Moving the Needle on Childhood Obesity in Allegheny County

Healthy Kids Allegheny Task Force

of the

Plan for a Healthier Allegheny

Chronic Disease Risk Behaviors Working Group

March 2020 Final Report & Recommendations

March 2020

Dear Residents of Allegheny County,

I'm pleased to share with you the Allegheny Health Department's report of the Healthy Kids Allegheny Task Force about *Moving the Needle on Childhood Obesity* in Allegheny County. This important work provides a guide for improving the health of our youngest Allegheny County residents by providing a strategy for reducing childhood obesity, which is vitally important if we are going to reach our overall goals of improving health in the county.

Reducing childhood obesity is a high priority for the Chronic Disease Risk Behaviors Work Group of the Plan for a Healthier Allegheny. The goal of the Chronic Disease Risk Behaviors priority area is to "Decrease preventable chronic disease by assuring access to resources, knowledge, and opportunities for residents to adopt healthy behaviors." The first objective in this focus area is to decrease obesity among school-aged children and we are measuring this with individual students Body Mass Index (BMI) data. Our objective is to reduce obesity by 10% over 5 years.

There is good news. We have a coalition of very active organizations who are working to achieve this goal. You will learn more about their work in this report.

Our work, however, is far from done. According to the 2016 Allegheny County Health Survey, 65% of adults reported height and weight corresponding to overweight or obese BMI categories. Childhood obesity rates are also high; in 2014-2015, 28.7% of K-6 and 31.2% of 7-12 graders were overweight or obese, and these rates have remained relatively stable for several years. There is high variability at the school district level; in 2014-2015 the range of overweight and obese children was 18%-45% among K-6 and 18%-50% among 7-12 for districts with at least 100 students. Compared to 2013-2014, many school districts reported similar overweight and obesity rates in 2014-2015.

Thank you for your interest in improving the health of the youngest residents of Allegheny County, and special thanks to the Task Force members and our Chronic Disease Work Group of the Plan for a Healthier Allegheny, for helping with this report.

Sincerely,

Debra L Bogen MD

Debra L. Bogen, MD
Director
Allegheny County Health Department

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Acknowledgements

Thank you to all partners for your expertise and assistance during this cross-sectional collaboration! The Healthy Kids Allegheny Task Force meetings were regularly attended and advised by the following partners:

Pittsburgh Food Policy Council
Allies for Children
APOST Allegheny Partners for Out-of-School Time
aiu3 Allegheny Intermediate Unit
Propel Schools
The Food Trust
Pennsylvania Association of School Nurses and Practitioners
adagio health
Highmark Foundation
UPMC Children's Hospital of Pittsburgh
Pittsburgh Public Schools
United Way of Southwestern Pennsylvania
University of Pittsburgh School of Education Department of Health and Physical Activity
UPMC Children's Community Pediatrics
Gateway Health
Allegheny County Economic Development Coordinating Success
Repair the World
Common Threads

Summary and Priority Recommendations

The following report encompasses the work of the Moving the Needle on Childhood Obesity project, an effort that created the Healthy Kids Allegheny Task Force to develop a collective impact strategy to reduce childhood obesity.

Priority Recommendations

Local Legislation: Resolutions with Best Practice Recommendations	Recommend Allegheny County Board of Health, Allegheny County Council, or Pittsburgh City Council pass a resolution with best practice recommendations for early care and education, active recess, moderate-to-vigorous physical activity, active school day, and/or healthy out-of-school time environments (see recommendation 1.7, 2.11, 3.6)
Create Healthier Child Care Environments	Expand capacity of UPMC Children's Hospital of Pittsburgh Healthy Early Childhood program for larger reach of NAP SACC technical assistance (1.4); AIU adopt the NAP SACC program to implement with all early child care providers (1.2)
Improve Early Child Care Environments Through Tailored Early Care Health Curriculum	Assess opportunities to implement Hip Hop to Health Jr. in low-income child care populations (1.5); Recommend Head Start programs and other preschool-based settings that reach Latino preschoolers implement Fit 5 Kids (1.6)
Create Healthier Afterschool/Out-of-school Time Programs	Continue to expand Children's Healthy Out-of-School Time (HOST) program in the county, implementing Alliance for a Healthier Generation framework to improve nutrition and physical activity policies (3.4)

Introduction

Plan for a Healthier Allegheny

The Allegheny County Health Department (ACHD) completed a **Community Health Assessment (CHA)** in 2015. The CHA is a comprehensive document that covers a wide array of topics in order to give an overview of public-health-related issues in Allegheny County, with information gathered from a variety of sources, including: an online survey completed by over 1,000 residents of Allegheny County, firsthand feedback gathered from 14 community meetings, the Allegheny Health Survey conducted in 2010, and statistics from the Health Department and other county agencies as well as state and national datasets. The four data sources were coded and categorized into 50 areas and presented to the Advisory Coalition.[1]

The 2015 CHA advisory coalition identified 20 key public health issues in Allegheny County, including Chronic Disease Health Risk Behaviors. The three behaviors that contribute to the majority of preventable chronic disease include smoking, obesity/poor nutrition, and physical inactivity. Allegheny County smoking rates are particularly concerning because they are above the state and national rates. Obesity rates are not as high as the national average, but they have not improved over time and are increasing.

From the 2015 CHA, ACHD completed a Community Health Improvement Plan, called **the Plan for a Healthier Allegheny (PHA)**. The PHA is a guide for health improvement for the next 3-5 years, in which the 20 key themes from the CHA were used to assist decision makers to determine priorities for the PHA. The PHA identified five priority areas, including:[2]

1. Access: Access to Healthcare Services, Insurance, Transportation
2. *Chronic Disease Health Risk Behaviors: Obesity/Poor Nutrition, Physical Inactivity, Smoking/Tobacco*
3. Environment: Air Quality, Unconventional Oil and Gas Production (UOGP), Water Quality
4. Maternal and Child Health: Asthma, Breastfeeding, Infant Mortality, Low Birth Weight, Parental Support
5. Mental Health and Substance Use Disorders: Depression, Drug and Alcohol Use, Integration of Mental Health into Physical Health

- *Health equity* is a cross-cutting theme that should be addressed across all five priority areas

The Chronic Disease Health Risk Behaviors work group serves as the conduit for community partners to work together to make an impact on behaviors, such as poor nutrition, physical inactivity, and smoking/tobacco. The goal for the priority area is to decrease preventable chronic disease by assuring access to resources, knowledge, and opportunities for residents to adopt healthy behaviors. Following are the organizations represented on the work group:

412 Food Rescue
Allegheny County Economic Development
Allegheny Health Network
Allies for Children
American Heart Association
Bike Pittsburgh
UPMC Children's Hospital of Pittsburgh
Common Threads
Duquesne University

Gateway Health
Grow Pittsburgh
Healthcare Council of Western PA
Jewish Healthcare Foundation
Just Harvest Regal
Pittsburgh Community Reinvestment Group
Pittsburgh Food Policy Council
Pittsburgh Parks Conservancy
Riverlife Pittsburgh
The Food Trust
Tobacco Free Allegheny
United Healthcare Porter
University of Pittsburgh Graduate School of Public Health
University of Pittsburgh
UPMC Health Plan
Wellbridge Health
YMCA of Greater Pittsburgh

Healthy Kids Allegheny Task Force

Objective 2.1 of the Chronic Disease Health Risk Behaviors priority area is to *decrease obesity in school-age children*. Consistent with this focus on decreasing obesity in children, the Public Health Improvement Fund (PHIF) funded a project to be led by the work group: *Moving the Needle on Childhood Obesity*. The Public Health Improvement Fund (PHIF) is a blended fund managed by the Pittsburgh Foundation, which was initially developed to support capacity building and infrastructure needs at the Allegheny County Health Department (ACHD). In 2016, the scope of the fund was expanded to include public health projects surfaced by the work of the PHA. The fund is available to ACHD leadership, who look to PHA work groups to identify possible needs

The project was initiated by the work group. All the partners agreed that decreasing childhood obesity in school-age children is a high priority of the collective work of the PHA. The work has been guided by a subset of the work group in the creation of the **Healthy Kids Allegheny Task Force (HKATF*).*** Initially called the Childhood Obesity Task Force, the HKATF has met regularly since October 2018 and agreed to rename, rebrand, and refocus on children's overall health and wellness. Addressing childhood obesity requires a multi-sector, collaborative focus on the many health risk behaviors and community-wide factors that impact a child's opportunity to be healthy. With this, the HKATF identified health equity as a focus through addressing the social determinants of health when considering childhood obesity as a health outcome.

This report comes out of the work of the *Moving the Needle on Childhood Obesity* project. The aim of the project was to develop a collective impact strategy for addressing childhood obesity in school-aged children in Allegheny County. The ACHD brought together partners into the HKATF as part of the PHA Chronic Disease Health Risk Behaviors working group, *Live Well Allegheny* and other key stakeholders to review data, gain an understanding of best practices and work currently being done in Allegheny County, and use this information to develop a collective action strategy.

The project conducted a national environmental scan to review case studies and a local environmental scan to assess current work being done in Allegheny County to reduce childhood obesity, ultimately producing a gap analysis. The project also developed a database of evidence-based interventions, through researching interventions and case studies of communities that are known to have reduced childhood obesity rates of school-aged children. Utilizing all available data, the project ultimately used a collective

action strategy to come up with recommendations to move the needle on childhood obesity in Allegheny County.

The anticipated impact of the project is to:

1. Short and Intermediate-term: Identify possible needs for service coordination and possible gaps in existing services.
2. Long-term: Decrease obesity among school-aged children, as measured with individual student Body Mass Index (BMI) data.

This report encompasses the work of the *Moving the Needle on Childhood Obesity* project as an effort of the *Healthy Kids Allegheny Task Force* to develop a collective impact strategy to reduce childhood obesity.

Background

Childhood Obesity

Childhood obesity is a pressing public health concern, impacting nearly 1 in 5 people aged 6 to 19 years in the United States.[3] Obesity, defined as having excess body fat, is widely measured using Body Mass

Index (BMI). BMI is a person's weight in kilograms divided by the square of a person's height in meters. Measuring height and weight to calculate BMI is a widely used screening tool for obesity, as it is easier and less expensive to implement than other methods.[4] Obesity can be simplified as an imbalance between energy intake and expenditure over a prolonged period but is caused by a complex web of societal and biological factors.[5]

Obesity is a complex health issue, influenced by a variety of factors such as behavior, genetics, socioeconomic status, microbiome and community. Dietary patterns (e.g., high intake of sugar-sweetened beverages and solid fats and larger portion sizes) as well as a decrease in overall physical activity and an increase in sedentary lifestyle contribute to obesity. Where people live, or their community environment, can affect their ability to make healthy choices. For example, limited access to affordable and healthy foods, safe and accessible areas to play or exercise, or peer and social supports can negatively impact diet and physical activity.[6] Community and neighborhood design and safety is an environmental factor that can be influenced to make it easier for a child to achieve and maintain a healthy weight. In addition, schools can adopt policies and practices that help school-aged children achieve a healthier lifestyle such as increasing access fruits and vegetables, obtaining at least 60 minutes of physical activity daily, and eating fewer foods and beverages high in sugars or solid fats.[7]

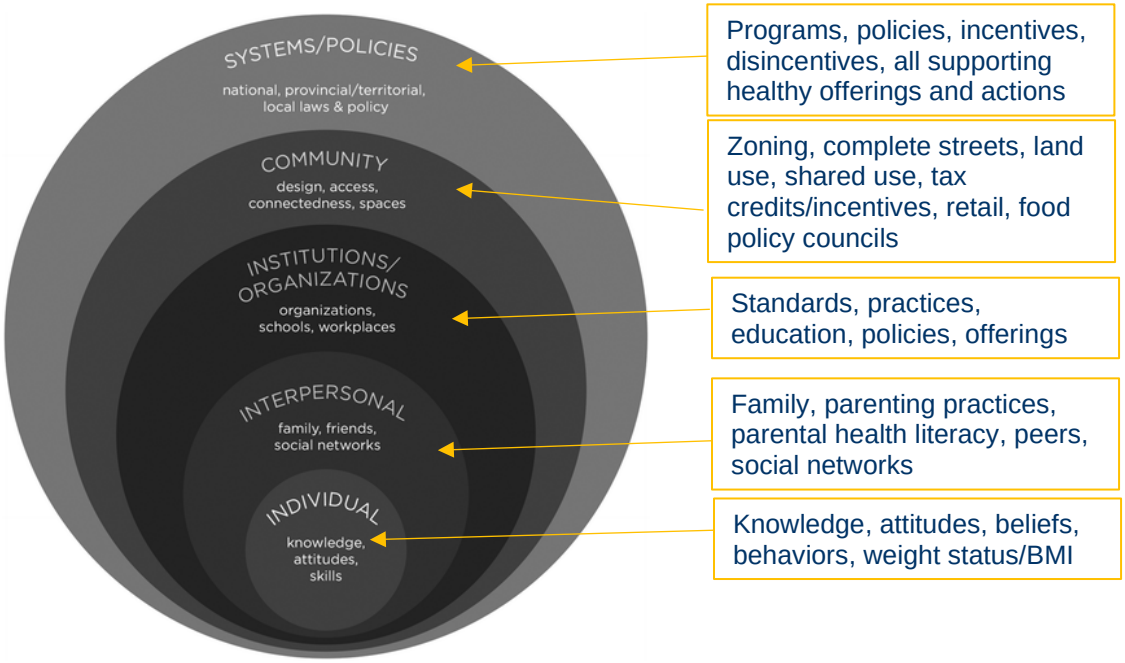


Figure 1. Social ecological model for preventing childhood obesity (Source: McLeroy K, Bibeau D, Steckler A, et al. An ecologic perspective on health promotion programs. Health Educ Q 1988; 15:351–377.)

Obesity during childhood has immediate and long-term efforts on physical, social, and emotional health.[8] According to the Centers for Disease Control, children with obesity: [9]

- Are at a higher risk of having other chronic health conditions that influence physical health, called comorbidities. These comorbidities include asthma, sleep apnea, bone and joint problems, type 2 diabetes, and risk factors for heart disease.

- Are bullied and teased more than their peers who are at a normal weight.
- Are more likely to suffer from social isolation, depression, and lower self-esteem.
- Are more likely to have obesity as an adult and are therefore at higher risk for developing long-term health outcomes, such as heart disease, type 2 diabetes, metabolic syndrome, and many types of cancer.

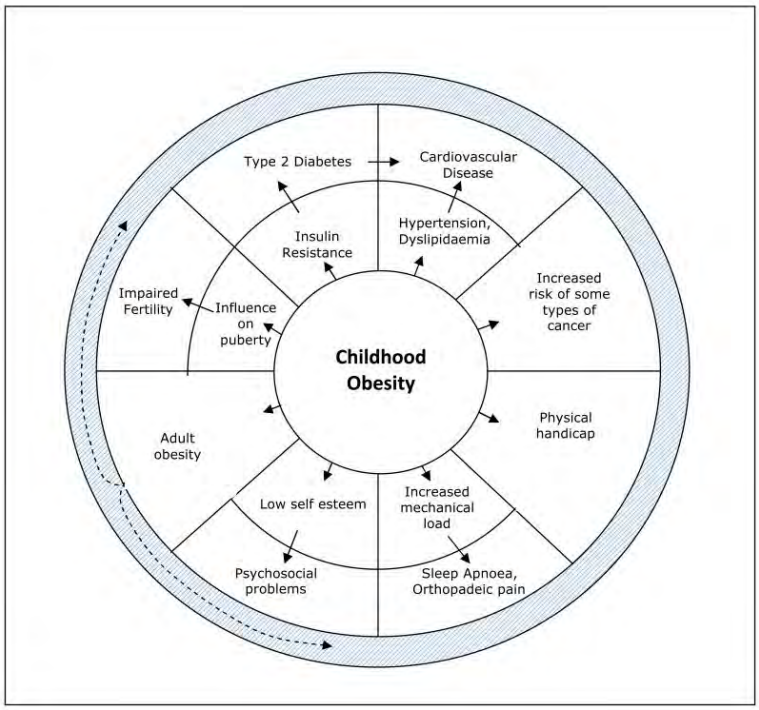


Figure 2. by Lakshman et al: "Schematic summary of the complications of childhood obesity. Comorbidities of childhood obesity are depicted in the outer ring with their intermediate processes in the inner ring. Childhood obesity also increases the risk of adult obesity, which in turn also increases the likelihood of those comorbidities."

The U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion released Healthy People 2020 with goals and objectives to improve the health of all Americans over a 10-year period. The nutrition and weight status topic area goal is to "promote health and reduce chronic disease risk through the consumption of healthful diets and achievement and maintenance of healthy body weights."[10]

While childhood obesity and adult obesity are of great concern as complex and challenging public health problems, it is valuable to emphasize that efforts to change diet and weight are not just individual efforts; rather, population-based policies and environments can be modified to support these behaviors in settings such as schools, work, healthcare organizations, and communities.

Healthy Kids

Chronic disease risk behaviors that impact childhood obesity are important for for a child to be healthy – primarily, 60 minutes of daily physical activity and a healthful diet. Promoting healthy lifestyles and behavior change in youth and families requires promoting healthy communities. A resource for promoting healthy behaviors to prevent obesity in our youth by the American Psychological Association states that "to promote active lifestyles youth and families need access to safe spaces for physical activities, access to a variety of foods, and opportunities for physical activity regardless of physical ability."[11]

More than BMI: Measures and Outcomes

Healthy behaviors address the key target areas to impact childhood obesity and make a difference on BMI outcomes in our youth. It is important to acknowledge that BMI is one measure of childhood obesity, and while it serves as an important outcome for surveillance of the health of the children in a community, it is not the only indicator of health. Measures of energy intake and energy expenditure, such as physical activity and dietary intake, are important outcomes of interest that address the key behavior changes associated with reducing childhood obesity and improving overall health.[12]

In addition to measuring behavior change, there are outcomes beyond the physical effects of overweight and obesity that reflect the overall health of children and require consideration, reflecting the shared interest in children's health and well-being across sectors. Emotional and social costs associated with overweight and obesity in childhood have profound effects on overall health and well-being and reflect the toll of the obesity epidemic on society.[13] A study of cross-sectional data from the 2011-2012 National Survey of Children's Health by Carey et al. (2015) found that BMI status is significantly associated with all educational outcomes ($p<0.001$ for all), overall health status ($p<0.001$), and healthcare utilization ($p=0.016$).[14] Some of these important health outcomes and considerations are included below.

