

PARTNERING WITH METROPOLITAN PLANNING ORGANIZATIONS TO ADVANCE HEALTHY COMMUNITIES



The places where we live, work and play influence our health. As a result, efforts to improve health are most effective when they address the environments, conditions and policies that influence what choices are available to people.ⁱ For instance, people are more likely to walk and bicycle when the environment around them provides safe and convenient ways to actively travel to their destinations.ⁱⁱ

Social determinants of health are the conditions in which people live, work, learn and grow.ⁱⁱⁱ They greatly impact how long and how well people live and “are key drivers of health inequities”.^{iv} For example, neighborhoods that lack sidewalks may discourage people from walking due to increased pedestrian risk. Physical inactivity is linked to increased rates of chronic disease and poor health outcomes, such as diabetes or heart disease.^v

Currently, only half of the adults living in the US meet the recommended levels of physical activity.^{vi,vii} Physically active people live longer and have a lower risk of type 2 diabetes, heart disease, stroke and some cancers.^{viii} Building environments that foster physical activity and active, non-motorized transportation helps encourage active lifestyles.^{ix,x} Creating communities that foster physical activity also can result in cross-sector partnerships and unique initiatives. Though not a comprehensive list of ongoing efforts to build safe, active communities, the following examples demonstrate an increased interest in working collaboratively to create multi-modal communities that are safe and accessible to all.

- The release of “Step It Up! The Surgeon General’s Call to Action to Promote Walking and Walkable Communities” in 2015 urged public health practitioners to consider the design of the built environment as a way to foster physical activity and to work across sectors to create walkable communities for all.^{xi}
- The Community Preventive Services Task Force, a public health and prevention expert panel that provides evidence-based findings and recommendations to improve population health, issued a built environment recommendation in late 2016 to increase physical activity. Entitled “Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design,” it works to make physical activity easy and accessible.^{xii} The recommendation highlights the importance of combining initiatives to improve pedestrian or bicycle transportation systems with land use and environmental design interventions.^{xiii}
- The Federal Highway Administration shared its “Strategic Agenda for Pedestrian and Bicycle Transportation” in 2016. It outlines a collaborative approach to ensuring that active transportation is a feasible, safe and equitable transportation choice.^{xiv}
- Eight national built environment and public health professional membership organizations released a “Joint Call to Action to Promote Healthy Communities” to encourage their members to collaborate across sectors to advance health.^{xv}

Public health professionals must work across sectors to create and foster environments that support physical activity and advance health equity (defined as “attainment of the highest level of health for all people”^{xvi}). When public health professionals build partnerships across sectors, they are able to increase understanding of complex issues and determine how each stakeholder can advance a shared vision. Additionally, multi-sector work may result in shared goals, leveraged resources and a greater and more sustainable impact than working alone.

Working with the Transportation Sector

Organizations not typically considered as having a public health focus, such as Metropolitan Planning Organizations, have the opportunity to simultaneously promote the public’s health and advance other important policy goals to achieve co-benefits and create efficiencies across sector.

Transportation planning affects more than just transportation. It also impacts our air quality, traffic injuries and fatalities, land use and access to jobs and medical care. Transportation decisions and plans have the potential to create communities that provide transportation options for everyone, but they can also have long-lasting detrimental community impacts.

For example, the placement of major highways and the execution of some “urban renewal” projects have disrupted and disconnected communities across the US and disproportionately affected low-income areas and communities of color.^{xvii,xviii} The isolation and barriers to physical and socioeconomic mobility that these projects create adversely impact public health.^{xix,xx,xxi} By working with the transportation sector, public health practitioners can help ensure equity in planning, building and supporting healthy communities. Everyone has a role to play in creating a just, multi-modal transportation system – from public health practitioners to community representatives. Learning about and working with the transportation sector and their partners is one step to achieving health for all.



