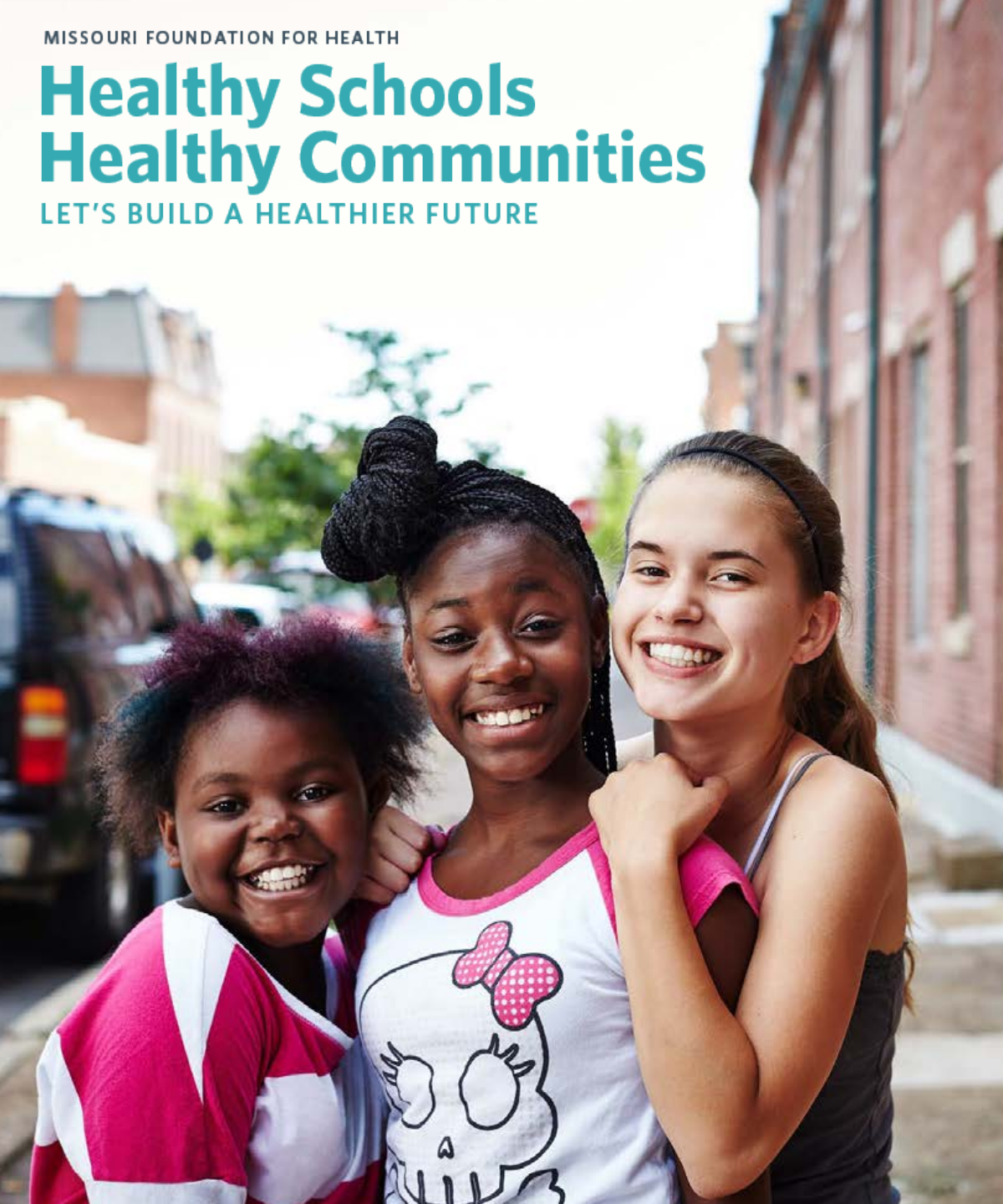


MISSOURI FOUNDATION FOR HEALTH

# Healthy Schools Healthy Communities

LET'S BUILD A HEALTHIER FUTURE



## Comprehensive Status Report

August 1, 2014 – July 31, 2015

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“

I tied [our local efforts] into the Healthy Schools Healthy Communities initiative so they could understand it's really a bigger project than just what we are doing here...”

~HSHC Grantee

## Background

In 2013, Missouri Foundation for Health established a five-year Healthy Schools Healthy Communities (HSHC) initiative to address childhood obesity through prevention efforts in select communities. The overarching goal is to decrease childhood obesity (Figure 1), in addition to improving attendance rates, fitness, conduct at school and academic performance.

HSHC brings together schools, community organizations, businesses, parents and residents to identify and work towards changes that increase access to healthy food and physical activity where our kids live, learn and play.

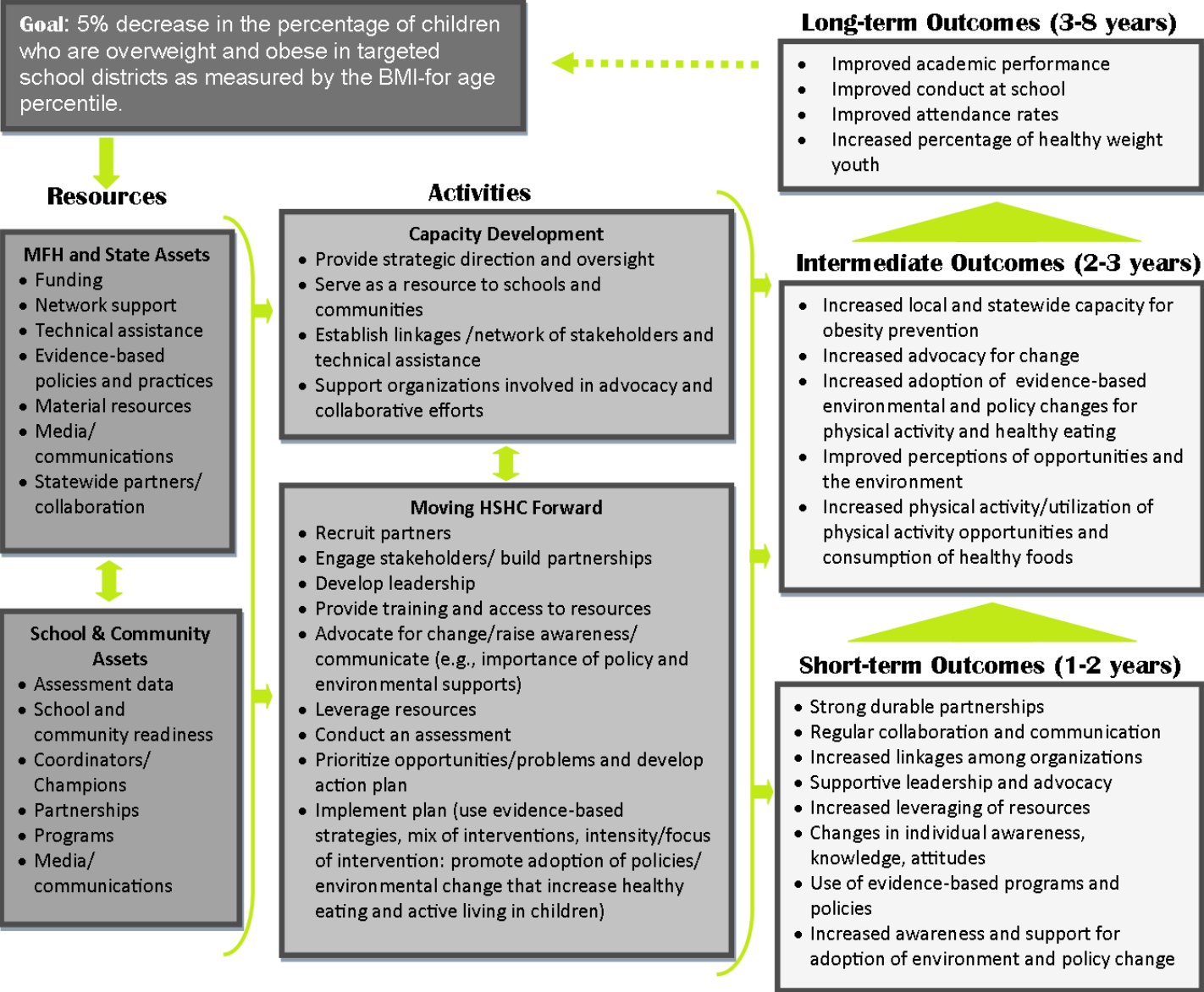
The initiative supports partnerships between schools and community organizations in order to make it easier for kids to eat healthy and be active. In 2013, Cohort 1 brought on 12,942 students in 12 school districts, and in 2014 Cohort 2 brought on an additional 5,254 students in 12 new school districts. The Foundation added the final Cohort 3 districts in fall 2015, they are not included in this report. Today there are 33 HSHC school districts and 13 HSHC community collaboratives across Missouri working together to creating healthy opportunities for kids in the classroom, on the playground, at home and throughout the community.

From introducing healthier foods and more opportunities for physical activity in schools, to improving parks and sidewalks, to building new bike trails— communities are

making changes to schools and local environments that will have lasting impact. And HSHC is providing the knowledge, tools and support to help families make change happen at home.

HSHC school and community coordinators are supported in their work by technical assistance (TA) providers through the assessment, planning, implementation and communication of their action plans. TA providers include: Alliance for a Healthier Generation, PedNet, Trailnet, Missouri Department of Health and Senior Services, Ozarks Regional YMCA, and GMMB. While work varies statewide based on school and community needs and resources, the objectives and strategies are comparable across grantees. Figure 2 presents the HSHC targeted sectors, overarching objectives, and strategies to date.

