



NASHVILLE AREA

Metropolitan Planning Organization

Health and Equity Performance Measures and Goals

Rochelle Carpenter

AMPO

October 21st, 2015

Integrating Public Health Data and Goals

Nashville Area

- 1) Criteria on health and social equity
- 2) Data collection
- 3) Communicating anticipated changes in health outcomes with ITHIM
- 4) Where do we start? Bike/ped latent demand study

Southeast Michigan

Virginia DOT

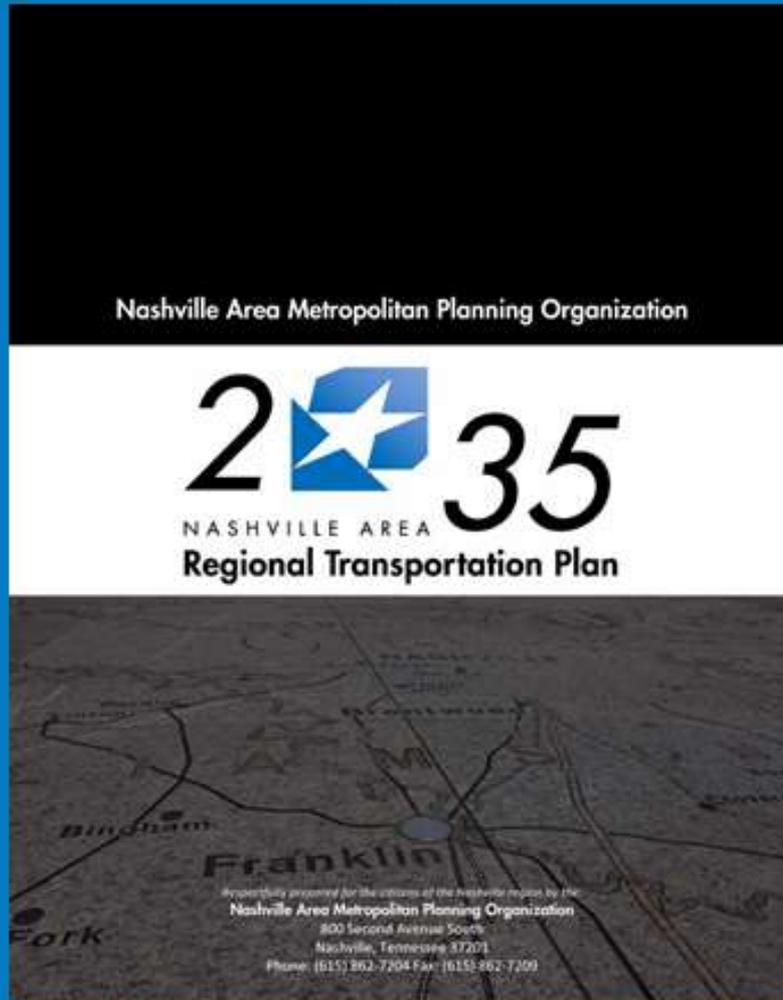


History of Expansive Development

- Strong Cross-County Commuting Patterns**
- Growing Costs of Traffic Congestion**
- Household Budgets Consumed by Transportation Costs**
- Longer Travel Times**
- Few Options for Seniors**
- Dangerous by Design**
- Housing Choices**
- Worsening Personal Health / Increasing Costs**



