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Assessing the Health Impacts of Active Transportation Projects: A Synthesis

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Current Situation

FDOT has committed to providing Complete Streets: streets that are designed and operated to provide safe mobility for all users, including people of all ages and abilities, regardless of transportation mode – walking, bicycles, automobiles, or public transit. The policy has also been adopted at the county level by Miami-Dade County. Part of the Complete Streets Policy is an emphasis on active transportation, i.e., walking and biking, which has health impacts for individuals who get more exercise and by increasing air quality through the reduction in vehicle exhaust. The overall health impacts of reduced crashes and active transportation have not been evaluated in Florida, and a framework for this evaluation is needed.

Research Objectives

Florida International University researchers provided a synthesis of existing tools and practices in a health impact assessment (HIA) and recommended a framework for the health impact evaluation of the Complete Streets Policy as well as important sources of data that contribute to such evaluations.

Project Activities

The researchers reviewed the latest medical evidence on the health benefits of active transportation and guidelines for physical activity. From a review of transportation and public health issues in South Florida, the researchers concluded that transportation projects that promote active transportation can improve public health in South Florida, especially stroke, diabetes, and injuries and fatalities involving pedestrians and bicyclists.

They also reviewed existing HIA tools in the U.S. and elsewhere. The literature review suggested that the Integrated Transportation and Health Impacts Modeling tool (ITHIM) is the best choice for implementation of HIA in the Miami-Dade area because ITHIM has had successful implementations in the U.S., including multiple Metropolitan Planning Organizations (MPO) in California and Nashville in Tennessee. ITHIM directly addresses three transportation impacts important in South Florida, namely physical activity, air pollution, and traffic injuries with pedestrians and cyclists.

Uses of ITHIM in several U.S. communities were studied to identify perspectives and modeling techniques that can be applied in South Florida. The case studies showed how results from ITHIM can be coupled with other regional planning initiatives to increase public support for active transportation investments. They also showed how ITHIM can highlight underlying health disparities in neighborhoods with diverse socioeconomic, racial, and ethnic populations.

Based on the literature review and case studies, the researchers recommended a modeling framework to integrate transportation and health impact assessment for MPO transportation planning in the United States. The framework combines regional travel demand modeling with ITHIM, which can be integrated into the transportation planning process endorsed by the Federal Highway Administration and Federal Transit Administration. The researchers also identified data sources that would support the use of ITHIM.

Project Benefits

The framework recommended in this project can help guide implementation of Complete Streets to achieve more effective health impacts.

For more information, please see www.fdot.gov/research/.



Complete Streets has important health benefits, including reducing crashes to promoting walking and biking.