



## RESOLUTION NUMBER 2019-1

**RESOLUTION** establishing a Health in All Policies approach to Transportation Planning.

**WHEREAS**, the Hillsborough County Metropolitan Planning Organization (MPO) is the designated and constituted body responsible for the transportation planning and programming process for Hillsborough County; and

**WHEREAS**, the MPO desires to promote, maintain and enhance the livability of unincorporated Hillsborough County, Plant City, Tampa and Temple Terrace; and

**WHEREAS**, policy, planning and programming decisions made by non-health agencies significantly impact social and environmental factors and health, and can have a disproportionate impact on vulnerable populations; and

**WHEREAS**, Health in All Policies is a cross-sector collaborative approach that incorporates health into the decision-making process of government agencies; and

**WHEREAS**, an individual's zip code and conditions in the environment where they live, work, learn and play have a greater impact on an individual's health and quality of life than their genetic code; and

**WHEREAS**, making community conditions more equitable, including roadway safety and connectivity to resources and public transportation, improves health equity; and

**WHEREAS**, communities of color, lower income individuals, older adults, persons with disabilities, children at risk and individuals and communities who are pedestrian, bicycle and public transportation-dependent experience higher rates of health disparities, preventable differences in health status and outcomes resulting from social and environmental factors and historic policy decisions; and

**WHEREAS**, the Hillsborough County Metropolitan Planning Organization seeks to provide transportation system wide choices for all users including motorists, bicyclists, pedestrians, and transit users, and to make unincorporated Hillsborough County, Plant City, Tampa and Temple Terrace more livable, healthy, and economically robust.

**NOW, THEREFORE BE IT RESOLVED** by the Hillsborough Metropolitan Planning Organization that:

1. The Hillsborough County MPO will continue to work with the Florida Department of Health in Hillsborough County (DOH-Hillsborough) to implement Health in All Policies strategies taking into account the health impacts of MPO decisions that include but are not limited to chronic and acute

health outcomes, mental and physical wellbeing, health behaviors such as physical activity, measures of social cohesion and community connectedness, access to healthcare, employment and educational opportunities and the environment.

2. The MPO will consider and report the health impacts based on the Transportation and Health Indicators Matrix (attached)

DONE, ORDERED AND ADOPTED THIS 8<sup>TH</sup> DAY OF JANUARY 2019

HILLSBOROUGH COUNTY  
METROPOLITAN PLANNING  
ORGANIZATION



---

COMMISSIONER LES MILLER  
CHAIRMAN

ATTEST:



---

WANDA WEST  
ADMINISTRATIVE SPECIALIST

## Transportation and Health Indicators Matrix

	MPO PRIORITY AREA	INDICATORS	HEALTH PRIORITY AREA*	MPO PERFORMANCE OUTCOMES
1.	Crash & Vulnerability Reduction/ Investment for Economic Growth	Recovery time for critical <b>transportation links</b> after a Category 3 storm	All	Regional Scenario
2.	Crash & Vulnerability Reduction	Total crashes reduced, fatal crashes reduced, bicycle/pedestrian crashes reduced	HE, LHL, AC, CD	TIP, LRTP
3.	Crash & Vulnerability Reduction	Number street lights installed in high crash corridors	All	TIP
4.	Crash & Vulnerability Reduction	Number of miles of sidewalk present in high pedestrian crash areas/ complete network	All	LRTP
5.	Crash & Vulnerability Reduction	Pedestrian intersection improvements (example-high visibility crosswalks, ADA compliant sidewalks, median pedestrian refuge and bulb-outs) 1/4 mile from transit stops	HE, LHL, AC, CD	TIP
6.	Minimize Congestion	Pedestrian friendly intersections for Communities of Concern	HE, LHL, AC, CD	TIP
7.	Minimize Congestion	<u>Air Quality</u> : Population or households adjacent (500 feet) to congested or high-volume roads (30,000 ADT or a volume to capacity ratio of 1.0 or greater)	CD, HE, LHL	Regional Scenario
8.	System Preservation/Investment for Economic Growth	Span and frequency of transit service	HE, LHL, AC, CD	TIP; LRTP
9.	System Preservation/Investment for Economic Growth	Highway centerline miles within 1/2 miles of major healthcare (hospitals), recreation (regional parks, entertainment venues), education (universities and colleges)	BH, CD, HE	Regional Scenario; LRTP
10.	Investment for Economic Growth/Real Choices	Transit and sidewalk coverage to areas of Essential Destinations (map attached)	All	TIP; LRTP
11.	Investment for Economic Growth/Real Choices	Ratio of sidewalk and/or bicycle lanes to roadway miles in the Urban Service Area	HE, LHL, AC, CD	LRTP
12.	Investment for Economic Growth/Real Choices	Transit and sidewalk coverage to behavioral health and chronic disease services	All	LRTP
13.	Real Choices when Not Driving	Miles of sidewalk and trails present within 1/4 mile of populations identified with high rates of behavioral health and chronic disease conditions	AC, IM, BH, CD	TIP
14.	Real Choices when Not Driving	Sidewalk coverage (both side of street) within 1/4 mile of transit stops	LHL, HE	LRTP; TIP
15.	Real Choices when Not Driving	Sidewalk coverage (both side of street) for block groups within 1/4 mile of restorative and social activities, e.g. parks, recreation, and community centers	LHL, CD, BH, HE	Regional Scenario; TIP; LRTP
16.	Real Choices when Not Driving	Transit service route miles within 1/4 miles of high proportion of elderly population (over 500 per square mile)	HE, LHL, AC, CD	LRTP; TIP
17.	Real Choices when Not Driving	Percent of Environmental Justice population living within 1/4 mile of a trail/side path	All	Regional Scenario
18.	Real Choices when Not Driving	Transit and sidewalk coverage within designated USDA Food Deserts	All	TIP
19.	Real Choices when Not Driving	Percent of Community of Concern population living within 1/4 mile of transit service (map attached)	HE, LHL, AC, CD	TIP; LRTP

\*AC- Access to Care; BH- Behavioral Health; CD- Chronic Disease; HE- Health Equity; LHL- Long Healthy Life; IM- Infant Death

**DRAFT 12/4/18**

**Mission:**

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



**Rick Scott**  
Governor

**Celeste Philip, MD, MPH**  
State Surgeon General & Secretary

**Vision:** To be the Healthiest State in the Nation

April 11, 2018

Commissioner Les Miller, Chairman  
Metropolitan Planning Organization Board  
601 E. Kennedy Blvd  
Tampa, FL 33602

RE: Transportation and Health

Dear Mr. Miller and Members of the Metropolitan Planning Organization Board:

On behalf of the Florida Department of Health in Hillsborough County, we are thrilled to support the Hillsborough County Metropolitan Planning Organization's (MPO) recent work showing the links between transportation and health. Their work reflects a growing recognition that community health depends on all community partners, including partners that influence the physical and built environments in which we live.

The conditions of the places where people live, learn, work, and play that affect overall health are the social determinants of health. These social determinants include transportation factors like air quality, the availability of sidewalks, trails, crosswalks, lighting, public transit, where major and minor corridors are placed, and who has access to them or who is affected by them. In some locations, transportation policies and decisions have had major negative impacts on entire communities, affecting long-term economic opportunities and asset building, which ultimately affects health. Health outcomes that can be affected by transportation decisions include problems like poor mental health, chronic diseases like overweight and obesity, and decreased length of life, among others.

Health in All Policies is a collaborative strategy for improving the health of communities by incorporating health considerations into decision-making across sectors and policy areas. We encourage adoption of the MPO resolution establishing Health in All Policies as an approach to transportation planning. This approach, adopting the resolution, and using the supporting health indicators matrix will help planners prioritize projects that mirror other growth, sustainability, and vibrancy leaders across the country. We welcome the opportunity to continue working with the MPO on Health in All Policies projects to increase the health and livability of Hillsborough County.