Psychological Health

Overweight and obesity in childhood have profound psychological and physical health effects. Childhood obesity can negatively impact social and emotional well-being and self-esteem,[15] is related to psychological problems, such as anxiety and depression, and social problems, such as bullying and stigma, which may further exacerbate psychological problems.[16],[17]

Academic Performance

Factors in a school environment such as access to healthy foods and physical activities can "positively influence the health of students and improve academic achievement" according to the Centers for Disease Control, as shared in a report on *Health and Academic Achievement*.[18] Evidence suggests that children who are overweight or obese are more likely to have poor academic performance.[19] The exact association between obesity and poor academic performance remains unclear and researchers are working to define the underlying mechanism, but studies have found that working memory deficits partially explain the poor academic achievement of children with obesity.[20]

Educational Attainment

Research has demonstrated that childhood obesity is an academic risk factor and has implications for a child's educational attainment as an adult. Individuals with childhood obesity are less likely to transition to college and even less likely to gain an advanced degree.[21] Academic achievement of students is extremely important due to the link between educational attainment and employment opportunities, underpinning the physical and emotional toll of obesity, as the social burden of childhood obesity may include lasting effects on economic mobility.[22]

Quality of Life

Childhood obesity is associated with a lower quality of life experienced by a child, which has important psychosocial implications that should be addressed through behavioral health interventions.[23]

Health in All Policies

Working in communities to create an opportunity for all children to be healthy is a shared interest of many different organizations, including but not limited to those across sectors that focus on violence prevention, food access, education, healthcare, and transportation. Cross-sector partnerships can make a

significant difference for families, as children's health stakeholders can work together to equip families with the supports and navigation they need to support the health and overall well-being of the family. However, improving the coordination of care and resources to address the social determinants of health for all children requires a family-centered approach to health and well-being.

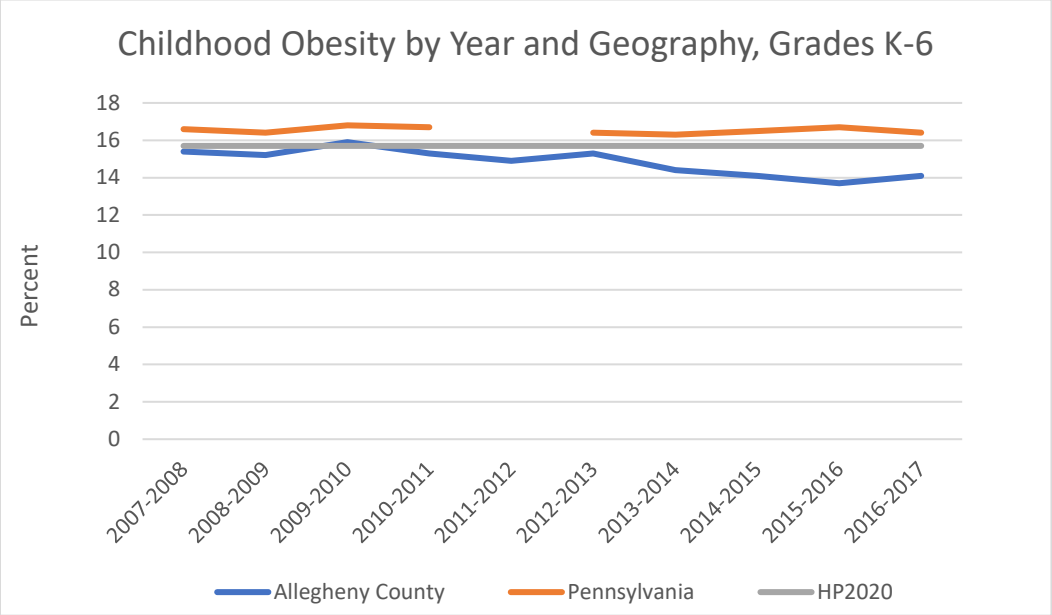
The overlap of shared interest in children's health and social services that address the social determinants of health for families should be addressed by developing multi-sector partnerships that coordinate and communicate around a shared aim: the health and well-being of our kids.[24]

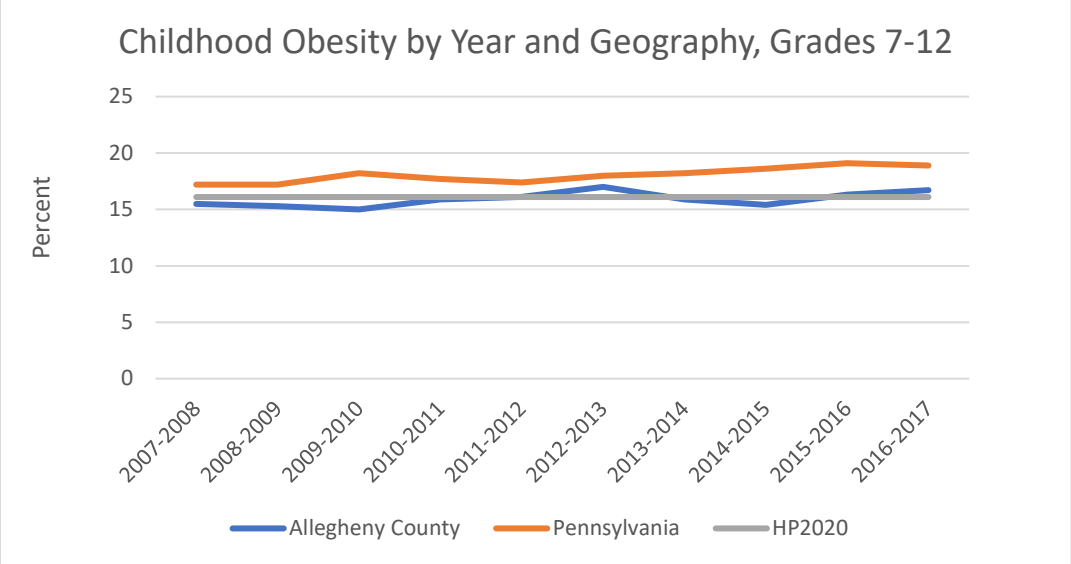
Integrated public health policies, or *health in all policies*, is the best means to address the high prevalence of childhood obesity. Intersectoral collaboration on policy development, through framing health goals in the terminology of non-health policy sectors, can increase the awareness of public health and develop policies that increase the effectiveness and sustainability of health promotion efforts to prevent childhood obesity.[25]

The *Healthy Kids Allegheny Task Force* is a multi-sector collaboration brought together through the Plan for a Healthy Allegheny that seeks to promote equal opportunity for Allegheny County children to be healthy with access to healthy and nutritious foods and the ability to safely obtain adequate physical activity. Reducing childhood obesity, the goal of the *Moving the Needle on Childhood Obesity* project, begins here, with a shift in the conversation, and a focus on helping our kids to be healthy through the systems, communities, and settings they interact with every day. Ultimately, this report will provide recommendations developed by stakeholders for what stakeholders can do to engage, enhance, and spread their efforts to promote health in our children.

Allegheny County Data on Childhood Obesity

In Allegheny County, childhood obesity rates have consistently been lower than the rates for Pennsylvania since 2007-8. Obesity rates among children in grades K-6 have gradually declined and are below the Healthy People 2020 (HP2020) goal of 15.7%; however, for children in grades 7-12, rates have been stagnant and hover around the HP2020 goal of 16.1%.





Obesity at the school-district-level and individual-school-level can vary greatly. As such, ACHD sought to implement voluntary BMI for Allegheny County schools. Surveys were sent to school nurses of almost 400 schools in October 2018, requesting data from the 2017 school year. Approximately 60% (231) of schools completed the survey, and the percent of students with either overweight and/or obesity was calculated by dividing the number of students with BMI >85th to <95th percentile (overweight) or > 95th percentile (obese) by the number of total students weighed during the school year.

The average (and median) obesity prevalence for all grades was 14%, but school-level obesity rates ranged from 0% to 38% among schools that responded to the survey, with 47 schools reporting obesity prevalence in the highest quartile (between 21% and 38% of students). School-level obesity surveillance provides the ACHD with more granular data than the usual county-level data; this more granular information allows for better planning to work with schools through *Live Well Allegheny* to decrease BMI, and ultimately to improve childhood health and well-being in Allegheny County.

Quartile Range of % overweight or obese	Number of Schools
0 to 9% (lowest quartile)	63
10 to 14%	53
15 to 20%	68
21 to 38% (highest quartile)	47

Environmental Scan

The environmental scan has two parts:

1) An environmental scan of national case studies of declines in childhood obesity, and

2) An environmental scan of strategies derived from case studies and the evidence-base of best practices.

Part One: National Case Studies

Childhood Obesity Declines Project

Summary: The National Collaborative on Childhood Obesity Research (NCORR) created the Childhood Obesity Declines (COBD) Project to "better understand the possible drivers and contributors that may be influencing the reported declines in childhood obesity rates and to explore how these may be related to and part of other health promotion efforts" (NCORR).[26] The COBD Project explored four sites with signs of progress in childhood obesity declines, collecting data on strategies used across settings and performing interviews with key stakeholders. Sites include: New York, NY; Granville County, NC; Philadelphia, PA; and Anchorage, AK.

Findings across these four case studies support the Social Ecological Model (SEM), see page nine in introduction, and the potentially synergistic impact in addressing childhood obesity through "simultaneous public health messaging and multi-layered initiatives and strategies, supported by cross-sector partnerships and high-level champions."[27] All four case study communities enacted similar policies to improve the nutrition environment and increase opportunities for physical activity in the Early Care and Education and K-12 schools settings.

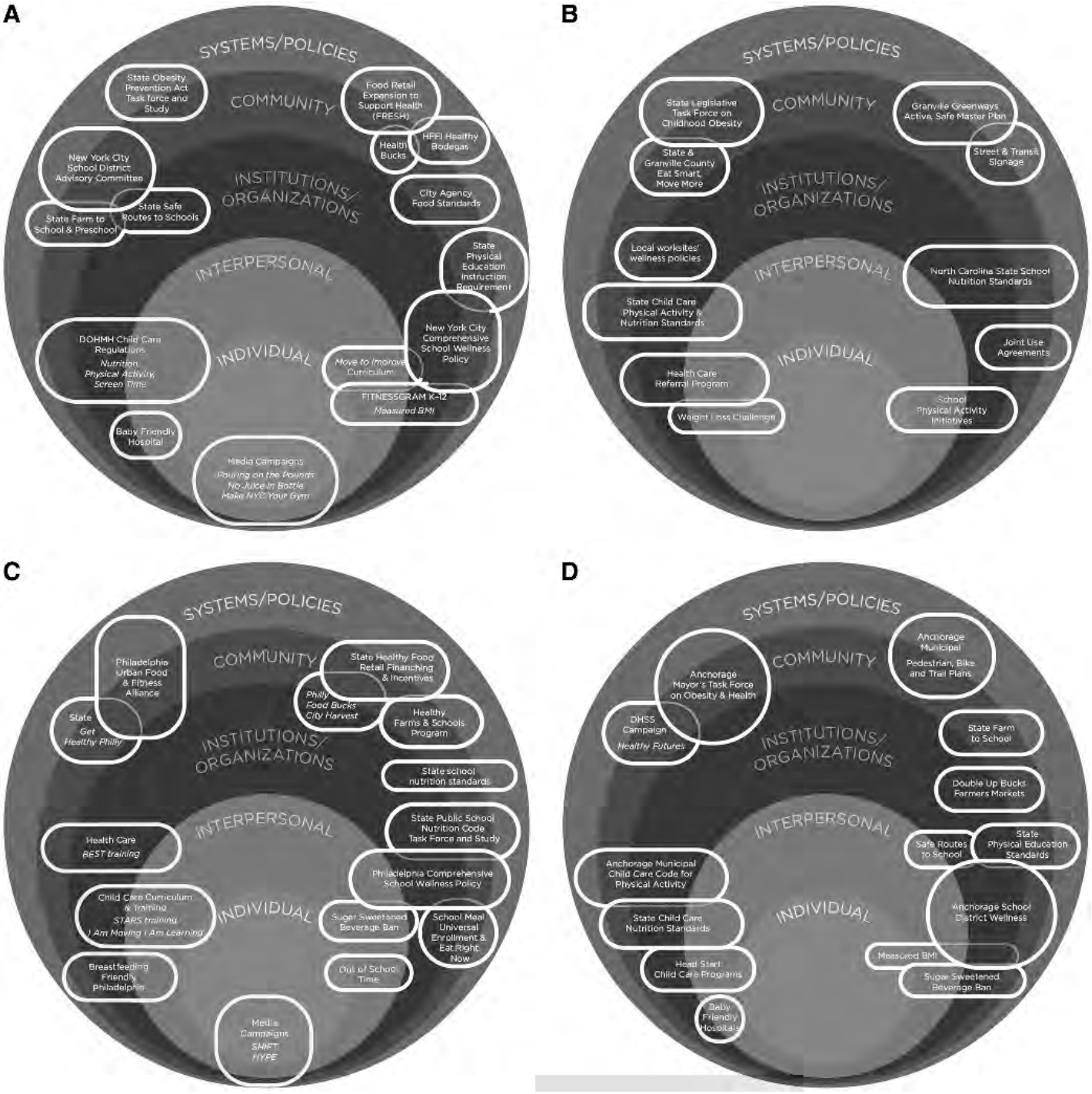
Significant obesity declines for the following case studies include:
Table data source: Jernigan et al. 2018.[28]

Location	Reported significant decline in prevalence of childhood obesity
(A) New York, NY	Relative decrease of 5.5% ($p<0.001$) for children in grades K-6 from 2006-2007 (21.9%) to 2010-2011 (20.7%), with the largest decline in children ages 5-6 years old.
(B) Granville County, NC	Relative decrease of 7.0% ($p=0.001$) in childhood obesity rates for children ages 2-4 years between 2009 (22.7%) and 2010 (15.7%).
(C) Philadelphia, PA	Relative decrease of 4.8% (7.7% for severe obesity) in public schools operated by the School District of Philadelphia among K-8 students between 2006-2007 (21.5%) and 2009-2010 (20.5%).
(D) Anchorage, AK	Relative decrease of 2.2% among children in kindergarten, first and third grades in Anchorage School District between 2003-2004 (18.0%) and 2010-2011 (17.6%).

The following graphic by Jernigan et al. represents the range of policies and programs implemented across the levels of the SEM. Community stakeholder policies or activities are placed on the top left, while topical food system and built environment programs are organized on the top right. Community system-level policies and programs, such as healthcare, child care, and schools, are reflected in the lower half of the figure. The figure does not reflect temporal, singular efforts at one organization, or the

complexity of all possible interactions, but is representative of the range of strategies that occurred in each site.[29]

Strategies and initiatives relative to the social ecological model for: (A) New York, NY; (B) Granville County, NC; (C) Philadelphia, PA; and (D) Anchorage, AK



To read more about these case studies and specific implementation strategies in any of these four locations, please visit https://www.nccor.org/projects/obesity-declines/ to access the site summary reports.

Shape Up Somerville (SUS)

Summary: SUS is a community-based obesity prevention model implemented over time from 1998 to present in Somerville, Massachusetts. SUS began as a two-year, non-randomized, controlled trial that took place from 2003-2005 using community-based participatory research in Somerville, Massachusetts (intervention) and two socio-demographically matched control communities.[30] SUS implemented policies and programs, driven by data, focused on improving the health and well-being of all residents. Intervention efforts have been sustainable, promoting healthy eating and active living during this time through multi-level, community-based approaches, including school, community, and municipal initiatives and activities.[31]

The SUS initiatives have been nationally recognized as an evidence-based community obesity prevention model. Analyses found that Somerville school-aged children experienced small but statistically significant declines in average BMI percentile during the study timeframe. In the first two years of intervention implementation, BMIs of children in the intervention community (Somerville) decreased by 0.06 absolute value compared to controls, and the prevalence of overweight/obesity decreased in males and females in intervention compared to controls.[32]

To read more about Shape Up Somerville and specific implementation strategies, please visit https://www.somervillema.gov/sites/default/files/shape-up-somerville-story.pdf to access the report about SUS through the years.

