



Cobb County Comprehensive Transportation Plan Update 2040

HEALTH IMPACT ASSESSMENT: ASSESSMENT OF RECOMMENDATIONS





Assessment of Recommendations

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Introduction

Background

As one component of the CTP effort, this HIA will be developed to evaluate the potential health effects of the CTP's recommendations. The HIA will help Cobb make informed choices about improving public health through transportation design and will provide recommendations to increase positive health outcomes and minimize adverse health impacts. It will bring potential health impacts and considerations into the decision-making process for plans, projects, and policies that fall outside traditional public health arenas.

Cobb County has chosen an intermediate HIA approach that will use available research of Cobb and Douglas Public Health, literary research, and input from the HIA Committee. Originally, work products were to consist of four memorandums. However, the HIA committee determined that an assessment of short term recommendations and an assessment of mid and long term recommendations would be very similar. In lieu of the memo on mid and long range recommendations, the committee decided a one page color summary flyer of key health impacts of the transportation projects included in the CTP will be produced. The purpose of this summary flyer is to ensure that the key findings are summarized in an appropriate format for distribution to decision-makers and citizens.

Therefore, the work product will consist of three memorandums and a flyer produced at specific times during the CTP process that can later be combined into one document. This document, Assessment of Recommendations,

is the second memorandum. The three memorandums include Screening and Scoping, Assessment of Recommendations, and Monitoring and Evaluation.

A list of all of the possible health indicators and transportation health impacts would be incredibly lengthy. To narrow the focus on the highest priority health concerns within Cobb County, the HIA Committee identified the five main public health issues in Cobb:

1. Access to grocery stores, transit, healthcare, schools, and parks
2. Safety and accidents
3. Vulnerable populations
4. Chronic disease
5. Obesity and physical activity

These health indicators are important to transportation decision-making. It is imperative that vulnerable populations have safe access to medical facilities, schools, healthy foods, etc. through sidewalks, bike lanes, and transit. Transportation access needs to be safe and provide connections via multiple paths and modes in order to shorten trip lengths and times and improve health. Time spent in a car is time that could be more healthily spent walking, biking, or any other activity to promote health. These five health indicators will be used to assess the CTP transportation project recommendations.

The CTP transportation recommendations will be reviewed against these five key health indicators in this Assessment of Recommendations memo. Specific health based recommendations to manage the health impacts will be identified where applicable.

Assessment of Recommendations

Assessment and Framework

The goal of the HIA is to determine which impacts will be assessed by qualitative and quantitative analyses, use data and research to determine the direction and magnitude of potential health impacts, and to determine if there will be differential impacts on subgroups (health equity). A qualitative assessment describes the direction and certainty but not the magnitude of the predicted results. A quantitative assessment describes the direction and magnitude of the predicted results. Quantitative and qualitative assessments are neither superior nor inferior to each other. Additionally, not everything that can be quantified is important, and not everything important can be quantified. This HIA will include a qualitative analysis of project types included in the transportation project recommendations of the CTP.

The purpose of the logic framework is to organize existing knowledge, communicate information, and guide the analysis. It illustrates how the different project types will lead to health effects through proximal and intermediate impacts. The diagram of the logic framework shows how the policy, impacts, and outcomes relate to each other through a series of arrows.

There are hundreds of recommended transportation projects in unincorporated Cobb County and the six cities. It is not feasible to analyze the health impact of each individual project in this HIA. The transportation project recommendations are organized by category and type. There are three categories: Maintenance, Basic Needs, and Strategic Improvements. The type of project will have the greatest influence on the health indicators impacted. For this reason, each of the project types will be analyzed in a health logic

framework, except for Planning Studies and Transportation Technology. Health based recommendations will then be identified where applicable as a discussion point for implementation and as an opportunity to increase potential health benefits while minimizing potential health negative impacts. The three categories and their subsequent project types include:

Category 1: Maintenance

- System Preservation— Bridges, Drainage, and Resurfacing

Category 2: Basic Needs

- Safety and Operational Improvements
- Pedestrian, Bicycle, and Trail Improvements
- Signal Timing
- Transit

