Combating Obesity by Enhancing Activity: Evaluating the Safe Routes to School Program

Authors: Molly McAllister, Sarah Gollust
Multidisciplinary review team and references available at z.umn.edu/PolicyBriefs

Summary of Findings:
- Physical activity is one of the most important factors for preventing obesity.
- Safe Routes to School (SRTS) programs have shown national success in increasing childhood activity levels, reducing pedestrian injury levels, and diminishing medical costs over time.
- School district liability, disagreements on where the responsibility for obesity prevention lies, and diminished Federal funding represent the greatest impediments to SRTS implementation and sustainability.
- The responsibility of funding SRTS programs is shared between federal and state governments, making it important that state legislators understand SRTS in considering policy decisions.

Background

Obesity is an epidemic in American children, with rates tripling between 1976 and 2008. Children of Hispanic and African American descent and lower socioeconomic status bear the greatest burden of disease. Often leading to chronic health problems, the direct national medical cost of obesity is estimated at $3 billion/year. The causes of the epidemic are varied and complex. No single solution has proven to be sufficient. However, reduction in childhood obesity rates in the US have been achieved with community efforts that touch multiple aspects of the food and activity environment of children.

Physical activity is one of the most important factors in preventing obesity. Current recommendations for children from the Physical Activity Guidelines for Americans, are 60 minutes of physical activity daily. Despite these recommendations, research shows a declining trend in activity for school-aged children.

Childhood obesity policy includes both nutritional intervention and promotion of physical activity. During 2013, 22 states enacted policy addressing school nutrition, while 5 states enacted policy around physical education and activity. Promoting activity during the school day can assure exposure to some physical activity. Another approach uses the daily commute to school to encourage regular exercise.

Considering the Safe Routes to School Program

Enacted in 2005, the Federal SRTS program promotes children through walking and biking to school by making active transportation safer, encouraging an active lifestyle for children, and facilitating projects that reduce traffic, fuel consumption, and air pollution around schools. SRTS funds infrastructure development, such as safer street crossings and traffic calming, and non-infrastructure programs that encourage children and their parents to walk and bicycle safely to school. All 50 states have participated in SRTS, benefitting over 17,000 schools and 6.8 million

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students, increasing rates of walking and biking to school, and improving child pedestrian safety\textsuperscript{7,8}. Under SRTS, states were required to use 70-90\% of the funds to improve safety within two miles of a school, and all grants were 100\% federally funded\textsuperscript{3}. These stipulations meant that low-income communities didn't have to leverage their own funds and thus were well represented amongst SRTS programs\textsuperscript{7}.

In 2012, SRTS was updated to Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 decreased funding and increased the scope of eligible projects to include other walking and biking projects, recreational hiking trails, and environmental mitigation; thereby increasing competition for the diminished funds. Under MAP-21, federal funding now covers 80\% of SRTS, with states obligated to fund 20\% of the cost. States can opt out of using half of the total available funds, so if SRTS programs aren't prioritized, available funding may decrease further\textsuperscript{5}.

In 2015, Congress replaced MAP-21 with the Transportation Alternatives Program (TAP). TAP introduced a few key changes. Primarily, TAP funds will be incrementally increased from $819 million per year to $850 million in 2018-2020, and there will be more eligible entities and projects competing for these funds\textsuperscript{5}, meaning that states will have to consider a larger field of potential projects.

**Evidence in Support of the Safe Routes to School Program**

Existing SRTS programs have increased the activity levels of children in targeted schools and communities. One published evaluation was conducted on 48 completed SRTS programs affecting 53 schools in Florida, Mississippi, Wisconsin and Washington. Results showed that SRTS programs are effective in achieving their primary purpose of increased active transportation rates. Results across all four states showed a 37\% increase in active school travel after implementation of SRTS programs, with a 45\% increase in walking and a 24\% increase in biking as measured in pre- and post-project evaluations\textsuperscript{9}.

In New York City, roadway modifications at highest-risk intersections that were funded under SRTS reduced injuries to child pedestrians and demonstrated an overall net societal benefit of $230 million in savings from medical costs, disability and death\textsuperscript{9}. Furthermore, a 2008-2010 SRTS program in Atlanta demonstrated an 18\% increase in numbers of students walking to school\textsuperscript{6}.

SRTS programs have impacts beyond childhood activity and safety of commuting, as they enhance the livability and safety of the entire community, leading to support from multiple constituencies. This may explain why a survey of state childhood obesity legislation from 2006-2009, found that bills with SRTS content were twice as likely to be enacted as those without\textsuperscript{10}.

**Concerns with the Safe Routes to School Program**

School district liability associated with SRTS programs may be of concern given the potential of child pedestrian accidents. In implementation of a SRTS program by a school or school district, the incorporation of injury prevention strategies may minimize liability risk\textsuperscript{11}. Schools can engage with these programs from a sponsorship level, in which parents or outside entities implement the program, minimizing the liability of the school. However, distancing from the program may diminish its success.

Funding concerns might also revolve around questions of responsibility for childhood obesity prevention. Obesity, while complex in origin, is simplistically a result of excess calorie consumption with insufficient calorie expenditure. Consumption of fast food and sugar-sweetened beverages, increased amounts of “screen time”, and decreased physical activity can all be identified as partial causes or targets to address\textsuperscript{2}. Some might consider obesity an issue of personal control, where children or parents are deemed responsible, and not schools or communities. Alternatively, nutrition programs may compete for funding with activity programs in obesity prevention efforts. These differing perspectives may challenge the political prospects of SRTS proposals.

Finally, funding for SRTS programs has been dependent upon federal funds, however the momentum is towards greater dependence on state funds\textsuperscript{5}. This encourages and requires commitment from the local community, who may have competing priorities for limited funds. Indeed, some communities may prefer to pursue issues such as violence and crime prevention and neighborhood safety as priorities before a SRTS program will be viable\textsuperscript{12}.
Summary
Local and state policy that supports and promotes SRTS and shared state funding models may provide a cost-effective way for communities to address the childhood obesity epidemic. Understanding SRTS-related policy will be important to obesity-prevention planning in an increasingly competitive landscape of funding requests.

References