Chula Vista Elementary School District (CVESD)

Summary: In 2010, CVESD decided to measure the BMI of over 25,000 students in 44 elementary schools to allow for more strategic wellness planning and policy development. They analyzed and translated the data in partnership with the County of San Diego Health and Human Services Agency (HHSA) Community Health Statistics Unit. Recognizing that 40% of the students measured were either overweight or obese, CVSD reported cumulative district-wide and individual school group results to each school, as well as to parents and community members. CVSD developed a plan of action to address the health of their students, beginning with changes to the district wellness policy. Repeating the Height and Weight Surveillance Project again in 2012, CVESD found a 3.2% decrease in the obese or overweight range for all students and a 3.2% gain in the normal range, as well as a decline in the obese range at every grade level.[33]

CVESD became the first Live Well San Diego school district in 2013. Since then, they have taken on a multitude of efforts to help kids make healthier choices, including school gardens, serving healthier foods in the cafeteria, eliminating sugary drinks on campus, and encouraging families to do the same at home.[34]

To read more about Chula Vista Elementary School District and specific implementation strategies, please visit http://www.livewellsd.org/content/livewell/home/all-articles/partners/partner-home/chula-vista-elementary-school-district.html to access information through Live Well San Diego

Part Two: Case Study Overview – Intervention and Programmatic Overview Across Settings

Achieving declines in childhood obesity prevalence requires a cross-sector multi-level collaboration. The COBD Project examined small declines, highlighting the various organizations and interactions that took place. The retrospective and exploratory nature of the project limit the ability to attribute causation or assess fidelity of these interventions, but these case studies provide an examination of the programs and policies that took place over time at different levels of the SEM to potentially improve obesity outcomes. SUS and LWSD offer two additional local initiatives to prevent and reduce childhood obesity. The following table represents a summary of case study highlights across settings:[35]

Table X. Case Study Highlights

	Early Care and Education	School	Community	Interactions
New York City, NY[36]	NA	New York City school district: • Implemented the Universal Free Breakfast program • Restricted unhealthy beverages and snacks in meals and vending • Promoted fresh fruits and vegetables through the federally funded FFVP • Introduced SPARK physical education training • Conducted obesity screening programs using BMI Physical Activity (PA)requirements in elementary schools revised in 2009 to quantify the amount of time students engaged in PA	New York City: • Implemented the Health Bucks program and Healthy Bodega program • Change in city health codes to adopt food nutrition standards in government and public places • Green Carts program: local legislation established mobile vendors who sell fruits and vegetables • Calorie counts on all menus and menu boards • Mobile Markets • FRESH program provided tax incentives for grocery stores/small markets to relocate to low-income areas (must stock foods that meet city food standards) • Play Streets community event • Schoolyard to Playground program	Within city government agencies: implementation efficiency and buy-in • New York City mayor and health commissioner were committed to reducing the rates of obesity among New Yorkers and invested in strategies to impact childhood obesity • Example: the health department and Department of Education implemented the Move-to-Improve program, created by the health department and operated by the DOE

Granville County, NC[37]	• North Carolina Child Care Commission created licensing requirements around PA and nutrition • State and local health departments supported implementation with training and education to ECE staff	NA	• Eat Smart, Move More (ESMM) developed at the state health department level as a 5-year obesity prevention plan – formalized plans supported all counties through resources and trainings to implement strategies • Granville Greenways PA and active transport initiative through ESMM Campaign funding – county health department gave minigrants to local organizations • Granville County systematic screening process in county's Medicaid clinic to identify children who were overweight or had obesity	Between municipal government: leveraging resources • Leveraged resources to improve the physical environment • Example: Granville Gateways leveraged resources for successful program implementation • Granville County Board of Commissioners approved Granville Gateways Master Plan and appointed a council with members from each municipal government in the county • Each developed a separate pedestrian or bike plan
Philadelphia, PA[38]	NA	School District of Philadelphia (SDP) • Implemented EAT.RIGHT.NOW (ERN) – uses USDA Supplemental Nutrition Assistance Program Education (SNAP-Ed) funding to provide nutrition education to families eligible to receive SNAP benefits • SDP removed all sodas and sugar-sweetened beverages from public school vending machines	• Healthy Corner Store Initiative increases availability and awareness of healthy foods in neighborhood stores • Philadelphia Urban Food and Fitness Alliance (PUFFA) created and implemented a community-driven action plan to improve Philadelphia schools' food system, create opportunities for active living, and create a healthy community food system	Within and across multiple levels of the SEM: engagement, efficiency, and leveraging resources • The Food Trust convened a Comprehensive School Nutrition Task Force • Multi-sector collaborative Task Force led to the SDP Wellness Policy

		• Comprehensive Districtwide School Wellness Policy required coordinated wellness councils with requirements for nutrition and PA standards/ education City of Philadelphia • Healthy Kids, Healthy Communities project to improve PA and nutrition environment in school-based programs out-of-school time • Pennsylvania farm to school • Healthy Farms and Healthy Schools		Between community and city agencies: leveraging resources • PUFFA community alliance shared its community needs assessment with the Philadelphia Department of Public Health • Health department incorporated into its goals and strategies • PUFFA helped to start the Common Market local farm to community food distributor with a grant
Anchorage, AK[39]	• Improvements to the municipal code governing child care licensing, requiring more frequent and vigorous PA for children in all child care centers and child care homes in Anchorage • All Kids Corp Head Start Centers (majority of head start centers in Anchorage) had PA and nutrition programs as required key curricula	• Anchorage School District wellness policies – included the formation of a wellness committee, a wellness policy, and an accompanying 6-year wellness plan • District-wide wellness policy included a soda ban, restrictions on foods sold in school fundraisers, and vending machine controls • Implemented via systematic, school-district-wide training (including a toolkit) for principals, school nurses, and health, PE, and other teachers	• Healthy Futures Project – support of extracurricular physical activity among school-aged children and PA events[40] • Mayor's Task Force on Obesity and Health developed 10-year plan on obesity and health and worked with ASD wellness committee to implement the School Wellness 6-year plan	Between schools and local government: efficiency • Collaboration between the Mayor's Task Force on Obesity and Health and the Anchorage School District Wellness Committee Policy to develop 6-Year Plan • Aligned goals and policies

		• ASD introduced K-6 health and wellness education and added 22 dedicated health and wellness teachers		
Shape Up Somerville: Somerville, MA[41]	See school column	• Food service interventions to improve breakfast and lunch, including staff professional development and improvements to food service infrastructure (equipment and facility) • Walk to school activities • SUS classroom and afterschool curriculum and professional development • Somerville school district wellness policy • Outreach and education to home through materials, forums, event • School-yard gardens and vegetable promotion curriculum and school food service taste tests • Physical Education equipment and gymnasium improvements, professional development to teachers • Fitness testing, BMI screening and monitoring • Nutrition instruction during the school day	• Early on, Somerville health professionals and community advocates met as Nutrition and Physical Activity Task Force - community food assessment grant supported the Task Force • Grants secured for Shape Up Somerville, Growing Healthy, and Active Living by Design • SUS Task Force worked to coalesce healthy eating and active living initiatives • "SUS-approved" restaurants • Community outreach and capacity building through policy development, trainings, and media • Supporting immigrant community organizations' active living activities • Mayor's office implemented a data-driven decision making approach, called SomerStat • Farmers markets promotion activities with links to home and schools • City of Somerville bicycle lane policy and bicycle parking ordinance	• Support and alignment across sectors and organizations, along with progressive leadership and other readiness factors, began the SUS movement • Identification of multiple national and local grant opportunities to support multi-level efforts • Engagement of immigrant participants and communities in planning and supported activities
Chula Vista Elementary	NA	• The School District implemented the Height and Weight Surveillance Project,	NA	NA

School District[42]		measuring BMI of students across the district (to guide strategic wellness planning and policy development and measure impact) • Changes to district wellness policy: non-food birthday celebrations, removing flavored milk from menus, promoting healthy fundraising and supporting stronger language for district-wide consistency • Community Transformation Grant Physical Education, Physical Activity Project to increase quantity and quality of PE/PA; increase moderate-to-vigorous PA during PE and opportunities for students to be active during the day		

Best Practices Across Settings

The environmental scan is divided by the setting in which the intervention or program takes place. Settings are derived from the Childhood Obesity Declines Project methodology, in which key settings where children spend time were examined, including early care and education (ECE), schools, healthcare facilities, and the community-at-large.[43]

The following settings are included in the local environmental scan:

1. Early care and education (ECE)
2. Schools
3. Out-of-school time
4. Community-Wide
5. Healthcare/Clinical
6. Other (e.g. individual behavioral interventions)

Key strategies are derived from a national environmental scan of strategies to decrease obesity prevalence and population health. Potential strategies were first identified from the Harvard T.H. Chan School of Public Health Obesity Prevention Source,[44] a compilation of high-level strategies, recommendations, and resources for changes in key settings.

Other strategies are from published reports, such as the Centers for Disease Control and Prevention (CDC) recommendations for overweight and obesity prevention strategies and guidelines[45] and the Institutes of Medicine recommendations,[46] and case studies of locations that have seen reductions in childhood obesity rates, such as the City of Somerville (Shape Up Somerville) and communities examined in the Childhood Obesity Declines Project (Anchorage, AK; Granville County, NC; New York, NY; and Philadelphia, PA).

Please see Appendix A to view the environmental scan of best practices to reduce childhood obesity across each setting. The next section of the report will share findings from a local environmental scan that includes both the perspective of school nurses and a gap analysis of best practices.

Local Environmental Scan

The local environmental scan was conducted in two parts:

1) Survey of school nurses in Allegheny County
2) Local gap analysis of a select menu of best practices to reduce childhood obesity

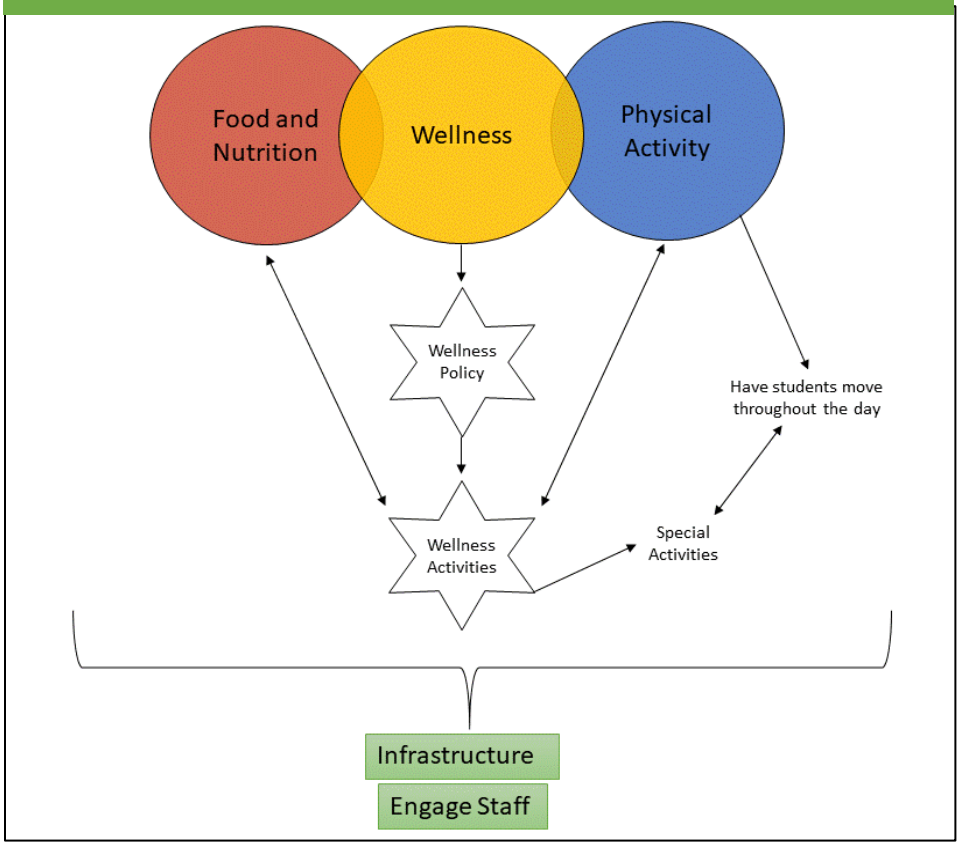
Part One: A Pivotal Perspective – The Role of School Nurses in Children's Health and Wellness

The ACHD partnered with the Allegheny County (AC) Certified School Nurse Association (SNA) to conduct a survey of school nurses to seek perspectives on actions to reduce childhood obesity in AC schools. The survey was conducted as part of the local environmental scan in the *Moving the Needle on Childhood Obesity Project* of the Plan for a Healthier Allegheny Healthy Kids Allegheny Task Force to assess the school environment from a valuable perspective – school nurses.

The Task Force recognizes school nurses as a key stakeholder in children's health and well-being. The survey served as a tool to engage the school nurse perspective on the opportunities for Allegheny County children to be healthy. The president of the SNA sent out an optional survey to the association, drafted and piloted by both the president and the liaison to the HKATF. The survey was completed by a sample of 18 school nurses from 18 different Allegheny County Schools. The findings are not representative of the experiences or perspectives of all school nurses in Allegheny County, but rather represent a snapshot of the experiences of those in the sample who shared with us.

We asked the school nurses of the Allegheny County Certified School Nurse Association

to share information about what their school (district) is doing to reduce childhood obesity



Key Quotes

"Recess in the elementary schools was increased to 30 minutes in the last few years. Dietary [, we have] changed menus to coincide with nationwide nutrition expectations.

"Encouraging exercise throughout the school day. Also have a step challenge between 3 4 5th grade students [wear pedometers] and compete between grade level to see if they can reach 10,000 steps individually.

"[We] sell only snacks in the cafeteria approved by the wellness policy. [We have] monthly wellness activities.

"We train for the kids' marathon in the winter and spring. We also have a healthy kids committee.

"Very little actually. If you look at the free breakfast and lunch meals, they are high carbs or uncooked vegetables that are not very appetizing… Menu isn't ethnically considerate. Difficult to obtain low carb appetizing meals … Very limited physical activity."

We heard from school nurses in the sample about a variety of different approaches that schools and school districts in Allegheny County are taking to reduce childhood obesity.

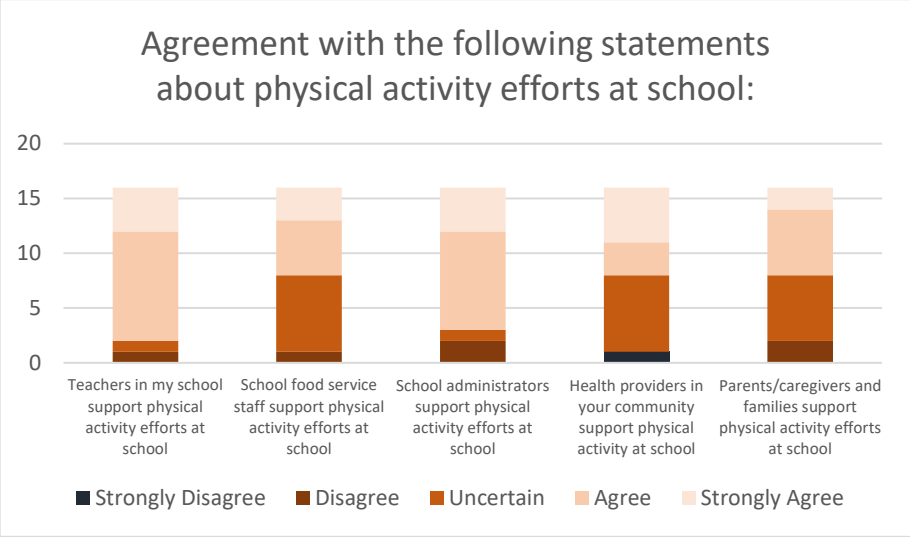
Focusing on *wellness* is a common theme, whether through policies or activities, addressing physical activity or food and nutrition. *Wellness activities* in schools engage staff and students to encourage movement and exercise throughout the school day. *Physical activity* in different forms was described as a key initiative to reduce childhood obesity, as one school district increased recess time in elementary schools. Respondents also detailed activities such as yoga, line dancing, elliptical, dancing to videos, and even a step challenge between grade levels. Districts have adopted initiatives to promote health, wellness, and physical activity such as sponsoring run events, purchasing yoga mats through a grant to offer yoga activities, and "Work Out Wednesdays" where "staff are permitted to wear work out clothes and do extra movement breaks in the classroom to promote physical activity."

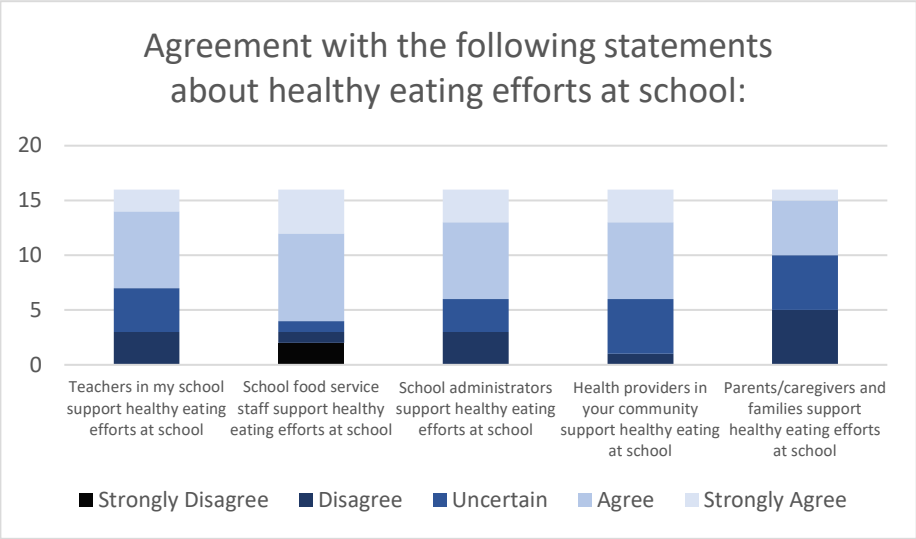
Not all wellness activities shared in the sample are necessarily part of a school district wellness policy, though they may be supported by policy language. However, respondents across the sample explained wellness activities are supported by *infrastructure* and *engaging staff* to promote physical activity, food and nutrition, and overall wellness. Infrastructure investments include funding, investing resources, and bringing in programming. Further, two respondents listed afterschool programming as a key action their school district is taking.

Some school districts support wellness activities around *food and nutrition* through *wellness policies* – for example, selling snacks in the cafeteria only if they are approved by the wellness policy. Other changes to address food and nutrition include improvements to the menu, food service vendors, and removing soda from vending machines.

A few respondents in the sample responded that their school or school districts are doing very little or nothing to reduce childhood obesity. School nurses who shared this perspective noted various *barriers,* including that the meals offered are high-carb or unappetizing and that the lunch time and recess time are often too short to support wellness as they rush children to eat.

Most school nurses in the sample expressed agreement (64%) or uncertainty (28%) with the following statements about **physical activity** efforts at their school.





Most school nurses in the sample expressed agreement (59%) or uncertainty (23%) with the following statements about **healthy eating** efforts at their school.

We asked the school nurses of the Allegheny County Certified School Nurse Association

if they would advocate for any specific nutrition or physical activity policies in their school (district) or for any programs

All respondents said that they would advocate for specific nutrition or physical activity policies or programs in their school. Some school nurses detailed specific ideas for advocacy, including:

Grow Pittsburgh, gym teacher, health teacher as successful tools

District's nutrition department is working diligently to provide a balance of carbohydrates, fats, sugars as well as tasty meals for the school-age child.

