



**BUILDING COLLECTIVE HEALTH:
COMMUNITY INTERVENTIONS FOR NORTHEAST KANSAS CITY, MISSOURI**

Project Activity Summary

February 2019

BikeWalkKC | Children's Mercy Kansas City | AETNA Foundation

This report summarizes activities conducted through the Cultivating Healthy Communities project, funded by the Aetna Foundation. Grant activities took place from fall 2017 to spring 2019 and included three primary components: education, engagement about the built environment, and evaluation.

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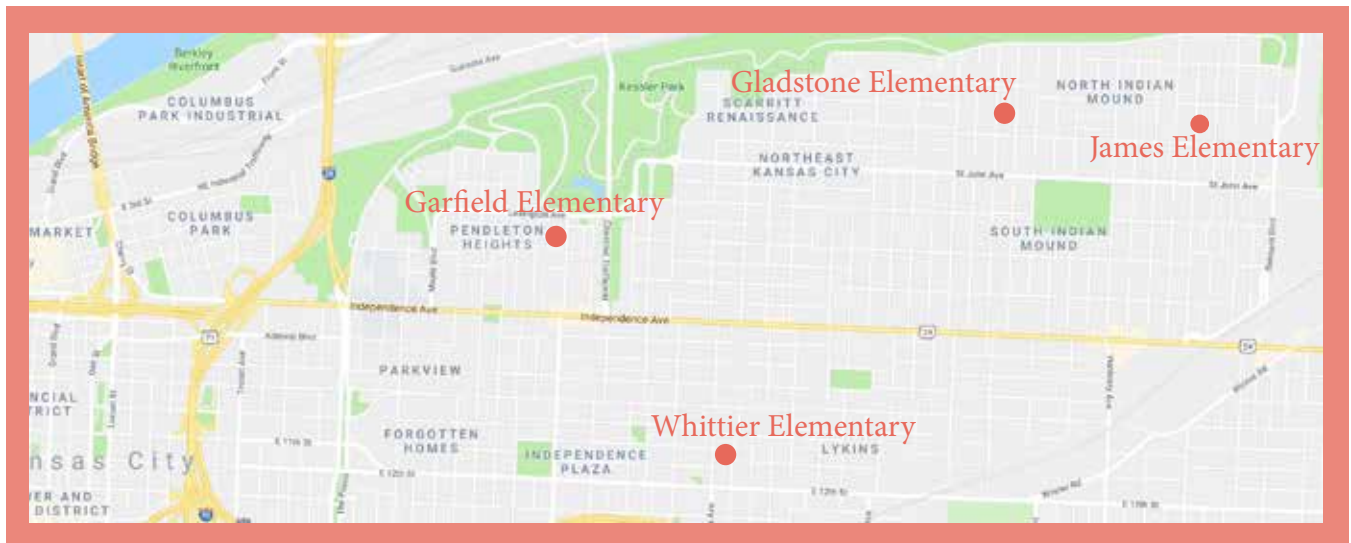
Introduction

BikeWalkKC was selected as a grantee for the Aetna Foundation's Cultivating Healthy Communities program and awarded a \$75,000 community grant to work in partnership with Children's Mercy Kansas City. BikeWalkKC worked with four Kansas City public schools and neighborhoods to increase walking and biking to school. This project explored and addressed barriers such as lack of education, lack of access to bikes, and infrastructure challenges.

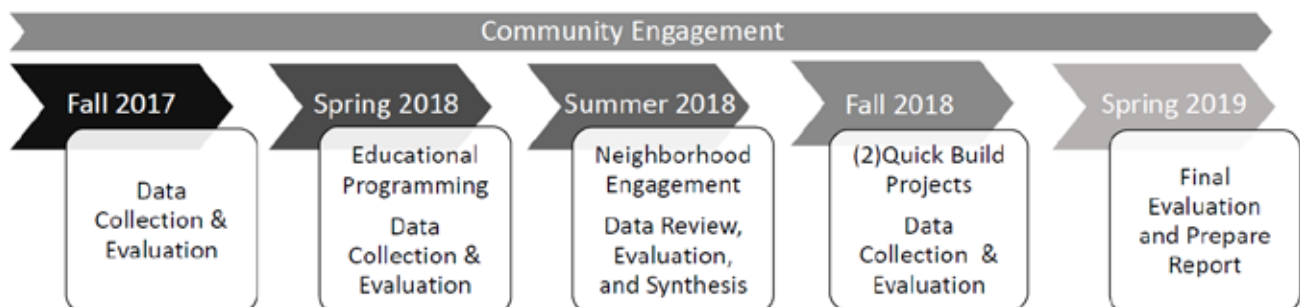
BikeWalkKC worked with the residents, neighborhood organizations of Northeast Kansas City, and our evaluation partners, Children's Mercy Kansas City, to deliver an 18-month program comprised of evidence-based youth education programming and hands-on built environment interventions to improve community health. These activities improve awareness, skills, confidence, and motivation in participants to increase the number of residents walking and biking in Northeast Kansas City.

