Childhood Obesity Prevention & Treatment

CHOPT
for Medicaid

Changing the Culture of Health in Childhood Obesity:

Implementation Toolkit for **Medicaid Health Plans**

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Preface and Acknowledgments

The CHildhood Obesity Prevention and Treatment (CHOPT) for Medicaid project is a collaborative project between the Institute for Medicaid Innovation (IMI), Medicaid Health Plans of America (MHPA), and the Association for Community Affiliated Plans (ACAP). Based on the learning from Phase One, Phase Two incorporates key information on program development and implementation for Medicaid health plans, additional input from the National Advisory Committee (NAC), the Implementation Learning Collaborative (IILC), and additional resources. This toolkit is a companion to the CHOPT "Overview and Action Plan for Medicaid Health Plans," published 2016. The purpose of this toolkit is to be a comprehensive resource for use by Medicaid managed care organizations to develop, test, and implement programs to prevent and treat childhood obesity.

The CHOPT for Medicaid project appreciates the participation of the National Advisory Committee, Medicaid managed care organizations, federal agencies, and community stakeholders. Their dedication to preventing and treating obesity in the pediatric Medicaid population has resulted in the development of innovative programs and critical lessons that have the potential to assist other Medicaid managed care organizations to launch their own initiatives. Furthermore, this project would not be possible without the participation of Medicaid enrollees, including their families, along with health clinics, schools, churches, and other community resources. We are grateful for their enthusiastic engagement in this project and for their sharing the expertise and wisdom they have gained.

The important work of CHOPT for Medicaid was realized through the generous support of the Robert Wood Johnson Foundation. The foundation's commitment to building a culture of health to reduce health disparities and improve the social determinants of health serves as the basis for the nation's work in addressing salient issues among the Medicaid population.

INSTITUTE FOR MEDICAID INNOVATION

Robert Wood Johnson Foundation

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Foreword

CHOPT for Medicaid: Phase One

In December of 2015, with support from the Robert Wood Johnson Foundation, the Institute for Medicaid Innovation (IMI), in partnership with the Association for Community Affiliated Plans (ACAP) and Medicaid Health Plans of America (MHPA), launched the CHildhood Obesity Prevention & Treatment (CHOPT) for Medicaid project.

Purpose

The purpose of the first phase of the CHOPT for Medicaid project was fourfold:

- To identify and catalogue promising best practices for the prevention and treatment of childhood obesity developed by Medicaid managed care organizations (MMCOs);
- To understand how MMCOs develop programs that include clinicians and community organizations and address childhood obesity while targeting health inequities and the social determinants of health;
- To interview families in an effort to capture their experiences participating in the innovative initiatives; and
- To create an implementation toolkit for health plans that are interested in developing programs that address childhood obesity, using validated tools and lessons learned from interviews and best practices.

Key Partnerships

Institute for Medicaid Innovation

The IMI is a 501(c)3 nonprofit research organization that focuses on providing innovative solutions to address important clinical, research, and policy issues in Medicaid through multi-stakeholder engagement, research, data analysis, education, quality improvement initiatives, and dissemination and implementation activities. The IMI seeks to understand what works well in the Medicaid program, identify areas for improvement, and disseminate innovative initiatives and solutions that address critical issues.

Association for Community Affiliated Plans

The Association for Community Affiliated Plans (ACAP) is a national trade association that represents not-for-profit Safety Net Health Plans. Collectively, ACAP plans serve more than 17 million enrollees, representing nearly half of all individuals enrolled in Medicaid managed care plans. ACAP's mission is to strengthen not-for-profit Safety Net Health Plans in their work to improve the health of lower-income and vulnerable populations.

Medicaid Health Plans of America

Medicaid Health Plans of America (MHPA) is a national trade association focused solely on the universe of Medicaid health plans. MHPA works on behalf of 134 commercial and nonprofit plans that serve more than 20 million Medicaid enrollees in 39 states. MHPA provides advocacy and research that support policy solutions to enhance the delivery of high-quality care for Medicaid enrollees through improved access and cost-effective services.

Key Components of Phase I

This ambitious project sought to achieve seven objectives within one year, including:

- The establishment of a multi-stakeholder National Advisory Committee (NAC);
- An environmental scan (national questionnaire) of childhood obesity initiatives within Medicaid health plans;
- Qualitative interviews to gain the perspectives of families and children who participated in the initiatives;
- Case studies from Medicaid health plans that captured best practices;
- An implementation toolkit with resources to assist Medicaid health plans and communities in launching childhood obesity initiatives;
- A national convening meeting to discuss challenges, successes, and next steps as partners; and
- National dissemination efforts.

The CHOPT for Medicaid "Building a Culture of Health: Overview and Action Plan for Medicaid Health Plans" from the first phase can be accessed here.
FULL URL: http://www.medicaidinnovation.org/_images/content/final_chopt_toolkit.pdf

Summary of findings from qualitative interviews with children and families can be accessed here:
FULL URL: http://www.medicaidinnovation.org/_images/content/FINAL-Issue_Brief-CHOPT-Listening_to_Families_-_round_2.pdf

A video summarizing the culmination of the project can be viewed here.
FULL URL: https://www.dropbox.com/s/f1cv6pigrvyd8lo/CHOPT_Video_FINAL_Version.mp4?dl=0

Lessons Learned from Phase One

The CHOPT for Medicaid project has increased the awareness of Medicaid health plan-led initiatives and provided the foundation for subsequent implementation efforts and policy solutions. The key finding from the multi-stakeholder partners who participated in the first phase was the need to establish a learning network to further explore the following priority topics:

- Overcoming state and federal barriers;
- Planning for long-term sustainability (including meaningful, practical evaluation);
- Understanding, capturing, and analyzing high-quality metrics and other data (i.e., process and outcomes data);
- Securing funding when reimbursement/payment is not possible;
- Developing the business case to launch and sustain an initiative;
- Reducing the social determinants of health;
- Addressing cultural sensitivities;
- Effectively engaging clinical teams (including community health workers); and
- Building community partnerships.

This key finding and the priority topics informed the development of the second phase of the CHOPT for Medicaid project.

CHOPT for Medicaid: Phase Two

Purpose

Phase Two also received support from the Robert Wood Johnson Foundation; and the Institute for Medicaid Innovation (IMI), in partnership with the Association for Community Affiliated Plans (ACAP) and Medicaid Health Plans of America (MHPA), remained involved in Phase Two of the CHildhood Obesity Prevention & Treatment (CHOPT) for Medicaid project.

The project leveraged the knowledge gained from Phase One, resources developed, and partnerships established during the first year while expanding the partnerships and reach of the initiative. The purpose of the Innovation & Implementation Learning Collaborative (IILC) was twofold:

» To assist IILC participants in developing an action plan to design or improve childhood obesity prevention and treatment initiatives; and
» To test, refine, and revise the readiness assessment and implementation tools to better meet the needs of Medicaid health plans interested in designing and implementing their own childhood obesity prevention and treatment initiatives.

Key Components

Phase two focused on several key themes, including patient-centered care, evidence-based interventions, community engagement, clinician engagement, social determinants of health, reduction of racial disparities, and implementation science. The project was divided into the following three key components:

- Continuation of the National Advisory Committee, with expanded membership to include Medicaid health plans;
- Launch of the Innovation and Implementation Learning Collaborative (IILC) and resource development; and
- Development of the implementation toolkit for Medicaid health plans and community stakeholders.

National Advisory Committee

Sandy Hassink, MD, FAAP, continued to serve as chair of the National Advisory Committee (NAC), which consisted of multi-stakeholders from government, advocacy organizations, clinicians, and researchers. For Phase Two, Medicaid health plan representatives who were featured in the toolkit were added to the committee. It was determined that their insight, perspective, and advice missing from Phase One of the CHOPT National Advisory Committee would add invaluable insight for Phase Two.

The committee was charged with the following:

- Provide guidance and feedback on objectives of the project;
- Provide expertise on topics;
- Offer edits for the second toolkit;
- Develop strategies to link the CHOPT for Medicaid project with federal, state, and local policies to implement change;
- Address barriers identified by health plans in the national questionnaire; and
- Participate in the learning network, possibly leading sections of the network.

Innovation & Implementation Learning Collaborative and Resource Development

The Innovation & Implementation Learning Collaborative (IILC) was modeled after the federally funded Collaborative Improvement and Innovation Network (CoIIN) approach to quality improvement.[1] The IILC accomplished the following:

- Engaged Medicaid health plans and community stakeholders to identify and address common issues;
- Provided technical support and resources to implement initiatives; and
- Offered virtual and in-person networking among colleagues with shared interests and goals to support ongoing learning and interaction.

The IILC utilized an implementation plan and tools that emphasized the social determinants of health, disparities, and community partnerships that were developed, using the Centers for Medicare & Medicaid Services' (CMS's) Disparities Action Statement. The IILC offered support and assistance according to the Medicaid health plans' stage of readiness to implement, ranging from being at the initial exploration phase to wanting to enhance existing initiatives.

Through the knowledge gained from the IILC, the resources developed as part of phase one of CHOPT for Medicaid underwent review and revision. The adaption of these resources is responsive to the Medicaid population, accounts for nuances specific to Medicaid health plans, is specific to childhood obesity prevention and treatment, and incorporates lessons learned from the health plans, communities, clinicians, and families. The revised and expanded resources are incorporated into this toolkit.

Sections for this toolkit include:

- Addressing the social determinants of health and cultural sensitivity
- Building community partnerships and engaging families
- Engaging clinical teams
- Capturing and analyzing quality data
- Planning long-term sustainability and securing funding
- Case studies from the Childhood Obesity Initiatives
- Resources for Implementation of the Childhood Obesity Initiatives
    - Readiness Assessment: Preparing to Launch a Childhood Obesity Initiative
    - Tools to Guide the Implementation of a Childhood Obesity Initiative
    - A Sample Action Plan

Introduction

The Centers for Disease Control and Prevention (CDC) defines children and adolescents with overweight as having a body mass index (BMI) at or above the 85th percentile and below the 95th percentile. Obesity is defined as having a BMI above the 95th percentile.[1] The National Health and Nutrition Examination Survey (NHANES), from 2015-2016, established that the prevalence of obesity in the United States has increased significantly among both sexes, roughly quadrupling in the past three decades.[2] According to 2015-2016 NHANES data, 13.9 percent of children ages 2-5 years had obesity; this rose to 18.4 percent for children ages 6-11 years and 20.6 percent among adolescents ages 12-19 years. The overall prevalence of obesity among U.S. youth was 18.5 percent.[3]

Obesity has many consequences.

Obesity is a financial issue. The obesity crisis costs our nation more than $150 billion in healthcare costs annually,[4] and billions of dollars more in lost productivity.[5] Costs for children and adolescents are $2.9 billion.[4]

- Obesity is a national security issue that affects our nation's military readiness. Having overweight or obesity is the leading cause of medical disqualifications, with nearly one-quarter of service applicants rejected for exceeding the weight or body fat standard.[6]
- Obesity is a community safety issue. Millions of Americans who serve as first responders, firefighters, and police officers, and in other essential community service and protection roles have overweight or obesity, which puts public safety at risk.[7]
- Obesity is a child development and academic achievement issue. Childhood obesity is correlated with poor educational performance[8] and with increased risk for bullying and depression.[9]
- Obesity is an equity issue. Obesity disproportionately affects low-income and rural communities as well as certain racial and ethnic groups, including Blacks, Latinos, and Native Americans. [10-13]
- Obesity is a top national priority. Americans (registered voters) rated obesity as the top health concern in the country in a recent public opinion survey. [14]

The most successful approaches are often comprehensive, localized, "place-based" efforts — where leaders and members of a community build partnerships that bring together public health and healthcare providers; hospitals, schools and universities; child-care providers and centers; social service groups; philanthropies; community-based, faith-based, and community development organizations; and transportation and housing planners — to assess the priorities within a local area; leverage existing community resources; and determine the most effective, evidence-based strategies to meet their needs.[15] The strategies with the most impact also typically focus on helping children maintain a healthy weight — since it is much easier and more effective to prevent obesity than to try to reverse it later — and to provide adults with opportunities for improved nutrition and increased physical activity, to be as healthy as possible no matter what their weight.[15]

Current research demonstrates an overall lack of available research that stratifies outcomes of childhood obesity prevention and treatment initiatives by age, race/ethnicity, and sex. This significant gap, which is common in the Medicaid population and makes it difficult to understand the impact of the social determinants of health on the efficacy of interventions, also limits the application of potential interventions.

In response, the Institute for Medicaid Innovation, in collaboration with its partners, launched the CHildhood Obesity Prevention and Treatment (CHOPT) for Medicaid project, a multi-pronged approach to understanding childhood obesity among Medicaid managed care enrollees. Currently, the majority of individuals enrolled in Medicaid receive coverage through Medicaid managed care organizations, or private health plans that contract with state Medicaid programs to provide access to covered benefits and services. Considering the limited evidence-

base in childhood obesity prevention and treatment, Medicaid managed care organizations find it important that their initiatives are collaborative efforts with community organizations, local departments of health, and key stakeholders.

CHOPT's Phase One addressed current gaps in research by: 1) providing an environmental scan and case studies of childhood obesity prevention and treatment initiatives led by Medicaid managed care organizations; and 2) offering resources, including readiness assessment and implementation tools, to guide Medicaid managed care plans that wish to enhance their existing initiative or launch a new one through the design, implementation, and evaluation process. The first toolkit included the following key components:

- *Environmental Scan of Childhood Obesity Efforts Led by Medicaid Managed Care Organizations*
  The environmental scan reported the results of a national survey completed by Medicaid managed care organizations that examined the components, design, and implementation of childhood obesity prevention and treatment efforts and the needed policy changes to address challenges faced by health plans.
- *Case Studies of Childhood Obesity Initiatives and Perspectives from Families and Children*
  The case studies provided detailed case studies of the innovative programs developed by Medicaid managed care organizations, each in collaboration with local community groups and key stakeholders. In addition, the results of interviews with families were presented, which offered insight into their experiences and preferences while they were participating in the initiatives.
- *Readiness Assessment and Implementation Tools*
  The toolkit also included readiness assessment and implementation tools to guide health plans through the process of identifying priority pediatric groups in their Medicaid population; determining the appropriate design of an intervention and the resources needed to facilitate the implementation of the intervention; and measurement and data resources needed to evaluate the outcomes associated with the childhood obesity intervention.

The Phase One Toolkit can be accessed here:

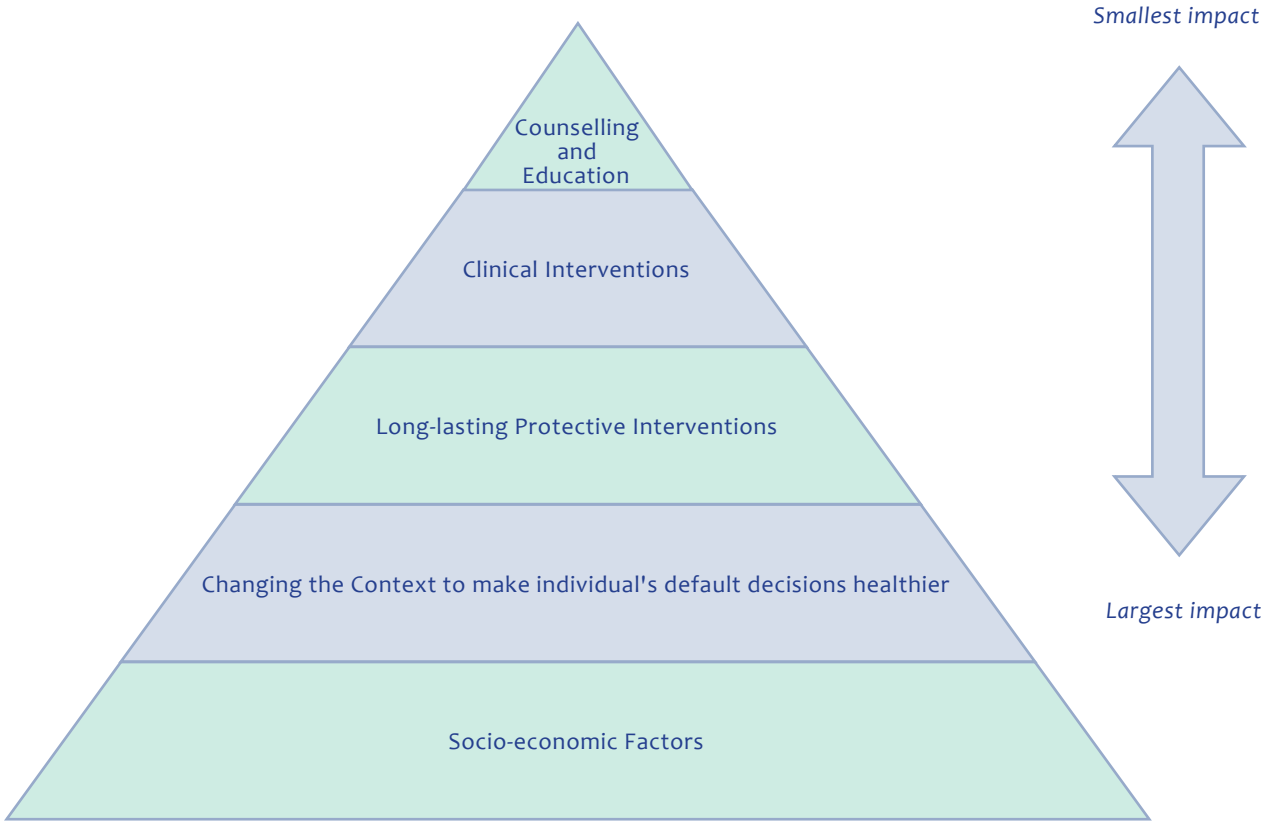
FULL URL: http://www.medicaidinnovation.org/_images/content/final_chopt_toolkit.pdf

In this second toolkit, these resources are included again, but this toolkit focuses on five distinct yet overlapping areas of intervention.

As can be seen from Figure 1, without consideration for an individual's social determinants of health coupled with their cultural norms, the onus of the interventions, and therefore the chances for success, would be based largely on an individual's effort and have a much lower impact and a decreased chance of success than interventions that affect these factors as a major underpinning of the initiative.[16] It is estimated that 40-50 percent of the success of any health initiative is directly tied to the socioeconomic factors of an individual, and the lower the income, the worse the health status of an individual.[17] Clinical interventions, while important, are much less able to effect long-term success than is addressing the social determinates of health.

Figure 1. CDC's Health Impact Pyramid Factors that Affect Health

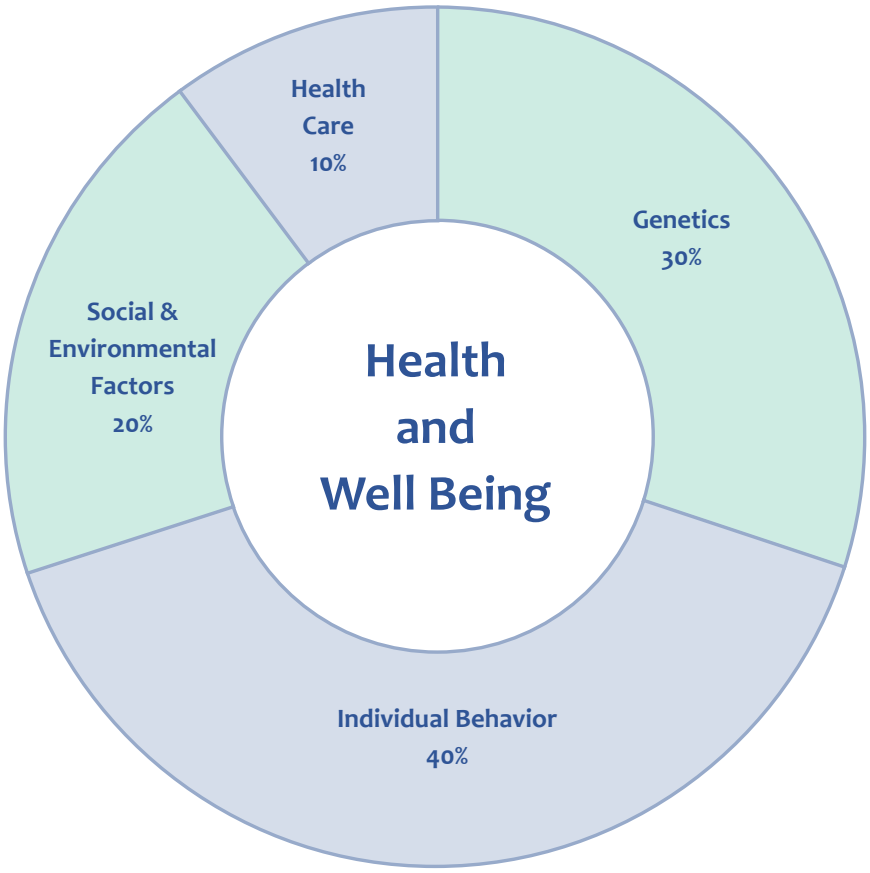
CDC's Health Impact Pyramid Factors that Affect Health



Source: Frieden, T. R. (2010, April). A Framework for Public Health Action: The Health Impact Pyramid. Retrieved February 25, 2018, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/

Health is influenced by factors in five domains: genetics, social circumstances, environmental exposures, behavioral patterns, and healthcare, as shown in Figure 2. Individual behavior accounts for the largest factor that influences premature death.

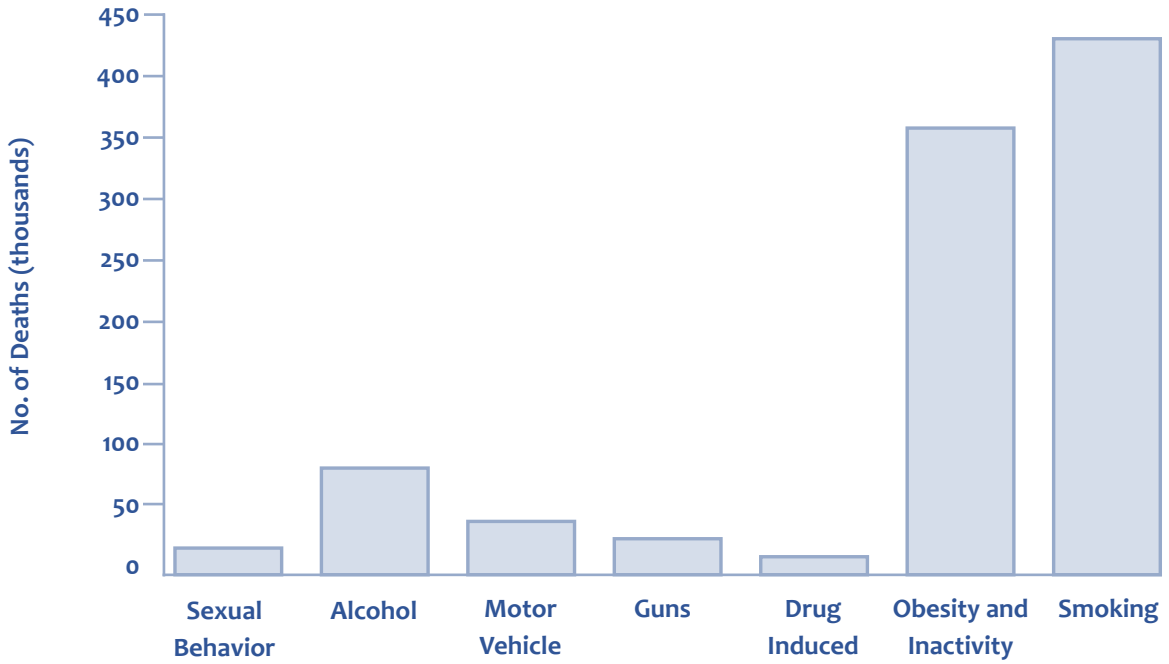
Figure 2. Impact of Various Factors on Risk of Premature Death



Source: Schroeder, S. A. (2007). We can do better — Improving the health of the American ... Retrieved February 25, 2018, from http://www.nejm.org/doi/full/10.1056/NEJMsa073350

When it comes to reducing early deaths, medical care has a relatively minor role. Even if the entire U.S. population had access to excellent medical care — which it does not — only a small fraction of these deaths could be prevented. Although the single greatest opportunity to improve health and reduce premature deaths lies in personal behavior, behavior cannot be disassociated from the contextual factors that influence behavior such as media, access to healthy food and activity, violence, and poverty to name a few. Efforts to change behaviors that affect health are most effective when they also address the environments in which people live and work, influencing their daily choices. Although there has been disagreement over the actual number of deaths that can be attributed to obesity and physical inactivity combined, it is clear that this pair of factors, plus smoking, are the top-two causes of premature death, as shown in Figure 3.[18]

Figure 3. Number of U.S. Deaths from Behavioral Causes, 2000.



Source: Schroeder, S. A. (2007). We can do better — Improving the health of the American ... Retrieved February 25, 2018, from http://www.nejm.org/doi/full/10.1056/NEJMsa073350

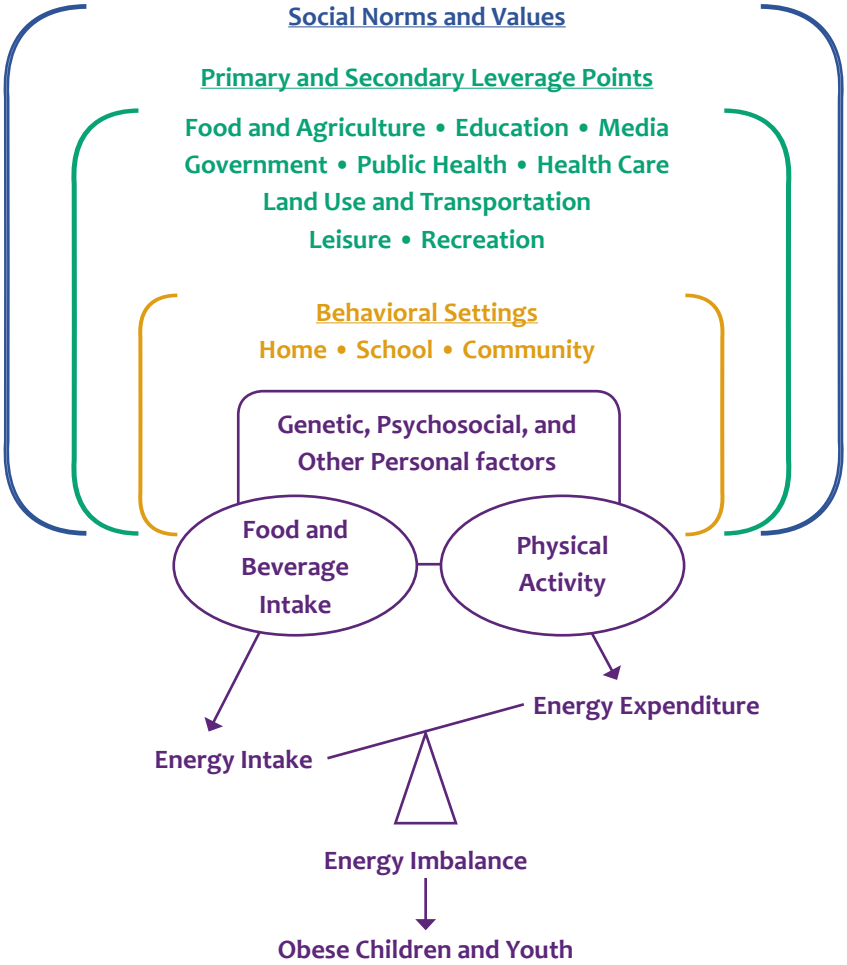
If the public's health is to improve, that improvement needs to come from creating an environment that promotes healthy rather than unhealthy behaviors. Experience demonstrates that it is possible to change behavior, as illustrated by increased seat-belt use and decreased consumption of products high in saturated fat, by altering the policy, legal, or commercial environment. The case of tobacco best demonstrates how rapidly positive behavioral change can occur.[19, 20]

The prevalence of smoking in the United States declined among men from 57 percent in 1955 to 23 percent in 2005, and among women, from 34 percent in 1965 to 18 percent in 2005.[19, 20] Why did tobacco use fall so rapidly? The 1964 report of the surgeon general, which linked smoking and lung cancer, was followed by multiple reports connecting active and passive smoking to myriad other diseases. Early anti-smoking advocates, initially isolated, became emboldened by the cascade of scientific evidence, especially concerning the risk of exposure to secondhand smoke. Counter-marketing — first in the 1960s and more recently by several states and the American Legacy Foundation's "truth®" campaign — linked the creativity of Madison Avenue with messages about the duplicity of the tobacco industry to produce compelling anti-smoking messages.[21] Laws, regulations, and litigation, particularly at the state and community levels, led to smoke-free public places and increases in the tax on cigarettes — two of the strongest evidence-based tobacco-control measures.[21]

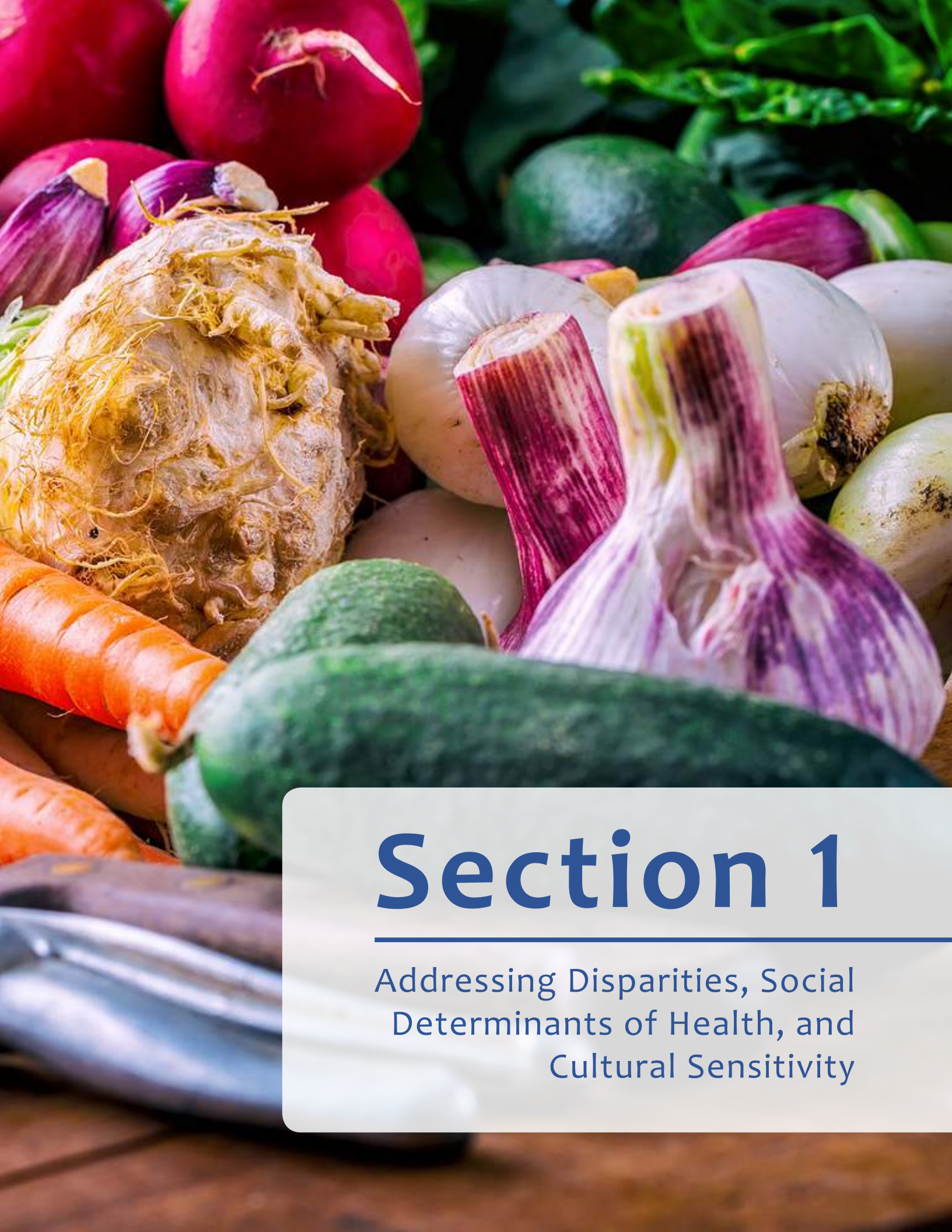
The key settings for children and youth are the home, school, and community. As noted in the framework developed by the Partnership to Promote Healthy Eating and Active Living (Figure 4),[22] individual settings are affected either directly or indirectly by a variety of other factors that potentially constitute primary and secondary leverage points for effecting changes. These leverage points include the major sectors that affect the food system, opportunities for physical activity or sedentary behavior, and information and education regarding dietary behaviors and physical activity.[22]

The outermost layer on the framework in the figure below, Social Norms and Values, reflects the critical concept of an overlay of social norms and values, that is, the social fabric that cuts across all the layers and processes below. Social norms and values both determine and respond to collective social and institutional processes within the context of the larger U.S. culture. This Social Norms and Values framework emphasizes the need for obesity prevention efforts to leverage the interests and actions of a number of stakeholders working within and across multiple settings and sectors. The framework also includes some causative factors that contribute to understanding obesity in children and youth, where energy intake is depicted as excessive when compared to energy expenditure, leading to a positive energy balance (or energy imbalance), which in turn results in obesity.[22]

Figure 4. Framework for Understanding Obesity in Children and Youth



Source: Koplan, J. P., Liverman, C. T., & Kraak, V. I. (2005) Institute of Medicine (US) Committee on Prevention of Obesity in Children and Youth. Preventing childhood obesity: Health in the balance: Developing an action plan. Retrieved February 25, 2018, from https://www.ncbi.nlm.nih.gov/books/NBK83820



Section 1

Addressing Disparities, Social Determinants of Health, and Cultural Sensitivity

Addressing Disparities, Social Determinants of Health, and Cultural Sensitivity

In this section we address the following:

Social determinants of health and cultural sensitivity

- » Key areas
- » Stigma and Bias

When designing a program to address childhood obesity, why is it important to include social determinants of health and cultural sensitivity?

The Centers for Medicare & Medicaid Services' (CMS's) Disparities Action Statement[23] defines disparities as differences in health outcomes closely linked with social, economic, and environmental disadvantage. These are often driven by the social conditions in which individuals live, learn, work, and play. Characteristics, including race, ethnicity, disability, sexual orientation or gender identity, socio-economic status, geographic location, and other factors that are historically linked to exclusion or discrimination are known to influence the health of individuals, families, and communities.

Interventions that address the social determinants of health have the greatest potential public health benefit. Action on these issues needs the support of government and society if it is to be successful. The biggest obstacle to making fundamental changes in society is often not the shortage of funds but rather, the lack of political will; the health sector is well positioned to build the support and develop the partnerships required for change.[24]

To say that social and contextual changes are more effective at improving public health does not negate the need for other interventions. For different public health problems, different interventions may be the most effective or

most feasible in any given context. Comprehensive public health programs should attempt to implement measures at each level of intervention to maximize synergy and the likelihood of long-term success.[24]

Healthy People 2020 states that "health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion."[25] These definitions recognize that health disparities are rooted in the social, economic, and environmental context in which people live. Achieving health equity—defined by Healthy People 2020 as the highest level of health for all people—will require addressing these social and environmental determinants through both broad population-based approaches and targeted approaches focused on communities or components of communities experiencing the greatest disparities.

