broad spectrum of state DOT staff.

Several state DOTs currently incorporating health are doing so in response to executive or legislative initiatives. Such developments represent progress toward

institutionalizing public health in the state or in the DOT. In these states, health is often being incorporated across multiple functional areas. In other states, health is incorporated by individual staff or group activities as a part of the routine job function. In this case, individuals are often acting without the support or acknowledgment of management. This bottom-up approach to incorporating health is no less essential than, and can be just as successful as, the top-down policy or mandate approach.

Peer exchange participants represent a variety of agency approaches and functional area. Despite efforts to have a diverse panel of participants, this small group's ideas and perspectives may not be representative of all state DOTs. The participating agencies and their functional areas are listed to the right. Appendix C includes the complete list of participants.

State DOT	Functional Group
Arkansas	Safety
California	Environment, Planning
District of Columbia	Environment, Planning
Massachusetts	Environment, Planning
Michigan	Safety
Minnesota	Planning, Safety
New Mexico	Public Transportation
North Carolina	Environment
Oregon	Planning
Tennessee	Planning
Texas	Environment
Utah	Safety

Agenda and Session Presentations

The peer exchange format facilitated the active engagement of all participants through presentations, full group discussions, and breakout groups. Agenda topics were identified based on individual participant experience in incorporating health. Sessions began with the AASHTO Standing Committee perspective, followed by that of agencies that are institutionalizing public health. The sessions concluded with small group discussions of specific activities that illustrate the real opportunities and challenges associated with incorporating health. At the end of the day, the full group considered potential ways to continue the momentum building around public health and transportation. The summaries that follow identify some of the successful practices agencies are using to incorporate health. Appendix D presents a summary of the presentations and discussions in the breakout groups.

Consideration of Public Health in AASHTO Standing Committees/Functional Areas

Representatives of each AASHTO Standing Committee (environment, planning, public transportation, and safety) presented on the discussion/activity within the committee and on the consideration of public health within their agencies.

Standing Committee on Environment

Kevin Walsh from Massachusetts DOT presented on behalf of SCOE. His report focused on HIAs, which Massachusetts DOT requires for all transportation projects and which have also been a topic of interest at several SCOE meetings.

In 2013, the agency launched its Healthy Transportation Initiative, a policy directive that requires all state transportation projects to increase bicycling, transit, and walking options and mandates HIAs. Massachusetts DOT works closely with the Massachusetts Department of Public Health, whose staff participate in health discussions at the beginning of each project.

Key Points

- ◆ When conducting HIAs, start early in the planning process and ensure that the health recommendations are carried through to the National Environmental Policy Act (NEPA) process.
- ◆ Streamline the process of considering transportation impacts on public health. Remove additional requirements, such as a formal HIA process. Instead, develop standard practices to help embed issues into the planning process and improve the connection between planning and the NEPA process.

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- ◆ Uncertainty about the role of transportation practitioners is ongoing—in both state DOTs and metropolitan planning organizations.
- ◆ More resources are needed to enable the DOT to facilitate incorporation of health into transportation decision making: analytical tools, data, and information that is understood across both the transportation and health disciplines.

Standing Committee on Planning

Marilee Mortenson from the California Department of Transportation (Caltrans) presented on behalf of SCOP. The committee's recent involvement with public health has focused on performance measurement. In June 2014, SCOP hosted the Beyond the Mainstream peer exchange to address transportation performance measurement related to health and other quality-of-life issues. The participants noted that many of the commonly recognized challenges for performance measurement also are present when considering health: data gaps and mismatches and communication difficulties between transportation and public health practitioners. Some concern exists regarding the limitations to assessing the health benefits of transportation investments quantitatively.

California has adopted the Health in All Policies (HiAP) approach for considering the health implications of decision making across all sectors and policy areas (transportation, housing, education, etc.). Caltrans is one of 22 state agencies participating in the HiAP Task Force, working together to promote health, equity, and sustainability. The HiAP approach is reflected in Caltrans' developing statewide transportation plan, which includes goals for integrating health into transportation planning and decision making, along with reducing fatalities, serious injuries, and collisions. The questions of health and health equity are at the forefront in planning.

Key Points

- ◆ In working to clarify the role of transportation, considering the diversity of actors within the transportation field and the extent to which the state DOT can influence local health outcomes is critical. There is no single solution or actor.
- ◆ An HiAP approach is an alternative to conducting HIAs. It provides a clear opportunity for health experts to begin addressing health in traditionally non-health sectors. This approach has forged a path for collaboration between health and transportation practitioners.
- ◆ Opportunity exists for further collaborations between transportation and public health practitioners. Participants in the Beyond the Mainstream peer exchange expressed

interest in a joint transportation-health peer exchange to address some of the ongoing challenges and identify strategies for more effective partnerships.

Standing Committee on Highway Traffic Safety

Jessie Jones from the Arkansas State Highway and Transportation Department presented on behalf of SCOHTS. The Toward Zero Death (TZD) National Strategy is a vision for a highway system free of fatalities. This national strategy encourages traffic safety stakeholders to collaborate with new partners on programs to advance the vision of zero deaths. SCOHTS and the Subcommittee on Safety Management have supported TZD by working to promote collaborative partnerships with state public health and injury prevention agencies and to identify and disseminate examples of successful coordination between transportation and public health agencies at the state level. SCOHTS is now focused on building a larger stakeholder presence by encouraging the adoption of Toward Zero Deaths at the local level and continuing to promote the connection between health and traffic safety.

The Department has adopted a TZD approach, which is reflected in the 2013 Arkansas Strategic Highway Safety Plan. The plan was developed under the direction of a steering committee comprising federal, state, and local stakeholders. The Arkansas Department of Health is a key partner in the TZD initiative, collecting and analyzing data that are used to identify strategies to prevent injuries.

A critical component of the Arkansas Strategic Highway Safety Plan is the use of public outreach and education as a strategy to improve roadway safety. The State Highway and Transportation Department, the Department of Health, and the State Police/Highway Safety Office pooled resources to fund a TZD outreach campaign. A champion in the Department of Health has been instrumental in traffic safety policy, advocacy, and program implementation and in securing state funding for the TZD campaign.