Figure 1. HSHC Logic Model





COUNTY STRATEGIES

**361** TARGETED STRATEGIES (2013-2015)

<b>147</b> physical activity strategies		9 school policy	7 physical activity in class	29 outside of school hours
		27 physical education	2 professional development	3 health education
		10 recess	24 infrastructure	11 walk to school
<b>97</b> physical activity & healthy eating strategies		11 employee wellness	4 joint use agreement	10 communication
		19 school policy	38 communication	10 health education
		14 employee wellness	1 physical activity in class	2 water
<b>117</b> healthy eating strategies		2 collaboration	5 professional development	6 outside of school hours
		9 school policy	15 outside of school hours	16 food sold in community
		2 employee wellness	18 communication	6 farm to school
		2 infrastructure	2 professional development	3 gardens
		2 collaboration	1 walk to school	4 health education
		9 water	28 school food	



EAT SMART MOVE START CHILDCARE:

**84** TARGETED STRATEGIES (2014-2015)

<b>37</b> physical activity strategies		8 physical activity space	5 physical activity equipment	11 physical activity time/ opportunities
		3 physical activity policy	2 integrate activity into learning	1 MMove Smart certification
		3 staff training/ participation	4 physical activity skills	
<b>4</b> physical activity & healthy eating strategies		1 student education	2 family participation	1 staff training
<b>43</b> healthy eating strategies		28 meals/menus	1 family style meals	3 gardening
		6 nutrition education	1 increase variety of meals	1 family participation
		1 family involvement	1 nutrition policy	1 Eat Smart certification

The goals of the HSHC evaluation are to: 1) assess and understand the areas of intervention reach, organizational adoption, and implementation of the multiple strategies, and 2) determine impact on student perceptions and behaviors, misconduct, academic performance, attendance, and body weight. A practice-based evaluation such as this helps to explain the long, complex, and multi-step processes that are taking place. It further provides a basis for improvements, guides TA, and can help garner support for additional changes in interventions, environments, and policies.

The phases of HSHC (Figure 3) include:

- Capacity Development – providing resources and ongoing guidance and support.
- Moving HSHC Forward – the multi-step processes happening to work toward the overall goal.
- Progress – the progress to date.

Table 1 presents the different evaluation strategies associated with each phase.

This report includes data collected between August 1, 2014, and July 31, 2015.

**Figure 3. HSHC Phases**



**Table 1. Evaluation Methods for Each of the HSHC Phases**

	Capacity Development	Moving HSHC Forward	Progress
Document review	●		●
Monitoring system	●	●	●
Interviews		●	
Student surveys			●
Pedometers			●
Height and weight			●



“

In order to make changes at the county or state level you need to take some time away from daily work and really think critically about changing the landscape and how that can/has to be done.”

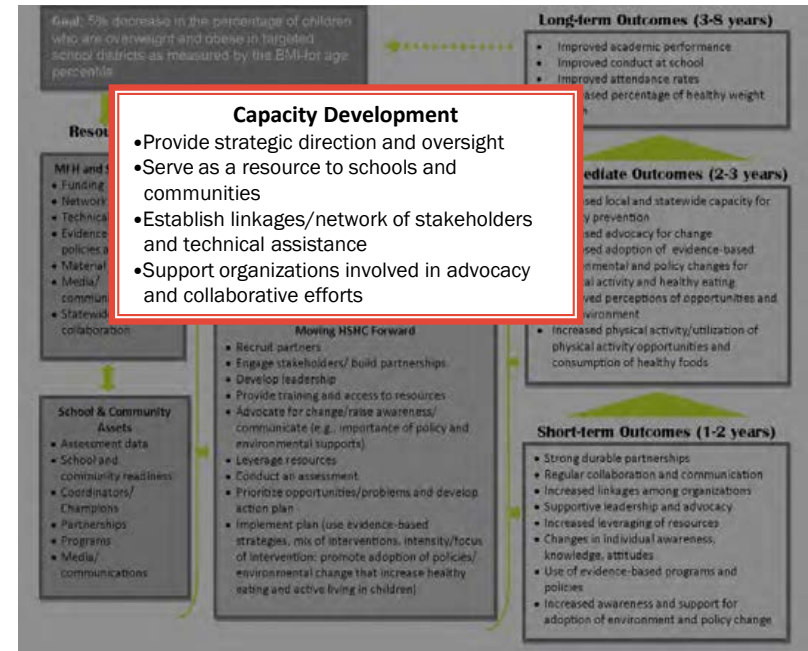
~HSHC Grantee



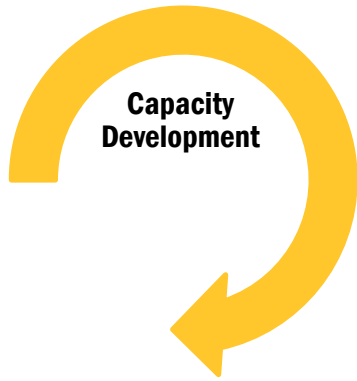
# Capacity Development

Public health stakeholders and others are being asked to implement policy and environmental change interventions as key strategies to obesity prevention efforts like HSHC. Yet, many of these practitioners lack the knowledge, skills, and resources to do so.<sup>1</sup> Building capacity to implement programs, policies, and environmental changes to support healthy behaviors like physical activity and healthy eating is a key component to HSHC. In addition to ongoing communication with grantees, MFH and TA providers use evaluation data to ensure the support and resources are responsive to community needs. Overall, this framework helps to ensure accountability to the HSHC goals and evidence-based strategies.

This section of the report presents the types of guidance, areas of focus, and networking and information-sharing activities that have helped to develop capacity among grantees and their partners.



1. Leeman J, Myers A, Ribisl K, Ammerman A. *Disseminating Policy and Environmental Change Interventions: Insights from Obesity Prevention and Tobacco Control*. Int J Behav Med. 2015;22(3):301-11.



- **Guidance and support**
- **Networking and information sharing**

### Guidance and Support

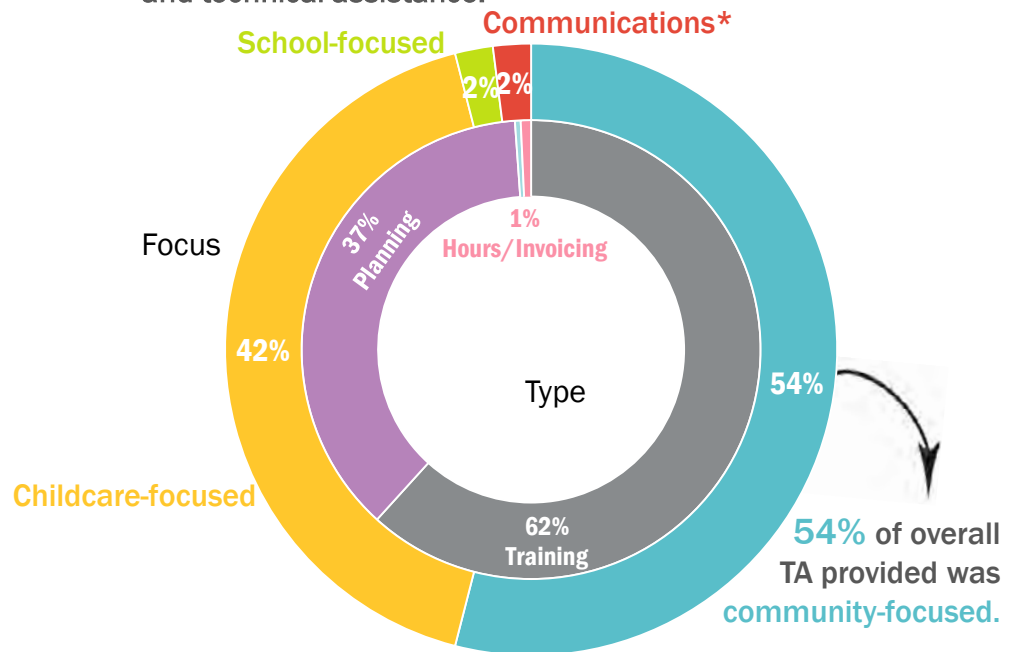
The Alliance for a Healthier Generation, PedNet, Trailnet, Missouri Department of Health and Senior Services, GMMB, and Ozarks Regional YMCA help to develop grantee capacity. Guidance is delivered via tailored TA and training, assistance with planning, and support with implementation of grantee action plans. This assistance helps to ensure school, community, and childcare grantees follow a consistent and coordinated approach (e.g., needs assessment, defined priorities, action plans).

**3,342** hours of guidance and support were provided to the grantees.

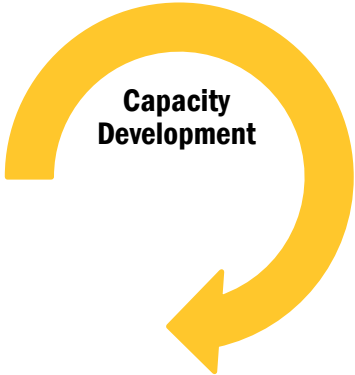
Figure 5. HSHC Capacity Development



62% of all the support provided was in the form of training and technical assistance.



\*The communication scope of work was modified to include more individual training and technical assistance and, therefore, only includes two months of data.