The World Health Organization (WHO)[26] defines the social determinants of health in part as the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems. The Sustainable Development Goals (SDGs) provide a comprehensive blueprint for human development and for systematically addressing the social determinants of health.[26]

Key Areas

The five key areas of **Social Determinants** that this toolkit will address are: [27]

1. Neighborhood and Built Environment
2. Health and Health Care
3. Social and Community Context
4. Economic Stability
5. Education

The main components of **Neighborhood and Built Environment** include:[27]

1. Access to Healthy Foods
2. Environmental Conditions

Access to Healthy Foods: Approximately 2.3 million people live in low-income, rural areas that are more than 10 miles from a supermarket. Food deserts may be underreported because the North American Industry Classification System places small corner grocery stores in the same category as large grocery stores such as Safeway and Whole Foods.[27] A new phenomenon is the proliferation of "Food Swamps," an inundation of low-quality, fast-food options. A Food Swamp is typically coupled with related advertising saturation that highlights quantity at low cost, further complicating eating decisions. These Food Swamps are often chosen as a matter of convenience and price over nutrition.[28]

Built Environment: The Flint Water Crisis forced the topic of municipal water quality into the spotlight when it was discovered that an entire city had been exposed to toxic lead levels. As of June 2016, there were 5,300 U.S. water systems in violation of the EPA's lead and copper rule.[29]

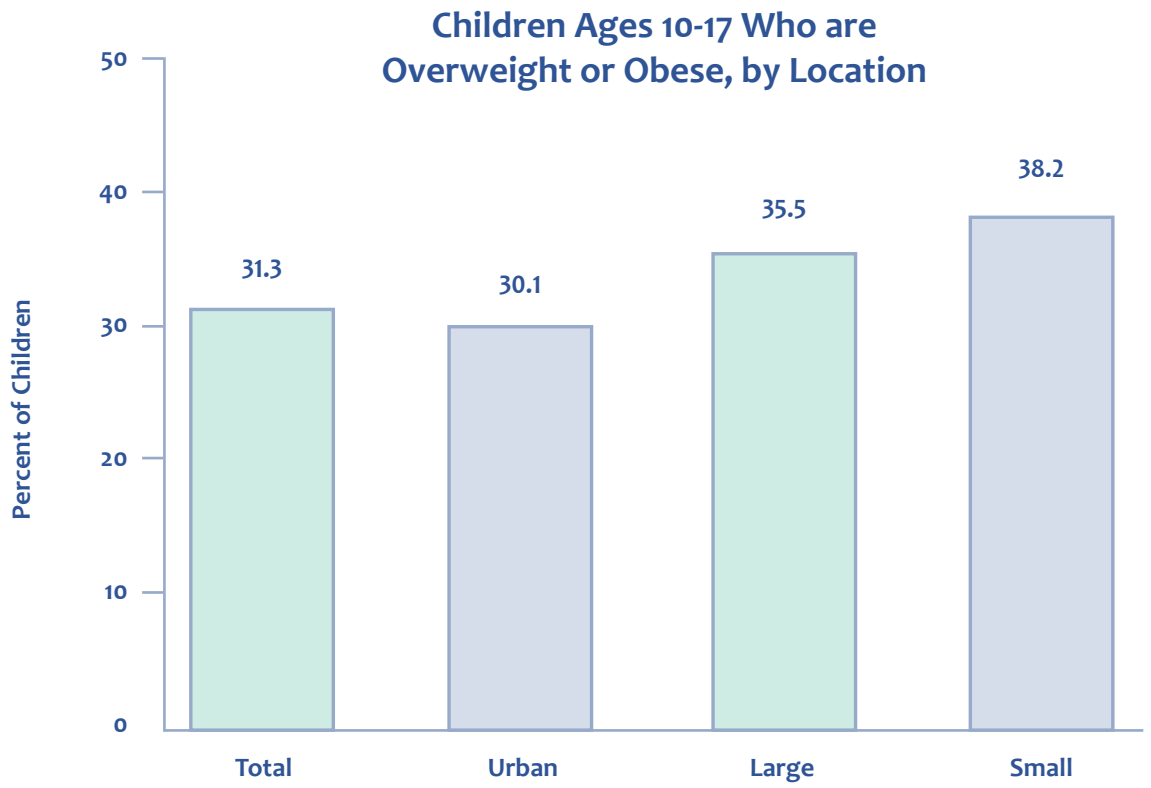
It is estimated that 22 percent of homes have a serious health or safety hazard. This leads to adverse health outcomes, including respiratory infections, asthma, lead poisoning, and mental health issues.[28]

Neighborhood characteristics have significant impacts on health outcomes because they influence a person's ability to adopt behaviors that promote health. Efforts to change behaviors that affect health are most effective when they also address the environments in which people make their daily choices. People whose neighborhoods lack parks, green open spaces, or trees and whose neighborhoods have high crime rates, have less access to safe places to play or walk.[27] Often, neighborhoods in low-income areas are an obstacle to exercise. The geography of the area is often not conducive to walking, and there often are safety concerns. Neighborhoods are so important to overall health that life expectancy can be 20 years less in one area than in another a mere 20 miles away. Only one in five Americans live within a half-mile of a park. If a park is available in low-income neighborhoods, graffiti, litter, and disrepair might make them unattractive and unusable.[28] Low-income neighborhoods are 4.5 times more likely than high-income neighborhoods to lack recreational facilities such as pools, tracks, tennis courts, and sports fields.[15]

The odds of a child having overweight or obesity increases 20-60 percent if he or she lives in a neighborhood with unfavorable conditions such as poor housing, unsafe surroundings, and/or limited access to sidewalks, parks, and recreation centers.[15]

Rural, suburban, and urban communities all have different environmental factors that affect their residents' health. Urban residents also face different challenges that vary according to the size of the city in which they live. Rural counties have higher rates of obesity than urban or suburban counties, with the highest adult obesity rates in the United States found in the rural counties in Mississippi and Alabama.[15] Figure 5 highlights the differing obesity rates.

Figure 5. Children Ages 10-17 with Overweight or Obesity, by Location



Source: Trust for America's Health. (August 2017). The state of obesity: Better policies for a healthier America. Retrieved February 25, 2018, from http://healthyamericans.org/report/115/

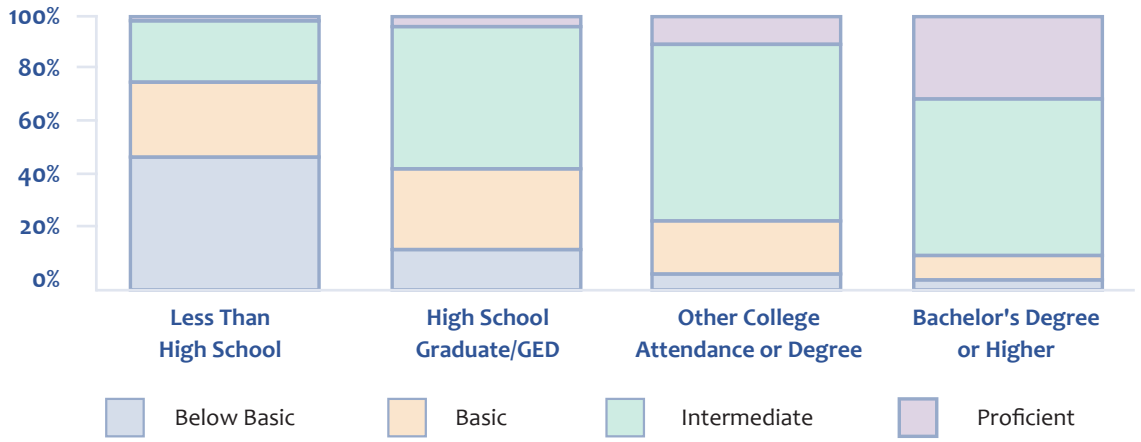
The main components of **Health and Health Care** include:[27]

1. Access to Health Care/Primary Care
2. Health Literacy

Access to Health Care/Primary Care: Fifty-two major cities reported a 46 percent decrease in urban hospitals from 1970 to 2010. Although being poor is directly associated with poor health, the number of facilities providing access to health care is also steadily declining. Since 2000, two-thirds of new hospitals opened are in wealthy, suburban areas. Lack of transportation also contributes to poor access in largely suburban locations by lower-income groups who do not reside in the wealthy suburbs.[28] Currently, 39 percent of children (36 million) in the U.S. rely on Medicaid for their healthcare coverage.[30] Some states provide only limited adult Medicaid coverage, many childless adults do not qualify, and pregnancy and extreme poverty are other factors influencing Medicaid coverage.

Health Literacy: Health literacy is more than the ability to read pamphlets; it includes access to the information and the capacity to use the information effectively. This is critical to personal health empowerment. Only 12 percent of U.S. adults have proficient health literacy.[27] Over a third of U.S. adults—77 million people—have difficulty with common health tasks, such as following directions on a prescription drug label or adhering to a childhood immunization schedule using a standard chart. Limited health literacy affects adults in all racial and ethnic groups. The proportion of adults with basic or below basic health literacy ranges from 28 percent of white adults to 65 percent of Hispanic adults.[27] Although half of adults without a high school education had below basic health literacy skills, even high school and college graduates can have limited health literacy. Compared to adults with both private insurance and adults with public insurance, adults who had no insurance had lower health literacy skills. All adults, regardless of their health literacy skills, were more likely to get health information from radio/television, friends/family, and health professionals than from print media.[27] Figure 6 demonstrates that less education can be directly correlated with lower health literacy levels.

Figure 6. Adults' Health Literary by Highest Level of Educational Attainment, 2003



Source: Kutner, M., Greenberg, E., Jin, Y., Paulsen, C., & White, S. (2006, September 06). The health literacy of America's adults: Results from the 2003 National Assessment of Adult Literacy. Retrieved March 12, 2018, from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006483

Level of health literacy directly correlates with level of education. More than three-quarters of adults with less than a high school degree were at the below-basic or basic literacy levels; the percentage at the basic or below-basic levels decreased dramatically as education level increased. Although health literacy increased with higher educational attainment, 44 percent of high school graduates and 12 percent of college graduates still only achieved below-basic or basic levels of health literacy.[31]

The main components of **Social and Community Context** include:[27]

1. Discrimination
2. Incarceration

Discrimination:

Studies have shown that discrimination increases the risk of stress, depression, the common cold, hypertension, cardiovascular disease, breast cancer, and mortality.[32] Housing discrimination is not new, but new forms appear to be surfacing. Sometimes, it results from both government and developers failing to understand the realities of what low-income residents will experience. Building mixed-use affordable housing arrangements are often a developer's way of avoiding the more burdensome requirements of market-rate housing. In these developments, the amenities are often segregated, for instance, separate elevators for low-income residents than market-rate residents, or no access to the development pool or fitness center for the low-income residents. Mixed-use affordable housing may have credit requirements so stringent that they naturally disqualify lower-income applicants, who may have lower credit scores and past-due student loans or other credit payments. These are circumstances many low-income people face because of the economy, which begs the question: Are developers really trying to fill these affordable units? If so, with whom? They accepted the tax credits and special construction permissions for their mixed-use project, but they appear to be circumventing the intended vision of accepting tenants from the community.[33]

Beginning in 2011, about 700 low-income tenants in Chicago were given "super-vouchers" that allowed them to live in high-end buildings, in what the Chicago Housing Authority calls "opportunity areas." These are neighborhoods with good schools, access to employment, and low poverty rates. These buildings don't have what is commonly referred to as "poor doors." In these buildings, all the residents share the same pools, gyms, and other amenities the building provides. Based on the generous amenities provided to all residents of these buildings, some legislators argue that this is a waste of tax dollars.[33]

A resident of one of the buildings held similar contempt for his working-class neighbors. He stated, "It's not fair because we work hard to live in a place like this." This idea that working-class people earning lower wages don't work hard or don't deserve affordable housing highlights why affordable housing initiatives are needed in the first place.[33]

Incarceration:

Beginning in the 1970s, the prison population began swelling, climbing steadily through 2009. Currently, the United States imprisons a greater number of its residents, 2.2 million, than any other country. The United States jails one-quarter of the world's prisoners, although it contains only 5 percent of the world's population. The statistics are sobering for a republic that celebrates justice, fairness, and equality as founding principles of its democracy.[34]

By the end of 2014, there were 693 incarcerated individuals per 100,000 residents in the U.S. This inordinately high level of incarcerated individuals disrupts families and entire communities.[27] It creates single-parent households, forces children to live with grandparents or other relatives, or forces children to enter into foster care. These factors cause emotional and financial strain on both the family unit and the community.

Today, about two-thirds of African-American men with low levels of schooling will go to prison during their lifetimes. Most inmates are minority men under age 40, whose economic opportunities have suffered disproportionately over the past 30 or 40 years. Incarceration in the United States is socially concentrated among very disadvantaged people.[34]

To address the crime problem, there needs to be a focus on addressing the root causes, starting with helping the millions of Americans who are overwhelmed and made desperate by poverty. It's a simple but often forgotten fact that people without education, jobs, housing, or hope commit most crimes. A campaign to target crime

should include effective social services, early-education initiatives, access to healthcare and mental health services, and more housing and job opportunities. Before an individual has had contact with law enforcement, they have had contact with schools, with jobs (either getting them or not), and with the healthcare and housing systems. Developing interventions that are sustained through childhood, that can help stabilize the home lives of at-risk kids in a sustained way, is crucial to turning the cycle around.[34]

Support programs for those who have substance use disorders and/or have been diagnosed with a mental health disorder also could curb the prison population. Diverting defendants into aid programs rather than incarceration is a key step in reducing the number of incarcerated individuals and providing the real help that these offenders require.

When an inmate is released from incarceration, he or she often faces unstable housing, slim job prospects, and inferior healthcare. Former inmates are often dealing in a sustained way with all sorts of problems that are largely beyond their control, including their home environments, their neighborhoods, and their level of income. Former inmates clearly need help establishing themselves as productive citizens. Stable medical care is a key to successful re-entry, playing a vital role in successful transitions.

Steady employment is also vital to successful re-entry. Studies have shown that prisoners in low-security facilities who were allowed to work during the day often retained work-release jobs after finishing their sentences.[34] It may be more difficult for a job applicant to secure employment if he/she is applying at an organization that conducts a background check, as many companies exclude workers who have a criminal record.

The main components of **Economic Stability** include:[27]

1. Food Security
2. Poverty
3. Employment
4. Housing Stability
5. Education

Food Security: In 2015, 12 percent of all U.S. households reported food insecurity.[35] Food Insecurity is defined as:

- Worrying that food will run out before more can be purchased
- Adults cutting their portion size or skipping meals because they lack money for food
- Inability to purchase balanced meals because of cost differentials

Food insecurity prevents families from providing healthy meals, which directly affects health. Based on data from the U.S. Department of Agriculture (USDA), in 2010, 14.5 percent of all U.S. households — 17.2 million households — were food insecure, with rates as high as 60 percent for low-income households and approximately 30 percent for female-headed households with children. Although food insecurity is associated with poverty, approximately 85 percent of food-insecure households with children had an adult who was employed, which highlights the fact that employment opportunities and living wages are important components of food insecurity. Almost 25 percent of families with incomes greater than 185 percent of the federal poverty level were living in food-insecure households.[35]

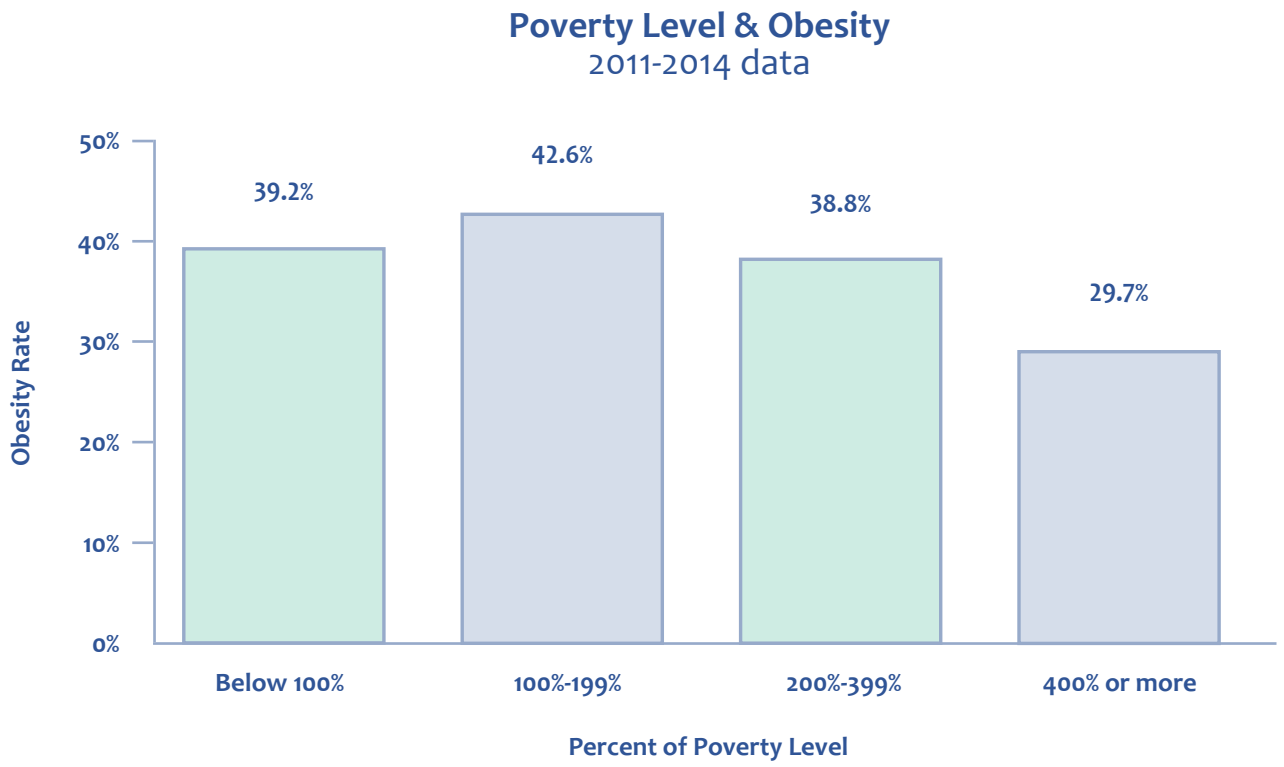
Household food insecurity has potential negative effects on the health and development of young children. They have increased hospitalizations, poorer health, iron and other mineral deficiencies, developmental risk and behavior problems. The primary behavior problems exhibited include feeling anxious, feeling depressed, exhibiting aggression, and having attention deficit disorder. These negative effects on health and development early in life

increase children's risk of poor school readiness and poor school performance. This in turn leads to poverty and health disparities for these children. According to research of school-age children, household food insecurity can be correlated with lower scores on health measures, lower behavioral functioning, and lower academic performance. There are also links between food insecurity and children's growth, with increased obesity in the family. [35]

People in low-income neighborhoods often have less access to affordable, healthy food retail options and have more access to cheap fast-food outlets.[32] With limited resources, food-insecure families often resort to low-cost, low nutrient-dense food, as they sacrifice diet quality to ensure that they have enough food to avoid the physiological pangs of hunger. Low nutrient-dense diets increase the risk for obesity and iron deficiency. Dietary data have shown that children from low-income, food-insecure households consume fewer calories, carbohydrates, and fruits and have higher cholesterol values than their food-secure, higher-income peers. Food-insecure children consume fewer fruits, dark green vegetables, grains, yogurt, nuts, seeds, and dried beans and peas, but more sugar and eggs than children from food-secure households. There is a linkage between food security status and the difference in the quality of the diet.[35]

Poverty: In 2016, 12.7 percent of Americans were living below 100 percent of the Federal Poverty Level (FPL). For a two-adult, two-child family unit, 100 percent of the FPL in 2017 was $24,600. This level does not factor in regional variances in cost of living. Living below the FPL has been shown to have a direct effect on the ability to live a safe, healthy life.[27] There exists in the United States a general apathy to the plight of the poor. Many people believe that poor people don't need support and should just "pull themselves up by their bootstraps."[28] Many people believe that poor people are in their situation because they are lazy or too dependent on government assistance.[28] Figure 7 highlights the correlation between poverty level and obesity rates.

Figure 7. Poverty Level and Obesity, 2011-2014



Source: Trust for America's Health. (2017, August). The state of obesity: Better policies for a healthier America. Retrieved February 25, 2018, from http://healthyamericans.org/report/115/

Employment: While the unemployment rate is at a nine-year low, many of the employed continue to be employed in lower-wage jobs. Today, half of American jobs pay about $37,000 or less each year; a quarter pay about $23,000 per year or less; and a family of four qualifies for Supplemental Nutrition Assistance Program (SNAP) benefits at $32,000 per year or less. According to the U.S. Department of Agriculture, over half of SNAP-recipient families have adults who work. In the United States, "real" poverty is not about a lack of work, but rather, a lack of compensation for the work performed.[22] Employment does contribute to maintenance of good health, allowing for access to insurance and the ability to afford doctor visits, medicine, and healthy food.

Housing Stability: As of 2013, 53 percent of poor renting families dedicated 70 percent or more of their income to housing costs. This leaves minimal funds for other costs of living, which raises stress levels, which in turn are shown to negatively affect health.[32] The actual physical home someone lives in can also be harmful to him or her. Of the estimated 135 million homes in the U.S., 30 million of them have serious health and safety hazards. Areas where higher levels of poverty are particularly concentrated. Exposure to peeling paint, pest infestation, structural issues, signs of neglect such as water leaks contributing to mold, and lack of insulation can be detrimental to health. These highly concentrated areas of poverty are also associated with higher rates of crime and neighborhood violence.[28]

Education: Education is a demonstrated factor in securing stable, higher-earning employment to support a family. Living in substandard housing can hinder efforts to get out of poverty. Lead poisoning is linked to cognitive delays and challenges, which affect academic performance.[28] Stress, depression, and anxiety are frequent by-products of living in low-income areas and can be debilitating and disruptive to academics. The social inequities that children are born into create stressful environments that not only affect their health, but also their ability to learn.[36]

Real wages for the two-thirds of Americans without a four-year college degree have dropped since 1979, according to the Economic Policy Institute. Meanwhile, the cost of a degree has roughly doubled over the past three decades. The current figure for adults holding a bachelors' or higher degree is 33 percent. [17] Individuals with lower education levels are also disproportionately more likely to be obese. In 2015, 34 percent of those with less than a high school education were obese, compared to 21.7 percent of college graduates, based on data from the Behavioral Risk Factor Surveillance System (BRFSS) analysis. An analysis of the 2007 National Survey of Children's Health found that children of parents with fewer than 12 years of education had an obesity rate 3.1 times higher (30.4 percent) than those whose parents had a college degree (9.5 percent).[15]

Obesity is associated with poorer educational outcomes, including more school absences, parents more frequently contacted by the school about problems, and lower educational engagement. Studies have also found that students with obesity have more behavioral problems, are more likely to repeat a grade, have lower grade-point averages and reading scores, and demonstrate lower academic effort.[15, 37-39]

Students with better academic grades have healthier behaviors. According to data from the 2015 National Youth Risk Behavior Surveillance System, students with higher grades are more likely than students with lower grades to be physically active and play on a sports team, and less likely to watch TV or play video games for three or more hours a day. Students with higher grades are also more likely to have healthy dietary behaviors, including eating breakfast, eating fruits and vegetables, and limiting or avoiding sugary beverages.[40]

Health in All Policies

Adopting a "Health in All Policies" approach has been increasingly utilized by the public health community since the early 2000s.[17] Focus on the social determinants of health as a way to improve population health is the hallmark of this concept. It is an inclusive approach including decision makers across different sectors who are informed about the health, equity, and sustainability consequences of policy decisions in non-health sectors. The concept is similar to using an environmental impact assessment to evaluate the environmental impact of policies. In this model, health impact assessments evaluate the health impact of policies and practices across sectors that have not traditionally considered their impact on health.[17]

What Is Health in All Policies?

Health in All Policies is a collaborative approach to improving health by incorporating health considerations into decision-making across sectors and policy areas. A Health in All Policies approach identifies the ways in which decisions in multiple sectors affect health and how better health can support the goals of these multiple sectors. Diverse partners and stakeholders are working together to promote health, equity, and sustainability while advancing other goals such as promoting job creation and economic stability, transportation access and mobility, a strong agricultural system, and improved educational attainment. [41]

The following are comments from Medicaid health plans about addressing the social determinants of health as part of their childhood obesity prevention and treatment initiatives.

- Addressing childhood obesity in the Medicaid population can be complicated.
- Health equity is the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally, with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.
- Culturally and linguistically appropriate services are defined as services that are respectful of and responsive to individual cultural health beliefs, practices, preferred languages, health literacy levels, and communication needs.
- Health Disparities are "particular types of health differences that are closely linked with social, economic, and/or environmental disadvantage... [that] adversely affect groups of people who have systematically experienced greater obstacles to health… based on their racial or ethnic group… socioeconomic status… geographic location… or other characteristics historically linked to discrimination or exclusion."
- Social determinants of health are "complex, integrated, and overlapping social structures and economic systems that are responsible for most health inequities… [and] include social environment, physical environment, health services, and structural and societal factors."
- Social determinants have a significant impact on health outcomes.
- Social determinants contribute to and complicate pediatric obesity treatments, including:
    - Neighborhood and physical environment
    - Education
    - Food
    - Community and social context
    - Healthcare system
- Social determinants that impact pediatric obesity include:
    - Neighborhood socioeconomic conditions
    - Access to affordable, healthy foods

    - Cultural perceptions of health and health literacy
    - Activity Deserts
    - Lack of parks or other safe areas to exercise/play in
- Social determinants that impact treatment of pediatric obesity include:
    - Access to Child Care
    - Access to Transportation
        - For Medical Visits Only
        - One child/one parent rules
    - Access to providers with cultural and linguistic competency
- Stigma and bias are connected to the social determinants of health
- Approaches to weight management for children should include the family unit

Strategies to Address the Social Determinants of Health and Health Disparities

- Collecting information on social risks is critical to developing and implementing pediatric obesity interventions.
- Some organizations are in the early stages of standardizing data collection for social determinants.
- Medicaid MCOs are well positioned to screen for social determinants among their members.
- Examples of Medicaid MCO Solutions:
    - Improving access to healthy foods (Health Plan of San Joaquin)
    - Food Rx Program (CareOregon)

Barriers identified from committee:

Transportation

- For medical visits only
- One child/one parent rules

Immigration Status

- Undocumented parents or family members
- Fear of being deported for accessing services
- Not enrolling in Medicaid or CHIP
  Some interventions aimed at this are:
    - Some WIC clinics have posted signs stating they are not affiliated with law enforcement agencies and do not share data.
    - One FQHC opened a legal clinic to host support sessions and resources

Ability to demonstrate ROI

- One health plan modified playgrounds to include wheelchair-accessible features- they were able to demonstrate an ROI through their marketing of this initiative.

Example Interventions:

Kaiser Permanente in Southern California[42] partnered with Health Leads (a social enterprise organization), and in collaboration with Health Leads, and based on its input, they developed a call center that made outbound calls

to members identified as potentially being at highest risk for increased health care costs. In the initial phase, they identified 876 members to call, 69 percent (604) of whom answered the phone. Of the successful contact group, 76 percent (459) agreed to answer the survey questions. The call center representatives asked the participating members a series of questions around unmet social needs.[42] The survey tool and response rates are shown in Table 1.

Table 1. Response Rates to Selected Social-Needs Screening Questions

Response Rates to Selected Social-Needs
Screening Questions

	Question	% Positive
1.	Within the past 12 months, "the food I bought just didn't last, and I didn't have the money to get more."	32%
2.	Within the past 12 months, "I couldn't afford to eat balanced or healthy meals."	35%
3.	Do you worry about having a safe place to live or being homeless?	13%
4.	In the past month, have you had concerns about the condition or quality of your housing?	13%
5.	Do you have difficulty arranging for transportation to or from your medical appointments?	26%
6.	Do you need help finding ways to pay your bills?	23%

Source: Shah, N. R., Rogers, M. S., Artair, J. & Kanter, M. H. (2016, April 13). Health care that targets unmet social needs. Retrieved February 25, 2018, from https://catalyst.nejm.org/health-care-that-targets-unmet-social-needs/

Based on their utilization of the survey, they discovered that 78 percent of the screened members had at least one unmet social need. Of these members, 186 agreed to enroll in their Health Leads program. The members are referred to community resources that assist in addressing their unmet social needs. The call center representatives placed a follow-up call every 10-14 days to ensure that the needs continued to be met. They also stratified the resources based on the agencies' success with assisting the members and to identify resource gaps by geography, developed a community-alignment strategy to identify resource gaps by geography, and developed a resource alignment strategy in coordination with Community-Based Organizations to increase necessary resources to serve the identified population. During this process they discovered that 1 percent of identified resources addressed more than 50 percent of the identified and referred gaps, and 10 percent of resources addressed 90 percent of all identified needs. They used these data to coordinate with organizations/resources with higher levels of success. They are also exploring the value of face – to – face and warm hand-off referrals and how these interventions drive higher success.[42]

The Health Leads Screening Toolkit is a great resource to use in the development of a health plan or population-specific Social Determinants of Health screening tool. Health care leaders and front-line clinicians have long recognized the connection between unmet basic resource needs – e.g. food, housing, and transportation – and the health of their patients. Research suggests that more than 70 percent of health outcomes are attributable to the social and environmental factors that patients face outside the clinic or hospital setting. One of the first steps in addressing social needs is to ask patients about this aspect of their lives.[43]

Building on Health Leads' 20 years of experience implementing these programs, as well as recent guidelines from the National Academies of Sciences, Engineering, and Medicine, formerly the Institute of Medicine,[44, 45] and the

Centers for Medicare & Medicaid Services,[46] this Social Needs Screening Toolkit shares the latest research on how to screen patients for social needs. Published first in July 2016, this toolkit is updated annually.

Health Leads Social Needs Screening Toolkit
FULL URL: https://healthleadsusa.org/wp-content/uploads/2016/07/Health-Leads-Screening-Toolkit-January-2017_highres.pdf

Screening Tool Best Practices

This Screening Tool was developed by Health Leads with the assistance and input from many healthcare partners and advisers, including Massachusetts General Hospital, Kaiser Permanente, Boston Medical Center, Johns Hopkins, NYC Health + Hospitals Corporation, Contra Costa Regional Medical Center, Cottage Health, Children's National Medical Center, and Health Leads' many workshop and collaborative participants.

Understanding an individual's social needs can be challenging: an individual might not speak or read English well, might be concerned about divulging sensitive information such as immigration status, or might previously have had negative experiences in attempting to address his or her social needs. The ideal screening process will begin to surface social needs by offering a tool that is easy to complete, questions that are simple for patients to understand, and a screening process that is integrated into clinical workflows with clear next steps upon completion. The "Checklist: Screening Tool Best Practices" and "Recommended Screening Tool," developed by Health Leads, are provided in this toolkit.[43]

Checklist: Screening Tool Best Practices

Understanding a patient's social needs can be challenging: your patients may not speak or read English well, they may be concerned about divulging sensitive information such as immigration status, or they may have previously had negative experiences in attempting to address their social needs. The Ideal screening process will begin to surface socially needs by offering a tool that is easy to complete, questions that are simple for patients to understand, and a screening process that is integrated into clinical workflows with clear next steps upon completion. **Use this best practice checklist to ensure your tool will be effective:**

Simple, Effective Questions

- ✓ Come from clinically validated tools or measures
- ✓ Written at a fifth grade reading level to accessible for low literacy populations
- ✓ Focus on prevalence of need separately from interest in program enrollment
    - Prevalence Example: In the last 12 months, did you ever eat less that you felt you should because there wasn't enough money for food?
    - Interest in Program Enrollment Example: Would you like help getting healthy food for you or your family?
- ✓ Designed to open a conversation with your target population, while reducing the likelihood of misidentifying patients (balance of broad and specific)

Easy for Patients to Complete

- ✓ Simple and brief (takes less that five minutes to complete)
- ✓ Contains at least one question from the essential social needs domains
- ✓ Presented in a format that works for your staff and patients (paper or electronic)
- ✓ Available in top three languages in your population and large print sizes if needed
- ✓ Visually appealing, concise, and accessible
- ✓ Similar response options (e.g., all Yes/No, Likert scale, etc.) for each question
- ✓ Sequenced questions starting with relatively passive content to more sensitive content

Integrated into Clinical Workflow

- ✓ Identify workforce responsible for administering/distributing screens (e.g., registration, CHWs)
- ✓ Clarify workflow for distributing screes, capturing screening data, and connecting patients to interventions if they want assistance
- ✓ Provide staff training on social need workflows and responsibilities
- ✓ Analyze data on your screening funnel, including the number of patients who received the screening form; how many screened positive (i.e., have at least one social need); how many enrolled in your intervention; and the overall prevalence of different types of social needs

Source: Health Leads. (July 2016). Social needs screening toolkit - Health leads. Retrieved February 25, 2018, from https://healthleadsusa.org/wp-content/uploads/2016/07/Health-Leads-Screening-Toolkit-January-2017_highres.pdf

Recommended Screening tool

This is a sample social needs screening tool – please tailor it based on your population, scope, and goals.
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Example introductory text: This form is available in other languages. If you do not speak English, call (800)555-666 (TTY: (800) 777-8888) to connect to an interpreter who will assist you at no cost.

Name: _____ **Phone Number:** _____

Preferred Language: _____ **Best time to call:** _____

	Yes/No
In the last 12 months, did you **ever eat less that you felt you should** because there wasn't enough money for food?	☐ ☐
In the last 12 months, has you **utility company shut off your services** for not paying your bills?	☐ ☐
Are you worried that in the next 2 months, you **may not have stable housing?**	☐ ☐
Do problems getting **child care make it difficult for you to work** or study?	☐ ☐
In the last 12 months, have you needed to see a doctor, **but could not because of cost?**	☐ ☐
In the last 12 months, have you ever had to go without health care because you didn't have **a way to get there?**	☐ ☐
Do you ever need help **reading hospital materials?**	☐ ☐
Are you **afraid you might be hurt** in your apartment building or house?	☐ ☐
If you checked YES to any boxes above, **would you like to receive assistance** with any of these needs?	☐ ☐
Are any of your needs urgent? For example: I dont have food tonight, I don't have a place to sleep tonight	☐ ☐

FOR STAFF USE ONLY:
Place a patient sticker to the right
Give this form to the patient with patient packet
PRINT your name and role below
Staff Name: _____

Place patient sticker here

Source: Health Leads. (July 2016). Social needs screening toolkit - Health leads. Retrieved February 25, 2018, from https://healthleadsusa.org/wp-content/uploads/2016/07/Health-Leads-Screening-Toolkit-January-2017_highres.pdf

Stigma and Bias

Obesity is a highly stigmatized condition. Those with obesity are frequently subjected to prejudice and ridicule at home, school, work, and even from health care professionals. Every day, they face social rejection and are deemed lazy, unattractive, unmotivated, and unhappy.[47] Alarmingly, many individuals with obesity feel unable to challenge such stigma, so they passively accept and sometimes believe it. We live in a world where we are constantly reminded that obesity is a "crisis," an "epidemic," is crippling the economy, and is a burden on society. These ideologies are disseminated throughout the news and social media, by politicians, and by health care professionals – and they are the birthplace of weight stigma.[47]

Obesity is a medical condition. In 2014, the American Medical Association adopted the position that obesity can be more complex than just a result of overeating and a lack of exercise. The "obesity epidemic" is only one of the many negative language examples. Even more subtle, subconscious, and potentially stigmatizing is the coupling of the words "are" and "obese" in statements such as "One in eight people ARE obese"; "Children who ARE obese"; and "How can you tell if you ARE obese."[47]

It is important therefore to use "people-first" language in all communications about and with individuals with obesity. Because obesity is a medical condition, it is not something that you "are"; it is something you "have." It is rare that people are defined by a medical condition they have. You will never hear the phrases, "you are lupus" or "you are meningitis."[47] The following link provides a document specifically designed for using "people-first" language for individuals with obesity titled: "Putting People First in Obesity".

