

## The Center for High Impact Philanthropy

School of Social Policy & Practice | University of Pennsylvania  
In collaboration with alumni from the Wharton School

# Donor Strategies to Prevent Childhood Obesity:

## Lessons from Greater Philadelphia



## ABOUT THIS GUIDE

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This project was made possible through a grant awarded to Philanthropy Network Greater Philadelphia on behalf of the Greater Philadelphia Food Funders from the Convergence Partnership at the Tides Foundation. The partnership is dedicated to achieving the vision of healthy people living in healthy places. The national grant was matched with support from six local funders: Claneil Foundation, Delaware Valley Regional Planning Commission, The Philadelphia Foundation, The Leo & Peggy Pierce Family Foundation, Pottstown Area Health and Wellness Foundation, and St. Christopher's Foundation for Children.

## A COLLABORATION AMONG:

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## ABOUT THE CENTER FOR HIGH IMPACT PHILANTHROPY

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Founded in 2006, the Center for High Impact Philanthropy has emerged as a unique and trusted authority for donors around the world who are seeking to maximize the social impact of their funds. In areas as diverse as closing the achievement gap in the U.S., providing basic needs to those most affected by the recent economic downturn, effective disaster relief after Haiti's earthquake, and major global public health issues such as malaria and child mortality, the Center translates the best available information into actionable guidance for those looking to make the greatest difference in the lives of others. Put simply, success to us means moving more money to do more good.

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## WHY CHILDHOOD OBESITY?

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### What is the scope of the problem?

Childhood obesity has more than doubled in children and tripled in adolescents in the past 30 years.<sup>1</sup> In 2010, more than one third of children and adolescents were overweight or obese.<sup>2</sup> Recent news of stabilization or declines in obesity rates in certain populations is encouraging, and may be an early signal of effective prevention efforts starting to take root. However, the reality remains: childhood obesity among the general population is still alarmingly high, and even higher still in ethnic minority and low-income communities where multiple factors make it more difficult to address.<sup>3</sup>

### Why invest in childhood obesity prevention now?

Obesity exacts a tremendous price on overweight children, leading to serious chronic health conditions, disability, and psychological suffering.<sup>4</sup> The effects of obesity are not just felt on the individual, however. Society suffers considerably from the long-term impact of those children becoming an overweight population. Obesity is associated with healthcare costs that average about 40 percent higher than those for normal weight individuals.<sup>5</sup> Obese workers miss more days of work and cost employers more in medical and disability claims as well as workers compensation claims. Overall, obesity-related direct and indirect economic costs exceed \$100 billion annually, and the number is expected to grow.<sup>6</sup> By working to prevent children from becoming obese, donors help society avoid these economic, social, and personal costs.

**Given the human suffering, societal burden, and economic cost at stake, the question is not WHETHER to invest in childhood obesity prevention, but HOW?**

## WHAT'S IN THIS GUIDE?

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In this guide, we present:

- *Three high-level strategies* that represent critical levers for preventing the childhood obesity epidemic;
- *An analysis of five obesity prevention approaches implemented nationwide, with examples of their implementation in Philadelphia*, a city that may serve as a national model due to its decreases in childhood obesity among some of the most affected populations. Within each approach, we analyze an exemplary organization, its impact, costs, and cost-per-impact;
- *A list of additional promising approaches, as well as examples of organizations implementing those approaches;*
- *An overview of treatment opportunities* for overweight and obese children; and
- *A case study* detailing particular factors and characteristics that may help explain Philadelphia's decrease in childhood obesity, and may highlight areas for improvement in other cities across the U.S.

As always, we hope this guide helps donors move from good intentions to high impact.

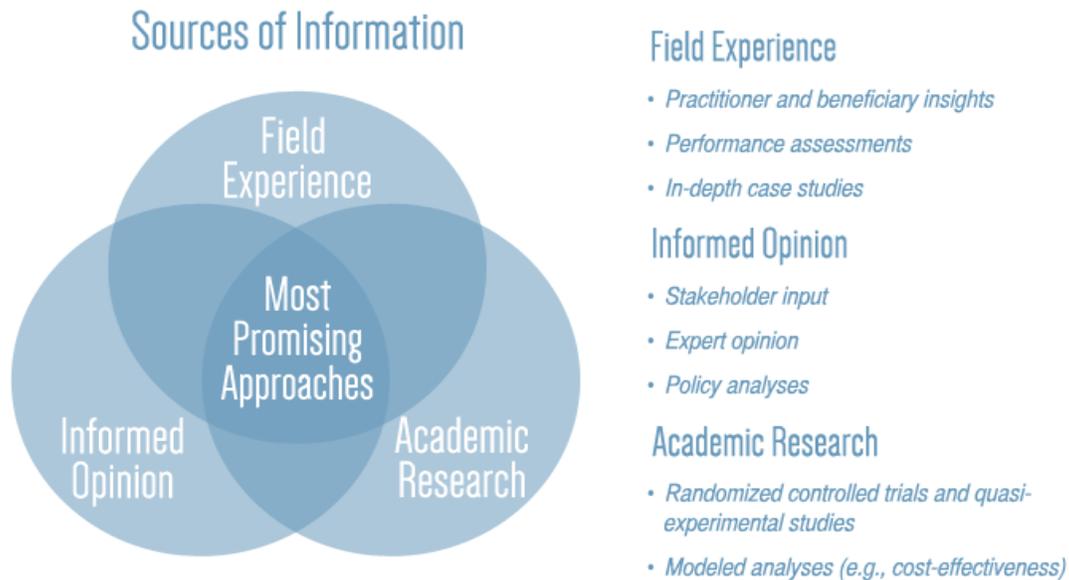
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## METHODOLOGY

To provide smart, practical guidance to donors, the Center synthesizes the best available information from three domains: research, informed opinion, and field experience. By considering evidence from these three sources, we seek to leverage the strengths while minimizing the limitations of each.

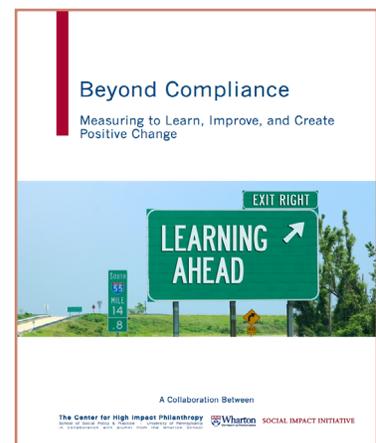


Our multidisciplinary team collected the best available information from three sources: 1) research via a literature review of over 30 articles and monographs as well as a web scan and analysis of over 50 publicly available web-based resources; 2) informed opinion via interviews with experts, acclaimed researchers, and a select subset of funders (e.g. the Robert Wood Johnson Foundation and the National Institutes of Health); and 3) field experience solicited from over 20 leading practitioners of obesity prevention and treatment.

In reading this guide, it is helpful to remember that childhood obesity is a relatively new phenomenon with a limited evidence base as compared to other longstanding public health issues such as smoking. While data exist on individual pieces of the puzzle—e.g. the link between walkable streets and increased exercise, and the link between exercise and decreased obesity—few, if any, programs have been operating long enough or at the capacity and scale needed to conclusively link a particular program to the prevention of child obesity.

Given that context, it is not surprising that we found no models with a detailed history of rigorous impact assessment. However, by drawing on the data that do exist, in combination with informed opinion and feedback from those on the ground, we found multiple promising practices worth considering. These strategies are consistent with the field’s current understanding of childhood obesity and based on successes achieved in related public health efforts.

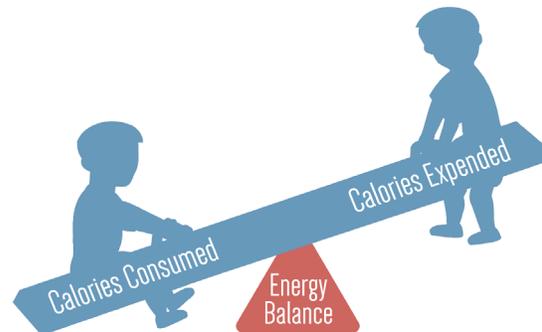
For those donors interested in learning more about how to ‘right-size’ expectations when evaluating available evidence, we suggest referring to our publication [\*Beyond Compliance\*](#), available on our website.



## HIGH-LEVEL STRATEGIES FOR PREVENTION

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With the rise in obesity levels in recent years, much attention has been focused on understanding factors that cause obesity. At the highest level, the direct cause of obesity is an energy imbalance: more calories consumed than expended.



### A simple equation that's tough to solve

Ensuring that calories consumed are equal to calories expended is a simple equation. However, maintaining that balance can be tough, especially for individuals living in low-income, under-resourced communities. While obesity was once thought to be little more than an unfortunate failure of will and self-restraint, it is clear that the epidemic has much deeper and more complex roots. Transportation, physical environment, access to healthy foods, advertising, and education all play a role in an individual's ability to maintain her energy balance. These factors are even more complex for children, who often have little or no control over choices that affect their health. Children from low-income families experience especially significant barriers to maintaining their energy balance and remaining healthy.