Policy: Public Opinion



#1

A Bold, New Vision
for Mass Transit

#2

Support for
Active Transportation
& Walkable Communities

#3

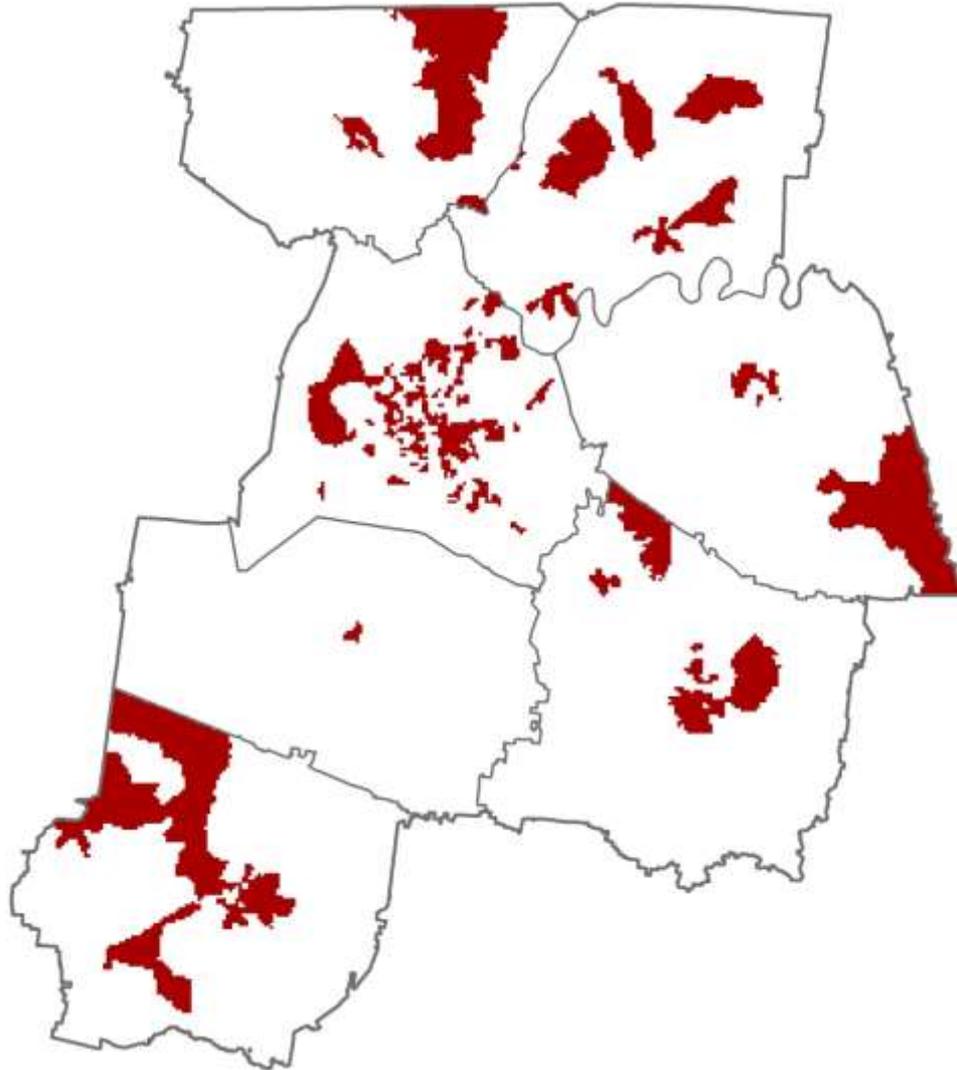
Preservation &
Enhancement of
Strategic Roadways

Prioritization: Scoring Criteria

➔ 2040 Plan Projects Scored on Criteria – 100 points

- Quality Growth and Sustainable Development – 15pts
- Multi-Modal Options – 15pts
- Health & Environment – **15pts**
- Safety & Security – **20pts**
- Congestion Management – **15pts**
- System Preservation & Enhancement – 10pts
- State & Local Support/ Investment – 5pts
- Freight & Goods Movement – 5pts

Prioritization: Health Priority Areas



Health Priority Areas

3 out of 4:

- Poverty
- Unemployment
- Carless Household
- Aging (over age 65)

Data Collection: Middle Tennessee Transportation and Health Study

Transportation, Physical Activity and Health Data Collection and Analysis



Middle Tennessee Transportation and Health Study

Welcome | About the Study | Invited to Join? | Report Travel | FAQs | Materials | Contact Us

Step 1
Invited to join? Complete a Household Questionnaire.
[Start Here](#)

Step 2
Record your travel on your assigned day using your travel log.
[Learn More...](#)

Step 3
After your travel date, please report your travel information.
[Report Travel](#)

Step 4
If selected, complete the additional Health Survey.
[Take Health Survey](#)

Welcome! The Middle Tennessee Transportation and Health Study is sponsored by the Nashville Metropolitan Planning Organization, the Clarksville Urbanized Area Metropolitan Planning Organization, and the Tennessee Department of Transportation. If you have received a participation letter, please [Start Here](#) to begin the survey.