FULL URL: http://onlinelibrary.wiley.com/doi/10.1002/oby.20727/pdf

Defining people as "obese" causes severe mixed messages and implies that that is all they are. Using "obese" this way makes it easy to blame the person in question, links that person to negative attitudes regarding weight, and narrows that person's identity to his or her physical characteristics alone. These are the language choices that many people make subconsciously. Just using a phrase in a particular way has the power to change the way a concept is viewed and the ability to stigmatize.

The language we use when discussing this issue needs to be evaluated and more calculated so that we can use powerful platforms such as news media, which reach out to a large audience, to educate instead of discriminate. The language we use represents the way we think, and the language we read, hear, and digest shapes the way we think. It is a powerful tool, and highlighting examples of our benign acceptance with stigmatizing language could be the first step in the right direction toward changing the way we treat this issue and reducing the weight stigma that is currently so widespread in our society.[47]

Society as a whole exhibits prejudice against obesity and is even targeted at children and adolescents. Given the high rates of childhood obesity and the expected continued increase among youth, there is considerable reason to be concerned about the vulnerability of so many children to the negative consequences of weight bias and stigma. These consequences may have both immediate and long-term effects on their well-being. In general, weight bias refers to weight-related attitudes and beliefs that are expressed as stereotypes, rejection, and prejudice toward children and adolescents because they have obesity.[48,49]

Youth who have overweight or obesity are vulnerable to multiple forms of weight bias. Often, these children encounter verbal teasing by their peers (such as name calling, derogatory remarks, being made fun of), physical bullying (such as hitting, kicking, pushing, shoving), and social exclusion (the target of rumors, excluded from activities with peers, avoided, or ignored).[48, 49]

Not surprisingly, peers are frequent critics of children with obesity, and school is a common setting where weight bias occurs. Research shows that negative attitudes toward children with obesity begin as early as preschool age, from three to five years old. Preschoolers report that their peers who have overweight or obesity are mean and less desirable playmates compared to children who do not have overweight or obesity, and they believe that children who have overweight or obesity are mean, stupid, ugly, unhappy, and lazy and have few friends.[48, 49]

As children enter elementary school, these attitudes become worse, with children reporting that peers with overweight or obesity are ugly, selfish, lazy, stupid, dishonest, socially isolated, and subject to teasing. In contrast, children who do not have overweight or obesity are described as being clever, healthy, attractive, kind, happy, socially popular, and desirable playmates. A concerning consequence of these attitudes and stereotypes is peer victimization, such as teasing and bullying. Children with overweight or obesity are highly susceptible to victimization from peers. Studies indicate that about one-third of girls with overweight and one-quarter of boys with overweight report being teased by their peers at school. In addition, among those children who have the highest levels of obesity, rates increase to approximately 60 percent of girls and boys who report peer victimization. Peer victimization is positively related to child-reported depression, anxiety, social physique anxiety, and loneliness. Peer victimization is negatively related to physical activity. Depressive symptoms and loneliness mediate the relations between peer victimization and physical activity.[26] This problem has become so pervasive that research now shows that future peer victimization can be predicted by a child's weight.[50, 51]

In addition to bias from peers in the classroom or on the schoolyard, youths with obesity are also vulnerable to negative attitudes from their teachers. As an example, one study that surveyed attitudes of teachers found that some teachers believed that persons with obesity are untidy, more emotional, less likely to succeed at work, and more likely to have family problems.[51]

Forty-six percent of teachers agreed that persons with obesity are undesirable marriage partners for people without obesity. These attitudes could influence teaching practices with students with obesity.[51]

Other research has demonstrated that educators report lower expectations for students with overweight than normal weight across a variety of performance areas, and that physical educators perceive students with overweight or obesity to have worse social, reasoning, physical, and cooperation abilities than students without overweight or obesity. This is why it is important to recognize that teachers are not immune to societal attitudes and may perpetuate bias unintentionally or through differential treatment of students with overweight or obesity.[51]

An unexpected source of weight stigma toward youth is parents. Several large studies have examined weight-based teasing and victimization in adolescents and show that parental bias is common.[50, 51]

For example, in one study, weight-based teasing by family members was reported by as many as 47 percent of girls with overweight or obesity and 34 percent of boys with overweight or obesity. Research indicates that family members are often reported as the most frequent sources of weight bias. Mothers and fathers were frequently reported as the top participants in stigmatizing experiences.[50, 51]

Children face weight bias from multiple sources – from peers, educators, and even parents. The impact of weight bias on children is significant and has negative consequences for their psychological, social, and physical health.

Children who have overweight or obesity and who are victimized because of their weight are more vulnerable to depression, anxiety, lower self-esteem, and poor body image. In addition, some research has found that youths with overweight or obesity who are victimized by their peers are two to three times more likely to engage in suicidal thoughts and behaviors than children with overweight or obesity who are not victimized.[51]

Weight bias also has consequences for children's social relationships. Children with overweight or obesity are rejected more often by their peers than students who do not have overweight or obesity. They are more likely

to be socially isolated and are less likely to be nominated by their peers as friends than students who are not overweight.[50, 51]

Finally, weight bias can lead to impairments in children's physical health. Several studies have demonstrated that weight bias leads to unhealthy eating behaviors. For example, girls and boys who have overweight or obesity and are targets of frequent weight-teasing are more likely to engage in unhealthy weight control and binge-eating behaviors than are girls and boys who have overweight or obesity but who were not teased about their weight.[51]

There is also evidence to suggest that children with overweight or obesity are less likely to engage in physical activity because of weight stigma. For example, weight bias expressed by physical education teachers leads students with overweight or obesity to avoid participating in physical education classes.[51]

Weight bias can negatively impact cardiovascular health outcomes in youth. Adolescents who reported unfair treatment because of their physical appearance exhibit higher blood pressure, even after accounting for typical determinants of blood pressure including body weight, gender, race, physical activity, posture, consumption, and mood.

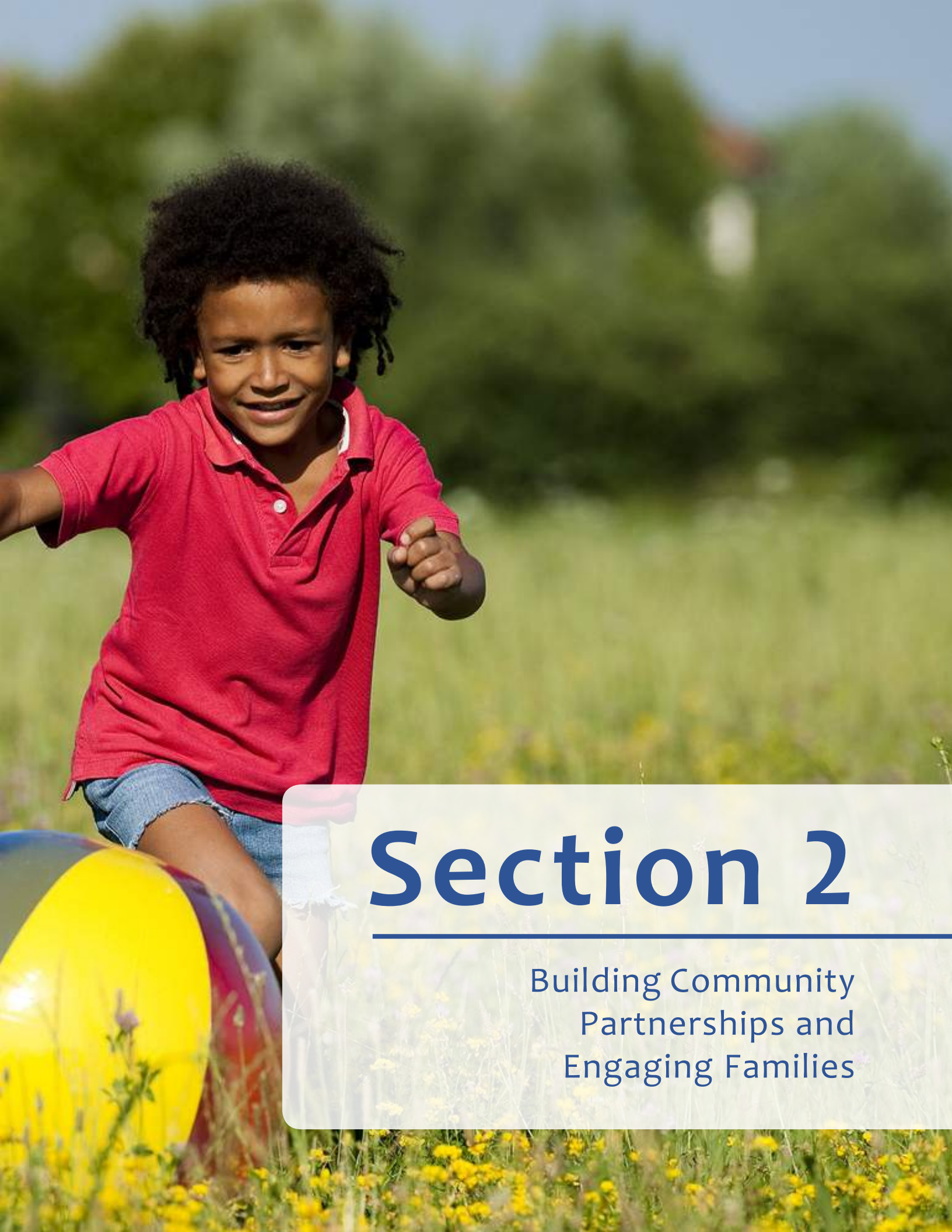
These consequences of weight bias can substantially reduce a child's quality of life. Youth with overweight or obesity have much lower scores on quality of life compared to children without overweight or obesity, including physical health, psychosocial health, emotional and social well-being, and school functioning. Children with overweight or obesity have a quality of life comparable to children with cancer![51]

Parents have a critical role to play in reducing bias and improving the lives of children with overweight. The following suggestions highlight parental strategies that can be helpful toward these goals.[51]

1. Increase awareness of personal attitudes about weight.
2. Use sensitive and appropriate language about weight.
3. Intervene to reduce weight-based teasing.
4. Increase awareness of weight bias at school.
5. Find role models to build confidence and self-esteem.
6. Emphasize health rather than thinness.

The following are effects of obesity prejudice, all of which are supported in the medical, mental health, and social welfare literature:[48]

- Unequal employment opportunity
- Acceptance of being publicly humiliated
- Inferior healthcare when compared to those of normal weight
- Difficulty in accessing individual insurance coverage
- Inhibition in seeking medical care
- Difficulty gaining social acceptance



Section 2

Building Community Partnerships and Engaging Families

Building Community Partnerships and Engaging Families

In this module we will be addressing:

- The value of Community Partners
- Identification of viable Community Partners
- Partnership Checklist: How to choose a partner. What services do/can they provide
- MOU or SOW document to define expectations of partners
  - Reporting of services provided
  - Billing/Coding capture
- What is in it for the family?
  - What does an engaged family look like?
  - What keeps them engaged after the initial contact?
- Billing and coding
  - Billable Case Management Codes
  - Billable Nutrition Counseling Codes

The value of Community Partners:

A recent study of a primary care provider-only childhood obesity program did not yield any appreciable change in participants' BMI. The researchers hypothesized at the end of the two-year study that because the intervention involved only the primary care setting and not children's communities or environment, this could have contributed to the lack of intervention effect on BMI scores. Based on this two-year study, the researchers felt that primary care-based interventions alone will not effect change in BMI scores but could complement and potentially enhance more comprehensive efforts in multiple settings. Obesity prevention interventions in children may require additional settings to be effective.[52]

It is now widely recognized that the health outcomes of populations often are determined more by social factors than by medical care. Much of the most innovative recent work on social determinants and population health demonstrates the value of partnerships across sectors, with health care systems partnering with community-based organizations ranging from housing authorities to nutrition support programs and beyond. These partnerships have proved to be essential to populations enrolled in alternative payment models such as accountable care organizations (ACOs), and ACO leaders are beginning to recognize the need to integrate services both within and without the health care sector to improve the chances of the model's success. Because of this, health care systems are exploring ways to collaborate with social service providers to improve health outcomes and decrease utilization of unnecessary, costly care.[53]

Given the variety and volume of parties involved in these efforts, many health care systems are facing a strategic challenge: What role do they play in the creation and execution of a local population health strategy? This strategy choice is likely to have far-reaching implications for how the system chooses to address the social determinants of health.[22]

Identification of Viable Community Partners

Community-Based Programs

Schools and federal, state, and local governments support many community-based programs to help address the obesity epidemic. Strategies underlying these programs include making healthy foods more available and appealing, educating consumers about healthy eating and food ingredients, supporting projects that bring grocery stores into food deserts, providing places for physical activity, and expanding public transportation.

Community-based efforts are designed to be flexible enough to address the needs of specific local areas — matching their priorities and leveraging existing resources. Successful strategies may consider bringing in key partners and assets together to take a comprehensive approach that will maximize impact. Multi-sector collaborations may include public health agencies, healthcare providers and payers, social services, private businesses, philanthropies, schools, and community groups — all of which have a vested interest and different expertise for improving the health and vitality of a community.[22]

Key issues such as affordable housing; high-quality education; income; transportation; the availability of affordable, nutritious food; safe places to be physically active in; and other healthy conditions in neighborhoods have a higher potential of being addressed successfully with cross-sector partnerships.

Enlisting a range of additional resources assist in the provision of investments for obesity-prevention efforts along with federal, state, and local grants. It is essential to engage a broader set of private and public resources to be able to scale effective, evidence-based efforts more broadly. The entire federal budget for all chronic disease prevention activities at CDC is around $1.2 billion (about $4 per person per year, as of FY 2017), while more than 80 percent of the annual nearly $3 trillion in healthcare spending is spent on individuals with one or more chronic conditions (about $8,000 per person per year for chronic diseases).[1] Optimally, revenue sources, programs, and goals can be coordinated and leveraged for greater effect. For instance, partners in a community form a collaborative, where one organization can take a lead partner or "integrator" role, helping to manage the program and use of resources for maximum effect and accountability.[54]

Community coalitions may consist of public- and private-sector organizations, in partnership with individual citizens, working to achieve a shared goal through the coordinated use of resources, leadership, and action and the provision of direction in these areas. These collaborative partnerships take advantage of multiple perspectives, talents, and expertise brought together to work toward a common goal. The efforts needed to prevent childhood obesity require a diverse set of skills and expertise—from renovating community recreational facilities to

developing multimedia campaigns to promote healthy lifestyles. Because childhood obesity prevention is central to the health of the community's children and youth, the development of community coalitions is a particularly relevant means of addressing this issue.[22]

The characteristics of successful coalitions may include focusing on a well-defined and specific issue, determining common goals, and keeping the coalition focused on providing leadership and direction rather than micromanaging the solutions.[22] All of these characteristics are attainable for community coalitions focused on childhood obesity prevention. The diverse set of community organizations and businesses that need to be involved to address childhood obesity includes more than just those stakeholders in the traditional health-related disciplines.

Additional relevant stakeholders can potentially include the building industry, food and beverage companies, the restaurant and food retail sectors, the entertainment industry and the media, the educational community, the public safety sector, transportation divisions, parks and recreation departments, environmental organizations, community rights advocates, youth-related organizations, foundations, employers, universities, and faith-based organizations, among others. Many stakeholders who might not have considered childhood obesity prevention as an area of interest now find that they have a key role to play in working toward healthier communities. There are challenges in developing and maintaining community coalitions. These challenges include effectively addressing competing priorities, transforming organizational cultures, and identifying sustainable funding sources.

Childhood obesity may not rank high as a priority if there are more immediate concerns such as poverty, crime, violence, underperforming schools, and lack of health care access. Identifying initiatives that can support many benefits--improving playgrounds and recreational facilities to improve safety, reducing crime, increasing physical activity, and improving quality of life, for example—might allow for common ground. This is often the key to creating shared initiatives. Community youth organizations, a volunteer workforce, and public-private partnerships can be successful if an initiative that addresses an issue is important to multiple parties.

Multiple, national youth-related organizations are working with their local chapters to include anti-obesity efforts in their youth programs, often in collaboration with corporations, community parks and recreation departments, or corporate or foundation sponsors. Girl Scouts, YMCA, Boys and Girls Clubs, and 4-H are examples of organizations that have active programs in communities that are eager to partner. Coca-Cola and Kraft Foods have also sponsored programs. The case studies in this toolkit highlight these partnerships.[22] Community Centers, after-school programs, and summer camps in some communities are active in incorporating obesity prevention into their programs. See Appendix 2 for examples.

Faith-based organizations are also becoming more engaged in promoting healthy lifestyles, tying physical and spiritual health together. Some are sponsoring health fairs, cooking and exercise demonstrations and other health-related informational sessions. Congregation members are often more comfortable attending at places of worship than in a health care setting.[22]

Another organizational model that is being explored is the utilization of community health workers (CHW). Defined by the American Public Health Association as "a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served," CHWs have been shown to have a positive impact on health outcomes in low-resource communities around the world.[55] A CHW has the potential to fill many of the gaps that separate clinical advice from the realities of a patient's daily life. They can serve as educators, explaining the relationship between high BMI, nutritious foods, and exercise in a way a patient/family understands.

CHW's can link patients to community supports such as neighborhood exercise groups or food pantries that provide health-conscious meals. Because they come from the same communities as the patients they serve, CHWs can be powerful motivators and cheerleaders, helping patients find both the will and the way to overcoming their health challenges.

Although CHWs have been present in the United States since the 1960s, they've struggled to become a core feature of our health care system, in large part because the U.S. fee-for-service payment model for care[55] doesn't incentivize the types of preventive or maintenance supports that CHWs often provide. In recent years, however, the United States has increasingly moved toward a new type of health care payment system where hospitals and other care providers are held financially accountable for the health outcomes of the patients they serve, broadly referred to as "population health." This transition is creating new financial incentives to address long-persisting disparities in health outcomes among low-income communities, communities of color, and other marginalized groups. As a result, interest in creating and supporting CHW programs is increasing, as providers and payers look for cost-effective solutions to persistently poor health outcomes.[55]

Despite clear evidence of their ability to aid in addressing issues, CHW programs in the United States over the past decade have failed to achieve sustainability: making sure programs are designed and financed to reliably provide services over the long term. In an effort to address this core challenge, the Arnold Institute for Global Health at the Icahn School of Medicine at Mount Sinai, in partnership with the Office of the U.N. Secretary General's Special Envoy for Health in Agenda 2030 and for Malaria, assembled a task force of global and domestic experts and frontline leaders to develop a framework for sustainable, effective CHW programs in the United States.[55]

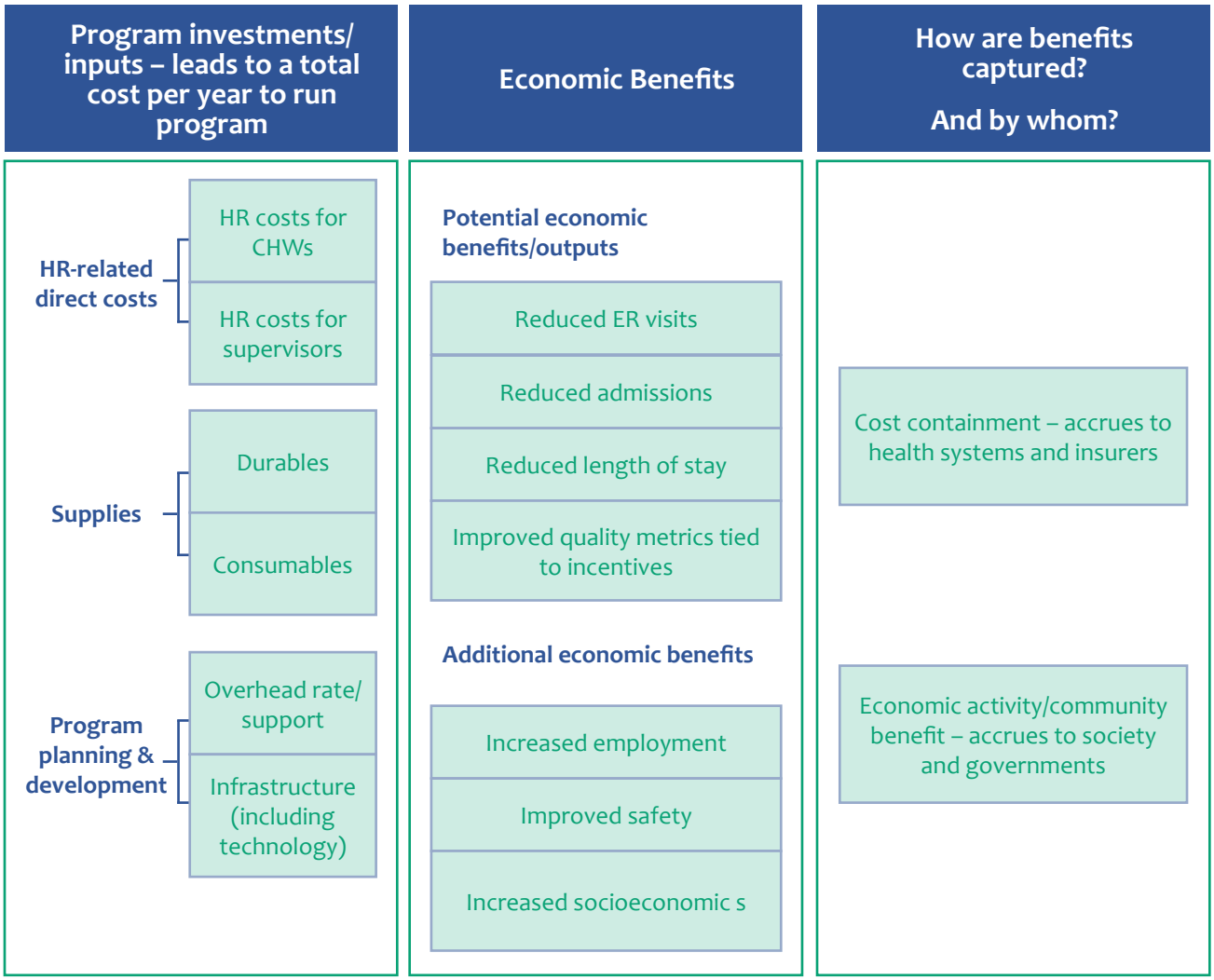
The goal of the task force was to provide local leaders across the United States with a guide to creating a program capable of meeting the needs of the communities they serve. The framework was laid out in a newly published report,[56] which included key principles for program design and guidance for developing a business case for CHWs. To put these principles into action, the report also included a plan to pilot a sustainable CHW program in Newark, New Jersey, through a partnership among key stakeholders in the city who participated in the task force, including state government, a public hospital, an insurer, and community advocates.[55, 56]

To identify key principles for sustainable, effective CHW programs, the task force began by looking to successful programs. The group worked to adapt lessons to fit the unique social and financial context of the U.S. health care system. The task force identified eight essential design principles for Sustainable Community Health Programs.[55]

- **Prioritize the patient at the center of care.** The program, operational, and financial models must be designed to meet the clinical and social needs of the patients being served.
- **Reflect community needs in every aspect of design.** Community engagement and leadership of CHW programs are essential to ensure trust.
- **Follow clearly defined, evidence-based protocols to meet patients' needs.** Not all CHW-based care models are equally effective: Programs should use evidence-based protocols, like those developed by the Penn Center for Community Health Workers, whenever possible.
- **Build strong systems to support the service provided by CHWs.** Well-designed operational infrastructures, such as easy-to-follow care protocols, defined management structures, and user-friendly data systems, make it easier for CHWs to serve patients.
- **Select and develop a high-quality workforce.** Hiring and training should focus on interpersonal skills, such as empathetic listening. To retain high-quality staff, CHWs should have clear paths to career development and be compensated commensurately with the importance of their work.
- **Make CHWs an integrated part of the full care team.** As an essential component of primary care, CHWs should participate in care planning and have strong bi-directional communications with clinical staff.
- **Align programmatic, operational, and financial models.** There is no single right design for CHW programs; rather, financial, operational, and programmatic systems must be co-designed to work cohesively.
- **Be a strong partner to health systems.** Although CHWs are ultimately representatives of the community they serve, the ability to provide reliable, high-quality service in partnership with provider systems is essential to achieving sustainable funding.

As mentioned previously, in recent years, there has been a move toward a model utilizing CHWs as part of the health care system to support population health. Figure 8 outlines some improvements that can be gained by utilizing the Community Health Model.

Figure 8. Illustrative Economic Value Diagram for Community Health Care Model



Source: Singh, P., McWeeny, W., Stapleton, A., Qureshi, C., Arvind, P., Barringer, E., . . . Roy, B. (2016, December). Closing the gap: Applying global lessons ... - health envoy. Retrieved March 12, 2018, from http://www.healthenvoy.org/wp-content/uploads/2014/05/Closing-the-Gap-Applying-Global-Lessons-Toward-Sustainable-Community-Health-Models-in-the-U.S..pdf

When an organization has decided on the critical components they plan to include in its childhood obesity program, additional steps are necessary to identify which services they can provide and to identify complementary or missing components necessary to create a successful childhood obesity program. The following checklist is one way to clarify which services the organization is seeking that will assist in identifying potential partners.

Partnership Checklist

What is the Partnership Checklist?

The Partnership Checklist was designed to assist organizations in determining if a partnership is necessary to achieve the outcomes desired for the integration program.[58]

- Outcomes: Organizations using the partnership checklist will be able to:
    - Identify if they need a partner to pursue integration
    - Examine core elements in selecting a potential partner
    - Identify their strengths and weaknesses in a partnership
    - Identify potential partners for integration

Best Way to Use the Partnership Checklist:

The Partnership Checklist is designed as a discussion guide for team-based projects to use in determining if the partnership model is the best choice for organizational integration efforts. Through discussion, senior leadership teams, special integration discussion teams or multi-organizational planning teams review each element and identify strengths, weaknesses, and needs for successful integration efforts. Each task can be discussed and/or assignments can be made for individuals to complete and bring the information back to the group for discussion.

The key element is that this is not a task that should be assigned to one person – it's a group task within and/or across organizations.

The Partnership Checklist: Discussion Guide/Comments/Tasks:[58]

- Within the full array of services (e.g., types of services, levels of care), list the services that your organization currently provides.
- Then, list the services that are needed but not provided, or provided only to a limited degree (e.g., a physical Community Center that is hub of community, Homelessness Assistance, Health Care Eligibility Determination Assistance, Wellness Classes On-Site).
- Identify all potential community provider partners that offer the services on your list.
    - Prioritize potential partners that share your agency's mission, vision, and values, including those that focus on helping the most needy or most closely aligned with the members of your community.
- If you do not recognize an obvious partner, identify where your customers currently receive those services. In a community with no community health clinic or FQHC, ask the people you serve where they receive these services. The providers identified may be your best potential partners.

Also consider the following:[58]

- If your organization offers a discrete service, can you actually deliver? For example, as a behavioral health organization offering to provide collaborative services to a potential partner, do you have a mechanism for providing timely access to consultation requests and referrals?
- If you are a primary health partner offering to provide collaborative services to a behavioral health provider, are you prepared to welcome and engage individuals who present for health services and have signs and symptoms of a behavioral health problem?
- If your organization cannot currently deliver on what you would like to offer, is your organization willing to acknowledge the limitations and commit to working transparently to improve, create or enhance your services to better meet the partner's needs?

Before approaching any potential partner, consider the following:[58]

- Is your organization providing services that a partner might perceive as a competitive threat? If so, are you prepared to be a supportive partner rather than a competitor?
- What is your organization prepared to offer a potential partner?
- What is your organization's business case? Rather than asking what a partner can do for your organization, think about what they may need and express willingness to help them.

The core value elements of a viable partner's business case suggest that an organization should have:[58]

- Timely and cost-effective access to collaborative treatment, including curbside consultation
- Efficient service capacity (i.e., providing high-quality services at the lowest possible cost)
- Electronic health record capacity to connect with other providers and electronically transmit important clinical data
- Ability to focus on episodic care needs and treat to target models
- Ability and willingness to participate in bundled/shared-risk payment models.
- Outcomes that demonstrate that the organization can:
    - Engage the people it serves in natural support networks
    - Help individuals self-manage their whole health, wellness, and recovery
    - Reduce the need for emergency and high-cost services for complex populations

When approaching a potential partner:[58]

- Identify small outcomes for the initial meetings. It may take several meetings to get to know one another.
- Remain focused on how your organization will provide value to your partner before focusing on how the partner will meet your needs.
- Consider a site visit or job shadowing to gain perspective on how your potential partner operates day-to-day.[58]

MOU or SOW document to define expectations of partners

» Reporting of services provided
» Billing/Coding collection

Following is a sample MOU developed by the CDC: This is a "*Collaboration Guide for Pacific Island Cancer and Chronic Disease Programs (or the Pacific Island Collaboration Guide),*" to help programs and coalitions and other chronic disease and school-based programs and coalitions work together. The sample can be found at: https://www.cdc.gov/cancer/ncccp/doc/samplemoatemplate.doc. This is a very basic document; please work with your legal team for their preferred format, but this serves as a basic shell.[35] It is important to develop an understanding among the relevant parties in advance; this will alleviate confusion about the terms of the partnership/collaborative relationship. A sample memorandum has been provided in this toolkit.

Sample Memorandum of Understanding Template

Memorandum of Understanding

Between
(Partner)
and
(Partner)

This Memorandum of Understanding (MOU) sets the terms and understanding between the (partner) and the (partner) to (insert activity).

Background

(Why partnership important)

Purpose

This MOU will (purpose/goals of partnership)

The above goals will be accomplished by undertaking the following activities:

(List and describe the activities that are planned for the partnership and who will do what)

Reporting

(Record who will evaluate effectiveness and adherence to the agreement and when evaluation will happen)

Funding

(Specify that this MOU is not a commitment of funds)

Duration

This MOU is at-will and may be modified by mutual consent of authorized officials from (list partners). This MOU shall become effective upon signature by the authorized officials from the (list partners) and will remain in effect until modified or terminated by any one of the partners by mutual consent. In the absence of mutual agreement by the authorized officials from (list partners), this MOU shall end on (end date of partnership).

Contact Information

Partner name _____

Partner representative _____

Position _____

Address _____

Telephone _____

Fax _____

E-mail _____

Partner name _____

Partner representative _____

Position _____

Address _____

Telephone_____

Fax _____

E-mail _____

_____ Date:

(Partner signature)

(Partner name, organization, position)

_____ Date:

(Partner signature)

(Partner name, organization, position)

In the initial CHOPT toolkit, one component included perspectives from families and children. Eighteen families were interviewed to gain insight into the following three areas:

- Capturing the voices of families that participate in the initiatives by highlighting their experiences, perspectives, and preferences;
- Identifying the social determinants of health that affect the families' ability to access and maintain a culture of health;
- Identifying opportunities to improve upon existing initiatives from the perspective of families. As a result of this information, the following themes emerged:

What is in it for the family?

- What does an engaged family look like?
    - Parents and caregivers were committed to improving the health of their families.
    - Family history of conditions such as diabetes motivated parents and caregivers to embrace a healthy lifestyle and address less desirable habits of their children.

- Provider outreach to the family was mentioned by several families as the impetus to start the program—the voice of the provider is a powerful motivator. One family mentioned a high HgbA1C that the provider called and discussed with them and offered the program as an intervention. They were interested in addressing the issue that the provider identified and, as a result, were very receptive to the program.
- Another family mentioned the camaraderie that the child gained by attending class with peers who were having similar weight challenges.

As a component of the five featured case study programs, Medicaid health plans highlighted a variety of programs that were offered to their membership. Some mentioned monetary or other reward incentives for participation. The rewards/incentives varied widely, and all had to be approved by the appropriate state regulatory agency before they were offered to members.

The following are the general themes of the interviews:

What keeps families and children engaged after the initial contact?

- From the first CHOPT toolkit, the family interviews revealed many interconnected factors that affect the efficacy of the childhood obesity prevention and treatment initiatives and influence a family's ability to maximize participation. Time and access themes demonstrated that the scheduling of group sessions (e.g., day of the week, location of session) greatly affected participation rates across four of the initiatives.
- The duration of the program was closely tied to sustaining the families' motivation and providing the support that families needed to adopt and maintain healthy lifestyle changes. Families that participated in three of the initiatives noted that extending the duration of the program would be helpful for staying on track in reaching goals and facilitating continued learning. As previously discussed, childhood obesity requires a lifelong behavioral change, not simply an intervention that the family and child will continue unaided.
- The family interviews highlighted the critical role of Medicaid health plans in connecting families to evidence-based health education, community resources, and social supports that allow the families to overcome some of the social determinants of health (e.g., access to affordable, healthy food and lack of transportation) that otherwise would prevent the family from engaging in healthy behaviors and lifestyle changes.
    - The involvement of parents, caregivers, and local community resources gave families more opportunities and resources to improve the health of the entire family.

One way to develop rich, collaborative partnership relationships is to provide an avenue for the partners to maximize their reimbursement. If the partner is an entity that has qualified providers eligible to bill, the following codes are applicable for weight and nutrition counseling services. This will allow the partner to enhance their reimbursement for services and allow the health plan to capture additional codes to utilize in capturing HEDIS services (Table 2).

Billing and coding

- Billable Case Management Codes
- Billable Nutrition Counseling Codes

Table 2. CPT/HCPCS-II Codes Linked to Obesity-Related Services

CPT/HCPCS-II code	Code descriptions	Obesity-related services
Prevention		
99401-99404 or 99411- 99412	Counseling and/or risk factor reduction intervention (individual or group)	Obesity prevention counseling
Nutrition		
S9452	Nutrition class, non-physician provider	
97802-97804 and/or S9470	Medical nutrition therapy (individual or group); nutritional assessment and intervention by non-physician provider	Nutritional counseling
Disease Management		
99078	Miscellaneous services; physician educational services to patients in group setting	Group counseling for patients with symptoms/illnesses
S0315-S0316	Health education disease management program; initial and follow-up assessments	Health Education
S9445-S9446	Patient education, not otherwise specified non-physician provider, individual or group	Health Education
98960-98962	Education and training for patient self-management, by non-physician	Counseling for individuals or groups of patients with symptoms/illnesses
Behavioral Consult and Therapy		
96150-96155	Health and behavioral assessments (health-focused clinical interview, behavior observations, psychophysiological monitoring, health-oriented questionnaires)	Health and behavioral intervention/ counseling
S9449	Weight management class, non-physician provider	Weight management class
S9451	Exercise class, non-physician provider, per session	Exercise class

Source: Petrin, C. (2016). Medicaid FFS treatment of obesity interventions 2014 (Final). Retrieved February 26, 2018, from http://stopobesityalliance.org/wp-content/themes/stopobesityalliance/pdfs/Medicaid%20FFS%20Treatment%20of%20Obesity%20Interventions%202014.pdf

For billing/coding purposes, these are the appropriate codes for: Weight Assessment and Counseling for Nutrition and Physical Activity for Children/ Adolescents (WCC)

1. **BMI percentile (may be a BMI growth chart if utilized) • Weight date and value • Height date and value BMI:** ICD-9-CM: V85.51-V85.54 ICD-10-CM: Z68.51-Z68.54 The height, weight, and BMI must be from the same data source.