Robert Hull from Utah DOT also provided insights on public health and traffic safety. He noted that one of the biggest issues in traffic safety is that crashes, injuries, and fatalities are not considered public health issues in the same way as the built environment, air quality, and noise. Part of the TZD initiative is to promote safety as a public health issue to encourage the health community to become more involved. In considering public health, practitioners will need to examine the functionality of the roadway and ensure it caters to multiple modes.

Key Points

- ◆ Some within the public health community do not view traffic safety as a health issue. To engage public health stakeholders, make the case that traffic injuries and fatalities are a

public health issue. Use crash and injury data to convey that traffic safety concerns are widespread.

- ◆ That local Toward Zero Deaths campaigns focus on local traffic safety concerns is essential. Seek local champions to identify local concerns, promote the campaign, and help attract additional stakeholders and partners.
- ◆ Considering comprehensive roadway functionality is critical when planning to improve safety. The Strategic Highway Safety Plan development process is an opportunity to bring together a diverse group of public health and transportation stakeholders and partners to address roadway safety.

Standing Committee on Public Transportation

David Harris of New Mexico DOT presented on behalf of SCOPT. On the transit side, access is the primary public health issue given that public transportation routinely provides access to medical services and providers for both fixed-route and paratransit riders. Particularly in rural areas, individuals who typically have no access to other transportation options are transit riders. In urban areas, in addition to dependent riders, choice riders who opt to use public transportation to support a lifestyle of active transportation are increasing. In both urban and rural areas, public transportation riders use active transportation to travel to and from transit stops. Because of this strong connection to health, SCOPT could be an ideal venue for discussing the institutionalization of health into public transportation practice.

Key Points

- ◆ Public transportation planning already addresses a broad range of health issues, particularly for transit-dependent riders in rural communities.
- ◆ Public transportation is generally safe, and in fact, might be as close to zero deaths as possible.
- ◆ Transit riders, responding to an interest in active transportation lifestyle preferences, have increased.

Institutionalizing Public Health in Plans and Policies

Although the integration of public health varies widely among state DOTs, some agencies have institutionalized health considerations through plans and policies. Representatives from three states, Massachusetts, Minnesota, and Oregon, discussed how health has been formalized at their DOTs.

Massachusetts DOT

Clinton Bench represented Massachusetts DOT providing a transportation planning perspective. In 2009, the Commonwealth of Massachusetts consolidated several transportation agencies into one department. From the outset, health has been a priority, prompted to some degree by shifting demographics that support multimodal systems. As the new department was structured, health was embedded into the goals and processes.

The legislation that created the new agency also included the Healthy Transportation Compact. This interagency initiative is intended to facilitate transportation decisions that support a multimodal transportation system, improve public health and the environment, and create stronger communities. One goal of the compact is to consider health implications during the planning process rather than create an entirely separate action.

In 2012, the agency adopted a statewide mode shift goal to triple the share of travel in Massachusetts by bicycling, transit, and walking to help reduce highway congestion, combat obesity in children and adults, and support reductions in greenhouse gas emissions. In 2013, Massachusetts DOT issued the Healthy Transportation Policy Directive, which formalized the agency's multimodal focus and mode shift goal. The directive requires that all transportation projects consider pedestrian and bicycle facilities. The directive requires staff and consultants to understand (1) the baseline health measures in the communities adjacent to a project, and (2) whether those communities face environmental justice or air quality issues.

Key Point

- ◆ The Healthy Transportation Policy Directive resulted in a notable culture shift within the agency. Massachusetts DOT can now establish support more easily for projects that support healthy transportation. Having the policy directive has resulted in the ability to address health from a variety of angles.

Oregon Department of Transportation

Jerri Bohard presented for Oregon DOT's Transportation Development Division. Efforts to address health in Oregon DOT have been encouraged by the DOT Commissioner's interest in children's health and active transportation and the Governor's concern with obesity. This executive-level interest resulted in a memorandum of understanding (MOU) between Oregon DOT and the Oregon Health Authority's Public Health Division. The MOU fosters effective collaboration between the two agencies, with four specific goals: (1) encourage ongoing communication and planning; (2) improve safety while increasing the physical activity of all Oregonians; (3) collaborate on research, data collection, and data analysis; and (4) leverage resources.

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Leaders from both agencies meet quarterly. They jointly develop an annual work plan, which serves as a communication tool between the agencies and the Governor's Office about the partnership's efforts. The work plan details goals, objectives, outcomes, milestones, and performance measures that support the overall goals of the MOU agreement.

The MOU has resulted in networking opportunities for transportation and health organizations around the state. This interface has been particularly helpful in facilitating data sharing, especially at the local level. Looking ahead, the Oregon DOT and Oregon Health Authority's Public Health Division will work to continue to expand transportation and health partnerships at the state and local levels. One strategy for building partnerships is to encourage the use of HIAs, when appropriate, to inform transportation decision making. The Public Health Division's HIA Program secures funding and leads the HIA process: Program staff can conduct HIAs of any size and rigor, from a rapid assessment to a more comprehensive examination. Oregon DOT participates as a key partner in the process for HIA for transportation projects.

Key Point

- ◆ An MOU can be an effective tool for establishing working partnerships between transportation and health interests. The MOU document can identify goals or objectives that build a foundation for ongoing collaboration.