Every day, thousands of people move through the middle Tennessee region—in cars, on buses, by foot, on bikes. To plan for the projects of tomorrow, we need to understand how you travel today. Your participation in this important survey will help improve the future of transportation for all of us.



www.middletnstudy.com

Integrated Transportation and Health Impact Modeling (ITHIM) Tool

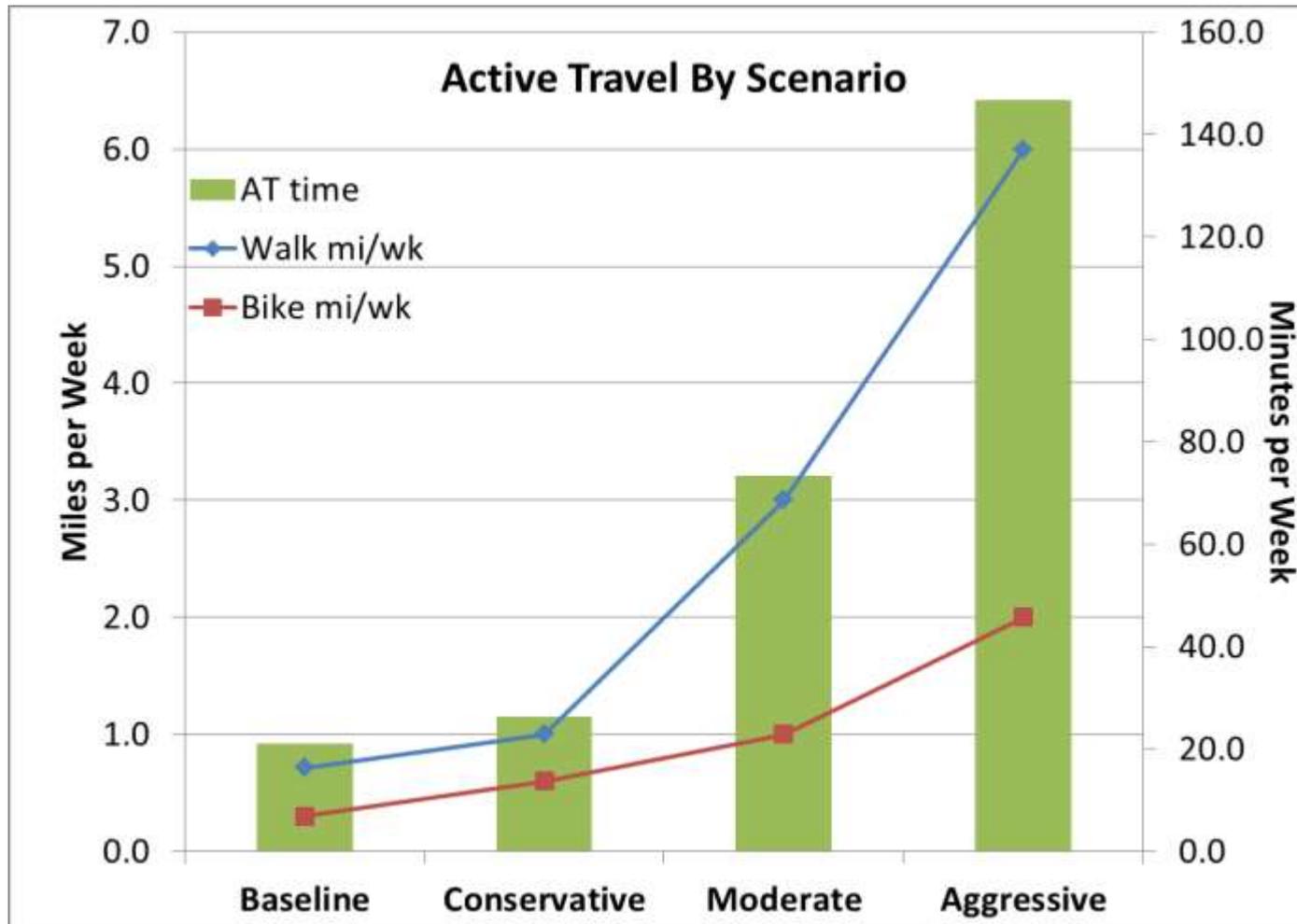
- ➔ ITHIM is a comprehensive health impact model
 - ↘ Health benefits of physical activity
 - ↘ Health benefits of reduced air pollution
 - ↘ Health risks of bike/ped vs auto accidents

