

Beyond roadway projects, the newly-funded ATP has awarded \$13.6 million for active transportation infrastructure and education projects.

The research conducted during the MTTHS yielded significant data about the transportation and health attributes of households throughout the MPO region. The data were used to create a Geographic Information System map of high health impact areas of the region, which are defined as areas with high prevalence of reported chronic diseases, low overall health quality, and low physical activity. The map enables the MPO staff to prioritize transportation projects in areas with potential positive health benefits. Finally, initial ITHIM modeling suggests that changes in physical activity, air-quality, and collisions may contribute to reduced mortality and morbidity in the region.

**Conclusions:** The Nashville Area MPO has made significant progress in integrating health into the transportation planning process by changing policy and allocating funding for active transportation research and modeling.

<http://dx.doi.org/10.1016/j.jth.2015.04.528>

## **A41 Does the effect of micro-environmental factors on the appeal for adults' transportation cycling vary across macro-environments? An experimental study using manipulating photographs**

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### **Abstract**

**Background:** Micro-environmental factors, instead of macro-environmental factors (including walkability, access to shops/services/work, and urbanization), are easier to change in existing neighborhoods and thus more practical to target for environmental interventions. Unfortunately, relationships between transportation cycling and more changeable, micro-environmental factors are less consistent. Moreover, for interventions we need to know how well the findings can generalize to other macro-environments. This study aims to identify if the effect of micro-environmental factors (evenness of the cycle path, speed limitation and degree of separation) on the appeal for adults' transportation cycling depends on macro-environmental factors.

**Methods:** Purposeful convenience sampling was used to recruit 389 middle-aged adults between 45 and 65 years. Participants completed a web-based questionnaire consisting of socio-demographic characteristics and a series of choice tasks with manipulated photographs using a choice based conjoint (CBC) method. Conjoint analysis was used to analyze the data.

**Results:** Although several interaction effects between the micro-environmental factors and the macro-environmental factor were significant, the direction of the effects across the different macro-environments did not differ, only the magnitude of the effect. Moreover, the macro-environment was clearly less important than the micro-environmental factors regarding the appeal for transportation cycling. Our results suggest that the strength of the main effects of the micro-environmental factors are mainly independent of the macro-environment and that the ranking of the relative importance of the three micro-environmental factors is similar in each macro-environment.

**Conclusions:** Findings obtained from this research could inform environmental interventions in real life settings to modify similar micro-environmental factors in different macro-environments.

<http://dx.doi.org/10.1016/j.jth.2015.04.529>

## **A42 Transportation, Air pollution and Physical Activities (TAPAS): A comprehensive research programme on active travel**

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### **Abstract**

**Background:** Encouraging walking and cycling as means of transportation may have diverse benefits, such as reduced pollutant emissions and increased physical activity in the population. At the same time, individuals who shift to active travel modes may also experience increased risks of traffic injuries and inhalation of air pollutants. The purpose of the TAPAS research programme (2009–2013) was to help decision makers design urban policies that tackle climate change and promote health-related outcomes in Europe, while minimizing potential risks from air pollution and traffic accident.