Minnesota Department of Transportation

Philip Schaffner presented for the Policy Planning Department. Minnesota DOT has adopted a collaborative vision for a multimodal transportation system that maximizes the health of people, the environment, and the economy. To help implement this vision, the agency is focusing on multimodal solutions that ensure a high return-on-investment (ROI) given restrained resources. The agency developed a Corridor Investment Management Strategy (CIMS) for selecting projects that provide high ROI and support Minnesota DOT's objectives on quality of life, economic competitiveness, and environmental health. The CIMS started with a pilot solicitation, which was allotted \$30 million in the agency's 2014–2015 biennial budget. Minnesota DOT formed the Interagency Advisory Group, comprising representatives from state departments of Tourism, Commerce, Education, Employment & Economic Development, Health, Natural Resources, Public Safety, and Pollution Control. The committee is charged with helping develop CIMS evaluation criteria and reviewing projects submitted for funding. The evaluation criteria are based on a 100-point system:

- ◆ 60 points – Benefit/cost analysis that considers the project's ROI in terms of the economic, social, and environmental benefits along with the life-cycle project costs. Public health measures are included in the social (safety, health/physical activity, noise) and environmental (emissions) benefits.

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- ◆ 30 points – Weigh other factors, including Community Health and Access, Local Economic Impacts, System Considerations, Multimodal Impacts, and Context Sensitivity. Community Health and Access is defined as access to preventive and clinical health care facilities or recreational facilities and avoids or minimizes negative impacts (or both) or positively improves access for low-income or disadvantaged populations. Local economic impacts consider metrics such as the change in number of jobs.
- ◆ 10 points – Consideration for projects with more than 10% funding from other than Minnesota DOT sources.

Minnesota DOT received 45 applications for the pilot round of funding, with more than \$100 million requested. Using the evaluation criteria, 10 projects were selected for funding. In general, the three types of projects that scored well in this inaugural round using the CIMS criteria were those that: (1) addressed a significant safety issue, (2) comprised low-cost operational improvements, and (3) involved multifaceted complete/main streets in urban areas.

An example of a successful project is corridor improvements for the US 61 Main Street in the City of Red Wing. The project will support multimodal use and improve safety through improved pedestrian facilities, new and extended raised medians, closure of 12 driveway access points, narrower travel lanes, streetscaping, utility replacement, and pavement reconstruction.

Minnesota DOT plans to continue refining CIMS program criteria. Plans are underway to develop standard guidance for including emissions and physical activity in the benefit/cost analysis, as are discussions about other factors to consider. CIMS has helped strengthen an ongoing collaboration between Minnesota DOT and the Department of Health. The agencies intend to collaborate on multiple efforts such as Safe Routes to School, Transportation Alternatives Program, and other research; to develop the first statewide pedestrian plan jointly; and to conduct a pilot HIA.

Key Point

- ◆ An enhanced process for benefit-cost analysis helps translate broad agency goals into comparable and common metrics. Issues to resolve, however, remain. For example, data and forecasting might not always be reliable or available. In particular, bicycle and pedestrian forecasting methodologies are not well developed, and supporting data are not always available.

Breakout Group Presentations and Report Back

The afternoon sessions consisted of breakout group discussions in which participants presented on a range of topics and discussed the opportunities, challenges, and strategies for integrating health into transportation. Each round of two breakout sessions (six total) was followed by a report back to the full group.

Topics and presenters for the six breakout sessions are provided below with a summary of the outcomes of the full group discussion. Appendix D includes detail on each breakout session.

◆ **Health Impact Assessment: Kevin Walsh** (Massachusetts DOT) and **Faisal Hameed** (District DOT)

HIAs are a cause of significant uncertainty. In particular, states are grappling with the question of *when is the appropriate time or place for an HIA or alternative health evaluation framework*. Participants acknowledged that HIAs have both advantages and disadvantages.

◆ **Public Health in Long Range Planning: Katy Braden** (Tennessee DOT)

Participants concurred that long-range planning is a logical first step in incorporating health into transportation decision making. This topic inspires a new level of stakeholder interest and involvement in the long range planning process, and emphasizes the need to consider non-traditional measures to address transportation problems and needs. More research is needed to determine how to quantify the health benefits of transportation decisions to inform the return on investment that decision makers require.

◆ **Public Health in Project Development: Nicolle Kord** (Texas DOT) and **Aspen Price** (North Carolina DOT)

At the project level, the introduction of public health can impact the efficiency of the NEPA process. Public health collaboration at the project level could require a structured interface, such as an advisory committee, to engage both agencies in a direct dialog to inform decisions and present information in a more streamlined way.

◆ **Strategic Highway Safety Plan and Toward Zero Deaths: Kim Lariviere** (Michigan DOT) and **Kristine Hernandez** (Minnesota DOT)

Highway traffic safety represents an immediate opportunity for incorporating public health. The TZD strategy provides an issue of common concern, and the Arkansas Strategic Highway Safety Plan provides a structure for collaboration at the state and local level. Sharing a common vision will be necessary to support ongoing collaboration.

◆ **Active Transportation and Air Quality: Stephanie Dock** (District DOT) and **Gina Moran** (Caltrans)

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An opportunity exists to promote active transportation using safety benefits and pollution exposure. Public health can help push the multimodal agenda in transportation with this interest, and both sectors have important roles in making this integration happen. The public health sector can support outreach and education to work within the transportation process of analysis and evaluation of alternatives. This area greatly needs data from all modes, funding strategies, and an understanding of the full impact on investment.

◆ **Collaboration during Long Range Planning and Project Planning on Public Health Issues:** Facilitated by ICF

The agreement to begin incorporating public health in planning reinforces the need to link the planning and project development processes. The structure, engagement of stakeholders, and data needs in long-range planning complement public health. Effective collaboration requires a “cradle-to-grave” approach, with public health involved across all phases. Strategies that participants identified emphasize the importance of physical interface and documentation to develop a common understanding and shared goals.

Moving Forward – How do we continue to build on the success identified?