Sincerely,

Douglas Holt, M.D.  
Director  
Florida Department of Health in Hillsborough

**Florida Department of Health – Hillsborough County**

Office of the Director  
P.O. Box 5135  
Tampa, FL 33675-5135  
PHONE: (813) 307-8000 • FAX: (813) 272-6984



**Accredited Health Department**  
Public Health Accreditation Board



---

# HEALTH IN ALL POLICIES RESOLUTION

---

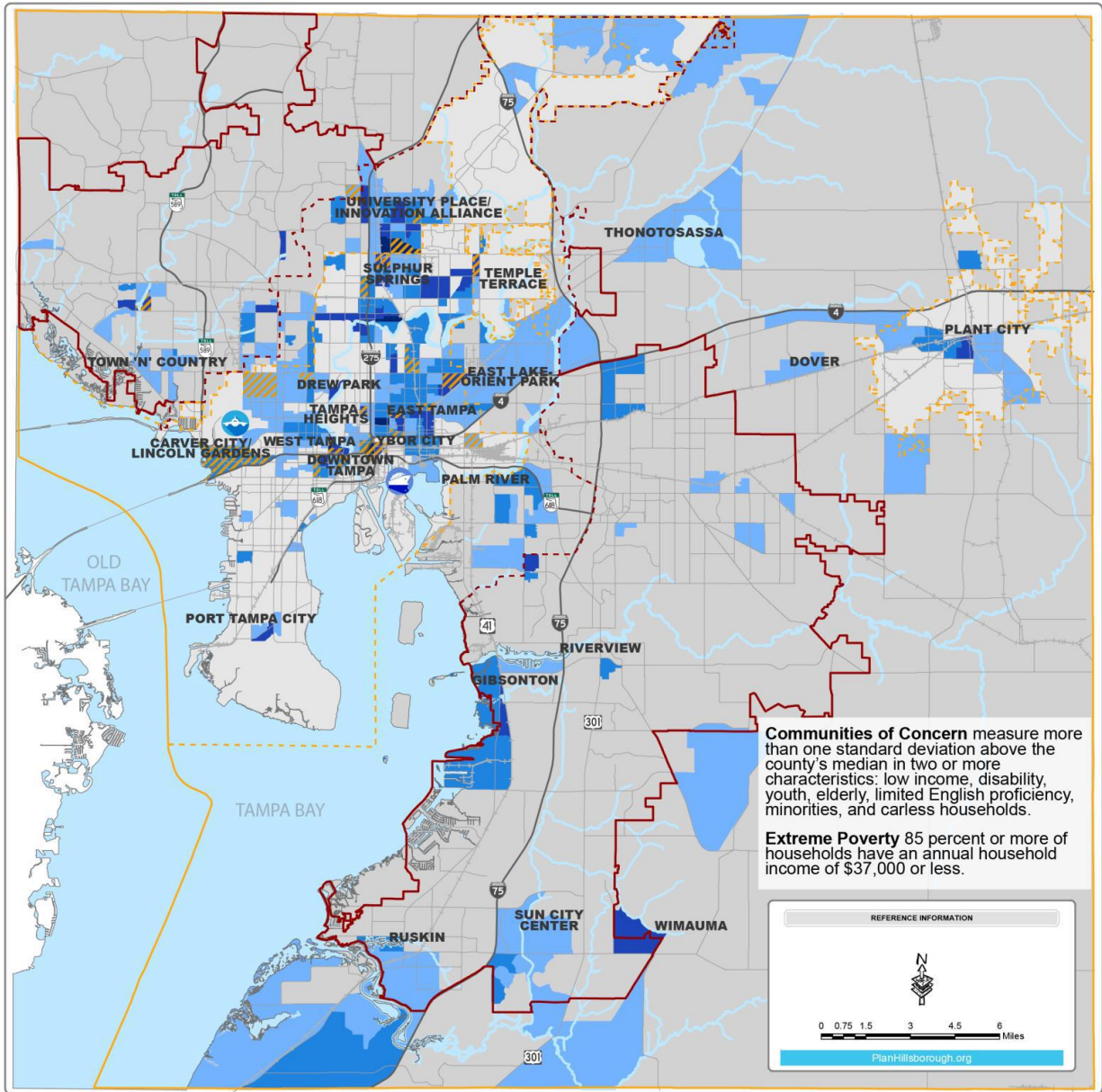
STAFF REPORT



OCTOBER 1, 2018

HILLSBOROUGH METROPOLITAN PLANNING ORGANIZATION  
601 E. KENNEDY BLVD..TAMPA, FLORIDA



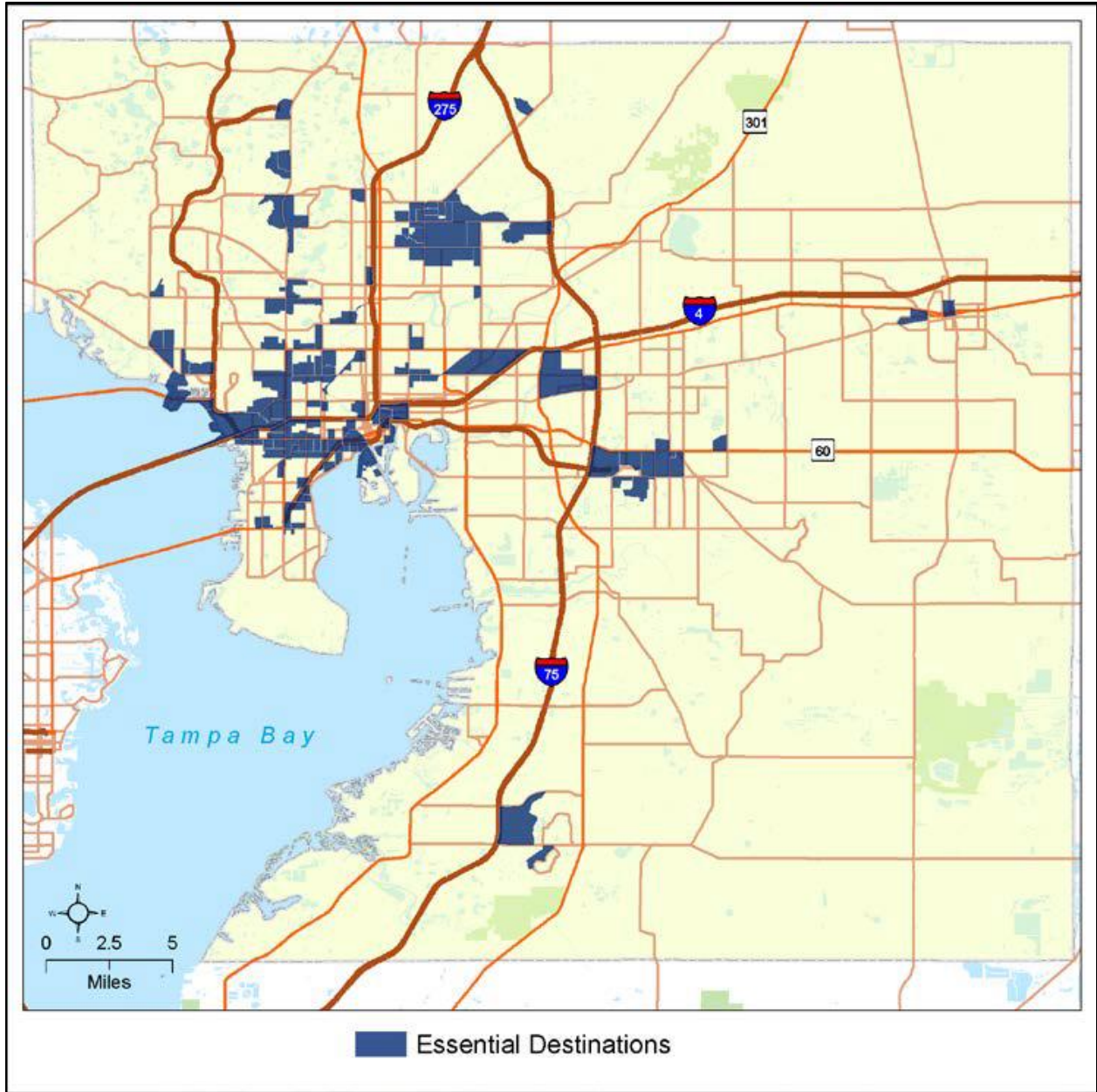


HILLSBOROUGH COUNTY, FLORIDA  
COMMUNITIES OF CONCERN

Hillsborough MPO  
Metropolitan Planning  
for Transportation

**LEGEND**

2 characteristics	Road
3 characteristics	Railroad
4 characteristics	Hillsborough County Boundary
5 characteristics	City Boundaries
Extreme Poverty	Urban Service Area
	City Utility Service Area
	Port
	Airport



Center for Urban Transportation Research (2016) - Evaluating the Distributional Effects of Regional Transportation Plans and Projects

## Health in All Policies Resolution Report

### INTRODUCTION

This report is in response to two motions made by first, the Policy Committee and second by the MPO Board.

