

**Request for Research Funding for FY 2021-2022**

<b>Requesting Office</b>	District 6	<b>Priority</b>	1
<b>Proposed Title</b>	Development and Application of a Health Impacts Assessment Tool		
<b>Justification</b>	<p>Transportation policies and investment decisions have long-term implications on public health and environmental sustainability. FDOT and local agencies have been promoting Complete Street projects to promote active transportation, reduce pedestrian and bicyclist crashes, and facilitate multimodal, sustainable transportation for all users (whether they are walking, biking, riding transit, or driving automobiles). To help FDOT and transportation agencies in Florida plan and prioritize these projects, a tool that can quantify and communicate the health benefits of Complete Streets project to the public is urgently needed.</p> <p>As a result of all the ongoing efforts, Complete Street projects are now included in the latest 2045 Long Range Transportation Plan as well as the 2012-2015 Transportation Improvement Program by the Miami-Dade Transportation Planning Organization (TPO). However, although these projects were strategically planned with extensive resources from the county, assessment of these projects' health benefits in terms of increasing participation in active transportation, improving air quality, and reducing pedestrian and bicyclist crashes has not been attempted. There is generally a lack of information in all relevant planning documents regarding how potential health benefits of a project are factored into its priority in project selection. In the last decade, the Greater Nashville Regional Council (GNRC) in Tennessee had demonstrated that conducting HIA of transportation projects and communicating the assessed health benefits to the citizens can help increase public awareness of the connection between health and transportation, subsequently garnering public support for projects that support the Complete Street policy. To support efforts for the planning and programming of Complete Street projects in Florida, there is a urgent need to begin developing and applying a HIA tool that can quantify and communicate the health benefits of these projects to the public.</p> <p>The first phase of the study funded by FDOT (i.e., FDOT project BDV29 # 977-56) was conducted in 2020 to comprehensively gather and review documents of HIA applications in the United States. Specific HIA methodologies and existing tools that are suitable for applications in Florida have been identified. In addition, how applications of HIA were integrated into the regional transportation planning and programming processes had also been identified.</p> <p>Built upon the previous effort, this research project will develop a health impact assessment (HIA) tool and implement the tool for a local area (such as the Miami-Dade County) as a case study to demonstrate its feasibility and value. The tool can be adapted for implementation by other agencies in Florida and elsewhere in the United States. The findings of the preliminary study will be directly applied for this proposed research, contributing to immediate implementability of the tool. In addition, strength and weakness of previous HIA applications in the U.S. will be properly addressed by this research, placing the FDOT at the forefront of integrating HIA for the planning and programming of Complete Street projects in the United States.</p>		
<b>Impact</b>	<p><u>Impacts on practice</u>  This research will develop a functional HIA tool for Florida. The tool will be applied with local data to evaluate the health benefits of Complete Street projects in long range transportation plan and transportation improvement program. This research will establish an exemplary application of HIA in Florida. The tool can also be adapted for applications by other regions in Florida to increase statewide awareness and support for Complete Street projects. Furthermore, consultation and support from U.S. CDC will be sought to make the products of this research transferable to other U.S. urban areas interested in conducting HIA for transportation projects, effectively making Florida a leader in HIA for transportation projects in the United States.</p> <p><u>Consequences of not doing the research</u>  The rates of pedestrian and bicyclist fatalities and injuries in Florida have been among the highest in the U.S. for many years. Complete Street projects are an important means for FDOT to reduce pedestrian and bicyclist crashes with vehicles in Florida. Effective planning and programming with public support is the key to the success of Complete Streets projects in the state. The purpose of this research is to create a tool that can quantify and communicate health benefits of these projects to the public in terms of reduced deaths and disabilities due to traffic accidents and chronic diseases (i.e., due to physical inactivity). Without such a tool,</p>		