 - ↘ Age/Gender effects

Diseases and Exposures

Physical Activity	Air Pollution	Collisions	
Ischemic Heart Disease	Respiratory Infections	Auto	} MODE
Depression	Cardiovascular Disease	Bicycle	
Dementia	Hypertensive Heart Disease	Pedestrian	
Diabetes	Inflammatory Heart Disease	Bus	
Colon Cancer	Lung Cancer	Truck	
Breast Cancer	Respiratory Disease (kids)	Highway	} ROAD TYPE
All-Cause Mortality	Stroke	Arterial	
		Local	
		Fatal	} SEVERITY
		Non-Fatal	

Happening Now: Integrated Transport and Health Impact (ITHIM)



Monetization: Impacts of Physical Activity via Transportation on Health

Moderate Scenario	Change in disease burden	Change in DALYs per year
Cardiovascular Diseases	10.4%	1442
Diabetes	11.2%	1252
Depression	2.7%	460
Dementia	3.9%	879
Breast cancer	2.8%	124
Colon Cancer	2.6%	94



Savings:
\$200 Million
per year in
health
care costs

Bike/Pedestrian Latent Demand: Green Hills



Existing Conditions

Bikeways, Sidewalks Greenways

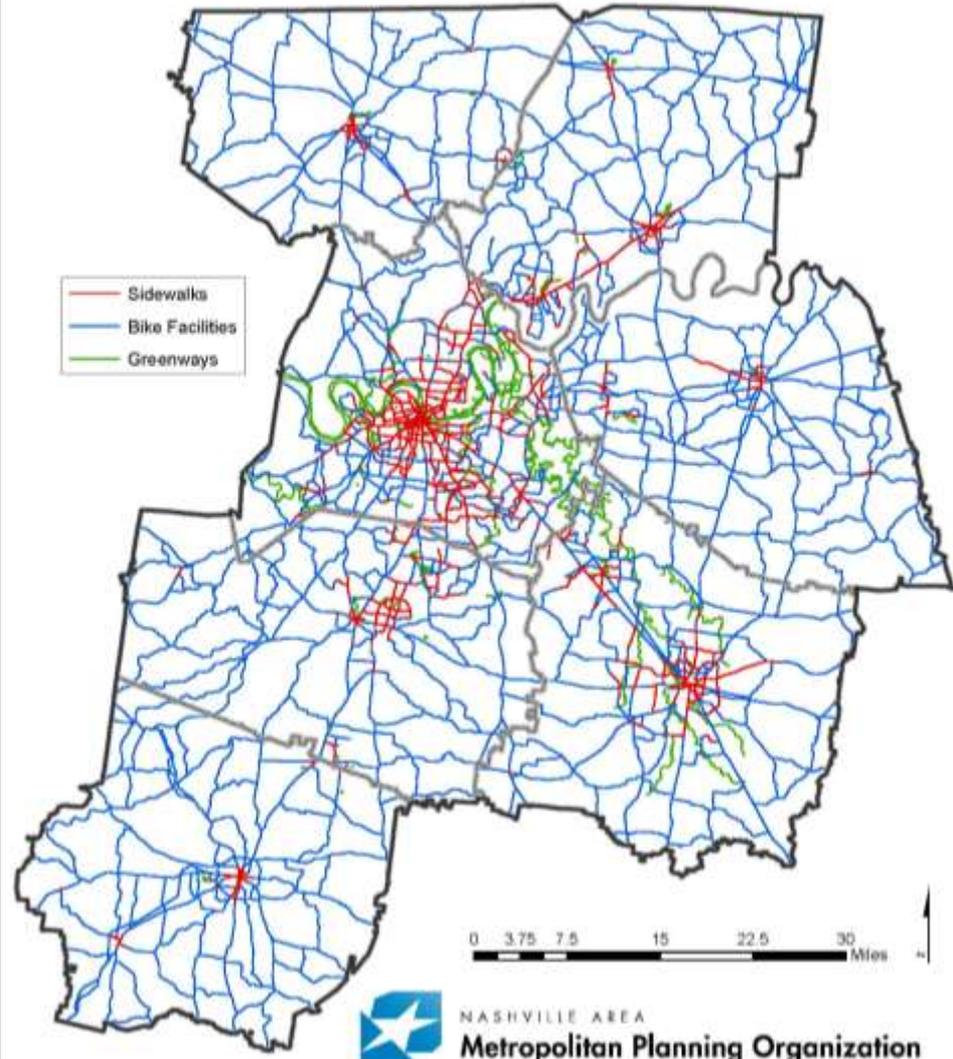
2009 to 2014

Sidewalks – ~47% increase:
~322 miles to 472 miles in 5 counties

Bikeways – ~72% increase:
~213 miles to 367 miles in 5 counties
(bike lanes, buffered bike lanes, bike routes and sharrows)

Greenways – 27% increase:
141 miles to 179 miles in 5 counties
(greenways, multi-use trails and park trails)

