



HEALTH **IMPACT** IN 5 YEARS

Innovative Transportation Solutions Benefit Residents along Mississippi's Gulf Coast

Coastal Plains Public Health District
Stories from Public Health Innovators

Introduction

The Centers for Disease Control and Prevention's (CDC) [Health Impact in 5 Years \(HI-5\)](#)¹ initiative highlights community-wide approaches that can improve the places where we live, learn, work, and play. The following example from the Mississippi State Department of Health was implemented before CDC developed the HI-5 initiative, but showcases the components that may be needed to carry out one of the HI-5 evidence-based approaches: [the introduction or expansion of public transportation systems](#).²

The somewhat rural geography and limited financial resources along the Mississippi Gulf Coast put a strain on existing public transit systems. Residents were in need of a better system to help them reach their everyday destinations, including jobs, schools, healthy food retailers, and healthcare providers. One of Mississippi's local health departments, Coastal Plains Public Health District, worked with area organizations to develop innovative transportation solutions to address residents' needs and promote physical activity, taking their rural setting into account.

HI-5: Public Transportation System Introduction and Expansion²



The goal: Increase access to public transit—defined as buses, light rail, or subways—that are available to the public, run at scheduled times, and that may require a fare.



The strategy: Build or expand transportation systems to ensure people can reach everyday destinations—such as jobs, schools, healthy food outlets, and healthcare facilities—safely and reliably.



The health impact: Public transit is safer than private vehicles, improves air quality, provides opportunities for physical activity, and increases access to vital services.



The value: Providing high-quality transit services, including urban rail or “bus rapid transit” systems has the ability to produce per capita annual health benefits of \$355.³

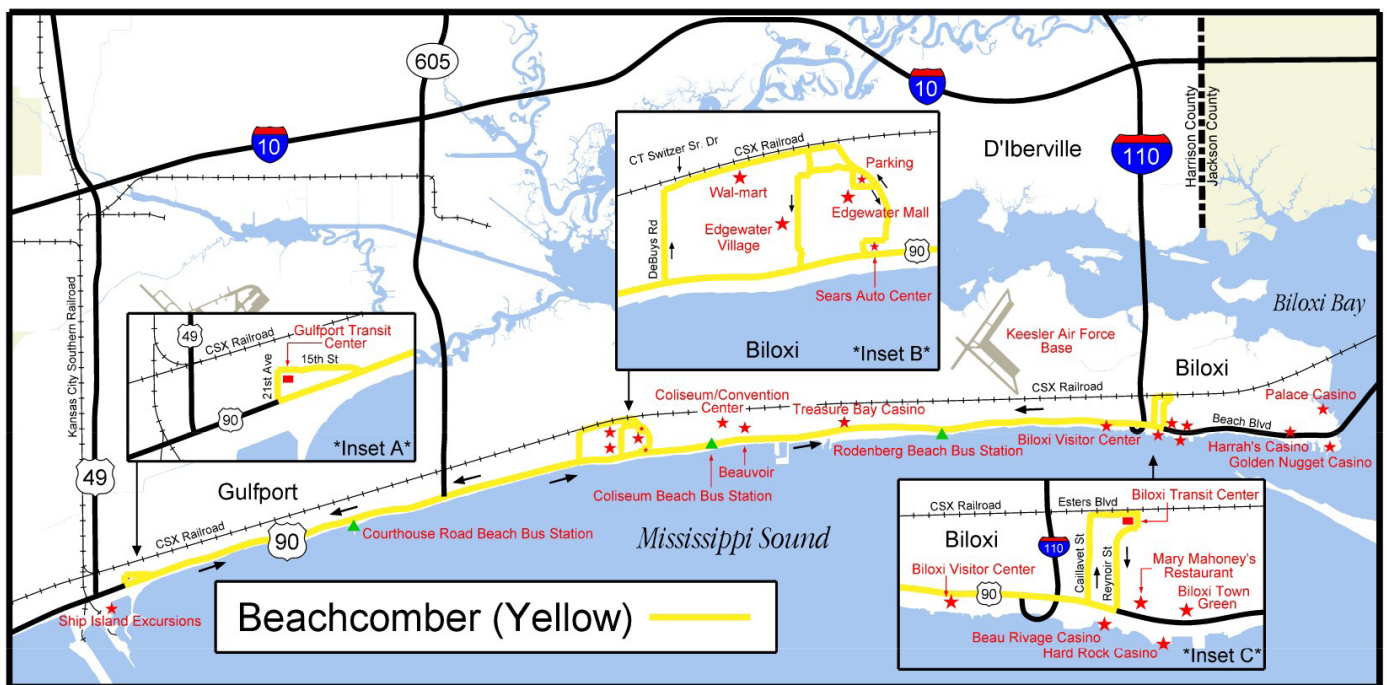
Problem

Many Mississippi Gulf Coast residents live in rural communities that have limited access to public transit. Compared to larger, more metropolitan areas, rural communities face public transportation challenges specifically related to geography and limited funding for infrastructure and other resources.



After Hurricane Katrina devastated the Mississippi Gulf Coast region in 2005, the local public health department collaborated with federal, state,

and local entities, such as the Federal Emergency Management Agency, the Mississippi Department of Transportation, and the local metropolitan planning organization (Gulf Regional Planning Commission). These groups worked together to rebuild the region, with the transportation infrastructure being of critical importance. Given the hurricane's extensive damage to roads and other modes of transportation, the public health department saw the need for new transportation methods that would enable residents to travel safely and efficiently in Gulf Coast counties.