1. **Motion: Councilman Cohen moved to request staff work with the Health Department to research and draft health in all policies resolution, seconded by Commissioner Murman. After remarks, the motion carried five to zero. (POLICY COMMITTEE- 8/30/16)**
2. **After sharing potential capital/operating concerns and wanting to see municipal/County/PC feedback, Commissioner White moved to send that to the County administration, the administration of the three municipalities, and the PC, to look at the land use and transportation linkage for potential impacts of costs, growth, and any other implications, and have that resolution come back accompanied by a report on that review for the MPO's consideration at that time, seconded by Commissioner Kemp, and carried eleven to zero. (MPO BOARD- 5/1/18)**

### CONTEXT

Good health begins in the places where we live, learn, work and play. Although medical care is critically important, things like the quality of our schools, affordability and stability our housing, access to good jobs with fair pay, and the safety of our neighborhoods can keep us healthy in the first place. (Robert Wood Johnson Foundation, 2015).

Public health and urban planning are quite interconnected where the urban environment clearly influences the health and wellbeing of individuals. At the beginning of the 20<sup>th</sup> Century, we learned how a series of issues including industrialization, lack of sanitation, rapid urbanization, inadequate water supplies, waste collection, high levels of pollution and lack of control measures, and inadequate housing for the poor could cause the spread of disease and unhealthy environments (Kenzler, 2000). Our understanding of how planning can affect health outcomes has grown to include health impacts such as obesity, asthma, cardiovascular disease and cancer.

Health in All Policies (HiAP) is an approach to planning whereby decision-makers consider how plans and policies will impact human health. Key HiAP principles include promoting health, equity and sustainability; supporting inter-sectoral collaboration; benefitting multiple partners; engaging stakeholders; and creating structural or procedural change (Rudolph, Caplan, Ben-Moshe, & Dillon, 2013). The Department of Health - Hillsborough County with the Metropolitan Planning Organization and Planning Commission staffs have developed a health priorities matrix which highlights agency cross-sectoral alignments from ongoing HiAP work.

### **DEFINITIONS:**

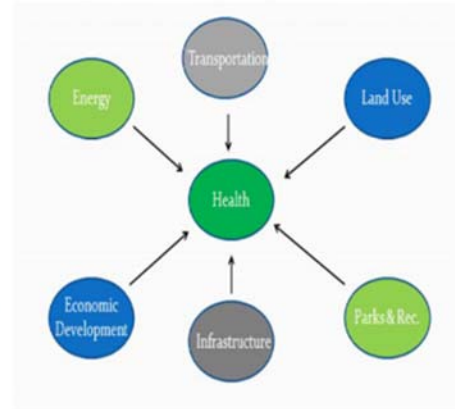
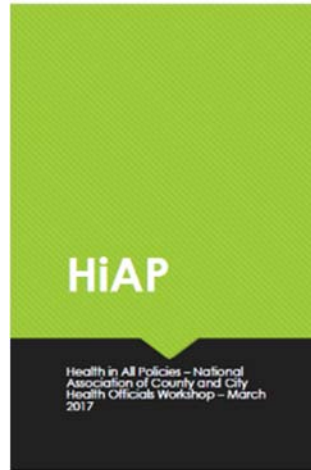
**Public Health** is the science of increasing the health and safety of communities through education, policy making and research for disease and injury prevention.



**Health in All Policies** is a collaborative way to connect and integrate health considerations in policies or system practice.

**Health** is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

**Transportation** does more than just move us around. Transportation is a critical factor that influences people's health and the health of a community. Investments in sidewalks, bike lanes, trails, public transit, and other infrastructure that supports physical activity can result in improvements to individuals' health and decreased health care costs.



#### **SOCIAL DETERMINANTS OF HEALTH:**

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. By working to establish policies that positively influence social and economic conditions and those that support changes in individual behavior, we can improve health for large numbers of people in ways that can be sustained over time. Improving the conditions in which we live, learn, work, and play and the quality of our relationships will create a healthier population, society, and workforce.

#### **THE PROBLEM - TRANSPORTATION'S IMPACT ON HEALTH:**

The Hillsborough County Transportation Disadvantaged Service Plan reports that nearly 1/3 of the population of Hillsborough County is Transportation Disadvantaged (TD). 'Transportation disadvantaged' means those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities, or children who are handicapped or high-risk or at-risk as defined in Florida Statute 411.202."

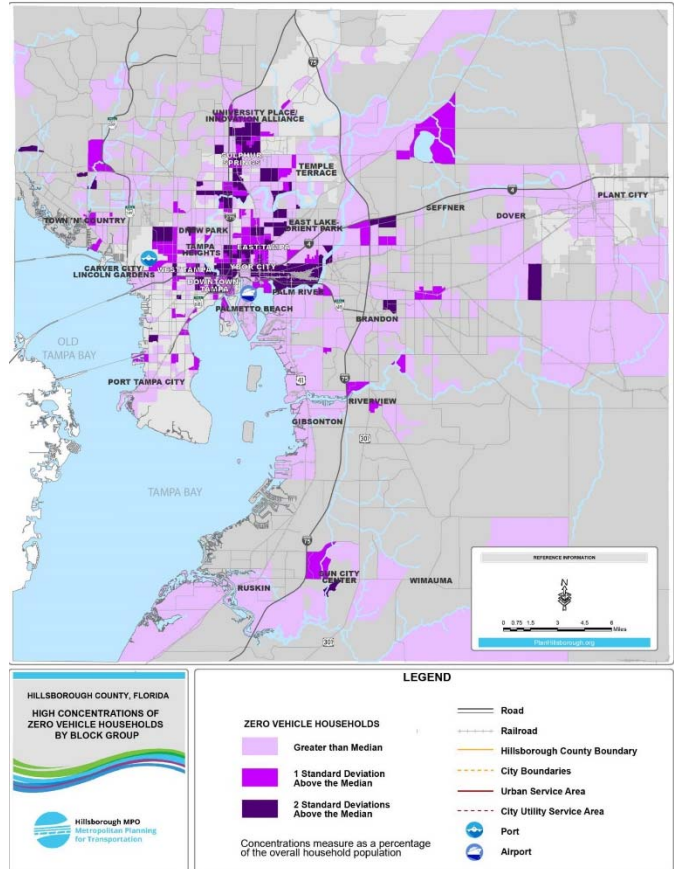
Transportation systems can provide access to physical activity opportunities, improve safety, lower emotional stress, link poor people to opportunity, connect isolated disabled and older Americans to crucial services and social supports and stimulate economic development.

