HHS Public Access

Author manuscript

Am J Prev Med. Author manuscript; available in PMC 2022 March 14.

Published in final edited form as:

Am J Prev Med. 2021 January ; 60(1): e41–e43. doi:10.1016/j.amepre.2020.08.004.

Economic Benefits of Promoting Safe Walking and Biking to School: Creating Momentum for Community Improvements

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Community-level strategies to promote physical activity have the potential to improve health and well-being and lower the risks and costs of chronic diseases such as heart disease, type 2 diabetes, obesity, and some cancers.[1-3] What strategies communities choose to implement need to be informed by evidence and implementation science. An important source for such information comes from the Community Preventive Services Task Force (CPSTF).[3] This independent, nonfederal panel of public health and prevention experts provides evidence-based findings and recommendations about community preventive services, programs, and other interventions aimed at improving population health, including physical activity interventions. CPSTF-recommended interventions can be located and reviewed at https://www.thecommunityguide.org.

In December 2016, the CPSTF found that there was sufficient scientific evidence of effectiveness to recommend built environment approaches that combine ≥1 interventions to improve pedestrian or bicycle transportation systems with 1 or more land use and environmental design interventions to increase physical activity among the community members.[4] A simpler characterization of this recommendation is that interventions that connect safe and convenient pedestrian, bicycling, or transit routes to common or everyday community destinations have demonstrated increases in physical activity.

One common destination that is especially important for youth are schools, given this is where youth spend much of their time. The CPSTF recommended interventions to promote Active Travel to Schools (ATSs), such as Safe Routes to School, in August 2018.[5] This recommendation aligns with the CPSTF built environment recommendation and focuses on safe routes from residential neighborhoods to neighborhood schools to increase physical activity among students.

One important factor to consider in the implementation process of ATS is the resulting economic impact of such interventions. The paper by Jacob et al.,[6] *Economics of Interventions to Increase Active Travel to School: A Community Guide Systematic Review*, reports on a systematic review of economic evidence. This paper builds on the knowledge

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No financial disclosures were reported by the authors of this paper.

that ATS interventions can promote weekly physical activity among students. Jacob et al.[6] show that ATS interventions also have a favorable benefit–cost ratio for the reasons noted in their first figure, which illustrates how ATS interventions are expected to work and the pathways to economic costs and benefits. These reasons include the reductions of injuries that may occur because of permanent safety improvements to the environment, and the added benefit from ATS interventions for parents, and other community residents in addition to students.[7] This favorable benefit–cost ratio is an important precedent for other evaluators and researchers conducting community-based physical activity interventions that may include other destinations such as parks and community centers. Many interventions that intended to promote physical activity are not being adequately evaluated, and the information needed to determine the economic benefits and costs of an intervention are often limited.[2,8] More and better evaluations, including those with economic data on cost benefit and cost effectiveness, could go far in informing the elected officials and policymakers about the importance of providing support to plan, implement, and disseminate effective community-based strategies to increase physical activity that enhance health along with other community benefits, including economic benefits.

Such ATS interventions may be important for many other reasons. First, ATS interventions are scalable. A total of 7 of the 9 included studies evaluating the economic benefits of ATS reported the numbers of schools assessed; the smallest reported number was 13 schools in the Toronto area in Canada, and the evaluations of the larger Safe Routes to School programs in the U.S. reported 350 schools in 125 projects (2.8 schools per project) in the State of California and 124 schools in the New York City project(s).[6] Similarly, many of the studies (22 of 52 studies) in the evidence base for the CPSTF recommendation evaluated Safe Routes to School schools that had student enrollment >1,000.[7] This demonstrates the potential for wide-reaching public health impact across different-sized jurisdictions.[9] Second, demonstrating the benefit of ATS interventions in a community may generate momentum to improve other community-level strategies to improve access to physical activity that may benefit more community members than just students en route between home and school. For example, in Castle Rock, Washington, routes to a variety of destinations were considered when the community members were partnered with the health department to craft and secure the adoption of a Complete Streets ordinance to expand walking and biking with Centers for Disease Control and Prevention (CDC) funding and benefit residents of all ages.[10]

The broader CPSTF recommendation to connect transportation systems with built environment and land use interventions,[4] and the more specific ATS recommendation,[5] support and work synergistically with CDC's Division of Nutrition, Physical Activity, and Obesity and other federal government efforts to promote and increase physical activity. For example, the CPSTF recommendations help inform the implementation of the 2018 Physical Activity Guidelines for Americans,[1] address the goals of Step it Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities,[2] and forge the collaborations among CDC and their partners in promoting physical activity through Active People, Healthy Nation, an initiative aimed at increasing physical activity among 27 million people in the U.S. by 2027.[11,12] The U.S. Department of Transportation also devotes a portion of their resources to implement ATS and active transportation

infrastructure projects.[13] For example, the Transportation Alternatives program, now the Surface Transportation Block Grant Program, invests an estimated $850 million a year into building active transportation infrastructure in every state, including to improve access to schools, and Safe Routes to School programming.[14] In addition, the U.S. Department of Transportation federal discretionary grant program Better Utilizing Investments to Leverage Development prioritizes projects with a significant local or regional impact and have funded a number of complete streets projects in recent years.[15]

The CPSTF recommendation showing that ATS interventions are effectively combined with the findings of Jacob et al.[6] that such interventions show a favorable cost–benefit ratio can enable decision makers to implement ATS interventions with new confidence in reaping community benefits and that these benefits represent good value. Implementing the CPSTF-recommended interventions, combined with available implementation guidance and technical assistance, and appropriate resources, can serve as a national model for translating, disseminating, and implementing ATS and other evidence-based physical activity interventions to improve both health and economic vitalities community-wide.

ACKNOWLEDGMENTS

The findings and conclusions in this manuscript are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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