MINNESOTA: Safe Routes to School (SRTS)

CHOICES Learning Collaborative Partnership

This brief summarizes findings from a CHOICES Learning Collaborative Partnership (LCP) simulation model and cost-effectiveness analysis of the expansion of Safe Routes to School (SRTS) initiatives in elementary and middle schools in Minnesota. SRTS aims to help children safely walk and bicycle to school through infrastructure improvements, education, and promotional activities.

The Issue

Research shows that physical activity helps kids grow up at a healthy weight and reduces the risk of future chronic disease;[1] however, the majority of kids do not get enough daily physical activity.[2] Without action, a majority of today's children will have obesity at age 35[3] with substantial financial implications as the costs for treating obesity-related health conditions such as heart disease and diabetes can total over $3 billion per year in Minnesota.[4]

Every child deserves the opportunity to be healthy, and all kids need opportunities to be physically active, no matter where they live or where they go to school. Over recent decades, the declining rates of using physically active transportation modes like walking and bicycling to school may have contributed to lower than recommended levels of physical activity among youth.[5] In Minnesota, only 12.3% of students walk or bicycle to school.[6] However, SRTS initiatives are an effective strategy to increase physical activity by promoting safe walking and bicycling opportunities.[7]

About Safe Routes to School

Minnesota SRTS initiatives are supported by a combination of state and federal transportation funding. This analysis assumes a continued allocation of $1 million per biennium to support the implementation of SRTS initiatives in Minnesota, in addition to a one-time increase of $6 million in state funding. As a portion of these state funds could be used as a match to leverage $2.6 million in additional federal funding, this investment would increase total funding support by $8.6 million. The expanded funding would support individual SRTS project implementation costs for infrastructure, planning and construction, and state program administration, including increased time in program coordination and project selection.

Comparing Costs and Outcomes

CHOICES cost-effectiveness analysis compared the costs and outcomes over a 10-year time horizon (2017-2027) of expanding SRTS in one biennium with the costs and outcomes associated with not expanding the program. Based on prior program expenditures, we estimated that 96 schools would implement a new SRTS program with the increase in state and leveraged federal funds. Additional research suggests that 5.5% of Minnesota's students would shift from cars to active travel modes after SRTS implementation,[6] a 45% increase in the current active transportation mode share in Minnesota. This shift would result in some projected cost savings due to reduced vehicle use for school transportation trips.

Implementing Safe Routes to School in Minnesota is an investment in the future. By the end of 2027:

46,400 CHILDREN

would attend schools with safer transportation environments

47 MORE ACTIVE MINUTES

spent per week by students who start walking or bicycling to school

SAVED IN COSTS

related to reduced vehicle travel

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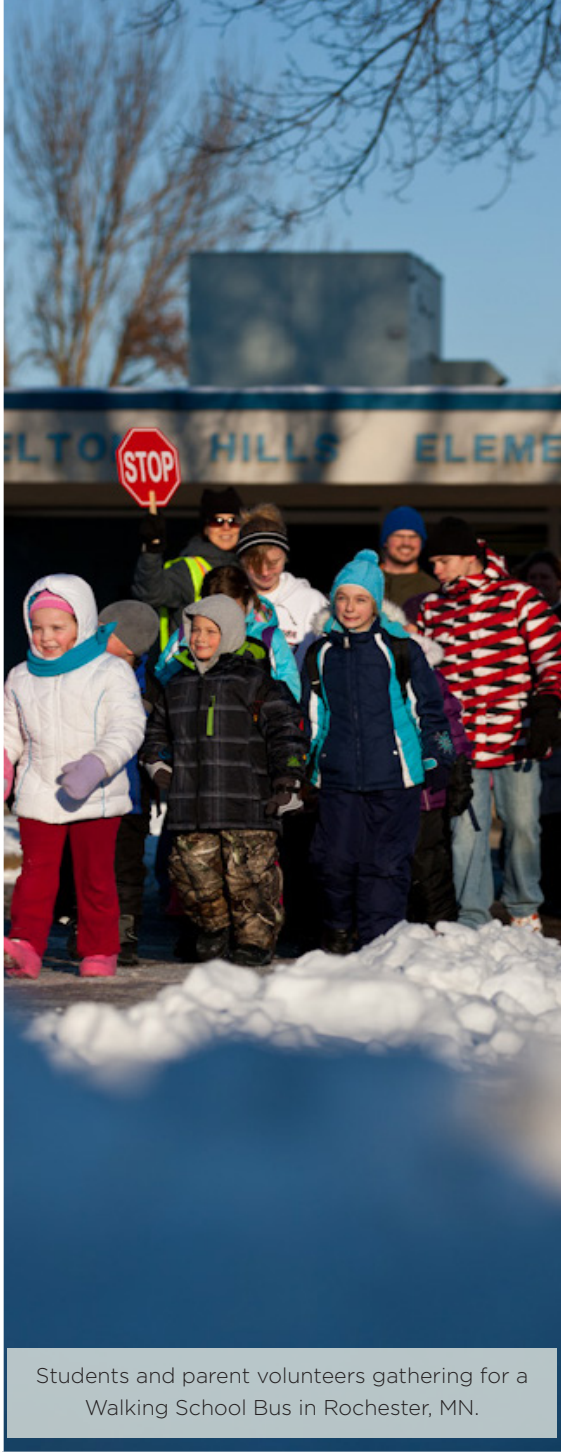
Conclusions and Implications

Over 46,000 students in Minnesota would benefit from safer transportation environments. Investing in SRTS initiatives helps children accumulate the recommended levels of physical activity; on average, those who start walking or bicycling to school engage in 47 more minutes of physical activity during the school week. We also estimate 6 fewer cases of obesity in 2027 as students shift to more physically active travel. There are likely positive benefits from physical activity related to improved bone health, aerobic and muscular fitness, cognition and academic performance[1] that are not quantified in this analysis, but are important outcomes for children's education and well-being.

The 10-year total intervention implementation costs, including projected cost savings due to reduced vehicle use, are estimated to be $6,550,000. In Minnesota, one-third of SRTS implementation costs could be offset by savings associated with reduced vehicle travel that include $607,000 in environment-related cost savings. Additionally, families whose students start walking or bicycling and thus drive less for school transportation trips could average $985 in savings over 10 years.

Strategic SRTS initiatives may reduce the risk of pedestrian and bicycle injury.[8] We estimated that there is a 78% probability that the SRTS program as conceptualized for Minnesota would not result in additional injuries, even though more students may be walking or bicycling than in the past. Additionally, we estimate that there is a 66% probability that the SRTS program in Minnesota could prevent injury-related healthcare costs. Investing in SRTS projects that make walking and bicycling to school safer and easier opens opportunities for those families who want to allow their child to walk or bicycle but cannot because of safety concerns.[9]

These multiple benefits reinforce the importance of investing in effective strategies that promote accessible, safe, and convenient walking and bicycling options to improve the health of our students and the environments of our local communities.



Students and parent volunteers gathering for a Walking School Bus in Rochester, MN.

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