Urban Renewal

Urban renewal has been defined “as the process of slum clearance and physical redevelopment that takes account of other elements such as heritage preservation.”^{lx}

Urban renewal became popular with the Housing Act of 1954, and had unintended negative consequences. It caused forced relocation of those who were low-income including many people of color.^{lxi}



Community Connection: Then and Now

In the 1960s, the construction of Interstate 71 divided the King-Lincoln District from downtown Columbus, Ohio. The majority-black neighborhood was isolated from opportunities such as employment, due to highway placement, and experienced disinvestment over a number of years.^{xxii}

In 2014, after a decade of city investment in the King-Lincoln District, the Ohio Department of Transportation, the Mid-Ohio Regional Planning Commission and the City of Columbus worked with community activists to build the Long Street Bridge and Cultural Wall. This redevelopment project reconnected the King-Lincoln District with downtown Columbus, giving the area access to jobs and healthcare once again.^{xxiii}

Transportation can connect and strengthen a community when the community is at the center of transportation projects and policies.^{xxiv} Past and current initiatives have long-lasting impacts on communities. It is essential to consider communities before making decisions.

A great place to start is with the Metropolitan Planning Organization, a federally mandated policy-making board responsible for conducting the metropolitan transportation planning process.^{xxv} An MPO establishes a framework for coordination and collaboration in its region.^{xxvi} MPO policymakers (usually elected officials, who represent jurisdictions in an MPO's region) must coordinate any federally funded transportation project with MPO staff and fellow board members.

They must approve any federal funding for transportation projects in an MPO boundary through three planning documents: the Long-range Transportation (or Regional Transportation) Plan, the Transportation Improvement Plan and the Unified Planning Work Program.^{xxvii} MPO decisions and funding priorities impact the types of transportation projects in the region. MPOs may allocate funding to bicycle, pedestrian and transit infrastructure, which plays a major role in creating safe and easy opportunities for physical activity.^{xxviii,xxix} Many MPOs also house staff sections that focus on health, including those in Nashville^{xxx}, Kansas City^{xxxi} and Los Angeles.^{xxxii} MPOs exist in regions with more than 50,000 people.^{xxxiii}



To collaboratively approach transportation planning for the region, MPOs involve a variety of stakeholders throughout the process. Such stakeholders include representatives from the state Department of Transportation, regional agencies, transit agencies, local government, the private sector and the public.^{xxxiv}

MPO structure and size varies across the US, but most include the following components:

- **The Policy (or Executive) Board:** The board is typically comprised of local elected officials of the area.^{xxxv} It adopts policies that guide the regional transportation planning process.^{xxxvi} The board must consider such factors as the region's vision, public input, economic vitality and environmental impact for its decisions.^{xxxvii}
- **MPO Staff:** MPO staff provide support to the board and committees through tasks such as document preparation, assessments and evaluations and coordination between agencies included in the Regional Transportation Plan.^{xxxviii}
- **Advisory Committees:** MPOs often have advisory committees that assist the board throughout the transportation planning process. For instance:
 - A Technical Advisory Committee provides subject matter expertise and recommendations for the MPO plans and programs; these insights then aid the board in its decisions.^{xxxix} A Transportation Advisory Committee includes transportation planners and public works staff at the county, city or town level and transportation agencies.^{xl}



- A Citizen Advisory Committee advises on public involvement strategies, acts as a liaison to the public and provides insights into the communities' values in transportation plans and programs.^{xli} Members often represent a wide range of the population and may include advocates, neighborhood associations and community organizations.
- Other special planning committees or subcommittees for issues, such as environmental justice or active transportation, are created if needed.^{xlii}

Throughout the planning process, MPOs engage community members to ensure that transportation plans and projects meet the communities' needs. Specific consideration for and involvement of low-income populations and communities of color is given to avoid disproportionately negative health and environmental impacts.^{xliii}



MPOs have six primary functions:^{xliv}

1. **Establish a setting for effective decisionmaking:** Establish and manage a fair and impartial setting for effective regional decisionmaking in the metropolitan area.
2. **Identify and evaluate alternative transportation improvement options:** Develop transportation improvement options and use data and planning methods to evaluate whether those options support criteria and system performance targets.
3. **Prepare and maintain a Metropolitan Transportation Plan:** Develop and update a Long-Range Transportation Plan for the metropolitan area covering a planning horizon of at least 20 years. MPOs prepare LRTPs using performance measures and targets.
4. **Develop a Transportation Improvement Program:** Develop a short-range, four-year program of priority transportation improvements drawn from the LRTP. The MPO creates the TIP with spending, regulating, operating, management and financial tools.
5. **Identify, track and measure performance targets:** In accordance with Federal law, USDOT identifies performance measures related to national highway and transit performance goals. States and MPOs use these measures in setting their own performance targets.
6. **Involve the public:** Involve the general public and other affected constituencies related to the essential decisionmaking elements listed above.