### How donors can help

Donors can help bring an end to the childhood obesity epidemic by implementing one or more of the following interlocking prevention strategies:

#### Start early (earlier than you think)

Early-life influences, beginning in the womb and continuing through the first few years of life, affect the trajectory of weight gain and body mass throughout a person's life. Low-income mothers and their families often lack access to quality pre- and post-natal care and the information and resources that facilitate healthy choices. By investing in programs that start early, donors can set children on the right path to leading healthy lives. Example approach analyzed:

- *Provide support and education to pregnant and new mothers through nurse home visitation (page 8)*

#### Increase access to healthy foods and physical activity

To ensure healthy caloric intake, kids must have access to healthy foods. To ensure these calories are expended, kids must have opportunities for physical activity. Unfortunately, children in low-income communities often have less access to healthy foods and fewer safe places to play and exercise. For example, household food is often purchased at the neighborhood convenience store, which offers few fresh items, and nearby open play-spaces, when they exist, are often unsafe or in disrepair. By investing in programs that increase access to healthy foods and physical activity

options, donors can ensure that low-income children have as equal an opportunity to lead healthy lifestyles as their peers in wealthier communities. Example approaches analyzed:

- *Increase availability of fresh fruits and vegetables in stores serving low-income communities (page 12)*
- *Improve health policies and practices of schools to include physical activity offerings (page 16)*

### **Enable healthy eating and physical activity choices**

Even with access to healthy food and physical activities, for many children, it can seem like an uphill battle to make healthy choices:

- Families may lack knowledge of how to maintain a healthy lifestyle, particularly in communities that lack resources like gyms, pools, community centers, playgrounds, and where public spaces are unsafe or in disrepair;
- Television, media, and exposure to other mass marketing can have a profound influence toward glamorizing less healthy options; and
- Positive influences that encourage good nutrition and physical activity are few and far between.

By investing in programs that enable healthy choices, donors can children learn about and adopt healthy habits that will stay with them throughout the course of their lives. Example approaches analyzed:

- *Provide comprehensive nutrition education that promotes healthy eating habits at the individual, family, and school levels (page 20)*
- *Support developmentally focused sports programs that boost confidence and cultivate lifelong healthy physical activity habits (page 24)*

### **The strategies in action**

In the following section, we explore these strategies by discussing specific promising approaches in which donors can invest nationwide. Beneath each featured approach, we profiled an exemplary model — an organization implementing the approach in the Greater Philadelphia region, which has seen decreases in childhood obesity in several demographic groups, including some of the most affected populations like African-American males, Hispanic females, and low-income youth.



## START EARLY (EARLIER THAN YOU MIGHT THINK)

Early life influences can have a profound effect on children's health and development, including their likelihood of maintaining a healthy weight. A mother's health choices while pregnant are the earliest influences of all, presenting an opportunity to give children a healthy start from the very beginning. Helping pregnant mothers avoid smoking and maintain healthy weight and blood sugar levels during pregnancy can improve fetal nutrition and decrease the likelihood of obesity as the baby grows. Factors after birth can play a role as well. Infants who don't sleep enough or who gain weight too rapidly are at a higher risk of obesity later in life, and breastfed infants may have a lower risk. Programs that support mothers during pregnancy and after birth can take advantage of this critical window for risk reduction, potentially stopping obesity before it starts.<sup>7</sup>

**PROMISING APPROACH: Provide support and education to pregnant and new moms through nurse home visitation**

### **Exemplary model: Nurse Family Partnership**

The nonprofit Nurse-Family Partnership (NFP) targets low-income mothers pregnant with their first child. Participating mothers are partnered with a registered nurse early in pregnancy, and receive in-home support and guidance through their child's second birthday. Through the NFP model, mothers receive support for key pregnancy behaviors shown to reduce their children's risk for obesity: good nutrition to manage weight and blood sugar, prenatal checkups to ensure that mothers with high blood sugar get appropriate medical treatment, and smoking cessation. After the child's birth, NFP nurses coach parents in providing care for their newborn, infant, and toddler. Coaching can include breastfeeding support and strategies to manage an infant's weight and sleep patterns appropriately, potentially reducing their risk for obesity later in life.



### **What's the impact?**

Since NFP was not originally designed as an obesity prevention program, evidence of the model's direct effect on childhood obesity is still developing. However, the program has demonstrated the ability to change obesity-linked behaviors in pregnant women and new mothers. At one site, participating mothers reduced their smoking by an average of 2.5 cigarettes per day, and increased the percentage of recommended nutrients in their diet by four percentage points.<sup>8</sup> Participating mothers also demonstrate healthier behaviors after the birth of their children. A 2008 evaluation found that children of participating mothers were 32% less likely to visit an emergency room in their second year of life.<sup>9</sup> In Pennsylvania in 2012, 65 percent of low-income mothers participating in Nurse-Family Partnership initiated breastfeeding, compared to 42 percent of mothers receiving support from Women, Infants, and Children (WIC), a federal supplemental nutrition program for low-income women with children, a population similar to Nurse-Family Partnership's key demographic.<sup>10</sup>

### **What does it cost to implement?**

The costs of providing Nurse-Family Partnership vary by location due to differences in regional cost-of-living. An

analysis by the Washington Institute for Public Policy estimated the per-family cost for two-year program delivery in Washington State to be approximately \$9,600 in 2011 dollars.<sup>11</sup> NFP is funded through a combination of public and private revenue: as of 2012, philanthropic contributions from foundations and individual donors made up 38% of total funding. These contributions often support capacity building projects, such as data system and reporting improvements, and ongoing program research and evaluation.<sup>12</sup>

### **Cost-benefit:**

Studies have found the program provides an excellent return on investment for society: For every one dollar invested, the program returned \$5.70, providing a net benefit to society of over \$34,148 per high-risk family served. NFP's significant net benefit comes from the positive impacts it has on children, families, and society over time. For example, children whose mothers participate in NFP have shown a 67% reduction in behavioral and intellectual problems at age six, and a 59% reduction in arrests by age fifteen. In addition, the program demonstrated an 83% increase in labor force participation among mothers.<sup>13</sup>

### **Take action:**

NFP's [online mapping tool](#) is helpful in locating programs and their local implementing partners. To find other home visitation and outreach programs in your area, contact your local community health center or public health department, which can identify good local nonprofits.

### **Enabling factors**

In the late 1990s, the Commonwealth of Pennsylvania made a strategic decision to direct funds into research-based programming to provide a comprehensive system of proven prevention and intervention services targeting its most vulnerable citizens. As part of this plan, in 2001 the Commonwealth made a \$20 million, four-year investment to replicate Nurse-Family Partnership. This investment has positioned thousands of Pennsylvanians toward a stronger start in life and may help to explain some of the state's positive progress in reducing childhood obesity.



*Image provided by Nurse-Family Partnership.*

Below is a list of other organizations implementing our featured approach to “Starting Early.” While we have not analyzed their work in as much detail as the exemplar model, they use similar practices to serve pregnant and new moms.

| Featured Approach  | Examples in Greater Philadelphia  |
|--|---|
| Provide support and education to pregnant and new moms through nurse home visitation | <a href="#">Maternity Care Coalition</a> provides community-based home visitation to support and educate pregnant and new moms through their MOM Mobile and Cribs for Kids programs.      |
|  | <a href="#">Philadelphia Healthy START</a> provides case management, home visiting, and health education to help low-income pregnant women get the care they need to have healthy babies. |

Below is a list of other promising approaches for “Starting Early,” along with examples of organizations implementing these approaches in the Greater Philadelphia region. This list includes organizations whose models are consistent with what we currently understand can work in addressing childhood obesity. All are established nonprofits addressing the issues and capable of accepting philanthropic support.

| Other Promising Approaches  | Examples in Greater Philadelphia  |
|---|---|
| Build stronger connections between families and health care professionals who can provide education and resources for healthy development | <a href="#">Healthy Steps for Young Children (Lehigh Valley)</a> in Allentown, PA provides core services for developing infants and toddlers to first-time pregnant women and families.   |
| Encourage employers to support and promote breastfeeding  | <a href="#">Breastfeeding Friendly Philadelphia</a> is a partnership between Get Healthy Philly and Maternity Care Coalition that helps employers custom-design and implement workplace lactation programs including breaks for breastfeeding mothers, a private lactation space, and a lactation policy that is communicated to all staff. |
| Provide comprehensive nutrition education to preschool students and their families  | <a href="#">The Food Trust’s Preschool Initiative</a> provides nutrition education to preschoolers, preschool staff, parents, and caregivers to build healthy lifelong habits and encourage young children to make healthy choices.   |
|   | <a href="#">St. Mary Medical Center’s Kinder Connection (Bucks County)</a> is a six-week program for children ages 3-5 and their families that teaches healthy eating and encourages physical activity.   |

| Other Promising Approaches  | Examples in Greater Philadelphia  |
|---|---|
| <p>Advocate for improved health care and resources for low-income mothers</p> | <p><a href="#">Nurse Family Partnership</a>'s model has a proven record of effective outcomes, and uses this research to advocate for preventive interventions through evidence-based public policy.</p>  |
|   | <p><a href="#">Maternity Care Coalition</a> advocates at the local, state, and federal levels on issues of maternal and child health and early education and care. Maternity Care Coalition also aims to raise community awareness of these issues.</p> |

## INCREASE ACCESS TO HEALTHY FOODS

Nearly 30 million people in the U.S. live in low-income areas with limited access to supermarkets.<sup>14</sup> Without easy access to supermarkets, people in a “food desert” have to travel to purchase healthy food options, a trip that many low-income residents cannot afford. And food deserts are not just a problem for the urban poor. Nearly 8% of the rural population in the U.S. lives in communities lacking access to healthy food options.<sup>15</sup> The residents of these food deserts often turn to fast food and neighborhood convenience stores, which are more accessible but offer fewer nutritious foods.