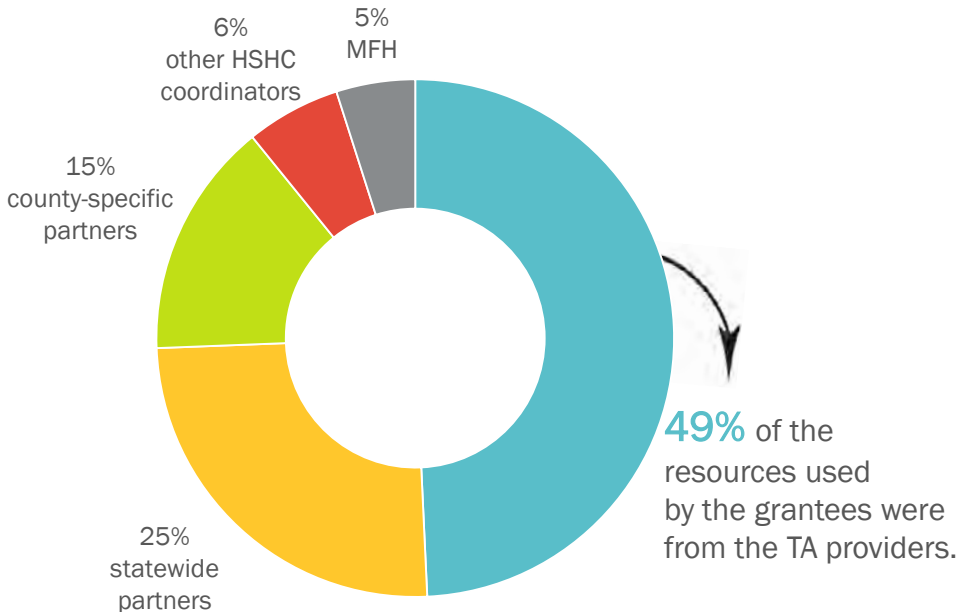
- **Guidance and support**
- **Networking and information sharing**

**Networking and Information Sharing**

Through HSHC, grantees are connected to a breadth of resources. In addition to the expertise provided by the TA providers, HSHC offers an opportunity for partner organizations within the targeted county – as well as across counties – to network and share information with one another. During grantee interviews, school and community coordinators continued to report the desire to learn from others and to be provided with example templates and protocols to accomplish their work. They also welcomed opportunities to share their best practices and lessons learned with other HSHC grantees.

“ It is much easier to see things that other schools have done that have been successful and to build off of that. We get the best feedback when we meet with the HSHC groups to see what they’ve done and what they have struggled with.”

~HSHC grantee





“

Being team players and being able to work and collaborate together and not just doing it on their own shows [partners'] commitment. We all have different ideas and we have to piece them together in order for the picture to be complete.”

~HSHC Grantee



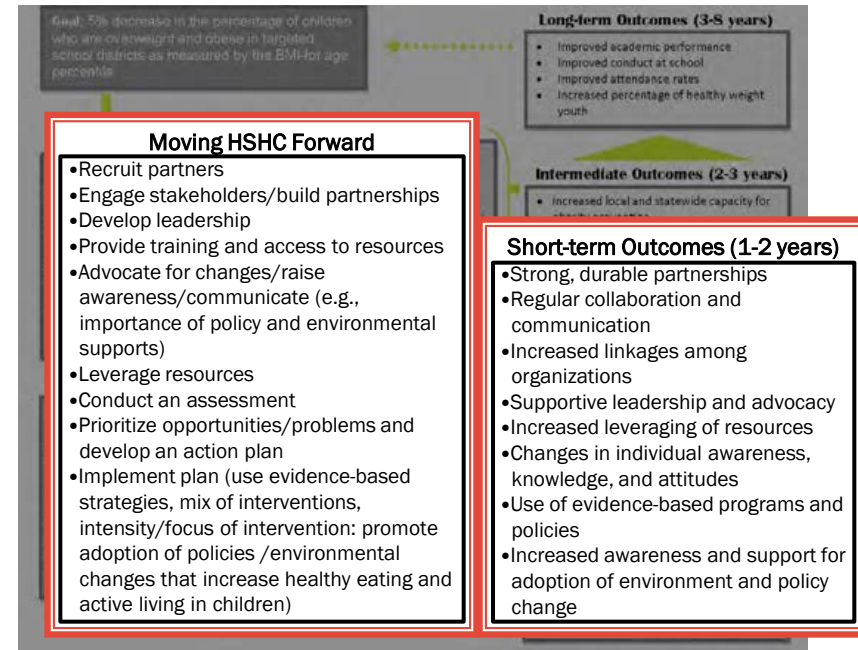
## Moving HSHC Forward

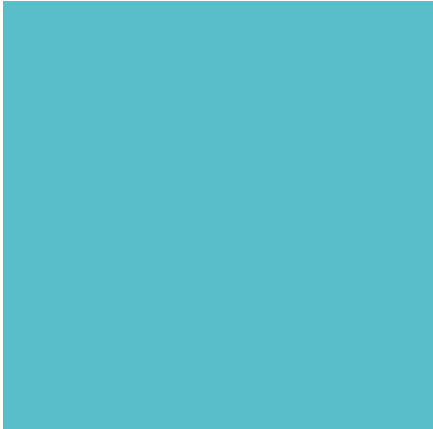
Creating an environment that is supportive of healthy behaviors is a long, complex, multi-step process. The process tends to be incremental and cyclical, involving multi-sector collaboration, leveraging of resources, and awareness raising about obesity and potential solutions. This section of the report presents the work to date to move HSHC forward across all participating counties, as well as, progress on the short-term outcomes.

“ When you believe in something, your ability to be a supporter of it is easier because it is something that you are practicing in your own life. I also believe that being team players and being able to work and collaborate together and not just do it on our own shows commitment in that we all have different ideas and we have to piece them together in order for the picture to be complete.”

~HSHC Grantee

Figure 6. Highlighting Moving HSHC Forward on Logic Model





“

Before [community organizations] have sometimes been at the same place doing the same thing but separately. Just being able to actually work together and meet and talk about these things has been huge...[HSHC] has helped us personally get to know each other better and that has been huge.”

~HSHC Grantee



Moving  
HSHC Forward

- **Collaboration**
- **Resources leveraged**
- **Programs and events**
- **Media and awareness**

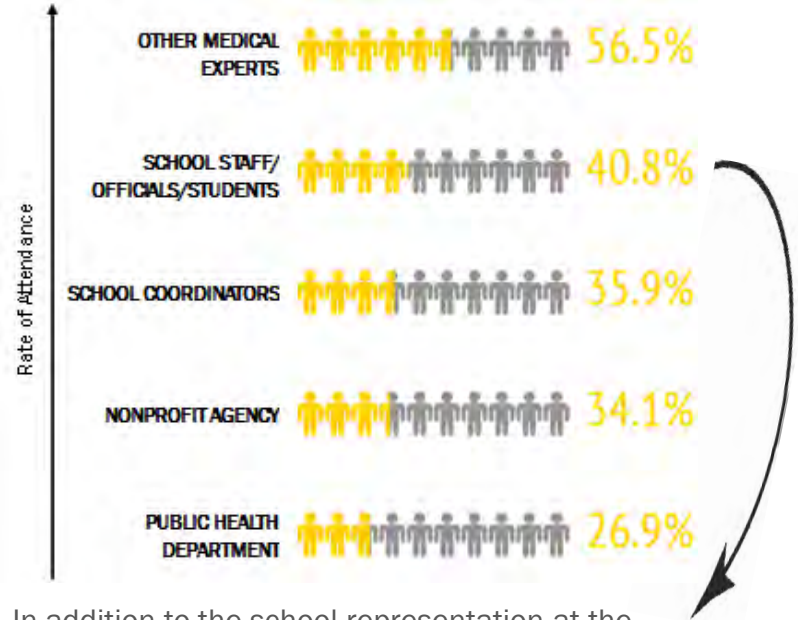
**Collaboration**

Community partnerships are key to implementing initiatives like HSHC. Working together, stakeholders from different sectors of the community can more easily identify and work towards changes that increase access to healthy food and physical activity where our kids live, learn, and play.

Meetings are one way to document collaboration. HSHC stakeholders participated in a number of meetings aimed at advancing the initiative.

**940** HSHC-related meetings were held with an average attendance of **9** school and community stakeholders. Agenda items included increasing awareness, garnering support, conducting school and community assessments, and planning HSHC activities.

In addition to the community coordinator being present nearly 100% of the time, a number of other partners routinely participated in HSHC-related meetings. The figure below shows the top five sectors involved in the community-based meetings.



In addition to the school representation at the community meetings, a number of individuals also met on a regular basis to discuss school-specific strategies. PE teachers (50.7%), principals and superintendent (49.5%), school nurse (38.1%), parent organizations and other family members (34.4%), and the community coordinator (23.3%) were most likely to be in attendance at these meetings.



“ We are so blessed to have this grant. Our school is the hub for our little community here. So it has been so fantastic to see the community support this and the increased involvement from parents and students. Kids are so excited and thrilled about physical activity...The grant has been such a fantastic resource for us to be able to provide that to them.”

~ HSHC Grantee





- Collaboration
- **Resources leveraged**
- Programs and events
- Media and awareness



**Resources Leveraged**

This year, grantees have been able to continue to leverage HSHC grant dollars with the help of volunteers who donated their time and organizations who have provided additional funds. In addition, grantees have been successful in receiving other grant dollars to improve healthy eating and increase physical activity.



