

**APPENDIX H:
HEALTHY PLANNING FRAMEWORK**



Healthy Planning Framework



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Introduction

Houston-Galveston Area Council (H-GAC), in partnership with the City of Houston, developed the Healthy Planning Framework to support local governments within our region as a guide for considering health outcomes in planning decisions. These planning decisions have significant impacts on the health of our regions' residents and directly shape quality of life. Considerations of public health in decision-making can help improve the well-being of all citizens by providing additional opportunities for bicycling and walking, increasing access to healthy food and other daily needs, and reducing overall healthcare costs.

This framework has been organized into three sections:

Section 1: Peer Review

Section one includes a review of six governmental entities (both regional and local) from around the nation and provides insight into how each are incorporating health outcomes into their decision making.

Section 2: Health Indicators for Our Region

Section two includes a review of health indicators that have been highlighted as major concerns in our region by experts and community members engaged as part of the Our Great Region 2040 planning process, the Community Transformation Initiative, and the Healthy Living Matters projects.

Section 3: The Healthy Planning Framework

The final section includes a healthy planning framework concept which details strategies and tools H-GAC and local governments from around our region are currently using or can consider using to better incorporate health in decision-making.

Part 1 - Peer Review

The peer review is an essential component in the planning process, as it affords an opportunity to better understand various approaches for including health in planning, policy, and project decisions. Below, two regional entities and four local entities (two counties and two municipalities) have been reviewed as each has unique approaches as to how health considerations can be integrated into their decision making.

Regional Entities: Metropolitan Planning Organizations

Metropolitan Planning Organizations (MPO) are regional entities that develop transportation policy and planning, provide technical assistance to local governments, and allocate federal transportation dollars to entities in a region. Transportation planning and policy is typically guided through a Regional Transportation Plan (RTP). RTPs are meant to provide strategic direction for future investments in the regional transportation network for 20- 25 years into the future. The RTP includes a list of transportation projects which can be included as part of the Transportation Improvement Program (TIP). The TIP is made up of a variety of regionally-significant transportation projects and planning activities that are to be funded over a three-year period.

MPOs play a vital role in how citizens move about their communities and regions. The projects and plans funded by these entities impact the opportunities citizens have to engage in active transportation and access amenities that are needed to lead a healthy lifestyle such as parks, grocery stores, and trails. Below are summaries of two MPOs (Nashville and San Diego) that are national leaders in ensuring their plans and projects are encouraging positive health outcomes.

Regional Peer #1: Nashville Area Metropolitan Planning Organization¹

Nashville Area Metropolitan Planning Organization is the MPO for Greater Nashville, TN a region of over 1.5 million people. Its membership consists of several local governments, transit authorities and the state department of transportation. Greater Nashville is not unlike other cities in the South as it has a low-density development pattern centered on the automobile, and for many years had limited transportation options. Nashville Area MPO has been in the forefront in considering health impacts in its planning processes and project selection. Nashville Area MPO uses the following methods as a means to include health as part of its decision-making:

1. **2035 Regional Transportation Plan – Chapter 6 on Active Transportation**

Nashville Area MPO integrated active transportation into its Regional Transportation Plan (RTP), illustrated in Chapter Six, “Active Transportation Choices and Walkable Communities”, which highlights regional pedestrian and bicycling infrastructure vision, see *Attachment A*. In other regions, detailed discussion of pedestrian and bicycling issues are addressed in a separate planning documents, such as Regional Pedestrian and Bicycle Plans or not mentioned at all. However, Nashville Area MPO includes content regarding this topic in the body of the document and uses the more detailed study as a reference. This is significant because as RTPs are adopted by MPOs, active transportation will become viable and critical components of the regional transportation system. The inclusion of active transportation into the RTP makes it clear that it is a priority for future mobility investments.

¹ Meehan, Leslie. "Nashville Area MPO Health Initiatives." Telephone interview. 25 Mar. 2014.

In addition to a RTP chapter dedicated to active transportation, the evaluation of health benefits have been included as part of the RTP project evaluation process. 60 points out of 100 in the evaluation criteria are geared toward public health impacts. Similar evaluation criteria can be used by a MPO or a local government as part of its TIP or capital planning project evaluation process. The RTP scoring criteria can be seen in *Attachment B*. By emphasizing the need for project submittals to include active transportation components, nearly 75% of projects submitted for consideration as part of the Nashville Area MPO RTP project selection process have either a sidewalk, bikeway, or both. Nearly 70% of the projects that were selected had an active transportation component.

For more information: http://nashvillempo.org/plans_programs/rtp/2035_rtp.aspx

2. Transportation Improvement Program (TIP) – Active Transportation Reserved Funding

As a result of policies identified in the 2035 RTP, the MPO adopted a policy that requires 15% of its federal transportation funds be used exclusively for active transportation infrastructure and education². This reserved funding is separate from the funding used for other TIP projects. Reserve funds may be used for infrastructure projects such as pedestrian/bicycle infrastructure, publications and public education on related issues. In addition, Nashville Area MPO reserves an additional percentage of surface transportation (STP) funds that it transfers from its roadway funds to transit funds to provide additional resources for the region's bus and rail system. Combined with the funding through the traditional TIP process and the active transportation reserved funding Nashville Area MPO spends about a third of its federal transportation dollars on active transportation projects, although many of the regions' roadway projects include active transportation elements. See *Attachment C* for the Active Transportation Program Application.

For more information: http://www.nashvillempo.org/plans_programs/tip/ATP.aspx#forms

3. Special Studies

Nashville Area MPO completed several studies to inform development of effective policies around health, including:

- **Food Access Analysis**

Staff developed a database on the locations of grocery stores, farmers markets and food pantries. Staff noted the number of food outlets that were within one mile of RTP transportation project submittals and noted if there were high concentrations of vulnerable populations nearby. This data was used as part of the RTP project evaluation process to better gauge if the project submittals would enable better access to healthy foods.