Have had CHP Health Partnership come show teachers how to incorporate exercise in the classroom throughout the day

Work closely with school cafeteria to stop selling the hot foods: hot fries, hot chips, hot sauce, hot chicken patties

Additionally, some school nurses took this question to express that they are open to having increased engagement with programs. An interesting perspective on increased engagement involved identifying at-risk children and introducing programming to address health and wellness.

"I would be open to having increased nutrition education in our schools. We have done a number of physical activity programs for fitness, but the nutrition component is lacking."

- School Nurse

"Introduce fun aerobic afterschool activities with an athletic trainer to replace "just academic" afterschool. High risk students should have aerobic activity in throughout their day even if it is 10 min intervals."

- School Nurse

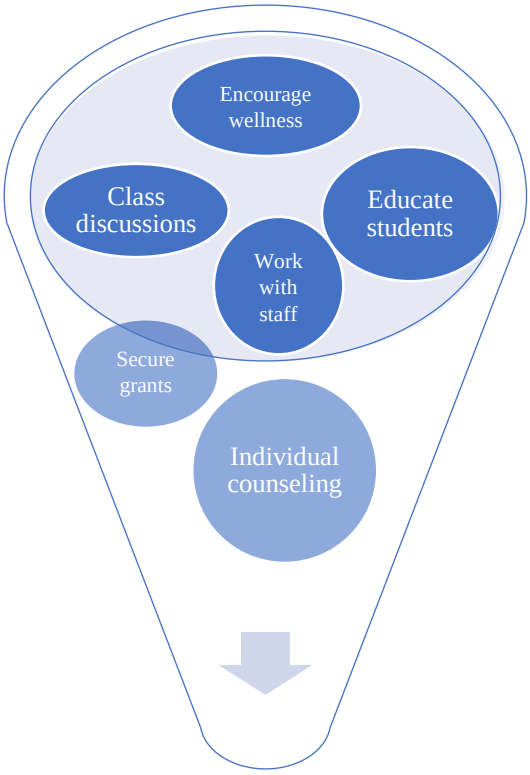
We asked the school nurses of the Allegheny County Certified School Nurse Association

about their role for promoting the prevention and reduction of childhood obesity among children and adolescents in schools

School nurses spoke to their roles as healthcare providers within the school that emphasize and support wellness policies and collaborate with "teachers, students, families and staff in order to support the healthcare needs of the school community," as shown below. Half of respondents shared their role in screening: monitoring height and weight and referring BMI results home to parents/guardians. One school nurse noted a limited role due to challenges accommodating school wellness with administrative testing requirements: "no time for wellness lessons from myself, student wellness team, PE teacher."

"**As a healthcare provider**, I mostly educate. I bring students in and counsel regarding simple aerobic activities to boost metabolism. Jump rope, jumping jacks before you leave home for school and afterschool. Knowing the difference between fast and slow carbs and how they affect your health. Eating in moderation."

- School Nurse



"**I'm the school nurse**. I like to join the classrooms that are having discussions about healthy living habits. I also educate students why it is so important to get out and play and to eat healthy foods."

- School Nurse

"Emphasizing and supporting wellness policies and school efforts aimed at encouraging healthy habits"

- School Nurse

We asked the school nurses of the Allegheny County Certified School Nurse Association

to share the challenges they face in reducing or preventing overweight and obesity in their school population

School nurses in the sample shared challenges they face to reducing or preventing overweight and obesity in their school populations. These challenges are important to consider and look to address in the development and implementation of school-based obesity prevention programs. Organized by theme, the below graphic shares the variety of responses from the role of parent/guardian to overarching social determinants of health.

Academic issues are priority

- Pennsylvania System of School Assessment scores come first
- Difficult to value healthcare provider recommendations

The role of parent/guardian

- Compliance to healthier options
- Lack of involvement/encouragement
- Family lifestyle

Use of food as a reward

- Teachers and parents: do not understand ramifications; culture difficult to change
- Party and birthday treats not restricted
- Ice cream parties or pizza as reward

Outside food

- Afterschool snacks
- Undesirable lunches and snacks packed for children

Time limitations

- Teaching healthy eating habits when rushed
- No time for wellness lessons

Social determinants of health

- Income drives food choices
- Mental health, housing, trauma, neighbor[hood] issues, socio-economic factors

Other

- Dislike for taste of healthier options
- High fat/refined carbs (breakfast and lunch foods)
- Large school population makes assemblies expensive and difficult to coordinate
- Food allergies limit nutrition education activities, for example: sampling new foods, tasting garden veggies

We asked the school nurses of the Allegheny County Certified School Nurse Association

what resources may them work to reduce or prevent overweight and obesity in their school population

When asked if there are any resources that could help the school nurses work to reduce or prevent overweight and obesity in their school population, school nurses in the sample shared ideas for nutritional services through programs or speakers and money for physical education programs (such as stationary bikes, playground equipment, or amping up asphalt lots for safety).

"As a possible obstacle for school nurses, we try to educate parents to serve their children minimally processed food, but our cafeterias serve ultra-processed food as part of lunch programs, so we seem disingenuous. The research is clear that eating whole foods is better for all humanity."

- School Nurse

"I think nutrition is the missing component in our district, but it needs to be offered to students and families with parental involvement. We have talked about having a health fair … where we could have health and wellness professionals come in and promote nutrition, etc., to parents and kids, but it would need to be for free, since the PTO would not be able to fund an extensive program like that.

Or other after-school nutrition lessons for kids, with possible parent involvement? Something that has been researched based and known to be effective. I think those ideas would be beneficial."

- School Nurse

Part Two: Gap Analysis – Policy, Systems, and Environmental Change

The following gap analysis is a policy, systems, and environmental (PSE) examination of practices and interventions in Allegheny County to improve children's health in the County. A gap analysis is a method of determining what a gap-in-knowledge is, through identifying the difference between the desired best practice and current knowledge and practices.[47] PSE change looks beyond programming and into the interactions that create the systems where we live, work, and play. Based on The Food Trust's guide to policy, systems, and environmental change, the gap analysis examines best practice tools for change at the policy-system-and environment-levels.[48] The gap analysis identifies the difference between current PSE and desired, evidence-informed PSE change.

- Policy change efforts encompass institutionalizing new rules or procedures or passing laws or resolutions at the legislative or organization level.
- Systems change, often working hand-in-hand with policy change, involves change made within an organization focused on infrastructure at a systematic level, such as instituting or modifying processes and procedures.
- Environmental change strategies are changes to the physical environment that promote healthy behaviors and lifestyles.

The interventions included in the gap analysis are select interventions provided by the Harvard T.H. Chan School of Public Health Childhood Obesity Intervention Cost Effectiveness Study (CHOICES). The CHOICES project research team has researched obesity treatment and prevention strategies, compiling those with strong evidence that they can reduce obesity and/or the behaviors that contribute to obesity. The Allegheny County Health Department (ACHD) was selected to join the CHOICES Learning Collaborative Partnership in 2018. This year-long process brings together health agencies and the expertise of the CHOICES team to build capacity among local decision makers to use cost-effectiveness analysis to identify childhood obesity prevention strategies that offer the best value for money. This partnership process helps to cultivate alliances and support for future childhood obesity prevention planning.

The CHOICES team released the CHOICES Childhood Obesity National Action Kit in 2019, which provides a menu of 14 effective strategies across multiple settings (early care, schools and out-of-school time, communities, and clinical). In the kit, up to four strategies can be explored at a time, allowing comparison for national implementation based on model projections.[49]

The gap analysis examines a menu of evidence-based strategies to reduce childhood obesity and their presence or opportunities to engage in these strategies in Allegheny County. Divided into policy, systems, and environment sections, each gap examined is color-coded by the relevant setting and the addressed target audience, as follows in the key below:

SETTINGS – Target Audience
Early Care and Education Providers
School
Out-of-school Care
Government and Community
Clinical and Healthcare

Gap	Audience	Intervention details and current scope of work in Allegheny County	Recommended actions to respond to gaps	Sampling of resources	Local orgs
POLICY					
1. An opportunity exists to eliminate outside food and sugary drinks in afterschool programs, through collaborations between afterschool programs and public health practitioners.	**Out-of-school Care**	• UPMC Children's Hospital of Pittsburgh (UPMC CHP) is the local manager for Alliance for a Healthier Generation programs. The Alliance's Healthy Out-of-school Time (HOST) offers a roadmap and technical assistance for programs. • Allegheny Partners for Out-of-school Time (APOST) is a "partnership of funders, intermediaries and providers dedicated to building a quality Out-of-School Time (OST) System that will contribute to the healthy successful development of young people as they progress through their school years, graduate from high school and enter into adulthood."[50] • APOST Quality Campaign members focus on high-quality programming and management to improve outcomes and impact on youth. • APOST and HOST are connected for implementation. • Adagio Health's nutrition department delivers Power Up, a USDA-funded SNAP-Ed nutrition education program. • Adagio Health works with UPMC CHP through HOST to improve children's health in the afterschool setting, providing direct nutrition education to sites enrolled in the HOST program and nudging other sites to enroll in the program.	➢ ***Public health practitioners and decision makers*** • APOST emphasizes policy and advocacy, offering a lever to eliminate outside food and sugary drinks, or just sugary drinks, in out-of-school time programs. • Policy should be developed with the input of out-of-school time programs participating in APOST and HOST. • HOST, APOST, Adagio, and other partners can work together to help implement policy in out-of-school time programs. HOST program could provide technical assistance.	Child and Adult Care Food Program (CACFP) https://www.fns.usda.gov/cacfp/afterschool-programs National School Lunch Program (NSLP) https://www.fns.usda.gov/cacfp/afterschool-programs Food Research & Action Center: Afterschool Nutrition Standards of Excellence http://frac.org/wp-content/uploads/afstandards.pdf No Kid Hungry Center for Best Practices: About Afterschool Meals http://bestpractices.nokidhungry.org/programs/afterschool-meals/about-afterschool-meals Adagio Health https://www.adagiohealth.org/power-up Raise Your Hand for Health: Resource Guide https://www.phipps.conservatory.org/assets/documents/Raise-Your-Hand-For-Health.pdf CHOICES Model Brief: Philadelphia Sugary Drink Tax http://choicesproject.org/publications/brief-cost-effectiveness-sugar-sweetened-and-diet-beverage-excise-tax-philadelphia-pa/	**Allegheny Partners for Out-of-school Time (APOST)** **UPMC Children's Hospital of Pittsburgh: Alliance for a Healthier Generation Healthy Out-of-school Time (HOST) Program** **Adagio Health**

2. Policy/best practice guidelines requiring schools to provide at least 30 daily, or 150 weekly, minutes of physical activity during the school day	**School**	• The state does not require elementary schools to provide daily recess and does not require a minimum weekly amount of physical activity time for elementary, middle school/junior high, or high school students. • The state does not prohibit the use of withholding physical activity, including recess, as punishment for disciplinary reasons, nor does it prohibit using physical activity as punishment for inappropriate behavior. • Implementation of best practice for physical activity during the day consists of strategies to make physical education (PE) class more active and promote physical activity outside of PE class. • Adagio Health "Energizers" initiative prepares classroom teachers to lead short bursts of physical activity in the classroom through an in-service.	➢ ***Public health practitioners and decision makers*** • Recommend active PE and active recess expansion. • Public health practitioners collaborate with school districts and AIU and PPS to implement district-level policies or best practice requiring schools to provide at least 30 daily, or 150 weekly, minutes of physical activity to students in public elementary and middle schools during the school day. • Inform schools about Adagio Health "Energizers" initiative and provide trainings across Allegheny County schools. ➢ ***Policy-makers and government decision makers*** • Address inadequate state policies around physical activity through district-level policies:[51]	CHOICES Cost-Effectiveness Physical Activity Promotion[52] http://choicesproject.org/publications/cost-effectiveness-analysis-prioritize-policy-summary/ Case Study of how a school might succeed in implementing 150 minutes of PA per week https://www.une.edu/sites/default/files/PECaseStudyFinalReportFINAL8-1-11.pdf Centers for Disease Control and Prevention: Strategies For Supporting Quality PE and PA in Schools[53] https://www.rihsc.org/uploads/8/2/7/6/82768452/supporting_quality_physical_education_and_physical_activity_in_schools_may_2014.pdf Society of Health and Physical Educators (SHAPE) America Guidance Documents https://www.shapeamerica.org/advocacy/positionstatements/	**Allegheny Intermediate Unit** **Allegheny County Board of Health** **Live Well Allegheny Schools**
3. Recommend public health entities across Pennsylvania advocate for an SSB excise tax policy, work in collaboration with policy-makers.	**Government and Community**	• Reducing sugar-sweetened beverage consumption through taxation, in the form of a Sugar-Sweetened Beverage (SSB) Excise Tax, is projected to prevent cases of childhood and adult obesity, prevent new cases of diabetes, increase healthy life years. Models project the tax would save more in future healthcare costs than it costs to implement.[54]	➢ ***Public health practitioners and decision makers*** • Public health entities across Pennsylvania should advocate for an SSB excise tax policy of $0.02/ounce, or a tax of $0.01/ounce for a lower impact.[56]	CHOICES Model Brief: Cost-Effectiveness of a Sugary Drinks Excise Tax in Alaska http://choicesproject.org/publications/brief-cost-effectiveness-of-a-sugar-sweetened-beverage-tax-alaska/ CHOICES Model Brief: Cost-Effectiveness of a Sugary Drinks Excise Tax in West Virginia	**Pennsylvania legislators** **Advocacy groups** **Pittsburgh Food Policy Council**

		• Allegheny County does not have the legal authority to institute an SSB Excise Tax due to pre-emption laws. • The tax applies to sugar-sweetened beverages, including all beverages with added caloric sweeteners, but not to 100% juice, milk products, or artificially sweetened beverages. • SSB Excise Tax is imposed on distributors, not directly on consumers. However, many retailers bump up their prices in response to the tax. • Two tax approaches to SSB Excise Taxing include: based on either solely the size of the beverage (e.g. $0.01 per ounce) or an both the beverage size and the amount of sugar in the beverage (e.g. "graduated tax": $0.01/ounce on beverages with 5-20 g of sugar and $0.02/ounce on beverages with more than 20 g of sugar).[55]	➢ ***Policy-makers and government decision makers*** • Pennsylvania legislators should work with public health practitioners to impose an excise tax on SSB.[57] • Help reduce the number of sugar-sweetened beverages consumed. • Earmark the proceeds from the tax to implement programs to improve community health.[58]	http://choicesproject.org/publications/brief-cost-effectiveness-of-a-sugary-drink-excise-tax-west-virginia/ World Cancer Research Fund International: Building momentum – lessons on implementing a robust sugar sweetened beverage tax https://www.wcrf.org/sites/default/files/PPA-Building-Momentum-Report-WEB.pdf	
4. Work toward statewide change to institute healthy incentives into Supplemental Nutrition Assistance Program (SNAP).	**Government and Community**	• Though the evidence of SNAP Healthy Incentives Program is around adult consumption of fruits and vegetables, this intervention is included due to the overall family impact of parental modeling on children.[59] • The Supplemental Nutrition Assistance Program (SNAP) Healthy Incentives Pilot (HIP) is an intervention that operated for 14 months, from November 2011 through December 2012, in Hampden County, MA. HIP provided a financial incentive of $0.30 for every $1 spent by SNAP recipients on targeted fruits and vegetables (TFV) in SNAP-authorized grocery stores and farmers' markets. There was a	➢ ***Public health practitioners and decision makers*** • Advocate at the statewide level for SNAP Healthy Incentives Pilot • Advocate at the statewide level for SNAP Healthy Incentives Program at farmers' markets and local farms – to help SNAP recipients buy fresh local fruits and vegetables from participating farmers. • Intervention costs, including the cost of the incentive, retailer roll-out costs, and dissemination of educational materials to SNAP participants, must be considered.	SNAP Healthy Incentives Pilot https://www.fns.usda.gov/snap/hip SNAP Healthy Incentives Pilot Basic Facts https://www.fns.usda.gov/snap/hip/basic-facts SNAP Healthy Incentives Program https://www.mass.gov/service-details/healthy-incentives-program-hip-for-clients Massachusetts Food System Collaborative: Healthy Incentives Program https://mafoodsystem.org/projects/HIP/	**The Food Trust** **Just Harvest** **Pittsburgh Food Policy Council** **Pennsylvania Legislators**

		maximum of $60/month in incentives per household.[60] • The Healthy Incentives pilot in Massachusetts determined that SNAP incentive-recipients ate 26% more fruits and vegetables than peers.[61] • The SNAP **Healthy Incentives Program (HIP)** is a statewide program implemented by the Departments of Transitional Assistance, Agricultural Resources, and Public Health in Massachusetts. • The Healthy Incentives Program in Massachusetts matches SNAP recipients' purchases of local fruits and vegetables at farmers' markets, farm stands, mobile markets, and farm share programs. Purchases made at HIP retailers are matched $1 for $1 back onto the EBT card up to a monthly amount based on household size.[62] • The Food Trust's Food Bucks program in Western Pennsylvania, launched in 2010, encourages shoppers who rely on SNAP (food stamps) to use their benefits to purchase fresh and affordable produce. This healthy food incentive program is offered in a variety of retail settings, including farmers markets, corner stores, and supermarkets.	➢ ***Policy-makers and government decision makers*** • Public health practitioners collaborate with government decision makers to explore opportunities to institute SNAP Healthy Incentives Pilot or SNAP Healthy Incentives Program. • Changes to state SNAP guidelines and direct funds to institute SNAP incentives programming, giving people incentives to make healthier food choices.		
SYSTEMS					
5. Movement in preschools is a strategy being addressed by Allegheny Intermediate Unit (AIU) Early Care and Education (ECE) programs, but programs can seek to bring targeted physical activity	**Early care and education providers**	• AIU already implements structured physical activity opportunities during program time via physical activity movement activities from *I Am Moving, I am Learning* incorporated with supportive practices by the adult (see section 10.4 of the PA Keys Learning standards).[63]	➢ ***Public health practitioners and decision makers*** • Assess opportunities to implement *Hip Hop to Health Jr.* in low-income child care populations. • Physical activity interventions with a parent component are recommended	Hip Hop to Health Jr. Resources https://snapedtoolkit.org/interventions/programs/hip-hop-to-health-jr/ Hip Hop to Health Curriculum https://www.ihrp.uic.edu/files/HHTH-curriculum-1aug2016.pdf	**Allegheny Intermediate Unit** **Early Care and Education Providers**