This project included an extensive evaluation process to assess the long-term impacts of the Earn-a-Bike program as well as the effects of two quick-build implementations. Research and evaluation partners at Children's Mercy Hospital helped to collect and analyze data, and to evaluate the impacts education programs on the cultivation of long-term health and wellness of participants. A multi-layered evaluation approach was utilized, combining quantitative and qualitative assessments, and deploying tools such as wearable GPS and accelerometers.

Residents, students, and community stakeholders were engaged and empowered to advocate for projects, programs, and policies that support improvements to the built environment, remove environmental barriers, and encourage walking and biking in Northeast Kansas City, Missouri.



Timeline



Building on Previous Work

Educational Programming

In the five years prior to the Cultivating Healthy Communities project, youth education programming, including Bicycle Lesson and Safety Training (BLAST) and Earn-a-Bike (EAB) were administered to school children to improve awareness, skills, confidence, and motivation in participants to walk and bike to school. Students learned basic bicycle mechanics, advocacy, and safety skills, and had the opportunity to earn a bike of their own.



Bicycle Lesson and Safety Training (BLAST) and Earn-a-Bike (EAB) Participation 2012-2017

School	BLAST		EAB	
	Cohorts	Participants	Cohorts	Participants
Garfield Elementary	33	723	2	24
Gladstone Elementary	10	251	1	30
James Elementary	6	169	3	24
Whittier Elementary	16	366	3	36
Total	65	1509	9	114



Built Environment Assessment

Built environment assessments and walkability audits were conducted for Northeast area schools in the summer of 2015. These assessments included the collection and analysis of conditions on a block-by-block level in the areas immediately surrounding each school. Factors evaluated included surrounding land-use, sidewalk condition, location and type of street

crossings, community amenities (such as community gardens), amount of shade along given sidewalk segments, positive and negative activity on the street, and the overall pedestrian experience. More than 140 street segments were evaluated. These evaluations help to inform recommendations and project needs for priority Safe Routes to School corridors.