Category 3: Strategic Improvements

- Integrated Corridor Management
- Traffic Signals
- Incident Management
- Planning Studies
- Advanced Transportation Management Systems (ATMS)
- Transportation Technology
- School Zone Improvements
- Interchange Improvement & Grade Separation
- New Roadway Connection
- Roadway Capacity



Analysis: Project Recommendations

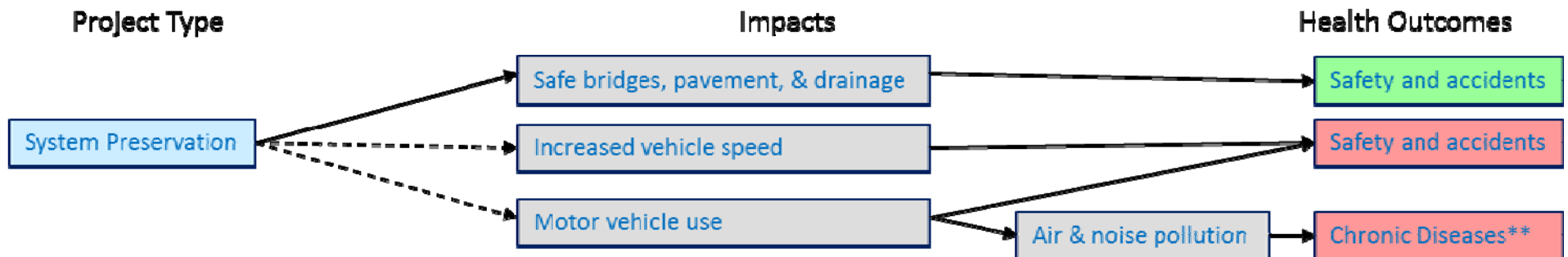
As previously discussed, the Cobb CTP's transportation project recommendations are organized into categories by project type. The three categories include: Maintenance, Basis Needs, and Strategic Improvements. Each project type within the three categories is diagramed in a health logic framework to determine the prominent impacts of such projects and the resulting health outcomes. This analysis builds upon the research and understanding of transportation impacts on health outcomes established in the previous HIA memo, Screening and Scoping.

To easily visually understand the health logic frameworks, the project type, impacts, and health outcomes are color coded. The blue boxes represent the project type, grey boxes represent the impacts, green boxes represent the positive health outcomes, and red boxes represent the negative health outcomes. Arrows from project type to impacts are either solid, denoting higher certainty of the impact, or dashed, denoting a lower certainty of the impact. Where applicable, health based recommendations are identified to improve positive health outcomes and to mitigate the negative health outcomes.

= Project Type
 = Impacts
 = Positive Health Outcome
 = Negative Health Outcome

Category 1: Maintenance

This category includes maintenance of existing county transportation infrastructure including Bridges, Drainage, and Resurfacing.



** Asthma, cardiovascular disease, cancer, diabetes, long-term mental illness, etc.

Assessment of Recommendations

System preservation improvements are recommended to maintain safety and quality of the existing infrastructure. Such improvements will improve the safety conditions for pedestrians, bicyclists, and drivers of all abilities. Improved conditions of better pavement and drainage may encourage drivers to speed or drive more, which can lead to negative health outcomes. Though there are potential negative health outcomes, the likelihood and magnitude of the benefits to safety and accidents is greater. The system preservation projects are countywide and are not expected to have disproportionate impacts on vulnerable populations.