An MPO creates a number of documents to prioritize transportation investments with federal dollars. The following are just two examples of the type of documents MPOs must produce to properly plan for regional transportation needs:

- **Metropolitan Transportation Plan/Long-Range Transportation Plan:** The LRTP establishes a vision to manage and maintain the region's transportation system.^{xlv} The plan also lists transportation projects that will receive federal funding over the next 20 to 50 years, from public transportation services to walking/bicycling projects to roadways.^{xlvi} Performance measures and targets are listed in the LRTP and may include such planning factors as energy conservation, quality of life and transportation safety to guide the planning process.^{xlvii} The LRTP is updated every three to five years (depending on regulations), is fiscally constrained and must include the public's input.^{xlviii}
- **Transportation Improvement Program:** This is a short-term list that prioritizes fiscally constrained transportation projects over a period of three to four years.^{xlix} The TIP is updated at least every four years, must be compatible with LRTP initiatives and the State Improvement Plan and must be approved by the state governor and MPO.^{l, li}

The size of the region and its population influence the planning responsibilities MPOs undertake and the requirements they must meet. Normally, regions with larger populations have relatively more challenges.^{lii} For example, urbanized areas that have a population greater than 200,000 are referred to as Transportation Management Areas.^{liii} MPOs within TMAs must outline actions and strategies to increase mobility and lessen congestion through a congestion management process.^{liv} Though MPOs across the US vary, all MPOs play a crucial role in the regional transportation planning process.

An MPO is not the only agency that works on a regional level. You may hear of these types of regional planning groups in your area:

Regional Transportation Planning Organization:

An RTPO primarily focuses on non-metropolitan transportation planning and is a voluntary association. States may organize local officials and transportation system operators in non-metropolitan areas to help with the state and non-metropolitan transportation planning process.^{lv} In many cases, their role is defined by the state and they differ across the country.^{lvi}

Council of Government: A COG is formed by local governments and is a voluntary alliance. Many levels of government representatives are involved to encourage regional planning, cooperation and services.^{lvii} The COG engages in planning but also undertakes services that the member governments agree upon.^{lviii} Many MPOs across the country are housed within a COG to better coordinate planning for economic development, aging, land use, housing and more.

Integrating Public Health

As demonstrated in the “Building Healthy and Prosperous Regions: How metro areas are implementing more and better bicycling and walking projects” MPOs have been actively working to integrate safe and easy options to encourage people to bicycle or walk to destinations in their plans and programs. Increasing levels of physical activity has a direct impact on population health. Public health professionals have the opportunity to work with MPO staff in a variety of ways to achieve a shared vision of a multi-modal transportation system that is accessible and safe for all users. Working with a new sector may be daunting; yet, the rewards can be great.

It is important for stewards of public health to work with transportation professionals because a) transportation projects can have detrimental impacts on public health and b) public health professionals can advocate and demonstrate to MPO staff and board the need for active transportation projects to promote healthier communities. Public health practitioners may also benefit from a partnership with their MPO, which likely houses valuable data on bicycle/pedestrian trips, miles of walking/bicycling infrastructure, traffic crashes and much more.

The following suggestions provide initial actions that public health professionals can take to collaborate with the transportation planning sector:

Work Toward a Shared Vision

Initiating ongoing relationships with MPOs can help to integrate key public health priorities into transportation plans and programs. This type of involvement is especially needed in the early stages of the LRTP and TIP development. For example, public health professionals can work with the MPO to create a health goal(s) in the LRTP to help guide the strategies and prioritization process to advance health.