	projects most beneficial to the well-being of the citizens cannot be effectively planned and prioritized. In addition, support for these projects from the public can be limited due to lack of information on critical health benefits.		
<b>Affected Offices</b>			
<b>Existing Work</b>	It was identified in the preliminary study (i.e., FDOT project BDV29-977-56) for this research that prominent HIA applications in the U.S. had been conducted for the GNRC in Tennessee and multiple MPOs in California. The Integrated Transport and Health Impact Tool (ITHIM) was the HIA tool used for these implementations in the United States. From these previous applications, useful perspectives and modeling techniques had been identified for the proposed application of ITHIM in Florida. The experience from the GNRC implementation showed that HIA can be coupled with other regional planning initiatives to increase public awareness and support for Complete Streets investments. Applications for Californian MPOs offered disaggregated modeling techniques and re-usable HIA computation routines (i.e., coded in the R-language) that can be adapted for Florida. The resources including model documents as well as the R-language codes for the ITHIM computation routines used in previous U.S. ITHIM applications had been acquired for this research.		
<b>Keywords Used In Existing Work Search</b>	health impact assessment, complete Streets, active transportation, pedestrian and bicyclist crashes, long range transportation plans, transportation improvement programs, projects prioritization		
<b>Related Contracts (Give contract numbers)</b>	FDOT Master University Agreement BDV29-977-56		
<b>Funding Request</b>	\$200,000	<b>Anticipated Duration</b>	18 months
<b>Project Manager</b>	Neil Lyn District Statistics Administrator Planning and Environmental Management Office Florida Department of Transportation - District 6 E-mail: Neil.Lyn@dot.state.fl.us (305) 470-5373	<b>Contracting Method</b>	Direct contract with university
<b>Urgency</b>	1	FDOT and local MPOs have been promoting Complete Street projects to reduce pedestrian and bicyclist crashes and to facilitate multimodal, sustainable transportation. To help transportation agencies in Florida plan and prioritize these projects, a tool that can quantify and communicate the health benefits of Complete Streets project to the public is urgently needed.	
<b>Implementability</b>	1	The research will develop a HIA tool for implementation by regional agencies. The tool can also be adapted for implementations by other metropolitan planning organizations in Florida and elsewhere in the United States.	
<b>Project Benefits (Succinct, complete explanation)</b>			
<ol style="list-style-type: none"> <li>1. A functional tool for quantification and communication of health benefits of Complete Street projects to the public.</li> <li>2. Addition of health metrics (e.g., reduced fatalities, injuries, and chronic disease incidences) as criteria for transportation project prioritization.</li> <li>3. Effective planning and prioritization of Complete Street projects.</li> <li>4. Increased public awareness of the health benefits of, and support for Complete Street projects and active transportation.</li> <li>5. Increased Complete Street projects and public participation in active transportation in MDC, leading to increased public health and environmental sustainability.</li> </ol>			

6. Making the FDOT a leader in planning and programming of Complete Street projects.		
Project Benefits (Select all that apply and explain)	Quantifiable Benefits (units, dollars, etc...if applicable)	Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits
○ Materials Enhancement		
○ Materials Savings		
○ Time Savings		
○ Lives Saved/Injuries Prevented		Facilitate the selection and promotion of Complete Street projects in Florida to reduce pedestrian and bicyclist fatalities and injuries.
○ Other (Explain)		Promote walking and biking for transportation, increasing public health and environmental sustainability in Florida.

\*Comments should explain and support urgency, financial benefit, and implementability scores

References:

Greater Nashville Regional Council in Tennessee

Meehan, L.A. and Whitfield, G.P. (2017). Integrating Health and Transportation in Nashville, Tennessee, USA: From Policy to Projects. *Journal of Transport and Health*. 2017 March ; 4: 325–333.

Major Metropolitan Planning Organizations in California

Maizlish, N., Linesch, N. J., & Woodcock, J. (2017). Health and greenhouse gas mitigation benefits of ambitious expansion of cycling, walking, and transit in California. *Journal of transport & health*, 6, 490–500. <https://doi.org/10.1016/j.jth.2017.04.011>

Sacramento Council of Governments in California

Wu, Y., Rowangould, D., London, J.K., and Karner, A. (2019). Modeling health equity in active transportation planning. *Transportation Research Part D: Transport and Environment*, Volume 67, P. 528-540.