- **Middle Tennessee Transportation and Health Study and Survey³**

The *Middle Tennessee Transportation and Health Study and Survey* serves as the primary source of data used to identify existing and future issues in the transportation system to ensure funds are used in a way that adequately meets the region's long-term needs. Unlike the *National Household Travel Survey*, which this study was based on, the study and survey provides information more specific to local needs. In addition to questions about travel which includes response from 13,000 residents, a subset of 600 households were selected to provide detailed information about travel behaviors and physical activity through the use of GPS devices and activity monitors to understand

² http://nashvillempo.org/plans_programs/tip/ATP.aspx

³ http://www.nashvillempo.org/docs/bikeped/ABOUT_HHTS_102212.pdf

behaviors, as well answer 60 additional survey questions related to health, food access and chronic diseases. This data provides additional insight into the relationship between mobility, the built environment and public health for more informed decision making.

For more information: www.middletnstudy.com

- **Regional Bicycle and Pedestrian Study⁴**

The *Regional Pedestrian and Bicycling Study* informed the development of a regional vision for a pedestrian and bicycle network by strategically looking at current and planned pedestrian and bicycle infrastructure. The study identified health impact areas, which are areas that include high concentrations of populations susceptible to health disparities such as areas with an aging, minority and low-income populations. In addition, an index was developed for roadways, which allowed them to be scored based on their conduciveness for active transportation. This study also informed the active transportation chapter of the RTP.

For more information:

http://www.nashvillempo.org/regional_plan/walk_bike/regional_study09.aspx

4. Bicyclist and Pedestrian Advisory Committee

The Bicyclist and Pedestrian Advisory Committee (BPAC) provides guidance on pedestrian and bicycling issues around the region. The BPAC is made up of over 25 entities representing a diverse set of organizations such as advocacy groups, universities, bicycle clubs, local and state governments, police departments, and community groups. The committee meets on an ad-hoc basis and engages in activities such as evaluating project submittals to the active transportation program and providing guidance on pedestrian and bicycling planning activities.

For more information: http://nashvillempo.org/regional_plan/walk_bike/bpac.aspx

5. Active Transportation Model (Integrated Transport and Health Impact Model)

The Integrated Transport and Health Impact Model (ITHIM) uses outputs from the traditional Travel Demand Model and examines the public health impacts of active transportation (such as time spent walking or biking) on chronic disease rates, crash rates and health benefits. The model outputs can be used to monetize healthcare saving as compared to transportation expenditures. The use of the model is in its infancy, and the model has some limitations that are currently being evaluated.

6. Dedicated Staff

The Pedestrian/Bicycle Coordinator position was expanded into the “Director of Healthy Communities” position to allow for a more holistic perspective for the Pedestrian/Bicycle Program.

7. Health Impact Assessments

Health Impact Assessments (HIA) are studies completed to ascertain the impacts a plan, project or policy may have on public health. Nashville Area MPO completed three HIAs. Two focused on Transit Oriented Development projects in the region, and a third on school-siting, which was the first of its kind in the nation. The HIAs were completed by college student interns from public health and policy programs at local universities with general oversight from MPO staff. The work was completed at little to no cost from the MPO.

For more information: http://nashvillempo.org/plans_programs/rtp/2035_rtp.aspx

⁴ http://www.nashvillempo.org/regional_plan/walk_bike/regional_study09.aspx

Regional Peer #2: San Diego Association of Governments

The San Diego Association of Governments (SANDAG) is the MPO for San Diego County in Southern California. SANDAG is different from many other MPOs because it has a dedicated sales tax allocation (known as TransNet – half cent) which allows it to design and build regionally significant highway, pedestrian/bicycle and transit projects. SANDAG also has some ability to regulate tolls on area toll-roads⁵. The state of California requires local and regional entities to plan for land use and transportation infrastructure. SANDAG has also been in the forefront on including health in its plans and policies by the following initiatives:⁶

1. San Diego Forward Regional Plan⁷

San Diego Forward: The Regional Plan is the region's long-term plan for growth and development. The plan combines the state mandated *Regional Comprehensive Plan* and the federally mandated RTP. The plan is divided into several topic areas, including "Healthy and Complete Communities." The final planning document, along with project selection criteria and plan performance measures, are expected to include health related components. As part of the planning process, SANDAG staff completed a *Public Health White Paper* on the state of the San Diego region's public health as it relates to obesity, food access, active transportation, parks access, housing and other health related topics. The paper also discusses current health related initiatives and potential policy considerations. .

For more information:

<http://www.sdfoward.com/sites/sandag/files/Public%20Health%20White%20Paper.pdf>

2. Healthy Works Phase I and II⁸

The Healthy Works Project was funded through a \$16.1 million, CDC – Community Transformation Grant and was administered through County of San Diego Health and Human Services Agency. The purpose of the program is to develop strategies around reducing obesity rates by increasing opportunities for active transportation and access to fresh foods. Some of the major deliverables resulting from the initiative were:

- Development of a regional complete streets policy
- Technical assistance for local governments
- Regional monitoring for physical activity
- Development of public health indicators
- Development of a Regional Safe Routes to School Strategic Plan

For more information:

http://www.sdcounty.ca.gov/hhsa/programs/phs/chronic_disease_health_disparities/CPPW.html

3. Healthy Communities Atlas⁹

The *SANDAG Healthy Communities Atlas* provides data on regional health and active transportation access indicators. The tool will be used by both the MPO and local entities as the data is aggregated at the census block group level. The atlas is an important tool it provides data to support policy and project decisions that impact public health. The atlas was developed into an interactive online tool that allows data to be analyzed more robustly and calculate correlations between the indicators.