programming based on the program population (to improve outcomes based on the evidence base).		• *Hip Hop to Health Jr.* curriculum program is an evidence-based program studied and implemented effectively in several low-income child care populations. • *Hip Hop to Health Jr.* was not found to be effective in Latino families.	to help address the obesity disparity experienced by the Latino population: Latino preschool children have the highest rates of obesity compared with their other racial/ethnic counterparts.[64]		
6. AIU addresses best practice guidelines and policies in early care settings by eliminating sugary drinks from being served at programs and providing physical activity opportunities, but an opportunity exists to create a policy limiting screen time. There is assistance available in the county for early child care providers – the Children's Healthy Early Childhood.	**Early Care and education**	• AIU ECE has guidelines and policies to eliminate sugary drinks and increase physical activity in early childhood settings. • AIU ECE does not have a policy on non-educational screen time. Best practice recommendation could be implemented by reducing non-educational television time to 30 min/week during program time. • Healthy Early Childhood program offers a vehicle for ECE centers to adopt best practices. This program is a technical assistance initiative that empowers early child care providers to improve physical activity, nutrition, screen time, and infant feeding practices and policies in early care and education programs.	➢ ***Public health practitioners and decision makers*** • Improve ECE center environments by connecting them with Healthy Early Childhood program. • Partner with public health practitioners (Healthy Early Childhood) to eliminate sugary drinks from being served, improving physical activity opportunities, and create a policy limiting screen time. • County focus to expand Children's Healthy Early Childhood program. ➢ ***Policy-makers and government decision makers*** • Recommend Allegheny County Board of Health pass a resolution with recommendations for ECE providers, including limit screen time and sweet drinks (juice) • An opportunity exists for AIU ECE decision makers to implement a policy on non-educational screen time. Best practice recommendations involve reducing non-educational television time to 30 min/week during program time.	Philadelphia Board of Health Recommendations for child care providers • Get Healthy Philly developed materials to support the Board of Health recommendations http://foodfitphilly.org/philadelphia-board-health-recommendations/ CHOICES Model Brief: Childcare Policies Can Build a Healthier Future in Philadelphia • Philadelphia's Board of Health passed a resolution recommending that ECE providers limit screen time and sweet drinks, including juice, for the children in their care • CHOICES modeled implementation if all Philadelphia ECE providers implemented these voluntary recommendations http://choicesproject.org/publications/brief-screen-time-philadelphia/ Raise Your Hand for Health: Resource Guide https://www.phipps.conservatory.org/assets/documents/Raise-Your-Hand-For-Health.pdf	**Allegheny Intermediate Unit** **Early Care and Education Providers** **UPMC Children's Healthy Early Childhood program**
7. Recommend Head Start programs and other preschool-based settings	**Early care and education**	• AIU already provides parents education about reducing children's non-educational screen time.	➢ ***Public health practitioners and decision makers***	CHOICES Model Brief: Training to Reduce Non-Educational Screen Time for Young Children in Mississippi	Allegheny Intermediate Unit

that reach Latino preschoolers implement Fit 5 Kids or other comparable, effective program.		• U.S. Latino children have higher rates of obesity and more screen time than their non-Latino white peers: thus, this intervention has the ability to reduce health inequities related to obesity and Type 2 Diabetes.[65] • Fit5 Kids has been culturally adapted for and taught directly to Latino preschoolers during Head Start, with significant findings in reducing children's TV viewing by more than 25 minutes/day.[66] • This curriculum involves a parent outreach component to reduce screen time at home.	• Implement the evidence-based Fit 5 Kids curriculum or other comparable, effective program. • Head Start program and other Allegheny County preschool-based settings that reach Latino preschoolers should adopt Fit 5 Kids or other comparable, effective program. • Public health practitioners can reach and provide technical assistance to Head Start programs and other preschool-based settings that reach Latino preschoolers, or Latino community centers to implement Fit 5 Kids or other comparable, effective program.	http://choicesproject.org/publications/brief-ece-screen-time-mississippi/	Head Start Programs Pre-school based settings
8. All snacks and beverages in schools should meet the nutrition standards of the federally reimbursable school meal program.	**School**	• *70 schools* in Allegheny County take part in the Alliance for a Healthier Generation Healthy Schools Program (HSP) through UPMC Children's Hospital of Pittsburgh (UPMC CHP), requiring they meet the USDA Smart Snacks in School standards. • UPMC CHP provides technical assistance through HSP for schools to improve children's health through a multicomponent approach, including a School Health Index (SHI) self-assessment. • Adagio Health is a local non-profit that delivers the USDA-funded Snap-Education program Power Up as well as other nutrition and education services. • Adagio Health collaborates with HSP staff to help schools complete action items on the SHI, and to connect schools with the HSP.	➢ ***Public health practitioners and decision makers*** • Best practice recommends all snacks and beverages meet the required nutrition standards established by the USDA with the Healthy, Hunger-Free Kids Act of 2010. • Dedicate resources to expand the Healthy Schools Program.	Smart snacks in schools https://www.fns.usda.gov/school-meals/smart-snacks-school Centers for Disease Control Smart Snacks https://www.cdc.gov/healthyschools/npao/smartsnacks.htm Alliance for a Healthier Generation Healthy Schools Program https://www.healthiergeneration.org/take-action/schools CHOICES Smart Snacks Intervention[67] http://choicesproject.org/publications/cost-effective-nutrition-interventions-health-affairs-summary/	**UPMC Children's Hospital of Pittsburgh** **Alliance for a Healthier Generation Healthy Schools Program**

9. Promote water consumption in schools across Allegheny County.	**School**	• It is unknown what schools throughout Allegheny County offer water dispensers to increase water consumption. • In 2016, Pittsburgh Public Schools added three to five water hydration stations in each school building (234 stations in 54 schools).[68]	• ***Public health practitioners and decision makers*** • To promote drinking water in school cafeteria settings, recommend schools install chilled water dispensers (WaterJets). • Recommend water dispensers in school lunch cafeteria lines. • Promote water consumption through outreach to schools. • Consider dedicating funds to assisting schools in activities such as installing, cleaning, and maintaining the dispensers.	Growing Healthy Kids Columbus (GHKC) coalition: Water First For Thirst campaign https://www.columbus.gov/publichealth/programs/Healthy-Children-Healthy-Weights/Water-First-For-Thirst/ Centers for Disease Control and Prevention: Increasing Access to Drinking Water in Schools Tool Kit https://www.cdc.gov/healthyschools/npao/pdf/water_access_in_schools_tool_kit_slides_508.pdf	**Allegheny Intermediate Unit School Districts** **Pittsburgh Public Schools** **Pittsburgh Food Policy Council**
10. Policy/best practice guidelines requiring provision of 50% moderate-to-vigorous physical activity in physical education classes.	**School**	• Recommended best practices state that 50% of existing physical education (PE) time should be devoted to moderate-to-vigorous physical activity (MVPA) at the elementary and middle school levels**.** • It is not known what PE offered is MVPA in school districts across the county. • Pennsylvania Department of Education and State Board of Education require students to take physical education in grades K-12 but does not have a requirement for the minimum number of minutes. It does not have a method for enforcing the physical education requirements.[69] • As per Pennsylvania Dept of Education and State Board of Education, no mandated specific number of minutes or times per week that health and PE education is provided. Each school district has the authority to make the decision within boundaries of PA School Code and PA Code. [70] • Live Well Allegheny (LWA) campaign is an Allegheny County Health	➢ ***Public health practitioners and decision makers*** • To address the local authority, engage Pennsylvania PTA Region 3 in advocacy and advocate for Board of Health Recommendations.[71] • Offer standardized MVPA program, such as SPARK or CATCH, for schools to join through becoming a Live Well Allegheny school (district). ➢ ***Policy-makers and government decision makers*** • The Allegheny County Board of Health, Pittsburgh City Council, or County Council could impact active PE offerings in the county by legislating recommendations for school districts. In response, public health practitioners can work with districts to offer a standardized program for school districts to join with an easy on-ramp.	CHOICES Cost-Effectiveness Physical Activity Promotion[72] http://choicesproject.org/publications/cost-effectiveness-analysis-prioritize-policy-summary/ Sports, Play, and Active Recreation for Kids (SPARK) Physical Education Curriculum https://sparkpe.org/ Coordinating Approach to Child Health (CATCH) Physical Education Curriculum https://catchinfo.org/mvpa/ Physical Education in Schools Evidence-Base[73] https://www.ncbi.nlm.nih.gov/books/NBK201493/ Live Well Allegheny Schools http://www.livewellallegheny.com/about-us/live-well-allegheny-participants/current-live-well-allegheny-schools/	**Allegheny Intermediate Unit** **Allegheny County Board of Health** **Live Well Allegheny: Allegheny County Health Department initiative**

		Department initiative to improve the health and wellness of Allegheny County residents. • Schools or school districts can be designated an LWA school (district), committing intent to work to accomplish the goals of the campaign.	• Integrate professional development standardized CATCH or SPARK PE curriculum into teacher trainings.		
11. Active Recess should be available for all kids in Allegheny County.	**School**	• Pennsylvania state does not have a policy that recommends or requires recess.[74] • The Right to Recess Playful Pittsburgh Collaborative is a recess advocacy team led by Trying Together and the Playful Pittsburgh Collaborative, seeking to support children in their right to recess.	➢ ***Public health practitioners and decision makers*** • Recommend programs to increase physical activity during recess with structured activities, playground markings, and/or portable play equipment. ➢ ***Policy-makers and government decision makers*** • Allegheny County Board of Health, County Council, or Pittsburgh City Council legislate recess recommendations across Allegheny County, accounting for the lack of policy recommending or requiring recess.	CHOICES Brief: Active Recess Intervention in Washington State http://choicesproject.org/publications/brief-active-recess-washington/ CDC and SHAPE America Strategies for Recess in Schools https://www.shapeamerica.org/uploads/pdfs/recess/SchoolRecessStrategies.pdf CDC and SHAPE America Recess Planning in Schools https://www.shapeamerica.org/uploads/pdfs/recess/SchoolRecessPlanning.pdf SHAPE America Recess Planning Template https://www.shapeamerica.org/standards/guidelines/strategies_for_recess_in_schools.aspx Playful Pittsburgh Recess Advocacy Team http://www.playfulpittsburgh.org/recess-advocacy-team	**Right to Recess Playful Pittsburgh Collaborative** **Allegheny County Board of Health** **Live Well Allegheny Schools**
12. Seek overlap between community projects and organizations to maximize Safe Routes to Schools (SRTS) efforts, and pursue Complete Streets Policies throughout Allegheny County to help children safely	**Government and Community**	• Safe Routes to Schools aims to help children walk and bicycle safely to school through infrastructure improvements, education, enforcement, and promotional activities. • Allegheny County Economic Development is a resource through the Active Allegheny Grant Program to support Safe Routes to Schools	➢ ***Public health practitioners and decision makers*** • Expand SRTS projects, which would cost money and require leadership support and investment. • Find overlap between other community projects (not just obesity/health-focused) such as community safety efforts in	CHOICES Brief: Safe Routes to Schools in Minnesota http://choicesproject.org/publications/brief-safe-routes-to-school-minnesota/ Safe Routes to Schools Programs https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs	**Allegheny County Economic Development** **Allegheny County Health Department Safe and Healthy Communities program**

walk and bike to school.		initiatives for municipalities or Councils of Government. • One local resource is the Safe and Healthy Communities program through ACHD, with a focus on access to safe physical activity and transportation. • A Complete Streets Policy is a tool that municipalities can use to help ensure that streets and sidewalks are safe and accessible to people of all ages and abilities, through ensuring that all users of a roadway are considered early in a street project's design process. • In 2016, Pittsburgh City Council passed the Complete Streets Policy. Sharpsburg, Millvale, and Etna have subsequently passed Complete Streets Policies.	violence prevention, in order to maximize efforts and initiatives across funding streams. • Parents and school admins can host a bike/walk to school day; distribute materials about safe road use. • Active Allegheny funds can be used to plan and/or design infrastructure improvements that would facilitate walking and biking to schools. Can provide up to $5,000 for Safe Routes to Schools activities or programming. ➢ ***Policy-makers and government decision makers*** • Seek Complete Streets Policies across Allegheny County Municipalities and Boroughs.	Safe Routes to Schools 5-Year Health Impact https://www.cdc.gov/policy/hst/hi5/saferoutes/index.html Safe Routes to Schools Allegheny County https://www.bikepgh.org/srts/ Allegheny County Health Department Safe & Healthy Communities https://www.alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Programs/Chronic_Disease_Prevention/SafeHealthyCommunitiesBrochure_Final.pdf Steps to Creating a Safe Routes to School Program https://msdh.ms.gov/msdhsite/_static/resources/3563.pdf Complete Streets Policy https://www.bikepgh.org/our-work/advocacy/better-bikeways-vision-and-complete-streets/complete-streets/ http://sustainablepittsburgh.org/sharpsburg-millvale-and-etna-pass-complete-streets-policies/ Allegheny County Economic Development: Active Allegheny Grant Program https://www.alleghenycounty.us/economic-development/communities/active-allegheny-grant-program.aspx	**BikePGH** **Congress of Neighboring Communities (CONNECT)** **Pittsburgh Community Reinvestment Group** **The American Heart Association** **UPMC Children's Hospital of Pittsburgh Injury Prevention department**
13. Provide electronic decision support for pediatric medical providers through Epic Electronic Health Record (EHR)	**Clinical and Healthcare**	• Epic electronic health record (EHR) can include effective childhood obesity screening and management strategies in pediatric primary care. • Modifications can be made to Epic EHR to include decision support tools to prompt providers to recognize and manage pediatric obesity.	➢ ***Public health practitioners and decision makers*** • Recommend that the health system providers operating in Allegheny County modify decision support tools in electronic health records	CHOICES Brief: Study of Technology to Advance Research (STAR) in Denver http://choicesproject.org/publications/brief-study-of-technology-to-advance-research-star-denver/ Original Investigation: Clinical Decision Support[75]	**Allegheny Health Network** **UPMC**

		• Use EHR to support comprehensive behavioral interventions to improve BMI. • Allegheny Health Network area providers and UPMC health system providers use the Epic EHR software, providing an opportunity for clinical decision support tools to be integrated into pediatric practices.	(EHR) to prompt recognition and management of childhood obesity by pediatricians, at annual well-child care visits. • This would apply to primary care providers (PCPs) who have fully functioning EHR systems capable of the clinical decision support tools. • Public health practitioners work with the two largest health systems in Allegheny County, UPMC and AHN, to provide electronic decision support modifications for pediatricians through Epic. • Consider PCP training and other start-up activities and resources, such as EHR modifications, website development, and the development of materials for self-guided behavior-change support for parents. Long-term ongoing activities would include continued training and performance feedback to PCPs, website maintenance, additional clinical time spent by PCPs per child, and mailings to families.	https://jamanetwork.com/journals/jamapediatrics/fullarticle/2241760 American College of Sports Medicine: Exercise is Medicine – Health Care Provider Resources https://www.exerciseismedicine.org/support_page.php/resources/	
ENVIRONMENT					
14. There are systems in place in Allegheny County to create healthier afterschool environments by assessing and improving nutrition and physical activity policies, but state or local agencies should contribute to this effort	**Out-of-school Care**	• Allegheny Partners for Out-of-School Time (APOST) and UPMC Children's Hospital of Pittsburgh implement the Healthy Out-of-school Time (HOST) program of the Alliance for a Healthier Generation. • APOST is a partnership of funders, intermediaries, and providers that work to improve quality and access to OOS time opportunities for children and youth in Allegheny County.	➢ ***Public health practitioners and decision makers*** • Community partners (e.g. Adagio Health) connect sites to HOST program to expand reach and enroll more out-of-school sites for OSNAP technical assistance.	The Out-of-school Nutrition and Physical Activity (OSNAP) Initiative http://osnap.org/ CHOICES Cost-Effectiveness Physical Activity Promotion[76] http://choicesproject.org/publications/cost-effectiveness-analysis-prioritize-policy-summary/	**Allegheny Partners for Out-of-School Time (APOST)** **UPMC Children's Hospital of Pittsburgh Healthy Out-of-school Time (HOST) program**

by convening trainings and learning collaborative sessions for afterschool program staff to learn strategies to promote healthy eating and physical activity.		• HOST provides technical assistance and a structure for afterschool program leadership to create a healthier out-of-school time environment for kids through an evidence-based assessment tool. This six-step process helps agencies incorporate physical activity standards and positive healthy eating practices into their schedules. • HOST implements technical assistance through the Alliance for a Healthier Generation framework and best practices • HOST was implemented in 81 partner organizations in 2017-18, impacting over 10,000 youth. • Adagio Health works with UPMC CHP through HOST to improve children's health in the afterschool setting, providing direct nutrition education to sites enrolled in the HOST program and nudging other sites to enroll in the program.		The Out-of-school Nutrition and Physical Activity (OSNAP) Initiative Project Description https://www.hsph.harvard.edu/prc/projects/osnap/ Adagio Health https://www.adagiohealth.org/power-up Raise Your Hand for Health: Resource Guide https://www.phipps.conservatory.org/assets/documents/Raise-Your-Hand-For-Health.pdf	**Live Well Allegheny** **Adagio Health**
15. Create new opportunities for healthy afterschool programs following best practice guidelines: 80 minutes of physical activity, a healthy snack, academic enrichment, and homework assistance.	**Out-of-school Care**	• UPMC Children's Hospital of Pittsburgh is the local manager for Alliance for a Healthier Generation programs. The Alliance's Healthy Out-of-school Time (HOST) offers a roadmap and technical assistance for programs.	➢ ***Public health practitioners and decision makers*** • Recommend providing school-age children with free afterschool programs • Collaborate with public health practitioners when developing new afterschool programs. • Possible partners to engage in this work include APOST, Allies for Children, HOST, or Pennsylvania Statewide Afterschool Youth Development Network. • APOST will adopt healthy afterschool program best practices in policy priorities/strategies.	CDC Out-of-school Time https://www.cdc.gov/healthyschools/ost.htm Allegheny Partners for Out-of-School Time (APOST) https://www.afterschoolpgh.org/policy/ National AfterSchool Association Health and Physical Activity (HEPA) Standards https://naaweb.org/resources/naa-hepa-standards Raise Your Hand for Health: Resource Guide https://www.phipps.conservatory.org/assets/documents/Raise-Your-Hand-For-Health.pdf	**UPMC Children's Hospital of Pittsburgh Healthy Out-of-school Time (HOST) program** **Allegheny Partners for Out-of-School Time (APOST)** **Allies for Children**

