WalkSafe Keeps Walking for 15 Years: A Program Review

Unintentional injury is the leading cause of death among children aged 5 to 14 years. The WalkSafe program was developed in response to the number of children admitted to Miami–Dade County, Florida, level-1 trauma centers. WalkSafe was piloted in an initially high-risk neighborhood, which now exhibits a low density of pedestrian crashes. Following countywide implementation of WalkSafe, trauma data exhibit a 78% decrease in pediatric injuries. This article provides a 15-year review of WalkSafe and its role in decreasing pediatric pedestrian injuries in Miami–Dade County. Every year, an alarming number of child pedestrians are injured on the nation's roadways. In Miami–Dade County, Florida, the WalkSafe program aims to reduce pediatric injury through targeted education and multitiered collaboration with community partners. (*Am J Public Health*. Published online ahead of print November 29, 2018: e1–e3. doi: 10.2105/AJPH.2018.304786)

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INTERVENTION

WalkSafe's program missions include decreasing pediatric pedestrian injury, increasing physical activity, and promoting safe walking environments for students. To achieve this, WalkSafe developed a framework incorporating the 5-E Model to maintain and sustain the program. The 5-E model comprises education, engineering, encouragement, enforcement, and evaluation.

PLACE AND TIME

WalkSafe was developed in 2001 in Miami–Dade County, Florida. In 2003, WalkSafe was piloted in Liberty City, a neighborhood within the City of Miami. Later that year, the program was adopted in Miami–Dade County Public Schools.

PERSON

The WalkSafe curriculum is designed for elementary school–age children. The curriculum was piloted in Liberty City, a predominantly African American neighborhood with a population size of 22 000 and median household income of $26 000.[1] Following the pilot, WalkSafe was disseminated in Miami–Dade County Public Schools, the fourth-largest school district in the nation.

PURPOSE

Unintentional injury is the leading cause of death among children aged 5 to 14 years.[2] In Miami–Dade County, a majority of pediatric pedestrian crashes occur within the vicinity of a school.[3] This led to the development of the WalkSafe program by a task force of local stakeholders seeking to establish measures to decrease the number of school-age children both injured and fatally injured as pedestrians in Miami–Dade County.

IMPLEMENTATION

The WalkSafe curriculum was piloted in 16 Liberty City elementary schools in 2003, during a one-year study.[3] The high-risk district was selected on the basis of previous studies conducted by the Miami–Dade Metropolitan Planning Organization. The successful implementation of the program in Liberty City led Miami–Dade County Public Schools to mandate WalkSafe as a component of the Pedestrian/School Bus Safety Education Program.

WalkSafe follows the 5-E model for program implementation and has used this comprehensive approach countywide in the following ways:

- Education: The WalkSafe Pedestrian Safety Curriculum was developed following an extensive literature review, which determined that the classroom setting was the best place to teach children pedestrian safety.[3] The three-day curriculum includes instructional, simulative, and creative portions, and meets Florida Standards of Education. Available online as a free resource, the curriculum is provided in three age-appropriate versions. WalkSafe has collected completion data from schools since 2007, during which a reported 1.2 million children have been taught the curriculum in more than 200 schools on an annual basis (http://www.iwalksafe.org).
- Engineering: Miami–Dade County Public Works, the Transportation Planning Organization, and the School Board Community Traffic Safety Team partner with WalkSafe to identify, modify, and promote routes that are safe for children to walk to and from school. WalkSafe uses tools such as its 5-E School Inventory

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Tool and School Traffic Survey to help schools assess safety and report existing concerns.

- Encouragement: WalkSafe continually encourages safe walking as a means for student travel. Every year, WalkSafe hosts an International Walk to School Day event to encourage walking and physical activity. WalkSafe also participates in health and family outreach events throughout the year as a way of engaging the public, including parents, in pedestrian safety.
- Enforcement: Local police departments, crossing guards, and public safety officials have collaborated with WalkSafe to increase traffic safety enforcement around public schools. WalkSafe has led municipal and state policy efforts to combat disparities in crossing guard presence in Miami–Dade County Public Schools.[4] These efforts have increased crossing guard presence during arrival and dismissal times in Miami–Dade Public Schools, as well as assisted in creating pick-up and drop-off policies.
- Evaluation: Curriculum Completion Forms are collected to ensure the program is consistently taught to students every year. Furthermore, WalkSafe receives and analyzes several sources of pedestrian data. These sources include the Department of Highway Safety and Motor Vehicles, the Agency for Healthcare Administration, and Miami–Dade's two level-1 trauma centers (Ryder Trauma Center and Nicklaus Children's Hospital).