Increasing access to healthy foods in underserved communities can have an impact on health outcomes. Studies suggest that living closer to healthy food retail outlets is associated with better eating habits as well as decreased risk for obesity and other diet-related diseases.<sup>16</sup>

### **PROMISING APPROACH: Increase availability of fresh fruits and vegetables in stores serving low-income communities**

#### **Exemplary model:** *The Food Trust’s Healthy Corner Store Initiative*

Based in Philadelphia, The Food Trust has become a nationally-recognized nonprofit that aims to ensure access to nutritious food and information to make healthy decisions. The Food Trust piloted its Healthy Corner Store Initiative in 2004, and partnered with the Philadelphia Department of Public Health in 2010 to expand the model to more than 660 corner stores. Choices at corner stores are often limited to packaged food and very little fresh produce. Children frequently purchase snacks at corner stores before and after school, and in Philadelphia, student purchases average more than 350 calories per store visit.<sup>17</sup> 29% of Philadelphia students shop at corner stores twice a day, five days a week, consuming almost a pound’s worth of additional calories each week.<sup>18</sup>

The program provides corner store owners with financial incentives and equipment to sell and market healthy options, links them with fresh food suppliers, and offers



training and technical assistance on making healthy options profitable. The initiative also includes educational goals, and each store is equipped with signage that helps shoppers learn about the nutritional value of the foods they consume. The Food Trust has expanded the program into Camden, New Jersey and Norristown, Pennsylvania, and has worked to found and convene the National Healthy Corner Store Network of similar programs across the country.

#### **What’s the impact?**

89% of the 660 enrolled corner stores introduced four or more healthy products. Many stores introduced far more than the required four new healthy products. Across the network, the average per store was 46 new healthy products, more than four times the minimum number of new healthy products required by the program managers. 89% of storeowners received at least one business skills training on how to introduce and maintain healthy changes.<sup>19</sup> The result: Philadelphia families shopping at enrolled corner stores now have access to approximately 27,000 additional healthy products citywide.<sup>20</sup>

The Food Trust has partnered with the Philadelphia Department of Public Health and Temple University's Center for Obesity Research to conduct studies on the impact of introducing healthy options into low-income neighborhoods. Results have yet to be released.

### What does it cost to implement?

Using data provided by The Food Trust, we estimate it costs approximately \$1,000 per corner store participating in the basic program. Costs include management time spent providing technical assistance to stores on how to introduce at least four new healthy foods into their store. Costs also include marketing materials and training for each store owner on business management and the profitable sale of healthy perishable foods and materials. Related programs at The Food Trust also exist to further increase availability of perishable items within corner stores, including a program to support mini-conversions of stores with more shelving and refrigeration.<sup>21</sup>

### Cost-per-impact:

Based on an evaluation report conducted by Temple University and University of Pennsylvania researchers, conversations with the researchers, and documents provided by The Food Trust, we estimate it costs approximately \$25 to introduce a new healthy product into a corner store in neighborhoods with limited access to such food. Since stocking healthy, perishable items may require more labor or have more risk due to spoilage, this number will likely be higher for introducing and maintaining an ongoing stock of a fresh fruit, such as apples, compared to introducing and maintaining other items considered healthy, such as bottled water or whole wheat bread.

For more information on our approach to cost-per-impact, visit our [website](#).

### Take action:

Visit [The Food Trust](#) to learn more about the Healthy Corner Store Initiative, to make a donation, and learn

about other opportunities to address community food access. To learn more about corner store efforts across the country, visit the [Healthy Corner Stores Network](#).

#### Enabling factors

In 2003, Pennsylvania created the nation's first statewide economic development initiative aimed at improving access to healthy food in underserved rural and urban communities. Out of this effort came the Fresh Food Financing Initiative (FFFI), which supports the development of new stores in underserved urban and rural communities across Pennsylvania. Philadelphia has seen an increase of 18 grocery stores due to the FFFI fund.

Modeled after FFFI, the Healthy Food Financing Initiative accomplishes similar goals at the federal level.



Below is a list of other organizations implementing our featured approach to “Increase Access to Healthy Foods.” While we have not analyzed their work in as much detail as the exemplar model, they use similar practices to increase access to healthy foods.

| Featured Approach   | Examples in Greater Philadelphia   |
|---|--|
| Increase availability of fresh fruits and vegetables in stores serving low-income communities | <a href="#">Philabundance “Fare and Square”</a> program founded a nonprofit grocery store located in Chester, a food desert since 2001, to improve access to healthy foods for households in need. |

Below is a list of other promising approaches for “Increase Access to Healthy Foods,” along with examples of organizations implementing these approaches in the Greater Philadelphia region. This list includes organizations whose models are consistent with what we currently understand can work in addressing childhood obesity. All are established nonprofits addressing the issues and capable of accepting philanthropic support.

| Other Promising Approaches   | Examples in Greater Philadelphia   |
|--|--|
| Increase access to farmers markets and farm shares that accept food stamps in low-income communities | <p>Working in North Philadelphia, <a href="#">Farm to Families</a> facilitates the purchasing, packaging, and distribution of fresh, local, affordable produce; provides food and nutrition education; and leads policy change efforts to make fresh food available in food deserts.</p> <p><a href="#">Get Healthy Philly</a> works with The Food Trust to expand the number of farmers markets in low-income communities, and has established nine new farmers markets since inception.</p> <p><a href="#">Greensgrow’s Mobile Markets</a> program brings trucks of affordable fresh food into underserved and economically disadvantaged neighborhoods in Camden and West Philadelphia.</p> |
| Support growth of urban gardening networks that provide low-income communities with fresh produce    | <p><a href="#">The Pennsylvania Horticultural Society Growers Alliance’s City Harvest</a> program brings together volunteer community gardeners to donate food to local food pantries.</p> <p><a href="#">The Lehigh County Community Gardens Program</a> operates two community garden sites, supporting production of healthy food for the community and promoting sustainable gardening practices.</p>  |

| Other Promising Approaches   | Examples in Greater Philadelphia  |
|--|---|
| <p>Improve the nutritional value of food offered at the institutions where children spend their time (schools, community centers, out-of-school-time programs, churches, etc.)</p> | <p><a href="#">WISE SNAC</a> (profiled on page 16) crafts policies and practices to support healthy eating and physical activity within district public schools, and provides training and technical assistance to community based organizations and municipal programs that support healthy schools.</p> <p><a href="#">The Coordinated Approach to Child Health (CATCH)</a> is a coordinated school health program for preschool through 8th grade designed to promote physical activity, encourage healthy food choices, and prevent tobacco use in children.</p> <p><a href="#">School Food FOCUS</a> is a national collaborative that leverages the knowledge and procurement power of large school districts to make schools meals more healthful, regionally sourced, and sustainably produced.</p> <p><a href="#">Alliance for a Healthier Generation</a> works with schools, companies, community organizations, healthcare professionals, and families to achieve the environmental conditions that lead to healthier kids.</p> <p><a href="#">The Food Trust's Farm to School Initiative</a> connects schools and early education settings with local food producers to serve local, healthy foods in schools.</p> <p><a href="#">Common Market</a> connects institutional wholesale customers (schools, hospitals, grocers, and workplaces) to local area farmers who can offer healthy, fresh products</p> |
| <p>Support programs that extend food budgets of vulnerable families</p>  | <p><a href="#">Philly Food Bucks</a> encourages ACCESS/food stamp recipients to purchase fresh produce by providing coupons that can be redeemed for \$2 worth of fruits and vegetables for every \$5 spent at all participating farmers markets.</p> <p><a href="#">Fair Food Philly's Double Dollars</a> program encourages food stamp recipients to purchase fresh produce by providing coupons that can be redeemed for \$5 worth of fruits and vegetables for every \$5 spent at the program's Fair Food Farmstand.</p> <p><a href="#">Benefits Data Trust</a> seeks to improve the efficiency of enrollment in benefits, such as SNAP, for low-income people.</p>   |

## INCREASE ACCESS TO OPPORTUNITIES FOR PHYSICAL ACTIVITY

The U.S. Surgeon General recommends that children engage in at least 60 minutes of moderate physical activity most days of the week, but today fewer than half of children ages 6 to 11 are doing so.<sup>22</sup> In low-income communities, lack of physical activity has a direct link to the nature of the built environment. Substantial scientific evidence gained in the past decade has shown that various aspects of the built environment can have profound, directly measurable effects on physical health outcomes, particularly adding to the burden of illness among ethnic minority populations and low-income communities.<sup>23</sup> Lack of sidewalks, bike paths, and recreational areas in some communities discourages physical activity and contributes to obesity; in those low-income areas that do have such amenities, the threat of crime keeps many people inside.<sup>24</sup>

Schools used to be a regular source of physical activity for children, but in recent years, there has been a significant decrease in physical activities incorporated into school schedules. Up to 40% of U.S. school districts have reduced or eliminated recess in order to free up more time for core academics, and one in four elementary schools no longer provides recess to all grades.<sup>25</sup> Increasing physical activity in schools can have a significant impact on the health of children in low-income communities that otherwise lack access to safe places to exercise and play.