			➢ ***Policy-makers and government decision makers*** • Allegheny County Board of Health, Allegheny County Council, or Pittsburgh City Council legislate recommendations for healthy afterschool programs based on recommended best practices.		
16. Create healthier child care environments by joining Healthy Early Childhood Program.	**Early Care and education**	• Allegheny Intermediate Unit Early Care and Education (ECE) programs are not currently required to complete any self-assessments of nutrition, physical activity, and screen time practices and policies. • ECE programs can take part in UPMC Children's Hospital of Pittsburgh Healthy Early Childhood program. The Healthy Early Childhood program provides technical assistance for sites to use the GO-NAP SACC tool. • The Pennsylvania Nutrition and Physical Activity Self-Assessment for Child Care (PA NAP SACC) exists as a component of Keystone Kids Go! (a statewide collaboration) to support continuous quality improvement in child care environments.[77] • Adagio Health offers Growing Up with Power Up initiative to improve early child care environments using PA NAP SACC.	➢ ***Public health practitioners and decision makers*** • Improve nutrition, physical activity, & screen time policies and practices through the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) Program. • State-contracted coaches can train providers and conduct technical assistance for meeting NAP SACC goals. • ECE program directors adopt the NAP SACC program, with technical assistance from UPMC CHP Healthy Early Childhood program or with technical assistance from the state. • Expand capacity of UPMC Children's Hospital of Pittsburgh Healthy Early Childhood program for larger reach of NAP SACC technical assistance • Expand capacity of Adagio Health to provide PA NAP SACC assistance to ECE providers to improve policy, system, and environment activities in the center.	CHOICES Cost-Effectiveness Physical Activity Promotion[78] http://choicesproject.org/publications/cost-effectiveness-analysis-prioritize-policy-summary/ NAP SACC http://www.centertrt.org/?p=intervention&id=109 NAP SACC website https://gonapsacc.org/ NAP SACC Information for Implementation https://snapedtoolkit.org/interventions/programs/go-nutrition-and-physical-activity-self-assessment-for-child-care-go-nap-sacc/ CHOICES Model Brief: NAP SACC in Early Achievers in Washington State http://choicesproject.org/wp-content/uploads/2019/04/CHOICES_LCP_WA_NAPSACC_IssueBrief.pdf	**Allegheny Intermediate Unit** **UPMC Children's Hospital of Pittsburgh Healthy Early Childhood Program** **Early Care and Education Providers**

The next section of the report will share the collective work of the Healthy Kids Allegheny Task Force to use the findings from the national and local environmental scan to develop recommendations across policy, systems, and environments to improve children's health in our county.

Healthy Kids Allegheny Task Force

Our Mission:
Use data and best practices to drive program planning and implementation to create an equal opportunity for all Allegheny County kids to be healthy

Our Shared Vision:
Allegheny County kids have safe spaces to play, access to nutritious foods, and daily opportunities for active play so they grow up ready to live, learn, and play at their best

Developing Recommendations: Task Force Process

About the Task Force

The Healthy Kids Allegheny Task Force met regularly and communicated frequently from the fall of 2018 into the spring of 2019. Charged with developing a collective action strategy to reduce childhood obesity, the Task Force opted to focus on an overall approach to create an equal opportunity for all Allegheny County children to be healthy, no matter who they are, where they live, or how much money their household makes.[79] Keeping health equity front and center, the Task Force discussions and recommendations centered more around healthy kids and less around childhood obesity. As one Task Force member said, success in this project would look like "*health-promoting environments and communities across Allegheny County*."

The Task Force initially convened as a subset of the Plan for a Healthier Allegheny Chronic Disease Risk Behaviors working group and, from there, project staff reached out to additional stakeholder organizations. The Task Force was comprised of organizations and professionals that represent the many sectors that children and their families interact with every day, including school, early care and education, out-of-school time, food access and policy, and other community-based organizations and academic professionals in relevant fields. This group shared information and had discussions with each other about local efforts in the different settings that children interact with: Early Child Care and Education, School, Out-of-school Care, Community, and Clinical settings.

CHOICES Project Collaboration

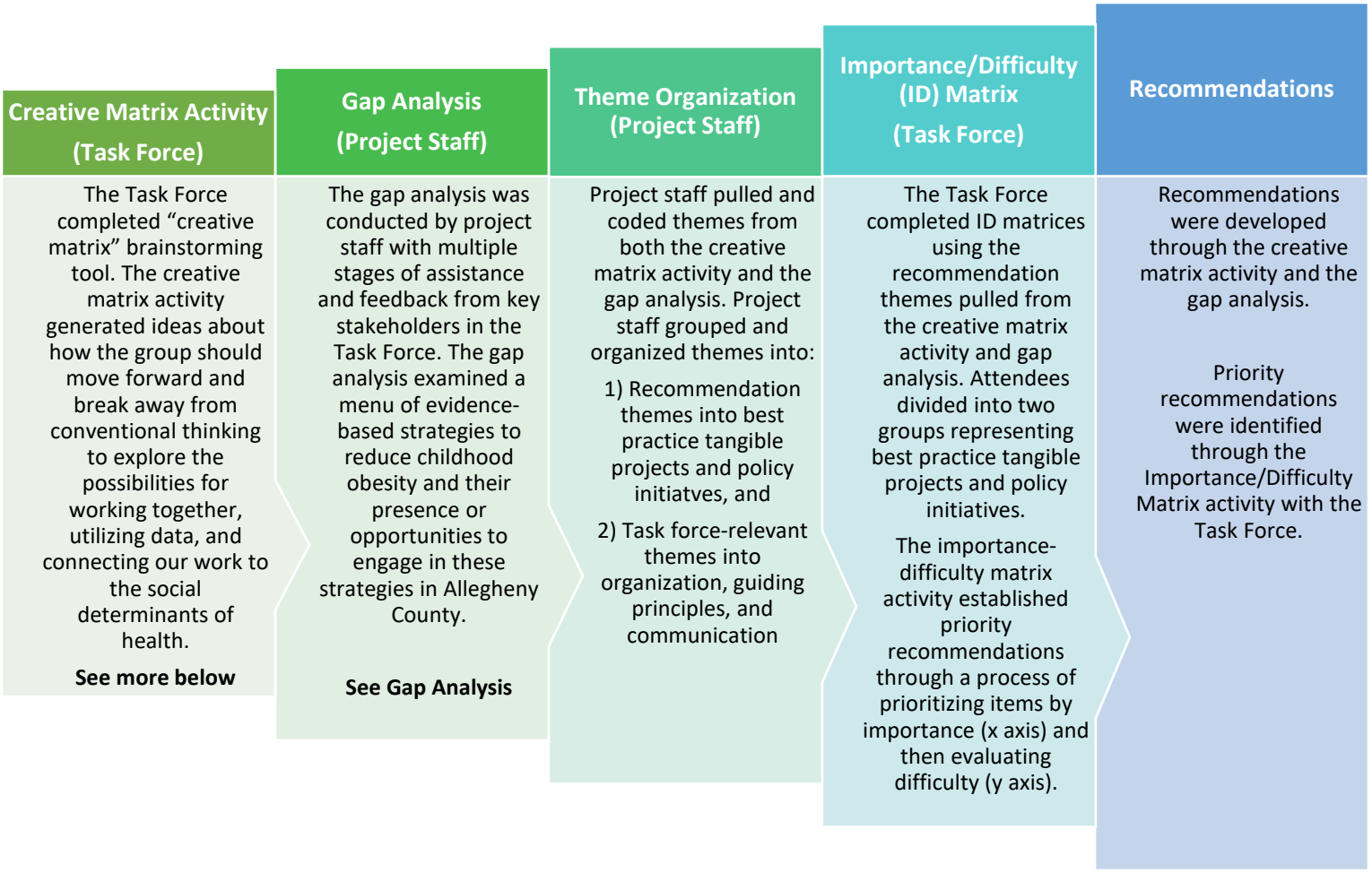
At the same time that the Task Force began to convene, the Allegheny County Health Department applied and was selected to join the Harvard T.H. Chan School of Public Health Childhood Obesity Intervention Cost Effectiveness Study (CHOICES) Learning Collaborative Partnership in 2018. This year-long process brings together health agencies and the expertise of the CHOICES team to build capacity among local decision makers to use cost-effectiveness analysis to identify childhood obesity prevention strategies that offer the best value for money. This partnership process helps to cultivate alliances and support for future childhood obesity prevention planning.

In addition to the work of the Moving the Needle on Childhood Obesity project, the Task Force convened during two CHOICES project team site visits to discuss the intervention selection, modeling inputs, and modeling results.

The CHOICES project research team has identified a menu of strategies for reducing childhood obesity across multiple settings that were used to inform the local environmental scan's gap analysis, ultimately informing the recommendations.

Developing Recommendations

The process of developing recommendations was four parts, as outlined below. Two of the six Task Force meetings involved hands-on activities with members to develop recommendations and prioritize recommendations. In between meetings, project staff met with stakeholders and prepared documents to guide the Task Force.



Creative Matrix Activity

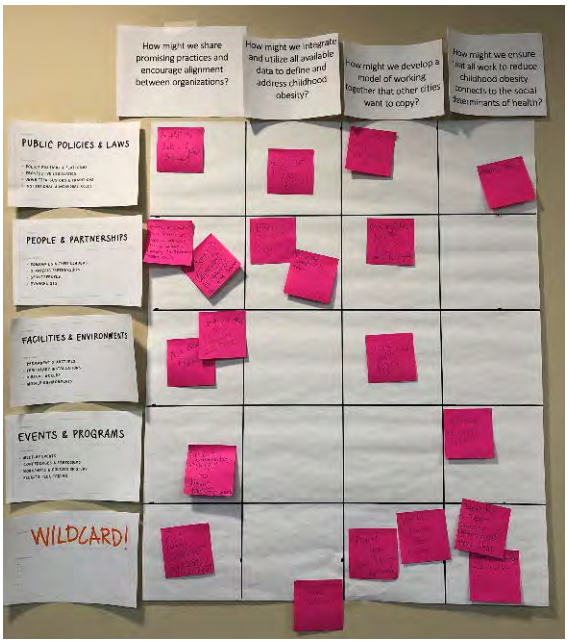
The Task Force separated randomly into four groups to complete the "creative matrix" brainstorming tool. The creative matrix activity was intended to generate ideas about how the group should move forward and break away from conventional thinking to explore the possibilities for working together, utilizing data, and connecting our work to the social determinants of health. The creative matrix has questions listed on the top, highlighting different ways to address the possibilities of the task force, with categories on the left side of the matrix chosen to enable solutions to the questions.

The challenge questions for the group to generate ideas included:

- How might we share promising practices and encourage alignment between organizations?
- How might we integrate and utilize all available data to define and address childhood obesity?
- How might we develop a model of working together that other cities want to copy?
- How might we ensure that all work to reduce childhood obesity connects to the social determinants of health (SDOH)?

Tasked with brainstorming ideas at the intersection of two categories, each individual thought of responses to the questions in the following categories:

- Public Policies & Laws
- People & Partnerships
- Facilities & Environments
- Events & Programs
- Wildcard! – Any other creative ideas



Individuals generated a variety of responses, as shown in the matrix on the following page. Each group then discussed the ideas generated on their matrix, particularly any that stood out as a good or bold idea. At the end of the session, we asked each group to report out generated ideas that they saw as priorities.

Multiple groups shared flipping the language of the "childhood obesity task force" as a priority idea, for example rebranding the task force as overall healthy kids to connect to multiple outcomes, rather than as a focus on childhood obesity. Another group shared their idea to rename the task force "Healthy Living." Additionally, new, bold ideas included:

- Organizing as a task force to go to Harrisburg to meet with decision makers about key policy issues.
- Annual summit of data and programing to share program outcomes
- Always discuss food, transportation, housing, and utility needs in our conversations
- Bring SDOH resolution services to the table

Recommendations

The Healthy Kids Allegheny Task Force has developed a series of recommendations for modifying the policies, systems, and environments to improve the health of children throughout the county and to ultimately reduce childhood obesity prevalence in our region.

These recommendations are split into five main settings:

- Early Child Care and Education
- School
- Out-of-school Care
- Community
- Clinical

Recommendations are given with details pertaining to the partners and resources needed to fully implement recommendations. The report is not intended to provide explicit orders or timeframes, but to suggest initiatives, programs, and policy approaches for consideration by stakeholders. Additional work is needed to achieve the recommendations included in this report.

While there may be additional organizations, initiatives, and efforts to improve the opportunities for Allegheny County children to be healthy, this report emphasized best practices with proven evidence to reduce childhood obesity and other efforts prioritized by stakeholders engaged in the task force.

The Task Force's goal is to work toward the shared vision that all *Allegheny County kids have safe spaces to play, access to nutritious foods, and daily opportunities for active play so they grow up ready to live, learn, and play at their best.*

Implementation of these recommendations will require cross-sector collaboration, collective efforts to share information, and engagement of multiple partners.

Note: Priority recommendations were identified through the Importance/Difficulty Matrix activity with the Task Force.

Priority Recommendations

Local Legislation: Resolutions with Best Practice Recommendations	Recommend Allegheny County Board of Health, Allegheny County Council, or Pittsburgh City Council pass a resolution with best practice recommendations for early care and education, active recess, moderate-to-vigorous physical activity, active school day, and/or healthy out-of-school time environments (see recommendation 1.7, 2.11, 3.6)
Create Healthier Child Care Environments	Expand capacity of UPMC Children's Hospital of Pittsburgh Healthy Early Childhood program for larger reach of NAP SACC technical assistance (1.4); AIU adopt the NAP SACC program to implement with all early child care providers (1.2)
Improve Early Child Care Environments Through Tailored Early Care Health Curriculum	Assess opportunities to implement Hip Hop to Health Jr. in low-income child care populations (1.5); Recommend Head Start programs and other preschool-based settings that reach Latino preschoolers implement Fit 5 Kids or other comparable, effective program (1.6)
Create Healthier Afterschool/Out-of-school Time Programs	Continue to expand Children's Healthy Out-of-school Time Program (HOST) program in the county, implementing Alliance for a Healthier Generation framework to improve nutrition and physical activity policies (3.4)

All Recommendations

1. Early Child Care and Education

1.1 Improve nutrition, physical activity, and screen time policies and practices in child care environments through the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) Program

1.2 Allegheny Intermediate Unit (AIU) adopts the NAP SACC program, requiring ECE program directors to work with child care health consultants to complete self-assessments and then implement improvements (utilizing consultants to train and provide technical assistance)

1.3 AIU addresses best practice guidelines and policies in early care settings by eliminating sugary drinks from being served at programs and providing physical activity opportunities, but an opportunity exists to create a policy limiting screen time

1.4 Expand capacity of UPMC Children's Hospital of Pittsburgh Healthy Early Childhood program for larger reach of NAP SACC technical assistance

1.5 Assess opportunities to implement Hip Hop to Health Jr. in low-income child care populations

1.6 Recommend Head Start programs and other preschool-based settings that reach Latino preschoolers implement Fit 5 Kids or other comparable, effective program (Note: Physical activity interventions with a parent component are recommended to help address the obesity disparity experienced by the Latino population. Latino preschool children have the highest rates of obesity compared with their racial/ethnic counterparts)

1.7 Local Legislation: Recommend Allegheny County Board of Health, Allegheny County Council, or Pittsburgh City Council pass a resolution with recommendations for ECE providers, including the following best practices:

- Limit screen time by reducing non-educational television time to 30 min/week during program time
- Eliminate sugary drinks from being served at programs
- Increase physical activity opportunities

2. School

2.1 All snacks and beverages in schools should meet the nutrition standards of the federally reimbursable school meal program

2.2 Implement alternative school breakfast policies, such as Grab n Go, breakfast in the classroom

2.3 Increase seated time for lunch at school

2.4 Dedicate resources to expand the capacity of the Alliance for a Healthier Generation Healthy Schools Program (HSP) through UPMC Children's Hospital of Pittsburgh in Allegheny County

2.5 Promote water consumption in schools across Allegheny County

- Recommend water dispensers in school lunch cafeteria lines
- Consider dedicating funds to assisting schools in activities such as installing, cleaning, and maintaining the dispensers

2.6 Recommended best practices state that 50% of existing physical education (PE) time should be devoted to moderate-to- vigorous physical activity (MVPA) at the elementary and middle school level

- Engage Pennsylvania Parent Teacher Association (PTA) Region 3 (Allegheny County) in advocacy for schools to meet physical activity best practices
- Allegheny Intermediate Unit (AIU) and Pittsburgh Public Schools (PPS) integrate professional development standardized CATCH or SPARK PE curriculum into teacher trainings

2.7 Increase availability of active recess in Allegheny County: Recommend programs to increase physical activity during recess with structured activities, playground markings, and/or portable play equipment

- Playful Pittsburgh Collaborative Recess Advocacy Team engage schools to implement structured activities, playground markings, and portable play equipment

2.8 Urge school and local government officials to generate Shared Use Agreements, increasing access to recreational activity centers in our communities

2.9 School-based health council convene to prioritize efforts to improve healthy eating and physical activity across Allegheny County

2.10 Public health practitioners attend Parent Teacher Association (PTA) meetings for policy agenda-setting and prioritization efforts

2.11 Local Legislation: Allegheny County Board of Health, Allegheny County Council, or Pittsburgh City Council pass a resolution with recommendations for physical activity during the school day, including:

- Schools provide at least 30 daily, or 150 weekly, minutes of physical activity during the school day
- 50% of existing physical education (PE) time should be devoted to moderate-to- vigorous physical activity (MVPA)
- Active Recess should be available for all kids in Allegheny County
- Avoid withholding physical activity, including recess, as punishment for disciplinary reasons or punishment for inappropriate behavior

3. Out-of-School Care

3.1 Create new opportunities for healthy afterschool programs following best practice guidelines (see 3.3)

3.2 Provide school-age children with free afterschool programs

3.3 Out-of-school care programs should follow best practices by including 80 minutes of physical activity, a healthy snack, academic enrichment, and homework assistance

3.4 Continue to expand the Healthy Out-of-school Time Program (HOST) program in the county to create more healthy out-of-school environments

- Best practice implementation of the Out-of-school Nutrition and Physical Activity (OSNAP) initiative to assess and improve nutrition and physical activity policies, promoting healthy eating and physical activity in afterschool programs

3.5 Eliminate outside food and sugary drinks in afterschool programs, through collaboration between HOST and Allegheny Partners for Out-of-School Time (APOST) policy

3.6 Local Legislation: Allegheny County Board of Health, Allegheny County Council, or Pittsburgh City Council pass a resolution with recommendations for healthy afterschool environment, including the following best practices:

- 80 minutes of physical activity
- A healthy snack
- Academic enrichment
- Homework assistance

4. Community

4.1 Expand Safe Routes to Schools (SRTS) projects in Allegheny County

4.2 Parents and school admins can host a bike/walk to school day; distribute materials about safe road use

4.3 Find overlap across community projects looking to improve the built environment and infrastructure (not just those that are obesity- and chronic-disease-focused), such as community safety efforts in violence prevention, in order to maximize efforts and initiatives across funding streams.