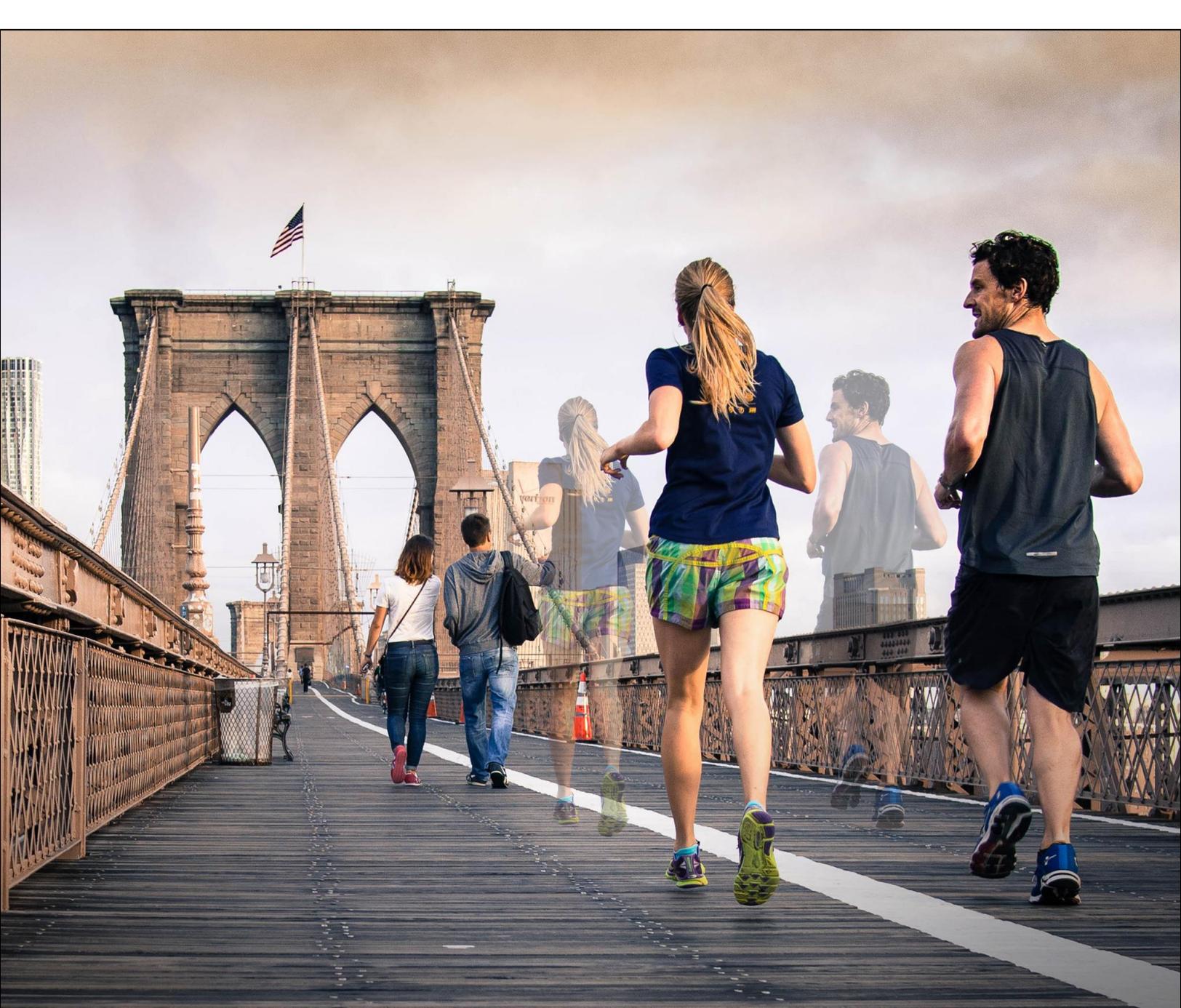
Take Advantage of Assessment and Modelling Tools

Many MPOs conduct scenario modeling or use other types of transportation planning tools for their transportation process.^{lix} Public health professionals can work with MPO TACs or staff to integrate public health data or modeling tools as part of this process.