The final session of the day was a full group discussion to brainstorm ways to continue the integration of public health in state DOT decision-making processes. The following ideas were identified by participants as key takeaways from the day:

- ◆ **Role.** Clarify the roles of AASHTO and state DOTs in developing a better understanding with public health agencies to support collaboration. Develop clear and manageable expectations in both fields to address the confusion about DOT staff roles and responsibilities for incorporating health. At the same time, DOTs can build on current successful practices.
- ◆ **Communication.** Cultivate two-way communication with public health partners and across transportation agency functional areas to enable practitioners to build on existing practices and share strategies. Communication is the start to collaboration and will begin the education necessary to address differences in terminology and processes. Ultimately, transportation and health professionals will benefit most from being part of advisory boards, steering committees, and working groups that address mutual interests.
- ◆ **Data.** Measure success to identify how transportation decisions impact public health. Understand the relationship between transportation investments and health outcomes to strengthen the ability to identify the return on investment necessary for executive-

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level support. Availability, analysis, and sharing of data are consistently identified as challenges to incorporating public health

- ◆ **Additional Information.** Identify research needs and gaps to enable AASHTO and FHWA to provide technical assistance and guidance where they are needed. The AASHTO Standing Committees and Transportation Research Board committees can facilitate research that supports public health. At this time, more information is needed to respond to the specific questions regarding the role of HIAs in transportation decision making and how to quantify the health benefits of transportation decisions.
- ◆ **Paradigm Shift.** Institutionalize public health in the long-range planning process to allow health issues to be considered at all levels of transportation decision making. This approach requires specific involvement of staff from other functional areas, particularly environment and safety. Linking decisions made in planning to project alternatives will illustrate the DOT commitment to public health.

Participants were invested in continuing current activities that support public health with the potential to build interest and commitment within the transportation field as a whole. Throughout the day, reminders to identify what AASHTO and FHWA might do to support this work were evident. Recognizing that all state DOTs have individual structures and business practices, AASHTO is considered a potential common ground for sharing information and enhancing communication. Specific points made were:

- ◆ Increase involvement of AASHTO Standing Committees and ongoing communication across the committees.
- ◆ Develop and disseminate a short product that provides consistent messaging across the committees.
- ◆ Communicate best practices from current efforts to incorporate health in state DOT decision making.
- ◆ Provide more education and information on HIAs, ROI, and similar analysis tools in transportation decision making to foster common understanding within state DOTs.

Conclusion

Participants in the Center’s Transportation and Public Health Peer Exchange confirmed many of the challenges and uncertainties identified in Standing Committee discussions over the past year. In addition, the peer exchange identified some unexpected positive outcomes of incorporating health that support the state DOT missions. Presentations highlighted current activities within several agencies that are responding to these questions. Although these DOTs are not representative of all states, they provide insights into what is possible. Participants recognized that sharing these success stories more broadly is an important way to encourage and support discussions within the AASHTO Standing Committees and their respective states on how transportation decisions can influence public health.

A noteworthy takeaway from the day was that in many ways, *“we’re already doing it.”* Some areas within the state DOTs have a direct connection to public health that has been in place for many years. By highlighting these examples, strategies can be identified that apply more broadly to the incorporation of health. Success can be expanded and measured to provide more information for improvement. This approach is consistent with the new model in transportation decision making: Set goals, measure, monitor, and continue improvements.

Key Findings and Action Items

Each key finding described below is followed by activities that identify the recommended next step. The activities are presented in no particular order or priority. Some steps can be taken now by individual DOTs at the appropriate points in their processes. Others require AASHTO, FHWA, the Transportation Research Board, and potentially others to support more research, training, and education. What they all have in common is momentum. Participants were united in their interest in moving forward to address the issues, answer the questions, and show how public health matters to transportation professionals.

Build on Success

Success in context sensitive solutions, Complete Streets, and Congestion Mitigation and Air Quality are examples of formerly “new” topics that are now standard practice within many state DOTs. These and other established efforts have a direct connection to considering public health and offer a means to include the topic under an existing policy or program.

Presentations in the peer exchange spotlighted the activities in traffic safety and public transportation that are existing avenues for incorporating public health. The TZD national initiative is relevant to the state DOT mission, and securing public health support and input is a

top priority. Gaining support might require reframing traffic injuries and fatalities as public health issues.

Public transportation offers a similar promising area of interface. Access is essential for all citizens, particularly those who are disadvantaged or transit-dependent. Integrating public health brings greater support for multimodal solutions to transportation issues and needs. Transportation agencies may gain a higher return on investment by focusing on these improvements, especially in times of constrained resources. Support for public transportation can start from the existing context of traditional riders, but can be extended to incorporate the interest in active transportation, particularly in the urban area. By joining forces with bicycle and pedestrian groups, public transportation could expand the appeal of this form of transportation.

The overarching message is that public health matters to transportation professionals. “Safety resonates” and “we’re already doing it” are sound bites that reflect the power of activities currently underway.

Action Items

- ◆ Identify successful practices for integrating public health into transportation practice from current activities within various state DOTs and new ideas on how to continue improvement.
- ◆ Communicate success stories that can be shared. Create a communications product that can be distributed broadly for ideas, examples, and contacts. Consider the interests of decision makers in return-on-investment as part of this communication.
- ◆ Reinforce in the Standing Committees that steps to integrate public health into transportation are occurring across committees. Set up working relationships between the committees to interface on a regular basis.
- ◆ Investigate whether partnerships in one area of the DOT can be leveraged to extend to other functions. For example, if a planning study is underway, ask a colleague in the safety unit to make an introduction. Learn how the public health agency is structured and the interests of individual units or groups to match potential partners.
- ◆ Develop enduring partnerships. The role of individual DOTs will depend on the context, the opportunity, and agreements made with public health partners. Create MOUs to define the roles and responsibilities of each agency.

It Starts with Planning

Experience with environmental decisions has demonstrated that earlier is better. The same is true for public health. The long-range planning process provides a structure that allows health to be introduced even before projects are defined. It provides a collaborative forum for sharing information and defining scenarios that support public health goals and priorities. Many agencies have a strong interest in linking planning and the NEPA process, which will ensure that health information captured and documented in planning is used to inform the selection and analysis of alternatives.

Action Items

- ◆ Engage public health stakeholders and partners in the planning process. Introduce the process and share information to help define options for improvement.
- ◆ Assign staff to be responsible for taking these options to the next level: from regional to corridor to project.
- ◆ Create interested and involved stakeholders by asking public health professionals to do what they do best: outreach and education. Identify champions to facilitate ongoing commitment of all participants.
- ◆ Create working groups, advisory boards, and other forums to participate in each other's routine practices and become familiar with terminology, data, and tools and methods to leverage all resources.
- ◆ Host meetings, conferences, and peer exchanges across sectors for direct interface and education and training opportunities.