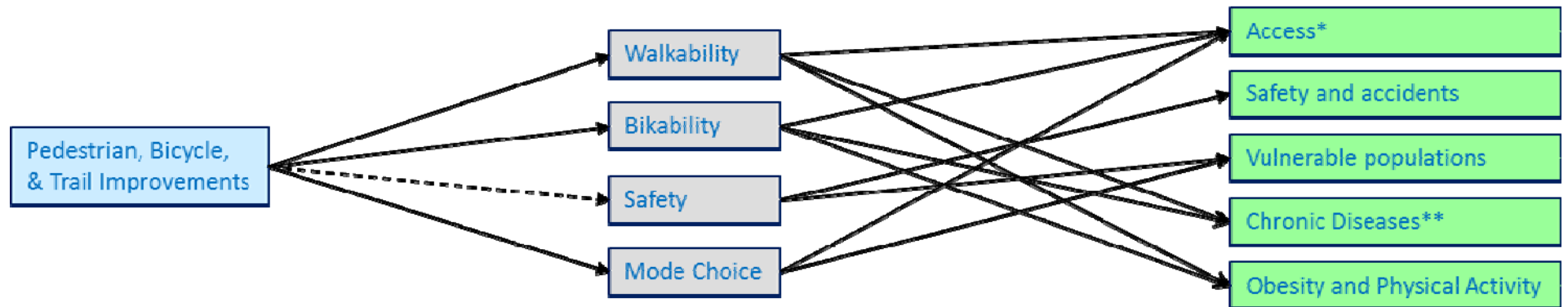
Category 2: Basic Needs

This category includes Safety and Operational Roadway Improvements, Pedestrian, Bicycle, and Trail Improvements, Signal Timing, and Transit projects.



Examples of safety and operational roadway improvements include intersection improvements, turn lanes, corridor safety upgrades, and the construction of roundabouts. These improvements are recommended to improve level-of-service (LOS) of failing intersections and/or improve the safety conditions for pedestrians, bicyclists, and drivers of all abilities. Safety and operational improvements impact multiple modes countywide, thus disproportionate impacts on vulnerable populations are not expected. Health based recommendations:

- Decrease walking distance at intersections and adjust signal times. This will allow seniors, children, and disabled citizens to safely cross or navigate intersections during the designated signal timing.
- Provide pedestrian refuge islands or medians in large intersections to decrease the crossing distance. Refuge islands and medians are an effective traffic calming measure that can lower vehicle speeds, therefore improving safety of both the motorists and pedestrians.
- Improve site distance for turning cars where applicable to decrease the risk of pedestrian-auto crashes.



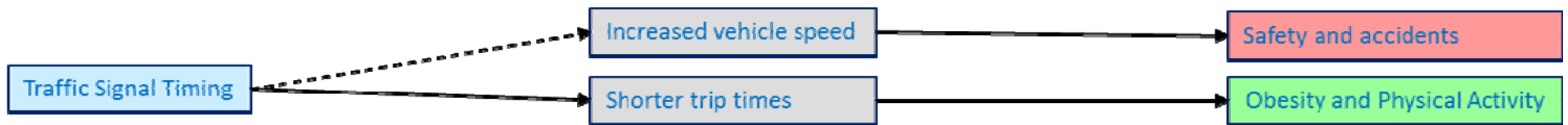
Pedestrian, Bicycle, and Trail Improvements are recommended to improve safety, facilitate active and alternative modes, and to connect to transit facilities. The health outcomes of these improvements are very good and have a positive influence on all five of the identified main public health issues in Cobb. These improvements positively address vulnerable populations who are more likely to use and need alternative modes of transportation. Health based recommendations:

- Include on and off-street bicycle facilities. Opportunities to provide on-street bicycle facilities should be considered in the design or reconstruction of new or existing streets. On-street bicycle facilities should follow low-volume streets with linkages to high-volume streets. Include road markings, signage, and wayfinding signs to help guide bicyclists. Encourage bicycle parking at central locations and major destinations such as commercial centers. Routes identified should provide access to transit facilities.
- Include a sidewalk improvement program to improve safety and connectivity of centers. Pedestrian facilities should include traffic calming to increase safety, amenities such as benches, shade trees and water fountains to appeal to vulnerable populations, and wayfinding signage to guide pedestrians. Large intersections should be designed to decrease walking distances, or mitigate the long distances with a pedestrian refuge or median. Street level land uses that are oriented towards pedestrians should be considered. Provide pedestrian amenities at and near transit stops. Provide appropriate spacing between safe pedestrian crossings.

* To healthy food, healthcare, transit, schools, parks, etc.

