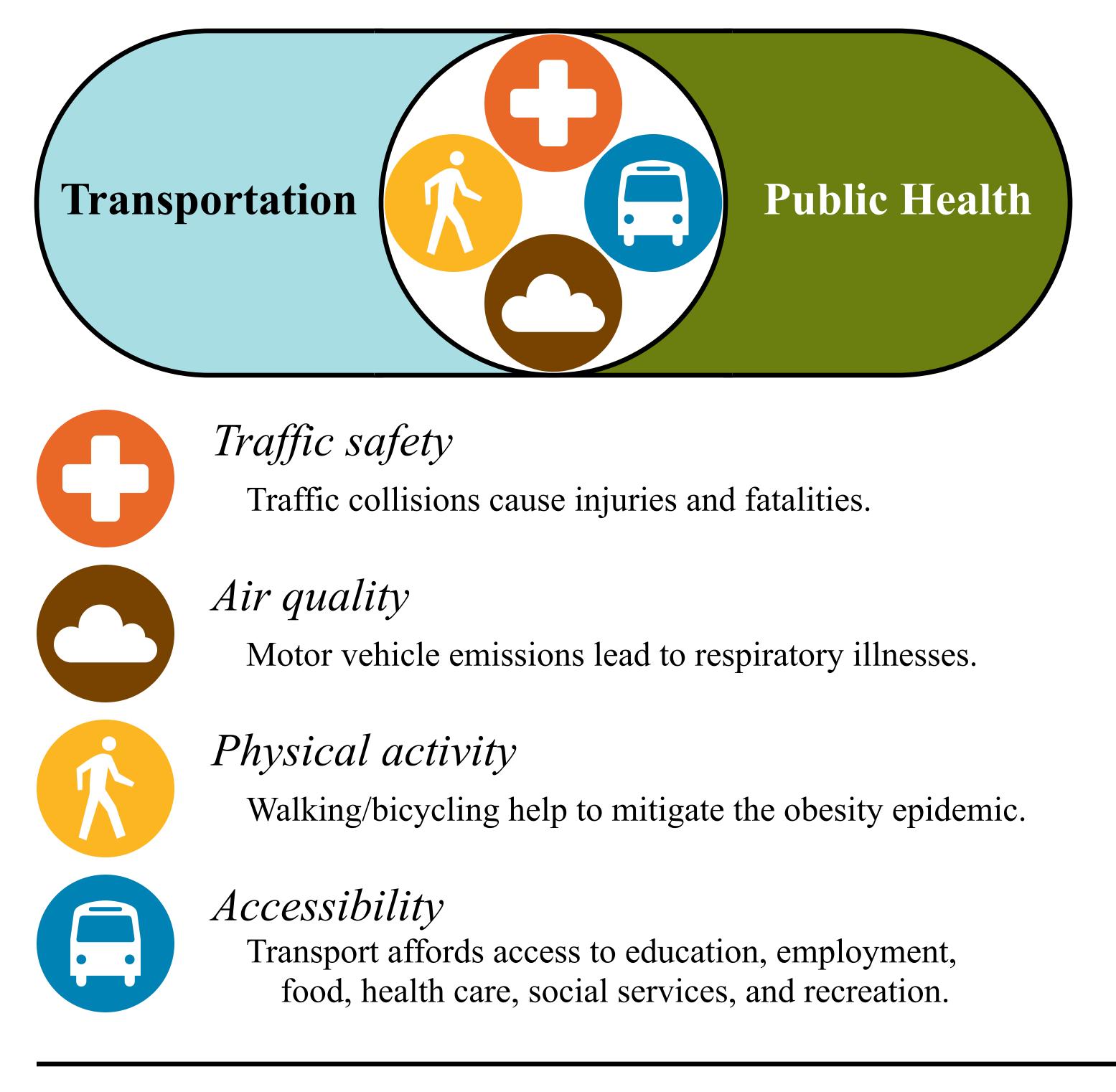
# **Public health in MPO long-range transportation plans:** A review of guidance statements and performance measures

# **Connecting transportation and health**



# Method

- 1. Selected 18 large metropolitan planning org. Six MPOs were chosen from each of three tiers, based on the walk/ bicycle capabilities of the region's travel demand model.
- 2. Gathered long-range transportation plans Plans were dated 2009–2014; horizon years were 2035 or 2040.
- 3. Identified health-related statements and measures Guidance statements: vision, goals, objectives, policies, etc. Performance measures: measures, indicators, targets, etc.