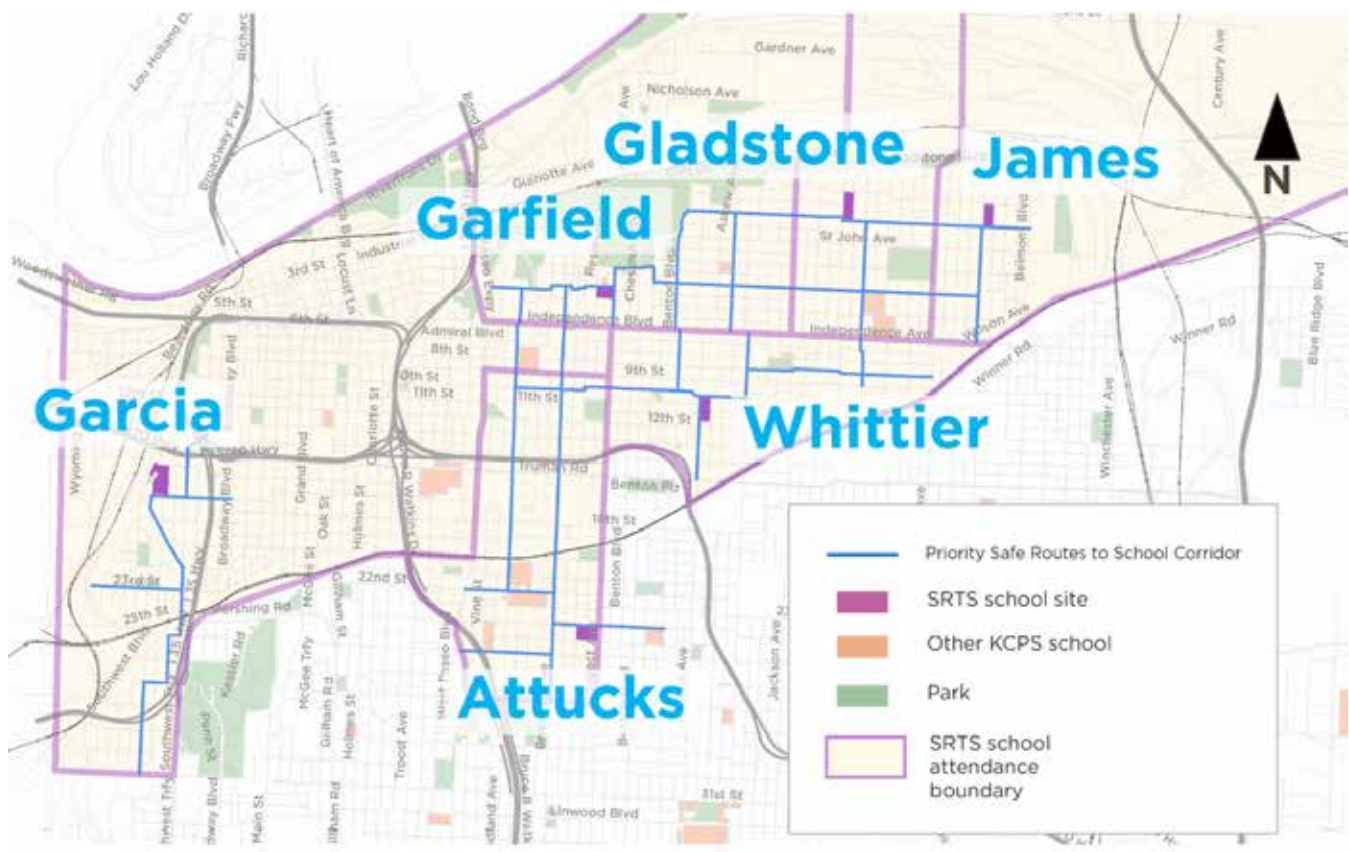


SIDEWALKS AND SAFE ROUTES

- 0 - Sidewalk is not built or is completely deteriorated
- 1 - Poor (Significant cracks, heaving, or overgrowth that makes travel difficult.)
- 2 - Fair (Some cracks, heaving or overgrowth, Path usable with some caution.)
- 3 - Good (Some deterioration but path provides comfortable route overall)
- 4 - Very good (Very well maintained, providing very comfortable route)
- 5 - Brand new
- Priority Safe Routes to School Corridor

SCHOOLS AND DESTINATIONS

- SRTS school site
- Other KCPS school
- Park
- School attendance boundary



Safe Routes to School Strategy

From 2014-2016, BikeWalkKC worked with seven partner elementary schools in the Kansas City, Missouri School District to support students walking and biking to school, and to develop a district-wide strategy to achieve those outcomes. Initial work focused on the development and standardization of a data collection methodology, as well as a multi-pronged and sustained engagement effort, bringing together numerous and diverse partners from the school, neighborhood, City, and other organizations. BikeWalkKC undertook an arrival and dismissal analysis for each partner school, a comprehensive infrastructure and site conditions analysis in the neighborhood

surrounding partner schools, and engaged stakeholders through numerous in-person meetings and formalized surveys. BikeWalkKC simultaneously deployed a series of educational programs to provide bicycle lessons, safety training, and earn-a-bike programs that provided students with bicycles upon completion of the course. Recommendations included identification and investment in priority safe routes to school corridors, in order to focus scarce resources in a way that facilitates walking and biking to school, while also providing broader benefits to surrounding neighborhoods.

Education Programming

Throughout the Cultivating Healthy Communities project, BikeWalkKC conducted bicycle education programming for 4th and 5th grade students through the in-school Bicycle Lesson and Safety Training (BLAST) and after school Earn-a-Bike (EAB) programs. These programs focused on teaching students bicycle safety and maintenance skills, introducing a bicycle as a means of transportation, and provided access to bikes and helmets.