**6,364** volunteer hours helped to move HSHC grantees forward including:

**75** hours to staff the Tiger Trail kick-off in Dent County.

**567** volunteer hours to help with the Walk-to-School series in Barry and Lawrence Counties.

**420** hours provided by Washington University students to assess early childhood programs in St. Louis County.

**\$796,036** was leveraged beyond the HSHC grant



**\$650,211** was physical activity-related

**\$145,825** was healthy eating-related

Some of the resources leveraged include:



**\$60,000** awarded to provide before-and- after school programs in Hickory County.



**\$16,000** worth of labor provided by Ameren Missouri to repair lighting in St. Louis City.



**\$13,651** awarded to Texas County through the USDA Fresh Fruit and Vegetable Program.

**\$15,000** donated for appliances and labor for Dunklin County's new community kitchen.



Moving  
HSHC Forward

- Collaboration
- Resources leveraged
- **Programs and events**
- Media and awareness

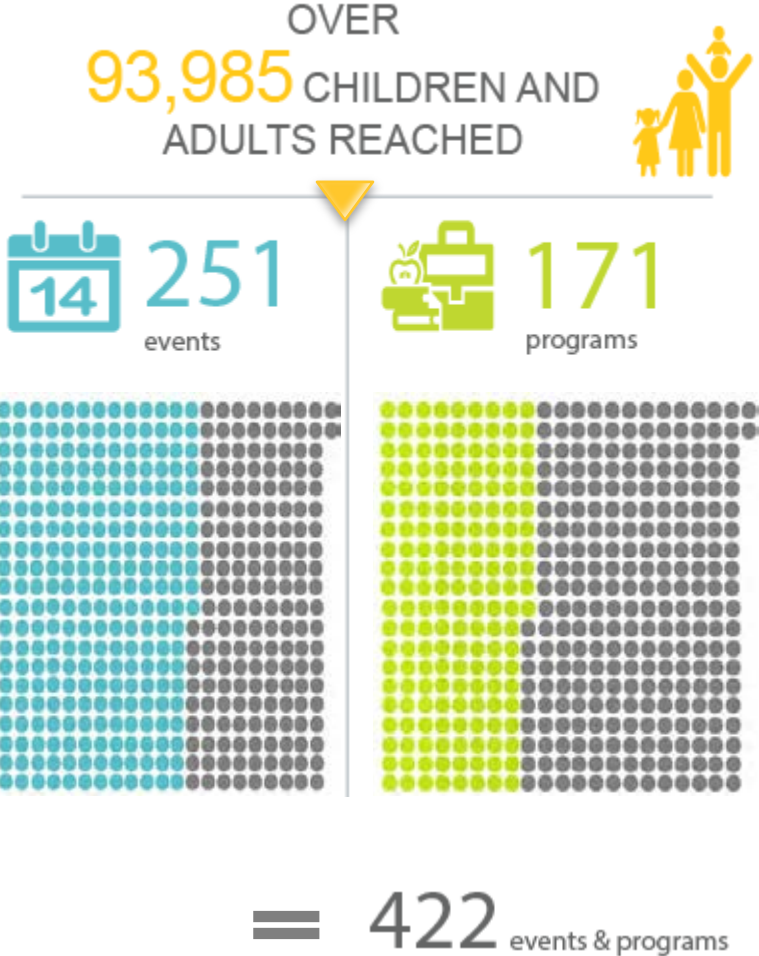


**Programs and Events**

In an effort to increase opportunities for, and knowledge of, physical activity and healthy eating, HSHC coalitions offered one-time events and multi-week programs.

“ We have a program starting next week with two of the churches... opening up that partnership with them has branched us off into a different audience of families and kids that we might not have been able to reach.”

~ HSHC Grantee



Some HSHC **events** were:



**Lil' Cutie Healthy Valentine's Day**

Elementary students in Hickory County were given a bag with mandarin oranges instead of candy for Valentine's Day.



**Tiger Trail Kickoff**

This event featured a ribbon-cutting ceremony for the new 1.5 mile Tiger Trail located in Dent County.

**Family Fun Walk**

As part of HSHC's "Healthy Push" in March, students and families in Pemiscot County were encouraged to walk for fun during parent teacher conferences.

**Perfect Attendance Event**

Students in Texas County with perfect attendance were rewarded with a Wii fit-and-dance party.

**Walk/Bike to School Day**

Students in Sullivan County to walk or bike to school.



**Award yourself with Good Health Day**

An inaugural event in St. Louis City for parents, students, staff, and the community to learn about physical activity, healthy eating, and HSHC.

Some HSHC **programs** were:



**Healthy Food Pantry**

Miller County community wellness distributed healthy food at the local food pantry.

**Taste Buddies Kitchen Club**

This was a five-week cooking program for 1<sup>st</sup>-8<sup>th</sup> grade students in Dunklin County with curriculum provided by the University of Missouri Extension.



**CATCH After School Program**

An after-school program in Barry/Lawrence County was implemented using the Coordinated Approach to Child Health (CATCH) curriculum to increase physical activity.

**NOCO Moo Do Kwan**

St. Louis County organized a martial arts program for children and their families.



**Traveling Apple Program**

Classrooms in Douglas County performed healthy activities and the winning class was awarded the "Traveling Apple" plaque and got fun & fitness time.

**Get Moo'ving Staff Wellness Challenge**

Randolph County staff competed to increase healthy eating and physical activity.



- Collaboration
- Resources leveraged
- Programs and events
- **Media and awareness**



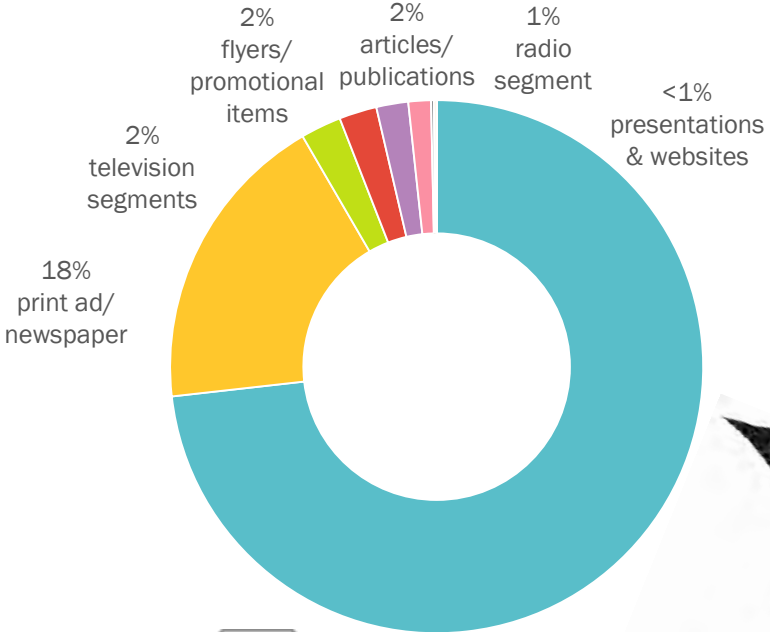
**Media and Awareness**

Media and awareness activities have several primary purposes: 1) increase familiarity of HSHC and available opportunities in the schools and communities; 2) strengthen residents’ understanding of the importance of regular physical activity and healthy eating; and 3) garner the support of diverse stakeholders (including residents and decision-makers) to ensure policy and environmental changes are made to support healthy behaviors.

**2,883,038** impressions/individuals\* reached overall through **246** media/awareness activities.

\*may not be unique individuals and does not include social media.

Media outlets included press releases, print ads, the newspaper, televisions segments, flyers, promotional items, articles, publications, radio segments, presentations, and websites.



**73%** of the impressions/individuals reached was through press releases.



**Page Likes** 4,217  
**Posts** 1,739



**Followers** 109  
**Tweets** 358





“

Communities have so many priorities that are so far above childhood obesity that this issue gets very little airtime and bandwidth in conversation. The only way you change or fix that is to create a larger number of people that care about the issue...[because] bandwidth is responsive to the number of constituents it represents.”

~ Statewide Partner

# HSHC Progress

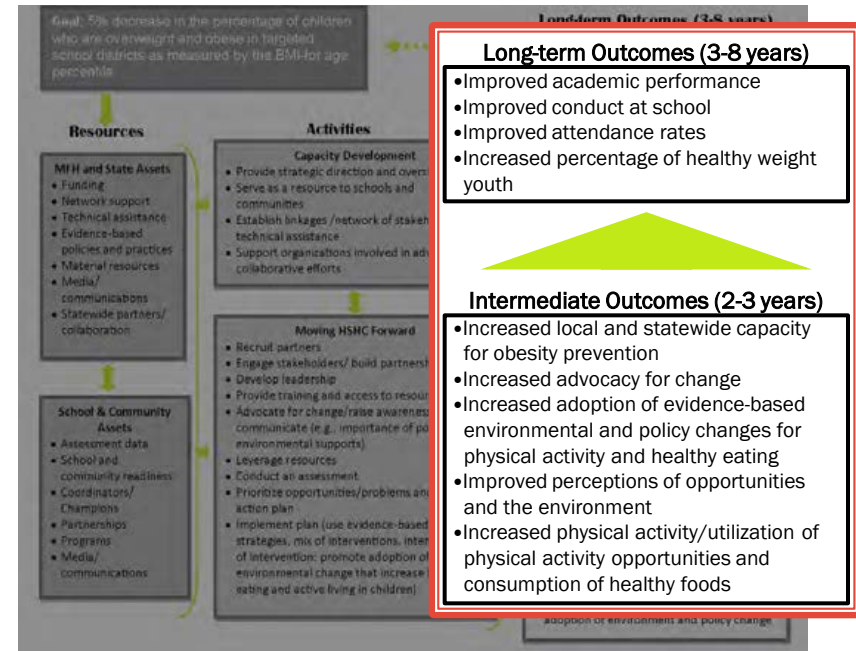
This section presents the progress of HSHC on intermediate and long-term outcomes:

- Practice, policy, and environmental changes.
- Reported perceptions and behaviors.
- Physical activity.
- Weight status.
- Misconduct at school.
- Student attendance.
- Academic performance.

“Funding communities to implement HSHC is increasing our momentum.”

~Statewide Partner

Figure 7. Highlighting Progress on Logic Model





- **Practice, policy, and environmental changes**
- **Reported perceptions and behaviors**
- **Physical activity**
- **Weight status**
- **Misconduct**
- **Attendance**
- **Academic performance**



**Practice, Policy, and Environmental Changes**

Where we live, learn, work, and play (including homes, schools, businesses, stores, parks, streets) affects our daily lives, including our health. Practice, policy, and environmental changes can make it easier for all individuals to make healthy choices. Although they can “reach” many people, these changes require many partners to work together and can take time to fully implement.

Policy and environmental changes can start in the form of a practice change (an improvement in the way things are done within an organization). While practice changes can support healthy behaviors, they can be temporary if they are not adopted and documented as a policy.

**126 PRACTICE, POLICY, AND ENVIRONMENTAL CHANGES WERE MADE**



**53**

practice changes



**17**

policy changes



**56**

environmental changes

HSHC practice, policy, and environmental changes include:

- Randolph County staff incorporated healthier foods into parties and celebrations and used more non-food rewards.
- St. Louis City piloted a “Grandparent Club” to recruit recess volunteers to supervise and promote activity.
- Healthier concessions were added in Dunklin County.
- Douglas County implemented recess before lunch.
- Miller County developed a joint use policy for the school playground to allow community use after school hours.
- Dent County passed a sales tax on commodities to generate revenue for the Parks & Recreation Department to be used for new playground equipment.
- A Barry and Lawrence County school district revised its school wellness policy.
- Schools in Texas County obtained salad bars to increase access to healthy food for students and staff.
- Playground equipment was installed in many counties to promote physical activity.
- Pemiscot County installed lights around the track to provide a safe space for community members to be active.