⁵ <http://www.sandag.org/index.asp?classid=13&projectid=399&fuseaction=projects.detail>

⁶ Gallagher, Dan. "SANDAG Health Initiatives." Telephone interview. 26 Mar. 2014.

⁷ <http://www.sdfoward.com/about-san-diego-forward/what-san-diego-forward>

⁸ <http://www.sandag.org/index.asp?projectid=381&fuseaction=projects.detail>

⁹ http://www.sandag.org/uploads/projectid/projectid_381_14233.pdf

Much of the data used to inform this atlas was from US Census Bureau, SANDAG and a private consultant¹⁰.

For more information: http://www.sandag.org/uploads/projectid/projectid_381_14233.pdf

4. Public Health Stakeholder Group

The Public Health Stakeholder Group meets on a quarterly basis and provides input on health considerations to SANDAG on proposed policies, projects, programs and plans.

5. Active Transportation Grant Program

The Active Transportation Grant Program is a dedicated funding mechanism meant to support and encourage local governments to plan and construct facilities and pay for amenities conducive to walking and biking, as well as conduct outreach and awareness campaigns about active transportation. Funding for the program comes from the state of California and SANDAG from the dedicated sales tax.

For more information: http://www.sandag.org/uploads/projectid/projectid_381_14233.pdf

Local Government: Counties and Cities

The local governments reviewed have unique approaches to improving public health through planning and include two counties and two municipal governments. Local governments typically do most of the implementation of policies and projects that impact community health such as building sidewalks and bike paths, creating incentives to encourage the opening of healthy food retailers, or developing ordinances that shape development patterns such as parking, zoning, and subdivision regulations.

Local Peer #1 Allen County, Ohio

Allen County in west central Ohio, about halfway between Toledo and Dayton, has a population of over 100,000. The county is mostly rural, and its county seat is Lima, a community of 34,000 people. Lima serves as a regional center for the surrounding countryside. Allen County ranks 83rd out of 88 as one of the unhealthiest counties in Ohio. To address this issue, Allen County, the City of Lima and other local entities organized the Activate Allen County initiative.

1. **Activate Allen County** is a public health initiative and non-profit organization committed to reducing obesity, smoking, and improving overall health in Lima and Allen County. The initiative is spearheaded by the local YMCA and a coalition of local partners. The organization is funded through two federal grants and has dedicated staff.

2. Allen County Bicycle/Pedestrian Task Force

The Allen County Bicycle/Pedestrian Task Force is meant to bring awareness and lead efforts related to pedestrian and bicycle policy. The group meets quarterly and is comprised of four subcommittees focusing on the following topics:

- Public Education & Outreach – develops materials touting the benefits of creating walkable and bikeable communities.
- Marketing and Promotion – publicizes community resources and information and is developing a webpage for the group.
- Pedestrian Work Group – promotes the area’s marked walking paths.

¹⁰ The private consultant was Urban Design 4 Health

- Bicycle Work Group – promotes safety, bike related amenities and bike events

3. Active Transportation Plan¹¹

The Active Transportation Plan was developed by Activate Allen County to create a framework for walking and biking infrastructure investments in the county that will provide more opportunities for active living. The plan was completed in July 2014. The executive summary for the report is located in *Attachment D*.

4. Food Desert Workgroup

The Food Desert Workgroup is led by Activate Allen County and includes representatives from area businesses, non-profits, civic and health services groups. The group is creating a work plan to develop strategies leading to an increase in access to locally grown fruits and vegetables. The group will hold community workshops that provide input on barriers and issues related to access to fresh foods. One of the first projects the workgroup will initiate is a mobile produce van which will visit communities lacking healthy food options. The first route will focus on senior centers and be open to the general population.

For more information: <http://www.activateallencounty.com/default.aspx>

Local Peer #2 Clark County, Washington

Clark County in the southwestern corner of the state of Washington is part of the Portland Metro Area. The county includes a mix of urban, suburban and rural communities. By law, counties in the State of Washington are required to complete comprehensive plans. Comprehensive plans are documents that provide a framework for the orderly and quality growth and development of a community. The comprehensive plan covers strategies related to land use, housing, environment, economic development, and several other topic areas. Public health is not emphasized in any of the county's 11 comprehensive plan elements. Realizing that health was not being properly considered through the comprehensive planning process, the county developed the *Growing Healthier Report* to inform its comprehensive plan update.

Growing Healthier Report

The Growing Healthier Report was developed by county health department staff with guidance from its Public Health Advisory Committee. This report evolved from 10 background papers discussing the relationship between planning and public health. The topic areas of the background papers and report include: access to healthy food, active transportation/land use, parks, economic opportunity, housing, environment, climate change and safety/social connections (quality neighborhoods). These topics closely parallel the topics found in the county's comprehensive plan. The *Growing Healthier Report* will inform the content of the county's 2016 Comprehensive Plan. As part of developing the report, the public health department conducted community meetings to ensure the ideas discussed in the background papers were accurate and relevant to community needs. In addition to providing an overall description of existing conditions and strategies to address health in the planning process, the report also identifies goals and objectives. The objectives serve as performance measures that provide benchmarks and timelines for achieving the goals outlined in the report. The health department plans to seek adoption of report goals by the cities within the county and include report content in the comprehensive plan. Please find the executive summary for the *Growing Healthier Report* in *Attachment E*.