### **PROMISING APPROACH: Improve health policies and practices of schools to include physical activity offerings**

**Exemplary model:** *Wellness Initiative for the School Environment: Smart Nutrition and Activity Collaborative (WISE SNAC)*

Founded in 2005 by the Health Promotion Council (HPC), WISE SNAC was modeled after the nationally recognized, evidence-based Coordinated School Health Program (CSHP) developed by the Centers for Disease Control and Prevention. The CSHP model engages multiple stakeholders within the school environment to holistically address childhood obesity. Components include:

#### Childhood Obesity Prevention Strategies

Start Early

Increase Access

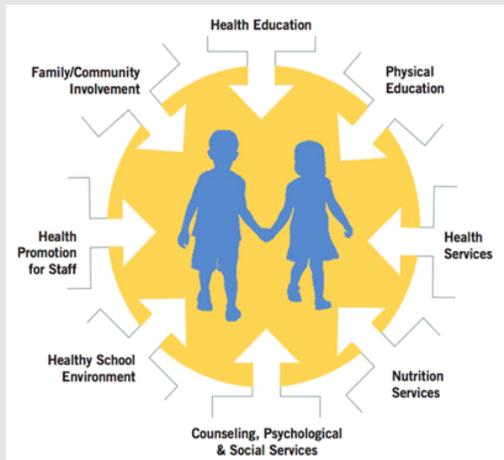
Enable Healthy Choices

- Increasing opportunities for physical activity before, during, and after school (e.g. training teachers to incorporate 10 minutes of physical activity into their classroom time)
- Improving access to healthy foods (e.g. augmenting lunch menus to include more fruit and vegetable options)
- Delivering nutrition education for students and workshops for parents on how to achieve health and wellness goals
- Developing and implementing wellness policies that meet federal mandates
- Identifying and disseminating emerging best practices to staff and administrators
- Coordinating communication across districts to encourage consistent health messaging

With funding support from the North Penn Community Health Foundation, HPC implemented the WISE SNAC initiative in 35 elementary and secondary schools throughout the North Penn, Souderton Area, and Wissahickon School Districts. While the first program term ended in 2012, HPC is currently seeking additional funds to begin new WISE SNAC programs in additional school districts.

### The WISE SNAC approach

WISE SNAC uses the CSHP model, which engages stakeholders from eight key areas within the school environment to holistically address childhood obesity.



### What's the impact?

According to an internal report produced by HPC, school districts that received WISE SNAC's intervention improved the school food environment while increasing opportunities for physical activity before, during, and after school. 55% of students in intervention schools participated in physical activity for at least 30 minutes or more at least five days per week.<sup>26</sup> This is in stark contrast to the trend that several researchers have noted over the last decade: in the face of pressures to improve student achievement and control costs, many schools have decreased or cut physical education and recess time, particularly in urban, low-income communities. For example, the National Center for Education Statistics found that the average American child gets only 26 minutes of recess per day—and schools that serve primarily low-income children clock in with even lower numbers, some below 20 minutes per day.<sup>27</sup>

Because WISE SNAC is a comprehensive school health program, its impact goes beyond increased access to opportunities for physical activity. For example,

WISE SNAC's Souderton Area School District program reported impact on both soda drinking and vegetable consumption:

- Only 8% now report drinking soda three or more days per week—a sharp decline from 59% at baseline
- 92% of students now report eating fruit and vegetables three or more days a week—up from just 71% at baseline<sup>28</sup>

In addition, the North Penn region supported by WISE SNAC services saw a statistically significant 2% decrease in the percent of school-aged children that were overweight or obese (from 30% to 28%) between 2005 and 2011.<sup>29</sup> While this rate drop is not directly attributable to the WISE SNAC intervention, the decline in the obesity rate among students could mean that environmental support for healthy habits can help turn the tide in the fight against childhood obesity.

### What does it cost to implement?

Using cost data from the Health Promotion Council, we estimate program costs associated with staff time for training, technical assistance, and project evaluation are approximately \$3,200 per school building per year. This unit cost, and the program's design, did not vary widely between different-sized schools or the grades served.<sup>30</sup>

### Cost-per-impact

Extrapolating results from the Souderton area school district, the 2012 Health Promotion Council report, and costs provided by the program, we estimate that the cost-per-impact is approximately \$10 - \$25 for each incremental student demonstrating the following healthy behaviors:

- exercising regularly (five days/week) for an additional 10 - 30 minutes a day
- decreasing soda consumption to less than three days/week
- eating fruits and vegetables three or more days a week.

Since the Souderton results are self-reported by students, they lack the rigor of externally validated results; outside of an institutional setting such as a hospital where food is strictly controlled, it is difficult to monitor everything a child eats and drinks. However, these results, when added to the statistically significant decline in childhood obesity observed in the North Penn region and the apparent increase in healthy choices among children, as reflected in their responses, point to the promise of this program.

For more information on our approach to cost-per-impact, visit our [website](#).

**Take action:**

To find out more about WISE SNAC’s previous implementation, visit the North Penn Community Health Foundation’s [website](#).

To inquire about how to support a new program cycle, visit the [Health Promotion Council](#).

Below is a list of other organizations implementing our featured approach to “Increase Access to Physical Activity.” While we have not analyzed their work in as much detail as the exemplar model, they use similar practices to increase access to opportunities for physical activity.

| Featured Approach   | Examples in Greater Philadelphia  |
|---|---|
| Improve health policies and practices of schools to include physical activity offerings | <a href="#">The Coordinated Approach to Child Health (CATCH)</a> is a coordinated school health program for preschool through 8th grade designed to promote physical activity, encourage healthy food choices, and prevent tobacco use in children.   |
|   | Launched in 2013, <a href="#">The Independence Blue Cross Foundation’s Healthy Futures</a> initiative is a three-year school wellness program that leverages partners like the Vetri Foundation and the Children’s Hospital of Philadelphia to provide the training, programming, and resources schools need to create a healthy environment. |

Below is a list of other promising approaches for “Increase Access to Physical Activity,” along with examples of organizations implementing these approaches in the Greater Philadelphia region. This list includes organizations whose models are consistent with what we currently understand can work in addressing childhood obesity. All are established nonprofits addressing the issues and capable of accepting philanthropic support.

| Other Promising Approaches   | Examples in Greater Philadelphia  |
|--|---|
| Increase opportunities for physical activity in out-of-school-time programs  | <p><a href="#">Healthy Kids, Healthy Communities</a> provides tools and assistance to help communities sustain systems, policies, and environmental changes that support healthy eating and active living.</p> <p><a href="#">Alliance for a Healthier Generation</a> works with schools, companies, community organizations, healthcare professionals, and families to achieve the environmental conditions that lead to healthier kids.</p>   |
| Advocate for the integration of biking and walking as methods of transportation  | <p><a href="#">The Bicycle Coalition of Philadelphia</a> engages in advocacy for all forms of active transportation, including the connection of communities with safer roads and trails across the region.</p> <p><a href="#">Feet First Philly</a>, supported by the Clean Air Council, is a pedestrian advocacy group that raises awareness of issues facing pedestrians in the City of Philadelphia. Goals include improving the pedestrian environment and encouraging walking as a mode of transportation, exercise, and recreation.</p> <p><a href="#">The Safe Routes to School</a> program is a federal initiative, supported locally by Get Healthy Philly, that promotes walking or bicycling to and from school.</p>  |
| Support community organizations and projects that ensure low-income families have access to safe places to exercise and play | <p><a href="#">Get Healthy Philly</a> is a city-wide public health initiative that brings together community-based organizations, researchers, and private sector leaders to promote healthy, active environments for Philadelphia residents. One of the first projects included creating safer, more connected streets and trails throughout the city.</p> <p><a href="#">KaBOOM!</a> helps communities build playgrounds, shares knowledge and tools, and advocates for the importance of play for children.</p> <p>In Philadelphia, <a href="#">Boys and Girls Club</a> facilities offer a variety of sports programs and leagues that focus on improving Club members’ knowledge of healthy habits.</p> <p><a href="#">The Philadelphia Eagles Youth Partnership</a> hosts an annual playground build to improve play spaces for schools in low-income communities.</p> <p><a href="#">Philadelphia Freedom Valley YMCA</a> provides facilities and equipment for kids and their families to play, exercise, and practice sports.</p> |

## ENABLE HEALTHY CHOICES — EATING HABITS

Most children do not consume a healthy, balanced diet. Only 2% of school-aged children consume the recommended daily number of servings from all five major food groups.<sup>31</sup> In addition to unhealthy eating habits, children are now consuming more calories from sugary drinks than ever before due to factors such as marketing strategies, proliferation of sugary drinks in stores, and peer influence.

We know that children are not making healthy eating and drinking choices, but what do we do about it? Along with increasing access to healthy foods, it is critical to enable children's healthy choices. Healthier choices come when children are knowledgeable about good nutrition and encouraged to practice healthy eating habits. A child's peer group can be particularly effective in inspiring behavior change. The bulk of the evidence suggests that children as young as two learn food preferences from their peer group.<sup>32</sup> Children who attend school are exposed to peers in eating situations every day. These interactions may be prime opportunities for promoting the transmission of healthy food preferences.

**PROMISING APPROACH: Provide comprehensive nutrition education that promotes healthy eating habits at the individual, family, and school levels**

**Exemplary model:** *The Food Trust's Kindergarten Initiative*

The Kindergarten Initiative (KI) is an evidence-based intervention designed to promote healthy eating habits in kindergarten students through nutrition and agriculture education, parent engagement activities, and community support. In KI schools, nutrition concepts are integrated into the regular kindergarten classroom curriculum, and healthy fruit and vegetable snacks grown by local farmers are provided to the students. These schools also organize farm field trips to expose children to the process of growing food and allow them to taste-test fruits and vegetables. For parents, KI uses newsletters and surveys, a Farm Store, and special events, like cooking demonstrations by local chefs, to reinforce healthy eating at home.