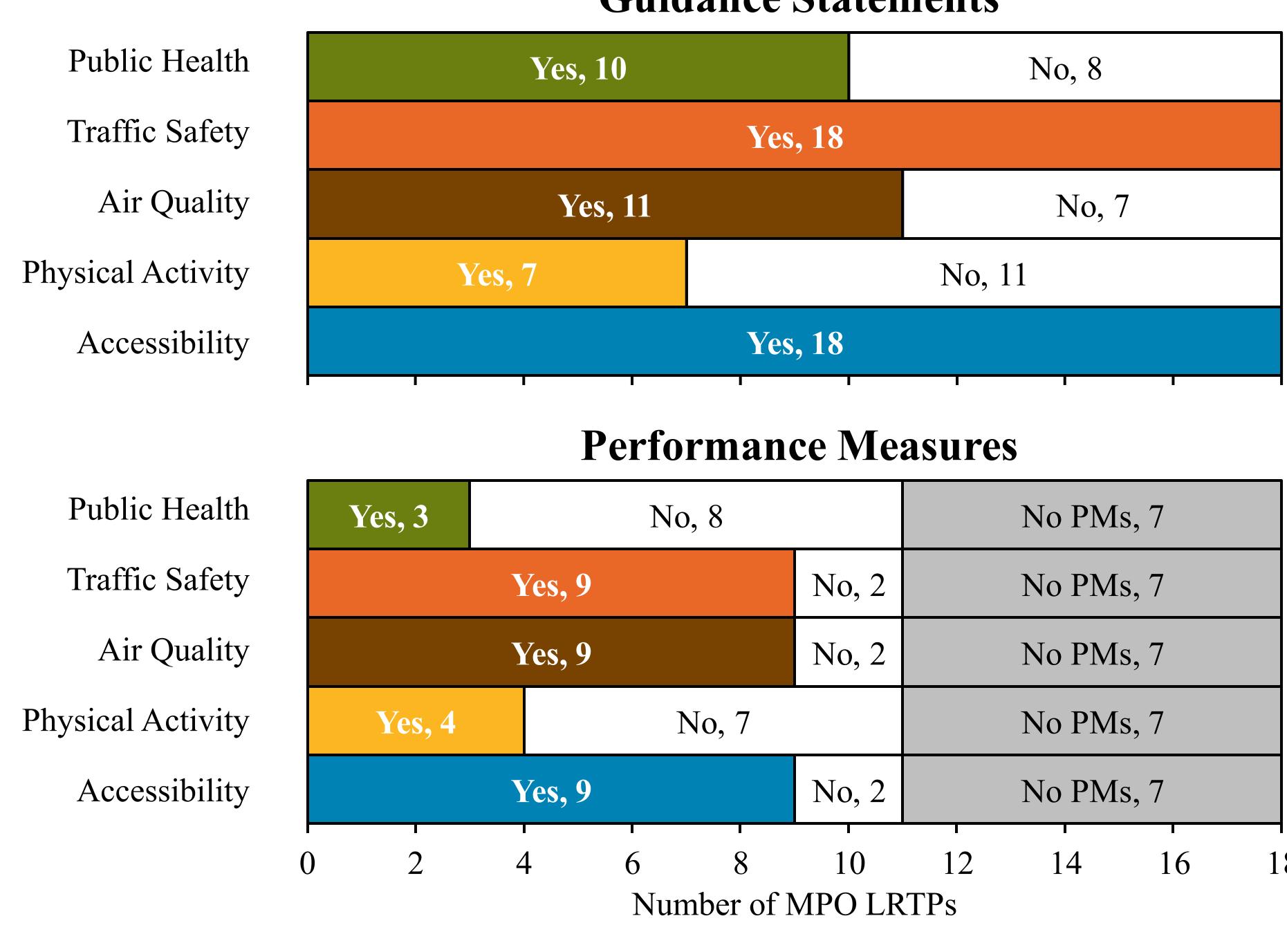
#### Want to learn more?