Elderly and disabled populations drive less and therefore must rely more on other transportation options to get around: More than 1 in 5 Americans age 65 and older do not drive. More than 50% of elderly non-drivers (3.6 million Americans) stay home on any given day in part due to lack of transportation options and more than half of this group (1.9 million) is disabled. Older non-

drivers take 15% fewer trips to the doctor; 59% fewer trips to shops and restaurants; and 65% fewer trips for family, social and religious activities than their counterparts who drive. (CITYLAB- Older People Will Need Much Better Transit, August 2017)

- Transportation costs create a barrier for many: U.S. households earning \$20,000 to \$35,000 and living far from employment centers, spend approximately 37% of their income on transportation, while the average U.S. household spends about 18% of its income on transportation. The more a household spends on transportation, the less it has left over for food, medical expenses, childcare, housing and other essential costs. (AARP- Waiting for a Ride: Transit and America’s Aging Population, 2011)

**In Hillsborough County** the concentrations of residents living in households with no vehicles are in areas greater than the median (5 percent), those that are one standard deviation above the median (15 percent), and those that are two standard deviations above the median (26 percent).

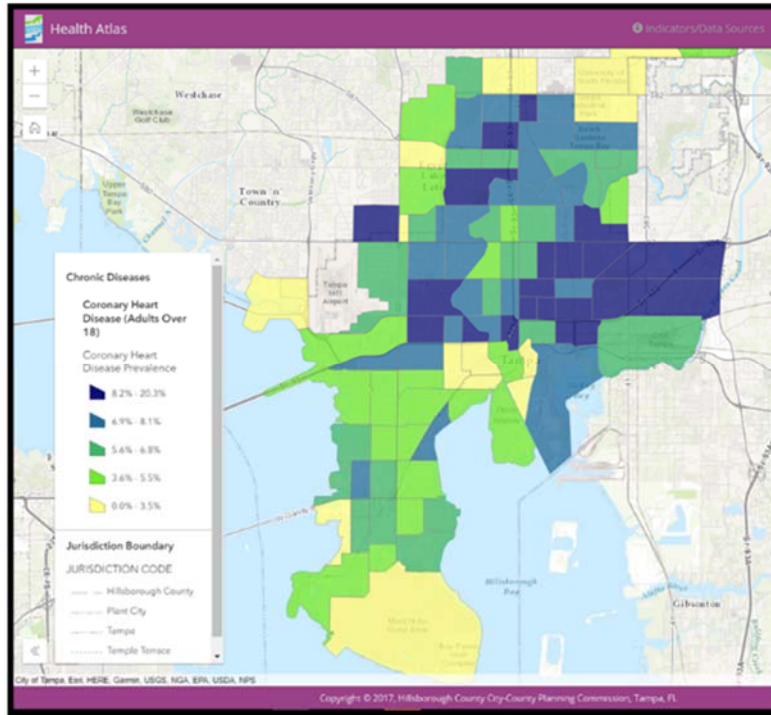


The Hillsborough County Transportation Disadvantaged Service Plan reports that the lack of continuous sidewalks and bicycle facilities impact a TD individual’s ability to navigate transportation corridors in a comfortable and safe manner. Issues that impact comfortable and safe travel include:

- Overall access impacted by poles, benches, or other elements blocking the clear space on sidewalks, especially for persons who make use of wheelchairs, scooters, or other mobility aids.
- Varying widths of sidewalks and bike lanes
- Incomplete sidewalk systems and bicycle facility network.
- The mismatch of sidewalks, bike lanes, and transit stops.
- Problematic intersections due to:
  - High traffic volume,
  - Large number of turning movements at an intersection’
  - Lack of pedestrian signalization

These factors are barriers to pedestrian and bicyclist safety and put an undue stress on the TD population. These barriers were confirmed as a result of the 2016 TDSP Human Services Transportation Survey and Forum. Eighty percent of the respondents said that their clients walk and 60 percent of the respondents stated that their clients bike. It is known that every fixed-

route transit rider is either a pedestrian or a bicyclist at the beginning and end of each trip. Lack of coordination between pedestrian and bicycle infrastructure with the needs of the TD community is a barrier to providing safe and efficient travel for the TD population.



It is well established that physical activity promotes longevity and is beneficial for health (CDC, 2011; CDC, 2015b; American Heart Association [AHA], 2015). Access to an active living system can improve a community’s health through promoting physical activity and recreational activity while reducing poor health outcomes. An active living system that is used for commuting can help to reduce cardiovascular risk by 11%, increase daily steps, and increase time spent walking (American Public Health Association, 2010). Researchers have correlated communities that report higher rates of

walking and cycling to work with more daily physical activity and lower rates of obesity and diabetes (Pucher, Buehler, Bassett, & Dannenberg, 2010). Cycling and walking have been recognized as an important means to promote health since they are the most common forms of physical activity as well as active transport. An increase of one-hundred minutes of cycling per week, reduces the mortality risk by 10% when compared to non-cyclists (Schepers et al., 2015). An increase of one-hundred and sixty-eight minutes of walking per week, reduces the risk of early mortality by approximately 11% (Schepers et al., 2015).

Providing safe streets for all users is an important component of a healthy and economically vibrant community. Pedestrian and bicycling infrastructure improvements (such as wayfinding, crosswalk improvements, wider sidewalks, lighting) to connect to transit and transit-oriented development can provide large but often overlooked health benefits. Studies have shown that 43 percent of people with safe places to walk within ten minutes of home achieve their daily physical activity targets, compared to just 27 percent for residents of less walkable areas achieving physical activity targets. (Littman, 2010).

Transit supportive infrastructure improvements can be achieved with the implementation of Complete Streets policies. Complete Streets is a set of policies and planning practices intended to ensure that roadways accommodate all users and uses including walking, cycling, transit and

automobile travel. Complete Streets are designed with its community context- in a rural setting a Complete Street will look much different than a Complete Street in an urban setting.

Roadways traditionally have been designed primarily for motor vehicles. A personal vehicle-centric design approach potentially could pose barriers to use by pedestrians, bicyclists and public transportation users, thus limiting active transportation opportunities and potential resulting health benefits. Complete Streets policies can support planners and engineers in developing roadway designs that improve the safety of all users and provide additional opportunities for physical activity from transportation. The connections between physical activity and public health have been widely documented. Research suggests that physically active adults “have lower rates of all-cause mortality, coronary heart disease, high blood pressure, stroke, type 2 diabetes, metabolic syndrome, colon cancer, breast cancer, and depression” than their physically inactive peers (U.S. Department of Health and Human Services, 1996). Active transportation, or trips made by walking or bicycling, was identified by Healthy People 2020 as a target for measuring progress for healthier people (U.S. Department of Health and Human Services, 2010). Additionally, Healthy People 2020 listed “increased legislative policies for the built environment that enhance access to and availability of physical activity opportunities” as a specific travel and transportation policy.

Active transportation and physical activity is more likely to occur in places with a variety of land uses, a comprehensive network of pedestrian, bicycle, and public transportation facilities, inviting street design for all users, and safety measures; and Complete Streets policies address all four of those factors (Fenton, 2012). Complete Streets also promote increased roadway connectivity, which has been shown to reduce VMT per capita (Moreland-Russell et al., 2013), and they have been found to improve safety and mobility for pedestrians and bicyclists (U.S. DOT, 2010; Handy, Tal, Boarnet, 2010).

Shifts towards using Complete Streets provide a measure of how approaches to planning and engineering are shifting over time. The focus of road design is no longer about auto-mobility but creating an overall network that serves all users (LaPlante, McCann, 2011). Complete Street policies are a component of the Centers for Disease Control and Prevention (CDC) transportation recommendations. Complete Streets can enhance physical activity and reduce injury. Setting a Complete Streets policy in place is a foundational step towards improving infrastructure by providing accessible, safe, and connected roadways (CDC, 2010).