### What's the impact?

An evaluation of the Kindergarten Initiative's pilot program showed positive results in its integrated approach towards better nutrition for young students. During the nine-month evaluation period, Kindergarten Initiative participants demonstrated improvements in their knowledge of a healthy diet (recommended number of daily servings of fruits and vegetables, portion sizes of foods to eat), their awareness of where food is grown, and the number of fruits they consumed per day.<sup>33</sup> For example:

- Children enrolled in the initiative were found to consume fruits and nuts seven times per week, while the control group's average was six times, with nuts being a particularly significant difference. Kindergartners who participated in the initiative ate nuts more frequently throughout the program and their consumption increased following the program, while students' behaviors in the control group remained unchanged. Researchers suspect the shift in nut consumption may be attributed to the fact that nuts are typically stocked in local corner stores where access to fresh vegetables is limited.

- In schools that offered nutrition education, the percentage of children who could identify food that they should only eat occasionally increased twofold from 31% to 62%, when compared to a 10% increase in correct responses from students in control schools.
- More than 90% of kindergarten parents felt that they had changed the way they shop for groceries, prepare meals, or talk to their children about food.

This evaluation's results inspired the passage of the Pennsylvania Healthy Farms Healthy Schools Act in 2006, which allocated grant money to school districts, charter schools, and nonpublic schools to integrate agriculture and nutrition education into curricula.<sup>34</sup>

#### What does it cost to implement?

Using The Food Trust's data, we estimate that the program costs approximately \$3,700 per class. These costs include a \$1,200 average cost for materials for 33 kindergartners to implement the program, and a \$2,500 estimate for related, incremental administrative and management costs to support each class (including parents).<sup>35</sup>

#### Cost-per-impact:

Based on cost data provided by The Food Trust and from the Kindergarten Initiative Evaluation Report (2007), we estimate it costs less than \$120 for each incremental student now consuming 17% more fruits and nuts per week.

For more information on our approach to calculating cost-per-impact, visit our [website](#).

#### Take action:

Visit [The Food Trust](#) to make a donation and learn about other opportunities to support nutrition education in schools.

#### Enabling factors

As part of the Supplemental Nutrition Assistance Program (SNAP), SNAP-Ed is a federal and state partnership that provides nutrition education for SNAP recipients. Core components of The Food Trust's Kindergarten Initiative are a part of a SNAP-Ed program in Pennsylvania.

The success of the Kindergarten Initiative also inspired Pennsylvania to pass the Healthy Farms and Healthy Schools Act in 2006. Although not currently funded in the state budget, the act enables any Pennsylvania school district, charter school, or private school with a kindergarten program to apply for the Healthy Farms and Healthy Schools funds (a maximum of \$15,000 per program).



Below is a list of other organizations implementing our featured approach to “Enable Healthy Choices - Eating Habits.” While we have not analyzed their work in as much detail as the exemplar model, they use similar practices to enable children’s healthy eating habits.

| Featured Approach   | Examples in Greater Philadelphia  |
|---|---|
| Provide comprehensive nutrition education that promotes healthy eating habits at the individual, family and school levels | <a href="#">Eat.Right.Now</a> improves nutrition education through lessons and follow-up activities in Philadelphia public and charter schools.   |
|   | <a href="#">Nutrition for Life</a> provides nutrition education and outreach in community and school-based settings in and around the Philadelphia area. Nutrition for Life’s approximately 2,000 consumers are low-income children and adults who are patients of the City of Philadelphia Department of Public Health (PDPH) Family Health Centers. |
|   | <a href="#">The Weller Center</a> sends health educators into schools in Pennsylvania and New Jersey to offer preventive health education sessions for students on topics like healthy eating and exercise, bullying prevention and mental health, safety, addiction prevention, and human growth and development.                                    |
|   | <a href="#">The Kellyn Foundation</a> (Lehigh Valley) implements a variety of nutrition education programs in schools, including workshops on healthy eating and gardening.   |

Below is a list of other promising approaches for “Enable Healthy Choices - Eating Habits,” along with examples of organizations implementing these approaches in the Greater Philadelphia region. This list includes organizations whose models are consistent with what we currently understand can work in addressing childhood obesity. All are established nonprofits addressing the issues and capable of accepting philanthropic support.

| Other Promising Approaches  | Examples in Greater Philadelphia  |
|---|---|
| Provide technical assistance and resources to improve nutrition education programs in schools | <a href="#">WISE SNAC</a> (profiled on page 16) crafts policies and practices to support healthy eating and physical activity within district public schools, and provides training and technical assistance to community based organizations and municipal programs that support healthy schools.  |
|   | Launched in 2013, <a href="#">The Independence Blue Cross Foundation’s Healthy Futures</a> initiative is a three-year school wellness program that leverages partners like the Vetri Foundation and the Children’s Hospital of Philadelphia to provide the training, programming, and resources schools need to create a healthy environment. |

| Other Promising Approaches   | Examples in Greater Philadelphia  |
|--|---|
| Encourage children to develop healthy eating habits by reinventing school meal time                            | <a href="#">Eatiquette</a> creates a school lunch environment that nurtures social interaction and communication among peers and adults, encourages teamwork, and presents kids with opportunities to try new foods.  |
| Teach children and their families how to budget for healthy food purchases and how to cook easy, healthy meals | Working in North Philadelphia, <a href="#">Farm to Families</a> facilitates the purchasing, packaging, and distribution of fresh, local, affordable produce; provides food and nutrition education; and leads policy change efforts to make fresh food available in food deserts. |
|  | The <a href="#">Health Promotion Council's Food and Nutrition Educators</a> provide cooking lessons and demonstrations at SHARE food cupboards and community gardens to teach participants how to grow, store, and cook fresh vegetables.   |
|  | The <a href="#">Campbell's Healthy Communities</a> program offers nutrition education for families that includes workshops on healthy shopping and cooking.   |
| Encourage purchasing of fruits and vegetables by providing coupons at farmers markets                          | <a href="#">Philly Food Bucks</a> encourages ACCESS/food stamp recipients to purchase fresh produce by providing coupons that can be redeemed for \$2 worth of fruits and vegetables for every \$5 spent at all participating farmers markets.                                    |
|  | <a href="#">Fair Food Philly's Double Dollars</a> program encourages food stamp recipients to purchase fresh produce by providing coupons that can be redeemed for \$5 worth of fruits and vegetables for every \$5 spent at the program's Fair Food Farmstand.                   |
| Increase knowledge of healthy foods by exposing students and families to urban gardening                       | <a href="#">Bartram's Garden</a> hosts school age children and families for programs focused on health and gardening education, and provides space for community gardening.   |
|  | <a href="#">Agaston UNI's food education programs</a> introduce children and adults to locally grown, fresh, and nutritious food options through activities like garden clubs and cooking demonstrations.   |
| Empower youth to become stewards of healthy communities  | <a href="#">Teens 4 Good</a> , a program of the Federation of Neighborhood Centers, is a youth-led entrepreneurial farm and nutrition business that transforms vacant lots into urban gardens and farms.  |
|  | <a href="#">HYPE</a> is a youth campaign that encourages middle and high school students to form Youth Wellness Councils and involve their peers in making healthy changes in their schools and communities.  |

## ENABLE HEALTHY CHOICES — PHYSICAL ACTIVITY

In addition to having less access to physical activity, children are now exposed to new technology and media that encourages sedentary behavior. In the ten-year period from 1999 to 2009, the amount of time eight to eighteen year olds spent in front of a television screen has increased from three hours and 47 minutes to four hours and 29 minutes.<sup>36</sup> And it's not just television viewing that occupies children's time; American children spend an estimated seven hours and 38 minutes consuming media each day, which is nearly the equivalent of a full-time job.<sup>37</sup> Technology and media are entertaining pastimes, but physical activity can also be fun for children depending on how they are introduced to it. By demystifying what it means to be active, helping a child engage with peers around a sport or playtime, and encouraging positive self-esteem, programs can change that child's long term physical activity habits.

### **PROMISING APPROACH: Support developmentally-focused sports programs that boost confidence and cultivate lifelong healthy physical activity habits**

#### **Exemplary model:** *Girls on the Run Philadelphia*

Founded in 1996 in Charlotte, North Carolina, Girls on the Run is an international running program that aims to improve physical capability, commitment to physical activity, and body image in girls in 3<sup>rd</sup> through 8<sup>th</sup> grades. Combining training for a 5k running program with curricula focused on social-emotional development, Girls on the Run aims to give participants the tools needed to embrace individual strengths and build a long-lasting, positive relationship with physical activity. Since its inception, Girls on the Run's network of councils has expanded to over 200 cities in North America, serving over 130,000 girls.<sup>38</sup> Girls on the Run Philadelphia became an independent council in 2012.

#### **How it works:**

Girls on the Run places girls into teams of 15 with one trained coach for 12 weeks of training. The 12-week



program integrates running training into a curriculum that covers personal and team development and community engagement. Through these topics, girls learn self-care, problem-solving skills, and how they can interact positively in teams and with their communities. The 12-week program culminates in participation in a 5k.<sup>39</sup>

#### **What's the impact?**

Starting in 2002, Girls on the Run International has conducted evaluations of program efficacy that focus on girls' self-esteem, commitment to physical activity, and attitudes towards food and eating. Over the years, these evaluations have shown consistently positive trends in body-image and healthy habits for girls who participate in Girls on the Run.