For more information: http://www.clark.wa.gov/public-health/community/growing_healthy/documents/GrowingHealthierReport23Mar2012-1.pdf

¹¹ <http://www.activateallencounty.com/media/20991/ACATP-Exec-Sum-7-1-2014update.pdf>

Local Peer #3 Hernando, Mississippi

Hernando, a small town in northern Mississippi, is a suburb of Memphis, TN and has a population of more than 10,000. The Trust for American's Health and the Robert Wood Johnson Foundation have labeled Mississippi as the fattest state in the nation with over a third of the adults being obese¹². The CDC has also issued a report stating that Mississippi has the lowest life expectancy among the 50 states¹³. In 2006, the town government decided to develop and implement policies and strategies to help promote active transportation and make healthy living easy. Hernando is making national headlines as a community that supports a healthy lifestyle. They have accomplished this in the following ways:

- **Complete Streets Policy¹⁴**
 - The city approved a complete streets policy requiring roadways be designed to accommodate cyclist and pedestrians of all ages and abilities. The city has also developed several miles of dedicated bike lanes. The city views active mobility as an economic development strategy by making the community more livable.
- **Creation of a Parks Department**
 - The town established a parks department that has built several parks and recreation areas. The new facilities provide opportunities for physical activity for people of all ages.
- **Development Design Standards**
 - The development code requires sidewalks in all new and substantially improved developments, including residential, commercial, industrial and public uses. In addition, the standards allow reduced setback requirements allowing buildings to be built closer to the sidewalk to create a more pedestrian-oriented environment.
- **Open Space Requirement**
 - A city ordinance requires developers to designate at least 10 percent of land for open space and parks.

Local Peer #4 - Davidson, North Carolina¹⁵

Davidson is a town of 10,944 and a northern suburb of Charlotte. The community has been a leader in integrating health in all policies through its Health Impact Assessment program. Health Impact Assessments HIAs are tools used to provide information on the potential impacts of a plan, policy or project on community health. To date, the community has completed or plans to complete seven health impact assessments on varying topics from state legislation that may impact development codes to food systems and transit. Davidson has been and will be using these tools to inform the outcomes of the following projects and policies:

- **Food Systems**
 - A HIA will examine the existing food environment in Davidson and provide recommendations on how to increase access to high-quality foods, especially for vulnerable populations.

¹² http://www.commercialappeal.com/news/2010/jul/01/hernando-fit-for-grant-as-healthiest-miss-city/?partner=yahoo_feeds

¹³ <http://www.cdc.gov/media/releases/2013/p0718-life-expectancy.html>

¹⁴ <http://healthyamericans.org/assets/files/Hernando%20Miss%20202.pdf>

¹⁵ <http://www.healthimpactnc.com/>

- **Parks**
 - A HIA will be completed concurrently with the community’s parks plan with the goal of developing recommendations on how to increase the use of the parks system.
- **Universal Design Ordinance – designing for all ages and abilities**
 - A HIA will explore the potential for universal design standards which ensure that environments are accessible and provide utility for everyone regardless of their age, ability or circumstances. This will be used to inform decisions around policies meant to allow people to age in place.
- **Street Design Standards**
 - A HIA summarized the health impacts roadways have on the community and recommends ways to improve health through streets that are built for all users. This in turn would provide more opportunities for physical activity, and improve safety and air quality.

For more information: <http://www.healthimpactnc.com/>

Peer Review Summary:

The six entities examined have made significant strides in incorporating health into their decision-making processes or integrating health considerations into policy development.

Below are three big ideas common to all six reviewed entities that should be considered as other communities and regions develop methods to achieve healthy outcomes:

1. **Identify** - Establish a baseline understanding of your community’s issues through statistical data, community focus groups, sidewalk/built environment surveys, food assessments or other means. Providing well-documented data on how the community’s built environment and transportation system is impacting health will help build the case and support for taking action to correct any challenges that may hinder healthy outcomes.
2. **Organize** – Develop opportunities to organize various stakeholders around health-related issues and provide a forum for discussion. Health impacts from the built environment are far reaching and will require collaboration from public health professionals, planners, engineers, elected officials, developers and other stakeholders.
3. **Institutionalize** – Use existing decision-making methods, such as planning processes, funding programs, ordinances or other means, to ensure that health outcomes are considered and included in projects, policies and plans.

Table A. demonstrates how each of the entities in the peer review successfully used the big ideas to consider, incorporate, and change health outcomes in their communities.

Table A. Peer Review Summary

Regional Peers						
	Institutionalize				Organize	Identify
Entity	Plans	Capital Projects	Funding	Codes and Ordinances	Governance and Advisory Committees	Data
Nashville Area MPO	Regional Transportation Plan	RTP Scoring Criteria	TIP Funding Set Aside	-	Bicyclist and Pedestrian Advisory Committee	Middle Tennessee Transportation and Health Study and Survey, Food Access Analysis, Health Impact Assessments,
SANDAG - San Diego	San Diego Forward	-	Active Transportation Grant Program, Healthy Works Phase I and II	Regional Complete Streets Policy	Public Health Workgroup	Healthy Communities Atlas

Local Peers						
	Institutionalize				Organize	Identify
Entity	Plans	Capital Projects	Funding	Codes and Ordinances	Governance	Data
Allen County, OH	Active Transportation Plan	Mobile Fresh Food Truck	-	-	Activate Allen County, Food Desert Workgroup, Bicycle/Pedestrian Task Force	-
Clark County, WA	Growing Healthier Report		-	-		-
Hernando, MS	-	Bike Lane Network	-	Complete Streets Policy, Development Code, Open Space Requirement	New Parks Department	-
Davidson, NC		-	-	-	-	Health Impact Assessments

Part 2 - Regional Health Issues, Indicators and Data Sources

This section is a review of health issues and indicators that have been highlighted as major concerns in the Houston-Galveston Region by experts and community members engaged as part of regional efforts that have addressed health specifically the Our Great Region 2040 planning process, the Community Transformation Initiative, and the Healthy Living Matters projects. Below includes a list of regional issues, health indicators, and the data sources that can be used to measure these issues overtime.