A recent survey of implemented Complete Street policies suggests this type of strategy is applicable to communities that vary in geography and socio-demographic factors (Marshall, Garrick, 2011), which suggests that it can be a useful tool for various regions. Complete Streets strategies include retrofitting existing arterials to accommodate multi-modal users or building new facilities that support multi-modal transportation and complementary roadside uses. Complete Streets elements may include pedestrian and bicyclist accommodations, public transportation access, accommodations for persons with disabilities, landscape elements, and traffic calming. Controlling and reducing vehicular speed can be done through reducing the number of lanes, adding curb parking, or installing raised medians (LaPlante, McCann, 2011). Decision makers can search the National Complete Streets Coalition Policy Atlas for model

language and for other assistance in developing Complete Streets policies. This is an opportunity for health and transportation professionals to work with advocates and decision makers in setting forth policy strategies to shape the future of land use, growth, and development in ways that encourage use of alternate modes and opportunities for physical activity from transportation, while enhancing safety for all users. Enhanced health and safety of the broader population is tightly connected with the built environment and small steps now can lead to significant benefits in the future. (FHWA)

**HEALTH INDICATORS:**

A growing body of scientific evidence has shown that the built environment can have significant effects on both physical and mental health, particularly among minority and low-income populations already burdened with disproportionate rates of illness and morbidity. The combination of lack of infrastructure (e.g., sidewalks, bike paths, and parks), affordable housing, and supermarkets with access to healthy food increases the risks of both physical and mental illnesses.

The conditions of the place where people live, learn, work and play that affect overall health are the determinants of health. These social determinants include transportation factors like air quality, the availability of sidewalks, trails, crosswalks, lighting, public transit, where major and minor corridors are placed, and who has access to them or is affected by them. In some locations, transportation policies, and decisions have had major negative impacts on entire communities, affecting long term economic opportunities and asset building, which ultimately affects health. Health outcomes that can be affected by transportation decisions include problems like poor mental health, chronic diseases like overweight and obesity, and decreases length of life.

Health data can provide a picture of current health conditions, trends and disparities within any community. This information can help inform planners and community leaders on the best 'infrastructure' solutions for their communities and can allow them to track how changes to the built environment are helping or harming their communities.

In 2017, the Hillsborough County MPO created a Health Atlas web-based mapping tool to provide a baseline context of health and health-related indicators within Hillsborough County as well as to visualize the interconnectedness of health, transportation, economic development, and the environment.

**DRAFT**

The catalyst for the Health Atlas is the MPO’s involvement in the Healthiest Cities & Counties Challenge. The Challenge is a partnership between the Aetna Foundation, the American Public Health Association and the National Association of Counties. The partnership has “challenged” 50 cities and counties to create a positive health



impact through a small seed money grant. Hillsborough County’s Challenge project is called Garden Steps; the purpose being to establish community gardens in food deserts within Tampa, as a case study, evaluating transportation conditions surrounding sites.

The Health Atlas provides a baseline profile for obesity and chronic illness such as asthma, cardiovascular disease, and diabetes within Tampa neighborhoods, as well as demographic, transportation, health care access, food environment, emergency preparedness, and environmental indicators which span Hillsborough County. Health practitioners report that in the United States, chronic diseases such as diabetes and cardiovascular disease, are on the rise. The built environment has become an important aspect of health-promotion strategies. Health is viewed as not merely the absence of disease or infirmity, but also includes “a state of physical, mental, and social well-being”. Well planned and designed transportation investments can go beyond a primary purpose of moving people to positively influencing the future health of communities and the residents, workers, and businesses.

Ingredients of our HiAP also include aging, disability, safety and access to jobs, schools, health care, healthy food and recreation.

**THE HEALTH IN ALL POLICIES MATRIX:**

As part of this process, Hillsborough MPO staff worked with partners at FDOH – Hillsborough to determine a list of indicators to monitor the performance of our transportation system with regard to health outcomes and supporting healthy behaviors. This was accomplished through the comparison of FDOH – Hillsborough’s Community Health Improvement Plan (CHIP) and the priorities outlined in the MPO Long Range Transportation Plan (LRTP).

In coordination with the performance measures in the 2040 LRTP, the TIP Priorities consider candidate projects that fall into one of the five investment programs, ranked in the following order per criteria established in the LRTP:

1. Preserve the System, including projects such as:

## DRAFT

- a. Bridge repair & replacement
  - b. Road resurfacing
  - c. Transit vehicle replacement
2. Reduce Crashes & Vulnerability, including safety and resilience projects evaluated by their effect on:
    - a. Total, fatal & bike/ped crashes
    - b. Recovery time & economic impacts from flooding or major storm surge
  3. Manage Congestion for Drivers & Shippers, including intersection, signalization, freeway incident management and ITS projects, evaluated by their impact on:
    - a. Travel time reliability on heavily congested arterials
    - b. Peak period V/C ratio
  4. Real Choices When Not Driving, including alternatives such as transit, multi-use trails and services for the transportation disadvantaged, evaluated by:
    - a. Density of jobs and population in 2040 within ¼ mile of proposed transit service
    - b. Density of jobs and population in 2040 within ¼ mile of proposed trail/sidepath
  5. Major infrastructure improvements, including road and transit capacity projects for economic growth:
    - a. Key economic spaces (job clusters > 5,000)
    - b. 2040 jobs served per mile of improvement
    - c. 2040 delay reduced per mile of improvement

To ensure continuity with previous priorities, any project already programmed for construction funding is given priority over new candidates for funding.

The TIP also incorporates projects prioritized by the Tampa Bay Transportation Management Area (TMA, which includes the Hillsborough, Pasco and Pinellas MPOs) Leadership Group and the TBARTA CCC for inclusion in the 2040 Regional LRTP. It also includes priority projects for the Transportation Regional Incentive Program (TRIP) authorized through state legislation

The CHIP includes the six major health concerns for the county, which are:

- Access to Care
- Behavioral Health
- Chronic Diseases
- Health Equity
- Long Healthy Life
- Infant Death.

Where these priorities intersected, staff looked at models in other communities to track performance, then compared those to existing data sources available in Hillsborough County. Staff then narrowed that larger list of indicators to those that most directly impact health outcomes and where data is readily available. The result is a list of 19 indicators/performance

**DRAFT**

measures. These will be tracked over time to measure the performance of transportation investments as related to the health of the community.

The measures were chosen to represent a wide cross section of the importance of transportation in health outcomes, including vulnerability to natural disasters, vehicle crashes, walkability, access to care, access to daily needs, access for vulnerable populations, and safety. These measures also include the MPO priority areas as well as in the application to the MPO’s plans and programs.