AASHTO Standing Committee Forum

Four AASHTO Standing Committees have a stated interest in public health, and sharing what happens in the committees can be beneficial. The Standing Committees provide opportunity to enable open and honest discussion among peers and to adjust expectations internally to reflect common messages across the various business units of the state DOT. By creating a structured interface between committees, public health can be broadly discussed with multidisciplinary input. The key is to identify the structure and participants in this interface to ensure that it happens. The committees will help advance research ideas as they arise and help move these to the correct subcommittee for consideration by the Transportation Research Board, AASHTO, and FHWA.

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Action Items

- ◆ Continue the dialogue across functional areas within the state DOTs and the AASHTO Standing Committees. Establish a structure and approach to ensure all Standing Committees receive the same information and have opportunities for discussion across committees.
- ◆ Develop a one-pager on public health and transportation for the AASHTO Standing Committees to ensure consistent messaging across the organization.
- ◆ Support research to identify and address existing information gaps and needs to support the consideration of public health in transportation practice. Important topics to be considered are the return on investment and building on successful practices. Health can be used to open doors to new partnerships and leverage resources. Transportation practitioners prefer to work within existing processes without the need for a parallel process to incorporate health considerations.

Appendix A: AASHTO Standing Committee Survey

Survey of AASHTO Committee Work Related to Public Health and Transportation

The AASHTO Center for Environmental Excellence (CEE) is leading an effort to facilitate dialogue within the Standing Committees about integrating public health into transportation practice. Public health is currently a strong area of interest in the transportation community, and CEE is working to help AASHTO adopt a more streamlined approach to providing useful resources for State DOTs on this topic. As part of this project, there will be a one-day peer exchange to explore how AASHTO can better coordinate its efforts related to integrating public health into transportation.

This brief survey is intended to collect information about discussions currently taking place within AASHTO's Standing Committees relevant to public health; ideas for peer exchange session topics; and recommendations for committee members who may be interested in participating in the peer exchange. This survey should take about 5-10 minutes to complete. Only staff liaisons are requested to provide this information. Targeted interviews of State DOT staff will be conducted as necessary based on the survey responses.

Please complete this survey by Monday, September 15, 2014. If you experience any technical issues using the survey tool or wish to provide additional information, please contact Lindsay Martin (ICF International) at lindsay.martin@icfi.com or (202) 862-1154. For questions about the project, contact Joyce Brenner (AASHTO) at jbrenner@ashto.org or (202) 624-8562.

Respondent's Info

1. Name
2. Email Address
3. State
4. AASHTO Committee

Integrating Public Health into Transportation Practice

6. Has your committee expressed interest in public health as it relates to transportation?
 - Yes, my committee is interested in the topic of integrating public health into transportation (had discussions, included in committee charge, workplan, etc.).

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- No, my committee is explicitly not interested in the topic of integrating public health into transportation.
- Maybe. The topic has not come up previously/only limited interest indicated, but my committee might want to consider this further.

[If answered “No” to #6]

7. Please briefly explain why your committee is not interested in the topic of integrating health into transportation practice.

[End of Survey]

Thanks for completing the survey. Your feedback is appreciated.

If you have any questions about this project, please contact Joyce Brenner (AASHTO) at jbrenner@ashto.org or (202) 624-8562.

[If answered “Maybe” to #6]

7. Please identify any member(s) that may have an interest in transportation and health.

You may continue the survey if you find it relevant or end now.

Thanks for the additional information. Your feedback is appreciated.

If you have any questions about this project, please contact Joyce Brenner (AASHTO) at jbrenner@ashto.org or (202) 624-8562.

[If answered “Yes” to #6]

7. To what extent has your committee addressed the topic of integrating public health and transportation (please check all that apply)?

- Internal discussions
- Referenced in the committee charge, workplan, etc.
- Included the topic in meetings, workshops, etc.
- Produced reports, website content, or other resources on the topic.
- Other (please specify).

8. More specifically, which of the areas below are of interest to your committee (please check all that apply)?

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- The role/contribution of State DOTs in integrating public health into transportation planning at the project/regional level.
- The negative impacts of transportation on public health (exposure to air pollution, etc.).
- The positive impacts of transportation on public health (active transportation/opportunities for physical activity, access to health destinations such as hospitals and grocery stores).
- Health-related performance measures.
- Interaction with the public or public health professionals.
- Other (please specify).

9. What does your committee perceive as the challenges to integrating public health into transportation practice (please check all that apply)?

- Lack of understanding between public health and transportation practitioners (i.e. different professional terms, values, processes, etc.).
- Uncertainty about the role of State DOTs in public health.
- Lack of useful health data to support transportation decision making.
- Analyzing health data and potential impacts.
- Establishing a causal link between transportation investments and health outcomes.
- Other (please specify).

10. What potential benefits has your committee identified to integrating public health into transportation practice?

- Improved public involvement and engagement.
- Additional environmental considerations (community impacts, air quality, noise, etc.).
- Improved environmental justice evaluation (disadvantaged populations, access to health services).
- Additional support for bicycle and pedestrian transportation.
- Additional basis for transit service improvements/extensions.

Ideas for the AASHTO Peer Exchange

Later this year, AASHTO's Center for Environmental Excellence will host a one-day peer exchange, convening representatives from State DOTs to discuss how AASHTO can better coordinate and streamline its efforts related to integrating health into transportation practice.

11. In your opinion, what are the most important topics to be covered during this peer exchange (select up to five)?

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- Health data and analytical tools to support transportation decision making in the planning process – what is available and what is missing?
- Best practices for successful partnerships between State DOTs and Health Departments.
- Integrating public health and transportation decision-making processes at the regional planning level.
- Integrating public health and transportation decision-making processes at the project level.
- The role of State DOTs in integrating health into transportation decision making.
- Facilitating information exchange between public health and transportation professionals.
- Developing DOT performance measures related to public health.
- Transportation projects that support physical activity.
- Transportation projects that increase accessibility to health destinations.
- Other (please specify).