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Traffic Signal Timing includes upgrades or replacement of timing software, retiming signal corridors, optimizing Sydney Coordinated Adaptive Traffic System (SCATS) timing, implementing the GDOT's regional traffic operations program (RTOP), and upgrading and transferring operations of GDOT traffic signals. Improving traffic signal timing can lead to shorter commutes and more free time for physical activity. Additionally, a shorter and less stressful commute has positive mental health impacts. Better corridor signal timing may lead to increased speed which could lead to increased or more severe accidents. Health based recommendations:

- Ensure there is sufficient traffic calming, lighting, and other safety features along corridors with traffic signal timing.
- Signal prioritization for transit where possible
- Allow for enough time at pedestrian crossing signals to allow for safe crossing of all persons including elderly, disabled, and children



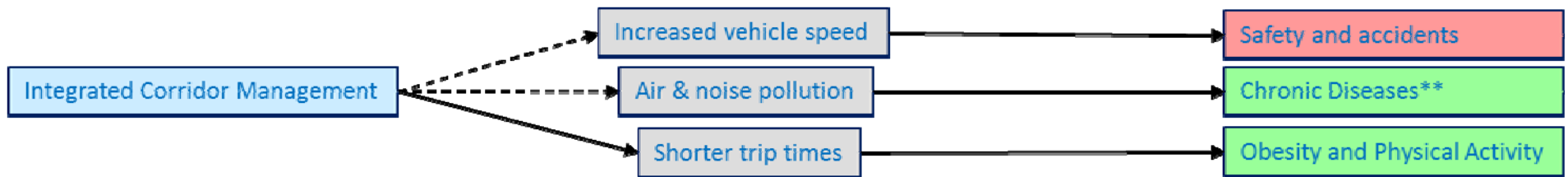
Transit capital expansions and operational improvements ensure access to essential needs and services, especially for vulnerable populations. Transit provides citizens another mode of travel which reduces environmental costs as compared to driving. Additionally, transit trips typically include a cycling or walking trip, both of which have positive impacts from physical activity and reduced chronic disease. Health based recommendations:

- Provide pedestrian amenities and conveniences at transit stops such as wide sidewalks, additional passenger waiting space, bus shelters, seating, and lighting.
- Increase transit services between existing routes and activity centers in Cobb.
- Accommodate transit in the design of roadway projects.



Category 3: Strategic Improvements

This category includes Integrated Corridor Management, Traffic Signals, Incident Management, Advanced Transportation Management Systems (ATMS), School Zone Improvements, Interchange Improvement & Grade Separation, New Roadway Connection, and Roadway Capacity.



Integrated Corridor management includes providing cross network travel management for parallel corridors to include I-75, Cobb Pkwy, I-575, Bells Ferry Road, Canton Road, and Powers Ferry Road. Integrated corridor management is closely related to ATMS. ATMS is the physical infrastructure of the technology, and the Integrated Corridor Management is the management of the ATMS .

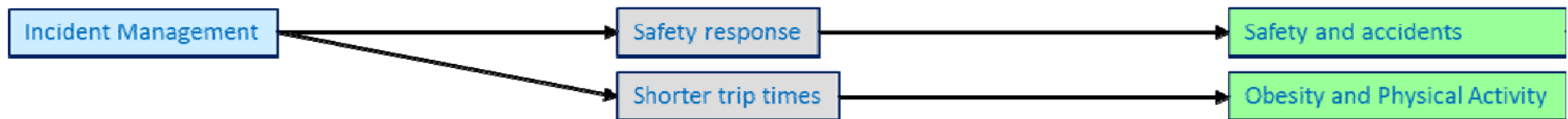


Traffic Signals includes upgrading traffic signal infrastructure such as by adding and upgrading uninterruptible power supply (UPS), adding flashing arrow left turn displays, and rebuilding traffic signal supports. These improvements are designed and implemented for safety for all users. Health based recommendations:

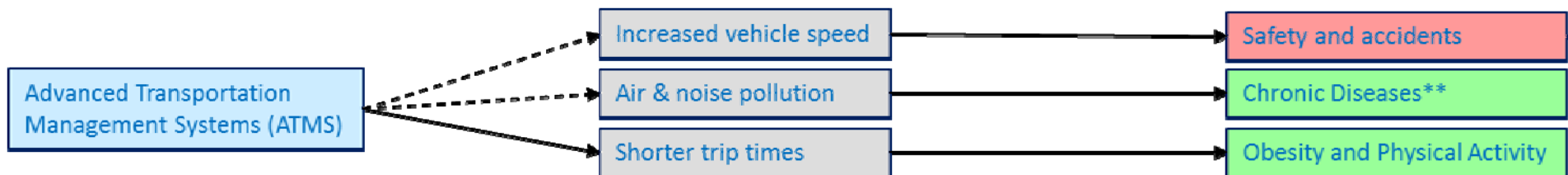
- Provide traffic signal infrastructure that accommodates for bicycles, pedestrians, and transit.