**Transportation and Health Indicators Matrix**

	MPO PRIORITY AREA	INDICATORS	HEALTH PRIORITY AREA*	MPO PROGRAM APPLICATION
1.	Crash & Vulnerability Reduction/ Investment for Economic Growth	Recovery time for critical <b>transportation links</b> after a Category 3 storm	All	Regional Scenario
2.	Crash & Vulnerability Reduction	Total crashes reduced, fatal crashes reduced, bicycle/pedestrian crashes reduced	HE, LHL, AC, CD	TIP, LRTP
3.	Crash & Vulnerability Reduction	Number street lights installed in high crash corridors	All	TIP
4.	Crash & Vulnerability Reduction	Number of miles of sidewalk present in high pedestrian crash areas/ complete network	All	LRTP
5.	Crash & Vulnerability Reduction	Pedestrian intersection improvements (example-high visibility crosswalks, ADA compliant sidewalks, median pedestrian refuge and bulb-outs) 1/4 mile from transit stops	HE, LHL, AC, CD	TIP
6.	Minimize Congestion	Pedestrian friendly Intersections for Communities of Concern	HE, LHL, AC, CD	TIP
7.	Minimize Congestion	Population or households adjacent (500 feet) to congested or high-volume roads (30,000 ADT or a volume to capacity ratio of 1.0 or greater)	CD, HE, LHL	Regional Scenario
8.	System Preservation/Investment for Economic Growth	Span and frequency of transit service	HE, LHL, AC, CD	TIP; LRTP
9.	System Preservation/Investment for Economic Growth	Highway centerline miles within 1/2 miles of major healthcare (hospitals), recreation (regional parks, entertainment venues), education (universities and colleges)	BH, CD, HE	Regional Scenario; LRTP
10.	Investment for Economic Growth/Real Choices	Transit and sidewalk coverage to areas of Essential Destinations (map attached)	All	TIP; LRTP
11.	Investment for Economic Growth/Real Choices	Ratio of sidewalk and/or bicycle lanes to roadway miles in the Urban Service Area	HE, LHL, AC, CD	LRTP
12.	Investment for Economic Growth/Real Choices	Transit and sidewalk coverage to behavioral health and chronic disease services	All	LRTP
13.	Real Choices when Not Driving	Miles of sidewalk and trails present within 1/4 mile of populations identified with high rates of behavioral health and chronic disease conditions	AC, IM, BH, CD	TIP
14.	Real Choices when Not Driving	Sidewalk coverage (both side of street) within 1/4 mile of transit stops	LHL, HE	LRTP; TIP
15.	Real Choices when Not Driving	Sidewalk coverage (both side of street) for block groups within 1/4 mile of restorative and social activities, e.g. parks, recreation, and community centers	LHL, CD, BH, HE	Regional Scenario; TIP; LRTP
16.	Real Choices when Not Driving	Transit service route miles within 1/4 miles of high proportion of elderly population (over 500 per square mile)	HE, LHL, AC, CD	LRTP; TIP
17.	Real Choices when Not Driving	Percent of Environmental Justice population living within 1/4 mile of a trail/side path	All	Regional Scenario
18.	Real Choices when Not Driving	Transit and sidewalk coverage within designated USDA Food Deserts	All	TIP
19.	Real Choices when Not Driving	Percent of Community of Concern population living within 1/4 mile of transit service (map attached)	HE, LHL, AC, CD	TIP; LRTP

\*AC- Access to Care; BH- Behavioral Health; CD- Chronic Disease; HE- Health Equity; LHL- Long Healthy Life; IM- Infant Death

DRAFT 4/16/17

**HEALTH AUDIT:**

For its LRTP update, scheduled for completion in 2019, the Hillsborough MPO and Health Department staffs are interested in expanding its approach to identifying and addressing the transportation needs of the Transportation Disadvantaged (TD) in the region. The MPO staff, through their previous planning and public involvement efforts, indicated a need for a greater variety of analysis measures and methods to better define and locate TD and Community of Concern groups (COCs), as well as accessibility of pedestrians, cyclists and transit-users to jobs



## DRAFT

and services. A Community of Concern is a census block group that has a high proportion of two or more protected classes, such as racial minorities, low-income groups, persons with disabilities, and those with limited English proficiency. The MPO further indicated interest in methods to evaluate public health, safety and the distributional equity of investments.

To begin, we needed to know how do existing planning documents perform when viewed through a health lens? To answer this question, we analyzed three Imagine 2040 documents: Long Range Transportation Plan (LRTP), Projects Prioritized for Funding, and the FY 19-23 Transportation Improvement Program (TIP). They were examined for how they addressed health concerns. As we pursue a Health in all Policies through transportation planning approach, this information is a baseline for measuring progress.

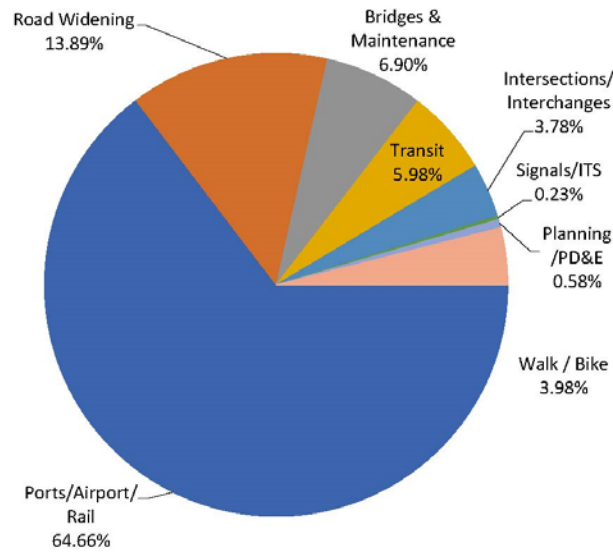
### **Key Findings:**

**TIP:** Nearly \$439 million will be spent in the next five years to support healthy behaviors. Over the next five years, dollars will continue to be spent to improve walking, biking. Local and state governments are implementing projects to improve safety, increase access and mobility, maintain air quality standards and promote economic development. This is 11% of the \$1.55 billion we are spending on transportation infrastructure. These funds will increase walking, biking, and transit opportunities.

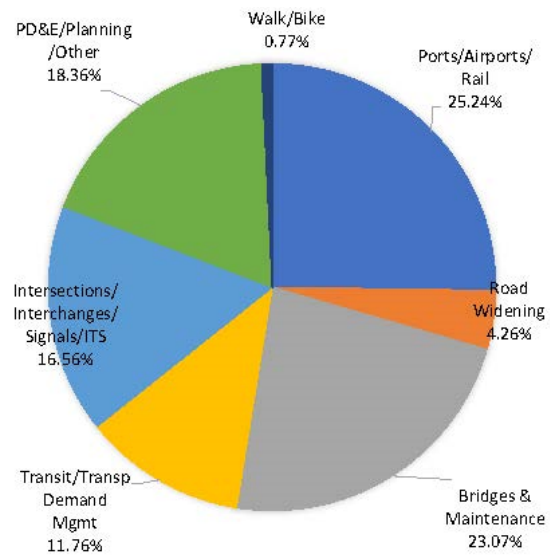
**Analysis of Existing Priorities Funded for Construction** shows that jurisdictions are submitting projects that increase opportunities to walk, bike, or use transit. 41 of the 54 projects advanced from the LRTP in 2018/2019 supported one or more health indicators. HART continues to plan for an expanded, reliable and frequent public transit system. In the current TIP, we spend \$685,556,302 on transit, which is 16.99% of total funding. To determine money spent on the transit components in the TIP, projects with a transit component were selected, including those for capital purchases, maintenance, operations, equipment, pilot projects, vanpools, and administration. This amount was then divided by the total money allocated in the TIP for all funding.

To determine funding with a pedestrian or cycling component, all projects with a pedestrian or cycling component were selected. These include trails, sidewalk programs, bridge replacements with a pedestrian or cycling component, new roads incorporating cycling and pedestrians, roadway expansions that will include multimodal facilities, enhancements to existing multimodal facilities, traffic calming projects, complete streets projects, ADA projects, and intersection projects with a pedestrian safety component. This list includes all phases of a project including, planning, engineering, design, and construction. The total was then divided by the overall TIP funding.

This study provides the MPO with potential methods and measures for identifying COCs and more systematically monitoring the long-term impacts of the regional plan and projects, using indicators related to affordability, accessibility and safety. Results of the study were presented to various MPO committees and the MPO Board to help inform future planning efforts.



Local Agency Capital Improvements



FDOT Work Program Funding

The Hillsborough MPO is now using this equity analysis to screen TIP projects for impacts and benefits to COCs. In particular, the MPO is identifying areas with low access to food and other services, such as healthcare, and using additional tools, such as health impact assessments, to prioritize projects to help COCs facing these challenges. The 2045 update to the MPO Long Range Transportation Plan and Title VI plan will include details from, and expansion of, this equity analysis. Other projects include a recently concluded Transportation Disadvantaged Summit, which brought together providers and recipients to discuss transportation disadvantaged needs.

**PROJECT EVALUATION:**

As an example of how this might be used in the prioritization of projects for funding in the Transportation Improvement Program (TIP), staff has applied the health indicators matrix performance measures to two projects already funded in the TIP. While this is not intended to replace the existing TIPP prioritization process, it can help identify projects that have health benefits.