4.4 Recommend continued work to pass Complete Streets Policies across Allegheny County Municipalities and Boroughs.

- Connect interested communities with those that have passed a policy (i.e. Pittsburgh, Sharpsburg, Millvale, and Etna) for guidance

4.5 Recommend public health entities across Pennsylvania advocate for a Sugar-Sweetened Beverage (SSB) excise tax policy, work in collaboration with policy-makers to reduce the amount of SSB consumed while earmarking the tax proceeds for programs to improve community health

4.6 Seek changes to state SNAP guidelines and direct funds to institute healthy incentives into SNAP, such as Healthy Incentives Pilot or SNAP Healthy Incentives Program, giving people incentives to make healthier food choices

4.7 Continued expansion of the Food Trust's Food Bucks program to more farmers markets, corner stores, and supermarkets across Allegheny County.

5. Clinical

5.1 Early life influences on obesity can be addressed by obstetricians and pre/postnatal care providers through a continued focus of existing efforts to do the following:

- Counsel patients on the importance of being at a healthy weight before pregnancy and gaining weight at a healthy rate during pregnancy; provide appropriate assistance
- Recommend that mothers breastfeed and provide training and support for breastfeeding
- Counsel patients on the importance of avoiding smoking during pregnancy
- Screen pregnant women for gestational diabetes

5.2 Enhanced collaboration between healthy childhood initiatives to engage prenatal maternal and child health (MCH) and community-based health efforts to improve health, such as Live Well Allegheny

- Facilitate systematic connections to create conditions that can help individuals to navigate pre/postnatal and early childhood environments

5.3 Recommend modifications to decision support tools in electronic health records (EHR) to prompt recognition and management of childhood obesity by pediatricians at annual well-child care visits and continue to provide additional tools as they are available/needed.

5.4 Recommend health insurance providers make preventive services coverage known to enrollees and support community-wide obesity prevention efforts

- Local health systems continue focused effort to fund obesity prevention efforts in the community and participate in community obesity prevention coalitions

5.5 Push to implement the First 1000 Days campaign[80] across Allegheny County

- Local health systems continue focused effort to fund obesity prevention efforts in the community and participate in community obesity prevention coalitions

5.6 Recommend building upon community-clinical connections to link primary care patients to local resources to provide tools to improve nutrition and physical activity behaviors

- Help to connect clinicians to current resources to enhance the current work being done across primary care offices in the county to reduce childhood obesity and improve children's health
- Expand healthcare referral programs to refer children at risk for overweight or obesity (and their families) to a nutritionist

Appendix A. Environmental Scan of Best Practices

Early Care and Education (ECE)

Early childhood is a crucial time for obesity prevention during which behaviors, habits, and preferences are developed. Child care providers are uniquely positioned to provide a healthy environment for children to eat, play, and grow, and to educate parents about healthy eating and activity habits.

Early care and education (ECE) recommended strategies and findings from case studies to prevent and reduce childhood obesity include the following:

ECE NUTRITION ENVIRONMENT

1. **Child care nutrition licensing requirements**
    a. Licensing requirements for Head Start, Pre-K, and children in licensed care centers related to physical activity and nutrition[81]
    b. Include in requirement: the serving of sweetened beverages, of more than 6 oz. of juice per day, of juice from a bottle, of whole milk to children 2 years of age or older, of flavored milk; create an exception from the rules for parents of children who have special needs, medical needs, or food allergies; limit the number of grains containing added sugars and increase the number of whole grains; and limit foods high in salt and fat
2. **Serve age-appropriate and healthy beverages[82]**
    a. Offer safe drinking water in place of sugar-sweetened beverages (e.g. fruit drinks or soda)
    b. Limit children ages 1 to 6 to 4-6 oz. of juice per day (including at home)
    c. Serve 100 percent juice without added sweeteners in cups and only at mealtimes
    d. Children over 2 years of age: Offer skim or 1 percent pasteurized milk
    e. Children ages 1 to 2: Offer whole pasteurized milk
3. **Keep high-calorie, low-nutrient foods out of child care to encourage healthy growth in children[83]**
    a. Avoid foods high in trans fats and saturated fats; avoid salty, low-nutrient foods like chips or pretzels; avoid high-sugar foods like flavored milk, fruit nectars, soda, or candy
4. **Provide a balanced, varied diet that emphasizes minimally processed foods[84]**
    a. Serve a variety of whole fruits, rather than juice
    b. Serve only whole grain breads, cereals, and pastas
    c. Offer a mix of different colored vegetables (particularly dark green, red, and orange)
    d. Offer heart-healthy lean protein (beans, chicken, legumes, and low-fat yogurt or cottage cheese)
    e. Serve foods that contain healthy monounsaturated or polyunsaturated fats like olive or safflower oil, avoiding foods high in trans or saturated fats (e.g. packaged snack foods, foods prepared with partially hydrogenated oil, butter, and red meat)
5. **Encourage family involvement in healthy eating at child care facilities[85]**
    a. Provide parents with written nutrition guidelines and post menus
    b. Ensure food from home meets written standards
    c. Have conversations about healthy eating, including taking menu suggestions from parents consistent with healthy guidelines

INFANT FEEDING AND MEALTIME

6. **Recommendations for ideal and age-appropriate fluid intake among infants**[86]
    a. Educate parents on breastfeeding resources and services within the community
    b. Provide private space for mothers to breastfeed on site
    c. Serve human milk or infant formula, not cow's milk, to children under 1 year of age (unless documentation states otherwise)
    d. Do not serve fruit juice to children less than 1 year of age
    e. Do not bottle feed infant formula mixed with cereal, juice, or other foods (unless documentation states otherwise)
7. **Practice responsive feeding based on infant's cue (opening mouth, making suckling sounds)**[87]
    a. Avoid overfeeding by watching infant's fullness cues (turning away from the nipple, keeping mouth closed)
    b. Position an infant in arms or propped up in lap, and do not allow infants to bottle-feed themselves alone
    c. Feed one infant at a time with a bottle
8. **Introduce complementary foods at the appropriate age by coming up with a plan to introduce solids with the child's parent**[88]
    a. Introduce solids around 6 months of age (unless healthcare provider recommends earlier); use iron-fortified foods for breastfed infants
9. **Help children to enjoy meals and regulate their own food intake**[89]
    a. Offer meals and snacks every 2-3 hours
    b. Serve meals "family style" so older children can serve themselves
    c. Use child-sized utensils and dishes so portions are small and age-appropriate
    d. Ensure children are seated and not distracted during meal time
    e. Do not pressure to overeat, allowing children to eat to their own fullness
    f. Do not use food as a reward or punishment
10. **Model health behaviors to children at mealtime by sitting and eating with them and saying positive things about foods during meals**[90]

ECE HEALTHY ACTIVITY ENVIRONMENT

11. **Child care physical activity requirements**
    a. Adopt physical activity requirements for licensed child care providers – state and local child care and early childhood education regulators should establish improved physical activity standard requirement
    b. The Institute of Medicine report states that potential actions include: "requiring each licensed child care site to provide opportunities for physical activity, including free play, and outdoor play, at a rate of 15 minutes per hour of care; as a minimum, immediate first step, each site providing at least 30 minutes of physical activity per day for half-day programs, and one hour for full-day programs."[91]
    c. Mandated play by the state with limited screen time in child care centers[92]
    d. Licensing revisions that increase the rigor of requirements for physical activity accomplished through code revision process in community meetings[93]
12. **Integrated child care nutrition and physical activity regulations**
    a. Regulations on licensed early child care centers that integrate "nutrition and beverage requirements, restrictions on TV viewing, min limits on PA each day, sugary drinks no

longer served, children to have water access at all times, children over 2 could only have low- or nonfat milk, and children to have 60 mins of PA per day (guided 30 minutes ages 3+)."[94]

13. **Encourage daily physical activity among children in child care[95]**
    a. Recommend two to three outdoor opportunities for daily active play (as weather allows); keep a change of clothes and provide shade to remove barriers to outdoor play
    b. Never restrict playtime as a punishment for misbehaving
    c. Professional development: Provide child care staff with ongoing training about age-appropriate activities
    d. Create a policy on promoting physical activity, maintained and shared with parents
14. **Provide children with age-appropriate activity in short, regular bursts throughout the day[96]**
    a. Give infants supervised time in the prone position ("tummy time") every day
    b. Limit time infants spend in restricted seating (such as swings, strollers, exersaucers, and high chairs)
    c. Give toddlers 60 to 90 minutes of vigorous physical activity (breathing deeper and faster) spread throughout 8-hour day in short, regular bursts
    d. Give preschool-aged children 90 to 120 minutes of vigorous physical activity (breathing deeper and faster) spread throughout 8-hour day in short, regular bursts
15. **Model active play by leading structured games that require movement, encouraging children, and energetically participating[97]**
16. **Physical activity and nutrition programs implemented in child care centers**
    a. Head Start centers required physical activity and nutrition programs/curricula[98,99]
17. **Limiting Screen Time – Media, Computer Time**[100,101]
    a. Media viewing and computer use should not be allowed for children younger than two years in ECE settings
    b. Media viewing and computer use should be limited to 30 minutes per week for children two years and older in ECE settings
    c. No TV, video, or DVD viewing during snack or meal time
18. **Ensure children of all ages are not sitting for longer than 15- to 30-minute intervals (except meals or naps)**[102]
19. **To support healthy sleeping habits, remove screens from children's sleeping areas, maintain calming nap-time routines like reading a book, and put infants to sleep while they are drowsy (but still awake) so they learn to fall asleep without assistance[103]**

School Environment and Education

Schools are a main channel to positively affect health through nutrition and physical activity in the school curriculum, physical education, and school environment. Schools can integrate wellness to promote health outside of the classroom.

School environment and education recommended strategies and findings from case studies to prevent and reduce childhood obesity include the following:

SCHOOL WELLNESS

20. **Develop and implement local school wellness policies to promote student health and reduce childhood obesity with guidelines for school meals, snacks, drinks, physical activity, and nutrition education**[104,105]
    a. Improve school food environment with policies such as: soda ban, restrictions on foods sold in school fundraisers, vending machine controls, eliminate whole and flavored milk[106]
    b. School wellness councils to oversee and coordinate development and implementation[107,108]
    c. Competitive foods sold in schools should meet nutrition standards consistent with those of the school meal program[109]
    d. School meal policies that ensure school breakfasts or lunches meet specific nutrition requirements[110]
    e. Food served at classroom parties and school functions, including fundraisers, should meet competitive food standards[111]

SCHOOL FOOD ENVIRONMENT

21. **Strong nutritional standards for all foods and beverages sold or provided through schools**
    a. State legislatures and departments of education should adopt nutrition standards that align foods served outside of federal child nutrition programs with guidance on optimal nutrition.[112]
    b. School boards and state departments of education should develop school district policies and related regulations that align foods served outside of federal child nutrition programs with guidance on optimal nutrition.[113]
22. **Recommend interventions that work with the school food service department to enhance the healthy food options available to students**[114]
23. **Increase water access in schools**[115]
    a. Ensure students have access to safe, free drinking water in dining areas and throughout the day[116]
    b. Interventions may implement procedures to ensure water fountains are cleaned/maintained or increase availability of water fountains and hydration stations throughout the school
24. **Policies and practices that reduce overconsumption of sugar-sweetened beverages**
    a. Specific recommendations include prohibiting access to sugar-sweetened beverages, providing beverage options recommended by the *Dietary Guidelines for Americans*, and making clean, potable water available.[117]
    b. Remove all soda and sugar-sweetened beverages from vending machines in public schools, replacing with water, 100% juice, and low-fat milk[118]

25. **Food literacy and nutrition science education spanning grades K-12**[119]
    a. Nutrition education and other strategies that offer healthy eating learning opportunities, giving children knowledge and skills to choose and consume healthier foods and beverages.[120]
26. **Incorporate nutrition education into school meal programs**[121]
27. **Meal or fruit and vegetable snack interventions to increase healthier foods and beverages provided by schools**[122]
28. **Market healthy interventions that include healthy food and beverage marketing strategies**
    a. Recommendations include placing healthier foods/beverages where they are easier for students to select, pricing healthier foods/beverages at a lower cost, setting up attractive displays of fruits and vegetables, offering taste test of new menu items, or posting signs or verbal prompts to promote healthier foods/beverages and new menu items.[123]
29. **Limit marketing of unhealthy foods by banning commercial food marketing outside of dining areas, marketing of foods that don't meet nutrition standards, or all food advertising in schools**[124]

SCHOOL PHYSICAL ACTIVITY (PA)

30. **Implement a comprehensive physical activity (PA) program, with quality physical education as the cornerstone, with the following strategies:**[125]
    a. Recommend children and adolescents participate in 60 minutes of PA every day
    b. Provide a total of 150 minutes of PE per week in elementary school and 225 minutes per week in middle and high school[126]
    c. Require K-12 students participate in daily physical education (PE) with a planned and sequential curriculum and instructional practices that meet national or state standards for PE
    d. Provide a substantial percentage of each student's recommended daily amount of PA in physical education class
    e. Use instructional strategies in PE classes to improve student confidence in abilities and desire to maintain a physically active lifestyle, and meet the needs and interests of all students
    f. Offer opportunities for students to engage in PA outside of class
    g. Increase the amount of time that students are being moderately to vigorously physically active during physical education classes[127]
    h. Adapt PE curricula for children with disabilities or special needs[128]
    i. Limit PE class size to be like that of academic class sizes[129]
31. **Hire licensed PE teachers and provide ongoing training**[130]
32. **Require opportunities for physical activity in schools**
    a. Local education agencies can adopt "requirements that include opportunities for daily physical activity outside of physical education, such as active transport to school programs, intramural sports and activity programs, active recess, classroom breaks, afterschool physical activity programming, and integration of physical activity into curricula lesson plans."[131]
33. **Give elementary school students daily recess (before lunch)**[132]
    a. Avoid withholding PA for disciplinary reasons

HEALTH AND WELLNESS EDUCATION

34. **Health and wellness education with dedicated teachers trained in the subject, implementing the curriculum**[133]
    a. Address nutrition and physical activity in health education programs[134]
    b. Align health education with national standards
35. **Incorporate healthy eating and physical activity themes into other subject areas**
    a. Offer teachers ongoing health education training
36. **Train school nurses to collect students' height and weight and how to approach and counsel families if a child is identified as high-risk or overweight**
    a. Intervention staff trained school nurses on how to use a toolkit to assess and address overweight in children[135]

Out-of-School Time

The Out-of-School Time (OST) setting encompasses afterschool programs and other supervised programs that young people regularly attend when school is not in session. OST settings can create a healthy nutrition and physical activity environment extending beyond the school day, extending consistent messaging and opportunities from the school setting.

Out-of-school Time recommended strategies and findings from case studies to prevent and reduce childhood obesity include the following:

37. **Offer children physical activity opportunities before and afterschool, including competitive sports and noncompetitive activities**[136]
38. **Recommend schools collaborate with communities to maximize use of school and community spaces for physical activity during and outside school hours**[137]
39. **Targeted school-aged children with improvements to nutrition and physical activity (PA) environment in programs outside of school time**
    a. Develop nutrition and PA guidelines to follow in programs outside of school[138]
40. **Nutrition and PA recommended guidelines for environmental standards**[139]
    a. Do not serve sugar-sweetened beverages
    b. Serve water every day, available at all times
    c. Serve a fruit and/or vegetable at every meal and snack
    d. Do not serve foods with trans fat
    e. Serve whole grains when serving grains (like bread, crackers, and cereals)
    f. Eliminate broadcast and cable TV and movies
    g. Limit computer time to less than one hour each day
    h. Provide all children with at least 30 minutes of moderate PA each day
    i. Offer 20 minutes of vigorous PA at least 3 days per week
41. **HEAT Club afterschool curriculum (Healthy Eating, Active Time) to train afterschool programs to deliver cooking and nutrition education, provide cooking and PA equipment, and deliver a lesson plan curriculum**[140]

Community-Wide

Community-Wide strategies to improve children's health and wellness facilitate healthy food and activity environments. Children's everyday interactions with community policies, systems and environments help them develop a foundation of healthy habits through access to healthy food and beverages and safe, affordable, and accessible physical activity.