BMI percentiles:

- BMI >5TH PERCENTILE, PEDIATRIC Z68.51
- BMI 5TH -85TH PERCENTILE, PEDIATRIC Z68.52
- BMI 85TH -95TH PERCENTILE, PEDIATRIC Z68.53
- BMI >95TH PERCENTILE, PEDIATRIC Z68.54

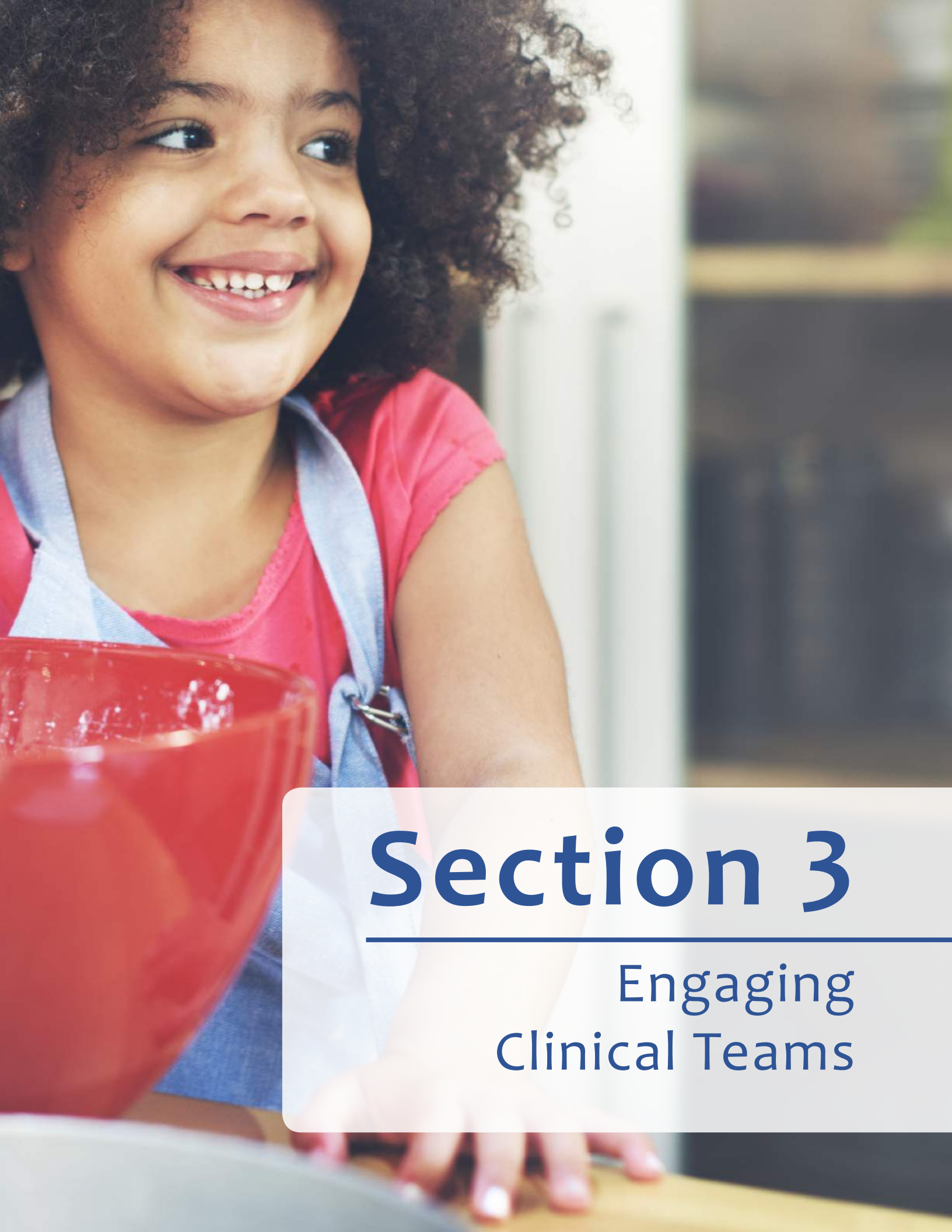
2. **Counseling for Nutrition (diet):** ICD-9-CM: V65.3 ICD-10-CM: Z71.3 CPT®: 97802-97804 HCPCS: G0447, G0270, G0271, S9449, S9452, S9470 Counseling for nutrition CPT®: 97802-97804 ICD-10: Z71.3

3. **Counseling for Physical Activity (sports participation/exercise) Activity:** ICD-9-CM: V65.41 ICD-10-CM: Z02.5 HCPCS: G0447, S9451, Z7189

The use of billing codes, including behavioral or G codes, that allow for intensive follow-up visits and behavioral counseling, is critical for the management of childhood obesity. These codes need to have flexibility in allowing for multiple visits consistent with the recommendations of the U.S. Preventive Services Task Force (USPSTF) (JAMA 2017). Furthermore, these codes need to be flexible in allowing for both individual and group sessions, and services rendered by both physicians and allied health professionals. Reimbursement rates for these services need to be commensurate with the intensity of the service. In many instances, the circumstances described above are unavailable in a given state. However, discussions and negotiations with the relevant authorities might allow for "opening" up the codes.

* Based on HEDIS ® 2017 specifications

It is critical to provide up-front education/guidance to providers to ensure that their documentation is clear and succinct and meets the requirements to be counted for HEDIS data reporting.



Section 3

Engaging Clinical Teams

Engaging Clinical Teams

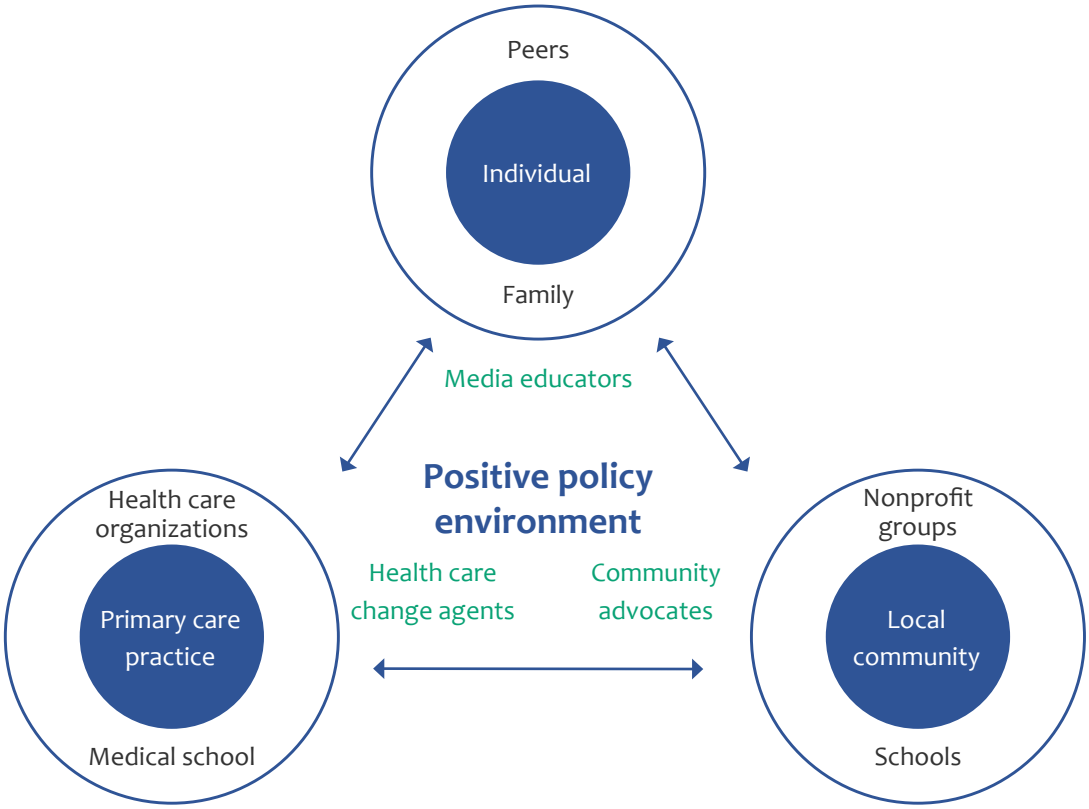
In this module we will be addressing:

- Behavioral health integration
- Provider screening
- Provider stigma and bias

In its 2005 report on childhood obesity, the Institute of Medicine wrote, "pediatricians, family physicians, nurses, and other clinicians should engage in the prevention of childhood obesity. Health-care professionals should routinely track BMI, offer relevant evidence-based counseling and guidance, serve as role models, and provide leadership in their communities for obesity prevention efforts."[55] Three years later, the Robert Wood Johnson Foundation's chief executive, Risa Lavizzo-Mourey, wrote, "physician action begins in the examination room. Measuring patient BMI at every well-child visit is an essential part of the visit, along with utilizing an evidence-based prevention assessment, and treatment strategies."[59] These experts have advocated that clinicians engage in a set of activities starting at the clinical encounter, moving to "leading by example" by serving as role models for healthy lifestyles, and ultimately, influencing community practice and policy and potentially, broader societal policies through advocacy informed by policy research.[59]

Several key factors influence child and family behaviors related to the prevention of obesity. The family has a direct influence on the child. The community, including schools and health care professionals, also shape and influence the child. In Figure 9, the arrows indicate different components surrounding the child that can play a role in the health care delivery system, often through counseling and community advocacy.

Figure 9. The Health Pyramid: A Childhood Obesity Prevention Model



Source: Lavizzo-Mourey , R., MD, MBA. (2007). Childhood obesity: What it means for physicians. Retrieved February 25, 2018, from https://jamanetwork.com/journals/jama/article-abstract/208498?redirect=true

Behavioral Health Integration

Increased risk for emotional problems occurs with children who have overweight or obesity. The increased risk can persist into adulthood. A combination of obesity and emotional health issues should be addressed with the seriousness associated with any other medical illness. The American Psychiatric Association and other components of the public health and medical community call attention to the mental health impacts associated with childhood obesity. This issue is an increasing public health crisis in the United States.[60] A study at the University of Medicine and Dentistry of New Jersey found that girls with obesity, ages 13 to 14, are four times more likely to experience low self-esteem than girls who do not have obesity.

The study demonstrated that children with overweight or obesity have higher rates of loneliness, nervousness and sadness, in addition to lower self-esteem than their non-obese peers. There were also higher rates of drinking and smoking among the children with overweight or obesity and lower self-esteem. Lower self-esteem often leads to depression, which is estimated to affect up to 750,000 U.S. teens.[60]

- Children and adolescents with overweight and obesity often experience adverse health outcomes.[61] These children and adolescents have a higher incidence of psychological and psychiatric disorders and symptoms than their normal-weight peers. Research has confirmed that there are negative effects on overall quality-of-life indicators based on children with overweight and obesity, and a higher incidence of medical and physical health outcomes.[62]

- Verbal hate speech and bullying are receiving additional attention, and a study was conducted to gauge the prevalence and impact of this verbal harassment.[63]

The study was performed to gauge if there were correlations between weight-based teasing and depression or symptoms of depression.[64] This study showed that 30 percent of adolescent girls and 24.7 percent of adolescent boys who were surveyed reported teasing by their peers. Teasing from family members was also reported by 28.7 percent of adolescent girls and 16.1 percent of adolescent boys. Both family and peer teasing were reported by 14.6 percent of adolescent girls and 9.6 percent of adolescent boys.

The survey results indicated clear associations between low body satisfaction, low self-esteem, high depressive symptoms, and attempting or thinking about suicide when the subjects were teased about their weight, even after controlling for actual body weight. The associations were consistent for both genders, in addition for all races, ethnicities, and weight groups. Teasing by both peers and family members was associated with a higher incidence of effects on emotional health than one-source teasing or no teasing. The results of this survey should play an informational role in recognition of the adverse effects on the emotional health of young patients subjected to weight-based teasing.[64]

The results of a recent University of Minnesota study showed clear associations between low self-esteem, depressive symptoms, and poor body image if they reported weight-based teasing.[64] Suicide was considered by 26 percent of teens who were teased at home and school, while 9 percent reported that they had attempted suicide. Suicide is the third-leading cause of death among adolescents.[65]

Obesity and depression have historically been treated as separate health problems divided into physical and emotional issues, respectively. The two issues, obesity and depression, share many symptoms such as low activity levels, sleep disturbances, or unregulated eating behaviors. It is believed that the two issues are related in their pathophysiology, and to successfully treat the comorbid conditions, the shared underlying mechanisms should be targeted. [66]

Study outcomes have shown that comprehensive, intensive behavioral interventions consisting of ≥26 contact hours in obese children and adolescents 6 years and older may result in improvements in weight status for up to 12 months. To date, these is not adequate evidence to gauge positive outcomes for interventions of fewer than the 26 hours of contact. There has been no evidence of harm with screening or application of these behavioral interventions. Based on this information, the U. S. Preventive Services Taskforce (USPSTF) concluded with moderate certainty that screening for obesity in children and adolescents 6 years and older is of moderate net benefit. The USPSTF recommends that clinicians screen for obesity in children and adolescents 6 years and older. Based on the results of the screening, they are recommending that providers offer or referral obese children and adolescents to the above defined comprehensive, intensive behavioral interventions to facilitate improvements in weight status (Table 3).[67]

Table 3. USPSTF Recommendation for Screening for Obesity in Children and Adolescents

Population	Children and Adolescents 6 years and older
Recommendation	Screen for obesity: offer or refer children and adolescents with obesity to comprehensive, intensive behavioral interventions to promote improvements in weight status Grade: B
Risk Assessment	All children and adolescents are at risk for obesity and should be screened: specific risk factors include parental obesity, poor nutrition, low levels of physical activity, inadequate sleep, sedentary behaviors, and low family income.
Screening Tests	BMI measurement, using height and weight, is the recommended screening test of obesity. Obesity is defined as an age- and-sex specific BMI in the 95th percentile or greater.
Interventions	Comprehensive, intensive behavioral interventions of ≥26 contact hours resulting in weight loss. Effective interventions consisted of multiple components, including sessions targeting both parent and child (separately and together, or both); offering individual sessions (both family and group); providing information about health eating, safe exercising, and reading food labels; encouraging the use of stimulus control)e.g: limiting access to tempting foods and screen time), goal setting, self-monitoring, contingent rewards, and problem solving; and supervised physical activity sessions. Providers included primary care clinicians, exercise physiologists, physical therapists, dieticians, diet assistants, psychologists, and social workers, but the more intensive interventions usually involved referral outside the primary care office. Evidence regarding pharmacotherapy interventions was inadequate.
Balance of Benefits and Harms	The USPSTF concludes with moderate certainty that the net benefit of screening for obesity in children and adolescents 6 years of age and older and offering or referring them to comprehensive, intensive behavioral interventions to promote improvements in weight status is moderate.
Other relevant USPSTF Recommendations	The USPSTF has made recommendations on screening for primary hypertension and lipid disorders in children and adolescents. These recommendations are available on the USPSTF website (https://www.uspreventiveservicetaskforce.org).

Source: U.S. Preventive Services Task Force (USPSTF). (2017). Screening for obesity in children and adolescents: U.S. Preventive Services Task Force recommendation statement. Retrieved from https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/obesity-in-children-and-adolescents-screening1

Children and adolescents with overweight or obesity also experience comorbid conditions, including mental health and psychological issues, asthma, obstructive sleep apnea, orthopedic problems, and adverse cardiovascular and metabolic outcomes (e.g., high blood pressure, abnormal lipid levels, and insulin resistance). As discussed earlier, they are also disproportionately subjected to weight-based teasing and bullying. Evidence also exists that obesity in childhood and adolescence increases the incidence of obesity into adulthood, which has been shown to increased incidence of type 2 diabetes and cardiovascular diseases.[67]

Anxiety and depression are diagnosed differently in children compared to adults.[67] Depression criteria include depressed mood, anhedonia, fatigue, feelings of guilt or worthlessness, thoughts of death, as well as changes in sleep, appetite, or psychomotor activity. Problems with sleep, appetite, and psychomotor activity can occur in either direction; that is, individuals may experience insomnia or hypersomnia; anorexia or increased appetite; psychomotor retardation or agitation. The Diagnostic and Statistical Manual IV text revised (DSM IV TR) criteria for a major depressive episode stipulate that five of nine possible depression criteria must be present for most of the time over a two-week period, must be present most of the time, one of the criteria must include either depressed mood or diminished interest or pleasure (anhedonia), and the symptoms must be a change from prior functioning. There are two differences in how depression is diagnosed in youths compared with adults. Their mood may be irritable, instead of depressed or anhedonic, and youths may meet symptom criteria if they fail to make expected gains in growth rather than experience weight loss from decreased appetite. In younger children, diagnosis is challenging because of the children's difficulty in articulating their feelings of guilt or hopelessness.

Types of depression include atypical, melancholic, postpartum, catatonic, or chronic depression features. Individuals diagnosed with atypical depression have specific symptoms, including increased appetite or change in weight (loss or gain), sleepiness or increased sleeping, weakness or fatigue, and moods that react to environmental events, often feeling rejected. Melancholic depression describes individuals with prominent inability to experience pleasure (anhedonia) and at least three of the following symptoms: anorexia/weight loss, increased depression in morning, early-morning awakening, excessive guilt, new body movements such as leg jiggling, extreme sadness, and often thoughts or verbalization of suicide. With children, adolescents, and adults, a mixed presentation of depression is more prevalent than any of the specifier types.[67]

Assessment of the child & parent for signs of depression or anxiety includes:[67]

- Irritability or sadness most of the day. Being cranky or tearful, or saying they are angry and not enjoying things they previously enjoyed.
- Lack of enjoyment in things they previously enjoyed.
- Weight gain or loss.
- Daytime sleeping and inability to sleep at night.
- Avoiding friends and family.
- Unable to complete small tasks, lack of energy.
- Lack of self-esteem. They feel guilty or worthless.
- Falling grades in school. Not able to make simple choices or decisions.
- Lack of caring about the future.
- Vague aches and pains without a clear cause.
- Focus on death and suicide.

All children, but especially children dealing with childhood obesity, should be screened at every visit, with suicide now the second-leading cause of death among people ages 10-19.[68] Treat any thoughts of suicide as an emergency.

The Treatment for Adolescents with Depression Study[69] evaluated the effectiveness of fluoxetine hydrochloride therapy, cognitive behavior therapy (CBT), and their combination in adolescents with major depressive disorder. Basing the results on the Children's Depression Rating scale, indicated a positive response rate of 73 percent for combination therapy, 62 percent for only fluoxetine therapy, and 48 percent for only CBT after 12 weeks. After 18 weeks, the positive response rate rose to 85 percent for combination therapy, 69 percent for fluoxetine therapy alone, and 65 percent for CBT alone. When the results were reviewed at week 36, a positive response was 86 percent for combination therapy, 81 percent for only fluoxetine therapy, and 81 percent for CBT alone. Thoughts of suicide were observed to decrease during treatment; the improvement observed was less with exclusively fluoxetine therapy when compared with combination therapy or CBT alone. Actual suicide events were increased in subjects receiving fluoxetine therapy alone (14.7%) than were observed during combination therapy (8.4%) or CBT alone (6.3%).

In adolescents with moderate to severe depression, treatment with fluoxetine alone or in combination with CBT sped up the response. A combination of medication and CBT to medication improved the safety of medication. As a result of the study, combined treatment was deemed superior to either CBT or medication alone as a treatment for major depression in adolescents.[69]

Provider Screening

At every visit, providers should screen for obesity and obesity-related conditions. In addition to routine EPSDT and well-child services, a routine obesity and depression screening should be conducted. The following table includes codes for Obesity-Related Nutrition Counseling/Physical Activity Counseling. HEDIS requires either a claim or a medical record entry. Refer to Table 3 in the previous section for a list of CPT/HCPCS-II codes and the corresponding obesity-related services.

Figure 12 serves as a guide for routine screenings that should be performed, in addition to the depression screening discussed earlier. Figure 13 serves as a guide for examining comorbidities of obesity.

Figure 12. Recommendations for the Assessment of Childhood Overweight and Obesity

Recommendations for the Assessment of Childhood Overweight and Obesity
Obtain annual weight status using body mass index and plot measures on standard growth charts
Assess dietary patterns • Self-regulation and readiness to change • Frequency of eating outside the home • Excessive consumption of sweetened beverages, 100% fruit juice, and high-energy dense food • Excessive food portion size • Low consumption of fruits and vegetables • Meal frequency and quality; snacking patterns
Assess physical activity level and sedentary behaviors • Self-regulation and readiness to change • Environment, social support, and barriers to physical activity • Moderate daily activity (1 hour) • Level of sedentary behavior
Obtain focused family history for obesity, type 2 diabetes mellitus, cardiovascular disease, and early death from heart disease or stroke
Physical examination • Pulse • Blood pressure • Fasting lipid profile * • AST †‡ • ALT †‡ • Fasting glucose†‡ • BUN ‡ • Creatinine ‡

Source: Obesity Action Coalition. (2017, September 12). Obesity Action Coalition » Weight bias in healthcare – A guide for healthcare providers working with individuals affected by obesity. Retrieved March 12, 2018, from http://www.obesityaction.org/weight-bias-and-stigma/weight-bias-guides/weight-bias-in-healthcare-a-guide-for-healthcare-providers-working-with-individuals-affected-by-obesity

Notes: *Recommendations for the assessment of childhood overweight and obesity. *A fasting lipid profile is recommended for children with overweight and with no risk factors. †The aspartate aminotransferase (AST), alanine aminotransferase (ALT), and fasting glucose measurements are recommended for children with overweight and with a risk factor in their family history or physical examination. ‡Measurements of AST, ALT, fasting glucose, blood urea nitrogen (BUN), and creatinine are recommended for children with obesity, regardless of risk factors.*

Figure 13. Findings on Review of Systems in Obesity Assessment and Possible Causes

Findings on Review of Systems in Obesity Assessment and Possible Causes	
Symptom	**Possible Causes**
Anxiety, school avoidance, social isolation	Depression
Severe recurrent headaches	Pseudotumor cerebri
Shortness of breath, exercise intolerance	Asthma, lack of physical conditioning
Snoring, apnea, daytime sleepiness	Obstructive sleep apnea, obesity Hypoventilation syndrome
Sleepiness or wakefulness	Depression
Abdominal pain	GI reflux, constipation, gallbladder disease, NAFLD
Hip pain, knee pain, walking pain	Slipped capital femoral epiphysis, Musculoskeletal stress from weight
Foot pain	Musculoskeletal stress from weight
Irregular menses (<9 cycles/year)	Polycystic ovary syndrome, Prader-Willis Syndrome
Primary amenorrhea	Polycystic ovary syndrome, Prader-Willis Syndrome
Polyuria, polydipsia	Type 2 diabetes mellitus*
Unexpected weight loss	Type 2 diabetes mellitus*
Nocturnal enuresis	Obstructive sleep apnea
Tobacco use	Increased cardiovascular risk; may be used as a form of weight control
* These conditions are often asymptomatic.	

Source: Barlow, S. E. (2007, December 01). Expert committee recommendations regarding the prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. Retrieved March 13, 2018, from http://pediatrics.aappublications.org/content/120/Supplement_4/S164

There is overwhelming evidence that relatively small dietary changes can significantly improve health, but clinicians do not often discuss nutrition with their patients. Poor nutritional intake and nutrition-related health conditions, including cardiovascular disease (CVD), diabetes, obesity, hypertension, and many cancers, while highly prevalent in the United States, are usually not addressed by providers. Only 12 percent of office visits include counseling

about diet. Even among high-risk patients with CVD, diabetes, or hyperlipidemia, only 1 in 5 receive nutrition counseling.[70] It is likely that many patients receive most of their nutrition information from other, and often unreliable, sources. This is a direct reflection of the minimal training, time, and reimbursement allocated to nutrition counseling (and preventive services in general) in clinical practice.[71]

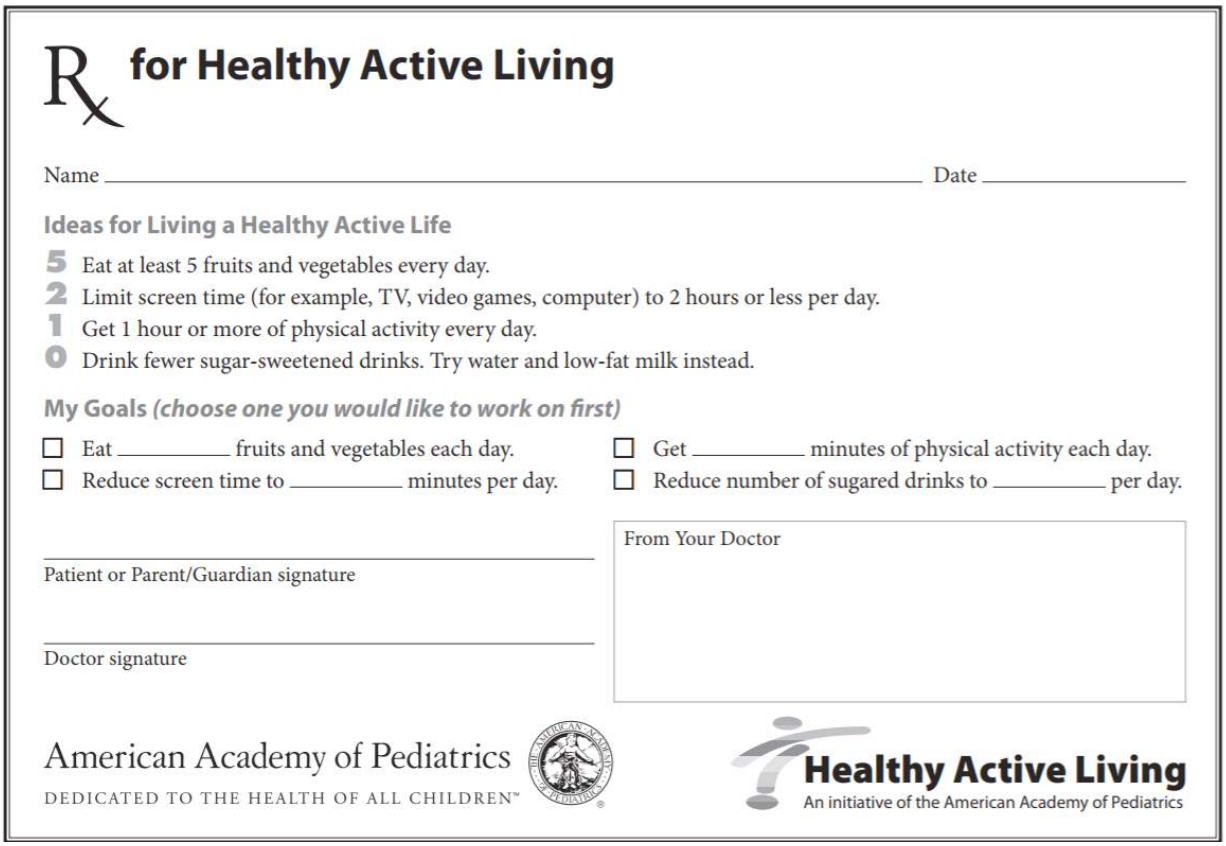
Most physicians and other health care professionals receive limited education on nutrition in medical school (or other professional schools) or in postgraduate training. Just 25 percent of medical schools offer a dedicated nutrition course, a decline since the status of nutrition education in U.S. medical schools was first assessed in 1985, and few medical schools achieve the 30 hours of nutrition education recommended by the National Academy of Sciences.[72] Because of this dearth of education, physicians report inadequate nutrition knowledge and low confidence in counseling patients about diet.[70] Time pressures, especially in primary care, limit opportunities to counsel on nutrition or address preventive issues beyond patients' acute complaints. Lack of time is frequently cited by providers as the greatest barrier to counseling on nutrition and obesity. Clinicians can recommend the following reasonable steps outlined in Table 3 as part of their efforts to incorporate nutrition counseling into the visit.[70]

Table 4. Starting the Conversation on Dietary Changes

Assessing Dietary Patterns	Reasonable Target Change	*Example of Realistic Small Substitutions*
Ask patients about the frequency of these dietary intakes occurring over the previous few months		
Fast-food meals or snacks per month	Decrease by 1 fast-food meal per week	Replace 1 fast-food meal per week with a prepared food from supermarket or a sandwich from home
Servings of fruit per day	Increase by 1 serving per day	Add fresh, frozen, or canned fruit to yogurt
Servings of vegetables per day	Increase by 1 serving per day	Add fresh, frozen, or canned vegetables to yogurt smoothie
Regular sodas, juices, or other sugary beverages per day	Decrease by 1 sugary beverage per day	Replace a sugared soda with water or flavored water, lightly sweetened tea, or coffee
Servings of beans, nuts, chicken, or fish per week	Increase fish/seafood by around 1 serving per week	Replace a fast-food entrée or processed meat (e.g. ham) sandwich with tuna fish sandwich
Regular snack chips or crackers per week	Decrease by 1 serving per week	Replace 1 serving of snack chips or crackers with a handful of nuts
Desserts and other sweets per week	Decrease by 1 serving per week	Replace 1 sugary sweet or dessert with a fruit or handful of nuts
Use of butter or meat fat	Decrease trans and saturated fats as seasoning	Replace butter with light drizzle of olive oil and/or spices

Source: Kahan, S., & Manson, J. E. (2017). Nutrition counseling in clinical practice. *Jama,318*(12), 1101-1102. doi:10.1001/jama.2017. February 25, 2018, from https://jamanetwork.com/journals/jama/article-abstract/2653762?redirect=true

A take-away tool that providers can use is the Rx for Healthy Active Living developed by the American Academy of Pediatrics (Figure 12). Many health plans have taken this idea and customized it for use by their provider community. This is a great take-away for the parent/caregiver and provides some specific actions that can be taken to start to change behavior.



Rx for Healthy Active Living

Name _____ Date _____

Ideas for Living a Healthy Active Life

5 Eat at least 5 fruits and vegetables every day.
2 Limit screen time (for example, TV, video games, computer) to 2 hours or less per day.
1 Get 1 hour or more of physical activity every day.
0 Drink fewer sugar-sweetened drinks. Try water and low-fat milk instead.

My Goals *(choose one you would like to work on first)*

☐ Eat _____ fruits and vegetables each day.
☐ Reduce screen time to _____ minutes per day.
☐ Get _____ minutes of physical activity each day.
☐ Reduce number of sugared drinks to _____ per day.

Patient or Parent/Guardian signature

Doctor signature

From Your Doctor

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Healthy Active Living
An initiative of the American Academy of Pediatrics

Source: Healthy active living for families - IHCW. (n.d.). Retrieved February 25, 2018, from http://www.nccpeds.com/Rx%20for%20healthy%20living.pdf

When health plans have members in the same state, and often have very similar provider networks, there is value in collaboratively providing guidance to providers. Table 5 is a sample Tip Sheet based on HEDIS® 2017 specifications that could be shared with providers.

Table 5. Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents

Purpose: Members ages 3 to 17 years, who have an outpatient visit with a PCP, need evidence of BMI percentile documented and evidence of nutrition and physical activity counseling or a referral for nutrition and physical activity counseling documented in their medical records for compliance with HEDIS requirements.

Per the Bright Futures Periodicity Schedule, BMI should be documented beginning at the 24-month visit. Compliance with the Bright Futures guidelines will lead to compliance with this HEDIS measure. Assessment and Counseling must be done per the Periodicity Schedule regardless of BMI results or appearance of over/under weight.

BMI percentile
The percentage of members 3 – 17 years of age who had an outpatient visit with a PCP or OB/GYN who had evidence of a BMI percentile documentation during the measurement year.
Acceptable Documentation
Per the Bright Futures Periodicity Schedule, documentation of BMI must begin at age 24 months. BMI percentiles should be calculated and plotted per the Periodicity Schedule's time frames. **HEDIS Requirements:** Documentation must include height, weight and BMI Percentile documented as a value (i.e. 85th percentile) or plotted on an age-appropriate growth chart *The following notations or examples of documentation do not count as compliant:* • Notation of BMI value only • Notation of height and weight only BMI percentile may be calculated during a well or sick visit – MUST be documented per the Bright Futures Periodicity schedule beginning at age 24 months, regardless of BMI results or appearance of over/under weight
***HEDIS Acceptable Codes**
Z68.51 – Body Mass Index (BMI) pediatric, less than 5th percentile for age **Z68.52 –** Body Mass Index (BMI) pediatric, 5th percentile to less than 85th percentile for age **Z6853 –** Body Mass Index (BMI) pediatric, 85th percentile to less than 95th percentile for age **Z68.54 –** Body Mass Index (BMI) pediatric, greater than or equal to 95th percentile for age

Counseling for Nutrition

The percentage of members ages 3-17 years who had an outpatient visit with a PCP or OB/GYN who had evidence of counseling for nutrition or referral for nutrition education during the measurement year.

Acceptable Documentation

HEDIS Requirements:

Documentation must include a note indicating the date and at least one of the following:

- Discussion of current nutrition behaviors (e.g., eating habits, dieting behaviors).
- Checklist indicating nutrition was addressed.
- Counseling or referral for nutrition education (e.g. referral to Women, Infants, and Children (WIC) services)
- Member received educational materials on nutrition during a face-to-face visit.
- Anticipatory guidance for nutrition.
- Weight or obesity counseling. Counseling for Nutrition can be rendered during a well or sick visit – MUST be done at least annually, regardless of BMI results or appearance of over/under weight

The following notations or examples do not count as compliant:

- Notation of "health education" or "anticipatory guidance" without specific mention of nutrition.
- A physical exam finding or observation alone (e.g., well-nourished) is not compliant because it does not indicate counseling for nutrition.

*HEDIS Acceptable Codes

CPT: 97802, 97803, 97804

HCPCS** G0270, G0271,G0447, S9452, S9470

ICD-10-CM: Z71.3 Dietary counseling and surveillance

Counseling for Physical Activity

The percentage of members ages 3-17 years who had an outpatient visit with a PCP or OB/GYN who had evidence of counseling for physical activity or referral for physical activity education during the measurement year.

Acceptable Documentation

HEDIS Requirements:

Documentation must include a note indicating the date and at least one of the following:

- Discussion of current physical activity behaviors (e.g., exercise routine, participation in sports activities, exam for sports participation).
- Checklist indicating physical activity was addressed.
- Counseling or referral for physical activity.
- Member received educational materials on physical activity during a face-to-face visit.
- Anticipatory guidance specific to the child's physical activity.
- Weight or obesity counseling
- Counseling for Physical Activity can be rendered during a well or sick visit – MUST be done at least annually, regardless of BMI results or appearance of over/under weight

The following notations or examples of documentation do not count as compliant:

- Notation of Cleared for gym class" alone without documentation of a discussion
- Health education" or "anticipatory guidance" without specific mention of physical activity
- Developmental milestones as discussion of physical activity, such as "can ride a bike," "child can crawl, child can jump on one foot
- Anticipatory guidance related solely to safety (e.g., wears helmet or water safety) without specific mention of physical activity recommendations
- Notation solely related to screen time (computer or television) without specific mention of physical activity

*HEDIS Acceptable Codes

HCPCS* G0447, S9451

ICD-10-CM: Z02.5 Encounter for examination for participation in sport

A chart review by the health plan will not be necessary if the HEDIS acceptable codes are submitted by the PCP at least annually.