In a 2007 study, researchers conducted a longitudinal, quasi-experimental study to evaluate the intervention effects among 1,065 Girls on the Run participants across 33 different sites. In a measure of physical activity over seven days, participants reported an 9% increase in moderate-to-vigorous physical activity from pre-intervention to the five month follow up.<sup>40</sup> Currently, Girls on the Run is implementing a longitudinal study

aimed at evaluating the effectiveness of the program on positive youth developmental outcomes, as aligned with their mission statement.

**What does it cost to implement?**

Using cost data from Girls on the Run Philadelphia and other national-level data, we estimate that it costs approximately \$3,500 to \$5,500 per team of 15 girls to increase their participation in physical activity. The total cost depends on urban or suburban location; startup or mature program site; supply and demand for scholarships; and utilization of a paid full-time executive director.<sup>41</sup> These costs exclude the modest fee some participants pay (if not covered by full scholarships).

**Cost-per-impact:**

Combining Girls on the Run Philadelphia cost data with impact information from the 2007 study, we estimate that it costs between \$235-\$365 to increase by 9% the number of days a girl is engaged in “moderate to vigorous activity.” As mentioned above, this range depends on location of the site, phase of the program, scholarships, and staffing choices.

For more information on our approach to calculating cost-per-impact, visit our [website](#).

**Take action:**

Visit [Girls on the Run Philadelphia](#) to donate or to inquire about volunteering as a coach.

**Enabling factors**

The Philadelphia Youth Sports Collaborative was launched in 2009 to augment the impact of local nonprofit organizations that use sports to benefit children and youth, particularly those from under-resourced environments. By sharing ideas, combining resources, identifying common areas of need, and leveraging support, PYSC facilitates communication and cooperation between these organizations and strengthens the positive impact they have on youth, families, and communities.



*Image provided by Girls on the Run International.*

Below is a list of other organizations implementing our featured approach to “Enable Healthy Choices - Physical Activity.” While we have not analyzed their work in as much detail as the exemplar model, they use similar practices to enable children’s healthy physical activity habits.

| Featured Approach  | Examples in Greater Philadelphia  |
|--|---|
| Support developmentally focused sports programs that boost confidence and cultivate life-long healthy physical activity habits | <a href="#">Students Run Philly Style</a> pairs students with mentors to build the work ethic, determination, and physical endurance necessary to complete either a half or full marathon.  |
|  | <a href="#">iRun4Life</a> combats obesity within elementary schools by establishing non-competitive running programs that focus on physical fitness, nutrition education, and community service.  |
|  | <a href="#">Squash Smarts</a> works with 5th through 12th grade students to develop their physical abilities and keep them on track for graduation by using squash to build on ideas of sportsmanship, hard work, and commitment.                                   |
|  | <a href="#">Philly Girls in Motion</a> is a volunteer-driven organization that hosts running clubs, group exercise classes, and nutrition education for girls and their families.   |
|  | <a href="#">Healthy Kids Running Series</a> is a national five-week running program for kids from Pre-K to 8 <sup>th</sup> grade. The series is designed to motivate kids to be healthy and active, while providing a fun environment to improve their self-esteem. |

Below is a list of other promising approaches for “Enable Healthy Choices - Physical Activity,” along with examples of organizations implementing these approaches in the Greater Philadelphia region. This list includes organizations whose models are consistent with what we currently understand can work in addressing childhood obesity. All are established nonprofits addressing the issues and capable of accepting philanthropic support.

| Other Promising Approaches   | Examples in Greater Philadelphia  |
|--|---|
| Teach children play skills that make peer interactions during recess and on playgrounds fun and engaging | <a href="#">Playworks</a> conducts hands-on professional development workshops and consults for schools and youth organizations. Playworks’ goal is to share best practices in youth development that can create an environment on the playground in which every child has a place. |
| Encourage families to exercise together and incorporate physical activity into their daily routine       | <a href="#">Philadelphia Freedom Valley YMCA</a> has unique programming, such as family nights and family swim time, designed to bring families closer.   |

| Other Promising Approaches  | Examples in Greater Philadelphia  |
|---|---|
| Support community events to encourage physical activity for families  | <p data-bbox="597 373 1386 474"><u>The Campbell's Healthy Communities</u> program works to increase physical activity by bringing partner programs like CATCH (mentioned on pages 15 and 18) and sports leagues to high-need areas.</p> <p data-bbox="597 499 1321 600"><u>Get Out! Lehigh Valley</u> is a healthy outdoor activity program that provides safe, fun activities for families such as walking, hiking, cycling, and paddling.</p>   |
| Support programs that provide technical assistance and training to providers of programs that promote physical activity | <p data-bbox="597 625 1377 760"><u>Alliance for a Healthier Generation</u> (also mentioned on page 19) works with schools, companies, community organizations, healthcare professionals, and families to achieve the environmental conditions that lead to healthier kids.</p> <p data-bbox="597 785 1386 919"><u>Philadelphia Youth Sports Collaborative</u> shares ideas and resources, identifies common areas of need, and leverages support in order to augment the impact of local nonprofit organizations that use sports to benefit low-income youth.</p> |

## TREATMENT OPPORTUNITIES FOR OVERWEIGHT OR OBESE CHILDREN

Our guide primarily focuses on promising approaches to obesity prevention. However, treatment programs are also helping to reduce the epidemic. While prevention efforts avoid the enormous psychological, economic, and societal toll of childhood obesity, successful treatment programs can help communities lower costs of health care and other obesity-related expenses while improving the health and reducing the suffering of already severely overweight or obese children.

Similar to preventative care, the treatment of childhood obesity encourages better diets, more physical activity, higher quality food options, and less screen time. However, treatment programs provide more frequent, more intense interventions along with social, psychological, and emotional supports for patients to address causal factors. These programs generally leverage medical practitioners and counselors to work one-on-one with severely overweight or obese children and their families.

While there is limited quality data, reviews have shown that multicomponent lifestyle interventions, such as those below, can be effective in treating childhood obesity.<sup>42</sup> In particular, the American Academy of Pediatrics recommends interventions that include frequent office visits, goal-setting, parental involvement, and other components addressing the whole child and his or her environment.<sup>43</sup> Unfortunately, even successful interventions may have small effects at the individual level—for instance, slowing weight gain rather than reversing it – and those improvements may not be sustained over the long term.<sup>44</sup> This relative lack of clarity on effective treatment underscores the need to focus on early-life prevention of obesity, particularly in the vulnerable populations who bear a disproportionate impact of the childhood obesity epidemic.<sup>45</sup>

Below is a list of approaches to obesity treatment along with examples of organizations implementing these approaches in the Greater Philadelphia region. This list includes organizations whose models are consistent with what we currently understand can work in addressing childhood obesity. All are established nonprofits addressing the issues and capable of accepting philanthropic support.

| Promising Approaches   | Examples in Greater Philadelphia  |
|--|---|
| Regular visits for child and family members with medical practitioners and specialists to encourage weight loss and adoption of healthier habits | <a href="#">The Healthy Weight Clinic</a> at the Children’s Hospital of Philadelphia works with families to make healthy lifestyle changes by assessing weight-related medical issues and helping children manage their weight through a family-based approach that is customized for each child and each family. |
|  | <a href="#">215GO!</a> is a clinic that was established at Philadelphia Public Health Centers to identify, prevent and treat childhood obesity and related complications by promoting positive lifestyle behavior and motivating patients toward a healthier weight.  |
| Bariatric treatment and post-surgery follow-up<br><i>Note: this approach appropriate only in cases of severe obesity</i>                         | <a href="#">The Healthy Weight Clinic’s Adolescent Bariatric Program</a> addresses the medical, psychosocial and emotional needs of teens and young adults for whom bariatric surgery is appropriate.   |

## IMPROVING THE CURRENT LANDSCAPE

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Since the childhood obesity epidemic is relatively new, the field has a limited understanding of successful prevention and treatment approaches. Therefore, donors interested in funding beyond direct service efforts can make a valuable contribution. The opportunities below help increase our understanding of the issue, develop even better solutions, and strengthen the implementation of current interventions:

- **Build systems to learn, improve, and collaborate toward more effective prevention and treatment programs**

Programs that help to build systems of feedback and learning across the field can be a valuable investment. For example, the public-private partnership Shaping America's Youth (SAY) recently developed a registry of programs for child health and nutrition to facilitate information and best-practice sharing across the sector. The registry is now approaching 2,500 program entries. SAY hopes to use this information to foster community dialogue and ultimately develop a national action plan. As part of this effort, the group has held meetings in Philadelphia area to incorporate community input. Programs like the Alliance for a Healthier Generation and Communities Creating Healthy Environments also help to build systems that support a national action plan toward obesity prevention.

- **Invest in research and development to innovate for the future**

By supporting research into what works and the development of new technologies, donors can enhance our understanding of obesity and potentially replace the approaches we profiled with even better and more cost-effective tools. Donors can invest in evaluation efforts, research institutes, university-based centers, and children's teaching hospitals that focus on obesity. Examples include the Centers for Disease Control and Prevention, the Nutrition Obesity Research Center at Harvard, and the Yale Rudd Center. Several nonprofit organizations, such as ChildObesity180 and The Food Trust, are also engaged in evaluation efforts and testing new models.