Community-Wide recommended strategies and findings from case studies to prevent and reduce childhood obesity include the following:

FOOD ENVIRONMENT

42. **Improve access to healthy foods to make it easier for people to buy fresh, nutritious food close to home, school, and work**[141]
    a. Provide economic or other incentives to support development of supermarkets in food deserts
    b. Use zoning regulations to help supermarkets locate in underserved communities
    c. Ensure public transportation routes and schedules maximize access to supermarkets
43. **Limit fast food presence in communities and support healthy food retailing**[142]
    a. Limit the number of fast-food restaurants in a neighborhood through zoning restrictions
    b. Create buffer zones restricting fast food around schools and recreation areas, using zoning laws
    c. Encourage small store owners to offer fresh produce and healthier foods through financial or other incentives
    d. Encourage restaurants to reformulate menu items to provide healthier options
44. **Improve the mobile food vendor environment**[143]
    a. Limit mobile vending of unhealthy foods through legislation or health department regulations
    b. Limit mobile vending access to schools and recreation areas frequented by children
    c. Provide permits/incentives to healthy mobile vending carts
45. **Increase access to farmers' markets in low-income communities**[144]
    a. Use zoning/land policies to create new space for farmers' markets
    b. Provide government subsidies or create public/private partnerships to develop new farmers' markets
    c. Provide financial support for marketing of and transportation for farmers' markets
46. **Encourage farmers' markets to accept electronic benefits from food assistance programs (Special Supplemental Nutrition Program for Women, Infants, and Children Women, Infants, and Children (WIC) and Supplemental Nutrition Assistance Program (SNAP))**[145]
47. **Increase farm-to-school and farm-to-institution programs**[146]
    a. Develop government procurement processes that support local farmers
48. **Promote community gardens through zoning policy and grants or other financial support**[147]
49. **Limit marketing of unhealthy foods and drinks to children on television and other electronic media**
    a. Require food marketed to children to meet nutritional standards
    b. Limit the amount of time per hour of children's programming that can include food marketing
    c. Encourage the food and restaurant industry to shift marketing efforts toward more healthful foods and beverages for children

50. **Recommendations for restrictions of food marketing to children**[148]
    a. Restrict food product placement in television shows/movies, and restrict other forms of marketing to children, such as marketing agreements between entertainment brands and food brands
    b. Restrict food marketing in settings where children gather, such as parks and near schools
    c. Monitor compliance with and enforcement of child food marketing regulations at the national level
51. **Recommendations for restaurant menu labeling and marketing:**[149]
    a. Require restaurants to post calorie information on menus and menu boards
    b. Give restaurants incentives to offer healthier items, such as by creating promotional campaigns that highlight or recognize healthy restaurants or by offering other marketing support
    c. Improved food options for folks eating out by allowing restaurants to become approved by a program (e.g. Shape up Approved in Shape Up Somerville Campaign, an eat well restaurant intervention) when they offer healthier dieting options, such as low fat dairy products, some dishes in a smaller portion size, fruits/veggies as side dishes, or visible signs that highlight healthier options[150]
    d. Set nutrition requirements for meals that include toys, giveaways, or other incentives aimed at children
52. **Develop city food standards, requiring agencies to comply with "science-based standards for caloric, sugar, sodium, and fiber content for all meals and snacks purchased or prepared in city-funded programs"**[151]
    a. Provide city agencies and vendors/distributors with assistance/education to implement food standards
53. **Recommendations for nutrition labeling on packages**[152]
    a. Standardize front-of-package health labeling
    b. Require more prominent calorie-per-serving labeling on food packaging
    c. Require additional information on food labeling, such as recommended daily limit on added sugar consumption or caffeine consumption
54. **Public health marketing campaigns for healthy eating and drinking**[153]
    a. Develop public service media and social marketing campaigns to promote healthy eating and drinking
    b. Develop counter-marketing campaigns, such as campaigns that highlight the negative health impact of sugar-sweetened beverages and other unhealthful foods
55. **Recommendations for food pricing and taxes**[154]
    a. Tax foods of minimal nutritional value to decrease consumption, including tax on sugar-sweetened beverages and tax on high-calorie, low nutrient foods
    b. Earmark tax revenues from sugar-sweetened beverage taxes or other taxes for obesity prevention efforts
    c. Lower the relative cost of healthy foods through subsidies or other measures
56. **Increase local support of production, processing, and distribution of locally grown fruits and vegetables**[155]
57. **Recommendations for food assistance programs to help prevent obesity**[156]
    a. Increase enrollment in WIC and SNAP, using existing government programs (such as Medicaid and the Children's Health Insurance Program)
    b. Change SNAP and WIC guidelines to give people incentives to make healthier food choices, such as providing discounts or rebates for buying fruits and vegetables

c. Increase access to fresh fruits and vegetables in areas at higher risk for obesity among low-income populations by offering redeemable "Health Bucks" for purchases of fresh produce – increases purchasing power of EBT SNAP benefits by 40%[157]
d. Community organizations can use "Health Bucks" (see 52c) as incentives for clients engaging in health-related activities[158]
e. Identify and test improvements that would align SNAP purchases with *2010 Dietary Guidelines for Americans*
f. Study the impact of changing SNAP guidelines to prohibit benefits from being used to buy sugar-sweetened beverages, (8) WHAT IS THIS? or making other changes to improve the quality of foods purchased with SNAP
g. Remove restrictions on the use of SNAP Education funds for materials or social marketing campaigns that discourage the consumption of unhealthy foods, such as sugar-sweetened beverages
h. Increase WIC vouchers for fruit and vegetables
i. Encourage farmers' markets and small store owners to accept SNAP and WIC electronic benefit cards
j. Focus on children's nutrition by testing healthy food guidelines for children who receive SNAP benefits
k. Create stronger healthy food stocking standards for SNAP retailers similar to those required of stores that participate in WIC
l. Require the FDA to collect data on SNAP purchases that can be used to analyze the program's effect on nutrition and health
m. Improve nutrition guidelines for Child and Adult Care Food Program and Summer Food Service Program
n. Increase supply of healthy foods (including produce) in food banks and other emergency food programs

58. Healthy corner store initiatives that focus on improving the community food environment in low-income neighborhoods[159]

a. Citywide network of participating stores in a corner store program to improve food offerings in corner stores near schools in low-income neighborhoods
b. Increase availability and awareness of healthy foods by reforming stores, including inventory changes, providing marketing materials, business training, store conversion, and healthy corner store certifications

ACTIVITY ENVIRONMENT

59. Build routine activity into community designs by connecting planning and development to public health[160]

a. When planning new developments and transportation projects, make increased physical activity a priority (incorporating Health Impact Assessments)
b. Adopt zoning policies that promote active transportation and make it easier to access PA and recreation areas, such as allowing residential and commercial uses near each other (mixed-use development)
c. Create policies that encourage new schools to be in areas that allow children to bike and walk to school
d. Encourage bicycling and walking to school and work by incorporating Safe Routes to Schools and Safe Routes to Worksites into transportation planning

e. Promote active transportation by improving infrastructure for walking and biking, including sidewalks, pedestrian crossings, trails, dedicated protected bike lanes, countdown bicycle crossing signals, and bike racks
f. Adopt "traffic calming" street design standards and elements to reduce vehicle speed and promote safe bicycling and walking
g. Improve access to and use of public transportation, such as by offering reduced fares and improved service

60. Make recreational physical activity safe, affordable, and accessible[161]

a. Build, maintain, and increase access to parks, athletic facilities, and recreation areas, especially in low-income communities
b. Increase community access to active spaces through joint-use agreements (gyms, ball fields, and other recreation areas at schools, non-profits, and businesses or corporate campuses)
c. Provide low- or no-cost physical activity programs, facilities, or equipment (e.g. bicycles) for children, families, and adults of all ages
d. Provide economic incentives to promote the development and use of parks, recreation areas, fitness and sports facilities, and physical activity programs
e. Increase community policing to ensure safer environments for physical activity
f. Use crime- and violence-prevention measures to create safe environments that encourage physical activity, including creating safe spaces (improved lighting and supervised areas for children), promoting community development, and strengthening social networks
g. Use traffic-safety measures, such as expanded sidewalks, protected bike lanes, and traffic-calming street designs, to create safe environments that encourage physical activity

61. Use media and technology to promote physical activity[162]

a. Develop a federally funded, coordinated mass media and social marketing campaign with consistent messages and branding to promote physical activity
b. Develop state and local media campaigns emphasizing the benefits of increasing physical activity – build on the national campaign messages, create culturally relevant campaigns, and feature diverse role models and types of activity
c. Encourage new media, smart phone, and other technology companies to create products that promote physical activity

62. Provide active, safe transportation to link neighborhoods, schools, and shopping district

a. Develop greenways and trails, implemented with an advisory council to develop sidewalks and greenways throughout the county[163]

63. Walkability and safe routes to school initiative to inform students and parents about safe routes to school

a. Use Geographic Informational System (GIS) to create maps to each school within a half-mile distance, distribute maps to students, and post maps on the school and city website[164]

64. Complete Streets Policy for safer crosswalks, sidewalks, bicycle routes, lighting, and routes to school

a. Ballot initiative for safer and complete streets
b. Messaging campaign on social media
c. Fuel revenue index tax extension to fund road and transportation projects for complete streets[165]

COMMUNITY EFFORTS

65. **Cohesive branding of all obesity prevention efforts within a community**
    a. State-implemented "Eat Smart, Move More" campaign promoting healthy dietary behavior, regular physical activity, drinking water, and reduced sedentary time[166]
66. **Long-term community planning of goals and tasks to create healthier environments**
    a. Develop a 10-year plan focused on nutrition, physical activity, and the built environment; creating goals and tasks in each focus area in 1-, 3-, and 10-year increments (e.g. Mayor Task Force on Obesity met for 9-10 months to create plan in Anchorage, AK)[167]
67. **Create a community action plan focused on systems change: improving the food system, creating opportunities for active living in the natural and built environment, and creating a healthy community food system**[168]
    a. Form partnerships to target high-poverty areas

Healthcare and Clinical

Healthcare and Clinical efforts in the primary care and prenatal care settings combined with community-wide changes offer a promising approach to improve children's overall health and well-being.

Healthcare/Clinical recommended strategies and findings from case studies to prevent and reduce childhood obesity include the following:

68. **Recommendations for pediatricians' and pediatric primary care providers' role in obesity prevention and treatment**[169]
    a. Measure BMI for age at every well-child visit for children ages 2 and older, and measure weight-for-length percentile for younger children
    b. Counsel all patients and their families on the following, regardless of weight status:
        i. Healthy eating, physical activity, and healthy growth
        ii. Limit television time to no more than two hours per day and remove televisions from children's bedrooms
        iii. Limit consumption of sugar-sweetened beverages and encourage other healthful eating behaviors, such as eating breakfast daily, limiting restaurant eating (particularly fast-food), eating meals as a family, and limiting portion sizes
        iv. Help children achieve 60 minutes of moderate-to-vigorous physical activity per day
    c. Establish follow-up assessment procedures, counseling, and treatment plans for patients who are overweight or obese
    d. Establish policies to avoid weight bias in pediatric clinics. For example, require all employees to be trained on weight-bias prevention
69. **Early life influences on obesity can be addressed by obstetricians and pre/postnatal care providers**[170]
    a. Counsel patients on the importance of being at a healthy weight before pregnancy and gaining weight at a healthy rate during pregnancy
    b. Recommend that mothers breastfeed and provide training and support for breastfeeding
    c. Counsel patients on the importance of avoiding smoking during pregnancy
    d. Screen pregnant women for gestational diabetes
70. **Hospitals and healthcare clinics should provide and promote healthy food environments**[171]
    a. Encourage healthcare providers and clinic employees to model healthy eating
    b. Offer healthy food and beverages to employees and patients
    c. On hospital/clinic premises, ban the sale and marketing of unhealthy food and beverages
    d. Promote breastfeeding among new mothers who give birth in the hospital/clinic and hospital and clinic employees who are nursing
71. **Recommend health insurance providers cover preventive services and support community-wide obesity prevention efforts**[172]
    a. Cover obesity-related services: assessment, prevention, evaluation, treatment, and follow-up; and streamline reimbursement processes
    b. Provide subscribers incentives for maintaining healthy body weight or adopting healthy behaviors (e.g. charting regular physical activity)
    c. Measure and track progress in body mass index screening through Healthcare Effectiveness Data and Information Set (HEDIS) data collection

   d. Fund obesity prevention efforts in the community and/or participate in community obesity prevention coalitions

72. **Recommend healthcare professional training to support providers in counseling patients about obesity prevention and lifestyle change**[173]
    a. Require training in obesity prevention and lifestyle counseling (e.g. interpreting BMI percentile for age, counseling on nutrition and physical activity, and motivational interviewing skills)
    b. Distribute obesity prevention position statements and other evidence-based information
    c. Encourage members to be role models for healthy eating and activity
73. **Recommend healthcare professions serve as advocates for obesity prevention efforts in the community**[174]
    a. In the practice and community, serve as leaders and role models to encourage healthy changes in PA, nutrition, and the built environment
    b. Advocate at the practice, professional organization, local, state, and federal levels for policy and built environment changes that promote healthy eating and physical activity in child care settings, schools, afterschool programs, and communities
    c. Encourage parents to advocate in their children's schools and communities for environmental changes that promote PA
74. **Recommend creating community-clinical connections to link primary care patients to local resources for better management of obesity**
    a. Healthcare referral programs can refer children at risk for overweight or obesity (and their families) to a nutritionist[175]
75. **Approaches to patient care delivery that leverage high-quality clinical care for obesity and linkages to community resources (when BMI ≥ 85th percentile during primary care visit)**[176]
    a. Clinicians provide parents with a set of evidence-based educational materials (e.g. self-guided behavior change in screen time and sugar-sweetened beverages; improving diet; increasing moderate and vigorous PA; improving sleep duration and quality)
    b. Provide materials to promote social-emotional wellness
    c. Send patients weekly or monthly messages with links to publicly available resources that support behavior change (even specific behavior change goals)
    d. Give patients a "Neighborhood Resource Guide" for their community that offers a list of places to support healthy living
    e. Individualized health coaching tailored to socio-environmental context, using motivational interviewing style of counseling
76. **Clinical-community partnerships and collaborations aimed at reducing prevalence of childhood obesity and creating healthy environments for kids**[177]
    a. Focus on medical centers, schools, and community centers to disseminate messaging
77. **Recommend hospitals are baby-friendly and encourage and promote breastfeeding for new mothers by joining baby-friendly Breastfeeding Hospital Collaborative**[178]
78. **Provide primary care providers (PCPs) with evidence-based recommendations, clinic tools, resources for providers, and patient education materials through a public health detailing program**[179]
    a. Public Health Action Kit offers an "Obesity in Children Action Kit" for providers to reference[180]

Other

Other recommended strategies and findings from case studies to prevent and reduce childhood obesity include behavioral health interventions and family-based interventions:

79. **Behavioral health interventions**
    a. "Screen-time-only interventions" focus on reducing recreational sedentary screen time and "screen-time-plus interventions" focus on reducing recreational sedentary screen time AND increasing PA and/or improving diet. Can be classroom-based, family-based, peer social support, or coaching or counseling sessions with tracking and monitoring.[181]
    b. Parental/guardian involvement in family-based behavioral interventions by supporting healthy eating behaviors, physical and lifestyle activity, and healthful behavior change (see table 3 in supporting citation)[182]
80. **Family-based interventions that include individual level change and system level change**[183]
    a. Family support for healthful eating, family mealtime behaviors, and other family environmental factors
81. **Technology-supported coaching or counseling interventions to reduce weight or to maintain weight loss**[184]

Table of Abbreviations

Abbreviation	Definition
AC	Allegheny County
ACHD	Allegheny County Health Department
AIU	Allegheny Intermediate Unit
APOST	Allegheny Partners for Out-of-school Time
ASD	Anchorage School District
BMI	Body Mass Index
CACFP	Child and Adult Care Food Program
CATCH	Coordinating Approach to Child Health
CDC	Center for Disease Control and Prevention
CHA	Community Health Assessment
CHOICES	Childhood Obesity Intervention Cost Effectiveness Study
COBD	Childhood Obesity Declines
CVESD	Chula Vista Elementary School District
DOE	Department of Education
ECE	Early Care and Education
EHR	Epic electronic health record
ERN	Eat Right Now
ESMM	Eat Smart, Move More
GHKC	Growing Healthy Kids Columbus
HEAT	Healthy Eating, Active Time
HEDIS	Healthcare Effectiveness Data and Information Set
HEPA	Health and Physical Activity
HHSA	Health and Human Services Agency
HIP	Health Incentives Pilot
HKATF	Healthy Kids Allegheny Task Force, originally called the Childhood Obesity Task Force
HOST	Healthy Out-of-School Time
HP2020	Healthy People 2020
HSP	Healthy Schools Program
HSP	Healthy Schools Program
LWA	Live Well Allegheny
MCH	Maternal and child health
MVPA	Moderate-to vigorous physical activity
NCORR	National Collaborative on Childhood Obesity Research
NSLP	National School Lunch Program
OSNAP	Out-of-school Nutrition and Physical Activity
OST	Out-of-School Time
PA	Physical Activity
Pa NAP SACC	Pennsylvania Nutrition and Physical Activity Self-Assessment for Child Care
PCP	Primary care providers

PE	Physical Education
PHA	Plan for a Healthier Allegheny
PHIF	Public Health Improvement Fund
PPS	Pittsburgh Public Schools
PSE	Policy, Systems, and Environment
PTA	Parent Teacher Association
PUFFA	Philadelphia Urban Food and Fitness Alliance
SDOH	Social Determinants of Health
SDP	School District of Philadelphia
SEM	Social Ecological Model
SHAPE	Society of Health and Physical Educators
SHI	School Health Index
SNA	Certified School Nurse Association
SNAP	Supplemental Nutrition Assistance Program
SNAP-Ed	Supplemental Nutrition Assistance Program Education
SPARK	Sports, Play, and Active Recreation for Kids
SRTS	Safe Routes to Schools
SSB	Sugar-Sweetened Beverage
SUS	Shape Up Somerville
TFV	Targeted fruits and vegetables
UOGP	Unconventional Oil and Gas Production
UPMC CHP	UPMC Children's Hospital of Pittsburgh
WIC	Women, Infants, and Children

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