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IMPROVING COMMUNITY HEALTH THROUGH
POLICY RESEARCH

SAFE ROUTES TO SCHOOL HEALTH IMPACT ASSESSMENT

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ABSTRACT

BACKGROUND

A Health Impact Assessment (HIA) was conducted to determine whether the successful implementation of a Safe Routes to School Program (SRTS) within the Binford Community in Indianapolis, Indiana would increase the number of children who bike or walk to school. Specifically, two elementary schools, Skiles Test and Crestview Elementary Schools participated in the assessment.

PURPOSE

This HIA was conducted to inform decisions makers about the potential benefits sidewalks would have within the Binford Community, as well as to collect the information necessary to apply for a SRTS infrastructure grant to build sidewalks within the neighborhood.

METHODS

Qualitative data was collected by conducting interviews with key stakeholders within the community such as school principals, and nurses. Furthermore, a survey was administered to parents to assess their opinion on the implementation of a SRTS. Additionally, a survey was administered to members of the community to assess what factors motivate them to bike or walk within the neighborhood.

INTRODUCTION

A Health Impact Assessment (HIA) is a study conducted within a community in order to provide key stakeholders and decision makers with recommendations about potential mitigating and aggravating health impacts a project or policy will have on the community. This paper describes a Health Impact Assessment (HIA) that was conducted to assess the impact a Safe Routes to School Program (SRTS) would have within the Binford Community in Indianapolis, Indiana.

SRTS is a national program that was created in the early 1970's to promote safety and reduce the number of children who were killed while walking or biking to school. Today, the program has expanded to include a focus on encouraging physical activity in an effort to combat childhood obesity. This HIA focuses on the impact a SRTS program would have within the Binford community because the rate of

RESULTS

At the time this HIA was conducted, the two schools surveyed did not record the height and weight of their students, making it difficult to track BMI changes upon the implementation of a SRTS program. Furthermore, relatively few of the students within the Binford area attended schools within the community, or did not live close enough to bike or walk to school. However, sidewalks could serve as a selling point for local students to attend these elementary schools. In order for the SRTS program to be effective in producing the changes outlined in this HIA, more community involvement, particularly from the two elementary schools is necessary.

CONCLUSION

Indiana has one of the highest rates of childhood obesity in the nation. The SRTS program strives to combat this growing trend by installing sidewalks and addressing safety concerns in neighborhoods so that children can increase their physical activity by biking or walking to school safely. Although the specific impact a SRTS program would have in the Binford area cannot be determined at this time, the results of this HIA can be utilized to inform key decision makers about the possible health impacts and determinates the Binford area would experience if a SRTS program were implemented.

overweight and obese children in the area has been dramatically increasing each year. Currently, 40% of children living in the county the Binford area is located are overweight or obese. Research indicates that encouraging children to walk or bike to school not only increases their daily activity levels, but decreases the rate of obese and overweight children.¹

The goal of this HIA was to assess whether the successful implementation of a SRTS program would increase the number of children who walk or bike to school. This HIA will be used to inform decisions makers about the potential benefits of adding sidewalks within the Binford Community, as well as to collect the information necessary to apply for a SRTS infrastructure grant to build sidewalks within the Binford neighborhood.



**HEALTH IMPACT
ASSESSMENT
METHODOLOGY**

The Binford Area Safe Routes to School Initiative

The Binford area is “bound by Sargent Road on the east, 82nd Street on the north, Dean Road on the west and 56th Street and Fall Creek Road on the south” in Indianapolis, Indiana (Figure 1). Within the Binford area, 40% of children in grades k-12 are overweight or obese. The high rate of obesity within the Binford area is alarming due to the long term effects of obesity. Obesity contributes to several serious health conditions and chronic diseases such as diabetes, stroke, cardiovascular disease, and cancer.²

Figure 1, Binford Redevelopment and Growth, Inc., 2012



Combating obesity requires changing behaviors such as food choices and activity levels. At the time this HIA was conducted, the Binford area lacked sidewalks and as such, did not provide an environment that fostered positive health choices such as biking or walking to school.