- **Advocate for increased funding and other policy change**

Public policies and related public funding play a major role in shaping whether communities and environments promote healthy eating and active lifestyles. For example, this guide has featured several organizations working to implement change that aligns with new school health policies, or improved access to healthy foods through programs like SNAP. We also have highlighted several "enabling factors" in Pennsylvania that have shifted the policy dynamic toward more integrated and productive outcomes for residents. While program implementors play a critical role, so too do the advocates whose efforts often make program delivery possible. Donors can partner with other funders and can invest in nonprofits that are changing the dialogue and calling for necessary reforms at the local, state, and national levels, including groups such as PolicyLink and Active Living By Design.

### All paths lead to impact

Your choice to invest in one approach – or build a portfolio of integrated approaches – will depend on multiple factors including your tolerance for risk, existing relationships you can leverage, and your time horizon for seeing meaningful differences in any child's life. Whether you support high impact approaches that have already achieved results, strengthen promising approaches to enhance their effectiveness, invest in research and development so we have better tools in the future, or support sector-wide systems for feedback and learning, the ultimate desired impact is the same: healthier children who are better able to achieve their full potential, and a stronger society for us all.

## EXAMPLE ORGANIZATIONS MENTIONED IN THIS GUIDE

|                 |  |
|-----------------|--|
| START EARLY     | <a href="#">Nurse-Family Partnership</a>                                   |
|                 | <a href="#">Maternity Care Coalition</a>                                   |
|                 | <a href="#">Philadelphia Healthy START</a>                                 |
|                 | <a href="#">Healthy Steps for Young Children</a>                           |
|                 | <a href="#">Breastfeeding Friendly Philadelphia</a>                        |
|                 | <a href="#">The Food Trust’s Preschool Initiative</a>                      |
|                 | <a href="#">St. Mary Medical Center’s Kinder Connection (Bucks County)</a> |
| INCREASE ACCESS | <a href="#">The Food Trust’s Healthy Corner Store Initiative</a>           |
|                 | <a href="#">Philabundance “Fare and Square” program</a>                    |
|                 | <a href="#">Get Healthy Philly</a>   |
|                 | <a href="#">Greensgrow’s Mobile Markets</a>                                |
|                 | <a href="#">The Pennsylvania Horticultural Society Growers Alliance</a>    |
|                 | <a href="#">The Lehigh County Community Gardens Program</a>                |
|                 | <a href="#">WISE SNAC</a>  |
|                 | <a href="#">CATCH</a>  |
|                 | <a href="#">School Food FOCUS</a>  |
|                 | <a href="#">The Food Trust’s Farm to School Initiative</a>                 |
|                 | <a href="#">Common Market</a>  |
|                 | <a href="#">Philly Food Bucks</a>  |
|                 | <a href="#">Fair Food Philly</a>   |
|                 | <a href="#">Benefits Data Trust</a>  |
|                 | <a href="#">Independence Blue Cross Foundation’s Healthy Futures</a>       |
|                 | <a href="#">Healthy Kids, Healthy Communities</a>                          |
|                 | <a href="#">The Bicycle Coalition of Philadelphia</a>                      |
|                 | <a href="#">Feet First Philly</a>  |
|                 | <a href="#">Safe Routes to School</a>                                      |
|                 | <a href="#">KaBOOM!</a>  |
|                 | <a href="#">Philadelphia Eagles Youth Partnership</a>                      |
|                 | <a href="#">Philadelphia Freedom Valley YMCA</a>                           |

|   |  |
|---|--|
| ENABLE HEALTHY CHOICES                                  | <a href="#">Kindergarten Initiative</a>                                  |
|   | <a href="#">Eat.Right.Now.</a>   |
|   | <a href="#">Nutrition for Life</a>                                       |
|   | <a href="#">The Weller Center</a>  |
|   | <a href="#">The Kellyn Foundation</a>                                    |
|   | <a href="#">Eatiquette</a>   |
|   | <a href="#">Farm to Families</a>   |
|   | <a href="#">Health Promotion Council's Food and Nutrition Educators</a>  |
|   | <a href="#">The Campbell's Healthy Communities program</a>               |
|   | <a href="#">Bartram's Garden</a>   |
|   | <a href="#">Agaston UNI</a>  |
|   | <a href="#">Teens 4 Good</a>   |
|   | <a href="#">HYPE</a>   |
|   | <a href="#">Girls on the Run</a>   |
|   | <a href="#">Students Run Philly Style</a>                                |
|   | <a href="#">iRun4Life</a>  |
|   | <a href="#">Squash Smarts</a>  |
|   | <a href="#">Philly Girls in Motion</a>                                   |
|   | <a href="#">Boys and Girls Clubs of Philadelphia</a>                     |
|   | <a href="#">Playworks</a>  |
|   | <a href="#">Philadelphia Freedom Valley YMCA</a>                         |
|   | <a href="#">Get Out! Lehigh Valley</a>                                   |
|   | <a href="#">Alliance for a Healthier Generation</a>                      |
| <a href="#">Philadelphia Youth Sports Collaborative</a> |  |
| TREATMENT   | <a href="#">The Healthy Weight Clinic</a>                                |
|   | <a href="#">215GO!</a>   |
|   | <a href="#">The Healthy Weight Clinic's Adolescent Bariatric Program</a> |

## SELECT NATIONAL PLAYERS IN CHILDHOOD OBESITY PREVENTION

Childhood obesity is an issue of national concern, and there are many governmental, private sector, and institutional actors working to stem the epidemic. The chart below presents a number of key players in the philanthropic sector, government, and the research, policy, and direct service arenas. This list is not exhaustive, but represents a sample of powerful potential partners whose work donors can leverage for increased impact.

|                     |   |
|---------------------|---|
| FUNDERS             | <p><a href="#">Healthy Eating Active Living Convergence Partnership</a> expands opportunities for healthy lifestyles by investing in community initiatives focused on environmental and policy change. The Partnership was co-founded by multiple funders including The Robert Wood Johnson Foundation, the W.K. Kellogg Foundation, and Kaiser Permanente.</p> |
|                     | <p><a href="#">Grantmakers in Health</a> generates information, policies, and strategies to guide grantmaking organizations interested in improving nutrition and physical well-being.</p>  |
|                     | <p>The <a href="#">Blue Cross and Blue Shield Association</a> (BCBSA) works with communities to combat childhood obesity through its Good Health Club and other nationally developed, locally administered programs.</p>  |
|                     | <p><a href="#">Robert Wood Johnson Foundation (RWJF)</a> supports research, advocacy, and policy efforts to reverse the obesity epidemic and create a healthy environment for children.</p>   |
| GOVERNMENT PROGRAMS | <p><a href="#">Let's Move</a> is an initiative launched by First Lady Michelle Obama to address the incidence of childhood obesity through a multi-pronged strategy of increasing education, access to healthy food, and physical activity.</p>   |
|                     | <p><a href="#">Women, Infants, and Children (WIC)</a> works with states to increase low-income families' access to supplemental food stamps and nutrition education.</p>  |
|                     | <p><a href="#">The Supplemental Nutrition Assistance Program (SNAP)</a> provides funding to assist low-income families in purchasing food. The program also provides nutrition education to families via SNAP-Ed.</p>   |
|                     | <p><a href="#">The United States Department of Agriculture</a> administers the National Lunch Program, the School Breakfast Program, and other food programs that work in schools to provide healthy meals for students.</p>  |
| RESEARCH            | <p><a href="#">National Institutes of Health</a> generates critical research on childhood obesity. The Institutes have also created a national initiative called We Can! that draws upon families, health professionals, the media, and other partners to help 8 to 13 year-olds maintain a healthy weight.</p>   |
|                     | <p><a href="#">Harvard's Nutrition Obesity Research Center</a> promotes nutrition research and scientific collaboration to improve understanding of the issues most critical to progress in the field.</p>  |
|                     | <p><a href="#">Yale Rudd Center for Food Policy and Obesity</a> creates a connection between policy and science research to improve the world's diet and reduce obesity.</p>  |
|                     | <p><a href="#">Active Living Research</a> supports and shares research to promote physical activity in the U.S., particularly among low-income children and children of color.</p>  |