Join or Support Advisory Committees

Another opportunity for public health professional involvement is through the public engagement process. Typically, public health professionals are already working closely with community members to build and support communities that advance health equity. Public health professionals can request to join the Citizen Advisory Committee as a public health advocate and help engage members of the public, who are typically underrepresented in the transportation planning process.





“Currently, **only half** of the adults living in the US meet the **recommended levels** of physical activity.”

Message the Health Benefits

Advocating for projects that have co-benefits is another important role for the public health professional. Support and consensus around active transportation goals can be further substantiated with health messaging.

The following case studies provide detailed information on exciting initiatives completed by MPOs that resulted in more – and better – bicycling and walking projects in their region. In addition, they provide ways for public health professionals and advocates to work with their own MPO staff and elected officials, who make transportation funding decisions. For example:

- The Corpus Christi MPO discovered, through extensive public engagement, destinations to which residents needed access and then proposed a bicycle network that would specifically meet their needs.
- The Mid-Ohio Regional Planning Commission adopted a Complete Streets policy for the Columbus, OH, region thanks, in part, to efforts by public health professionals to demonstrate the health benefits of active transportation projects.
- MPOs in Nashville, TN; the San Francisco Bay Area; and Portland, OR, worked with public health professionals to use a new model (the Integrated Transportation and Health Impact Model) to predict decreases in 12 chronic and respiratory diseases from projected increases in active transportation rates and decreases in air pollution levels in their region.

This primer provides a brief overview of MPOs and how public health professionals can partner to advance active transportation to benefit all communities. Public health professionals cannot achieve health equity alone; practitioners must work across sectors to address the various factors that lead to health inequities.

Considering health in transportation decisions is vital to creating multimodal communities that foster positive health impacts. Together, we can all be the generation that changes the course of health in America and accomplishes the American Public Health Association’s vision of creating the healthiest nation in one generation.



Acknowledgement

This document was funded through a CDC Cooperative Agreement 6NU38OT000131-4. The contents of this document are solely the responsibility of the authors and do not necessarily represent the official views of the American Public Health Association or the Centers for Disease Control and Prevention. We would like to acknowledge the staff at Transportation for America and Centers for Disease Control and Prevention Division of Nutrition, Physical Activity, Obesity for reviewing the document and providing vital feedback.

Citations

-
- ⁱ Sallis JF, Rodriguez DA, Saelens BE. The Role of Built Environments in Physical Activity, Obesity, and CVD. *Circulation*. 2012; 125:729-737.
- ⁱⁱ Braun LM, Read. The Benefits of Street-Scale Features for Walking and Biking. American Planning Association. <https://www.planning.org/nationalcenters/health/streetscale/>. Published 2015. Accessed July 25, 2017.
- ⁱⁱⁱ Social Determinants of Health: What are social determinants of health? World Health Organization Web site. http://www.who.int/social_determinants/sdh_definition/en/. Accessed July 31, 2017.
- ^{iv} Rudolph L, Caplan J, Ben-Moshe K, Dillon, L. Health in All Policies: A Guide for State and Local Governments. <https://www.apha.org/topics-and-issues/health-in-all-policies> Published 2013. Accessed July 25, 2017.
- ^v The Impact of the Built Environment on Health. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/nceh/publications/factsheets/impactofthebuiltenvironmentonhealth.pdf>. Accessed July 20, 2017.
- ^{vi} U.S. Department of Health and Human Services. Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities. Washington, DC: U.S. Dept of Health and Human Services, Office of the Surgeon General. <https://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/call-to-action-walking-and-walkable-communities.pdf> Published 2015. Accessed July 25, 2017.
- ^{vii} Overweight & Obesity. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/data/adult.html>. Updated September 1, 2016. Accessed July 31, 2017.
- ^{viii} More People Walk to Better Health. Centers for Disease Control and Prevention Vital Signs Web site. https://www.cdc.gov/vitalsigns/Walking/index.html?s_cid=bb-vitalsigns-135&utm_source=external&utm_medium=banner&utm_content=0812-wal-135&utm_campaign=vitalsigns. Accessed September 22, 2017.
- ^{ix} U.S. Department of Health and Human Services. Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities. Washington, DC: U.S. Dept of Health and Human Services, Office of the Surgeon General. <https://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/call-to-action-walking-and-walkable-communities.pdf>. Published 2015. Accessed July 25, 2017.
- ^x More People Walk to Better Health. Centers for Disease Control and Prevention Vital Signs Web site. https://www.cdc.gov/vitalsigns/Walking/index.html?s_cid=bb-vitalsigns-135&utm_source=external&utm_medium=banner&utm_content=0812-wal-135&utm_campaign=vitalsigns. Accessed September 22, 2017.
- ^{xi} U.S. Department of Health and Human Services. Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities. Washington, DC: U.S. Dept of Health and Human Services, Office of the Surgeon General. <https://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/call-to-action-walking-and-walkable-communities.pdf>. Published 2015. Accessed July 25, 2017.
- ^{xii} The Community Guide. Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land use and Environmental Design. <https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches>. Accessed September 22, 2017.
- ^{xiii} The Community Guide. Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land use and Environmental Design. <https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches>. Accessed September 22, 2017.