*Based on HEDIS® 2017 specifications

**HCPCS codes may not be covered for PCPs.

Note: Acceptable documentation and codes are based on HEDIS® 2017

Source: Healthcare Information and Management Systems Society. (2016, December 29). Weight assessment and counseling for nutrition and physical activity for children and adolescents. Retrieved March 13, 2018, from http://www.himss.org/weight-assessment-and-counseling-nutrition-and-physical-activity-children-and-adolescents

Source: National Committee for Quality Assurance. (n.d.). Weight assessment and counseling for nutrition and physical activity for children/adolescents : This HEDIS Measure. Retrieved March 13, 2018, from http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2017-table-of-contents/weight-assessment

Provider Stigma and Bias

For children who are overweight, living with excess pounds can be heartbreaking. The social stigma attached to having overweight can be as damaging to a child as are the physical diseases and conditions that often accompany obesity. Our society puts a premium on physical appearance, and studies show that children as young as age 3 years may associate negative stereotypes with excess weight and believe that thin is "good" and fat is "bad." [48]

Healthcare Provider Stigma/Bias

Unlike children in the schoolyard, most adults may not deliberately set out to inflict pain. However, the general attitude of society is that those with obesity are "fair game" for overt expressions of dislike, contempt, and derogatory "humor." What further sets the treatment of those affected apart is the acceptance of expressing bias in their presence – after all, it is only a "joke."[47, 48]

Weight Discrimination at a Glance

Weight discrimination, unlike prejudice and discrimination against other social groups, has increased 60 percent in the past decade. Given this statistic, it is not surprising that many, perhaps most, healthcare personnel share some portion of these feelings. In line with other groups, providers are part of a society that condones disapproval of those with obesity.[47-49]

Doctors: Doctors are common sources of stigma. In a study that surveyed more than 2,400 adult women about their experiences of weight bias,[72] 69 percent of respondents reported that doctors were a source of weight bias, and 52 percent reported that they had been stigmatized by a doctor on multiple occasions. As a patient's body mass index (BMI) increases, doctors report the following:[49, 72]

- Less desire to help the patient
- More likely to report that treating the patient is a waste of their time
- Express less respect for the patient

Nurses: Self-report studies show that nurses view individuals with obesity as noncompliant, overindulgent, lazy, and unsuccessful. Studies of self-reported attitudes among nurses indicate that:[49, 72]

- 31 % "would prefer not to care for individuals with obesity"
- 24 % agreed that individuals with obesity "repulsed them"
- 12 % "would prefer not to touch individuals with obesity"

Psychologists: In studies comparing beliefs about individuals with obesity versus "average"-weight individuals, psychologists assign the following attributes to clients with obesity: [49, 72]

- More pathology
- More severe psychological symptoms
- More negative attributes
- Worse prognosis in treatment

Doctors, nurses, and other health professionals self-report bias and prejudice against patients with obesity.[72] The most common stereotypes expressed by health providers include beliefs that patients with obesity are:

- Non-compliant
- Dishonest
- Lazy
- Lacking in self-control
- Weak-willed
- Unintelligent
- Unsuccessful

Quality of Care:

- Individuals with obesity are also more likely to have the following challenges with quality of care:[49]
    - Fewer preventive health services and exams
    - Less access to cancer screening tests, such as pelvic exams and mammograms
    - More-frequent cancellation or delay of appointments
    - Less time spent with the physician, less intervention, and less discussion with the physician

Reducing Weight Bias in the Health Care Setting

One of the first steps in reducing prejudice is to recognize it in providers. There are strong, repeated findings that individuals with obesity are viewed by a substantial portion of healthcare providers as awkward, unattractive, noncompliant, sloppy, weak-willed, and lazy.[48] The U.S. population in general tends to strongly hold the same views. Many believe that those with obesity have brought their problems on themselves and should be able to "handle" their problems on their own.[48]

To determine the level of anti-fat bias in health professionals specializing in obesity and identify personal characteristics that correlate with both implicit and explicit bias, the Implicit Associations Test (IAT) and a self-report questionnaire assessing explicit attitudes, personal experiences with obesity, and demographic characteristics was administered to clinicians and researchers attending the opening session of an international obesity conference.[73]

The IAT was used to assess overall implicit weight bias (associating "obese people" and "thin people" with "good" vs. "bad") and three ranges of stereotypes: lazy-motivated, smart-stupid, and valuable-worthless. The questionnaire assessed explicit bias on the same dimensions, along with personal and professional experiences with obesity.[73]

This study demonstrated that these health professionals exhibited a significant pro-thin, anti-fat implicit bias on the IAT. In addition, the study participants supported the implicit stereotypes of lazy, stupid, and worthless using the IAT. Level of bias was associated with several personal characteristics. Characteristics that supported lower levels of implicit anti-fat bias include being older, having a general positive outlook on life, being male, having a higher BMI themselves, having friends with obesity, and generally understanding of the experience of obesity on a personal level.[73]

Based on the results of this study, even among professionals whose careers emphasize clinical care or research of obesity, there is overwhelming evidence of strong weight bias, indicative of both powerful and pervasive stigma where weight is concerned. Intervention strategies that can aid in correcting these attitudes can be designed with this strong bias known.[73]

Interestingly, studies[74, 75] also show that healthcare providers overwhelmingly feel inadequate in treating obesity.[47, 76] Many in the provider community feel discomfort in even discussing weight-related issues, and there is a general lack of robust knowledge on effective obesity management.[77] There is reliable evidence that many healthcare providers do not consider obesity a disease, but rather, a life-style choice, or a lack of self-control.[47, 78] Obesity is associated with many comorbid conditions – type 2 diabetes, hypertension, and cardiovascular disease are examples. These conditions are treatable, however. If patients are avoiding care because of real fears of humiliation and stigmatization, there needs to be more focus on promoting availability of and access to ongoing care. Patient engagement under ideal conditions is challenging; adding strong bias and stigma adds to the challenge of engagement.

Healthcare providers may become frustrated (often self-critical) if they are ineffective.[47] Those feelings are often difficult to cope with. There may be a correlation between weight prejudice and providers' frustration when they undertake efforts to counsel patients on various weight-loss therapies, often with little long-lasting success. Under these circumstances, it can be tempting to "blame the victim."[47] Despite these initial reactions that patients with obesity prompt in providers, they deserve the same level of care, compassion, interest, and concern as is afforded a patient without obesity but with a chronic disease.

How Can Providers Improve Their Approach to Addressing the Topic of Weight?

Discussing body weight with a patient is frequently a sensitive issue. It is a challenge for providers to discuss health issues associated with excess weight, remaining sensitive to the language that may offend patients. A helpful approach to facilitate successful provider-patient conversations is to recognize and utilize language and word choices that make patients feel comfortable discussing the issue. Recent research has examined patients' opinions of the kinds of words that health providers use when discussing excess body weight.[77] In the study, patients were asked their opinions of how stigmatizing, blaming, or motivating they perceive various words to be that doctors use to describe weight. Patients' preferences were as follows:[77]

Least-Stigmatizing/Blaming Words:

- Weight
- Unhealthy weight
- High BMI

Most-Stigmatizing/Blaming Words

- Fat
- Morbidly obese
- Obese

Most motivating for weight loss

- Unhealthy weight
- Overweight

Least motivating for weight loss

- Fat
- Morbidly obese/chubby

In addition, patients were asked how they would react if a doctor referred to their body weight in a way that made them feel stigmatized. Patients' responses included the following:[79]

- 42% I would feel bad about myself
- 41% I would be upset/embarrassed
- 24% I would talk to my doctor about it
- 21% I would seek a new doctor
- 19% I would avoid future doctor appointments

Some word choices are seen as offensive or hurtful by patients. If these word choices are used, the negative reaction by the patient may stifle an important conversation and may even cause the patient to avoid future health

care visits. It is helpful for providers to be aware of these word choices. Before initiating conversations about weight with patients, providers may want to ask the patient what words they would prefer to be utilized when referring to their weight.[79]

When working with providers on childhood obesity programs, highlight the research findings associated with word choices and suggest they consider these findings regarding word choices in discussions with patients about their weight:[79]

A positive way to start the conversation might be:

- "Could we talk about your weight today?"
- "How do you feel about your weight?"
- "What words would you like to use when we talk about weight?

In addition to using sensitive language, remind providers that it is also important to avoid placing blame on patients for their excess weight or difficulties in losing weight. Ask that they keep in mind that patients likely have already experienced stigmatizing encounters with health professionals before they enter this provider's office. Most patients have tried to lose weight, repeatedly. Lack of success with weight-loss is much more attributable to adverse environmental factors, the ineffectiveness of current conventional treatment options, and biological and genetic factors that contribute to weight regulation than it is a reflection of personal factors such as discipline or willpower. Make an effort to educate the provider and his/her medical staff about the complex causes and treatment options for obesity and that obesity is the result of multiple complex factors that are complicated by the patient's societal environment, which makes lifestyle change very difficult.[79]

One of the most important strategies to reduce weight bias or prejudice that a provider or their staff may unintentionally have communicated to patients is for providers to identify their own personal assumptions and attitudes about weight. The following are some questions that providers can ask themselves to increase their self-awareness:[79]

- How do I feel when I work with patients of different body sizes?
- Do I make assumptions regarding a person's character, intelligence, abilities, health status, or behaviors based only on their weight?
- What stereotypes do I have about persons with obesity?
- How do my patients affected by obesity feel when they leave my office?
- Do they feel confident and empowered, or otherwise?

What the provider perceives as a productive and positive discussion with a patient about weight-related health may become counterproductive and even harmful if bias or blame is present. Addressing the topic of weight with sensitivity will improve provider-patient communication and help empower patients to make positive health behavior changes.[79]

There's a great deal known about obesity. Since it may become the nation's leading health problem, it is important for providers to recognize what is known and what remains unknown about the problem. Being willing to discuss obesity in the same open, compassionate, and helpful manner as is done for patients with cancer or mental illness would be a huge step forward. Society shapes what is acceptable and what is not. Providers hold the power to change how they interact with their patients with obesity.[79]

Here are some tips for providers when discussing weight :[79]

- Focus on specific lifestyle changes and health behaviors that can be improved
- Emphasize achievable behavioral goals rather than focusing only on weight itself.

Examples of achievable, measurable behavioral goals include the following:[79]

- Reducing consumption of sugar-sweetened beverages
- Replacing caloric beverages with water
- Increasing consumption of fruits and vegetables
- Reducing consumption of restaurant foods
- Increasing daily physical activity
- Limiting portion sizes to single servings

Work with the provider community to understand the usefulness of motivational interviewing strategies when discussing weight and weight management strategies with patients. Motivational interviewing highlights the discrepancy between personal goals and current health behaviors and assists the patient with utilizing their personal control to change their behavior. Motivational interviewing uses an interactive, empathic listening style to increase motivation and confidence in patients.[79]

Here are some examples of questions providers and their staff can ask patients when assessing ambivalence and motivation for lifestyle changes using a motivational interviewing style:[79]

How ready do you feel to change your eating patterns and/or lifestyle behaviors?
How is your current weight affecting your life right now?
What kinds of things have you done in the past to change your eating patterns?
What strategies have worked for you in the past?
How do you feel about changing your eating or exercise behaviors?
How would you like your health to be different?
What steps do you feel ready to take to improve your health?
How ready do you feel to change your eating patterns and/or lifestyle behaviors?
How is your current weight affecting your life right now?
What kinds of things have you done in the past to change your eating patterns?
What strategies have worked for you in the past?
How do you feel about changing your eating or exercise behaviors?
How would you like your health to be different?
What steps do you feel ready to take to improve your health?

The goal in motivational interviewing is to instill optimism and confidence in the patient so that they can make meaningful behavioral changes and highlights the provider as a supportive resource in the member's efforts.[79, 80]

As mentioned throughout, children with overweight and obesity disproportionately exhibit behavioral health symptoms/issues. Part of a comprehensive provider screening should include questions to screen for behavioral health status and issues. There are many tools available through the National Council for Behavioral Health.

Some examples include:

- PHQ-9 (Depression Screening)- Adolescent Version Available
- GAD-7 (screens for Anxiety)

Primary care is often the gateway to identify behavioral health issues, which makes screening in this setting crucial. SAMHSA-HRSA has a Center for Integrated Health Solutions. They have developed many resources, and the center provides specialized training for primary care and behavioral health providers, with the goal of integrated care. They believe that the solution is a coordination of general and behavioral health care. Integrating behavioral, substance use, and primary care leads to the best outcomes and is the most effective approach, especially for those who are experiencing co-occurring conditions.[33, 58]

As part of the IILC's session on engaging clinical teams, Christopher F. Bolling, MD, chair of the Executive Committee, AAP Section on Obesity, offered the following guidance:

For provider support:

- "Lack of knowledge and resources creates paralysis": Providers often feel helpless and usually know what to do but want whatever action they take to be evidence-based. Providing interventions for them to utilize that have sound science is a helpful strategy.
- Primary care providers are "fearful of one more mandate." They have enough to do to just make it through their appointments for the day and don't like to be mandated to provide something in a specific way, especially if it varies by health plan or payer source.
    - Providing a guide sheet, with codes and specific activities that are billable to providers, is helpful. It takes the guesswork out of their billing and coding and ensures that they and the health plan receive credit for the counseling they are providing.
- There is a challenge with "Being able to see success." Doctors say that they do the recommended things but don't see success. Treating childhood obesity is a relatively new venture; small steps will make a difference over time.
- Provide a realistic goal for improvement. Help the provider identify metrics that are easy to identify and quantify. Not continuing to increase BMI is a success in a child--don't just focus on decreasing BMI.
- Doctors are also challenged with "knowing their role in the community." Are they welcome at specific activities or events? Do people want to know what they think or what they might suggest. Empowering PCPs is a powerful tool in the community, as their voice does carry weight based on their status as a physician.
- Help providers create a sense of community and connectedness. Providers get discouraged unless they take the time to coordinate and collaborate. They need to make connections and develop a web of connectedness with other resources and other parts of the delivery system. They can learn from colleagues, nutritionists, NPs, and other practitioners in the delivery system. This is a great place for the health plan to play a role as they interact with all components of the delivery system.
- The health plan can provide mentors to less-experienced practitioners. Look for early adopters as mentors. They can serve as coaches as they have experience. Learn from those who went before. Utilizing the best practice for the specific location being addressed is key. Take time to understand, but be open to the unique.

- The focus should be on looking at any positive as a positive. This will empower the provider to be OK with taking one step at a time. Demonstrate similarities to other health challenges. This is a great way to put the issue into perspective. Tackling obesity can be compared to smoking cessation. Smoking had a large advocacy community, included a behavioral component, and had a multisystem impact on the individual.
- It is also critical to "demonstrating the uniqueness of pediatric obesity." It is fascinating in that there is a direct tie-in with wellness and mindfulness. Pediatricians strive to help kids have a healthy, happy life, and obesity is a perfect tie-in to their goal.

Section 4

Capturing and Analyzing Quality Data

Capturing and Analyzing Quality Data

In this module, we will be addressing:

- Identification
- How to receive data from non-traditional sources (WIC, County Health Department, SNAP benefits)
- Billing and coding-applicable HEDIS Codes
- Program Analysis

Why are data collection and analysis important?

Data are necessary to provide higher levels of insight, spot trends, identify a population to focus an intervention on, and to quantify the value of an intervention by looking for changes in the data following the intervention. Data analysis allows a health care system to ensure that the interventions they are providing are leading to high-quality care.[81] Evaluation of data is a valuable tool for program managers who are seeking to strengthen the quality of their programs and improve outcomes for the children and youth they serve. Program evaluation answers basic questions about a program's effectiveness, and evaluation data can be used to improve program services. Program evaluation is a systematic method for collecting, analyzing, and using information to answer basic questions about a program.[82]

Although there are many different types of program evaluations, and many terms are used to describe them, evaluations are typically divided into two major categories: process evaluations and outcome evaluations. Process evaluations assess whether an intervention or program model was implemented as planned, whether the intended target population was reached, and the major challenges and successful strategies associated with program implementation. Outcome evaluations determine whether, and to what extent, the expected changes in child or youth outcomes occur and whether these changes can be attributed to the program or program activities.

Evaluation designs can be simple and straightforward. Evaluation activities can be incorporated into ongoing program management activities. Evaluation may produce negative results. Finding out "what does not work" is as important as finding out "what does work."

Below are five major reasons why conducting a program evaluation will serve the best interests of a program, as well as the children and youth served.[83]

- **Reason #1**: A program evaluation can find out "what works" and "what does not work." A process or outcome evaluation enables program managers to answer basic questions about a program's effectiveness, including:
    - Are participants benefiting from program services?
    - Are the recruitment strategies working?
    - Do staff have the necessary skills and training to deliver services?
    - Are participants satisfied with the program?
    - Are some sub-groups benefiting, but not others (for example, boys versus girls)?

Knowing "what works" helps program managers to focus resources on the essential components of the program model that benefit participants and volunteers; knowing "what does not work" allows program managers to improve and strengthen their service delivery models. Not knowing what is working or not working might waste valuable time and resources.[83]

- **Reason #2:** A program evaluation can showcase the effectiveness of a program to health plan leadership, the provider community, and funders. Evaluation findings can demonstrate to a health plan leadership, the provider community, and funders that a program is worthwhile. Sharing findings within the community can serve as a good outreach tool for attracting collaborative partners, recruiting participants and volunteers, and building trust with families and community members. Also, funders often require that a program evaluation be conducted when they agree to fund a program, and some funders will not fund, or re-fund, a program until an evaluation has been conducted and the outcomes have been demonstrated.[83]

- **Reason #3**: A program evaluation can improve staff's frontline practice with participants. Improving how frontline staff members deliver services to children and youth will increase the likelihood that a program will achieve positive outcomes with program participants. Conducting an evaluation of a program can allow a program manager to systematically assess the staff's performance and figure out where staff members are succeeding and where they might need more support or training. An evaluation can also provide staff with opportunities to discuss the challenges they face and offer potential solutions. Evaluation questions could include:
    - Do staff have the necessary skills to work effectively with program participants?
    - What types of additional training would benefit staff?
    - Are staff receiving the ongoing coaching and mentoring necessary to do their work?
    - Do staff have the necessary supports to function effectively?[83]

- **Reason #4:** A program evaluation can increase a program's capacity to conduct a critical self-assessment and plan for the future. Conducting an evaluation either internally or with an outside evaluator will build an organization's capacity to conduct critical self-assessments, including conducting staff and program needs assessments, measuring the staff's performance, and assessing whether program objectives have been met. This will strengthen program operations and, consequently, improve outcomes for those served. Knowing how and for whom the program is effective and ways services can be strengthened are essential building blocks for an organization's strategic plan. Having the goal and the capacity for self-assessment allows for ongoing reflection and planning and helps create a continuous learning organization.[83]

- **Reason #5:** A program evaluation can build knowledge for childhood obesity interventions. Contributing to the evidence base on what works benefits everyone who is trying to make a difference in the lives of the children and youth who participate in these programs. Sharing knowledge with peers on what has been learned about programs can ensure that other program managers and staff avoid mistakes and that successful and effective strategies are replicated.[83]

Although conducting an evaluation may seem complicated, expensive, or even overwhelming, it is important to remember that program evaluations serve as tools to improve programs. Program evaluations are conducted to make programs better. Evaluations benefit programs at every stage of implementation. For start-up programs, evaluations can provide process data on the successes and challenges of early implementation; and, for more-mature programs, evaluations can provide outcome data on program participants. Although conducting an evaluation is not without challenges, the information obtained from a program evaluation can help to streamline and target program resources in the most cost-efficient way by focusing time and money on delivering services that benefit program participants and providing staff with the training they need to deliver these services effectively. Data on program outcomes can also help secure future funding.[81] Data are available in multiple forms: codes or notes in a paper claim, buried in a medical chart note, included in coding from a provider bill, and located somewhere in an electronic medical record.

Effective decision making regarding the value of an intervention requires gathering a baseline set of targeted measures pre-intervention, and then a comparison of the same data post-intervention to gauge the success of the intervention. Not all data sources are connected to each other, so it remains difficult to gather all of the relevant data in one place and in a common format.

Medicaid health plans also have various regulatory agencies that require them to report data and show improvement in their patient population over time. If the health plan is accredited by the National Committee for Quality Assurance (NCQA), HEDIS measures are required as part of the accreditation (HEDIS measures include a measure of Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents). Medicaid health plans that participate in HEDIS measures must report the percentage of their population between ages 3 and 17, with demonstrated evidence that these activities occurred.

Identification:

The first question that should be answered during program development is which data should be included and available for analysis pre- and post-intervention?

While some data are straightforward, other relevant data may be buried and not immediately considered. During the process of identifying the population that is being considered for program inclusion, look for the following conditions, which may be indicators for childhood obesity:

- Asthma
- Pre-Diabetic
- Type II Diabetes
- Hyperlipidemia
- Hypertension

When a provider claim is received for a well-child visit or other clinical evaluation visit, the following laboratory screening tests may also be indicators of suspected childhood obesity:

- Lipid Panel
- Glucose
- HbA1c
- Metabolic Panel
- Thyroid Testing

How to Receive Data from Non-Traditional Sources

Many services may be delivered through various governmental agencies where the health plan is not the payer (Women, Infants, and Children Food Services (WIC), County Health Department, Supplemental Nutrition Assistance Program (SNAP) benefits). Many other entities may provide services that are not known to the health plan. Free clinics, community health fairs, and in-school screenings are a few examples of events that may provide services that could discover indicators of childhood obesity, but often the health plan is not aware that the child received services and does not receive data regarding the services. A key to capturing all available data is to develop strategies to receive data from multiple non-traditional sources. Valuable data can be overlooked or missed without a sound strategy for the health plan to receive all the relevant data on their membership.

When working with community partners, agree with the entity in advance of program implementation on the specific data elements and the format to use for the data. This will ensure that the data received are in a usable format for comparative analysis. In some instances, the non-traditional provider might not have the capability to provide claims or encounter data that can be easily utilized.

The Medicaid health plan could consider providing a resource at the entity that can provide coding/billing assistance, typically if the entity provides a large number of services to health plan members. The health plans could also choose to accept paper claims instead of electronic claims from the entity and absorb the cost of converting the claims to electronic data that the health plan can utilize. Another strategy might be to work with the entity to accept rosters with identifiable member data and services provided; this would allow the Medicaid health plan to add the member-specific information to the health plan system. Non-traditional providers in many instances are not set up as billing entities; the Medicaid health plans can provide this valuable service to collect additional data on their members.

HEDIS Measures-Billing and Coding

As discussed in Section 3, Well-Child Visits are a reliable source of information/opportunity for the provider to incorporate Nutrition/Physical Activity Counseling into a routine visit. Well-Child Visits for patients ages 3-17, with a PCP or OB/GYN during the measurement year and with the following services delivered, are the likely primary events:

- Health Education/Anticipatory Guidance (i.e. address safety issues such as bike helmets, pool fences, window guards)
- AND Health & Developmental History (number of words spoken, plays with peers, goes up and down stairs)
- AND Physical Exam (height, weight, BMI, heart, lungs, abdomen)

Nutrition Counseling/Physical Activity Counseling can/should be incorporated into the well visit. Services may be rendered during a visit other than a well-child visit; however, *services specific to the assessment or treatment of an acute or chronic condition* ***do not count*** *toward the "Counseling for nutrition" and "Counseling for physical activity" indicators.* HEDIS requires either a claim or a medical record entry.

Codes to Identify Well-Child Visits: CPT®: 99381-99385, 99391-99395, and 99461 ICD-10-CM: Z00.00-01, Z00.110-111, Z00.121, Z00129, Z00.5, Z00.8, Z02.0- Z02.6, Z02.71, Z02.79, Z02.81-Z02.83, Z02.89, Z02.9 HCPCS: G0438, G0439

Weight Assessment and Counseling for Nutrition and Physical Activity for Children/ Adolescents (WCC) *

1. **BMI percentile (may be a BMI growth chart if utilized) • Weight date and value • Height date and value BMI**: ICD-10-CM: Z68.51-Z68.54 The height, weight, and BMI ***must*** be from the same data source.

BMI percentiles:

- BMI >5TH PERCENTILE, PEDIATRIC Z68.51
- BMI 5TH -85TH PERCENTILE, PEDIATRIC Z68.52
- BMI 85TH -95TH PERCENTILE, PEDIATRIC Z68.53
- BMI >95TH PERCENTILE, PEDIATRIC Z68.54

2. **Counseling for Nutrition (diet)**: ICD-10-CM: Z71.3 CPT®: 97802-97804 HCPCS: G0447, G0270, G0271, S9449, S9452, S9470 Counseling for nutrition CPT: 97802-97804 ICD-10: Z71.3
3. **Counseling for Physical Activity (sports participation/exercise) Activity**: ICD-10-CM: Z02.5 HCPCS: G0447, S9451, Z7189

* Based on HEDIS ® 2017 specifications

It is critical to provide up-front education/guidance to providers to ensure that their documentation is clear and succinct, and that it meets the requirements to be counted for HEDIS data reporting.

Examples of appropriate documentation of counseling for nutrition or referral for nutrition education during the measurement year include:

- A Checklist indicating that nutrition was addressed.
- Documentation that the member received educational materials on nutrition during a face-to-face visit.
- Documentation that weight or obesity counseling occurred
- Counseling for physical activity was provided

Examples of appropriate documentation of counseling for physical activity or referral for physical activity during the measurement year include:

- A Checklist indicating that physical activity was addressed.
- Documentation that the member received educational materials on physical activity during a face-to-face visit.
- Anticipatory guidance for physical activity or weight/obesity counseling was provided

Following are some common chart opportunities for improved data capture and to allow inclusion for HEDIS reporting:

- BMI is documented as a number, not a percentile based on height, weight, age, and gender.
- Simple documentation of developmental milestones does not constitute anticipatory guidance or education for physical activity.
- No counseling/education on physical activity is documented.
- Notation of "health education" or "anticipatory guidance" without specific mention of nutrition. NOTE: Services may be rendered during a visit other than a well-child visit; however, services specific to the assessment or treatment of an acute or chronic condition do not count toward the "Counseling for nutrition" and "Counseling for physical activity" indicators.

Program Analysis

To analyze the success of a program, the following are suggested data points to include for analysis. The program parameters should be designed before program implementation with the intent of developing a strategy for including all data elements that are targeted for analysis throughout the program, either at the individual participant's graduation or at the conclusion of the program. Working with a statistician during program development increases the likelihood that the data targeted for inclusion are based on sound science and can be utilized for statistically significant analysis. Some examples of data points that could be included are:

- Type of Intervention used
  - Mailings
  - Face-to-Face
  - Telephonic
  - Mobile App
  - Any Gamification (the process of adding games or game-like elements such as point scoring, competition with others, etc., to the program to encourage participation)

- Demographics Targeted
  - Possible Age Bands to Analyze
  - Specific Ethnicities
  - Male and/or Female

- Member incentives or rewards for participation
- Provider Participation
  - Provider incentives
  - Types of providers participating

- Outcomes Targeted
- Member Satisfaction
- Provider Satisfaction
- HEDIS Score Improvement
- BMI Change
- Program Completion
- Quality-of-Life Improvement
- Decrease in Positive Depression Screening

Section 5

Planning Long-Term Sustainability and Securing Funding

Planning Long-Term Sustainability and Securing Funding

In this module we will address:

- How to build a program to integrate HEDIS/State Quality Data measures
  - Program development
- What grant funders are looking for
  - Key terms
  - Conditions addressed
- What state or national pilot initiatives are looking for

When developing a program to address or prevent childhood obesity, one should consider providing a way to cover the costs associated with the initiative. There are many ways to fund a program. One strategy is to develop a return-on-investment (ROI) scenario for the initiative. Another is to secure funding from an external party to finance the interventions. In this section, we outline concepts to utilize these mechanisms.

How to build a program to integrate HEDIS/State Quality Data measures

Focusing on improvement in quality measures is an approach to utilize in program development. In this scenario, ROI is demonstrated by absolute improvement in quality metrics. One way to measure quality is through the use of the Healthcare Effectiveness Data and Information Set (HEDIS), a tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service. Altogether, HEDIS consists of 94 measures across 7 domains of care.

Weight-assessment counseling for nutrition and physical activity (WCC) is a HEDIS measure that calculates the percentage of members ages 2-17 years who had an outpatient visit with a PCP or an OB/GYN and who had evidence of Body Mass Index (BMI) percentile documentation and counseling for nutrition and counseling for physical activity during the measurement year. Depending on the age of the individual, there are also specified intervals where well-testing is measured. As part of these periodic well visits, BMI measurement, and nutrition and activity counseling can be included in the visit.[84]

It is helpful to develop a tip sheet for clinicians to guide them in adding counseling codes to the well-child visits. There remains a wide range of scenarios regarding billing and payment for the specific counseling codes. Some states recognize the codes as billable; some do not. There is also a wide range of reimbursement for allowable codes.

Another approach to demonstrating ROI is to highlight program components that will decrease overall healthcare costs for children with overweight and obesity to fund program components.[85] In this approach, one utilizes the available cost data differentials between healthy-weight children and children who have overweight or obesity to highlight cost savings in various cost-of-care categories to offset the cost of the program.

A 2016 analysis of the Community Health Needs Assessment (CHNA) found that obesity ranked as one of the biggest health concerns in communities across the country, with the majority of county officials ranking it as a leading problem where they live.[85] Common factors related to obesity are often considered priority health issues in communities, with 58 percent of surveyed communities focused on nutrition and physical activity. Heart disease and hypertension are a concern for 57 percent of surveyed communities, and diabetes is a concern for 44 percent of the communities.[85] Research has also repeatedly shown that American children are not getting enough activity or eating an adequate volume of nutritious foods.[86] In 2016, the American Heart Association released a scientific statement outlining seven measures of cardiovascular health, which include physical activity, diet, BMI, cholesterol level, blood pressure, blood glucose, and smoking status. It found that very few children meet all measures of a healthy heart. For example, 91 percent of American children have poor diets, and less than half get the recommended 60 minutes of daily aerobic physical activity.[86]

Childhood obesity alone is responsible for $14 billion in direct medical costs.[87] Obesity-related medical costs in general are expected to rise significantly, especially because today's children with obesity are likely to become tomorrow's adults with obesity.[87] If obesity rates were to remain at 2010 levels instead of continuing to rise, the projected medical savings for medical expenditures would be $549.5 billion over the next two decades.[87]

The childhood obesity epidemic demands everyone's attention. Obesity is the most significant public health challenge our nation faces currently because of the number of people with overweight or obesity and the ripple effects that obesity has on the development of debilitating and costly chronic diseases.

The total budget for all chronic disease prevention activities at the CDC is around $1.2 billion (about $4 per person per year, as of FY 2017), while more than 80 percent of the annual $3 trillion in healthcare spending is spent on individuals with one or more chronic conditions (about $8,000 per person per year for chronic disease).[40] Effective, evidence-based obesity prevention and health improvement strategies can lower healthcare costs and improve the vitality of neighborhoods. For example, evidence-based community prevention programs that increase physical activity, improve nutrition, and prevent smoking could save the country more than $16 billion annually within five years — a $5.60 return for every $1 spent.[40] We have seen progress to address the epidemic. After decades of increasing, the national obesity rate among 2- to 19-year-olds has begun to level off. Obesity remains a bigger threat to our health and country now than it was a generation ago.[15] Obesity rates vary state-to-state but remain high nationwide. Across the United States, more than one in six children (ages 2-19) has obesity —and 1 in 11 young children (ages 2-5) have obesity.[88] Obesity rates also differ from county to county and neighborhood to neighborhood. County Health Rankings and Roadmaps data are available for every state at http://www.countyhealthrankings.org/

In the recently published "The State of Obesity: 2017: Better Policies for a Healthier America, Trust for America's Health (August 2017),"[15] childhood obesity rates have remained stable for the past decade, but prevalence rates remain high. Currently, 17 percent of children ages 2-19 years remain overweight or obese. Since 1980, rates for these age groups have tripled, with the 6-11 year-old age group doubling, from 7 percent to 17.5 percent, and teens with obesity, ages 12-19 years, quadrupling from 5 percent to 20.5 percent.

Obesity rates are much higher in the earlier years of ages 2-5; 8.9 percent have obesity, and 2 percent have severe obesity.[15] Racial and ethnic inequalities also remain significant. Rates are higher among Latino (21.9%) and Black (19.5%) children than among White (14.7%) and Asian (8.6%) children (ages 2-19 years), and the rates are higher starting at earlier ages and increase faster.[19]

- 21.4 percent of Latina females and 22.4 percent of Latino males have obesity
- 20.7 percent of Black females and 18.4 percent of Black males have obesity
- 15.1 percent of White females and 14.3 percent of White males have obesity
- 5.3 percent of Asian females and 11.8 percent of Asian males have obesity[20]

Prevalence of obesity for Preschoolers (ages 2-5 years) is:[20]

- 15.6 percent of Latino preschoolers have obesity (3x the rate of White and Asian preschoolers)
- 10.4 percent of Black preschoolers have obesity (2x the rate of White and Asian preschoolers)
- 5.2 percent of White preschoolers have obesity
- 5.0 percent of Asian preschoolers have obesity

Among American Indian/Alaska Native children:[21]

- 25 percent of 2- to 5-year-olds have obesity
- 31 percent of 6- to 11-year-olds have obesity
- 31 percent of 12- to 19-year-olds have obesity

There are also significant inequities in rates of severe obesity (BMI at or above 120 percent of the sex-specific 95th percentile on the CDC BMI for age-growth charts):[20]

For children ages 2-19 years:[20]

- 9 percent of Blacks have severe obesity
- 7.6 percent of Latinos have severe obesity
- 4.4 percent of Whites have severe obesity
- 1.3 percent of Asian children have severe obesity

Among preschoolers (ages 2-5 years):[20]

- 7.6 percent of Latinos have severe obesity
- 8.6 percent of Blacks have severe obesity
- 4.4 percent of Whites have severe obesity

Although the stabilization is an encouraging sign, today approximately 193,000 children (ages 2-20 years) have diabetes, and two million teens (ages 12-19 years) have prediabetes. For children and youths (ages 0-19 years), type 2 diabetes rates have increased by more than 30 percent since 2001.[89] At least one of every five teens has

abnormal cholesterol, a major risk factor for heart disease; among teens with obesity, 43 percent have abnormal cholesterol.[90] Children with obesity are being diagnosed with health conditions historically only seen in adults. A population-based study estimated that 70 percent of children and adolescents with obesity, ages 5-17 years, have at least one risk factor for CVD.[91]

Childhood obesity comes with an estimated price tag of $19,000 per child when comparing lifetime medical costs to those of a normal-weight child, according to an analysis led by researchers at the Duke Global Health Institute and the Duke-NUS Graduate Medical School in Singapore.[92] When multiplied by the number of 10-year-olds with obesity in the United States, lifetime medical costs for this age alone reach roughly $14 billion.[92] An alternative estimate, which takes into account the possibility of children without obesity gaining weight in adulthood, reduces the cost to $12,900 per child with obesity.[92]

Obesity is now known to be a major cause of morbidity among American children. Diabetes, slipped capital femoral epiphysis,[93] gallbladder disease,[94] and obstructive sleep apnea[95] are among the conditions associated with obesity in childhood. Mental health is also significantly affected.[96] The increased presence of comorbidities in children with obesity is likely to lead to increased health care utilization and expenditures even during the school-age years and adolescence.