12. Are there any public health/transportation topics that your committee is interested in that have not been addressed in this survey? Please explain.

13. Please identify any members of your Standing Committee who have expressed interest in integrating health into transportation practice, who may be interested in participating in the peer exchange. Provide their name, agency and email address.

[End of Survey]

Thanks for completing the survey. Your feedback is appreciated.

If you have any questions about this project, please contact Joyce Brenner (AASHTO) at jbrenner@ashto.org or (202) 624-8562.

Appendix B: AASHTO Standing Committee Survey Results

Approach

The decision was made to survey only the AASHTO staff liaisons for relevant Standing Committees to capture information about the committees' discussions around public health and transportation. A link to the online survey to was sent to 14 committee liaisons and representatives of the Advisory Group. The survey remained open for 2 weeks.

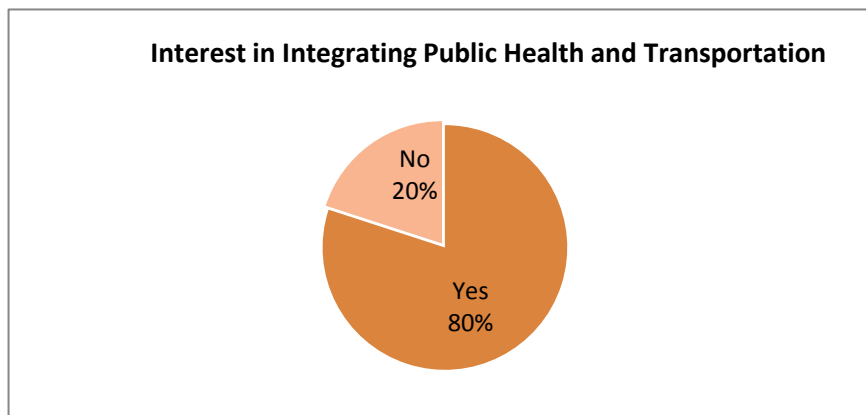
Results

Ten individuals completed the survey with six respondents representing the views of Standing Committee on the Environment (SCOPE). SCOPE responses were aggregated for the purpose of this analysis. The four other committees represented were Standing Committee on Planning (SCOP), Standing Committee on Public Transportation (SCOPT), and Standing Committee on Highway Traffic Safety (SCOHTS). The Standing Committee on Finance and Administration indicated that there was no interest in public health expressed in this committee. Standing Committees on Aviation and Rail Transportation accessed, but did not complete the survey. Collected responses are illustrated on the following pages.

The following graphics illustrate responses to the survey questions about integrating public health into transportation practice.

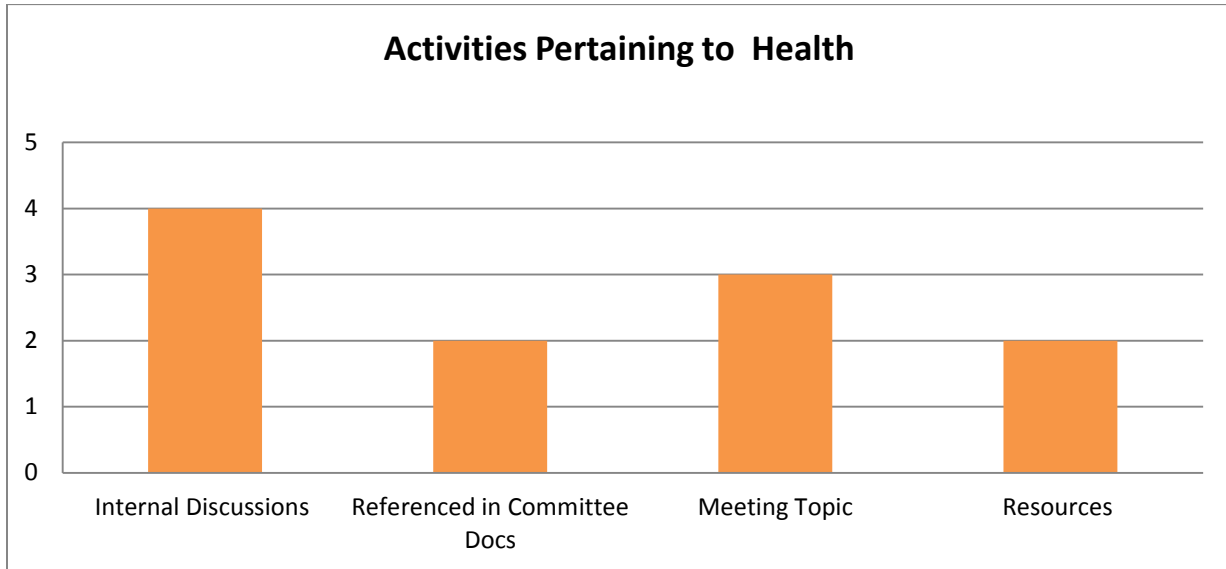
1. Has your committee expressed interest in integrating public health into transportation?

Note: The pie chart below depicts the five committees that completed the survey: SCOPE, SCOP, SCOPT, SCOHTS, and SCOPA. Of these committees, SCOPA reported not having an interest integrating public health and transportation.