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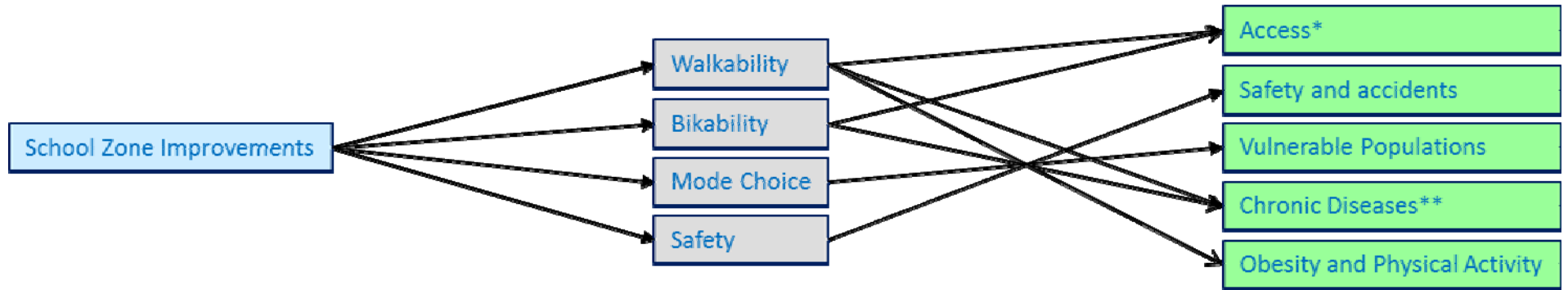
Assessment of Recommendations



Incident Management includes expanding coverage and upgrading (closed-circuit television) CCTV cameras and dynamic message boards as well as enhanced wayfinding signage. This technology provides for increased safety on the roadways as accidents can be located and cleared more quickly and motorists can avoid accidents and congestion by taking an alternate route after reading alerts on dynamic message boards. The resulting shorter trip time provides less stress and more time for other activities which increases mental wellness, physical activity, and quality of life.

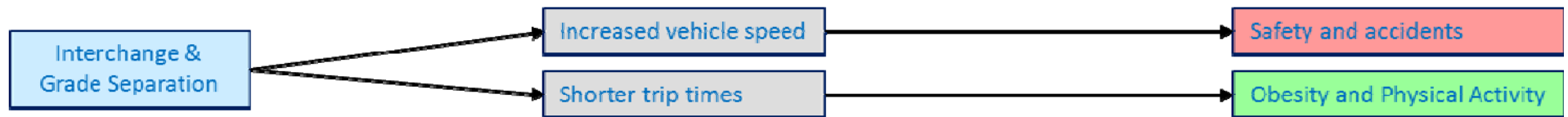


ATMS includes continuing to expand and upgrade the Transportation Management Center (TMC) control room infrastructure, expansion of the fiber optic cable network and travel time monitoring system, IP/Ethernet network conversion and adding vehicle infrastructure integration. These improvements will better the traffic flow and relieve congestion. Shorter trip times will reduce stress levels related to sitting in traffic, increase time for physical activity and human interaction, and decrease air and noise pollution. Though there is a possibility of increased vehicle speed leading to negative safety and accidents health outcomes, the likelihood and magnitude of the positive health outcomes for the issues of chronic diseases and obesity and physical activity is greater.