Regional Health Issues and Indicators

Issue A: Uninsured Population

About 25% of our region's residents are uninsured¹⁶. Although being uninsured is not a physical ailment, it does have a major impact on one's health. Access to primary and preventative care is critical in maintaining a person's wellness and is a major factor in reducing overall healthcare cost. While, creating more access to active transportation, fresh foods and open space will not have any impact on the number of insured individuals, this access can have positive benefits on keeping people healthier and therefore out of the doctor's office. Active transportation infrastructure may also make it easier or possible for those without other means of transportation to get to healthcare or grocery store.

Possible indicators:

- Percentage of residents uninsured
- Aggregated healthcare cost (by chronic disease - asthma, obesity, diabetes, heart disease)
- Percentage of population with-in ¼ mile of a frequent transit route¹⁷
- Percentage of population (specifically low-income) living in food deserts
- Number residents within ½ mile of a park, trail or open space
- Percentage of population receiving at least 150 minutes of physical activity per week

Issue B: Preventable and Chronic Disease

Chronic diseases such as diabetes, heart disease, and obesity have been identified as major public health concerns. About 29% of our region's residents are obese, nearly 9% of all residents have some form of diabetes and over a quarter of the deaths in our region are caused by heart disease¹⁸. These diseases are highly preventable and can be caused by a combination of poor nutrition, lack of exercise and, in some cases, genetics. Increasing opportunities to walking and biking can play an important role in allowing people to live more active lifestyles thereby reducing residents' risk of developing one of these diseases.

Having access to healthy food is essential to healthy living, and many areas of our region lack access to quality food retailers. Access to quality food may be impacted by several causes, such

¹⁶ Our Great Region 2040 - Existing Conditions. Rep. N.p.: Houston-Galveston Area Council, n.d. Print

¹⁷ Frequent refers to a route that runs every 15 minutes of better

¹⁸ Our Great Region 2040 - Existing Conditions. Rep. N.p.: Houston-Galveston Area Council, n.d. Print.

as lack of retail market in a community, no means of transportation to get to the market or poor selection or quality of items in available outlets.

Possible indicators:

- Percentage of population that are either overweight or obese
- Percentage of population with diabetes
- Percentage of deaths caused by heart disease
- Death rate due to hypertension
- Percentage of population (specifically low-income) living in food deserts
- Number residents within ½ mile of a park, trail or open space
- Percentage of population receiving at least 150 minutes of physical activity per week

Issue C: Air Quality

Industrial and transportation related pollutants are some of the largest contributors to poor outdoor air quality. Motor vehicles are responsible for over half of the toxic emissions in urban areas¹⁹. The two major components of air pollution are ground level ozone (smog) and particulates. Ground level ozone is caused by reaction when emissions are exposed to sunlight and is a concern because it causes a negative reaction with lung tissue and can cause many diseases in the lungs and heart, as well as asthma. Particulates are super fine organic particles small enough to get into the bloodstream and trigger illness. Particulates are formed from the breakdown of already small particles into even more minute particles, such as brake pad dust, condensation of vapor from combustion engines and other sources.

Currently, about 5% of our regions residents have asthma²⁰. Although, poor air quality may seem to make the case for not engaging in active transportation or other outdoor activities, the fact is that active transportation actually helps improve air quality because it reduces the number of automobiles on the road. Less automobiles means fewer emissions and particulates and improved air quality.

Possible Indicators:

- Number of 8 hour exceedances above federal air quality standards
- Levels of PM .25 in the air
- Prevalence of asthma among adults and children

Issue D: Safety

Safety plays an important role in encouraging active transportation. Safety can be thought of in two different ways:

- *Road Safety* which deals with reducing the number crashes between cyclists, pedestrians and automobiles. This may be accomplished through dedicated pedestrian or bicyclist facilities such as sidewalks, crosswalks, bike lanes or shared paths; traffic calming design such as on street parking and lane diets; or programmatic improvements such as signage, signals, lighting or lane marking.

¹⁹ "Cars, Trucks, Buses, and." EPA. Environmental Protection Agency, 06 Mar. 2012. Web. 04 Sept. 2014.

²⁰ Our Great Region 2040 - Existing Conditions. Rep. N.p.: Houston-Galveston Area Council, n.d. Print

- *Aggressor safety* deals with the threat of attack on cyclist or pedestrians from an outside aggressor such as another human being, stray dogs or other potential threats. This is especially important since users of active transportation are more vulnerable than those in a car.

Possible Safety Indicators:

- Crime rate for a community
- Crash rate between cars, bikes, and/or pedestrians
- Feet/miles of sidewalk in a community
- Miles of bike lanes and/or paths in a community
- Percentage of population walking or biking to work or school