Download the paper:



# **Results of MPO LRTP content analysis**

#### **Guidance Statements**



MPO regions by walk/bicycle model capabilities

#### (1)

Tier 2 Detroit, MI Houston, TX Kansas City, MO Nashville, TN Orlando, FL Pittsburgh, PA

These MPOs' models do not include walking or bicycling modes.

### <u>Tier II</u>

Baltimore, MD Chicago, IL Memphis, TN Miami, FL Milwaukee, WI Washington, DC

These MPOs' models group walking and bicycling into a single non-motorized mode.



<u>Tier III</u>

Atlanta, GA Cleveland, OH San Antonio, TX San Francisco, CA Seattle, WA St. Louis, MO

These MPOs' models include both walking and bicycling in the mode choice stage.

**Patrick A. Singleton** patrick.singleton@pdx.edu

Department of Civil and Environmental Engineering Portland State University | Portland, Oregon, USA

#### Example guidance statements

- "[S]afe, comfortable and convenient options that support...physical activity, and minimize transportation-related pollution" (Portland, OR).
- A "transportation system where everyone is able to walk, ride, drive or wheel in a safe ... manner" (San Antonio, TX).
- "Reduce health impacts from vehicle pollutants" (Kansas City, MO).
- "[M]ultimodal transportation infrastructure and services that support active living and physical activity" (Baltimore, MD).

"Improve access to ... population and employment centers" (Memphis, TN).

#### Example performance measures

Obesity rate (Atlanta, GA). Average body mass index (Seattle, WA).