School zone improvements are those that are in the immediate vicinity of schools and are primarily designed for safety and various modes accessibility. Examples include school entrance improvements (turn lanes, intersection improvements, construction of roundabouts), sidewalks and pedestrian improvements along roadways in the vicinity of schools, and pedestrian bridges. School zone improvements likely add to positive health outcomes for all five of the health indicators. Health based recommendations:

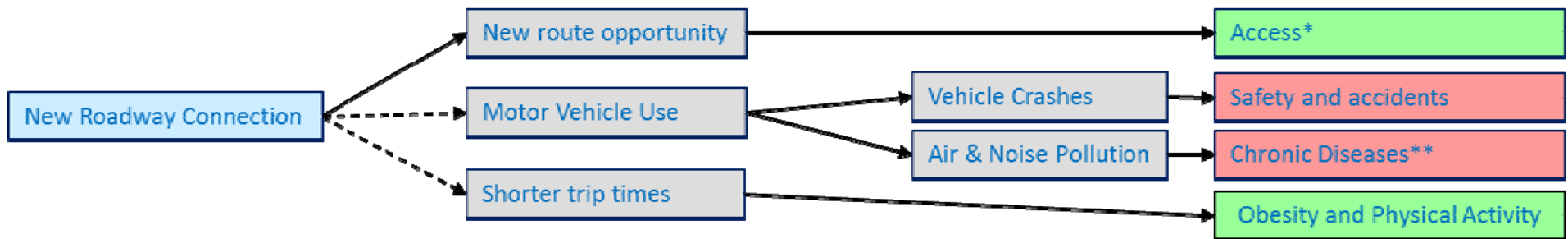
- Actively implement the existing Cobb County Complete Streets Policy in the design of school zone improvements.



Interchange and grade separation projects provide congestion relief to major thoroughfares. The shorter trip times leads to a positive health outcome regarding obesity and physical activity as more time is available for being active. There is a safety risk of more accidents as increased vehicle speed is experienced. Health based recommendations:

- Mitigate dangers of speeding through appropriate lane widths and enforcement.

Assessment of Recommendations

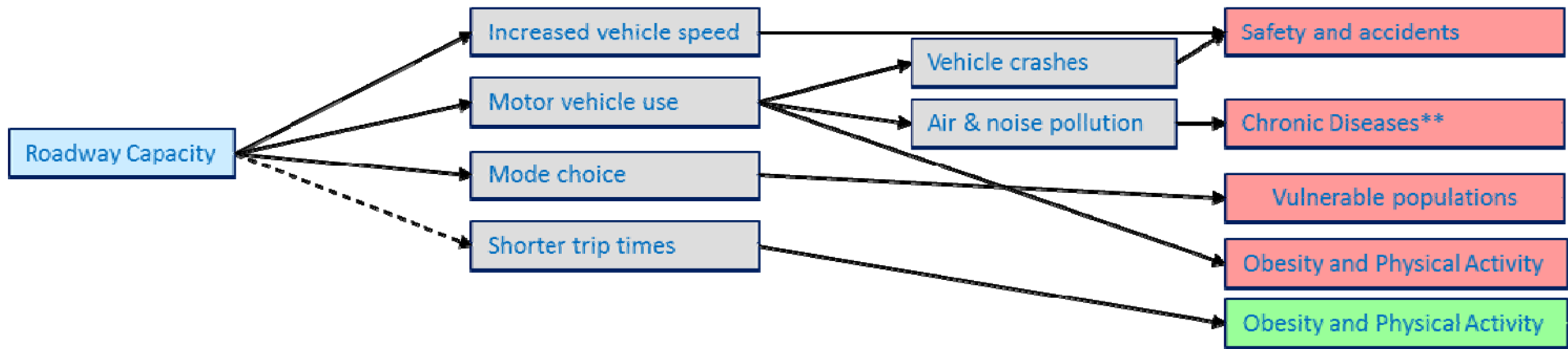


New roadway connections contribute to alternate routes or potentially a more grid-like system. These connections may provide additional connectivity for pedestrians and bicycles as well. Health based recommendations:

- Pedestrian facilities should be implemented or improved which may increase physical activity and decrease chronic disease.
- Sidewalk and streetscaping should be implemented which may lead to a more attractive pedestrian environment and to more walking. Amenities should include benches, shade trees and water fountains. Seniors are more likely to walk when there is ability to rest in shade and get water along the way.
- Opportunities to provide on-street bicycle facilities should be considered in the design which may increase physical activity and decrease chronic disease. Bicycle facilities should primarily follow low-volume streets with linkages along high-volume streets. This will reduce conflicts between vehicles and bicycles, therefore improving safety for both.
- Implement traffic calming measures as needed. This may include high-visibility sidewalks, traffic calming signs with roadway striping, speed humps, traffic circles, chicane with on-street parking, or realigned intersection neckdowns. Traffic calming may reduce vehicular speeds and improve safety as well as encourage pedestrian and bicycle use and physical activity.
- Actively implement the existing Cobb County Complete Streets Policy in the design of new roadway connections.