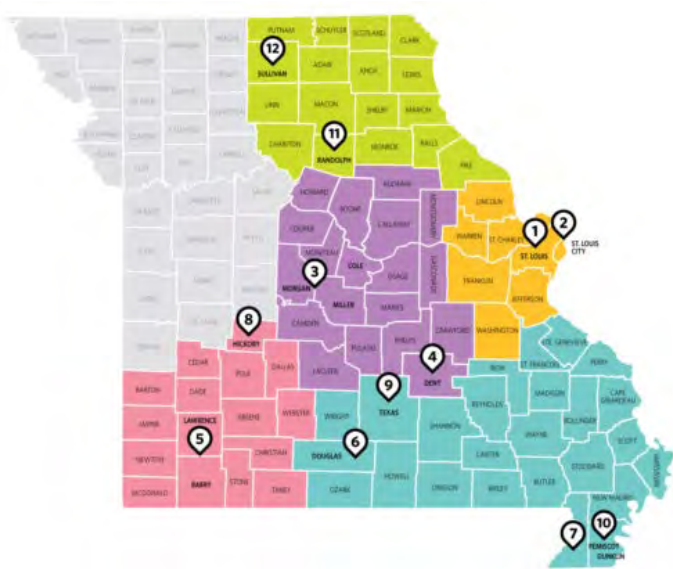
**Childcare**

According to the U.S. Census Bureau, preschool children in full daycare spend about 33 hours per week in childcare.<sup>2</sup> Engaging childcare centers to make practice, policy, and environmental changes to ensure children have access to healthy foods and opportunities for physical activity is an important part of the HSHC initiative.

The Missouri Department of Health and Senior Services is working with childcare facilities within many of the HSHC counties to implement Eat Smart & MOve Smart guidelines. Participating facilities conducted an assessment of current practices, set goals, and submitted action plans to increase opportunities for physical activity and healthy eating.

**18** childcare facilities participated\*

\*only includes childcare centers enrolled for a complete year



- 1 ST. LOUIS**  
Brighter Day & Preschool, Every Child Hope CCC, Jump Start Learning Center, Our Daycare & Learning Center, Parent University
- 2 ST. LOUIS CITY**
- 3 COLE + MILLER + MORGAN**  
ABC Academy & Lil Discovery Center
- 4 DENT**  
I Can Too LC
- 5 BARRY + LAWRENCE**  
Monett Head Start
- 6 DOUGLAS**  
Ava Head Start
- 7 DUNKLIN**
- 8 HICKORY**  
Hermitage School Student & Family Services and Peggy Hampton
- 9 TEXAS**  
Ozark Action Head Start
- 10 PEMISCOT**  
Apple Tree Preschool & Sky's the Limit Early Childhood Development
- 11 RANDOLPH**  
Checked Flag, Community Daycare Learning Center, and Tiny Treasures Learning Center
- 12 SULLIVAN**

2. Laughlin, Lynda. 2013. Who's Minding the Kids? Child Care Arrangements: Spring 2011. Current Population Reports, P70-135. U.S. Census Bureau, Washington, DC.



This year, participating childcare facilities have made improvements related to nutrition and physical activity that are in alignment with a number of Eat Smart and MOve Smart's advanced standards including:



### Healthy Eating

- A **whole grain food** is served at least two times per week for breakfast, lunch, and snack.
- **Fresh fruits or vegetables** are served for lunch at least two times per week.
- **Dark green or orange fruits or vegetables** are served at least four times per week.
- **Sweet snacks** are served two times per month or less.
- A **written policy regarding food for holidays and celebrations** is written, followed, and shared with parents.
- Children are **taught about food and nutrition** one or more times per week.
- A **written policy regarding food for holidays and celebrations** exists, is followed by all staff, and communicated to parents.
- **Posters, books, or games** are used to encourage healthy nutrition habits in every classroom.



### Physical Activity

- At least 30 minutes of **adult-led physical activity** are provided to preschool children daily.
- At least **five to six types of play equipment** are available.
- There is **available indoor play space** for all activities including running.
- Staff **incorporate physical activity into classroom learning activities** one or more times per day.
- A **written policy that addresses physical activity practices** exists, is followed by all staff, and communicated to parents.
- All staff receive **training on children's physical activity** at least one hour or more per year.
- Staff **supervise, verbally encourage, and often participate** in physical activity during preschool children's active play time.



“ I think the mindset is changing; people are paying more attention to being physically active and eating right and just living a healthy lifestyle in general, and they want that for their kids.”

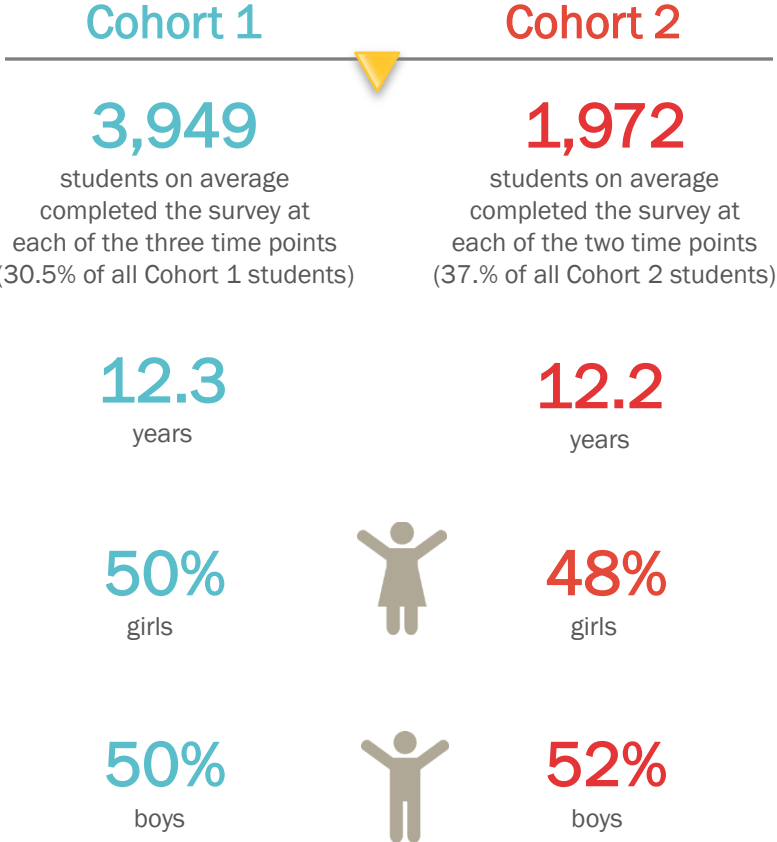
~HSHC Grantee



- Practice, policy, and environmental changes
- **Reported perceptions and behaviors**
- Physical activity
- Weight status
- Misconduct
- Attendance
- Academic performance

A survey was administered to 5<sup>th</sup>–8<sup>th</sup> grade students in fall 2013 (Cohort 1 baseline), spring 2014, fall 2014 (Cohort 2 baseline), and spring 2015. The purpose of the survey was to assess students’ 1) beliefs and perceptions of their physical activity and healthy eating opportunities and environments and 2) food consumption and physical activity behaviors. Cohort 1 and Cohort 2, 5<sup>th</sup>–8<sup>th</sup> grade survey results are presented for each survey period. The statements compare the baseline data with spring 2015.

### Characteristics of Survey Respondents



\*The cohorts are made up of all the schools that received grant funding at the same time.



Reported Perceptions - Cohort 1

The percentage of students who reported enjoying their PE class remained the same since Fall 2013



Fall 2013 Spring 2014 Spring 2015

A lower percentage of students reported there were places in their neighborhood to do physical activities in Spring 2015 compared to Fall 2013



Fall 2013 Spring 2014 Spring 2015

A lower percentage of students reported there were options after school to be physically active in Spring 2015 compared to Spring 2014



Spring 2014 Spring 2015

The percentage of students who reported there were options before school to be physically active remained the same since Fall 2014



Spring 2014 Spring 2015

The percentage of students who reported foods sold at events outside of school were healthy remained the same since Spring 2014



Spring 2014 Spring 2015

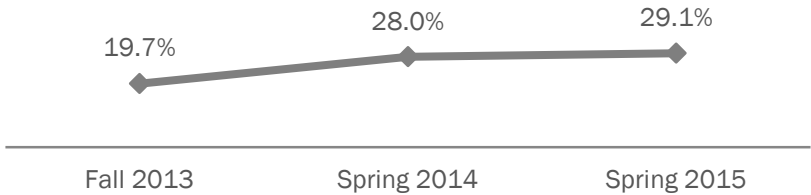


Reported Behaviors – Cohort 1

A slightly higher percentage of students reported **school breakfasts were healthy** in Spring 2015 compared to Spring 2014



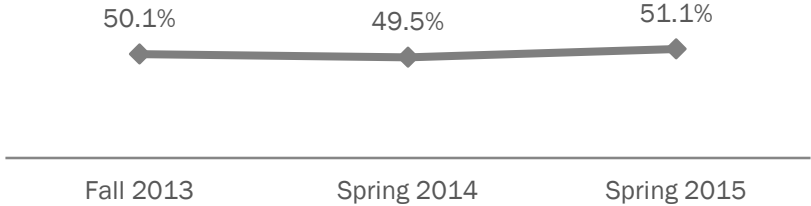
A higher of students reported **being active for a total of at least 60 minutes per day** in Spring 2015 compared to Fall 2013



The percentage of students who reported **school lunches were healthy** remained the same since Spring 2014