Although the health consequences of obesity are well documented, few studies have quantified the impact of obesity on health-care utilization and expenditures during childhood. One study found that children in a large pediatric integrated delivery system, who were diagnosed with obesity during a well-child visit, had $172 higher annual health-care expenditures than children with normal BMI.[97] An analysis of the 2001–2003 Medical Expenditure Panel Survey (MEPS) identified that children with overweight, defined by the American Medical Association Expert Committee and other national associations as children with a BMI in the 85–94th percentile for age and sex, had annual total health-care expenditures that were $180 higher than expenditures for children with a normal BMI,[98] whereas children with obesity, defined as children with a BMI ≥95th percentile for age and sex, had $220 higher expenditures, on average.[99]

The study compared expenditures and utilizations across three non-overlapping groups of children who had obesity in both years of the MEPS, children who had overweight in both years of the MEPS, or overweight in one year and obesity in the other, and children who had normal or underweight BMI in at least one year of the MEPS.[100] Across the three comparison groups, in-patient, prescription drug, outpatient visit, and emergency room facility expenditures were examined. The study also examined differences in in-patient hospitalizations, drug prescriptions, outpatient visits, and emergency room visits by BMI status. For each of these expenditures and utilization variables, separate regression analyses were performed to assess the impact of obesity among children who were in the age groups of 6–11 and 12–19 years upon entering the MEPS.[100]

When expenditures were analyzed among the 6–11-year-olds in the full two-part model, no significant difference in per capita emergency room or prescription drug expenditures was identified, but younger children who had obesity in both years had $118 higher outpatient expenditures than school-age children who had a normal/underweight BMI in at least one year.[100]

Adolescents who had overweight during both years, or had overweight in one year and obesity in the other had $126 higher per capita outpatient visit expenditures than children with a normal/underweight BMI in either year, whereas the 12–19-year-olds who had obesity in both years had $218 higher outpatient visit expenditures.[100] In this group, those who had overweight during both years or had overweight in one year and obesity in the other had $237 higher per capita prescription drug expenditures, whereas the adolescents who had obesity in both years had $111 higher per capita prescription drug expenditures.[100] These cost differences could be used to justify the costs of the childhood obesity program, offset by potential cost savings in pure health care costs.

Program Development Principles

When designing a program, the focus should be on high quality and high value, and the data and science used to create the program should be focused on patients. Decide in advance who will be the target of the program. Will the program interventions focus on children with overweight or obesity, or both? Will the focus for the program be a specific geographical area? Will partnerships with specific provider groups or community partners be the inclusion criteria? Plan to demonstrate how the program is going to improve outcomes and reduce overall health care costs.

The program needs to be designed with good sound financial practices and include staff who are experts on the components of the program. Incorporating multiple partners into the program--including providers, health plan staff, community partners, and health system partners--expands program reach and prevents duplication of interventions. Developing the target patients for program inclusion and fostering referral sources will allow for broader buy-in.[56] Developing and implementing projects in organizations is challenging and can be time-consuming. A significant factor in many projects' success is the project champion. An effective project champion is one that might occupy many different formal positions in the organization but who has a willingness to go above and beyond a formal position to champion the project. It is important to identify a champion for the project during the design phase.

The strategies with the most impact can simply focus on helping children maintain a healthy weight — since it is much easier and more effective to prevent obesity than to try to reverse it later. Interventions need to have a sufficient level of investment or prioritization to reverse rates on a large scale. A wide range of efforts can make a difference, including evidence-based policies and practices.[15]

Some key strategies to include in the program are:[15]

Supporting parents, families, and caregivers in efforts to offer healthier food and beverage choices, encourage ample physical activity, and serve as good examples by spending less time on their screens and more time walking, biking, and playing with their children
Ensuring that healthy food and drink options are available for kids in schools and child-care settings — and increasing opportunities to be active and involved in high-quality physical activity programs. Making healthy food options more accessible — through efforts such as healthy food financing strategies, nutrition assistance programs, nutrition education efforts, and farmers' markets--are effective strategies
Providing and financing healthcare coverage for obesity counseling and services — and encouraging and facilitating strong preventive healthcare for children
Engaging healthcare systems and hospitals to support access to services that promote their patients' health beyond doctors' appointments — such as through ongoing community-based programs and coaching and counseling efforts that can reduce healthcare costs and produce better results
Encouraging smart community development and design — such as land-use policies that support/promote the development of green space, parks and trails, and active living, including more walkable, mixed-use, and recreation-friendly areas
Supporting the efforts of food and beverage companies to produce and market healthy, affordable options; and reduce calories, sugar, and fat in foods and drinks[15]

Source: Trust for America's Health. (2017, August). The state of obesity: Better policies for a healthier America. Retrieved February 25, 2018, from http://healthyamericans.org/report/115/

Utilizing multiple partners in program development has been shown to better leverage resources and having longer-lasting impact. Given that children spend significant portions of their day in school, where they may consume two meals, snacks, and nearly half of their calories, school-based obesity-prevention programs are an excellent way to reach large numbers of children. Research has demonstrated that school programs are effective in preventing childhood obesity, encouraging healthier diets, and fostering more physical activity.[101]

The Whole School Whole Community Whole Child (WSCC) model (Figure 14) focuses its attention on the child, emphasizes a schoolwide approach, and acknowledges learning, health, and the school as being a part and reflection of the local community.[86] The Model Schools (included in the initiative) health agencies, parents, and communities share a common goal of supporting the health and academic achievement of adolescents. Research shows that the health of students is linked to their academic achievement. By working together, the various participants can ensure that every young person in every school in every community is healthy, safe, engaged, supported, and challenged. The WSCC model accomplishes several important objectives: it incorporates the "Whole Child" model and emphasizes the relationship between educational attainment and health by putting the child at the center of a system designed to support both. It provides an update to the CDC's Coordinated School Health approach to better align with the way schools function.

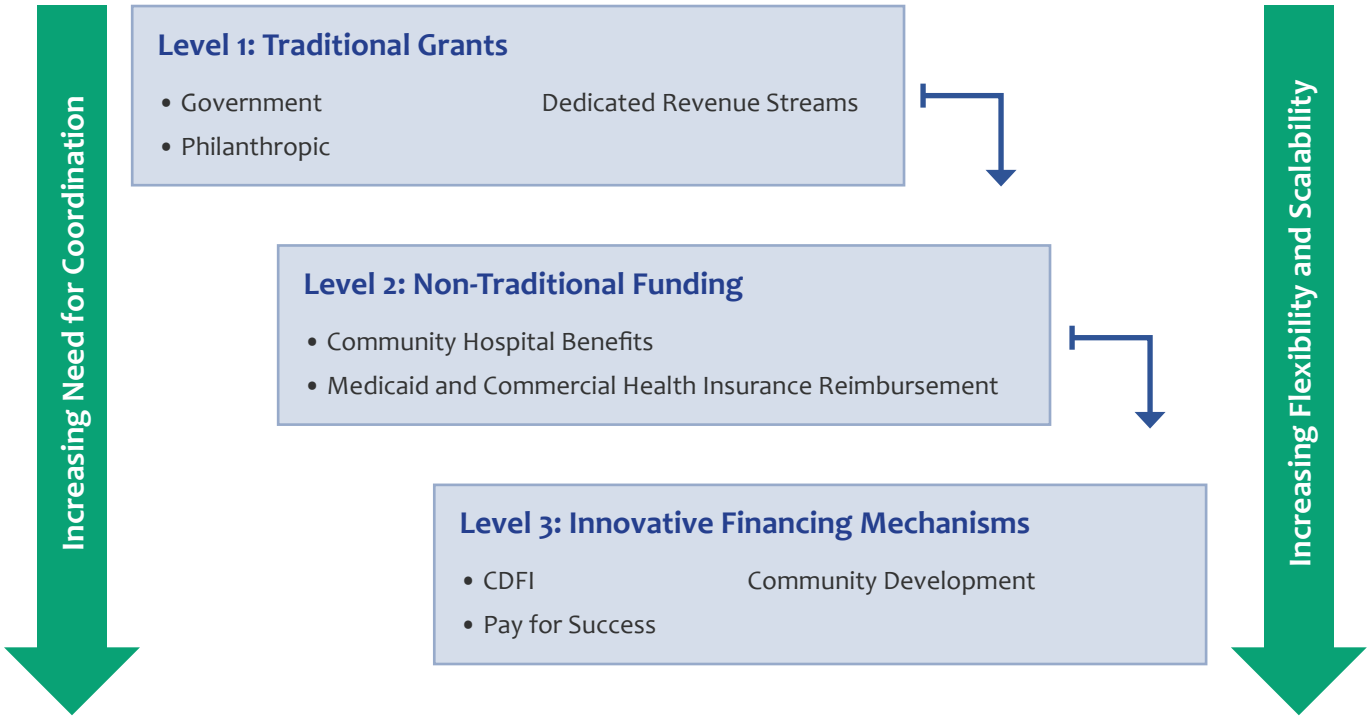
Figure 10. CDC's Whole School, Whole Community, Whole Child Model

Source: Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. (2015, October 26). The Whole school, whole community, whole child model. Retrieved February 25, 2018, from https://www.cdc.gov/healthyyouth/wscc/

Utilizing community-based efforts that are designed to be flexible enough to address the needs of specific local areas — matching their priorities and leveraging existing resources–is a great way to engage multiple partners. The most successful strategies bring key partners and assets together and take a comprehensive approach for maximum impact.[40] Examples of collaborations might include public health agencies, healthcare providers and payers, social services, private businesses, philanthropies, schools, and community groups. The shared goals of these partnerships could focus on improving the health and vitality of a community. The diverse partners bring distinct areas of expertise.[40]

Areas of focus could include affordable housing, high-quality education, income, transportation, the availability and affordability of higher-nutrient food, and addressing neighborhood safety and access to areas for physical activity. Federal, state, and local grants are also potential funding sources. It is essential to engage a broader set of private and public resources to be able to scale effective, evidence-based efforts more broadly.[40] Figure 15 shows various sources that could be used to fund a program.

Figure 11. Potential Sources for Funding Local Obesity-Prevention and Health-Improvement Initiatives



Source: Trust for America's Health. (2016, September 30). The state of obesity, community policies and programs, community-based programs, A Project of the Trust for America's Health and the Robert Wood Johnson Foundation. Retrieved February 25, 2018, from https://stateofobesity.org/policy/community-policies-and-programs/community-based-programs

Some additional potential financial partners and funding sources include:[54]

- Social service, housing, agriculture, transportation, and/or environmental agencies via cross-sector opportunities
- Businesses
- Community organizations
- Community Development Financial Institutions (CDFI) Fund, tax credits, revolving loan funds, program-related investments, social-impact bonds, and pay-for-performance initiatives
- A Wellness Trust or other formal structure where there is direct community investment, from government support, tax revenue, or other ongoing sources

Early childhood policies and programs are an effective place to focus — they have the ability to create maximum impact for setting the course for lifelong health — as well as continued support through every stage of life.[54]

As mentioned in Community Partnerships, a viable partner might be a program utilizing CHWs.[57]

Crafting the Business Case for Community Health Programs

Because financial sustainability has historically been the single greatest barrier to CHW programs in the United States, the Task Force also zeroed in on the challenge of developing a business case for CHWs. Even as some CHW programs have achieved returns on investment as high as $4.80 for each dollar spent; ensuring sustainable funding requires demonstrating and capturing value for investors. The Task Force recommends that CHW program leaders begin by answering these five questions:[57]

- **What is the work being done by the CHW-based care model?** Each CHW program will perform slightly different work, as it is designed to meet the needs of the patients being served.
- **What are the essential programmatic components needed to support this model?** Again, the specifics of each program—including training models, operational needs, and integration with primary care teams—will look different depending on the community served.
- **How does this model create value?** Well-designed CHW programs can improve health outcomes, increase access to clinical care, or reduce costs; many achieve all three at once.
- **To whom does that value accrue, and how?** Depending on the impact of the program, the value of that impact may accrue to different actors. For example, although insurers benefit financially from patients utilizing fewer clinical services overall, hospitals can benefit when utilization simply shifts from the emergency room to a primary care clinic.
- **How does that value translate into investment?** Understanding the paths through which value is created creates opportunities to build matching financial arrangements.[57]

Table 6 outlines an approach to developing an Action Plan to create a Childhood Obesity Program.

Table 6. Proposed Components of Evidence-Based Obesity Prevention

Objective	Program or Policy Relevance	Relevant Evidence and Information	Types of Outputs
Estimate the Health Burden Why should we do something about obesity?	• Show urgency of taking action on obesity • Compare costs, health burden, and gains from prevention with other risk factors and disease • Address prioritization of obesity relative to other issues • Identify populations of special interest • Benchmarks for goal setting	• Monitoring and surveillance data (e.g. prevalence, trends) • Observational studies (e.g. relative risks, occurrence rates in different populations) • Economic analysis (e.g., costs of obesity, disability-adjusted life years lost) • Informed opinion (e.g., for modeling assumptions)	• Prevalence estimates including projected trends • Estimates of the costs of obesity (direct, indirect, intangible) • Comparative health burdens in terms of years of life lost • Estimated possible reductions in burden with interventions
Identify the Determinants What are the causative and protective factors that could potentially be targeted for intervention?	• Identify targets for intervening • Relate obesity issues to other existing agendas • Identify congruent and conflicting policies and activities • Identify the key government, nongovernmental organization, and private-sector stakeholders that are central to obesity prevention	• Observational studies • Experimental studies • Indirect evidence • Monitoring and surveillance data • Informed opinion (e.g., on current policies and activities that influence obesity)	• Evidence reviews of specific modifiable determinants of obesity and its pathways, including levels of certainty and likely size of impact • Identify important stakeholder groups and areas of congruence and conflict

Describe the Framework for Action How and where should we intervene?	• Links to and compatibility with existing plans, policies, and programs • Specification of the comprehensive and multidimensional nature of the action needed • Persuasion of stakeholders of the feasibility and necessity of a comprehensive approach • Evidence of precedence	• Parallel evidence from other public health initiatives • Pre-existing frameworks for action (e.g., Ottawa Charter) • Informed opinion (e.g., about other successful frameworks or modifiable and feasible strategies) • Information on current relevant initiatives • Program logic and theory	• Comprehensive obesity prevention in a stand-alone framework or as part of a broader plan of action for nutrition and physical activity, and/or noncommunicable diseases • Identified settings, sectors, and support actions, and short- and long-term population goals
Evaluate Potential Interventions What are the specific and potential interventions and their likely effectiveness?	• Consensus on potential concrete actions • Move obesity initiatives through the agenda-setting process • Identify resource implications	• Experimental studies • Observational studies • Effectiveness analyses • Economic analyses • Program logic and theory • Process evaluation (e.g., of existing community or demonstration interventions)	• Specific descriptions of interventions and support actions • Effectiveness, cost-effectiveness, or cost-utility estimates for the interventions
Select a Portfolio of Policies, Programs, and Actions What is a comprehensive portfolio of initiatives that is sufficient to prevent increases in obesity?	• Gain stakeholder input into judgments on policy and implementation implications • Gain stakeholder support for priority interventions	• Informed opinion on specific interventions and actions regarding their feasibility and sustainability; other positive or negative potential impacts; effects on equity; and acceptability to stakeholders	• Specific portfolio of policies, programs, and other actions to prevent obesity

Source: Koplan, J. P., Liverman, C. T., & Kraak, V. I. (2005, October). Preventing childhood obesity: Health in the balance. Retrieved February 25, 2018, from https://wwdw.ncbi.nlm.nih.gov/pubmed/22379642

Proposed Components of an Evidence-Based Obesity Program

To develop a program, the aim of the plan should be identified. What is the goal of the program after the intervention phase is complete? A literature review is a great way to identify interventions that have proven successful in the population you plan to address. Part of the program should identify policies and interventions that will be used to guide the plan. Possible elements of the action plan could include:[55]

- Clarifying key concepts and their definitions
- Developing a framework to guide the type and scope of data gathered (timeframe, ages, socioeconomic data, intervention vs. non-intervention group, etc.)
- Clearly outlining obesity prevention goals for selected ages or other demographic factors
- Criteria and a plan for review of the available evidence
- Using the findings from the evidence or data to advise specific recommendations that guide the creation of an action plan

If the target of the program is to address a population of children and youth, some long-term goals could be:[55]

- Reduction in the incidence of childhood obesity
- Reduction in the prevalence of childhood obesity
- Reduction in BMI of the population
- Increase in percentage of children meeting national dietary guidelines
- Increase in percentage of children meeting physical activity guidelines
- Increase in Quality-of-Life score

If the target of the program is to address an individual child, some long-term goals could be:[55]

- A healthy weight trajectory based on the CDC BMI charts
- Consuming a diet that meets the national dietary guidelines
    - May track increase over time
- Meeting physical activity guidelines
    - May track increase over time
- Increase in Quality-of-Life score

As goal achievement is a longer process, some short-term goals might be:[55]

- Increased percentage of children who bike or walk to school
- Increased access to affordable fruits and vegetables, perhaps stratified by income bands
- Increased access to safe play places: community centers, parks, other recreation facilities
- Changing product advertising to promotion of energy balance
- Changes in policies that promote energy balance: examples are: soda tax, inclusion of all children in school breakfast and lunch programs at no cost[55]

What Grant Funders Are Looking For:

As discussed earlier, foundations are active partners in many community-based obesity prevention efforts. They often serve as the funding source for grantees at the community and grassroots levels. Many foundation-sponsored grants might require responding to a grant application.[49] Planning for program sustainability from

the beginning of the grant enhances your chances of success, and a clear vision from leadership will entice collaborators to want to partner to accomplish a common goals.

Sustainability starts with knowing the overarching goals, seeing which of the program elements are achieving those goals, and developing strategies to maintain those elements within the program. If the program, when implemented, achieves the desired outcomes and serves the needs of stakeholders, the long-term sustainability plan may involve maintaining several program elements. If one or two program elements produced measurable positive results but others did not, the plan should likely focus on those elements only, with other program elements being discontinued.

The following questions might help when planning for sustainability: [102]

Leadership

Has the leadership's vision for the program clarified which elements of the program are most important to sustain?

Are there systemic changes as part of the project? Are there opportunities to gain efficiencies as a result of the program design?

Is there a strategic plan developed to sustain various elements of the program? Does this program support the strategic plan of the overall organization?

Partnership and Collaboration

Are there strategic partners and collaborations that might assist in sustaining the program?

Are there potential partners that should be considered to add to support sustaining the program?

Are there benefits the partners will accrue by remaining in the partnership if the program is sustained? More utilization of partner services? Increased credibility as a part of supporting your organization?

Implementation

Have you developed internal mechanisms and support (e.g. infrastructure; policies, or procedures) for the program within your organization or partner organizations that will help sustain it?

Are staff or partners adequately trained to use skills that will achieve the program's intended outcomes? Are there training guides for staff joining after the initial "go-live"?

What changes may need to be made to the program to better set it up for sustainability? Will the program include workflow changes; using disease management staff already employed by the health plan to staff the program interventions, etc.

Communications/Marketing

Has a clear, consistent message about the importance of the program's goals and its success been crafted?

Who are the target audiences that need to be reached to sustain the project? Community Leaders, Health Plan Leadership, etc.

What strategies will be used to market the project to sustain it? Increased Quality of Life for members, active enrollment selection of your health plan, etc.

Evaluation

Has the program evaluation been developed with sustainability in mind?

Are quality improvements or decreased overall health care costs included as evaluation criteria?

What is the best way to select and present the program evaluation data to enhance sustainability efforts? Who are the target audiences for presentation of the results?

How will the evaluation be used to make mid-course corrections to change the direction of the program? Is there a mechanism to gauge success (or lack of success) prior to program completion?

Financing

What fee or revenue development can be used to increase funds to sustain the program?

What contacts with businesses or foundations can help sustain the program? Who is interested in this program? Who has something to gain from program success?

What existing resources might be leveraged to sustain the program? Reallocating staff to other critical projects, using a decrease in absolute health care costs to fund the program are examples.

How to write a winning grant proposal

Top-Five Grant-Writing Tips [103]
Tip #1: Follow the directions. Proposals have been discarded for technical oversights-such as not signing the original with blue ink. Most experts who review grant applications use a structured checklist of criteria to score applications.
Tip #2: Don't promise what you can't deliver. If your organization doesn't have the ability to deliver what is proposed, don't propose it.
Tip #3: Plan the program and tell the whole story. Tell the funder what the data regarding an issue show, and how your organization plans to address it. Stay on message. Make sure your proposal doesn't just talk about what you will do; tell how you will do it.
Tip #4: Make your proposal neat and presentable. This is your first impression and it must have stand-out quality. Typos and inconsistencies may keep your from a grant award.
Tip #5: Make the deadline. Missing it will automatically exclude your response. Develop a timeline of milestones that will ensure you are on track to meet the due date. Allow enough time to give a grant application the time it deserves.

Biggest Mistakes[103]
Didn't include passion: There's just one place for feature writing in a proposal, and that's in the statement of need. This is where your earnestness and real need are highlighted. Only include facts and sources that support your claim. In the narrative portion of the application, the applicant should not only tell the story, but rather, sell it.
Didn't make the case: You didn't say enough, or you said too much. Other mistakes include not providing sufficient background information or the source of statistics, or the relationship of certain statistics to other proposal sections. The narrative needs to be very clear and brief; the funder may not be willing to wade through a lot of ancillary information to try to get to your needs statements.
Applied regardless of funding guidelines: If it is not a good fit for your organization, it is a waste of your and the reviewer's time. Apply for grants that follow your mission and vision and fit with the funder's mission and vision. If it is targeted for non-profits, don't apply if you are a for-profit entity.
Budget didn't add up: If you say in one section you will hire specific people but don't include them in the budget, the reviewer will likely give you a low score. This could also signal to the funder that you don't have the ability to complete the project if you can't tie items together in your proposal.
No one proofed your proposal before you submitted it: Typos, run-on sentences, and tables that don't make sense are distracting to the reviewer. Someone who is not associated with writing the proposal is a great proofreader. If it is not clear to them, it will not be clear to the reviewer. Ensure that your facts support the claim of need. Tie together the sections—this is especially true if sections are completed by different people.

Key terms

The following terms yield multiple sources of information and often lead to grant funders who are seeking grant proposals related to addressing childhood obesity and prevention. [16, 24, 103]

Childhood obesity	Elevated BMI
Youth overweight	Obesity costs
Adolescent weight	Social determinants of health (SDOH)
Obesity prevention	Funding lifestyle changes
Healthy lifestyles	Childhood obesity grants
Physical activity	Children's health grants
Nutrition in childhood	Type 2 diabetes in children
Overweight	Obesity prevention

The following conditions are commonly the focus of funder initiatives.

Conditions addressed

- Obesity
- Diabetes
- Nutrition/healthy eating
- Children living in at-risk neighborhoods
- Children living in food deserts
- Addressing the social determinants of health related to childhood obesity
- Physical activity
- Healthy lifestyles

What state or national pilot initiatives are looking for.

In conversation with individuals at the U.S. Department of Health and Human Services, including program officers at agencies that provide grant funding, the Top-Five Grant-Writing Tips and Biggest Mistakes were consistent with those of private funders. Accuracy, following directions, staying on message, and brevity were mentioned as key considerations. As with private funders, strict screening criteria and inclusion checklists are utilized to evaluate grant submissions.

There was a general acknowledgment by these individuals that a plethora of research was currently available highlighting the problem and the efficacy of various interventions. The funders were less interested in additional research and more focused on programs that were based on known evidence, utilizing already proven outcomes in program design, and geared to program implementation.

Some key themes included:

- Programs that emphasized collaboration with federal- or state-funded partners, community partners, provider communities, and other varied resources to build on their expertise. These programs were more desirable than programs that exclude community partners and duplicate capabilities already in place.

- Development of the program to include sustainability as a grant was time limited, and their preference was to fund programs that would continue past the life of the grant. Plan to create sustainability during the life of the grant; don't plan on grant refunding to sustain the program described in the grant application.
- Building programs based on best practice programs that were evidence-based. Focus on efficiencies and lack of duplicative processes or duplicative providers.
- Development of a program that could be used for the masses, as opposed to an intervention that would affect only a small number of participants.
- A clearly articulated strategy that addressed dissemination and implementation of the program, in addition to the details of the program itself. Include an implementation plan, a monitoring process to ensure that the timeline is being adhered to and that demonstrates success in meeting milestones. Include clear metrics to gauge the success of the program at predefined intervals.
- Initiatives, including behavior modification, which has been shown to improve success, are desirable. A focus on sustained change for the cohort beyond the life of the specific intervention is favorable.
- Programs that include a public health perspective, not just a provider- or health plan-focused perspective
- Programs that have a clear plan for how kids are referred to the program. Include community, primary care providers, health plan staff, and parents—consider a full scope of referral sources for programs and a clear workflow for how referrals are managed.
- Development of a referral tip sheet for providers so when they identify a child/family as needing services, a list of resources and what services are available to the member in their specific location. Include an overview of services and local contact information.
- What are the changes in resources or infrastructure going to look like? What efficiencies can be gained over time to enhance sustainability of the program?
- Describe how the program will improve quality of care and health outcomes. What are the quality-of-care indicators focusing on, and what will improvement look like?

When reviewing grant proposals, the funder wants to know how an intervention is going to be implemented, not just what the intervention is–the "How" in addition to the "What."

There are many organizations, states, and federal agencies that provide grant funding. As an example, the Centers for Disease Control has supported the following childhood obesity initiatives. During a recent conversation, they shared the following information.

CDC Grants

CDC supports a range of obesity prevention programs in communities around the country. The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) — including the Division of Nutrition, Physical Activity, and Obesity (DNPAO) — is the lead center working on obesity prevention and control. NCCDPHP works in partnership with other parts of CDC, including:

- School Health Branch of the Division of Population Health;
- Division of Heart Disease and Stroke;
- and Division of Diabetes Translation.

Some major CDC obesity-prevention programs include:

- State Public Health Actions to Prevent and Control Diabetes,
- Heart Disease, Obesity, and Associated Risk Factors
- Promote School Health ("DP13- 1305 funding"):

These grants fund state initiatives to coordinate the care and prevention of these diseases across multiple community institutions, including schools, early childhood centers, worksites, and health systems.

State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke ("1422" awards): This program helps state and local health departments implement community-based obesity-prevention activities that complement activities receiving DP13-1305 funding.

Good Health and Wellness in Indian Country (DP14-1421PPHF14): A five-year, $16 million program to prevent and manage heart disease, diabetes, and associated risk factors in American Indian tribes and Alaska Native villages.

Partnership to Improve Community Health (PICH): Provided $220 million from FY 2014 to FY 2016 to support evidence-based strategies to improve the health of communities and reduce the prevalence of chronic diseases by addressing tobacco use and obesity.

Racial and Ethnic Approaches to Community Health (REACH): A national program to reduce health disparities, which provides funds to community organizations, tribes, universities, and state and local health departments to implement culturally appropriate programs, including obesity-prevention efforts.

Million Hearts Campaign: A five-year national initiative, co-led by the CDC and the Centers for Medicare & Medicaid Services (CMS), aimed at preventing one million heart attacks and strokes by 2022. The program estimates that it prevented as many as 500,000 heart events during the first five years of the program, 2012-2016.

Preventive Health and Health Services (PHHS) Block Grant: This program provides every state with flexible support to address what they determine to be their most important health needs. In FY 2016, nutrition and weight status was a top-funded health topic area, receiving more than $10 million of PHHS grant funds.

Programs to Reduce Obesity in High Obesity Areas (CDC-RFA-DP14-1416 funding or High Obesity Program): This three-year program, now in its final year, is a pilot program that funds land grant colleges and universities in counties where the obesity rate exceeds 40 percent to conduct interventions at the county level. The agency has funded work in 49 counties, across 11 states, and reached more than 1.8 million people. By identifying and addressing risk factors — such as having less access to healthy foods and fewer opportunities to be physically active — the program helps improve the long-term health of residents in these counties. Grantees collaborate with existing cooperative extension and outreach services at the county level in their states to develop obesity solutions. They put into action a set of evidence-based strategies in early care and education centers or the community setting. Activities include convening partners to assess community assets and needs and leverage resources; providing training, technical assistance, and support for program development, implementation, and evaluation; evaluating and monitoring progress on program implementation and assessing program effectiveness; and translating and communicating evaluation results for stakeholders, decision-makers, partners, funders, and the public. The first round of grant recipients included colleges and universities in Alabama, Arkansas, Georgia, Indiana, Kentucky, Louisiana, North Carolina, South Dakota, Tennessee, Texas, and West Virginia.[15]

As addressed in this section, there are multiple avenues for sustainability including utilizing an ROI scenario to demonstrate increases in quality scores, or total healthcare cost improvements. Another approach is to develop collaborative relationships with many components of the provider community to apply for grants that provide

immediate funding while the organization develops strategies to continue to support the initiative past the life of the grant. These are not the only strategies that can be used, but rather, just a few examples.

Conclusion

Medicaid provides vital health insurance coverage to more than 70 million people, including more than 32 million low-income children. Today there are only three states (AK, CT, and WY) that do not provide some form of managed care. Medicaid Managed Care Organizations (MCOs) refers to risk-based managed care, which includes full-risk, Prepaid Inpatient Health Plans (PIHPs) and Prepaid Ambulatory Health Plans (PAHPs), and Medicaid Primary Care Case Management (PCCM).[104]

This toolkit is intended to be another resource to add to the arsenal of resources and research that is available to address childhood obesity. Medicaid health plans are uniquely positioned to develop solutions to combat, and potentially reverse, childhood obesity trends. Medicaid health plans, especially those providing coverage for significant numbers of children and adolescents with obesity, are uniquely positioned to improve weight management interventions and encourage the adoption of healthy behaviors. Using this toolkit, more health plans will have the information and resources needed to promote better member outcomes and improve the overall quality of life for children and their families.

The Overview and Action Plan for Medicaid Health Plans provided an opportunity to better understand how to prevent and treat childhood obesity in the Medicaid population by learning from the advice given by initiatives launched by Medicaid managed care organizations and the experiences of the families that participated in the initiatives. In learning about the design, implementation, and outcomes associated with these initiatives, current gaps in research were also addressed. Furthermore, identifying lessons learned from these initiatives contributed to awareness of the impact of social determinants of health on the efficacy of interventions. The hope is that these lessons will help other health plans to address health disparities during their design of the intervention.

Moving forward, it is critical that we address the most common resource that Medicaid health plans and community groups cited: the need for a national learning network to share resources and offer support with implementation and evaluation efforts. Furthermore, incorporating the invaluable insight provided by families to improve access to group sessions by addressing the social determinants of health (e.g., scheduling on weekends, providing transportation support, allowing participation of multiple children from a single family) and connecting families to community resources and social supports will greatly enhance future initiatives.

As policymakers, key stakeholders, and thought leaders continue to work toward improving interventions tailored to prevent and treat childhood obesity, it will be necessary to address the challenges faced by Medicaid health plans with potential policies and resources to improve the implementation and sustainability of these programs.

To address existing research limitations, the CHildhood Obesity Prevention and Treatment (CHOPT) for Medicaid toolkit Phase One provided an environmental scan and case studies of childhood obesity prevention and treatment initiatives led by Medicaid managed care organizations. Additional case studies, with updated data and information, are also included in this version. This toolkit also includes readiness assessment and implementation tools to guide other health plans through the design, implementation, and evaluation of childhood obesity prevention and treatment initiatives.

Case Studies of Childhood Obesity Initiatives

This section provides an overview of programs launched by Medicaid managed care organizations across the country, as well as summaries of the lessons learned and key takeaways for consideration by other health plans that aim to create their own childhood obesity initiatives. While these methods provide a snapshot of the tools health plans may use when developing and implementing their initiatives, there are a number of factors that influence the design of the program that are often unique to a specific health plan's population.

Medicaid Health Plan Initiatives

The following seven case studies provide examples of the innovative programs that Medicaid managed care organizations have implemented to address obesity in their pediatric populations. The health plans highlight developed initiatives that were tailored to their pediatric members. However, all of the initiatives have a common theme:

Uniting Key stakeholders and/or community groups around a common cause:

Preventing and treating obesity in Medicaid-covered and low-income children.

Case Study #1: Increase Provider Participation through Education and Collaboration

Initiative: Pediatric Obesity Prevention and Treatment Partnership to Enhance Provider Education
Organization: Gateway Health Plan

The Pediatric Obesity Prevention and Treatment Partnership to Enhance Provider Education was created in 2016 as a collaboration between Gateway Health Plan and the Pennsylvania chapter of the American Academy of Pediatrics (PA-AAP). The partnership promoted their EPIC® - Pediatric Obesity: Evaluation, Treatment, and Prevention in Community Settings program, which consists of a free onsite 1-1.5 hour Continuing Medical Education (CME) program about how to increase patient-centered obesity prevention education by offering practical suggestions for working with parents, families, and communities. The goal of the partnership was to increase Gateway providers' participation in the EPIC onsite programs. Gateway hypothesized that greater provider participation would lead to increased obesity prevention education and weight assessment with members.

Gateway used two approaches to increase pediatric primary care providers' (PCPs') participation in the EPIC program. They first featured a multi-pronged approach that targeted PCPs with the greatest number of members diagnosed with obesity. Forty-six of 713 providers were selected for this approach. Activities to encourage participation included promotional materials mailed to providers' offices, outreach by PA-AAP staff to schedule onsite education, and reports documenting the prevalence of Gateway members with obesity at their practice.

For the second approach, Gateway created a Pediatric Obesity Toolkit and distributed it to all 713 of their PA Medicaid providers. The Toolkit included promotional materials about PA-AAP's EPIC program, a billing guideline for childhood weight management/nutrition services, and a list of participating hospitals with outpatient nutrition services to use for patient referrals. All practices also received a reference guide for the HEDIS[1] measure concerning BMI assessment and nutrition counseling (Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents). The guide details how to use claims and medical records to document the measure. Ongoing visits by provider representatives reinforced messaging about the EPIC program and the WCC HEDIS measure.

Gateway measured effectiveness in two ways: provider participation in the EPIC program and select outcomes from the WCC measure.

Outcomes: EPIC Participation

- Eight (17.4%) of the 46 practices with the greatest volume of obesity claims participated in the EPIC program.
- Twenty-two (3.3%) of the remaining 667 practices also completed the EPIC program.
- As with many HEDIS measures, WCC uses a random sample of all medical records to measure outcomes, which makes it impossible to isolate the providers who received the EPIC intervention. But we do have outcomes measures for all providers, and all providers received one of the interventions (the reference guide). The overall health plan performance for WCC (Table 1) suggests a positive impact.

HEDIS WCC BMI Assessment and Nutrition Counseling Outcomes

Measure	2016 Rate / National Percentile	2017 Rate / National Percentile	Percentage Point Increase
BMI assessment rate, all ages	59.95% /25th	72.36% / 50th	12.41
Ages 3-11	60.14% / 25th	73.70% / 50th	13.50
Ages 12-17	59.60% / 25th	69.86% / 25th	10.26
Counseling for nutrition rate, all ages	63.19% / 50th	75.24% / 50th	12.05
Ages 3-11	66.55% / 50th	77.78% /75th	11.23
Ages 12-17	56.95% / 25th	70.55% / 50th	13.60

Advice from the Field

Challenges to Consider:

PCPs may not consistently use codes to identify obesity diagnoses. The actual proportion of members with obesity is likely underrepresented in claims and encounter data.

A high proportion of WCC outcomes are collected through medical record documentation rather than claims data, which limits measurement capabilities.