Sulphur Springs Elementary Safe Routes to School

The Sulphur Springs Elementary Safe Routes to School project identifies a number of elements including high visibility crosswalks and filling sidewalk gaps around the school, which is also in an area of high chronic disease and has been identified as a Community of Concern. Applying the indicators in the Health Matrix to this project, the following indicators are met:

- Indicator 2 – Total crashes reduced
- Indicator 4 – Number of miles of sidewalk present
- Indicator 5 – Pedestrian Intersection Improvements
- Indicator 6 – Pedestrian friendly intersections for COCs

## DRAFT

- Indicator 11 – Ratio of Sidewalk and/or bicycle lanes to roadway miles in the Urban Service Area
- Indicator 13 – Miles of sidewalk present within ¼ miles of populations with high rates of chronic health conditions
- Indicator 14 – Sidewalk coverage within ¼ mile of transit stops
- Indicator 15 – Sidewalk coverage for block groups within ¼ mile of restorative and social activities
- Indicator 18 – Sidewalk coverage within designated food deserts

This total of 9 out of 19 measures could then be compared against other projects to determine which may have the greatest health benefits for the community.

### Morris Bridge Road

This project is proposed to add paved shoulders, sidewalks, and a multi-use trail to connect existing pedestrian and bicycle facilities north and south of the project. It also offers safety improvements for all users including motorists and can improve active transportation options, thereby helping in the reduction of chronic diseases in the long-term. In this case, the following indicators are met:

- Indicator 2 – Total crashes reduced
- Indicator 4 – Miles of sidewalk present
- Indicator 5 – Pedestrian Intersection Improvements
- Indicator 11 – Ratio of sidewalk and/or bicycle lanes to roadway miles in the Urban Service Area

With four out of 19 measures met, this project could be helped in prioritization by its performance on the health indicators.

### LAND USE:

Transportation and land use are significant factors in the built environment that affect (a) rates of injury and death caused by traffic crashes, (b) ease and safety of physical activity, (c) air quality, (d) greenhouse gas emissions, and (e) access to key community resources such as health care and healthy food. Land-use policies pertain not only to the movement of people but also to the movement of freight and goods from ships through ports and on trucks and trains, which affects communities and workers across the country.

The FDOH staff has considered a pilot assessment for how the Tampa Comprehensive Plan (TCP) addresses health. The comprehensive plan is a locally adopted document designed to guide the future actions of a jurisdiction. It presents a vision for the future, with long-range goals, objectives and policies for all activities that affect the local government. This includes guidance on how to make decisions on public and private land development proposals. Plans are written to provide direction for future activities over a 20-year period after plan adoption.

The ChangeLab Solutions’ framework was ultimately chosen to evaluate the TCP. The Healthy Comprehensive Plan Assessment Tool (HCPAT) calls for utilizing keyword searches, within four health related domains: (1) Complete Streets, (2) Complete Neighborhoods, (3) Healthy Food Systems, and (4) Environmental Health. The FDOH staff also decided to compare the TCP to the Orlando Growth Management Plan (OGMP) as Orlando is a municipality similar in size and demographics to Tampa. The OGMP is also similarly structured with no stand-alone health element and containing approximately 600 pages and over 1,000 GOPs.

**Table 1. List of Search Terms**

Access	Food	Pollution
Active**	Garden	Quality (environmental)
Affordable	Greenhouse	Recreation
Alcohol	Greenway/Green way	Route
Bicycle/Bike/Bicycling	Health	Safe/Safety
Brownfield	Injury	Sustainable/Sustainability**
Connect/Connectivity**	Market	Tobacco
Conservation	Nutrition	Trail**
Emission	Open space	Transit
Energy	Park (green space)	Walk (and all derivatives)
Essential Service**	Parking	
Farm	Pedestrian	

\*\*Terms included by OHE staff

For the evaluation, two searches were conducted. The initial search identified goals, objectives and policies that contained key terms associated with the CLS health related domains. Additionally, OHE staff proposed additional terms to include in the initial search. Terms that were added by OHE staff were taken from the HiAP matrix

developed during collaborative efforts between the MPO and DOH-Hillsborough previously, and relate specifically to transportation and local health priorities. The search was conducted on both the TCP and the OGMP. Terms used in the initial search from the CLS domains are included.

From this quantitative analysis, it is evident the TCP addresses health and substantiates the qualitative-findings made by Planning Commission staff earlier in 2018. Nevertheless, with the TCP format, readers-are left to infer the priority of health within the plan, since it is dispersed in bits and pieces and not discussed directly as an over-arching theme or element. While it may be that integrating health throughout the TCP, as it is currently written, is preferable to authoring a stand-alone element, this format does make assessing the plan for the inclusion of health challenging. And, while certainly more is better than less, there are no established benchmarks or standards to guide planners and public health professionals on a sufficient number or ratio of health-related terms and references that are needed to address health within a plan.

In considering the TCP’s potential utility in impacting health within the community the authors conclude that it is not possible without additional methods of measurement. Other comprehensive plan analyses have performed similar quantitative assessments in the past and have noted the need for tracking effectiveness, plan performance, plan conformance, or impact over time as the true measure of a valuable comprehensive plan (Berke, Spurlock, Hes, & Band, 2013; Feitelson, Felsenstein, Razin, & Stern, 2017; Frew, Baker, & Donehue, 2016). *Specifically, without understanding baseline health benchmarks or developing measurable goals, a comprehensive plan can have no real ability to deliver on its healthy vision.*

In 2017 the Florida Department of Transportation (FDOT) released its Context Classification system. The context classification system broadly identifies the various built environments existing in Florida. FDOT’s context classification system describes the general characteristics of the land use, development patterns, and roadway connectivity along a roadway, providing cues

as to the types of uses and user groups that will likely utilize the roadway. The context classification of a roadway will inform FDOT’s planning, PD&E, design, construction, and maintenance approaches to ensure that state roadways are supportive of safe and comfortable travel for their anticipated users. Identifying the context classification is a step-in planning and design, as different context classifications will have different design criteria and standards.

The context classification system supports in developing roadway designs that improve the safety of all users and provide additional opportunities for physical activity from transportation. The connections between physical activity and public health have been widely documented. Research suggests that physically active adults “have lower rates of all-cause mortality, coronary heart disease, high blood pressure, stroke, type 2 diabetes, metabolic syndrome, colon cancer, breast cancer, and depression” than their physically inactive peers (U.S. Department of Health and Human Services, 1996).

### COSTS & ECONOMIC IMPACTS:

In 2011, the American Heart Association (AHA) published a review of more than 200 studies and concluded that most cardiovascular disease can be prevented or at least delayed until old age through a combination of direct medical care and community-based prevention programs and policies. Some of the key findings included:

- Every \$1 spent on building biking trails and walking paths could save approximately \$3 in medical expenses.
- For every \$1 spent in wellness programs, companies could save \$3.27 in medical costs and \$2.73 in absenteeism costs.
- Some interventions have been shown to help improve nutrition and activity habits in just one year and had a return of \$1.17 for every \$1 spent.
- Participants in community-based programs who focused on improving nutrition and increasing physical activity had a 58 percent reduction in incidence of type 2 diabetes compared with drug therapy, which had a 31 percent reduction.



The Trust for America’s Health (TFAH) and the Robert Wood Johnson Foundation (RWJF) and conducted by the National Heart Forum (NHF) found that if Florida could reduce the average body mass index (BMI) of its residents by only 5 percent, the state could help prevent thousands of cases of type 2 diabetes, coronary heart disease and stroke, hypertension, cancer and arthritis, while saving millions of dollars. BMI, is used as a screening tool for overweight or obesity.

## DRAFT

FDOT, Hillsborough County, its cities, and HART already spend considerable amounts on achieving positive health outcomes.

While walk/bike improvements are represented in the charts above as small percentages, other categories also go toward improving mobility for nonmotorized users. For example, Hillsborough County is installing modern cycling facilities such as separated trails, bike lanes with innovative intersection treatments, and sidewalks as they widen roads or extend new roads.