A slightly higher percentage of students reported **always being very active during PE class** in Spring 2015 compared to Fall 2013



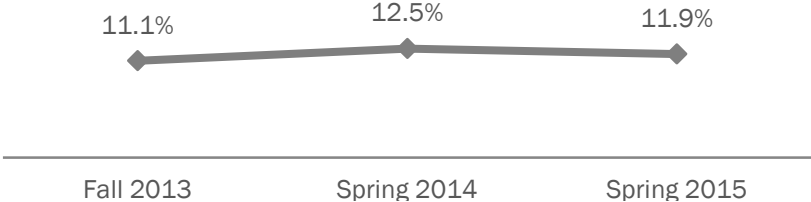
A higher percentage of students reported **foods sold in the vending machines were healthy** in Spring 2015 compared to Spring 2014



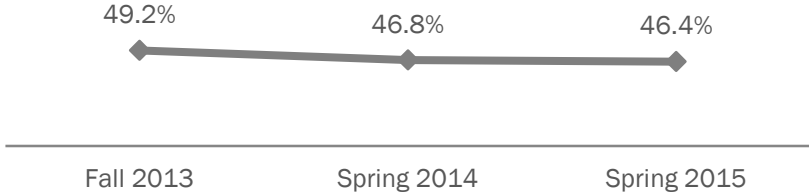


Too much **sedentary time** such as watching TV can be a health risk, even when children are physically active.<sup>3</sup>

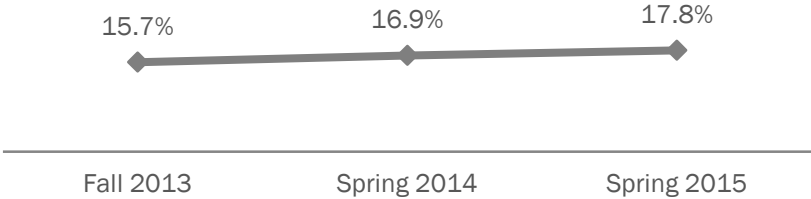
The percentage of students who reported **walking or biking to school every day** remained the same since Fall 2013



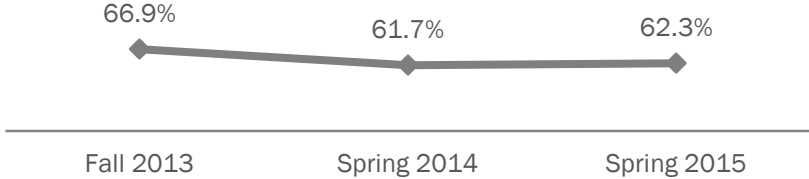
A lower percentage of students reported **3 or more hours of screen time in an average week day** in Spring 2015 compared to Fall 2013



A higher percentage of students reported **walking or biking home from school every day** in Spring 2015 compared to Fall 2013

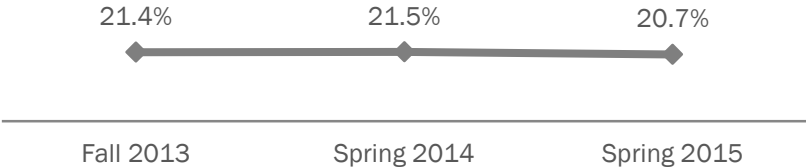


A lower percentage of students reported **3 or more hours of screen time on an average weekend day** in Spring 2015 compared to Fall 2013

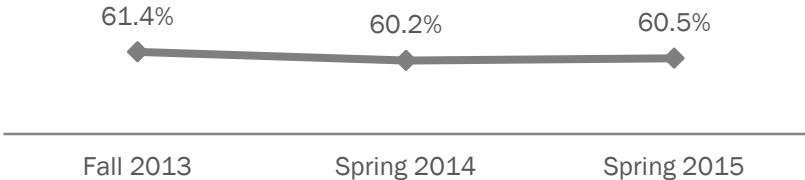


3. Hamilton M et al. (2007). Role of low energy expenditure and sitting in obesity, metabolic syndrome, type 2 diabetes, and cardiovascular disease. Diabetes 56(11):2655-2667

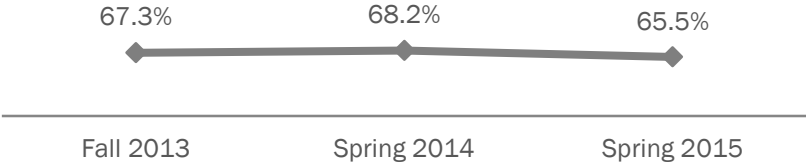
The percentage of students who reported **eating 5 or more servings of fruits and/or vegetables per day** remained the same since Fall 2013



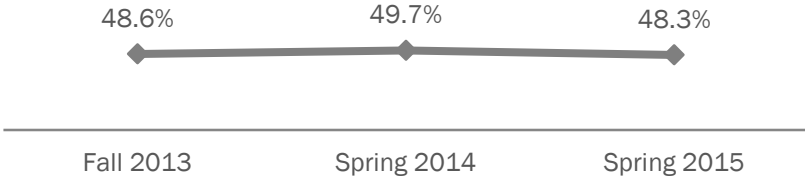
A slightly lower percentage of students reported **eating the school lunch every day** in Spring 2015 compared to Fall 2013



A lower percentage of students reported **drinking soda and/or a sugar-sweetened beverage 1 time or more per day** in Spring 2015 compared to Fall 2013



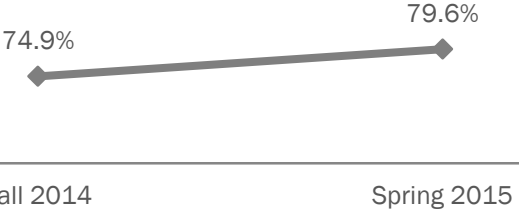
The percentage of students who reported **eating breakfast every day at home or school** remained the same since Fall 2013



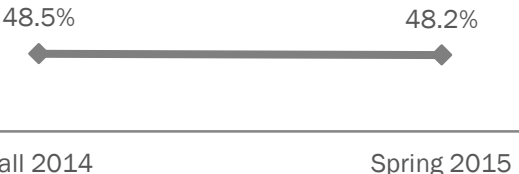


Reported Perceptions – Cohort 2

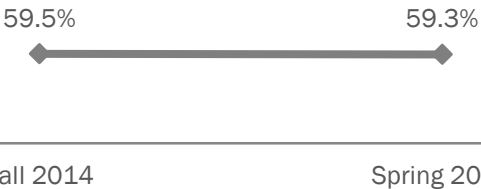
A higher percentage of students reported **enjoying their PE class** in Spring 2015 compared to Fall 2014



The percentage of students who reported **there were places in their neighborhood to do physical activities** remained the same since Fall 2014



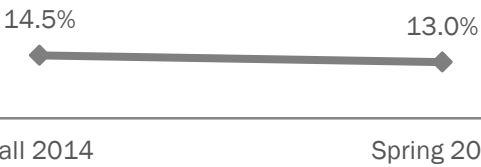
The percentage of students who reported **there were options after school to be physically active** remained the same since Fall 2014



A lower percentage of students reported **there were options before school to be physically active** in Spring 2015 compared to Fall 2014



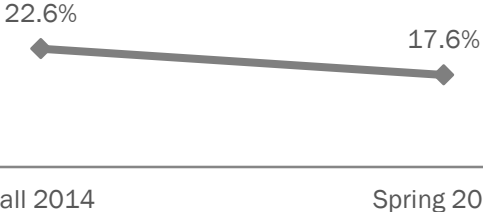
A lower percentage of students reported **foods sold at events outside of school were healthy** in Spring 2015 compared to Fall 2014



A lower percentage of students reported **school breakfasts were healthy** in Spring 2015 compared to Fall 2014



A lower percentage of students reported **school lunches were healthy** in Spring 2015 compared to Fall 2014



The percentage of students who reported **foods sold in vending machines were healthy** remained the same since Fall 2014



**Reported Behaviors – Cohort 2**

A higher percentage of students reported **being active for a total of at least 60 minutes per day** in Spring 2015 compared to Fall 2014



A higher percentage of students reported **always being very active in their PE class** in Spring 2015 compared to Fall 2014



A slightly higher percentage of students reported walking or biking to school every day in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015

A slightly higher percentage of students reported 3 or more hours of screen time on an average week day in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015

A higher percentage of students reported walking or biking home from school every day in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015

A lower percentage of students reported 3 or more hours of screen time on an average weekend day in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015



The percentage of students who reported **eating 5 or more servings of fruits and/or vegetables a day** remained the same since Fall 2014



Fall 2014 Spring 2015

A lower percentage of students reported **eating the school lunch every day** in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015

A higher percentage of students reported **drinking soda and/or sugar-sweetened beverages 1 time or more per day** in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015

A lower percentage of students reported **eating breakfast every day at home or at school** in Spring 2015 compared to Fall 2014



Fall 2014 Spring 2015



- Practice, policy, and environmental changes
- Reported perceptions and behaviors
- **Physical activity**
- Weight status
- Misconduct
- Attendance
- Academic performance



**Physical Activity**

Physical activity plays an important role in maintaining a healthy weight. Without daily physical activity, there is an increased likelihood that children will live less healthy lives than their parents. High-quality pedometers provide an accurate and objective measurement of physical activity among youth.<sup>4</sup> Beginning in fall 2014, all 5<sup>th</sup> graders wore a pedometer and logged their accumulated physical activity time and steps twice per day (every morning and right before the end of school). Students were asked to wear their pedometers all day for four consecutive days.



5<sup>th</sup> graders in Cohort 1 averaged **1 hour and 39 minutes of physical activity per day.**



Average steps per day among 5<sup>th</sup> graders in Cohort 1

4.Bravata DM, Smith-Spangler C, Sundaram V, et al. Using pedometers to increase physical activity and improve health: a systematic review. JAMA. 2007;298(19):2296-30



5<sup>th</sup> graders in Cohort 2 averaged **1 hour and 43 minutes** of physical activity per day.