Bicycle and Pedestrian Routes

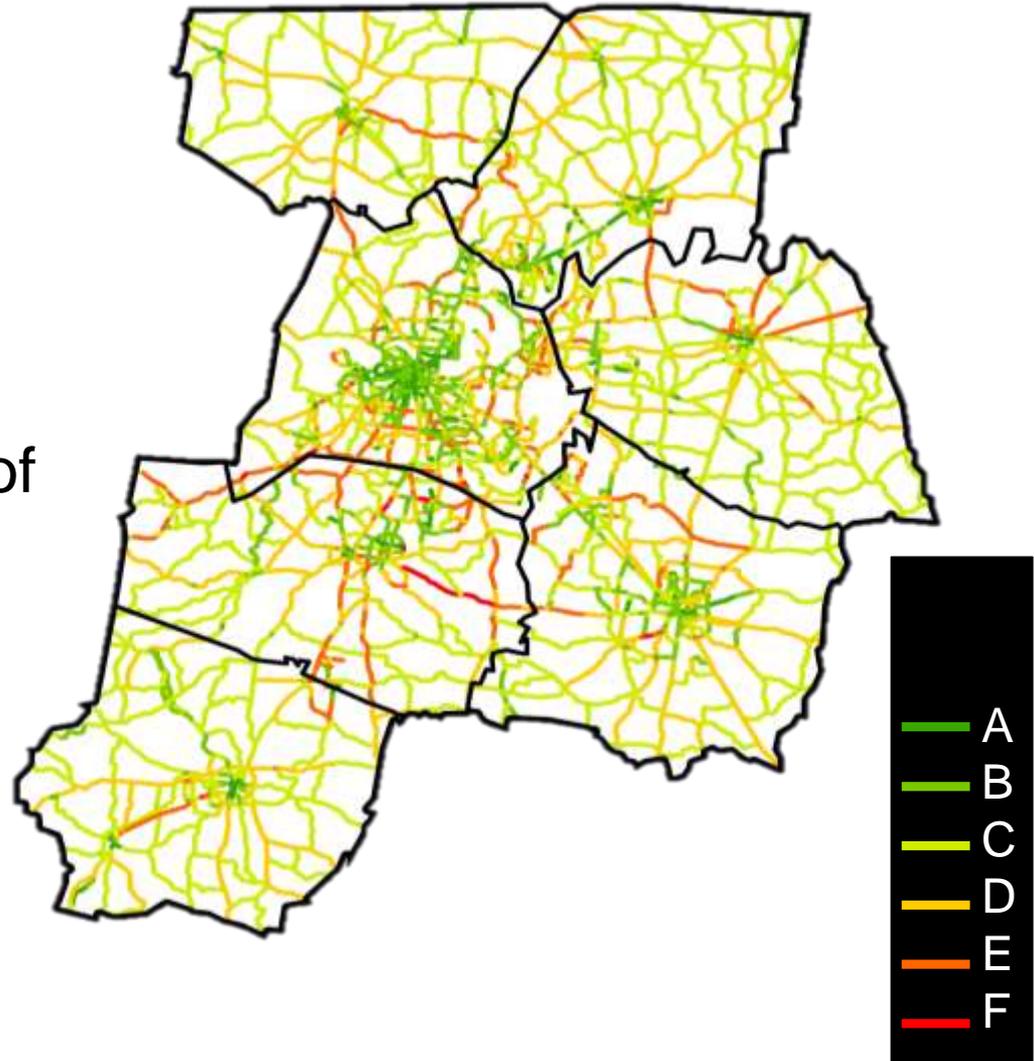


PLOS Results

There are over 500 miles of sidewalks in the MPO area.

63% of all inventoried roads (2,044 miles) have a PLOS of C or better.

Correspondingly, 1,225 miles of inventoried roadways have a PLOS of D or worse.



SEMCOG: Access to Core Services

Increase access to core services through transportation planning throughout Southeast Michigan

SEMCOG



**MICHIGAN
FITNESS
FOUNDATION**

SEMCOG: Outcomes

- ➔ Develop **common measures** of accessibility.
- ➔ **Identify gaps** in accessibility.
- ➔ Set regional **policies** & local implementations **actions**.
- ➔ Establish **performance measures** and benchmarks.
- ➔ Use accessibility to **set priorities** in regional plans.

Gathering Input: Access to Core Services Task Force



SEMCOG: Core Services

- ➔ Transit
- ➔ Jobs / Employment
- ➔ Health Care Services
- ➔ Grocery Stores / Healthy Food Access
- ➔ Recreation opportunities (Parks & Trails)
- ➔ Schools; Education facilities; Libraries
- ➔ Housing (affordable, subsidized, assisted)

SEMCOG: “Accessibility”

➡ Measuring the “ease” of reaching destinations:

↳ All modes - automobile, transit, walking, biking

➡ Focused on number of valued destinations within a given travel time

↳ In “x” minutes, a household can access “y” places

 **Accessibility** =  **Opportunity**

SEMCORG: Identifying gaps in accessibility