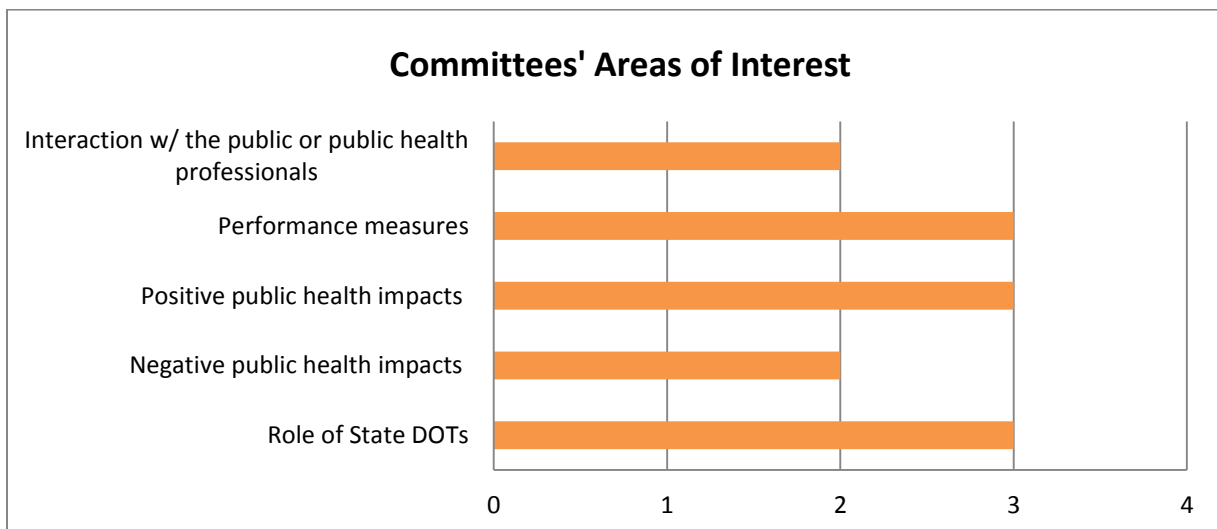


Note: For the remaining questions, the number of respondents is four (N=4), representing the committees that answered “yes” to the first question.

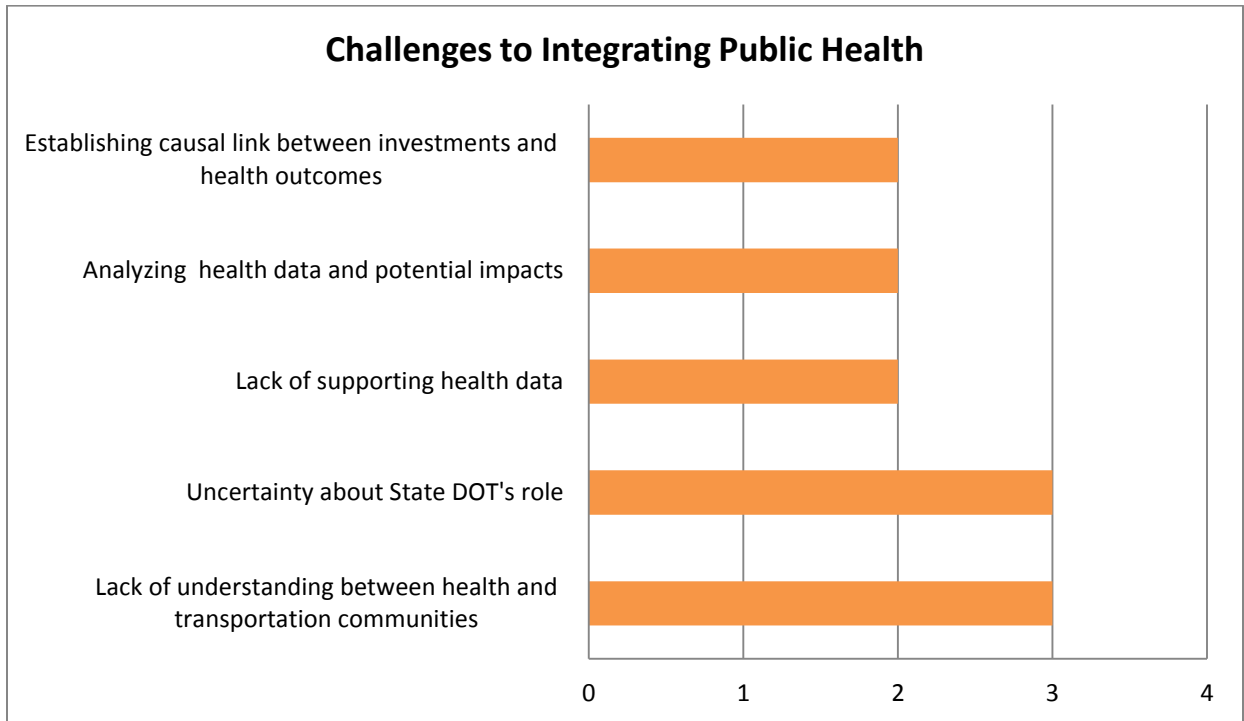
2. To what extent has your committee addressed the topic of integrating public health and transportation?



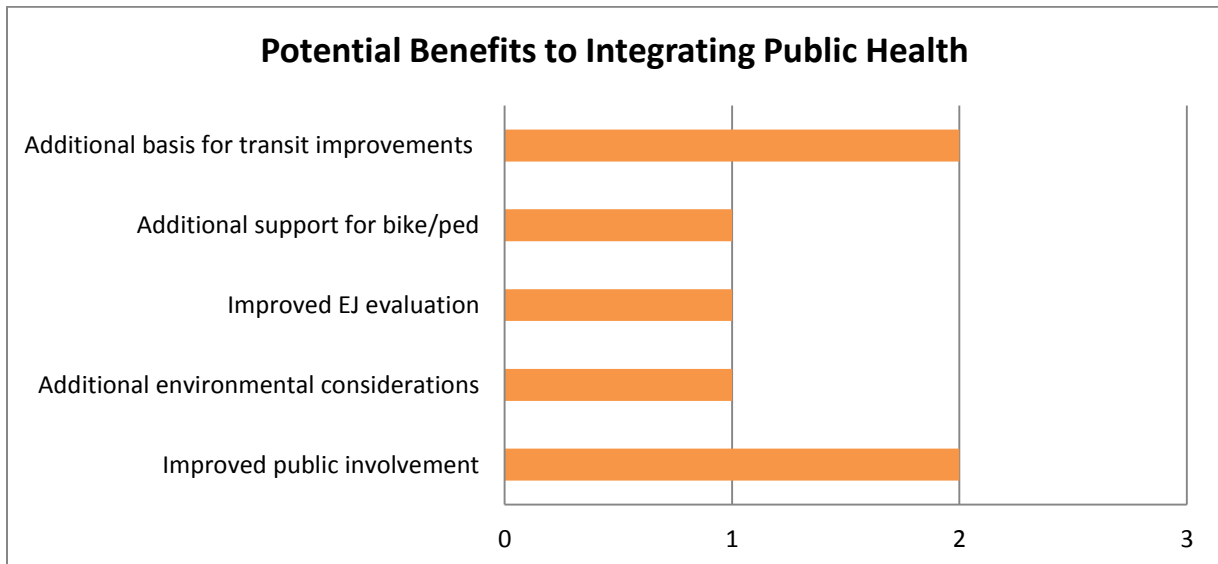
3. Which areas are of interest to your committee?