Successes and Helpful Advice:

- - Multiple communication methods, used with high-obesity volume practices, but not with other practices, increased participation by more than a factor of 5 (17.4% participation vs. 3.3%).
- Consistent messaging on HEDIS WCC documentation and reporting increased overall performance from 2016 to 2017 (Table 1).
- Partnership with PA, AAP led to opportunities for further collaboration, including the addition of HEDIS education in the EPIC curriculum.

Case Study #2: Member Education and Community Team Support

Initiative: Shape Your Life
Organization: CalOptima – Orange County, CA

In 2015, CalOptima launched Shape Your Life (SYL), a childhood overweight and obesity treatment program. CalOptima designed the program to motivate members to adopt healthy, everyday lifestyle behaviors by increasing their nutrition knowledge and physical activity, and to provide members with the tools needed to be successful. It is a wrap-around program in which the provider, member, vendor(s), and health plan (CalOptima) support and are involved in the members' success with a healthy weight and lifestyle. Shape Your Life program criteria used to identify at-risk members included having a body mass index (BMI) higher than or equal to the 85th percentile; being ages 2 to 18; and being an eligible CalOptima Medi-Cal (federal Medicaid) member.

CalOptima contracts with two local vendors to ensure there is enough coverage for services throughout all of Orange County, California. Each vendor has identified an appropriate curriculum for their site(s); however, CalOptima identified guidelines that the vendors must adhere to: a minimum six-session program; a curriculum that encompasses nutrition education and physical activity; completion of a pre-and post-BMI and behavioral questionnaire; and adherence to members' needs, with services available in the three most common languages for CalOptima's members: English, Spanish, and Vietnamese. In 2016–17, vendors engaged with more than 1,000 unique members, reporting that 90 percent of these participants decreased or maintained their BMI.

In addition to vendor services, CalOptima health educators taught nutrition education classes at the health plan site and at partner community locations, which resulted in more than 300 unique participants attending classes between February 2016 and October 2017. CalOptima targets partner community sites based on the geographical location of the highest proportion of CalOptima at-risk youth. This provided members with the ability to attend weight management sessions closer to their neighborhood and reduced some barriers that our members told us were a concern. Sessions conducted by CalOptima's staff used "MyPlate for My Family SNAP Nutrition Education" curriculum. In addition, an average of 65,000 households with members ages 2–18 received in the mail Shape Your Life newsletters twice annually in their preferred language of English, Spanish, or Vietnamese. The Shape Your Life newsletters were fun and provided an array of information about healthy behaviors targeted at youth.

In 2015, CalOptima receive 1,265 referrals to its Shape Your Life weight-control program. The referral number increased to 4,907 in 2016. These referrals were for all SYL services listed above, in addition to telephonic services. One vendor reported that a pilot study showed that 74 percent of surveyed participants continued to lower or maintain their post-BMI. Overall, members were engaged in the sessions and identified positive lifestyle changes.

Advice from the Field

Challenges to Consider:

- Marketing program to providers to ensure referrals and in-office counseling so that members understand why they were referred and agree to participate in the program, as well as to ensure continuation of care once the program is complete. CalOptima will be piloting provider incentives in 2018.
- Determining how services will be available to all eligible/targeted members, including location of services, transportation to program sessions, personal needs (language, learning needs, etc.), session times, and provider referrals.
- Understanding the Social Determinates of Health in the communities where the program will be implemented. Knowing that specific issues in each community might alter program delivery and the messages to participants. An example: A community might not be able to exercise outside because it is not safe, or the food models used in a standard presentation might not be ethnically appropriate.

Successes and Helpful Advice:

- Know your internal and partner processes and ensure that the "right" people are involved from the beginning, inclusive of a multi-disciplinary team. This can reduce time to get your program up and running and lessen revising tasks, ultimately reducing time and costs.
- Program approaches should include education sessions that are fun and interactive. Allowing members to be hands-on during a session has much more impact than a lecture.
- Incentives will help with the success of your program participation, and you can give member incentives that are useful tools for a healthy lifestyle, such as measuring cups, cutting board, salad bowl, water bottle, etc. Provider incentives are useful to assist with increased referrals and continuing care.
- Know what you want to measure before implementing your program, and make sure that what you are measuring is included. It is great to know what works but also what doesn't, so the program can be adjusted to better fit the needs of your members — and know it is OK to adjust your program.

Case Study #3: Comprehensive Food Program Influences Healthy Choices

Initiative: Kids Healthy Living Program
Organization: Community Health Plan of Washington

In 2015, Community Health Plan of Washington partnered with Healthy Byte and Sea Mar Community Health Centers to establish the Kids Healthy Living Program. The curriculum, developed by pediatricians and nutritionists, provides interactive learning and classroom events to create a collaborative and sustainable environment around healthy living for children and parents. The program, grounded in a socioecological model that incorporated family and community support, included components on nutrition, exercise, and video education to provide a comprehensive program that influences healthy choices. The Kids Healthy Living Program also included class and cooking activities supported by Tasty Crate, a program that supplies food for the recipes taught in the cooking class along with written material to support the content covered during each class.

From a design perspective, several components drove the success of the program and strengthened the ties among clinicians, community, parents or caregivers, children, and health educators. Some key components of the program are:

- A day of training to provide education to prepare the community health professionals for the course;
- Selection of supporting proprietary program videos and materials in English and Spanish,
- Targeting both parents and children; and,
- Digital technology platform to outreach, track, and increase engagement.

To determine participation in the program, Community Health Plan of Washington targeted low-income Hispanic families with obese children who had indications of type II diabetes and demonstrated high utilization of clinic resources. After identifying eligible families for participation, two clinics on childhood obesity were started and enrolled a total of twelve families and fifteen children ages 5-10 years at each location, reaching a total of 124 participants.

Since the start, Community Health Plan of Washington measured outcomes by using Healthcare Effectiveness Data and Information Set (HEDIS) measures and patient satisfaction scores through Consumer Assessment of Healthcare Providers and Systems (CAHPS). Of the families invited to participate in the program, 90 percent consented to participate, and almost all have completed the program. Based on results from the satisfaction survey, 97 percent of participants were satisfied with the investment of their time and efforts in the classes and the increased awareness of their children in making healthier choices.

Advice from the Field

Challenges to Consider:

- There are start-up costs to consider with the development of training sessions, manuals, and content for trainers.
- Some language assistance and logistical support may be needed to increase opportunities for families to participate in sessions.
- Typically, efforts that utilize community resources are short-term and rely on grant funding, which is not sustainable. It is important to develop long-term partnerships based on results that can be shared and demonstrate value.

Successes and Helpful Advice:

- By engaging patients in a collaborative setting, clinician-patient relationships may be strengthened, resulting in improved self-management capabilities on the part of patients.
- Stronger clinician-patient relationships also led to a better-aligned focus on community education.
- Participation of children in the cooking process was an educational opportunity that empowered them to make the right eating choices.
- Identify other community organizations that have similar initiatives, align mutual interests, and communicate and set prioritized goals that benefit the community. This facilitates sponsorship and effective use of community resources to maximize results.
- Taking into account socio-ecological factors to create sustainability is the key to promoting and effecting long-term behavioral change.

Case Study #4: Value of Multidisciplinary Teams and Clinician Buy-In

Initiative: Healthy Lifestyle Clinic
Organization: Denver Health Plan

The Healthy Lifestyle Clinic is a pediatric obesity and comorbidity clinic launched in 2014 as a collaboration between Denver Health's Community Health Services and Denver Health Medical Plan. The focus of the evidence-based program is to improve the quality of care for pediatric patients ages 2-18 years with overweight or obesity. The program offers children and their families access to weight and comorbidity management services in a central location to prevent and treat pediatric obesity through evidence-based interventions. The team that operates the clinic comprises clinicians, dietitians, behavioral health counselors, and health coaches. This clinical team travels to three pediatric community health center clinics and school-based health centers to provide specialty weight-management services at the patient's medical home.

The key elements to the success of this clinic were clinicians' buy-in and interest in the multidisciplinary model, stakeholders' initial support and funding throughout Denver Health, and the medical team's demonstrated ability to cover the program costs through billing for medical services. Also, the various clinical disciplines represented in the team offer specific expertise to help address non-medical barriers to lifestyle change and help patients and families set and reach healthy lifestyle goals by using motivational interviewing. The clinic has prioritized delivering linguistically and culturally appropriate lifestyle counseling to the low-income and largely Latino population that Denver Health serves.

Since opening in July 2014, the Health Lifestyle Clinic has been widely adopted by referring clinicians. Within six months of opening the clinics, two of the three sites had over an eight-month waitlist. The clinics were expanded to meet these demands, reducing the waitlist to less than two months. As of April 2016, Health Lifestyle clinic has seen 323 patients in 756 visits and contributed to improved patient body-mass-index (BMI) percentiles and cost savings estimated to be at least $130 per patient visit. In the near future, Denver Health Plan will open three more clinics to meet the needs of family medicine and school-based health center patients.

Advice from the Field

Challenges to Consider:

- It can be difficult to meet rapidly growing demand (through clinician referrals) while still systematically evaluating progress against predetermined indicators and outcomes.
- Expanding services to additional sites, without sufficient additional resources, might result in difficulty meeting the needs of patients .

Successes and Helpful Advice:

- The multidisciplinary model has demonstrated feasibility to the health plan and been well received by patients and clinicians.
- The pediatric obesity treatment model needs to be targeted to working on family dynamics and helping the patients and families guide their goal setting and progress using motivational interviewing.
- Focus resources and efforts to make sure the health plan is delivering linguistically and culturally appropriate lifestyle counseling to English- and Spanish-speaking populations.
- Engage your stakeholders early.

Case Study #5: Family Engagement in Group Sessions

Initiative: Keep Fit
Organization: Texas Children's Health Plan

In 2007, Texas Children's Health Plan launched the Keep Fit initiative, a seven-week program that engaged families affected by childhood obesity, through a group approach. The program was designed to increase knowledge in basic nutrition, adopt healthy lifestyle changes, and increase awareness of community resources. Keep Fit used group sessions to provide children and parents or caregivers with education about physical activity, healthy snacks and drinks, goal setting, and appropriate screen time. Texas Children's Health Plan partnered with the Young Men's Christian Association (YMCA) of Greater Houston, Dance Houston, Houston Parks and Recreation, and H-E-B (Houston Headquarters), a grocery chain, to provide the program.

The sessions were held at local sites (e.g., community centers, YMCAs, parks), and communication was maintained between clinicians, health educators, and case managers throughout the program. During the group sessions, children completed hands-on cooking classes with a registered dietitian and gained an understanding of portion sizes by utilizing My Plate (a tool created by the US Department of Agriculture). In addition, children and parents or caregivers were taught how to read nutrition labels and were provided with resources to overcome barriers to healthy lifestyles.

Since 2007, 731 children and adolescents ages 10 to 18 years participated in the program. The greatest improvement in lifestyle changes was seen with decreased consumption of sugary beverages and screen time, 59 and 61 percent, respectively. Also, the health education provided during group sessions was associated with decreased utilization of specialists and emergency department visits.

Advice from the Field

Challenges to Consider:

- Social determinants of health, such as lack of transportation and lack of available caregivers make it difficult for participants to regularly attend sessions.

Successes and Helpful Advice:

- Clinicians are increasingly engaging health plan members in discussions about the importance of physical activity, screen time limits, and a balanced diet.
- Establish an easy referral program for clinicians to refer eligible patients to the program.
- Help members overcome the social determinants of health by connecting them with public transportation, providing educational materials at an appropriate health-literacy level, and scheduling sessions on the weekends when it may be easier for members to attend.
- Implement surveys and assessments to gauge knowledge of nutrition, track behavioral change, assess attitude toward behavioral change, and program satisfaction. Measure height, weight, and BMI percentile during the first and final weeks of the program.
- Partnerships with experts and local community group are key to the program's success. It is important to meet members where they live, eat, and attend school.

Case Study #6: Partnering with National Community Organizations to Increase Overall Impact

Initiative: Food-Smart Families
Organization: UnitedHealth Group

In 2015, UnitedHealth Group realigned its three-year Healthy Living Partnership with the National 4-H Council to support Food-Smart Families (FSFs), a program that demonstrated strong pilot-year results with low-income youth and families. The program addresses childhood obesity and helps low-income youth and families improve their eating habits through evidence-based educational programming implemented through a community-based approach.

FSF's program leaders partnered with schools where at least 50 percent of students were on the free and reduced-price lunch program, were living in housing projects, or were using community centers. The program utilized Teen Healthy Living Ambassadors to serve as peer educators, providing program participants with ten hours of health education, including nutrition, food budgeting, and meal preparation. FSFs addresses some of the social determinants of health by providing referrals for government nutrition benefits and ingredients for healthy dishes.

FSFs have demonstrated successful educational results among participating youth. The 2014 program pilot found that 87 percent of participating families purchased healthier foods; 86 percent prepared healthier foods, 86 percent ate fruit for a snack; 78 percent ate breakfast; and 77 percent were physically active most days. UnitedHealth Group and the National 4-H Council have developed over 75 relationships with local community-based organizations. This program has educated 26,809 youth (primarily ages 7-13 years) and their families, improved health choices among participants, provided 7,300 referrals to nutrition benefits, and distributed 7,804 bags of food. Approximately 56 percent of the program's participants have been female, 38 percent African American, and 22 percent Hispanic.

To improve the Food Smart Families program, UnitedHealth Group and the National 4-H Council intend to plan program events in tandem with caregiver events such as school open houses and hold events in housing project community rooms to promote parent and caregiver participation. In addition, UnitedHealth Group would like to expand the program to other areas, leveraging the expertise and national presence of the National 4-H Council.

Advice from the Field

Challenges to Consider:

- Parental and caregiver attendance at events has been difficult to cultivate as a result of social determinants of health such as lack of transportation, conflicts with work schedules for multiple jobs, and jobs with nontraditional hours.

Successes and Helpful Advice:

- To foster increased participation by parents and caregivers, consider scheduling events that coincide with others that parents might attend, such as school open houses, or at convenient locations, such as housing project community rooms.
- When implementing new programming for low-income youth and families, it is important to engage community partners and seek to understand and be ready to adjust to reduce barriers.
- Programming should be adapted to meet the needs of local communities and families.
- Best practices should be shared to support creative, innovative solutions.
- Youth and families should be engaged through approaches that are fun, empowering, promote learning, and address needs.

Case Study #7: Importance of Extended Health Education and Monthly Maintenance

Initiative: Join for Me
Organization: UnitedHealth Group

Join for Me, a weight management program, established in 2012, was developed by UnitedHealth Group for overweight and obese children and teenagers. The program was based on a group model that was delivered in local community settings that children and parents were able to easily access. The focus of the initiative was to provide children ages 6-17 years, who were at or above the 85th percentile in body-mass-index (BMI), with resources to help them reach healthier weights. The program also emphasized the importance of cultivating a healthier environment and behaviors at home with the entire family.

Join for Me worked locally with physicians, pediatricians, and school nurses to refer children and teenagers who qualified for the program based on their BMI. Partnering with community clinicians and pediatricians was instrumental to ensuring that the program was accessible to families. Designed to provide participants with extended health education and resources in local settings, children and parents or caregivers attended a series of sixteen weekly, one-hour group sessions at community centers, Young Men's Christian Associations (YMCAs), Boys and Girls clubs, Federally Qualified Health Centers (FQHCs), or other community locations. These sessions were led by trained staff and covered topics such as reducing consumption of processed foods and sugar drinks; increasing and sustaining daily physical activity; improving sleep habits; increasing consumption of fruits and vegetables; and, the link between mood and foods. In addition to evidence-based tools and strategies, Join for Me offered incentives to adopt healthier habits that lead to lifelong healthier weight. After the completion of the sixteen sessions, the children and parents were encouraged to attend monthly maintenance sessions for an additional eight months.

Since 2012, 155 children and their parents or caregivers have completed the sixteen-session program. At the end of six months, children under age 13 experienced a 4.3 percent reduction in weight, and children over age 13 had a 1 percent reduction. Attendance was a larger predictor of success, and those who more frequently attended sessions experienced greater reductions in weight. To continue the success of this program, Join for Me will focus on improving clinician engagement to identify and diagnose children who are overweight or obese and make the referral process seamless. In addition, the health plan is considering the development of a virtual program that will allow for increased participation by those families who face challenges attending the in-person sessions.

Advice from the Field

Challenges to consider:

- Access to transportation to attend group sessions is limited for some members.

Successes and Helpful Advice:

- To facilitate attendance at group meetings, provide transportation to members through your health plan's transportation vendor.
- Consider offering virtual programming to foster greater participation rates than are possible with offering only in-person programming.

Lessons Learned

In general, health disparities and social determinants of health create added challenges to the implementation of programs and interventions designed for the Medicaid population. As part of their ongoing efforts, Medicaid managed care organizations constantly seek to better understand and address such disparities. For this toolkit, we asked health plans with current childhood obesity prevention treatment and prevention initiatives to identify tips and solutions for other health plans to consider as part their adoption strategies. By recognizing the challenges and successes encountered in their initiatives, the featured health plans identified a number of useful lessons for future initiatives (Table 1).

Table 1. Tips for Common Issues when Designing and Implementing Childhood Obesity Initiatives

Helpful Advice for Program Design
Account for start-up costs and resources that are needed to develop training sessions, manuals, and content for staff and trainers.
The pediatric obesity treatment model needs to be targeted to capture family dynamics, which greatly influence the adoption of healthy lifestyle changes.
It is important for health plans and clinicians to guide patients and families through goal setting and monitor progress by using motivational interviewing.
Establish an easy referral program for clinicians to refer eligible patients to the program.
No one proofed your proposal before you submitted it: Typos, run-on sentences, and tables that don't make sense are distracting to the reviewer. Someone who is not associated with writing the proposal is a great proofreader. If it is not clear to them, it will not be clear to the reviewer. Ensure that your facts support the claim of need. Tie together the sections—this is especially true if sections are completed by different people.
Youth and families should be engaged, utilizing approaches that are fun, empowering, promote learning, and address their needs.
PCPs may not consistently use codes to identify obesity diagnoses. The actual proportion of members with obesity is likely underrepresented in claims and encounter data.
A high proportion of WCC outcomes are collected through medical record documentation as opposed to claims, which limits measurement capabilities.

Helpful Advice for Addressing Disparities and Social Determinants of Health
Programmatic considerations such as language and transportation assistance along with scheduling in-person sessions on weekends may be needed to increase opportunities for families to participate.
Focus resources and efforts to ensure that the health plan is delivering linguistically and culturally appropriate lifestyle counseling to Latino, English-, and Spanish-speaking populations.
Consider virtual programming to foster greater participation rates than when offering only in-person programs.

Helpful Advice for Developing Community Resources
Engage your stakeholders early and often.
If you are considering leveraging community resources, be aware that these relationships tend to rely on time-limited grant funding, which is not sustainable. It is important to develop long-term partnerships, share ownership, and communicate results that demonstrate the value of the program.
Identify other community organizations that have similar initiatives, and to align those interests, communicate and set prioritized goals that benefit the community. This facilitates sponsorship and effective use of community resources to maximize results Consider professional associations as partners (Medical Association)

Helpful Advice for Implementation and Evaluation
Utilize surveys and assessments to gauge knowledge of nutrition, track behavior change, assess attitude toward behavioral change, and program satisfaction. Measure height, weight, and BMI percentile during the first and final weeks of the program.
Best practices should be shared to support creative, innovative solutions.
Consistent communication for providers regarding WCC coding to capture data.
Make interventions or classes fun.

Snapshots of Additional Childhood Obesity Prevention and Treatment Initiatives

The following initiatives are examples of other approaches to implementing childhood obesity prevention and treatment initiatives among the Medicaid population. Each of these programs had varying levels of engagement with stakeholders and local community resources, depending on the goals of the program.

The Healthy Heartbeats Prenatal Care Program

Organization: Virginia Premier

The Healthy Heartbeats Prenatal Care Program was created in 2010 by Virginia Premier to curb childhood obesity by promoting breastfeeding among new mothers. The health plan enhanced breastfeeding awareness through group interaction at baby showers, offering double electric breast pumps to all pregnant and postpartum women enrolled in the health plan, and educating members on the short- and long-term benefits of breastfeeding. Once Virginia Premier identified that a low percentage of their enrollees breastfed or had access to breast pumps, the health plan began to offer pumps to every pregnant or postpartum woman enrolled in the plan. Since 2014, participation in the program has increased roughly 2.5 percentage points per year, reaching a total of 1,559 participants.

Virginia Premier delivered patient education through a number of sources, including Facebook, email, phone, text messages, and at baby showers and home visits. In particular, the main educational components of baby showers were breastfeeding, nutrition, healthy eating, parenting, and child wellness. Virginia Premier offered healthy-cooking demonstrations, and enrollees were allowed to bring their children and partners. In addition, the health plan provided referrals to health educators for individualized diet and exercise plans. Key partnerships for the Healthy Heartbeats program included Women, Infants, and Children (WIC); local health departments; Virginia Cooperative Extension Nutrition Education; Virginia Commonwealth University Hospital Breastfeeding Education; Baby Basics Mom's Club; and Smiles for Children.

Go! Club: Pediatric Obesity Disease Management Program

Organization: Contra Costa Health Plan

In 2013, Contra Costa Health Plan launched the Go! Club: Pediatric Obesity Disease Management Program to promote healthy lifestyle changes after recognizing high rates of obesity in their pediatric population. The health plan promoted these changes by increasing knowledge, connecting families to community resources, and engaging clinicians to utilize tools that support healthy lifestyle changes among families. Prior to the initiative, families with obese children were not receiving consistent, intensive care for obesity in the delivery system. The program has reached over 1,260 children with body mass index (BMI) scores greater than or equal to the 95th percentile. Since its launch in 2013, the program has primarily had an impact on children ages 2-11 years, 52 percent of whom are from Spanish-speaking families, and 98 percent, from low-income households.

Working with Women, Infants, and Children (WIC) and the Healthy and Active before 5 Community Collaborative, Go! Club, provided enrollees with consistent, intensive care to treat pediatric obesity. Participants were identified quarterly through referrals from clinicians, screening of electronic health record and claims data, patient educators, case managers, and self-referrals. The health plan sent welcome packets about the program with educational materials and recipes, encouraging families to contact the Pediatric Obesity Program nurse for counseling, education, and goal setting. After enrolling in the program, the families began to receive ongoing quarterly health education, including low-literacy materials covering topics such as sugar-sweetened beverages, active play, screen time, and sleep. Patients were also offered support in making appointments to see patient educators, nutritionists, and local obesity programs.

The Raising Well Program

Organization: Home State Health Plan (Centene)

Launched in 2015 by Home State Health Plan (Centene) in partnership with Evolve PeopleCare's Health and Life Coaching Service and ICF International, the Raising Well Program was established to address overweight status and obesity in children. The program delivered individually tailored interventions through a family approach, via telephonic coaching and a social media group targeted to parents, guardians, and caregivers. Using data-mining software of claims, case management, and clinician referrals, the health plan identified children using codes that indicated overweight or obesity.

Home State Health Plan encouraged healthy behavior change through individualized coaching interventions led by registered dietitian nutritionists and exercise physiologists who were able to provide connections to community resources such as the YMCA and Boys and Girls Clubs for each family. The coaches also partnered with Cenpatico Behavioral Health to provide assistance in addressing behavioral health issues that often complicate weight management. Also, the health plan utilized private social media support groups to educate and empower parents and caregivers to adopt healthy lifestyle changes, encourage discussions of health habits, educate members on healthy nutrition and physical activity habits, and decrease BMI percentiles among children participating in the program. As of January 2016, 409 children ages 2-17 years participated in the Raising Well Program.

Healthy You, Healthy Me

Organization: AmeriHealth Caritas Pennsylvania (AmeriHealth Caritas)

The Healthy You, Healthy Me Program, created in 2007, was a child- and caregiver-focused program promoting awareness of the importance of healthy eating and staying active. Community Health Navigators (CHNs) conducted 45-minute in-person sessions for elementary school children in multiple settings with community partners such as churches and Head Start programs. The sessions included a presentation and interactive activities (e.g., bean bags, hula hoops, jump ropes, balls, and Frisbees) to increased physical activity and improved nutrition through healthy food choices. The initiative also offered resources for parents to make healthy choices for their families, and advocated for serving healthy foods in schools and increased opportunities for physical activity for children in schools and the community.

The program has supported 1,400 individuals ranging from children to caregivers, some enrolled in AmeriHealth Caritas' health plan and others who were referred through community partners. Those children and caregivers enrolled in AmeriHealth Caritas' health plan were identified through case managers and health risk assessments that identified them as high-risk for obesity. Stakeholders that supported this initiative include the YMCA, Big Brothers Big Sisters of America, The Salvation Army, community and childcare centers, Head Start, public libraries, and area churches. Over a nine-month period, children and caregivers participated in 91 sessions, and 14 percent of children who were enrolled in the AmeriHealth Caritas plan lost over 10 pounds (roughly 1 percent of their BMI weights).

5 a Day–for Better Health

Let's Move 2B Fit

Organization: Empire BlueCross BlueShield HealthPlus (Anthem)

Let's Move 2B Fit launched in 2015 as a school-based childhood obesity prevention program, led by Empire BlueCross BlueShield HealthPlus in collaboration with New York City (NYC) public schools, school-based health centers, Federally Qualified Health Centers (FQHCs), city agencies, and community-based organizations. The initiative expanded the role of the health plan in obesity prevention by collaborating with community partners to create healthier school environments, promote healthy behaviors, prevent the onset of obesity, and improve access to high-quality care.

Let's Move 2B Fit targeted public elementary school children and parents or caregivers in South Brooklyn, in response to a state initiative that identified childhood obesity prevention as a focus area. The initiative affected more than 1,500 NYC public elementary school children in grades 3 through 5 and parents or caregivers at target schools. The program was implemented at schools in South Brooklyn neighborhoods, where many of the families were enrolled in the health plan. In the first year of the program, a total of four public schools in a targeted geographic area participated in the initiative and continued in the next school year. The schools' administrators, program participants (students and parents or caregivers), and community partners have provided feedback showing high satisfaction with the program.

Resources for Implementation of Childhood Obesity Initiatives

Readiness Assessment: Preparing to Launch a Childhood Obesity Initiative

In 2007, the Agency for Healthcare Research and Quality (AHRQ) developed the TeamSTEPPS program, a suite of evidence-based tools developed to improve patient outcomes by enhancing communication and teamwork skills among clinicians and medical staff. This comprehensive, evidence-based national initiative includes many resources, including a validated readiness assessment tool. The following is a list of questions that have been adapted from the original tool. The questions are intended to help assess your organization's readiness to implement a childhood obesity prevention and treatment initiative. As you answer them, you might find it helpful to have several members of the clinical leadership staff review this tool independently. This could include your plan's chief medical officer, chief quality officer, nursing leadership, pediatric experts, and product development staff.

An editable document for each of the tools and resources presented in this toolkit is available at the Institute for Medicaid Innovation website. If you are unable to find it, please contact Jennifer Moore at JMoore@MedicaidInnovation.org or Info@MedicaidInnovation.org.

Identifying Need

Has your organization identified a need to initiate an evidence-based program to address (i.e., prevent and/or treat) childhood obesity?

1. **Do your current claims track pertinent data that highlight disease processes that are related to childhood obesity?**

   Organizations are more likely to be ready to design and implement a childhood obesity prevention and treatment initiatives if they are already collecting preliminary data to track conditions or illnesses that provide evidence of overweight or obesity. Health plans might consider the following information helpful to track for the purposes of an obesity prevention initiative: BMI scores, growth charts, asthma, pre-diabetic, type II diabetes, hyperlipidemia, hypertension, blood work (e.g., lipid panel, glucose, HBGA1C).

2. **Are parents, caregivers, community stakeholders, and/or clinicians expressing a need for a childhood obesity prevention and treatment program?**

   Although tracking pertinent data that highlight disease processes related to obesity and overweight is one method of identifying need for an initiative, another indicator is feedback from clinicians, caregivers, and family members. If your plan is receiving feedback from individuals who regularly interact with enrollees in your health plan that indicate overweight and obesity is a growing concern for your members, it might be the right time to consider designing and implementing a childhood obesity prevention and treatment program. In addition, you might wish to consider confirming the feedback with data collected from claims or begin to track preliminary data that would be helpful in identifying the individuals who should participate in such an initiative.

3. **Is developing an evidence-based childhood obesity program an appropriate strategy to mitigate disparities correlated with childhood obesity? Is developing an evidence-based childhood obesity program an appropriate strategy to improve the health status and associated health outcomes for overweight or obese children enrolled in your plan?**

   If your organization is beginning to identify a need for a childhood obesity prevention and treatment program, whether from claims data or from stakeholders, then it is important to consider the potential

options for responding to this need. In an era of value-based purchasing, quality reporting, and pay-for-performance, it is increasingly important to assess potential designs for obesity prevention and treatment efforts through a lens of evidence-based methods that account for relevant health data and that are responsive to quality metrics.

Readiness for Change

Has your organization clearly assessed the willingness and readiness of clinical leadership to participate in an initiative using evidence-based approaches to prevent and/or treat childhood obesity?

4. **Do you feel the organization is supportive in pursuing a childhood obesity and prevention initiative?**

   The goals of a childhood obesity prevention and treatment initiative might include providing overweight and obese children with evidence-based, effective ways to safely reduce body weight; understandable, accessible health education; and assistance in adopting a healthy lifestyle. Once your organization has identified a need for a childhood obesity prevention and treatment initiative, it will be necessary to discuss the development of an initiative with your organization's leadership. To foster support, it will be important to communicate the evidence supporting a need for an initiative and the goals and potential designs of the program.

5. **Will your plan's clinical leaders and product development staff support the effort required to implement and sustain a childhood obesity prevention and treatment program?**

   To accomplish these goals, your organization must be willing to identify and build relationships with key stakeholders, foster support among clinician groups, and drive change in approaches to health care delivery with community health workers and other community-based resources. These changes might require your organization to support the use of internal resources and experts to engage in the creative development of evidence-based, team-driven designs for a childhood obesity prevention and treatment initiative.

Time, Resources, Staff, and Partnerships

Is your organization willing to allocate the necessary time, resources, and staff to implement and sustain a childhood obesity program? Are the community and/or key stakeholders expressing the need for such a program?

6. **Will your organization provide sufficient support staff for the initiative?**

   For a new childhood obesity prevention and treatment program to be successful, it is important to find the internal support staff and resources needed to design and implement the program. These might include:

   - Registered Dietitian
   - Behavioral Therapist
   - Fitness Trainer
   - Health Care Clinician (e.g., Primary Care Clinician)
   - Nurse
   - Medical Assistant
   - Informatics Specialist/Coder
   - Care Coordinator
   - Health Educators
   - Community Health Workers

7. **Will your organization develop the necessary stakeholder relationships and community partnerships to implement a childhood obesity prevention and treatment initiative? And will your organization allow clinicians and support staff to develop community partnerships?**

   Commonly, childhood obesity prevention and treatment programs leverage existing community resources and stakeholders to provide various services and social supports. In some cases, health plans might have existing relationships with appropriate community stakeholders. For those organizations that do not have established community partnerships, it might be necessary to allocate time and resources to identify community stakeholders and establish solid relationships that yield additional benefits and resources for the initiatives.

8. **Will your organization allow time to train support staff and clinicians on the initiative?**

   If your childhood obesity prevention and treatment program utilizes a treatment model that is new to your organization, you will need time and resources to properly train staff. Also, if your organization needs to expand the number of staff to implement a childhood obesity prevention and treatment model, new staff will need to be trained to provide care, even if your organization is currently using the model. For initiatives to be successful, it is important that participating staff are given the training and resources needed to adhere to the identified model of care.

Sustainability

Has your organization clearly defined the systems and measures needed for sustaining continuous evaluation and improvement of childhood obesity prevention and treatment initiatives?

9. **Will your plan be able to measure and assess the success of your initiative (a task force to comply with and evaluate the data)?**

   A key component of implementation is evaluation. To properly evaluate a childhood obesity prevention and treatment initiative, an organization must identify measures of success during the design phase (before implementation). These measures of success should be guided and informed by your goals and intended outcomes. Once these measures are identified, it is important to collect preliminary or baseline data to provide information about the condition of the enrollees prior to the intervention. Throughout implementation of the initiative, your organization should continue to collect data for these very same measures. Once the initiative is concluded, the pre- and post-intervention data should be analyzed by individuals with experience in data analytics and evaluation methods to determine the success of your initiative. If your organization has not collected data previously or does not currently have staff to evaluate the initiative, your organization may need to invest in resources to ensure an evaluation can be conducted once the initiative is complete.

10. **Will your organization be able to sustain and scale the initiative if it is determined to be successful in treating or preventing childhood obesity?**

    Once your organization has evaluated the childhood obesity prevention and treatment initiative and determined that the program is successful in meeting identified goals, your organization may want to consider sustaining the current initiative and scaling, or expanding, the initiative into other geographic areas. To do this, your organization will need to identify sustainable sources of funding to ensure the continuation of the program. In addition, your organization will need to determine whether the initiative needs to be adapted to meet the needs of a population in other areas. This could include making changes to implementation of the treatment model, to community partnerships, or to the types of staff needed to implement the initiative.

Instructions

Getting Ready for Change: Self-Assessment

What is this tool?

This tool was developed by the Agency for Healthcare Research and Quality's (AHRQ's)

Quality Indicators Toolkit. This tool can be used to assess your organization's resources and readiness to support effective implementation of childhood obesity prevention and treatment initiatives. Using this checklist, you can identify resources, infrastructure, and staffing needs that should be in place before implementation of such initiatives.

Who are the target audiences?

Clinical leadership at Medicaid managed care organizations can use this tool to assess barriers to implementation and identify resources that might need to be developed before implementing childhood obesity prevention and treatment initiatives.

How can it help you?

One of the first steps to launching a successful childhood obesity prevention and treatment initiative is to determine how ready the plan is to design and implement a program that will make meaningful change in the lives of children with obesity who are enrolled in Medicaid. Identifying and addressing barriers to program development will improve your plan's ability to implement successful initiatives.

Organizational Readiness Assessment Checklist

Record your responses to the questions below:

Measure	Yes	No
1. Have you clearly defined the need that is driving your organization to consider designing and implementing a childhood obesity and prevention program?	☐	☐
2. Is building an evidence-based childhood obesity program an appropriate strategy to mitigate patterns of claims suggesting childhood obesity?	☐	☐
3. Do you feel that the organization is supportive in pursuing a childhood obesity and prevention initiative?	☐	☐
4. Will your organization provide sufficient support staff for the initiative?	☐	☐
5. Does your organization currently have the necessary stakeholder relationships to implement a childhood obesity prevention and treatment initiative?	☐	☐
6. Does your organization currently have the necessary community partnerships to implement a childhood obesity prevention and treatment initiative?	☐	☐
7. Will your organization allow the necessary time and resources to prepare support staff?	☐	☐
8. Will your organization allow the necessary time and resources to develop community partnerships?	☐	☐
9. Will your organization be able to measure and assess the success of your initiative?	☐	☐
10. Will your organization be able to sustain and scale the initiative if it is determined to be successful in treating or preventing childhood obesity?	☐	☐
Total		

Count the number of NO responses that you've recorded. If the number is:

0–3: This is likely to be a good time to design and implement a childhood obesity prevention and treatment initiative at your plan. As you begin the design and implementation process, make sure you continue to monitor whether the answers to these questions change, and keep a close eye on any items to which you answered "no."

4–6: Your responses indicate that your plan may not be ready on one-third to one-half of the factors. This may likely undermine the success of the initiative if your plan moves forward with implementation. Take some time to determine if this is the appropriate time to implement a childhood obesity prevention and treatment program. Review the following tips and suggestions to enhance readiness and determine if any are appropriate for your institution.