In an effort to address the growing obesity epidemic plaguing the Binford area, a local special interests group, The Binford Redevelopment and Growth (BRAG), began the Indy Northside Sidewalks and Trails Engaging People (INSTEPP) initiative in an effort to provide sidewalk access for bikers and pedestrians to safely commute within the Binford area.³ Due to a lack of available local funding, the BRAG group sought funding to install sidewalks from the SRTS program. Funding from SRTS is obtained through several medians including: 1) federal funding provided through the July 2012, transportation bill, Moving Ahead for Progress in the 21st Century; 2) state sources; 3) local sources (local funding is available through two categories: capital improvement projects and operating budgets); and 4) private sources.⁴

In May 2011, representatives from the BRAG organization were granted a \$75,000 non-

infrastructure grant in order to gather the necessary information needed to inform decision makers and key stakeholders about the positive health benefits a SRTS program would have within the Binford Community. In areas where the SRTS has been successfully implemented, the program has been found to decrease the incidence of overweight and obese children, asthma, and obesity related illnesses among children who participated in the program. This HIA was conducted to help the BRAG group gather information to inform policy makers about the need for a SRTS program within the Binford area.⁵

Step I: Screening

Screening is the first step in conducting an HIA and provides the bases of the need for an HIA. The SRTS program was selected as the model for this HIA because of the programs national reputation of success. In cities where SRTS programs have been successfully implemented, these programs have positively impacted communities by: 1) increasing physical activity; 2) increasing pedestrian and bicycle safety; 3) reducing congestion around schools; 4) improving air quality and reduce fuel use; 5) enhancing accessibility within the community; 6) improving community partnerships; and 7) providing socialization benefits for children and parents, in areas where the program is implemented.⁶ Members of the BRAG group recognized the need for a SRTS program within the Binford area. In order to obtain the information necessary to successfully implement a SRTS program, the BRAG group formed an interdisciplinary team consisting of: 1) Binford community members; 2) IUPUI students; 3) Skiles Test and Crestview Elementary Schools; and 4) the local health department, in order to conduct this HIA.

Step II: Scoping

Once the need for an HIA is established, the scoping section provides information on the possible mitigating and aggravating health outcomes that will result from the initiative the HIA is studying. A literature review was conducted in order to determine the possible health impacts and determinants the successful implementation of a SRTS program would have on the Binford area. Although a SRTS program has the potential to impact various health factors, this HIA assessed the impact a SRTS program would have on improving children’s health within the Binford neighborhood, including: 1) physical activity; 2) asthma; 3) social cohesion; and personal safety. Due to the increased prevalence of obesity among elementary school children, this HIA focused particular attention on the impacts a SRTS program would have on increasing the Binford area elementary school students’ physical activity.



Possible Health Impacts

In recent years, a new trend of childhood obesity has emerged among elementary school aged children. Within the last four decades, the prevalence of childhood obesity has almost tripled, from 5% to nearly 14% in 2007. Specifically, the rate of childhood obesity in the county where the Binford neighborhood is located is 40%, which is nearly triple the national average. Obese children are at an increased risk of developing life threatening illnesses; additionally, 80% of obese children remain obese into adulthood further increasing their odds of developing a chronic illness. Implementing the safe routes to school program may increase the amount of physical activity the Binford neighborhood children engage in everyday, while also encouraging healthy habits.^{7 8 9}

Health Determinants

In addition to having a direct impact on the health of the Binford area children, the implementation of a SRTS program may also: 1) increase community connectivity; 2) decrease incidence of asthma; 3) increase perceived personal safety; 4) decrease incidence of diabetes, heart disease, and mental health issues; and 4) increase social cohesion among community members.

Step III: Assessment

Relatively few of the students within the Binford area attended neighborhood schools within the community. Furthermore, the majority of children attending Crestview and Skills Test Elementary Schools did not live close enough to bike or walk to school. However, sidewalks could serve as a selling point for local students to attend these elementary schools. In accordance with the school administrators, the ten parents and one little league coach surveyed also specified that their children would use sidewalks to walk to school if they could walk less than 1/2 - 1 mile and safety concerns, such as the need for a crossing guard were addressed. In order for the SRTS to be effective in producing the changes outlines in this HIA, more community involvement and support is necessary.