- ➔ Where are areas with “low” access to core services?
 - Identified geographic areas of region where access is limited
- ➔ Who is most affected?
 - Households without cars; households with fewer cars than workers; households in poverty; seniors (age 65+); youth (age <16)

Community Conversations



Ask

Where do you need to go?

● How do you get where you need to go?

Why can't you easily get where you need to go?

Community Conversations



Community Health and Social Services
Center
CHASS

Programs to Educate All
Cyclists
PEAC



Community Conversations



Youth Voice

Urban
Neighborhood
Initiatives



Community Conversations: Inspirational Kick-off Meeting



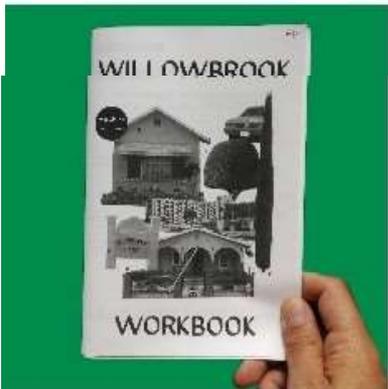
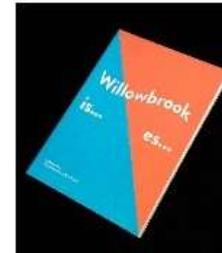
Community Conversations



On the Street + Standing Meetings



Ask, Record, Compile and Share



Virginia: Economic Impacts

➔ Economic measures

- Consistent with economic development plans

- Improves intermodal connections

- Travel time reliability

➔ Access to opportunity measures

- Transit's ability to get people to work within 60 minutes

- Access for disadvantaged populations

- Multimodal connections

Performance Measures Academy



twitter @NashvilleMPO

facebook /NashvilleMPO

Rochelle Carpenter

Senior Policy Analyst

Nashville Area MPO

carpenter@nashvillempo.org



Livability. Sustainability. Prosperity. Diversity.