Support from Multi-sect Partners

In the years since Hurricane Katrina, the public health department has forged relationships with decision makers and representatives and regularly attended meetings with city agencies. At transportation department meetings, the public health department shared evidence-based interventions for increasing physical activity from the CDC.⁴ The public health department was able to raise questions and concerns about the challenges of the transit system and proposed changes on the health of community residents, including social and structural conditions that affect health

(social determinants of health).⁵ Health department officials also were able to recommend ways to change the transit system to increase opportunities for physical activity—like placing bicycle racks on buses to increase the use of mass transit and provide opportunities for physical activity.

Coastal Plains Public Health also formed an important alliance with Heritage Trails Partnership of the Mississippi Gulf Coast, a local citizens group whose mission is to improve the quality of life of Mississippi Gulf Coast communities by promoting

healthy outdoor physical activities. Heritage Trails Partnership has been able to play two important roles in redesigning the public transit system. First, they helped increase communication between city planners and the health department by translating unfamiliar words and phrases. The public health department focused on research and education to inform transportation issues in their district, and Heritage Trails Partnership promoted these approaches in discussions with city planners.

Heritage Trails Partnership proved a beneficial partner for the local transportation department as well. Along Mississippi's Gulf Coast, the Coast Transit Authority operates various forms of public transportation, from trolleys with bike racks to paratransit for people with disabilities. The trolley system was installed mainly to carry visitors to tourist destinations such as the beach and shopping centers, but it is also available for local residents. The use of trolleys has several public health benefits, including encouraging walking between trolley cars and destinations, and transporting local residents to healthcare providers and grocery stores. Heritage Trails Partnership found

that residents would be willing to bike up to 5 miles to a bus stop if they could keep their bikes once they got to the bus. To increase physical activity and encourage more residents to use public transportation, the health department and Heritage Trails Partnership proposed a pilot program to attach bike racks on buses for a fixed route in Biloxi. Besides co-designing the pilot program, health department officials also provided the transportation department and elected officials with data on how increasing access to transit systems



improved community health, which persuaded the city to adopt the pilot program. During the pilot, Coastal Plains Public Health promoted the program and encouraged residents to ride the trolleys and make use of the bus bike racks.

Social determinants of health⁵

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.

“Coast Transit Authority’s innovative practices have made a positive impact on public health. In addition to many of the trolleys and buses being hybrid vehicles, the CTA added bike racks to them allowing access to routes for people who live more than walking distance from bus stops.”

Brad Williams
Health Educator, Coastal Plains Public Health District of the Mississippi State

Impact

The pilot program led to the installation of bike racks on every fixed bus and trolley route in Biloxi and nearby Gulfport, Ocean Springs, and D'Iberville. To accommodate bike-riding passengers even more, the city modified buses so riders no longer placed their bicycles outside the front of the vehicles, where they had been in danger of being stolen, but could put them securely inside the buses. The direct connector routes



became the most useful and heavily traveled of the new transit system.

Additionally, a variety of public transportation options are available for people with disabilities. These options include services that give people rides on-demand from their homes to and from the bus stop. The Paratransit Plus program in Mississippi also delivers services beyond those required by the Americans with Disabilities Act, offering rides for passengers who live outside of the mandated three-quarter mile service corridors.

Sustainability and Lessons Learned

Coast Transit Authority has continued to work to integrate physical activity with affordable access to transit. It offers reduced fares for children, seniors, and students, as well as cost-effective multiday tourist packs for out-of-town visitors. Trolleys in the Mississippi Gulf region, patronized by both residents and tourists, increase participation in active transportation as residents walk an average of 0.5 miles to trolley stations.

Public health officials' attendance at city agency meetings has been instrumental in educating policy makers about potential health effects of transit



decisions. This has led to new efforts to increase access to public transit and has earned Coastal Plains Public Health a respected place in the Gulf Coast Community

Exchange, an online forum for decision makers and stakeholders to brainstorm and share best practices, including those that guide transit development along the Gulf Coast.

After years of interacting with city agencies, Coastal Plains Public Health can offer the following lessons for other local health departments:

- Recognize that most public works programs are under similar mandates to protect public health and safety;
- Involve a variety of internal stakeholders such as public health social workers, health educators, and environmentalists, to establish contacts that can be called upon when opportunities arise;
- Timing is important. Wait for the right moment to raise public health issues when decisions are being made;
- Find someone who is able to translate unfamiliar language and terms for you;
- Work to integrate the idea of a healthy built environment into different conversations, for example, into disaster preparedness planning.



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About CDC's HI-5 (Health Impact in 5 Years) Initiative

HI-5 strategies can help you achieve healthy outcomes in your community in 5 years or less, providing good economic value for the investment. CDC reviewed the science to focus on 14 proven approaches that rose to the top as attainable wins for public health. The introduction or expansion of public transportation is just one of the 14 evidence-based interventions identified. CDC's HI-5 initiative can help you make decisions about what works and where to focus efforts to improve public health. To find out more about how your community can use the HI-5 initiative to improve the health of all people, visit the HI-5 website: www.cdc.gov/hi5.

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References

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For more case examples of HI-5 approaches, please refer to www.cdc.gov/hi5