-
- ^{xiv} Twaddell H, Martin L, Dill J, McNeil N, Petritsch T, McLeod P, Dickman D, Gilpin J. Strategic Agenda for Pedestrian and Bicycle Transportation. Washington, DC: Federal Highways Administration. FHWA-HEP-16-086. https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/strategic_agenda/page00.cfm Published September 2016. Accessed July 25, 2017.
- ^{xv} Healthy Community Design: Joint Call to Action to Promote Healthy Communities. American Public Health Association Web site. <https://apha.org/topics-and-issues/environmental-health/healthy-community-design> Published April 2017. Accessed July 20, 2017.
- ^{xvi} U.S. Department of Health and Human Services, Office of Minority Health. National Partnership for Action to End Health Disparities. The National Plan for Action Draft as of February 17, 2010 [Internet]. Chapter 1: Introduction. Available from: <http://www.minorityhealth.hhs.gov/npa/templates/browse.aspx?&lvl=2&lvlid=34>.
- ^{xvii} Reece J, Martin M, Bates J, Golden A, Mailman K, Nimps R. History Matters: Understanding the Role of Policy, Race and Real Estate in Today's Geography of Health Equity and Opportunity in Cuyahoga County. Kirwan Institute for the Study of Race & Ethnicity and The City & Regional Planning Program at the Knowlton School of Architecture at The Ohio State University. <http://kirwaninstitute.osu.edu/wp-content/uploads/2015/06/The-History-of-Race-Real-Estate-Cuyahoga-County-Final-Report-February-2015.pdf>. Published February 2015. Accessed October 2, 2017.
- ^{xviii} Collins WJ & Shester KL. Slum Clearance and Urban Renewal in the United States. *American Economic Journal: Applied Economics*. 2013; 5(10):239-273. <http://dx.doi.org/10.1257/app.5.1.239>
- ^{xix} Halsey III A. A crusade to defeat the legacy of highways rammed through poor neighborhoods. Washington Post. March 29, 2016. https://www.washingtonpost.com/local/trafficandcommuting/defeating-the-legacy-of-highways-rammed-through-poor-neighborhoods/2016/03/28/ffcfb5ae-f2a1-11e5-a61f-e9c95c06edca_story.html?utm_term=.dc1ac8c67839. Accessed July 25, 2017.
- ^{xx} Naylor B. After Dividing For Decades, Highways Are On The Road To Inclusion. NPR. April 28, 2016. <http://www.npr.org/2016/04/28/475985489/secretary-foxx-pushes-to-make-transportation-projects-more-inclusive>. Accessed July 25, 2017.
- ^{xxi} Sanchez TW, Stolz R, Ma JS. Moving to Equity: Addressing Inequitable Effects of Transportation Policies on Minorities. The Civil Rights Project at Harvard University. <https://www.civilrightsproject.ucla.edu/research/metro-and-regional-inequalities/transportation/moving-to-equity-addressing-inequitable-effects-of-transportation-policies-on-minorities/sanchez-moving-to-equity-transportation-policies.pdf>. Published 2003. Accessed July 25, 2017.
- ^{xxii} Rouan R. Long Street bridge seeks to reconnect, revitalize King-Lincoln District. *The Columbus Dispatch*. July 11, 2014. <http://www.dispatch.com/content/stories/local/2014/07/11/a-connecting-force.html>. Accessed September 21, 2017.
- ^{xxiii} Coles D. Climbing the Ladders of Opportunity. *Public Roads*. July/August 2016. <https://www.fhwa.dot.gov/publications/publicroads/16julaug/04.cfm>. Accessed September 22, 2017.
- ^{xxiv} Miller B. Smart Transportation Can't Repeat Yesterday's mistakes, Says U.S. Transportation Secretary. *FutureStructure*. <http://www.govtech.com/fs/Smart-Transportation-Cant-Repeat-Yesterdays-Mistakes-Says-US-Transportation-Secretary.html>. Accessed September 22, 2017.
- ^{xxv} Metropolitan Planning Organization. Federal Transit Administration Web site. <https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-planning-organization-mpo>. Updated June 23, 2016. Accessed July 20, 2017.
- ^{xxvi} Federal Highway Administration, Federal Transit Administration, Volpe National Transportation Systems Center. Metropolitan Transportation Planning: Executive Seminar. <https://www.planning.dot.gov/Documents/MetroPlanning/metroTrans.htm>. Accessed July 20, 2017.
- ^{xxvii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff: 2015 Update. https://www.fhwa.dot.gov/planning/publications/briefing_book/fhwahep15048.pdf. Accessed September 22, 2017.