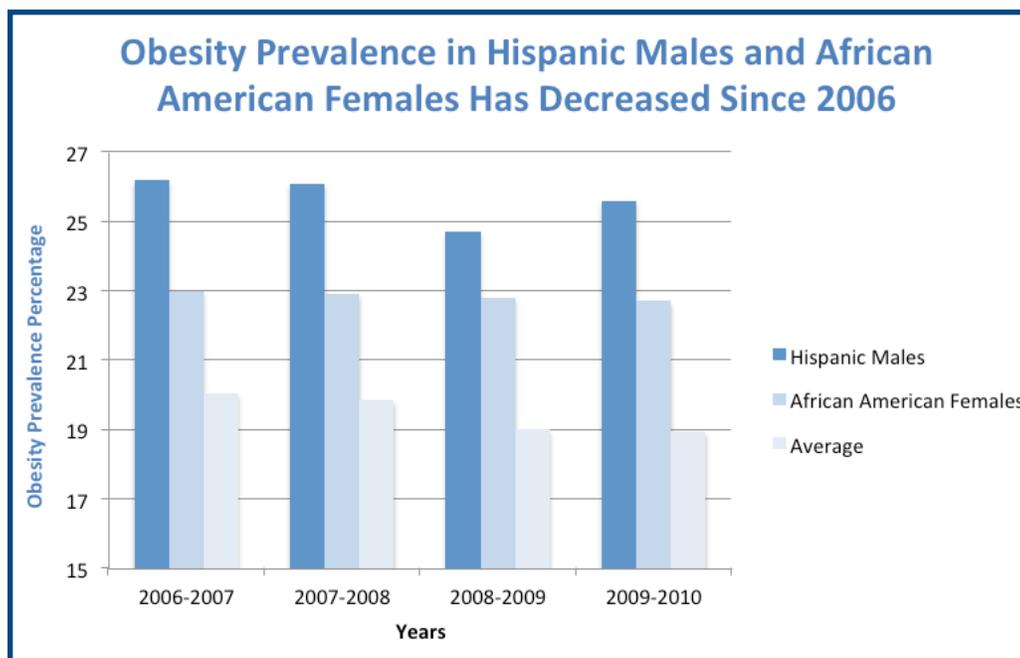
|                                   |   |
|-----------------------------------|---|
| AWARENESS & ADVOCACY              | <p><a href="#">Obesity Action Coalition</a>, an alliance of nearly 5,000 organizations, seeks to educate citizens about healthy choices and encourage policymakers to address obesity-related issues.</p>   |
|                                   | <p><a href="#">STOP Obesity Alliance</a> brings together consumers, health care providers, government, labor, business, insurers, and other stakeholders in order to support obesity prevention and treatment strategies.</p>   |
|                                   | <p><a href="#">Campaign to End Obesity</a> unites health-care professionals, academics, and public health workers with policymakers and their advisors to guide decision-makers in building effective policies around childhood obesity.</p>  |
|                                   | <p><a href="#">National Institute for Children’s Healthcare Quality</a> promotes sustainable obesity-related policies and improvements in early childhood education and care.</p>   |
|                                   | <p><a href="#">Partnership for a Healthier America</a> is a coalition of public, private, and nonprofit leaders focused on making healthier choices more affordable and accessible to families and children across the country through partnerships with organizations like Play Streets, Reebok, Nike, and the YMCA.</p> |
| SYSTEMS BUILDING AND MOBILIZATION | <p><a href="#">ChildObesity180</a> supports research, policy, and advocacy efforts to combat child obesity and improve our understanding of what works. Programs include: Active Schools Acceleration Project, Healthy Kids Out of School, and the Restaurant Initiative.</p>   |
|                                   | <p><a href="#">Shaping America’s Youth (SAY)</a> is a public-private partnership that engages families to promote healthy eating and physical activity among children and adolescents.</p>  |
|                                   | <p><a href="#">Communities Creating Healthy Environments</a> works to increase access to healthy food and safe recreational spaces for impoverished communities.</p>  |
|                                   | <p><a href="#">Wholesome Wave</a> connects local farmers with underserved communities, improving access to healthy food purchasing options.</p>   |
|                                   | <p><a href="#">Voices for Healthy Kids</a> has a variety of programs, ranging from improving the quality of school meals to increasing access to parks and playgrounds.</p>   |
|                                   | <p><a href="#">The Food Trust</a>, based in Philadelphia, is a national leader in improving food access and nutrition education, advocating for policy change, and conducting research and evaluation.</p>  |

## CASE STUDY: WHY PHILADELPHIA?

### Why has Philadelphia seen a decrease in childhood obesity?

According to a recent CDC report, Pennsylvania has shown an increase in childhood obesity rates between 2008 and 2011. Interestingly, data from Philadelphia has shown the opposite trend: A recent CDC study revealed that the prevalence of childhood obesity decreased from 21.5% in 2007 to 20.5% in 2010, and the prevalence of severe obesity decreased from 8.5% to 7.9% in that same time frame.<sup>46</sup> Though these percent changes may appear small, they are statistically significant.

This study also found that Philadelphia is making progress to reduce childhood obesity rates among higher-risk populations, which is particularly notable given the city's low wealth base and long history of disparate health outcomes. The city achieved declines in obesity rates among African-American females and Hispanic males, two groups at high risk for obesity. Philadelphia also reported statistically significant reductions in obesity rates among students from lower-income families.<sup>47</sup> To date, Philadelphia is unique amongst its peer cities in demonstrating progress toward closing the disparities gap in obesity.



Viewed another way, the below chart demonstrates that Philadelphia now has a lower obesity rate amongst adolescents than many other counties in Pennsylvania despite having higher percentages of at-risk populations.<sup>48</sup>

|   | Total Population | % White     | % Below Poverty Level | % 7-12 <sup>th</sup> Graders Obese |
|---|------------------|-------------|-----------------------|------------------------------------|
| Fayette County, Southwestern PA             | 135,000          | 93.4        | 19.2                  | 24.91                              |
| Huntingdon County, Southcentral PA          | 46,000           | 92.8        | 12                    | 26.94                              |
| Susquehanna County, Northeastern PA         | 43,000           | 98.3        | 11.9                  | 24.18                              |
| <b>Philadelphia County, Southeastern PA</b> | <b>1.5M</b>      | <b>45.7</b> | <b>25.6</b>           | <b>20.09</b>                       |

Many experts believe Philadelphia's comprehensive approach to obesity prevention – a combination of increased access to healthy food, nutrition education, and exercise – may be responsible for reversing the obesity trend. Indeed, the Greater Philadelphia region has some distinctive characteristics and expert stakeholders, making the city a prime location for innovation and promising solutions worthy of national attention.

### **Comprehensive approach at city level**

The City of Philadelphia has focused on addressing childhood obesity for more than a decade. These efforts to address childhood obesity span city agencies, including the Department of Public Health, the School District of Philadelphia, the City Planning Commission, and the Mayor's Office of Transportation and Utilities. In the last 15 years, Philadelphia has implemented several coordinated, city-wide changes to promote health:

- Nutrition education provided to all public school students whose families are eligible for the federal Supplemental Nutrition Assistance Program (SNAP) since 1999;
- New financing methods created to attract grocers to open stores in lower-income neighborhoods, beginning in the mid-2000s;
- A new law passed in 2010 requiring chain restaurants to post calorie information on menus and menu boards; and
- Comprehensive Get Healthy Philly initiative created to leverage leadership of key partners in the effort to reduce the obesity rate.<sup>49</sup>

To address childhood obesity in schools, the city also implemented a district-wide school wellness policy in 2006. The School Nutrition Policy Initiative (SNPI) combined nutrition education, access to healthy food, elimination of calorically dense foods, marketing promoting healthy lifestyles, and parental outreach to create a holistic approach to developing healthier lifestyles. The SNPI:

- Began providing nutrition education for SNAP-eligible students and families. More than half of Philadelphia's students are eligible for free or reduced-price school meals
- Removed all sodas and sugar-sweetened drinks from public school vending machines (this was done in 2004 before the wellness policy passed, making Philadelphia one of the first jurisdictions in the country to do so)
- Set guidelines for school meals, snacks, and drinks, physical activity, and nutrition education
- Banned deep fryers in school kitchens and switched from serving 2% milk to 1% and skim milk

The implementation of the SNPI in the Philadelphia School District demonstrated a marked decrease in the incidence of overweight in participating 4<sup>th</sup> through 6<sup>th</sup> graders. In the evaluation, researchers found that the occurrence of overweight students in the study sample was 50% lower for SNPI participants. After controlling for age, race/ethnicity, and gender, researchers concluded that students experiencing the intervention were 33% less likely to be overweight. On the school-level, the prevalence of overweight had decreased by 10.3% in intervention schools while increasing by 25.9% in control schools.<sup>50</sup>

## Enabling policies at the state level

In the past few decades, Pennsylvania established several initiatives to reduce childhood obesity.<sup>51</sup>

- In 2004, Pennsylvania established the Fresh Food Financing Initiative to increase access to healthy food. Running for six years, the program was designed as a public-private partnership among the Commonwealth of Pennsylvania, the Reinvestment Fund, the Food Trust and the Urban Affairs Coalition to attract supermarkets and grocery stores to underserved urban and rural communities. In Philadelphia, the program developed 18 grocery stores in high-need areas.
- In 2007, Pennsylvania enacted legislation to provide supplemental reimbursement for each breakfast and lunch served as part of the National School Lunch and School Breakfast Program. It applies to all schools that adopt and implement the Department of Education's nutrition standards for food and beverages as part of their wellness policy. The Commonwealth also created a School Nutrition Program to enable healthier food and beverage choices in schools by implementing menu labeling systems in school cafeterias and vending machines, developing educational materials for the menu labeling system, increasing the availability of foods and beverages that meet USDA and Department of Education nutrition guidelines in cafeterias and vending machines, and promoting healthier foods and beverages.
- In May 2013, the Pennsylvania General Assembly resolved to establish an advisory committee of representatives from the Departments of Agriculture, Education, and Health, medical professionals, nutritionists, educators, community leaders, and representatives from nonprofit organizations and associations whose missions include the promotion of healthy living initiatives to conduct a comprehensive study of childhood obesity in the Commonwealth and best practices in other states. The final report for the study is expected in June 2014.
- Pennsylvania also has several policies that enable healthy behaviors, such as statewide standards for physical education, monitoring of school wellness policies, requirements for the annual collection of students' Body Mass Index (BMI), or height and weight, and the support of Safe Routes to School programs.

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