Useful Data Sources

1. **County Health Rankings** is an interactive website developed in a partnership between the Robert Wood Johnson Foundation and the University of Wisconsin Public Health Institute. The website includes annual measures of important health indicators such as educational attainment, *obesity*, smoking, and access to fresh foods, uninsured population, air quality, socio-economic statistics and other factors at the county level.
 - Link: <http://www.countyhealthrankings.org>
2. The **Interactive Atlas of Heart Disease and Stroke** tool developed by the CDC allows users to view maps of heart disease, stroke, and hypertension, which can be compared with socio-economic determinants and health services at the county level. Congressional boundaries and healthcare facilities can also be overlaid.
 - Link: <http://nccd.cdc.gov/DHDSAtlas/Default.aspx>
3. The **CDC's WONDER (Wide-ranging Online Data for Epidemiologic Research)** website provides several databases of health-related data for public use. This includes detailed *air quality (including PM 2.5)*, demographic, and other epidemiological data.
 - Link: <http://wonder.cdc.gov/wonder/help/PM.html>
4. The **CDC's Diabetes Interactive Atlas** provides county level data about the prevalence of common contributors to the disease such as the prevalence of physical inactivity and obesity.
 - Link: <http://www.cdc.gov/diabetes/atlas/countyrank/atlas.html>
5. The **American Community Survey – Small Area Health Insurance Estimates (SAHIE)** webpage includes an interactive mapping tool that allows users to view county level data in regards to the demographics and socio-economic factors of the *uninsured* population. The American Community Survey also provides data on the number of residents using various modes to commute to work such as walking, biking, or driving.
 - Link (SAHIE): <http://www.census.gov/did/www/sahie/data/interactive/>

- Link (Commuting Data): <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#none>

6. **The County Health Calculator by Virginia Commonwealth University – Center on Human Needs** is an online tool that provides an easy-to-understand the relationship between educational attainment, income, death rate and diabetes prevalence. A unique feature of this tool is that it also calculates the dollars spent on diabetes healthcare.

- Link: <http://countyhealthcalculator.org/>

7. The **American Lung Association** compiled a report including the prevalence of asthma in children and adults at the county-level. The data comes from the Behavioral Risk Factor Surveillances Survey (BRFSS).

Link: <http://www.lung.org/finding-cures/our-research/trend-reports/estimated-prevalence.pdf>

8. **Houston-Galveston Area Council** maintains and can provide crash safety data which includes automobile, bicyclist and pedestrian incidents. H-GAC also maintains a database of planned and existing bicycle facilities, a parks inventory for the region, transit, and air quality data.

- Link for Safety Program: <http://www.h-gac.com/taq/planning/default.aspx#>
- Link for Bicycle Facility Data: http://arcgis02.h-gac.com/Bikeway_Viewer/
- Link for the Parks Inventory: http://arcgis02.h-gac.com/park_score/index.html
- Link to Air Quality Program: www.mysolutionis.com or <http://www.h-gac.com/taq/airquality/clean-air.aspx>
- For transit maps analysis contact H-GAC

Data Gaps

Although, there is strength in having statistics and other figures to support policy decisions; in some cases data sources have not been fully developed and qualitative sources will need to be used. The following indicators are either lacking data or qualitative methods need to be used.

1. **Regional Sidewalk Inventory:** A comprehensive sidewalk inventory has yet to be developed that encompasses the region. A regional sidewalk inventory would be very time consuming and vast task. Inventories have been developed for a few communities as part of special studies such as a few of H-GAC’s Special District’s and Livable Centers Studies as well as Harris County’s Built Environment Assessments for Pasadena, Kashmere Gardens, and Near Northside. A sidewalk inventory is typically developed by an individual or group walking or driving an area and documenting where sidewalks are located and their condition. The results of the inventory are usually displayed on maps.
2. **Active Transportation Infrastructure’s Impact on Healthcare Cost:** There has yet to be a study completed that quantifies the degree constructing a segment of bike path or

sidewalk may impact healthcare costs. For instance, X feet of sidewalk reduces/increases overall healthcare cost by X dollars.

3. **Aggressor Safety:** Although, it's relatively easy to find a community's crime rate, the crime rate does not give details on specific risks and hazards along a bike or walking path. However, a safety audit can be used to determine hazards along an active transportation route. A safety audit requires infrastructure and planning experts, community leaders and residents and other stakeholders to walk or bike a corridor and document features of the route that may inhibit safety. Safety audits are not only helpful when examining safety hazards from aggressors but also road hazards as well.

Table B: Issues, Indicators, and Data Sources Summary

Issue	Indicator(s)	Data Source(s)
Uninsured Population	Percentage Uninsured	County Health Rankings, American Community Survey – Small Area Health Insurance Estimates
	Aggregated Healthcare Costs by Disease	County Health Calculator (Diabetes Only)
	Percentage of population with-in ¼ mile of a frequent transit route	H-GAC
Preventable and Chronic Disease	Percentage of Obese or Overweight Adults	County Health Rankings
	Percentage of deaths caused by heart disease	Interactive Atlas of Heart Disease and Stroke
	Death rate due to hypertension	
	Percentage of population living in food deserts	County Health Rankings
	Number residents within ½ mile of a park, trail or open space	H-GAC Parks Viewer
	Percentage of population that receives at least 150 minutes of physical activity	CDC – Diabetes Interactive Atlas
Air Quality	Number of 8 hour exceedances above federal air quality standards	H-GAC
	Levels of PM .25 in the air	CDC's WONDER webpage
	Percentage of residents with asthma	American Lung Association
	Community Crime Rate	Contact your local law enforcement
Safety	Number of crashes between cars, bikes, and/or pedestrians	H-GAC
	Feet/miles of sidewalk in a community	Data Gap
	Miles of bike lanes and/or paths in	H-GAC

Issue	Indicator(s)	Data Source(s)
	a community	
	Percentage of population walking or biking to work or school	American Community Survey

Part 3: The Healthy Planning Framework

The Healthy Planning Framework details strategies and tools that H-GAC and local governments from around the region can and are using to better incorporate health in decision-making. The strategies that make up the framework come in part from the Peer Review (Part 1) and existing programs that may be enhanced to include more health related outcomes. The strategies included in the framework are not meant to be inclusive of all possibilities, but are tailored to our regions' political and cultural context. The recommendations have been organized into three action categories:

1. **Maintain** – existing policies and structures that explicitly recognize the need to improve public health outcomes
2. **Enhance** – existing policies and structures that have potential to improve public health outcomes
3. **Develop** – new policies and structures that will improve public health outcomes.