Step IV: Recommendations

This HIA recommends that the Binford community start collecting relevant data on local children, such as BMI and whether they bike or walk to school, in order to gauge the impact the implementation of a SRS program may have on Binford area in the future. In the meantime, it is recommended that the community take a more active role in promoting fitness, offering safety classes on walking and biking to school, and promoting the SRTS program within the neighborhood area. Specific recommendations include:

Combating the growing obesity epidemic among school aged children

Recommendation No. 1: Start collecting BMI and health-related data on children

Recommendation No. 2: Promote the SRTS program to parents

Information needed in order to procure an infrastructure grant from SRTS

Recommendation No. 1: Keep accurate records of the number of children walking and biking to school

Recommendation No. 2: Tailor other grants towards improving the sidewalks from the neighborhood to the schools

Addressing safety concerns for children biking or walking to school

Recommendation No. 1: Provide safety classes on walking and biking to school

Recommendation No. 2: Begin gathering data on crime and registered sex offenders in the area

Recommendation No. 3: Once sidewalks are built, initiate crossing guards and walking school bus programs.

Getting the community involved

Recommendation No. 1: Sponsor walk and bike to school days

Recommendation No. 2: Promote a bike rodeo sponsored by the police department

Recommendation No. 3: When school is out, the community should take advantage of the new sidewalks, and can increase participation in community initiatives

Step V: Dissemination

Upon completion of this HIA, key stakeholders were given an oral presentation of the HIA's results. Key stakeholders included: 1) BRAG representatives; 2) SRTS representatives; and 3) the county health department. In addition to an oral presentation, printed copies of this HIA were also distributed. Support for the findings of this HIA were demonstrated by the Binford area residents through several community health events including a community walk day where members of the community walked their children to school in the streets to demonstrate the need for sidewalks.

Step VI: Monitoring and Evaluation

Although, the recommendations of this HIA have not yet been acted on, conducting this assessment has increased awareness of the lack of sidewalks and safety concerns children face within the Binford community. Furthermore, this HIA has brought awareness to the growing obesity epidemic plaguing the children of the Binford area.



DISCUSSION

Various stakeholders throughout the community including school administrators, parents, and little league coaches, were interviewed and surveyed regarding their opinions on the SRTS initiative.

These surveys suggest that the specific ways in which a SRTS program would affect the Binford area elementary schools cannot be determined at this stage. Although the specific impact a SRTS program would have on elementary school students is inconclusive, the results of this HIA indicate that the implementation of a SRTS program would be beneficial to the entire Binford community. This HIA analysis suggests that implementation of a SRTS program has the potential to increase physical activity, community connectivity, social bonding and cohesion, and the number of people who walk and bike within the community.

Furthermore, this analysis presents evidence that the implementation and participation of students in a SRTS leads to a decrease in incidence of asthma, overweight and obese children, and obesity related illnesses. Findings from the literature indicate that sidewalks located within neighborhoods can play a key role in the physical activity of families. Given that 43.7% of individuals living within the Binford

community area not living up to the minimum CDC standards for exercise, sidewalks may encourage more physical activity and lead to better health outcomes for the Binford residents.

Although the benefits the implementation of an SRTS would have on the Binford neighborhood have been exhibited within this report, the specific ways in which a SRTS program would affect the Binford area elementary schools cannot be determined at this stage. At the time this HIA was conducted, the two schools surveyed did not record information on the height and weight status of their students, making it difficult to track changes in BMI rates upon the implementation of a SRTS program. This initial HIA analysis of the Binford area suggests that SRTS outcomes realized by other communities will vary within the Binford area for several reasons including: 1) varying levels of community involvement; 2) varying levels of student participation; and 3) varying levels of program promotion and awareness. In order for the SRTS program to be effective in producing the changes outlined in this HIA, more community involvement, particularly from the two elementary schools is necessary.

CONCLUSION

Indiana has one of the highest rates of childhood obesity in the nation. The SRTS strives to combat this growing trend by providing sidewalks and addressing safety concerns in neighborhoods so that children can bike or walk to school safely. Although the specific impact a SRTS would have in the Binford area cannot be determined at this time, the SRTS has

been found to be a beneficial program that has the potential to benefit the Binford area if more community support can be obtained in the future. The results of this HIA indicate that the implementation of a SRTS program would be beneficial to the entire Binford community by increasing the physical activity of the neighborhood residents.



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