

Impact of Transportation on Child Health and Well-Being

Health and Policy Context

Access to affordable, safe and reliable transportation contributes to *health*. Not only does access to transportation impact a family's ability to seek *health care services*, but availability of transportation can also impact a family's ability to commute to *good jobs*, shop for *nutritious food*, and bring their children to high-quality *early care and education*, as well as elementary and secondary education. Moreover, lack of access to affordable, safe and reliable *transportation* can perpetuate *health disparities*.



Across the U.S., transportation infrastructure varies by region and population density, but historically *transportation* policy and infrastructure investments have emphasized roads over public transportation and active transportation (i.e., "*human-powered mobility*," including walking or biking) infrastructure. Currently, the Highway Trust Fund allocates *80%* of its investments to highways and roads and 20 percent to mass transit.

In 2021, the Infrastructure Investment and Jobs Act (*Public Law 117-58*), more commonly known as the Bipartisan Infrastructure Law, authorized \$1.2 trillion for transportation and infrastructure spending, including more than \$550 billion in new federal infrastructure investments and programs through 2026. The bill reauthorized federal surface transportation programs to modernize the nation's highways, roads, bridges and mass transit. Notably, the law authorized up to *\$108 billion* for public transportation and included several provisions to strengthen safety and improve biking, walking and access to public transportation across the U.S.¹

Additionally, the Bipartisan Infrastructure Law was the first law to establish requirements for complete streets standards and policies, requiring states and metropolitan planning organizations to fund the development of *complete streets* policies. Complete streets policies seek to ensure equitable, accessible, connective, environmentally friendly and safe streets and transportation options for all users, regardless of their age, ability or mode of *transport* (e.g., driving, biking, walking, public transportation, assistive mobility (like wheel chairs). Complete streets approaches include bike or bus lanes, sidewalks, cross-walks, and *traffic calming* mechanisms like streetlights, speed bumps and crosswalks. The Bipartisan Infrastructure Law includes an estimated \$93 million set aside from the highway formula grant programs for states and metropolitan planning organizations to adopt *complete streets policies and prioritization plans*.

Despite investments at the federal level, families may face different transportation challenges depending on local infrastructure:

- **Personal Vehicles.** In many areas, driving may be the most efficient mode of transportation, but purchasing or leasing and maintaining a car and car insurance can be *cost prohibitive*. Furthermore, *roads* may not be well-maintained or safe.
- **Public Transportation.** Even in areas with public transportation, *public transportation* options may not be *accessible*, affordable, safe or convenient (i.e., no stops near home or destination).
- **Active Transportation.** Safe, *active transportation* infrastructure reduces exposure to *car accidents* and *air pollution*.^{2, 3} However, many communities lack safe *active transportation* infrastructure (i.e., lack of *continuous sidewalks*, signs for pedestrians), discouraging families from walking or biking, thereby decreasing opportunities for *physical activity*.

This document highlights how access to safe and reliable transportation, including access to active transportation options, can have short- and long-term impacts on child health and well-being.⁴

Impact of Transportation on Child Health and Well-Being

Access to affordable, safe, and reliable transportation can impact child health and well-being through *multiple avenues*, including access to health care and access to other services or necessities (e.g., *nutritious food*) that impact child health and well-being.

Access to Health Care Services

Families rely on access to affordable, safe and reliable transportation to travel to health care appointments. Transportation *barriers* can lead to missed or delayed appointments, foregone care (i.e., medical treatment), as well as missed or delayed use of medication. One 2017 *study* shows that 4.4% of Medicaid enrollees under 65 and 3.3% of children enrolled in Medicaid delayed care due to transportation barriers.⁵ A large share of *children* who delayed care were children with disabilities, children with special health care needs, or children with chronic conditions (e.g., asthma, diabetes).⁶ Missing *health care* appointments can disrupt treatment for chronic conditions and/or postpone identification or treatment of preventable conditions, which can worsen *health outcomes* and increase *health care costs* for children and families.

Medicaid Non-Emergency Medical Transportation

The Centers for Medicare and Medicaid Services requires state *Medicaid* programs to cover *non-emergency medical transportation* (NEMT) services to help Medicaid-enrolled families without access to other transportation to be able to secure transportation to non-emergency health care appointments. States have flexibility to design their own NEMT benefit, so there is great variation in the amount, duration and scope of covered NEMT services across the country. States may cover the cost of taxis, private vehicles, public transportation and other types of transportation.