1. Maintain – Regional Initiatives

- **Our Great Region 2040 (Plans)**

The *Our Great Region 2040* plan developed by H-GAC and a consortium of community partners is a high-level, long-range plan for enhancing the region's quality of life and economic opportunity for residents. The planning process engaged several thousand residents, as well as elected officials and other stakeholders around region on topics related to housing, environment, resiliency, transportation, economic development and healthy communities.

- **Regional Parks Viewer and Inventory (Data)**

H-GAC's parks viewer allows users to not only view parks throughout the region but also analyze where additional parks are needed both today and in the future. The viewer is updated annually with parks submitted as part of an awards ceremony, also as local governments and parks operators submit data throughout the year.

- **Commute Solutions (Governance and Funding)**

H-GAC's Commute Solutions program provides technical assistance and grant funds for local governments, employers and other stakeholders on commuting alternatives. Many of the commuter alternatives promoted by Commute Solutions include modes of active transportation such as walking, biking and transit use.

- **Regional Bikeway Viewer (Data)**

H-GAC's Regional Bikeway Viewer allows users to view an inventory of the region's existing and proposed bikeways by whether the facility existing or proposed, the facility type and identified bikeway needs.

- **Metro System Reimagining (Capital)**

The Metropolitan Transit Authority of Harris County (METRO) is reorganizing its bus system to allow for expanded frequent bus service to more residents in its service area. The new plan will, in many cases, make trips faster and more convenient, but also allow for residents to use the bus more reliably without looking at a schedule.

Maintain - Local Initiatives

- **Community Transformation Initiative (Governance)**

Community Transformation is a nationwide movement dedicated to changing the way we look at health and the prevention of chronic diseases. The City of Houston's Health and Human Services Department's Community Transformation Initiative (CTI) is focused on improving people's health through policy, environmental, and systems interventions to design more livable communities. CTI has led to several programs and policy improvements such as smoke-free parks, the Healthy Corner Store initiative, and Sunday Streets program.

- **Healthy Living Matters (Governance)**

Healthy Living Matters is a collaborative of local leaders across various sectors organized by Harris County working to curb childhood obesity through policy developed aimed at changing the systems and environments that impact health.

- **Bayou Greenway Initiative (Capital)**

Bayou Greenways is a nearly half a billion dollar public/ private partnership that will add 4,000 acres of green spaces connected with 300 miles of walking and biking paths linking neighborhoods around the City of Houston and the region.

- **City of Houston Parking Ordinance Update (Codes)**

The City of Houston recently updated its parking ordinance by requiring bicycle parking for new commercial, retail and office uses. The ordinance also provides incentives that allow for an up to 10% reduction in required parking if additional bicycle parking is provided.

- **City of Houston's Fresh Food Initiative (Capital)**

The City of Houston's Fresh Food Initiative provides²¹ financial assistance for grocers to locate in neighborhoods deemed as food deserts.

2. Enhance – Regional Initiatives

- **Pedestrian – Bicyclist Subcommittee (Governance)**

H-GAC's Pedestrian-Bicycling Subcommittee provides recommendations and guidance on pedestrian and bicycling issues to the Technical Advisory Committee (TAC) of the region's Transportation Policy Council (TPC). Currently, there are two members of the subcommittee

²¹ <http://www.houstontx.gov/mayor/press/20140630.html>

representing public health, however there is no designated seat on the subcommittee for health related interest.

Recommendation: In addition other designated interest represented on the subcommittee, H-GAC could consider creating a seat that is designated for public health interest.

Note: Many local governments already convene advisory groups for pedestrian, bicycling, transit and other transportation issues.

- **Regional Transportation Plan (RTP) – (Plans)**

H-GAC is required by the federal government to develop a Regional Transportation Plan to prioritize investments in the transportation system for the 25 years into the future. This includes investments of regional significance of varying modes.

Recommendation: H-GAC could include positive public health outcomes as a goal of the plan, or complete a health impact assessment on plan recommendations.

- **Transportation Improvement Program and Capital Improvement Programs (Funding)**

The Transportation Improvement Program (TIP) programs funding for the implementation of transportation projects from the RTP. The projects funded through the TIP are selected based on selection criteria. The current selection criteria is written in such a way that encourages project sponsors to consider active transportation components in their submittal, however none of the criteria specifically focuses the healthy impacts of the project.

Local Governments program infrastructure improvements such as the construction and maintenance of streets, sidewalks, bikelanes and other capital projects that impact active transportation in their Capital Improvement Projects (CIP), however, public health impacts could be included in the evaluation criteria as well.

Recommendation: H-GAC may consider including in the criteria points for positive health outcomes to be awarded to a project. It should be noted that the criteria already include the evaluated projects air quality benefits. Local governments may consider similar criteria when evaluating capital projects.

Sample TIP or CIP criteria language might include:

Project improves public health by increasing access to healthy food, transit, green space, recreation opportunity, healthcare facility or other destination in biking or walking distance.

- **Health Indicator Viewer (Data)**

The Health Indicator Viewer is a database containing public health, built environment and socio-demographic data integrated into a web-based interface. The database was developed in partnership between H-GAC's Community and Environmental Planning Department and Harris County Public Health and Environmental Services. It currently

includes data only for Harris County but may include other counties in the future. The project aims to integrate public health data, such as chronic disease and mortality rates, with non-health data such as access to parks/green spaces, recreational facilities, grocery stores (i.e., healthy food) and, public transportation, and incorporate social factors known to influence health such as race/ethnicity, poverty and education to describe health at the county-level.