Garfield Elementary



Bicycle Lesson and Safety Training (BLAST) Participants: 202

Earn-a-Bike (EAB) Participants: 12

Non-Riders Converted to Riders: 29

Bikes Distributed: 12

Helmets Distributed: 214



Gladstone Elementary



Bicycle Lesson and Safety Training (BLAST) Participants: 180

Earn-a-Bike (EAB) Participants: 21

Non-Riders Converted to Riders: 18

Bikes Distributed: 21

Helmets Distributed: 153



James Elementary



Bicycle Lesson and Safety Training (BLAST) Participants: 176

Earn-a-Bike (EAB) Participants: 14

Non-Riders Converted to Riders: 15

Bikes Distributed: 14

Helmets Distributed: 190



Whittier Elementary



Bicycle Lesson and Safety Training (BLAST) Participants: 120

Earn-a-Bike (EAB) Participants: 14

Non-Riders Converted to Riders: 20

Bikes Distributed: 14

Helmets Distributed: 91



Total Programming Summary

Bicycle Lesson and Safety Training (BLAST) Participants: **678**

Earn-a-Bike (EAB) Participants: **61**

Non-Riders Converted to Riders: **82**

Bikes Distributed: **61**

Helmets Distributed: **648**



Parent Engagement Days

Parent Engagement Days were organized on the final day of the Earn-a-Bike program in each participating elementary school. This intentional outreach provided an opportunity to interact with parents about the project, the built environment around the school, and the Earn-a-Bike program itself. Overall, parents were supportive of the program and excited for their students to receive a bike and helmet. Parents provided useful feedback about conditions that impact children walking and biking including locations with speeding traffic, dangerous intersections, and missing sidewalks.

Thirty six parents completed surveys after the completion of Earn-a-Bike programming, which provided valuable insight on bicycle riding behaviors of participating students. Across all four participating schools:

- **94% of parents indicated their child is more excited to ride a bike.**
- **92% of parents reported that their child rides a bike more often.**
- **90% of parents stated their child is more physically active after the Earn-a-Bike program.**





Built Environment



Engagement About the Built Environment

Beyond programming and student education, the Cultivating Healthy Communities project facilitated numerous outreach and engagement efforts focused on the infrastructure and environment around participating schools, and the impacts of those factors on walking and biking. Hundreds of students, families, and community members were involved in this process, as well as principals, school staff, parents, neighborhood organizations, community leaders, and partner organizations. Events included back-to-school nights, neighborhood association meetings,

farmers' market events, and hosted parent engagement days. Project team members conducted intercept interviews during school arrival and dismissal periods. Presentations were made to the Northeast Chamber of Commerce and Northeast Alliance Together (NEAT) Coalition to provide project updates and seek feedback. This stakeholder engagement ultimately informed the selection of two intersections for traffic calming interventions: the intersection St. John Avenue and Van Brunt Boulevard, and the intersection of 10th Street and Benton Boulevard.



Traffic Calming Demonstrations

A primary component of this grant project was the installation of traffic calming demonstrations at two Northeast Kansas City intersections. Each of these installations remained in place for one week with support and collaboration from community partners. At kick-off events, neighbors from the surrounding areas gathered to help install bumpouts, curb stops, and chalk art in newly created public spaces. While the traffic calming demonstrations were in place, community input surveys were conducted to gather input about the traffic calming design and impact. A total of seventy-one surveys were completed. Results from those surveys are summarized in the Evaluation section of this document.



Evaluation

Earn-a-Bike Evaluation

In partnership with Children's Mercy Kansas City, BikeWalkKC conducted an evaluation of the Earn-a-Bike program in four Northeast elementary schools to measure bicycling behavior and attitudes before and after completion of the program. 4th & 5th grade students enrolled in Earn-a-Bike wore a GPS and accelerometer prior to the weeklong program to measure baseline physical activity. Following Earn-a-Bike, students wore the GPS and accelerometer devices for another 6 days and completed a post-program survey about bicycling perceptions.



61 students joined Earn-a-Bike across all four schools and 57 opted to participate in the study.