-
- ^{xxviii} Alliance for Biking & Walking and the League of American Bicyclists. Working with Metropolitan Planning Organizations: Lessons and Answers for Advocates. http://bikeleague.org/sites/default/files/AA_MPO_advocates_report_final_0.pdf
- ^{xxix} U.S. Department of Health and Human Services. Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities. Washington, DC: U.S. Dept of Health and Human Services, Office of the Surgeon General. <https://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/call-to-action-walking-and-walkable-communities.pdf>. Published 2015. Accessed October 10, 2017.
- ^{xxx} Health & Well Being. Nashville Area Metropolitan Planning Organization Web Site. http://www.nashvillempo.org/regional_plan/health/. Accessed October 5, 2017.
- ^{xxxi} Public Health. Mid-America Regional Council Web Site. <http://www.marc.org/Community/Public-Health>. Accessed October 5, 2017.
- ^{xxxii} Public Health. Southern California Association of Governments Web Site. <http://www.scag.ca.gov/programs/Pages/Programs/PublicHealth.aspx>. Accessed October 5, 2017.
- ^{xxxiii} Metropolitan Planning Organization. Federal Transit Administration Web site. <https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-planning-organization-mpo>. Updated June 23, 2016. Accessed July 20, 2017.
- ^{xxxiv} Federal Highway Administration, Federal Transit Administration, Volpe National Transportation Systems Center. Metropolitan Transportation Planning: Executive Seminar. <https://www.planning.dot.gov/Documents/MetroPlanning/metroTrans.htm>. Accessed July 20, 2017.
- ^{xxxv} Federal Highway Administration, Federal Transit Administration, Volpe National Transportation Systems Center. Metropolitan Transportation Planning: Executive Seminar. <https://www.planning.dot.gov/Documents/MetroPlanning/metroTrans.htm>. Accessed July 20, 2017.
- ^{xxxvi} Bond A, Kramer J, Seggerman K. Staffing and Administrative Capacity of Metropolitan Planning Organizations. F. H. Administration. Washington DC. U.S. Department of Transportation. https://www.planning.dot.gov/documents/Staffing_Administrative_Capacity_MPOs.pdf. Published 2010. Accessed July 25, 2017.
- ^{xxxvii} Federal Highway Administration, Federal Transit Administration, Volpe National Transportation Systems Center. Metropolitan Transportation Planning: Executive Seminar. <https://www.planning.dot.gov/Documents/MetroPlanning/metroTrans.htm>. Accessed July 20, 2017.
- ^{xxxviii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/. Published 2015. Accessed July 10, 2017.
- ^{xxxix} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/. Published 2015. Accessed July 10, 2017.
- ^{xl} Bond A, Kramer J, Seggerman K. Staffing and Administrative Capacity of Metropolitan Planning Organizations. F. H. Administration. Washington DC. U.S. Department of Transportation. https://www.planning.dot.gov/documents/Staffing_Administrative_Capacity_MPOs.pdf. Published 2010. Accessed July 25, 2017.
- ^{xli} Bond A, Kramer J, Seggerman K. Staffing and Administrative Capacity of Metropolitan Planning Organizations. F. H. Administration. Washington DC. U.S. Department of Transportation. https://www.planning.dot.gov/documents/Staffing_Administrative_Capacity_MPOs.pdf. Published 2010. Accessed July 25, 2017.
- ^{xlii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/. Published 2015. Accessed July 10, 2017.
- ^{xliii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/. Published 2015. Accessed July 10, 2017.

Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 10, 2017.

^{xliiv} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff: 2015 Update.

https://www.fhwa.dot.gov/planning/publications/briefing_book/fhwahep15048.pdf. Accessed September 22, 2107.

^{xliv} Metropolitan Transportation Plan (MTP). Federal Transit Administration Web site.

<https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-transportation-plan-mtp>. Published June 23, 2016. Accessed July 31, 2017.

^{xlvi} Metropolitan Transportation Plan (MTP). Federal Transit Administration Web site.

<https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-transportation-plan-mtp>. Published June 23, 2016. Accessed July 31, 2017.

^{xlvii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 10, 2017.

^{xlviii} Federal Highway Administration, Federal Transit Administration, Volpe National Transportation Systems Center. Metropolitan Transportation Planning: Executive Seminar.

<https://www.planning.dot.gov/Documents/MetroPlanning/metroTrans.htm>. Accessed July 20, 2017.

^{xlix} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 10, 2017.

ⁱ Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 20, 2017.

ⁱⁱ The Innovative MPO: A Guidebook for Metropolitan Transportation Planning. Transportation for America Web site. <http://www.t4america.org/wp-content/uploads/2014/12/The-Innovative-MPO.pdf> Published December 2014. Accessed July 25, 2017.

ⁱⁱⁱ Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 10, 2017.

^{liii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 10, 2017.

^{liiv} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 20, 2017.

^{lv} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 20, 2017.

^{lvi} Wollack L. Talk presented on the: Partnering for Strong Economies: Regional Councils and Walkable Communities webinar; May 5, 2016; <http://americawalks.org/partnering-for-strong-economies-regional-councils-walkable-communities-webinar/>. Accessed July 17, 2017.

^{lvii} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 20, 2017.

^{lviii} Meck S. Growing Smart Legislative Guidebook: Model Statutes for Planning and the Management of Change. American Planning Association. <https://www.planning.org/growingsmart/> Published January 2002. Accessed July 25, 2017.

^{lix} Transportation Planning Capacity Building Program at Federal Highway Administration, Federal Transit Administration. The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff. https://www.fhwa.dot.gov/planning/publications/briefing_book/ Published 2015. Accessed July 20, 2017.

^{lx} Couch C, Sykes O, & Boerstinghaus W. Thirty years of urban regeneration in Britain, Germany and France: the important of context and path dependency. *Progress in Planning*. 2011; 75(1): 1-51.

<https://doi.org/10.1016/j.progress.2010.12.001> as cited in Zheng WH, Shen GQ, & Wang H. A review of recent studies on sustainable urban renewal. *Habitat International*. 2014; 41:272-279.

<http://dx.doi.org/10.1016/j.habitatint.2013.08.006>

^{lxi} Collins WJ & Shester KL. Slum Clearance and Urban Renewal in the United States. *American Economic Journal: Applied Economics*. 2013; 5(10):239-273. <http://dx.doi.org/10.1257/app.5.1.239>

Some images courtesy: <http://www.pedbikeimages.org/> Dan Burden and Adam Coppola Photography