Average steps per day among 5<sup>th</sup> graders in Cohort 2





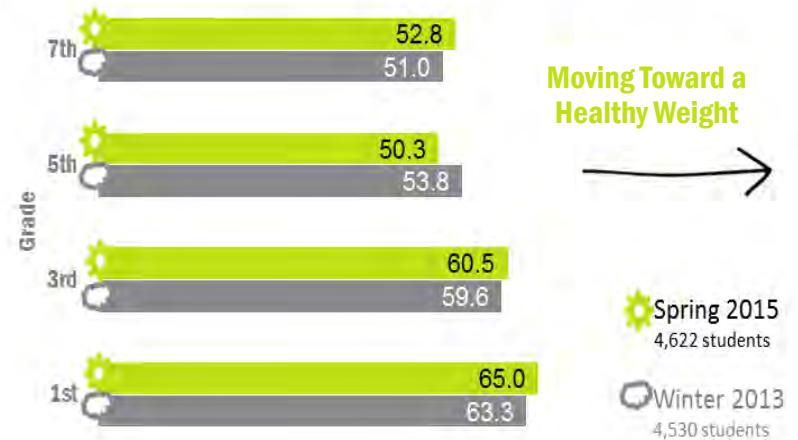
- Practice, policy, and environmental changes
- Reported perceptions and behaviors
- Physical activity
- **Weight status**
- Misconduct
- Attendance
- Academic performance



### Weight Status

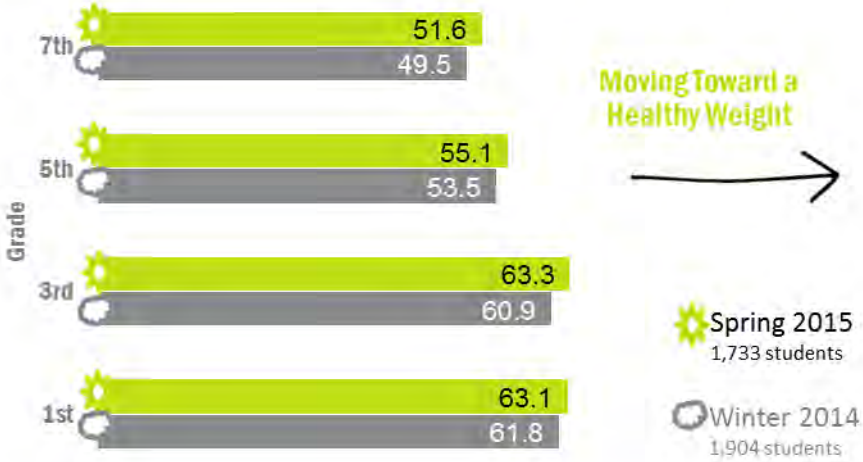
School coordinators (or school staff) take height and weight measurements for all 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, and 7<sup>th</sup> grade students twice a year (winter and spring). Data are used to calculate Body Mass Index (BMI), an indicator of body fat, which is expressed as a percentile relative to a child’s age and gender. The figure shows the percentage of Cohort 1 students who are at a healthy weight (between 5<sup>th</sup> to less than 85<sup>th</sup> percentile) in spring 2015 compared to winter 2013 (baseline).

A higher percentage of Cohort 1 students in the 1<sup>st</sup>, 3<sup>rd</sup>, and 7<sup>th</sup> grades had a healthy weight in Spring 2015.



The percentage of Cohort 1 students who were obese **decreased** from **23.4% to 22.7%** between winter 2013 and spring 2015.

A higher percentage of Cohort 2 students in all grades had a healthy weight in Spring 2015.

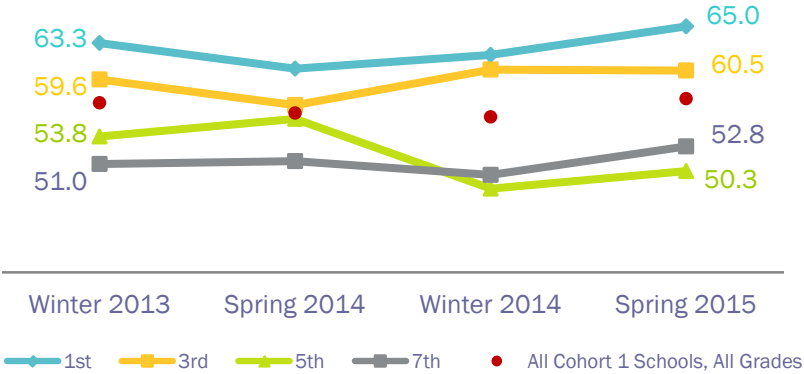


The percentage of Cohort 2 students who were obese decreased from 23.0% to 22.3% between winter 2014 and spring 2015.

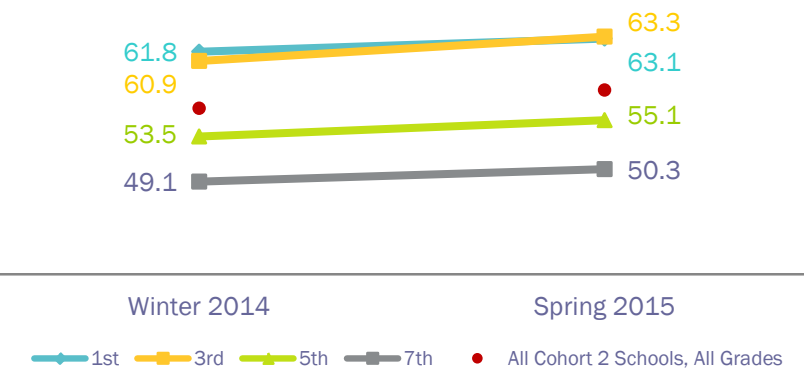




The percentage of Cohort 1 students who had a **healthy weight** increased among **1<sup>st</sup>, 3<sup>rd</sup>, and 7<sup>th</sup> graders** and decreased among **5<sup>th</sup> graders** over time



A **higher percentage** of all Cohort 2 students in **all grades** had a **healthy weight** in Spring 2015 compared to Winter 2014





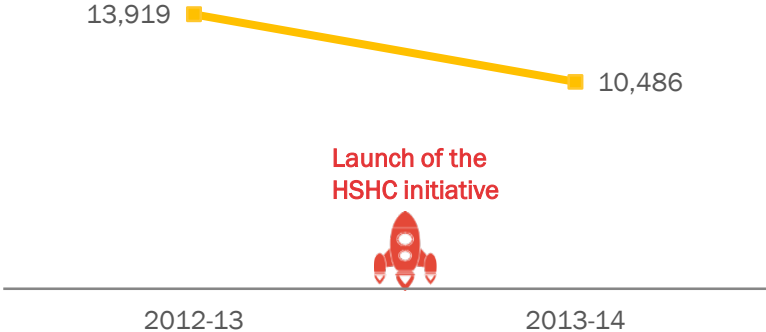
- Practice, policy, and environmental changes
- Reported perceptions and behaviors
- Physical activity
- Weight status
- **Misconduct**
- Attendance
- Academic performance



**Misconduct**

Evidence shows improvements in behavior when students are more physically active and eat healthy.<sup>5</sup> Each year, the evaluation team reviews and categorizes each misconduct episode into one of six categories: 1) alcohol, tobacco, substances, gambling; 2) individual-related misconduct (behavior whose consequences were confined to the offender); 3) defiance, disrespect, or disruptive (behavior whose consequences impacted others); 4) bullying or violent act (behaviors that threatened or harmed another individual’s physical and/or mental well-being); 5) vandalism or stealing; and 6) other. The figures show the total number of episodes per year and the breakdown by category for the 2013-2014 year.

The total number\* of Cohort 1 misconduct episodes (K-8) has decreased since the 2012-2013 school year (baseline)

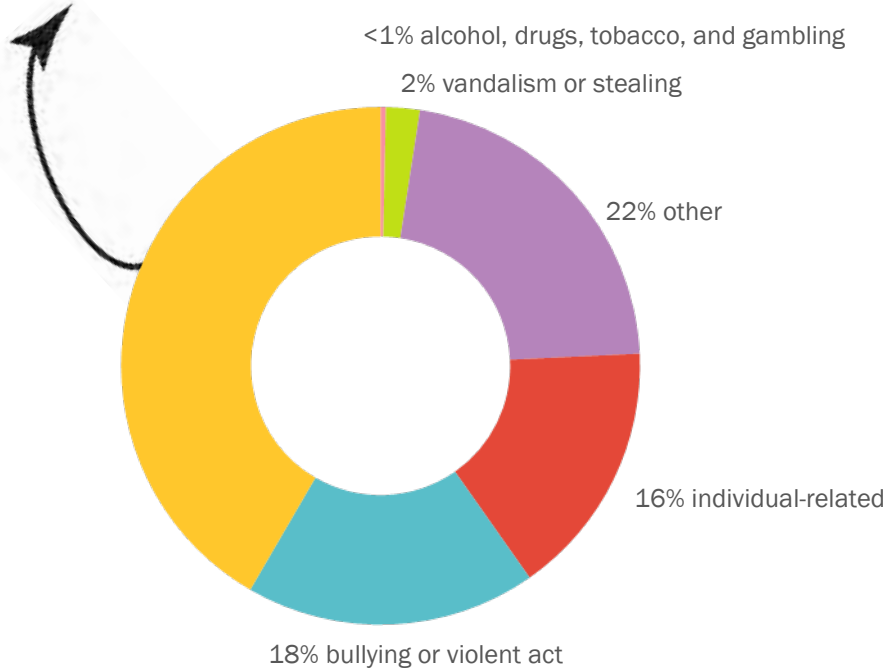


\*Kennett South Elementary School data was not submitted for the 2013-2014 year, so it has been excluded from baseline.