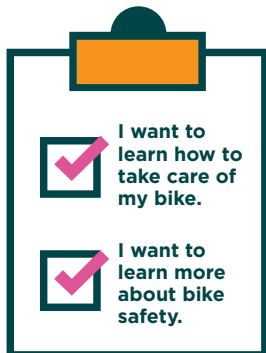


**76%
more time
bicycling**

Students spent 76% more time bicycling, following the completion of Earn-a-Bike.



Students reported that they enjoyed cycling more, rode more, and wore helmets more often, following the completion of the Earn-a-Bike program.



The top reported reasons for participating in Earn-a-Bike were: "to learn how to take care of a bike" and "to learn more about bike safety."

"I ride a bike more because of Earn-a-Bike."

-75% of students

"I can get more places on my bike."

-73% of students

"I am a much more confident bicyclist."

-85% of students

Students reported more positive attitudes and perceptions post Earn-a-Bike.

Quick-Build Traffic Calming Evaluation

Two intersections were selected through community member and stakeholder input for temporary traffic calming interventions. These “quick build” projects were designed to slow traffic and create a safer, more inviting environment for pedestrians.

The quick build projects included temporary bumpouts to narrow the width of the road and shorten the crossing distance for pedestrians. As part of the demonstration, permanent crosswalks were painted by the Kansas City Public Works Department. The bumpouts were in place for seven days at each location, beginning with a kick-off event where neighbors and community members met to assist with installation. Data from before and after the installation was collected through several channels including seventy-one intercept surveys, in-person traffic observations, and data collection from automated traffic cameras.



Temporary bumpouts with curbs and bollards were installed at the intersection of St. John Avenue and Van Brunt Boulevard for one week in October 2018. A similar design was installed at a second location for one week at the intersection of 10th Street and Benton Boulevard.



70%

of survey respondents said they want the changes to be made permanent



85%

of survey respondents said they want more bike/ped safety improvements in the neighborhood



23% more pedestrians were observed using intersections



Rolling stops decreased by 9.4%.



Traffic calming did not deter or divert traffic. The same number of cars were counted before and after the demonstration.

Future Efforts

The Cultivating Healthy Communities project enabled BikeWalkKC to build on the existing foundation of educational programming and strengthen partnerships in support of better biking and walking in Kansas City. For the first time, extensive data collection demonstrated the impacts of bicycle programs like Earn-a-Bike and physical changes to streets to calm traffic and improve safety. BikeWalkKC intends to enhance and formalize this work in the future in close partnership with the Kansas City Public School District, the City of Kansas City, and other partners.

Educational Programming

BikeWalkKC has established long-standing relationships with Kansas City Public Schools and other school districts in the region to provide bicycle and pedestrian educational programming to students of all ages. With sufficient funding, the benefits of this programming can be expanded in the future by formalizing and integrating walking and biking education into a district-wide curriculum.

In addition to youth programs, BikeWalkKC engages adults and families, providing access to bicycles and opportunities to be physically active through bike rides and neighborhood walks. BikeWalkKC recognizes the importance of educational programming and is committed to sustaining these opportunities for the community in the future. For information about BikeWalkKC's education programs, contact: education@bikewalkkc.org.



Traffic Calming Assistance

BikeWalkKC maintains a traffic calming lending library, a resource for neighborhoods and community members to undertake their own traffic calming demonstrations. The library includes basic equipment and materials needed for a successful traffic calming project. BikeWalkKC offers technical assistance in planning, designing, and implementing these activities in neighborhoods across Kansas City. Ultimately the goal is to equip community partners with the resources, capacity, and expertise to implement traffic calming projects in their neighborhood. For more information about BikeWalkKC's traffic calming program and Lending Library, contact: consulting@bikewalkkc.org.

Policy

BikeWalkKC will continue to advocate for policies that support mobility and accessibility for all in Kansas City. Our five-year policy platform involves asset mapping activities with neighborhoods on the East Side, supporting efforts to develop a Vision Zero Policy, and funding for the KC Bike Master Plan. The Kansas City Public School District will be a key stakeholder in those endeavors. For more information about BikeWalkKC's policy and advocacy efforts, contact Michael Kelley at michael.kelley@bikewalkkc.org.



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Our mission is to redefine our streets as places for people to build a culture of active living.