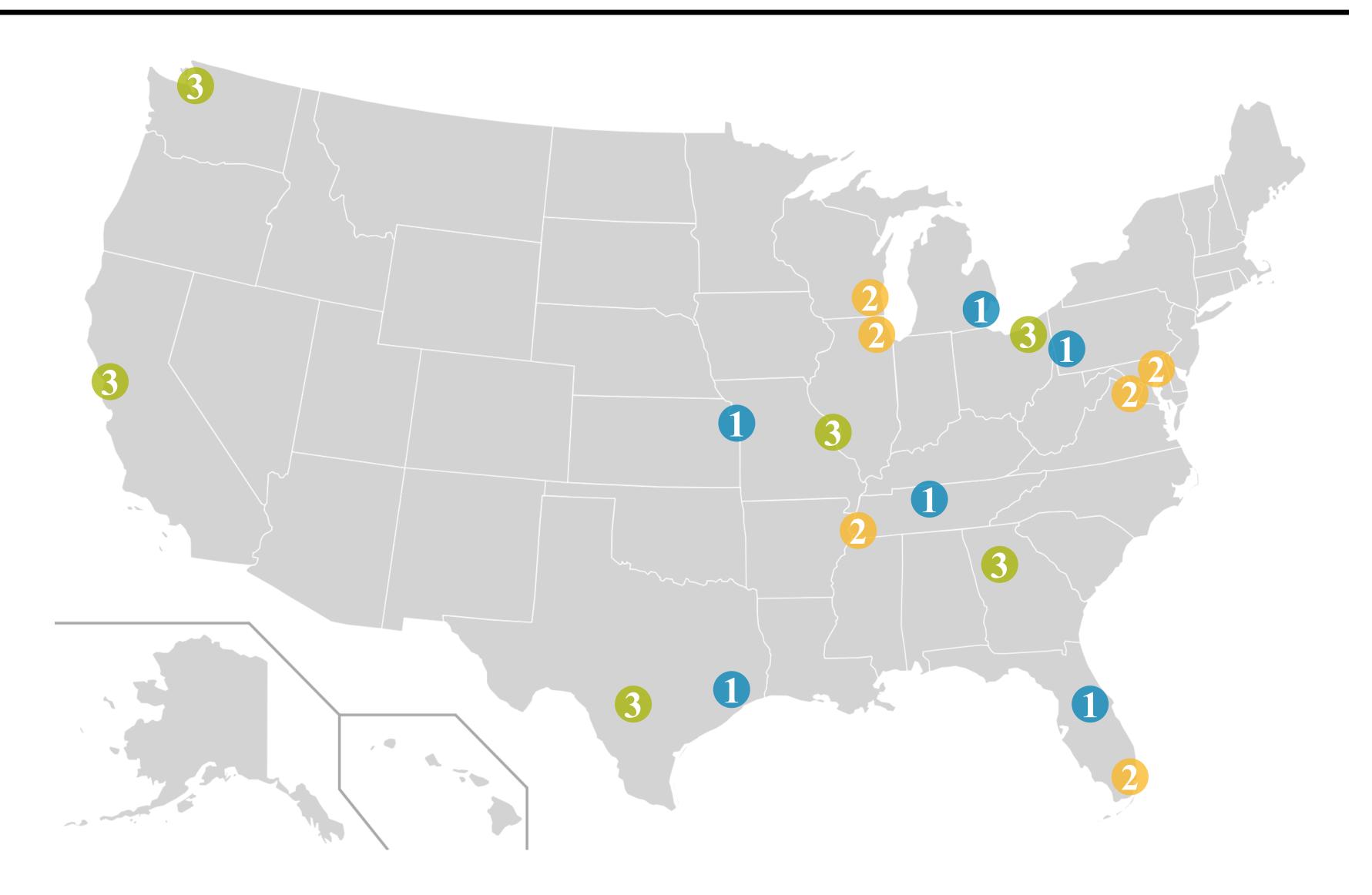
Annual traffic injury and fatality totals and rates (Kansas City, MO).

Daily tons of NO<sub>X</sub>, CO, and VOC emissions (Miami, FL).

Daily minutes of walking/bicycling for transportation (San Francisco, CA).

% population/employment within <sup>1</sup>/<sub>4</sub> mile of transit service (Orlando, FL).

18



# Kelly J. Clifton

kclifton@pdx.edu



# Findings

- *Plans' incomplete views of transportation*  $\rightarrow$  *health* Only 5 plans had guidance for all 4 health components.
- Most plans guided by safety and accessibility All 18 plans had safety and accessibility goals/objectives.
- Air quality concerns may be under-represented Strong federal mandates exist for air quality conformity.
- Regional plan policy foci guided by national policy Regional policy language was often matched to or borrowed from federal planning factors in SAFETEA-LU/MAP-21.
- Performance measures related to policy guidance Similar relative frequencies of health statements/measures.
- Walk/bicycle model capabilities related to
- performance measures but not guidance statements Most Tier III MPOs had physical activity measures, while many Tier I MPOs had physical activity statements. Technical model capabilities lag changes to planning goals.

# **Potential strategies**

- Adopt health-related guidance statements Expand scope of "health" to include physical activity.
- Adopt health-related performance measures Use direct health measures: e.g., disability-adjusted life years. Adopt federal health performance measure(s) or target(s).
- Advance travel modeling/health assessment methods Better analysis methods support health performance measures.
- *Improve public participation & environmental justice* Resolve conflicts btw. regional/local & mobility/health goals.

# Acknowledgements

This work was made possible in part by a Graduate Fellowship from the Dwight David Eisenhower Transportation Fellowship Program.