7–10: Based on your responses, significant work is likely needed to raise the readiness level of your plan. Consider postponing the design and implementation process for a few months, and then answer the questions again to determine if your readiness has changed. Also, review the helpful advice in Section III to enhance your institution's readiness.

Tools to Guide the Implementation of a Childhood Obesity Initiative

Once your organization has determined that it is ready to implement a childhood obesity prevention and treatment initiative, your health plan will need to consider a number of factors to ensure that your program best meets the needs of your priority groups. The following implementation tools will assist your organization in this process:

Featured Tools:

1. **CHildhood Obesity Prevention & Treatment (CHOPT)-Action Statement (CHOPT-AS)**

   The CHOPT-AS template is a four-step process to guide your planning and implementation efforts. Most importantly, this template includes an Operational Worksheet to organize and collect your preliminary thoughts for your initiative.

2. **A Step-by-Step Worksheet of the Four-Step Process**

   The step-by-step worksheet accompanies the CHOPT-AS template, providing guidance on completing the four-step process. Each step of the process is described at length, posing thought-provoking questions and providing tips to complete the CHOPT-AS tool.

Supplemental Tools to Facilitate the Completion of the CHOPT-AS:

3. **A Goal-Setting Worksheet**

   The goal-setting worksheet may prove helpful if your team or organization is facing difficulty identifying the appropriate goals for your initiative in Step 2. This tool follows the SMART (Specific, Measurable, Attainable, Relevant, Time-Bound) method of identifying goals and will help to shape the aims you identify and work toward in Steps 2 and 3 of the CHOPT-AS.

4. **Aims and Drivers for Improvement Template**

   The Aims and Drivers for Improvement template offers a visual aid of a driver diagram to assist your organization with Steps 2 and 3 of the CHOPT-AS. Although your driver diagrams may be more robust or complex than those pictured in the template, it will nevertheless serve as a basic starting point to gather your thoughts around the primary and secondary drivers to effect changes in your pediatric populations affected by overweight and obesity.

5. **Communications Plan Worksheet**

   The communications plan worksheet provides your organization with questions to consider as you develop strategies to communicate with your key stakeholders and community resources upon completing Steps 1 through 4 of the CHOPT-AS. However, your organization might have a different communication plan to utilize for this purpose.

Childhood Obesity Prevention & Treatment Action Statement (CHOPT-AS)

The CHOPT-AS (CHildhood Obesity Prevention & Treatment Action Statement) tool was adapted in consultation with the Centers for Medicare & Medicaid Services (CMS) from their original Disparities Action Statement (DAS) template. CHOPT-AS offers a framework to help you:

- Understand the childhood obesity-related health disparities and social determinants of health influencing families enrolled in your Medicaid managed care organization;
- Design and test solutions to address childhood obesity in your community; and,
- Take action through continuous quality improvement for health equity.

This worksheet will guide your efforts in identifying childhood obesity-related disparities in and among the pediatric populations you serve, set goals, develop a plan, and improve the health of your community. A CHOPT-AS offers your organization guidance in building health equity into the culture of your program to enhance the care that you offer your pediatric members and their families while also improving community health and lowering costs through quality improvement.

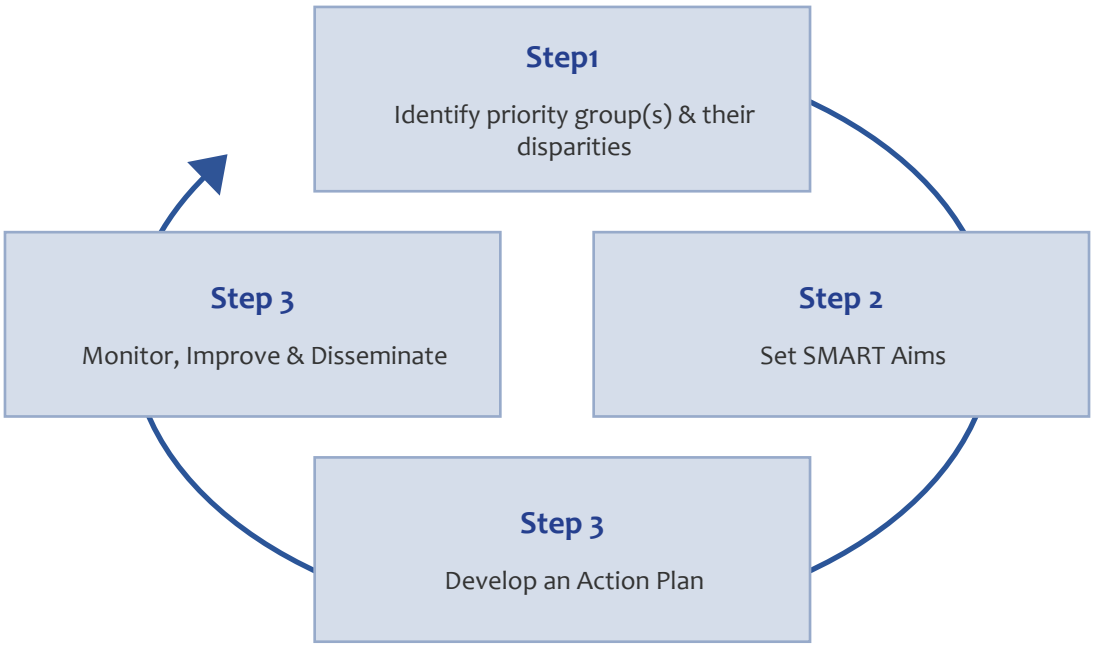
Clinician/Case Manager Champion (CHOPT-AS Lead):

Department or Organization:

Reason(s) for the Program:

Projected Timeframe for 4-Step CHOPT-AS Planning Process:

Area(s) of Improvement You Are Considering:



Key Definitions

Health disparities *– differences in health outcomes closely linked with social, economic, and environmental disadvantage – are often driven by the social conditions in which individuals live, learn, work, and play. Characteristics, including race, ethnicity, disability, sexual orientation or gender identification, socio-economic status, geographic location, and other factors historically linked to exclusion or discrimination are known to influence the health of individuals, families, and communities.*[105]

Social determinants of health *– The complex, integrated, and overlapping social structures and economic systems that include the social environment, physical environment, and health services comprise the structural and societal factors that are responsible for most health inequities. Social determinants of health are shaped by the distribution of money, power, and resources at global, national, and local levels, which are themselves influenced by policy choices.*[106] *Examples of social determinants of health include income, educational level, availability of stable and affordable housing, access to affordable and nutritious food, and access to regular primary care.*

STEP 1: IDENTIFY PRIORITY GROUP(S) AND THEIR DISPARITIES

Identify the priority group(s) and health disparities within the population you serve

- **Assess** available data and identify **priority group(s)**, within the total pediatric population you serve that have notable **health disparities** and are at risk for overweight and obesity, as identified through referrals, data mining, etc.

  ***NOTE**: Use multiple data sources to creatively compare and contrast populations and health disparities within the broader pediatric population in your health plan. Please list data sources used.*

  Refer to the Data Sources to Understand Your Community table for possible data sources.

  Priority Group(s) may include:

  - Racial or ethnic minorities
  - Sexual and gender minorities (LGBT)
  - Individuals with a disability
  - Those living in rural or frontier communities

  Health Disparities may include:

  - Health status
  - Disease prevalence
  - Death rates, such as mortality and morbidity rates
  - Emergency department visits for potentially avoidable utilization or readmission
  - Utilization of preventive services
  - Access to care
  - Quality/Safety
  - Chronic disease management
  - Poverty/economic factors
  - Other social factors

- After careful consideration of the highest-priority groups and greatest needs, select the **priority group(s)** you will target and the **health disparities** you plan to address within your CHOPT program.

STEP 2: SET SMART AIMS

[START POPULATING YOUR OPERATIONAL TABLE]

Identify your aim

Your aim is what you want to improve for the population you identified. As it relates to childhood obesity, your aims may focus on improving body-mass-index (BMI) scores, encouraging healthy lifestyle changes, or providing access to treat or prevent obesity.

Make sure your **aim is SMART** [**S**pecific, **M**easurable, **A**ttainable, **R**elevant, and **T**ime-based].
Use the **Goal-Setting Worksheet** for setting SMART aims.

Stakeholder engagement is key to the success of your initiative. You may engage with stakeholders and community resources in many ways throughout your initiative, depending on your program's aims and design. It is important to consider how and when you will strategically engage key stakeholders and community resources. There is guidance in the **Stakeholder & Community Engagement Plan** and in the **CHOPTAS Step-by-Step Worksheet.**

STEP 3: DEVELOP AN ACTION PLAN

[CONTINUE WORKING ON YOUR OPERATIONAL TABLE, BEGIN YOUR STAKEHOLDER & COMMUNITY ENGAGEMENT PLAN]

Identify key system elements (Primary Drivers) necessary to achieve your aim

Key (primary) drivers are the things that have to occur for you to achieve your aim. You can have multiple key drivers.

Involve key stakeholders and community members from the priority group(s) you are targeting when you are:

- Brainstorming about your primary driver; and
- Gaining buy-in and valuable insights.

Note how, when, and why you are engaging each partner in your **Stakeholder & Community Engagement Plan**. These stakeholders and resources may also be helpful in decreasing the role or impact of health disparities.

Identify activities or interventions (Secondary Drivers) to make progress

Secondary drivers are the specific activities or interventions (the "how") needed to impact the primary drivers.

Each secondary driver contributes to at least one primary driver. You can have multiple secondary drivers for each key driver.

> It may be helpful to draw a driver diagram or flow chart. Use the **Aims and Drivers for Improvement template** to assist you with your driver diagrams.

Remember to involve community stakeholders as needed – continue making notes to your **Stakeholder & Community Engagement Plan.**

Identify key individuals and organizations

Note the key staff, partners, stakeholders, or members of the community leading and contributing to the secondary drivers.

- Include these in your **Stakeholder & Community Engagement Plan.**

Write out your Action Plan

Compile information gathered in Steps 1, 2, and 3 into an action plan using the **Operational Table** on the next page.

STEP 4: MONITOR, IMPROVE, DISSEMINATE [COMPLETE OPERATIONAL TABLE, USE THESE TOOLS TO EVALUATE, IMPROVE & SHARE YOUR LEARNINGS]
Define metrics to monitor progress and assess impact toward your aim
Define measures and metrics you will use to track progress toward your aim in the **Operational Table.** Define how you will measure success. Define how often the data will be tracked.
Define measurable outcomes
Define outcomes in your **Operational Table.** These outcomes should be aligned with or linked to your aim. How many individuals in your priority group will this impact? Remember that outcomes need a timeline.
Improve: Use quality improvement methods to keep a pulse on your progress
Use the Plan Do Study Act (PDSA) methodology to fluidly adjust your course of action. Refer to the **Plan, Do, Study, Act Diagram** for guidance. Engage stakeholders in your community to address challenges/barriers you've identified. Note how in your **Stakeholder & Community Engagement Plan.**

Operational Table

SMART Aim What you are trying to improve for the priority group you identified?	**Primary Drivers** What is needed to achieve your aim? *You may have more than three drivers for each aim, just add lines to the table.*	**Secondary Drivers** What interventions will help you achieve the primary drivers?	**Key Individuals and Organizations** Key staff, partners, stakeholders, or members of the community leading the secondary drivers.	**Metrics** Which data will be used to track progress toward your aim and how often?	**Measurable Outcomes with Timeline** Should align with aims.
AIM #1	Primary Driver #1				
	Primary Driver #2				
	Primary Driver #3				
AIM #2	Primary Driver #1				
	Primary Driver #2				
	Primary Driver #3				
AIM #3	Primary Driver #1				
	Primary Driver #2				
	Primary Driver #3				

Plan, Do, Study, Act (PDSA) DIAGRAM
Once implementation has begun, if changes need to be made to the design of the program, explain your changes and secure buy-in from stakeholders and community partners.
Evidence to explain and support your changes may include: • Interventions attempted • Results/findings • Lessons learned or emerging issues • New data identified • Stakeholders involved • New actions warranted **Resource:** More on the PSDA cycle: https://innovations.ahrq.gov/qualitytools/plan-do-study-act-pdsa-cycle

CHOPT-AS STEP-BY-STEP WORKSHEET

This worksheet will help guide you through the four steps of your CHOPT-AS. It was adapted in consultation with the Centers for Medicare & Medicaid Services from the Disparities Actions Statement Step-by-Step Worksheet.

Step 1: Identify priority groups(s) and their disparities

These questions are intended to guide you in identifying a population to focus on.

Which population(s) should you focus on?

- List the priority groups(s) impacted by your program.
    - For example, this might include racial or ethnic minorities or those living in rural or frontier communities.
- Select one priority group to focus your efforts on first.
    - You may find that several populations are impacted by health disparities and social determinants of health that contribute to overweight and obesity. Use the questions in Step 1 to narrow your focus to a specific priority group among your pediatric population. You may find a priority group or that disparities surface that you were not previously aware of – you can always amend your action plan as you learn and improve.

How does this population compare to your total pediatric population?

- Assess available data and see how the health of your priority group compares with your total pediatric population, and if available, the broader pediatric population in the community.
    - For example: data reported to state and federal agencies, available local community health data, claims data, census, and other federal data sets. Use stratified data to identify priority groups.
    - **Data Sources to Understand Your Community table** has information on potential data sources.
- Compare a priority group's overall health status and outcomes and access to health care with your total pediatric population and the community's pediatric population, if possible. You may also want to consider comparing the social determinants of health impacting your priority group with their impact on the children in the community.
- Make notes of the health disparities your priority group faces, including data sources where available.

How does your focus population compare with your total pediatric population in:

» Disease prevalence
» Mortality and morbidity rates
» Emergency department utilization
» Readmissions
» Preventive service utilization
» Chronic disease management
» Prescription drug utilization and adherence

Which disparities will you focus on?

- Select a priority group and set of disparities to focus on.
- Talk with partners serving your priority group and individuals in the community. Ask what they think is causing or contributing to the disparities or if there are obstacles to addressing them. Although your organization might not be able to address all disparities, you will gain useful information to guide the development of your childhood obesity prevention and treatment initiative. This information will also inform your **Stakeholder & Community Engagement Plan**.

Step 2: Set SMART Aims

As you consider your approach to addressing childhood obesity in your health plan, you will need to set an aim(s) in coordination with your community partners or key stakeholders. It is important that your aim(s) are specific, measurable, attainable, relevant, and time-based (SMART). Begin populating your **Operational Table** in the **CHildhood Obesity Prevention & Treatment Action Statement** as you think through this step.

Write down your SMART aim(s). Your aims will guide your action plan and can help you bring your organization and community together around a shared goal.

- Write down your overall aim(s) related to the priority group and driver(s) you are focusing on to reduce childhood overweight and obesity. Your aims should be clear, concise statements of the target outcomes for each priority group. If you are unsure of your drivers, do not dwell on this section of the action plan. You can come back and refine your aims when you fill in your **Operational Table** or driver diagram.
- Talk with some of the key groups you identified in Step 1 to gather reactions and feedback on your aims. You may also want to develop aims together as a group and work toward them together. The more your

aims are shared, the bigger will be your team effort toward improvement. Note these in your **Stakeholder & Community Engagement Plan.**

- Once your aims have been identified, you will need to consider what change(s) you will make, what effect you want each change to have, and how long you think it will take to achieve your aims. Be as specific as possible. And, if you can, tie your aims to what your community needs and wants. Set a time frame for each target outcome so you can track and measure progress.

The following statement is a formula for SMART objectives, which are specific, measurable, attainable, relevant, and time-bound:

I will do _____, in order to _____, by _____.

For example:

Our health plan will reduce BMI scores among children ages 2-5 years identified as overweight and obese within 6 months.

For guidance on how to set SMART aims, see the **Goal Setting Worksheet.**

Can you measure it? What are the specific indicators or data points you will monitor, and how often?

- List the indicator or data points that you will monitor and the frequency. You can use these as benchmarks to measure and share your progress as you go.

Check for relevance: How are you involving your community?

- List three ways you can include stakeholders as you work toward your aim. For example, you could use pilot testing, focus groups, and dissemination of resources. The more specific you are, the easier your next step (Action Plan) will be.

Check for duplication: Are there other stakeholders or groups who are already addressing childhood obesity in the community? Or perhaps, related health disparities or social determinants of health? If so, how do your aims overlap?

- Look at your list from the beginning of this step and note which partners and stakeholders you know are already addressing this disparity, or have overlapping aims around this disparity.
- For each partner, write down an idea for how you can work together to reach or support your shared aims. Make notes in your **Stakeholder & Community Engagement Plan.**

Step 3: Develop an Action Plan

The following questions will help you to complete the **Operational Table** and **Stakeholder & Community Engagement Plan**.

Use the Operational Table or create a separate driver diagram to identify the root causes or drivers of your priority group's obesity problem, including relevant health disparities and social determinants of health.

- Make a list of factors contributing to the obesity issues of the priority group, noting health disparities and social determinants of health that might make it difficult to address the obesity issue. Use this list to create a driver diagram or a flow chart. For guidance on creating driver diagrams, use the **Aim and Drivers for Improvement** template.
    - Think about all of the factors that could create a gap in health care outcomes, quality, or access for your priority group, or that could make a disparity worse.
    - Consider what you learned from key stakeholders and resources in the community about what is causing local disparities or affecting health.
    - Be ready to revise your driver diagram as you go. You may learn of a driver or circumstances that you did not realize existed.

Choose one or two root causes – or drivers – you want to start with.

- The outcome of your aim should be attainable. Focus on areas you can change, and pick one or two drivers your organization can directly affect.
- As you make plans or strategies to address certain drivers, consider including your key stakeholders or community resources. Later in this step you will think about what aims you share with your partners and how to work together.

List key community groups and local partners who serve and/or support your target population.

- Focus on community resources or stakeholders who work in the geographic areas that your pediatric members and their families reside in.
    - For example, if your focus is addressing disproportionate rates of childhood obesity among your African American or Hispanic members, consider local health care clinicians, community recreation centers, nutrition assistance, and social and supportive services for African American and Hispanic residents in the community.

How many individuals in the priority group will you reach through your childhood obesity prevention and treatment initiative?

- Provide an estimate. Your estimate should be based on data available to your health plan. Data sources you might consider include encounter data, claims data, and clinician referrals.

What outcomes do you expect to have, and by when?

- Consider the change(s) you expect to see in your priority group once your initiative is completed.
- Identify time frames by which you expect change(s) to occur, and the incremental changes you expect to see.
    - There are more questions about benchmarks and milestones to mark your progress in Step 4. You can make notes now to help you later.

What barriers do you expect to encounter?

- List potential obstacles you may encounter throughout your initiative, especially those identified by your community resources and stakeholders.
    - You can map these on your driver diagram to help you visualize how they might affect your initiative and its priority group.

How can those barriers be addressed?

- You will need to develop strategies to address the barriers you have identified.
- Talk with your community resources and stakeholders to see if they have encountered and overcome similar obstacles and learn what might work for your priority group.

How will you integrate your community resources in your engagement with the priority group?

- Discuss how you will work with stakeholders and local groups, including how or if you plan to partner with others to reach your aims. Consider formal and informal relationships, and opportunities to convene and learn from each other.

Write down a rough timeline for when you plan to engage with your local partners.

Step 4: Monitor, Improve, Disseminate

Complete your **Operational Table** by writing out how you will monitor and improve upon your aims. The questions and ideas below will help you identify metrics and measurable outcomes and your timeline for the **Data Management Plan**.

What do you hope to achieve for the target population(s)?

- Look at your SMART aim(s) on your **Operational Table**.

How will you assess changes in your target group(s)?

- Take a look at your notes from Step 2 that describe the changes you are expecting to see and the measures you have identified. Now, write out the answers to these questions:
    - What specific outcome measures will you use to show change?
    - How will you stratify your data to compare populations and monitor emerging disparities?
    - How often will you check them?

What benchmarks will you use, and how will you track them?

- For each outcome, list the benchmarks or milestones you'll use, and how often you'll check them.
    - How will you collect and track this information?
    - How will you share your progress with your team and community?

How will you use the available data to manage your work and improve health equity for your target population?

- Look at the measures and benchmarks you have identified; what are the quantitative and qualitative data sources you will need to measure change?
- Note where you will get the data you have identified, and which staff members will be responsible for ensuring that your data are available, reliable, and as current as possible.

How will you measure success?

- Using your answers to the questions above, fill in the Metrics and Measurable Outcomes and Timelines columns on your **Operational Table**.

How frequently will you revisit your target outcomes to assess progress and revise your Action Plan?

- How often will you revisit your Action Plan from Step 3 and update it based on what you have observed?
- How will you involve your community and target population in updating your Action Plan? Note this in your **Stakeholder & Community Engagement Plan**.

How will you share, spread, and scale what you learn?

- Your initiative to prevent and treat childhood obesity in the Medicaid pediatric population may yield results and lessons that can help other health plans, clinicians, and community groups who are struggling with similar challenges.
    - How do you plan to share your results and lessons with others, including peers and colleagues, associations and networks of health care clinicians, policymakers, and government officials at the federal, state, and local levels?
- Sharing your lessons and progress with your community can also establish credibility with your stakeholders and bring new partners into your work, which in turn, builds momentum.

Congratulations!

You have completed a Childhood Obesity Prevention & Treatment Action Statement.

» As you implement your CHOPT-AS, you might see outcomes you did not expect. Revisit and revise your approach as you learn.

» Keep testing and improving to reduce childhood obesity and achieve health equity!

GOAL-SETTING WORKSHEET

This document was adapted in consultation with the Centers for Medicare & Medicaid Services from the QAPI Goal Setting Worksheet.

Directions: Goal setting is important when measuring quality and performance improvement. This worksheet is intended to help health plan staff identify appropriate goals for measure related to performance improvement projects. This worksheet does not include the necessary steps to be taken to reach your organization's goals. Goals should be clear and describe what your health plan or team seeks to accomplish. Use this worksheet to identify goals that follow the SMART formula outlined below.

Describe the childhood obesity problem to be solved. If possible, identify the relevant health disparities or social determinants of health linked to childhood obesity.

[Example: We have found that children living in Area 1 are experiencing high rates of overweight and obesity. Clinicians have notified case management staff of ongoing chronic disease management for comorbid conditions. Area I is considered a food desert and has a very transient population.]

Use the SMART formula to develop a goal:

SPECIFIC

Describe the goal in terms of 3 'W' questions:

What does your organization want to accomplish? [Example: Reduce obesity rates in pediatric members.]
Who will be involved? Who will be affected? [Example: Children ages 5-12 years.]
Where will your program or initiative take place? [Example: Areas with the highest rates of obesity among pediatric members.]

MEASURABLE

Describe how you will know if the goal is reached:

What measure(s) will your organization use? [Example: Decrease body-mass-index (BMI) scores, decrease utilization of prescription drugs for obesity-related conditions.]
What are the baseline data for the measure(s)? [Example: Used obesity-related ICD-10 codes in claims data to find that 15 percent of pediatric members have BMIs greater than those in the 95th percentile.]
What is the target you would like your measure(s) to meet? [Example: The national average for children with BMI scores greater than the 95th percentile is 8 percent.]

ATTAINABLE

Defend the rationale for setting the goal measure(s) above:

Did you identify the measure(s) based on a particular average score or benchmark? [Example: The target is based on the national average for pediatric obesity rates.]
Are the goal measures set too low?
Are the goal measures reasonable?

RELEVANT

Briefly describe how the goal will address the childhood obesity problem stated above.

TIME-BOUND

Define the timeline for achieving the goal:

What is the target date for achieving this goal?

Write a goal statement, based on the SMART elements above. The goal should be descriptive, yet concise enough that it can be easily communicated and remembered.

[*Example:* Improve body-mass-index (BMI) scores and reduce utilization of prescription drugs to treat obesity-related condition within 12 weeks.]

Tip: It is prudent to post the written goal in a visible space and regularly communicate the goal during meetings in order to stay focused and remind health plan staff that everyone is working toward the same goal.

KEY DATA SOURCES TO COMPARE YOUR PRIORITY GROUP TO THE COMMUNITY

The "Key Data Sources to Compare Your Priority Group to the Community" resource was adapted in consultation with the Centers for Medicare & Medicaid Services (CMS) from their original Data Sources to Understand You.

*Use this table of data sources to help you with Step 1 of your **CHildhood Obesity Prevention & Treatment Action Statement (CHOPT-AS)**. Although these resources do not contain information on children in each community, they do provide a representation of the households in which your pediatric population will live and be impacted by.*

Data	Description	Level	HEALTH & HEALTH CARE					DEMOGRAPHIC					
			Q/O	C	A	U	P	SES/ SDH	R/E	L	D	SO/ GI	R/U
Community Health Status Indicators *Centers for Disease Control*	Provides indicators of health outcomes, access and quality, health behaviors, social factors, and the physical environment.	County	X		X	X	X	X	X	X	X		X
Healthcare Cost and Utilization Project *Agency for Healthcare Research and Quality*	Contains diagnoses and procedures, discharge status, patient demographics, and charges for all patients regardless of payer.	County, State, National	X	X		X		X	X				X
Area Health Resource Files *Health Resources and Services Administration*	Compares population characteristics, health resources, and demographics.	County, State, National		X	X	X		X	X	X	X		X
Health Indicators Website *National Center for Health Statistics*	Describes community's health status and determinants of health.	Varies (Hospital, County, State, National, Region)	X	X	X	X	X	X	X		X	X	
County Health Rankings *Robert Wood Johnson Foundation, University of Wisconsin*	Ranks the health of nearly every county in the nation, with social determinants.	County	X	X	X	X	X	X	X				X
Dartmouth Atlas of Health Care *Dartmouth Institute*	Provides medical resource distribution, hospital care intensity, variations in care/ procedures, end-of-life care, and costs.	Hospital, County, State, Region	X	X	X	X		X	X			X	X
Community Health Profiles *Community Commons (CHNA)*	Provides data layer maps with demographic elements, SES, clinical care, health behaviors, and outcomes.	County, State	X		X	X		X	X	X	X		X

Additional local data sources:

State or Local Health Department Data, Local Community Health Needs Assessment (CHNA), Stakeholder Interviews, Administrative Claims, State Medicaid Data, American Communities Survey (ACS), Behavioral Risk Factor Surveillance System (BRFSS)

Key					
Q/Of	Quality & Outcomes	**P**	Prevalence of conditions / disease	**D**	Disability Status
C	Cost	**SES/SDH**	Socio-economic Status / Social Determinants of Health	**SO/Gl**	Sexual Orientation & Gender Identity
A	Access	**R/E**	Race / Ethnicity	**R/U**	Rural / Urban
U	Utilization of care	**L**	Language		

AIMS AND DRIVERS FOR IMPROVEMENT

This tool was adapted in consultation with the Centers for Medicare & Medicaid Services from the Aims and Drivers for Improvement tool.

Aim	Primary Drivers	Secondary Drivers
[Example: Decreasing childhood obesity among members ages 5-12 years.]	[Example: Physical activity programs at Community Recreation Centers.]	[Example: Individual coaching sessions with trained staff.]
		[Example: Sustained physical activity for at least 30 minutes each day.]

COMMUNICATION PLAN WORKSHEET

This document was adapted in consultation with the Centers for Medicare & Medicaid Services from the QAPI Communications Plan Worksheet.

Directions: Use this worksheet to plan your communications strategy with key stakeholders and community resources for any component of your childhood obesity prevention and treatment initiative. A communications plan should be revisited every three to six months to ensure it is still appropriate to meet the objectives of the initiative. Your CHOPT-AS lead may find it helpful to plan communications using this worksheet.

Date of Current Review: _____ **Next Review Schedules for:** _____

Step 1: State the purpose for the communication. *[Example: For a performance improvement project to reduce obesity rates among the health plan's pre-diabetic and diabetic pediatric population living in Area 1. The health plan needs to leverage a community food bank and nutrition assistance resources to improve access to healthy food options.]*

Step 2: Define Audiences. An effective communications plan targets messages and customizes tactics to specific audiences. To direct resources appropriately, you may choose to rank-order audiences as primary or secondary.

Primary Audiences: *[Example: Local health departments, WIC, community food bank.]*
Secondary Audiences: *[Example: Farmers markets, community groups assisting with healthy food for families.]*

Step 3. Define approach. Using the table below, define key aspects of the communication plan based on audience and timeframe.

	[Name of Audience]	Time Frame
Purpose Why is it important to communicate to this audience? What is the goal of your communications? Do you have a specific need or request (i.e., do you need approval, buy-in, involvement, support)?		
Values What does this audience most value when it comes to this topic? How will the content support these values? How will you express this in your messaging?		
Concerns What is this audience's greatest concern when it comes to this topic? How can the content alleviate these concerns or overcome them as barriers? How will you express this in your messaging?		
Message What is the key message you want to deliver to this audience at this time? Remember to tie in the audience's values and concerns. Also address the following: What successes are there at this point? What challenges need to be overcome? What is happening next?		
Messenger Who will deliver the message to this audience? You may assign the responsibility for delivering the message through each channel to different individuals.		
Evaluation How will you know you were successful? What output will you track (e.g., number of e-newsletters delivered and opened)? How will you monitor the effectiveness of the messages and channels used (e.g., surveys, key informant interviews, observations of changed behavior)?		

Sample Action Plan

Childhood Obesity Initiative Action Plan
Control or Improve Childhood Obesity among Health Plan participants
Opportunities: Utilize Data Analytics to Stratify members by reported BMI percentage • Sort members by BMI-highest to lowest • Include co-morbid conditions (asthma, hyperlipidemia, hypertension, high ED utilization) as part of the stratification

Action Plan

Target Population	2018 Interventions	Key Stakeholders*	Outcomes Monitored
Target members with BMI at or above the 95th percentile	Develop educational materials for use by health plan program staff focusing on nutrition and activity Identify health plan program staff who will provide support to identified members Develop newsletters for enrolled members with nutrition and activity topics Program newsletters contain education, resources and upcoming events pertaining to physical activity (for all members enrolled in program) Identify program intervention mode- Face to Face, group classes, telephonic, mailing, etc.	Identified Health Plan Staff- Curriculum Designers of Health Education Staff Health Plan Communications Team Case Management Leadership	Identified cohort of members to target for interventions

Of the targeted members, prioritize members with comorbid conditions (asthma, hyperlipidemia, hypertension, high ED utilization)	Develop educational materials focusing on identified topics Develop interventions specific to members with co-morbid conditions Develop program components to support healthy eating and physical activity. Develop materials that can utilize multiple delivery modalities (Face to Face, telephonic, mail, group classes, etc.)	Case Management Leadership Medical Management Leadership and Curriculum designer Research management of co-occurring diseases with childhood obesity Community Relations team,	Utilize materials already developed for management of co-morbid conditions or develop appropriate materials
Enroll identified target membership into program	Identify which members will receive intervention and mode of intervention	Identified health plan staff (Disease Managers, Case Managers, etc.)	Percent of identified members enrolled, BMI pre and post intervention and one year later, BMI pre and post intervention and one year later, Quality of Life Survey pre and post intervention and at one-year post intervention,
Pediatricians in the Health Plan network	Develop education topics to include in provider communications Develop Tip Sheet for provides on how to code for WCC interventions. Also develop tip sheet on proposed communication with affected members	Provider Communications Team Provider Services Team	WCC HEDIS Rate

Operational Table

SMART Aim	Primary Drivers	Secondary Drivers	Key Individuals and Organizations	Metrics	Measurable outcomes with Timeline
What are you trying to improve?	What is needed to achieve your aim?	What interventions will help you achieve the primary drivers?	Key staff, partners, stakeholders or members of the community leading the secondary drivers	What data will be used to track progress toward your aim and how often	Should align with aims
Control or Improve Childhood Obesity among Health Plan participants	Program focused on identified population incorporating nutrition and activity	Develop Educational materials for use by health plan program staff focusing on nutrition and activity Identify health plan program staff who will provide support to identified members Develop newsletters for enrolled members with nutrition and activity topics Program newsletters contain education, resources and upcoming events pertaining to physical activity (for all members enrolled in program)	Identified Health Plan Staff-Curriculum Designers or Health Education Staff Case Management leadership Health Plan Communica-tions Team Case Management Leadership Provider Relations Staff	Identified cohort of members to target for interventions Number of members with BMI at or above 95 percent Number of members with co-occurring conditions Presurvey and post survey Quality of Life Survey Percent of identified members enrolled WCC HEDIS Rate	Percent of total population with BMI at or above 95 percent who participate in program Percent of members with BMI stabilization or decrease after participating in program Percent of members with BMI stabilization or decrease after participating in program and improvement in co-occurring condition Improved Quality of Life Score after program participation

Operational Table (cont'd)

SMART Aim	Primary Drivers	Secondary Drivers	Key Individuals and Organizations	Metrics	Measurable outcomes with Timeline
What are you trying to improve?	What is needed to achieve your aim?	What interventions will help you achieve the primary drivers?	Key staff, partners, stakeholders or members of the community leading the secondary drivers	What data will be used to track progress toward your aim and how often	Should align with aims
		Identify program intervention mode- Face to Face, group classes, telephonic, mailing, etc. Develop education topics to include in provider communica-tions Develop Tip Sheet for providers on how to code for WCC inter-ventions. Also develop Tip Sheet on pro-posed com-munication with affected members			Percentage of targeted members that participated in program Increase in WCC HEDIS Rate

Community Engagement

Who will you engage?	When will you engage them?	Why did you choose them?	How will they contribute?	How will you ensure they are a continued part of ongoing monitoring/ improvement?
Childhood Obesity Work Group	Immediately	Participants from Health Plan and Community have role in creation of plan	Develop action plan, identify sponsors from each part of the team (health plan and community)	Schedule meetings at regular intervals
Medical Management, Provider Relations, External Partners (Community, Providers)	After Work Group Creates Timeline	Gain understanding of current partners in the community	Utilize already created interventions and enhance	Schedule meetings at regular intervals

Communications Plan

Audience
Health Plan Leadership, Pediatric Providers, Community Leadership
Time Frame of Communication
Within one month of development of Action Plan
Purpose: Why is it important to communicate to this audience? What is the goal? Do you have a specific need or request?
Gain Health Plan Leadership buy-in to support initiative. Gain Pediatrician buy-in to support initiative. Gain Community Partners buy-in to support initiative. Clearly articulate what you need from respective groups related to their participation.
Values: What does this audience most value when it comes to this topic? How will the content support these values? How will you express this in your messaging?
Health Plan Leadership, Pediatric Providers, Community Leadership
Concerns: What is the audience's greatest concern when it comes to this topic? How can the content alleviate these concerns? How will you express this in your messaging?
What resources do they need to supply to support the initiatives? What are the expectations for them?

Message: What is the key message you want to deliver to this audience at this time? Remember to tie in the audience's values and concerns. Address the following: successes to this point? Challenges to overcome? What is happening next?
Provide evidence of need for intervention (% of membership that are affected by childhood obesity, what are the health care costs associated with ignoring this issue?) Issues regarding importance on overall health of children
Messenger: Who will deliver the message to this audience? You may assign the responsibility for delivering the message through each channel to different individuals
Committee Members, Program Manager
Evaluation: What will success look like? What metrics will be tracked? How will the success of interventions be defined?
Percent of identified members enrolled, BMI pre and post intervention and one year later, Quality of Life Survey pre and post intervention and at one-year post intervention

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Note: All electronic sources were visited between October 2017 and March 2018. Not all hyperlinks may be accessed as weblinks, and some may have changed since these data were compiled.

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