**4,972** total number of **Cohort 2** misconduct episodes (K-8) in 2013-2014 school year.

5. Centers for Disease Control and Prevention. Student Health and Academic Achievement Website. [http://www.cdc.gov/healthyyouth/health\\_and\\_academics/index.htm](http://www.cdc.gov/healthyyouth/health_and_academics/index.htm). Accessed July 2, 2015.

42% of the misconduct episodes for Cohort 1 and Cohort 2 in the 2013-2014 school year were related to being defiant, disrespectful, or disruptive.





- Practice, policy, and environmental changes
- Reported beliefs and behaviors
- Physical activity
- Weight status
- Misconduct
- **Attendance**
- Academic performance



Attendance

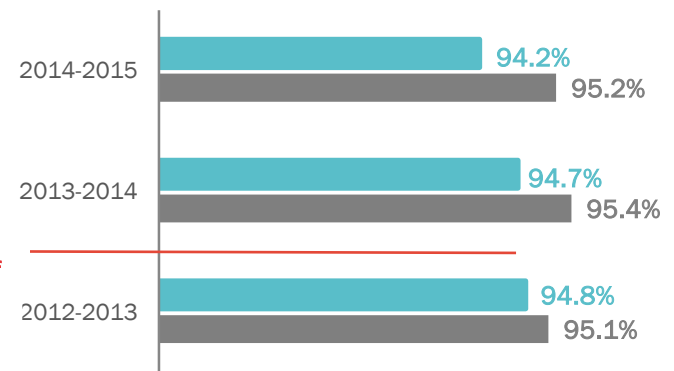
Research suggests that students who consume healthy meals at school and get more physical education and physical activity have reduced rates of absenteeism and tardiness.<sup>6, 7</sup> Attendance data are obtained from the Missouri Department of Elementary and Secondary Education<sup>8</sup> and presented as a percentage of the total number of hours attended.

6. Geier AB, Foster GD, Womble LG, et al. The relationship between relative weight and school attendance among elementary schoolchildren. *Obesity*. 2007;15(8):2157-2161.  
 7. Welk GJ, Jackson AW, Morrow JR, Haskell WH, Meredith MD, Cooper KH. The association of health-related fitness with indicators of academic performance in Texas schools. *Res Q Exerc Sport*. 2010;81(3 Suppl):S16-S23  
 8. Missouri Department of Elementary and Secondary Education.  
<http://mcde.dese.mo.gov/guidedinquiry/Pages/District-and-School-Information.aspx>

The Cohort 1 student **attendance rate has decreased slightly** since 2013-2014.



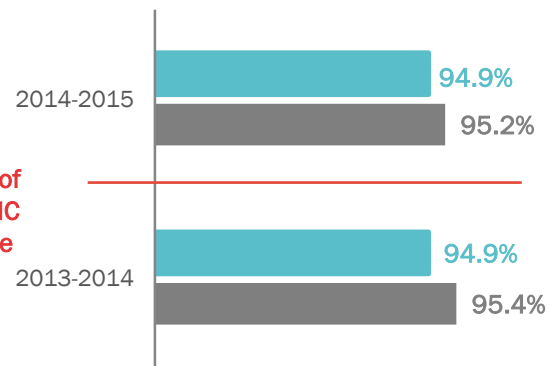
Launch of the HSHC initiative



The Cohort 2 student **attendance rate has remained consistent** over the past two years at 94.9%.



Launch of the HSHC initiative



■ Cohort attendance  
 ■ Missouri state attendance





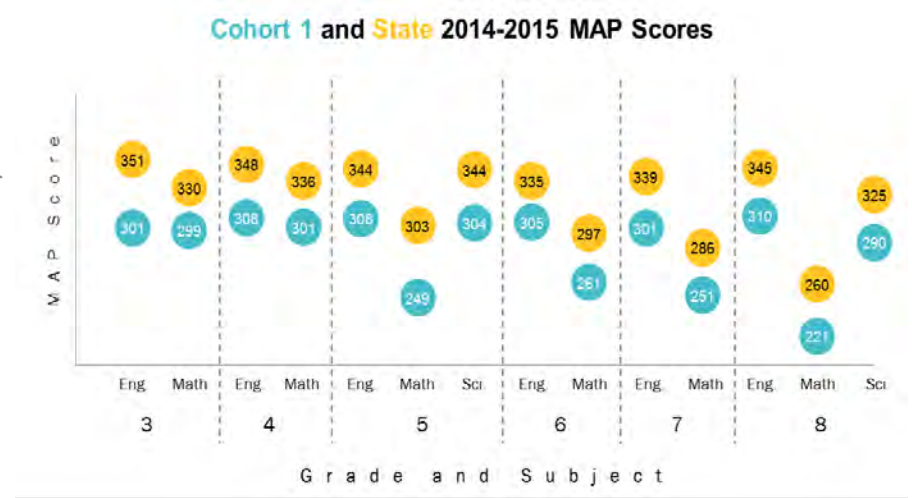
- Practice, policy, and environmental changes
- Reported beliefs and behaviors
- Physical activity
- Weight status
- Misconduct
- Attendance
- Academic performance



**Academic Performance**

Students who are physically active and consume healthy diets tend to have better grades and improved cognitive performance.<sup>9</sup> Benefits on academic performance can be both immediate and long-term. Shortly after engaging in physical activity, children are better able to concentrate on classroom tasks, which can enhance learning. Over time, this can impact academic performance.<sup>10</sup> The MO Assessment Program (MAP), which is a composite number that represents the performance of students in grades 3-8 was used as an indicator of academic achievement.<sup>11</sup> Data for the 2014-2015 school year are presented in this section.

Cohort 1 Schools' MAP scores were **lower than the state for all grades and subjects, but followed the general trend of the state MAP scores** during the 2014-2015 school year.



9. Centers for Disease Control and Prevention. Student Health and Academic Achievement Web site. [http://www.cdc.gov/healthyyouth/health\\_and\\_academics/index.htm](http://www.cdc.gov/healthyyouth/health_and_academics/index.htm). Accessed July 2, 2015.

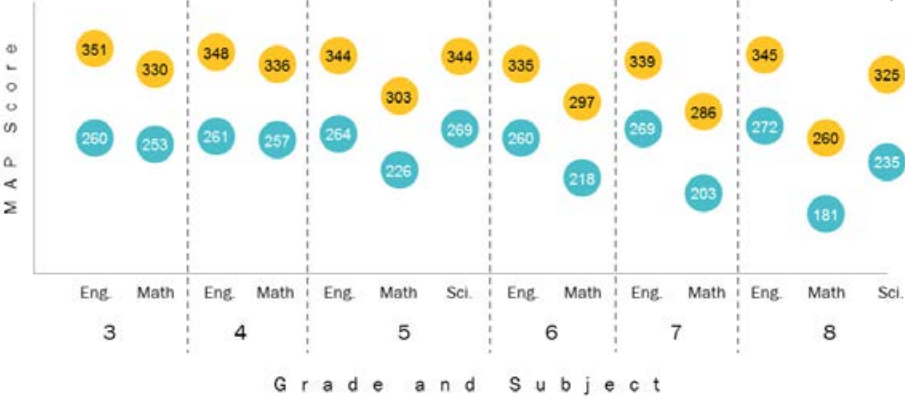
10. Castelli DM, Glowacki E, Barcelona JM, Calvert HG, and J Hwang.. Active Living by Design. Research Brief. Active Education: Growing Evidence on Physical Activity and Academic Performance. January 2015.

11. Data downloaded from: <http://mcids.dese.mo.gov/quickfacts/Pages/State-Assessment.aspx>. The Comprehensive Guide to the Missouri School Improvement Program is: <http://dese.mo.gov/sites/default/files/MSIP-5-comprehensive-guide.pdf>

Cohort 2 Schools' MAP scores were lower than the state for all grades and subjects, but followed the general trend of the state MAP scores during the 2014-2015 school year.



Cohort 2 and State 2014-2015 MAP Scores





“

A lot of people are reluctant to see change unless they have all the facts and information in front of them. Some things are kind of hard to promote because all you have are the ideas and the steps in place. Getting people to accept the ideas is the challenge. On the other hand, when they see stuff coming in, their eyes are slowly opened and it is slowly sinking in.”

~HSHC Grantee

# Successes and Summary

While there is still work to be done, there are positive signs of progress. This year, HSHC grantees celebrated the following **successes**:



A **land agreement** was signed with a church in Barry and Lawrence County to create a **community garden**.

Residents utilized the new **EBT machines** and **\$10 match** offered at the Hickory County **farmers market**.

**Healthier food options** in Texas County schools have **fewer teachers leaving** during the day to get lunch.



A Pemiscot County school district worked towards revising their **wellness policy**.

Two Dunklin County schools and four St. Louis County schools were awarded the **Bronze Award** in the Alliance for a Healthier Generation's **Healthier US School Challenge**.



All 3<sup>rd</sup> and 4<sup>th</sup> grade students in one Barry and Lawrence County school district **met or exceeded their overall fitness level** this spring!

Teachers in Douglas County reported improved **classroom behavior** as a result of **physical activity breaks**.

**99 people signed up** for a **step challenge** in Miller County in just three days.



## Summary

HSHC coordinators have begun to mobilize a large partner base including schools, community-based organizations, and childcare centers to identify and work towards changes that increase access to healthy food and physical activity. Together, partners have generated resources to support and sustain HSHC, communicated through multiple channels to raise awareness about the collaborative efforts and strategies, implemented numerous events and programs, and made practice, policy, and environmental changes that support healthy behaviors.

# Acknowledgments

This report was prepared by:

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## **Other Contributors**

A special thanks to the Healthy Schools Healthy Communities grantees, statewide partners, and technical assistance providers – Alliance for a Healthier Generation, PedNet, Trailnet, Missouri Department of Health and Senior Services, and GMMB – and Missouri Foundation for Health (MFH) for their dedication and participation in the evaluation. The quotes presented throughout the report were obtained during evaluation interviews with HSHC grantees and statewide partners. Thanks to the grantees and their partners for sharing the highlighted photos.



JSI Research & Training Institute, Inc.



*Missouri* Foundation  
for Health