The City of Tampa has passed a Complete Streets policy where, as roads are resurfaced, they are evaluated for whether there is room to add bike lanes or other facilities that would benefit cyclists and pedestrians.

Even funds for bridges can contribute to these efforts, as Hillsborough County plans to add a trail with the reconstruction of the Maydell Bridge and FDOT has committed to the addition of a trail along the Howard Frankland Bridge when it is reconstructed in the coming years.

To summarize, the charts above contain greater walk/bike improvements than are documented specifically in those categories. Additional facilities are constructed using funds from the road widening, bridges and maintenance, and intersections/interchanges categories. These collectively make up 28.55% of the local agency capital improvements and 44.66% if the FDOT work program. That does not mean that nearly half of the funds spent by FDOT go toward nonmotorized improvements, but it does show a higher level of investment than the 0.77% that is identified in the FDOT work program for walk/bike improvements.

### **GROWTH:**

Hillsborough County is projected to add another 1 million new residents by 2045. Robert Wood Johnson Foundation 2017 report on obesity rates shows that Florida's rate is 27.4. The rate has been growing, and as the population grows, the trend may continue if not addressed. To accelerate progress in addressing obesity, the Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation urge policymakers to:

**Invest in community-based policies and programs**, including nutrition assistance programs such as the Supplemental Nutrition Assistance Program (SNAP), and **transportation**, housing, and community development policies and programs that support physical activity.

Physical activity helps people reduce or maintain their BMI and could help prevent thousands of cases of type 2 diabetes, coronary heart disease and stroke, hypertension, cancer and arthritis, while saving millions of dollars. Our current health outlook has been examined and moving forward, well planned and designed transportation investments can go beyond a primary purpose of moving people to positively influencing the growth of future health of communities for residents, workers, and businesses.

## MOVING FORWARD.

Currently, projects in the TIP are prioritized based on the 2040 Long Range Plan performance measures:

Priorities for the TIP were developed by drawing on the extensive prioritization of the County's transportation needs defined in the Long Range Transportation Plan (known as the Imagine 2040 Plan). Prior to establishing priorities for all new projects, on-going projects - such as road projects where Right-of-Way had been acquired - were

moved to the top of the priority list to ensure continuity in the project priorities and implementation. Consistent with FAST Act, projects are selected based on their ability to meet key performance measures identified in the Imagine 2040 Plan. These measures address system preservation, reducing crashes and vulnerability, minimizing traffic for drivers and shippers, providing real choices when not driving, and making investments for economic growth. These investments fund major highway reconstruction, arterial roadway and intersection improvements, maintenance and expansion of the public transit system, bicycle path construction, and improvements for pedestrians.

Active transportation is any self-propelled, human-powered mode of transportation, such as walking or bicycling. The Center for Disease Control reports that physical inactivity is a major contributor to the steady rise in rates of obesity, diabetes, heart disease, stroke, and other chronic health conditions in the United States. Many Americans view walking and bicycling within their communities as unsafe due to heavy traffic and a scarcity of sidewalks, crosswalks, and bicycle facilities. Improving these elements could encourage active transportation such as children biking to school or employees walking to work. Safe and convenient opportunities for physically active travel also expand access to transportation networks for people without cars, while also spurring investment in infrastructure to increase the comfort of the on-road experience to improve the appeal of active modes to all people. (Center for Disease Control, Transportation Health Impact Assessment Toolkit)

Regardless of their abilities, people need the ability to travel, whether for work, school, medical care and other social services, as well as to shop, visit family and friends, and otherwise pursue life's needs and interests. Many low income or persons with a disability, including retired military, rely on public transit for these needs. The need for improved mobility for these special population groups is particularly apparent in rural and exurban areas where distances are greater, and where fixed-route bus service is limited or unavailable.

### THE TIP- HOW PROJECTS ARE PRIORITIZED TODAY

- Based on *Imagine 2040 Long Range Plan* performance measures:



**Preserve System:**  
Transit state of good repair, bridges, and resurfacing



**Reduce Crashes & Vulnerability:**  
Total crashes, bike/ped crashes, and crashes/mile



**Minimize Traffic for Drivers & Shippers:**  
Planning Time Index (PTI) and Travel Time Reliability



**Real Choices when not Driving:**  
Density rating based on Population Density



**Major Capacity Projects For Economic Growth:**  
2040 job density and forecasted traffic congestion, volume/capacity (V/C)

**DRAFT**

Including public health metrics in a transportation planning framework is a way to consider the health co-benefits from transportation projects. Public health performance metrics can become indicators not only of the co-benefits but of the intrinsic benefits of transportation projects. Just as transportation projects are evaluated for congestion relief, the evaluation of projects in terms of the physical activity stimulated can also be evaluated.

With the help of public health professionals, a health lens has been developed for transportation investments similar to other health interventions, to quantify how the investment helps achieve the desired health outcome. Possible considerations include the following:

	<b>Performance Measure</b>	<b>Y/N</b>
<b>1</b>	Does the project help improve recovery time for critical transportation links after a Category 3 storm?	
<b>2</b>	Does the project help to reduce severe crashes?	
<b>3</b>	Does the project increase the number of street lights installed in high crash corridors?	
<b>4</b>	Does the project increase the number of miles of sidewalk present in high pedestrian crash areas/complete network?	
<b>5</b>	Does the project include pedestrian intersection improvements (example-high visibility crosswalks, ADA compliant sidewalks, median pedestrian refuge and bulb-outs) 1/4 mile from transit stops?	
<b>6</b>	Does the project include pedestrian friendly intersections within Communities of Concern?	
<b>7</b>	Does the project reduce the population or households adjacent (500 feet) to congested or high-volume roads (30,000 ADT or a volume to capacity ratio of 1.0 or greater)?	
<b>8</b>	Does the project increase the span and/or frequency of transit service?	
<b>9</b>	Does the project increase highway centerline miles within 1/2 miles of major healthcare (hospitals), recreation (regional parks, entertainment venues), education (universities and colleges)?	
<b>10</b>	Does the project improve transit and/or sidewalk coverage to areas of Essential Destinations (map attached)?	
<b>11</b>	Does the project increase the ratio of sidewalk and/or bicycle lanes to roadway miles in the Urban Service Area?	
<b>12</b>	Does the project increase transit and/or sidewalk coverage to behavioral health and chronic disease services?	
<b>13</b>	Does the project increase the number of miles of sidewalk and trails present within 1/4 mile of populations identified with high rates of behavioral health and chronic disease conditions?	
<b>14</b>	Does the project increase sidewalk coverage (both sides of street) within 1/4 mile of transit stops?	



<b>15</b>	Does the project increase sidewalk coverage (both side of street) for block groups within 1/4 mile of restorative and social activities, e.g. parks, recreation, and community centers?	
<b>16</b>	Does the project increase transit service route miles within 1/4 miles of high proportion of elderly population (over 500 per square mile)?	
<b>17</b>	Does the project increase the percentage of Environmental Justice population living within 1/4 mile of a trail/side path	
<b>18</b>	Does the project increase transit and/or sidewalk coverage within designated USDA Food Deserts?	
<b>19</b>	Does the project increase the percentage of the Community of Concern population living within 1/4 mile of transit service (map attached)?	
<b>TOTAL NUMBER OF PERFORMANCE MEASURES ADDRESSED</b>		

**SUMMARY CONCLUSION:**

There is a rapidly growing awareness of both the positive and negative links between current transportation behavior and public health. Collaboration between transportation and public health officials is pointing towards the significant aggregate and individual benefits that can result from transportation policies that promote active transportation, reduce mobile source pollutant emissions, and improve safety for travelers.

- Local governments are implementing projects that do support good health outcomes.
- Complete Streets projects improve safety, increase access and mobility, maintain air quality standards and promote economic development.
- Every \$1 spent on building biking trails and walking paths/sidewalks could save approximately \$3 in medical expenses.
- The inclusion of a Health Lens would be an additional factor that would indicate our continued support of the health benefits our transportation system has to all people in Hillsborough County.