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Roadway capacity projects include road widening projects. There are many negative health outcomes associated with adding road capacity. Increasing capacity will have the impact of increased vehicle speed resulting in more accidents. Increasing capacity also encourages motor vehicle use which leads to negative outcomes regarding chronic diseases and obesity and physical activity. Vulnerable populations are less likely to drive a car and are therefore negatively impacted, because this project type does not improve mode choice options. These projects will need extensive mitigation to lessen the negative impacts. Health based recommendations:

- Mitigate dangers of speeding through appropriate lane widths and enforcement.
- Actively implement the existing Cobb County Complete Streets Policy in the design of roadway capacity projects.
- Ensure there is appropriate traffic calming, lighting, and other safety features along corridors with increased roadway capacity.

Summary of Recommendations

Project types with more green boxes and positive health outcomes should be implemented in the short-term and project types with more red boxes should be avoided or mitigated as they result in mainly negative health outcomes for county residents. Funding and support for those project types with significant posi-

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tive health outcomes (i.e.: Pedestrian, Bicycle, Transit, Safety and Operational improvements) should be prioritized over project types with more negative health outcomes (i.e.: Roadway Capacity). In the CTP, the unconstrained short-term transportation project needs list totals \$1.6 billion. As displayed in the following chart, the majority of the money is allocated to be spent on project types that have a positive health impact. In financially constraining this short-term needs list, the County should consider the health impacts of the projects that will be implemented. In addition to the amount of funding for each project type in a financially constrained plan, the health based recommendations should be taken into consideration to improve the positive impacts and lessen the potential negative impacts of all the transportation projects. The county's existing complete streets policy is one tool that should be used to help mitigate the design of transportation projects and to improve the project's impact on resident's health.

Unconstrained Short-term Work Program (2016-2021)		
	Local funding	Total Cost
Bridges	\$12.5m	\$17.5m
Drainage	\$6m	\$6m
Resurfacing	\$100m	\$120m
Safety and Operational Improvements	\$178.2m	\$226.9m
Pedestrian Improvements	\$30m	\$30m
Signal Timing	\$4m	\$4m
Transit	\$118m	\$520m
Integrated Corridor Management	\$3m	\$3m
Traffic Signals	\$3m	\$3m
Incident Management	\$4m	\$4m
Planning Studies	\$3m	\$3m
ATMS	\$4m	\$4m
Transportation Technology	\$2m	\$2m
School Zone Improvements	\$4m	\$4m
Interchange and Grade Separation	\$67.5m	\$144.8m
New Connection	\$40m	\$48m
Roadway Capacity	\$64.9m	\$171.5m
City Projects	\$286.9m	\$316.6m
TOTAL	\$930.9m	\$1.6b



Next Steps

Health Impact Flyer

A one page color summary flyer of key health impacts of transportation projects will be produced. The purpose of this summary flyer is to ensure that the key findings are summarized in an appropriate format for distribution to decision-makers and citizens.

Monitoring and Evaluation Memorandum

The final memorandum in this series of four HIA memorandums will include a follow-up monitoring plan to trace the decision outcomes.

Evaluating whether the HIA has influenced the decision-making process (and the proposed CTP) is an important component of HIA. As with any intervention, evaluation is required to see if it has worked. Evaluation of the HIA process is also useful to answer why the HIA worked (or not).

Monitoring the implementation of the proposal is critical to ensure that any recommendations that decision-makers agreed to actually occur. Longer term monitoring of the health of Cobb County will be completed by Cobb and Douglas Public Health or other proposals. This long term monitoring can be used to verify if the predictions made during the appraisal were accurate and to determine if the health or health planning behaviors of the community have improved.



Assessment of Recommendations