4. What does your committee perceive as the challenges to integrating public health into transportation practice?



5. What potential benefits has your committee identified to integrating public health into transportation practice?



What are the most important topics to be covered during this peer exchange?

Best practices for partnerships (4)

Role of State DOTs (3)

Data and analytical tools (2)

Integration at the regional level (2)

Integration at the project level (2)

Information exchange (2)

Performance measurement (1)

Supporting physical activity (0)

Increasing accessibility to health destinations (0)

Appendix C: Peer Exchange Participant List

Name	Agency
Gina Moran	California DOT
Faisal Hameed	District of Columbia DOT
Kevin Walsh	Massachusetts DOT
Aspen Price	North Carolina DOT
Nicolle Kord	Texas DOT
Marilee Mortenson	Caltrans
Stephanie Dock	District of Columbia DOT
Clinton Bench	Massachusetts DOT
Philip Schaffner	Minnesota DOT
Katy Braden	Tennessee DOT
Jessie Jones	Arkansas Highway Transportation Department
Kim Lariviere	Michigan DOT
Kristine Hernandez	Minnesota DOT
Robert Hull	Utah DOT
Aury Kangelos	Tennessee DOT
Jerri Bohard/Stephanie Millar*	Oregon DOT
David Harris*	New Mexico DOT
Victoria Martinez	FHWA
Mark Ferroni	FHWA
Shannon Eggleston	AASHTO
Joyce Brenner	AASHTO
Jennifer Brickett	AASHTO
Jenny O'Connell	AASHTO
Kelly Hardy	AASHTO

Appendix D: Breakout Group Presentation Summary Table

The afternoon sessions consisted of breakout group discussions in which participants presented on a range of topics and discussed the associated opportunities, challenges, and strategies related to integrating health into transportation. The table below provides a summary of the discussions.

Topics	Opportunities	Challenges	Strategies	Role of DOT and Public Health	Tools and Resources
Health Impact Assessment	Communicate that DOT does care about health.	Clear understanding of what an HIA contains; lack of resources and funding; expectations out of EPA; and possibility for litigation.	Engage stakeholders early; manage expectations.	DOT—Engage the state Department of Public Health in the process; develop a policy on sharing what DOT already does related to health. Public Health—Educate DOT about health; share data, resources and research.	Framework on how HIA fits into transportation planning; or how to identify if health assessment is already being done as part of other studies/assessments.
Public Health in Long-range Planning	Bring together agencies to integrate public health in long-range planning.	Small communities are not able to do the work; dichotomy between what public officials need and what the public needs; and determining how to spread the message of public transportation.	Deliver plans that address all customers and include stakeholders in the planning process.	DOT – Ensure stakeholders have a voice in the planning process; and allow for the consideration of nontraditional measures. Public Health – Understand what data are available; and educate constituents and DOT.	Work with research programs to encourage joint programs; quantify programs; and determine the best return on investments.
Public Health in Project Development	Opportunities for collaboration between agencies and the public.	DOT culture; and understanding DOT's role and responsibility.	Establishing a technical advisory committee; encouraging public health collaboration at the public level; and presenting benefits of the projects in a more streamlined way.	DOT – Establish advisory committees; and present information in a clear manner for the public. Public Health – Engage in health topics with DOTs.	Share information between DOT and public health to ensure all parties have the same information.

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Topics	Opportunities	Challenges	Strategies	Role of DOT and Public Health	Tools and Resources
Strategic Highway Safety Plan and Toward Zero Deaths	Create a common vision with input from stakeholders that addresses social norms in the transportation industry.	Determining what agency is leading the charge.	Creating stability with working groups; building relationships; local conferences to bring staff together; assessment of safety culture; present fatalities in a health term context.	DOT – Create a common vision. Public Health – Share data that DOT does not have; create a common vision; create new “social norms” for the new transportation challenges (e.g., distracted driving).	Build a traffic safety culture and share knowledge on issues as they arise; need for better data on distracted driving.
Active Transportation and Air Quality	Safety and pollution exposure can help promote a more active transportation culture.	Gas prices; active transportation infrastructure; elderly communities.	The public health community can help push active transportation and present public transportation in a more positive way.	DOT – Provide infrastructure; capital; measure and analyze travel patterns; evaluate alternatives. Public Health – Conduct surveys and outreach; and educate the public.	Travel data from all modes of transportation; alternative funding strategies; cancer rates from public health officials; and risk management tools to help understand the full impact of investment.
How Long-range Planning and Project Planning Can Collaborate on Public Health Issues	Create a strategy that continues throughout the process to ensure planning and project development include public health.	Resources; structure; staff retention; and reality of HIAs.	Create studios (e.g., teams together in one room); relay information across decisions (e.g., point person follows into next stage); documentation (transfers with project); and public health participation throughout all stages.	DOT – Adopt a strategy to continue throughout the stages of the process. Public Health – Stay involved in the issues and collaborate when possible.	Planning by screening and scoping health objectives and data; project development through support of planning staff and documentation; and public health (external) is involved in both processes.