Impact of Access to Transportation on Other Social Drivers of Health

In addition to accessing health care services, families rely on transportation for other daily needs, like grocery shopping and commuting to work or school, each of which can impact child health and well-being.

- **Nutritious Food.** Families that reside in areas with *limited transportation* options are at risk for *food insecurity*, especially in *rural* areas or *food deserts* as they may not be able to access nutritious, affordable food within reasonable distance by walking or public transportation. Poor *nutrition* and *food insecurity* during childhood can have impacts on physical and behavioral health outcomes.
- **Good Jobs.** *Evidence* suggests that access to transportation can impact parent/caretaker *employment, unemployment* as well as long-term *economic outcomes* for children of commuters.
- **Early Care and Education.** Access to transportation can also affect families' access to early care and education, with a 2022 *study* by the National Head Start Association showing that half of program leaders indicated that transportation was the most significant barrier to access to Head Start programs.

Positive Impact of Active Transportation

- **Physical Activity.** Access to safe walking and bike paths can increase families' reliance on *active transportation*, which increases children and *youth's physical activity* and is associated with *health benefits*, like increased *cardiovascular* fitness. One *study* showed that Complete Streets projects increased walking and bicycle trips in most cities that were evaluated.⁸
- **Social Interaction.** Active transportation, especially to commute to *school*, can promote greater *social interaction* between children.

- **Economic Benefits.** Availability of active transportation infrastructure can also have economic benefits, such as [cost savings](#) for commuters, increasing access to necessary goods and services, spurring [economic development](#), and increasing access to [economic opportunities](#), like [employment centers](#) and [good jobs](#). Such economic opportunities can have positive downstream impacts on child [health](#) and well-being.

Conclusion

Evidence suggests that lack of access to reliable transportation can impact child health and well-being by preventing families from accessing necessary [health care services](#) and other necessities that impact short- and long-term health and well-being like [nutritious food](#), [good jobs](#), and access to [early care and education](#). Policies that support access to affordable, safe and reliable transportation options, including active transportation options, can help families access the locations and services they need to stay healthy.

Safe Routes to School Program

One [study](#) found that students who walk or bike to school when they are young are more likely to continue walking or biking for transportation when they are older. In this way, policies that promote active transportation can have positive impacts on levels of physical activity.

The [Safe Routes to School](#) program is designed to increase the number of students biking and walking to school through activities such as improving sidewalks, speed reduction, or street crossings and through public awareness, education and outreach campaigns. The goal is to increase physical activity and health while also improving safety for biking and walking. The Infrastructure Investment and Jobs Act expanded the program to high schools to encourage students across grades K-12 to safely walk and bike to school.

Endnotes

¹ Notable provisions included \$200 million authorized for the [Active Transportation Infrastructure Investment Program](#) to build networks of connected bicycle and pedestrian infrastructure improvements aimed at increasing safety and convenience of biking and walking between communities

² One [study](#) suggests that communities that have a larger proportion of people of color, lower income, and lower number of individuals with a college degree have lower levels of accessibility to amenities by active transportation.

³ One [study](#) shows that improving walking and biking infrastructure increases likelihood of more people taking an active transportation mode.

⁴ Note that there is a dearth of research specifically on how access to safe and reliable transportation affects child health and well-being. Much of the research cited in this document focuses on adults.

⁵ Of the 4.4% of [Medicaid enrollees](#) under 65 that delayed care due to transportation barriers, 43% were children and youth ages 0-18. In 2019, 40% of [Medicaid](#) enrollees were age 0-18.

⁶ About 5% of [children with Medicaid](#) who delayed care were enrolled in social security insurance. Nearly two-thirds of individuals who experienced transportation barriers to health care had an income below 100 percent of the federal poverty level.

⁷ One [study](#) suggests that 2.1 million households do not own a vehicle and live more than 20 miles away from a supermarket.

⁸ In the cited [study](#), 13 projects collected pedestrian counts, and 12 out of 13 projects showed increases in pedestrian counts. Twenty-three projects collected bicycle counts, and 22 out of 23 projects showed increases in bicycle counts.

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