Recommendation: H-GAC should continue to work in building this online tool and expand it to include data for the entire 13-county H-GAC region.

- **H-GAC Special Studies (Plans)**

H-GAC has completed several studies that seek to address integrating land use, transportation and economic development such as Livable Centers, Subregional Plans and Pedestrian/Bicyclists Special Districts Studies. Although many of the recommendations developed in these plans will positively impact health, health outcomes have not been identified as part of these efforts.

Recommendation: H-GAC should consider including health impacts as part of their special studies.

Enhance – Local Initiatives (Plans)

- **City of Houston Citywide Planning Efforts**

- City of Houston Parks Master Plan

The City of Houston recently began the process of developing a Parks Master Plan to help guide capital investments in the parks system. As part of the planning process, a needs assessment will be completed for each of the city's 21 parks sectors to help identify which amenities are desired in each community.

- City of Houston Bikeway Master Plan

The City of Houston is currently updating its bikeway master plan which will develop a comprehensive policy framework to guide investment biking infrastructure.

- City of Houston General Plan

The City of Houston General Plan will provide guidance for growth and development based on a shared vision.

The planning efforts listed above led by the City of Houston should have a positive impact on health as they will enable improved access to active transportation, green space, and other recreational opportunities. In addition, the city health department will be engaged in various elements of these efforts.

Recommendation: The city may consider completing health impact assessments as part of these planning efforts to fully understand the health outcomes of each plan.

3. Develop - Regional and Local Policies and Tools *(the items below can be implemented at the regional or local level)*

- **Draft Complete Streets Policy (Codes)**

Communities can develop a complete streets policy which requires streets plans and designs to consider the safety and comfort of motorists, cyclists, pedestrians and transit users. This may require a change to a community’s infrastructure design manual, project evaluation and review process, subdivision regulations, or other policies and procedures. City of Houston Mayor Annise Parker recently signed a complete streets executive order requiring that all future city streets policies and projects consider the safety of all users. The City of Houston is currently working incorporate complete streets principles in policies and procedures.

Reccomendation: H-GAC may consider drafting a sample complete ordinance that local governments can use as a guide when drafting their own policy documents.

- **Reserved Funding for Active Transportation Projects (Funding)**
Beyond mass transit and special initiatives, there is no ongoing specific category or percentage of local or regional funding committed to active transportation projects.

Reccomendation: The region and/or local governments in the region could consider dedication of a portion of local transportation dollars specifically to active transportation projects or other projects that improve public health.

- **Comprehensive Regional or Local Sidewalk Inventory (Data)**
There is currently no comprehensive inventory of sidewalks for the region. GIS Data for sidewalks is only available for certain areas and is not in a consistent format.

Reccomendation: H-GAC should continue to gather data from its studies and from local governments on the location, condition and characteristics of the regions’ pedestrian infrastructure. Local governments should conduct their own sidewalk inventories.

Tables C and D summarize the regional and local efforts already considering health or policies, plans and projects that health can be as an additional consideration.

Table C: Summary of Regional Efforts

Framework Areas		Maintain	Enhance	Develop
Institutionalize	Plans	Our Great Region 2040	Regional Transportation Plan	
	Capital Projects	Metro Bus System Reimagining		
	Funding		Transportation Improvement Program Criteria	Reserved Funding for Active Transportation Projects
	Codes and Ordinances	Parking Ordinance Update		Draft Complete Streets Policy
Organize	Governance		Pedestrian-Bicyclist	

Framework Areas		Maintain	Enhance	Develop
			Subcommittee	
Identify	Data	Regional Parks Viewer	Health Indicator Viewer	Regional Sidewalk Inventory
		Regional Bikeway Viewer		Health Impact Assessments

Table D: Summary Local Efforts:

		Maintain	Enhance	Develop
Institutionalize	Plans		Parks and Recreation Master Plan	
			Bicycle Master Plan	
			General Plan	
	Capital Projects	Bayou Greenway Initiative		
	Funding	Fresh Food Initiative	Capital Improvement Plans	Local Funding For Active Transportation Projects
	Codes and Ordinances	Complete Streets Executive Order		
Organize	Governance	Healthy Living Matters		
		Community Transformation Initiative		
Identify	Data			Local Sidewalk Inventory
				Health Impact Assessments

Three Step - Framework for Healthy Planning

The three step process listed below and at the beginning of the document provides a clear framework for entities that want to consider health outcomes in their decisions making.

1. **Identify** the community’s health needs and issues and assess your community’s policies as plans capital projects funding programs codes and ordinances, governance structures and data by determining if your community health needs are being met by existing mechanisms. This assessment can be completed using the *maintain, enhance, and develop* structure described above.
2. **Organize** community leaders, experts and other stakeholders through existing advisory groups or create new groups, as needed that focus on specific health related issues.
3. **Institutionalize** through the enhancement or development of policy, plans and funding programs.

Conclusion

The Healthy Planning Framework is to meant provide local governments and the region a guide for considering health outcomes in planning decisions. The process and strategies outlined provide a means for regional entities like H-GAC to continue to better coordinate entities and provide technical assistance to stakeholders around health-related issues, fund projects that will benefit health and serve as a clearinghouse for data. In addition, the framework provides local governments with tools that can be used to more effectively implement plans, policies and projects that will enhance public health outcomes. Considering health in decision-making is becoming more critical as obesity and other chronic illness continue to rise along with the associated healthcare cost. However, beyond these negative consequences, planning for healthy communities ensures that we are planning for livable and economically vibrant communities and prosperous future generations.

This report was completed August 2014.