EVALUATION

Following the pilot, the WalkSafe program was evaluated and shown to improve the pedestrian safety knowledge of elementary school–age children.[5] As a result, Liberty City "experienced greater absolute crash reductions compared with other zones and proportionally higher reductions than countywide."[6(p9)] Crash density maps have been used to visually display the change in pediatric pedestrian incidents. As seen in Appendix A (available as a supplement to the online version of this article at http://www.ajph.org), the red, orange, and yellow shading indicate locations with a high number of crashes. Liberty City exhibited a high density of pedestrian crashes among children aged 5 to 14 years before the inception of the WalkSafe program. Following the implementation project, the density of pedestrian crashes began to decrease in the high-risk district. As the program has been maintained and sustained in the 16 schools, pedestrian-hit-by-car incidences have decreased, and Liberty City now exhibits a low density of pediatric pedestrian crashes.

Also integral to evaluation has been WalkSafe's relationship with the two level-1 trauma centers located in Miami–Dade County. The program receives trauma data on a quarterly basis, which details pedestrian-hit-by-car injuries and fatalities occurring in children aged 0 to 14 years. The trauma data reveal that since the mandate of the WalkSafe curriculum in Miami–Dade County Public Schools, there has been a 78% decrease in the number of pediatric injuries reported at the two trauma centers (Figure 1).

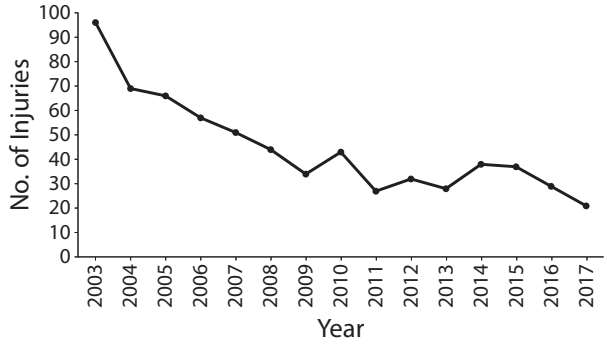

FIGURE 1—Total Number of Pediatric (Aged 0–14 Years) Pedestrian-Hit-by-Car Injuries at Nicklaus Children's Hospital and Jackson Ryder Trauma Center in Miami–Dade County, FL: 2003–2017

ADVERSE EFFECTS

Dissemination of the WalkSafe program requires school district endorsement and identifying district members who are champions for student safety and are willing to promote the program as part of their efforts. A large part of the success in Miami–Dade County has resulted from the relationships formed at the school-district level. An additional program limitation is the amount of follow-up required to collect the yearly evaluation and completion forms. As the program expands, it seeks to identify methods of encouraging teachers to return the data immediately upon completion of the curriculum.

SUSTAINABILITY

The maintenance and sustainability of a pedestrian safety program and curriculum in the fourth-largest public-school district in the United States has been made possible by the program's effectiveness and support from community partners. The relationship formed with the school district, especially on a multitier level, has allowed the successful dissemination and implementation of the curriculum. In addition, the mandate of the program by Miami–Dade County Public Schools demonstrates the school district's commitment to the WalkSafe program and to the safety of its students.

A key component of WalkSafe has been the ability to provide the curriculum as a free resource for schools. The Florida Department of Transportation Safe Routes to School initiative has funded this evidence-based program and sustained its implementation in Miami–Dade and other high-risk counties. To continue to provide all program materials free of charge, WalkSafe continues to look for sustainable methods of funding for the program. Foundation or other agency funding is important to secure to continue to sustain the program for many years to come. In addition, a corporate sponsorship would increase the exposure of the WalkSafe program to school districts throughout the country.

PUBLIC HEALTH SIGNIFICANCE

The use of evidence-based practice is needed to ensure that effective strategies are being used to improve population health.[7] Implementation of the WalkSafe evidence-based curriculum as part of a collaborative systems approach to address pediatric

pedestrian injury in Miami–Dade County has led to a decrease in the overall number of reported pediatric pedestrian injuries and fatalities. When strategizing for injury prevention, communities should place importance on incorporating safety educational programs, such as WalkSafe, into their long-term goals. AJPH

CONTRIBUTORS

S. Delouche led the structuring and writing of the article and completed all major revisions. C. Ballesteros and D. Flores contributed to the writing and revising of the article. B. Pomares contributed to the data collection and analysis for the article. G. Hotz served as the principal investigator for the project and reviewed all drafts of the article.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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