

Women and the Obesity Epidemic

Overview and Opportunities for Action

Roundtable Proceedings



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Learn more about AMWA's efforts to address the obesity epidemic.

<https://www.amwa-doc.org/our-work/initiatives/obesity>

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EXECUTIVE SUMMARY

Obesity is a multifactorial disease, where genetics, environment, development, and behavior influence a person's likelihood of developing obesity. Complex pathways and environmental and psychological factors determine appetite, satiety, activity level, metabolism, fat storage, and neuropeptide regulation. Treatment strategies include diet and lifestyle modification, counseling, exercise, and therapeutic interventions, including surgery.

In July 2022, the American Medical Women's Association (AMWA) held a virtual roundtable to gather stakeholder insights on the impact of the obesity epidemic as related to women.

Participating organizations included the American College of Obstetricians and Gynecologists (ACOG), Association of Diabetes Care & Education Specialists (ADCES), American Medical Women's Association (AMWA), Association of Black Cardiologists (ABC), HealthyWomen, National Association of Nurse Practitioners in Women's Health (NPWH), National Black Nurses Association (NBNA), National Council on Aging (NCOA), Nurses Obesity Network (NON), Preventive Cardiovascular Nurses Association (PCNA), and WomenHeart.

The roundtable opened with a presentation by Dr. Fatima Cody Stanford on "Obesity in Women," which reviewed definitions of obesity, including prevalence and pathophysiology, the impact of normal and abnormal hormone regulation on obesity in women, and treatment options for obesity in women. The discussion then ensued related to questions about knowledge gaps among practitioners, barriers to care, key challenge issues, healthcare disparities related to social determinants of health, public policy, and current work from participating organizations.

This White Paper represents a summary of the main issues raised during the roundtable, with additional information from the medical literature, and concludes with recommendations for addressing the growing epidemic of obesity, especially in women.

Summary of Key Points:

- Disaggregate data by sex and race/ethnicity.
- Promote education on obesity science and compassionate care.
- Destigmatize obesity through empathy and patient-centered language.
- Advocate for coverage of obesity treatment through the Treat and Reduce Obesity Act or other proposed legislation.
- Publish position papers, op-eds, newsletter articles, and blogs.
- Write letters or meet with legislators.
- Participate in awareness weeks and coalitions.
- Explore limitations of the BMI - and alternatives that are inclusive of sex and race

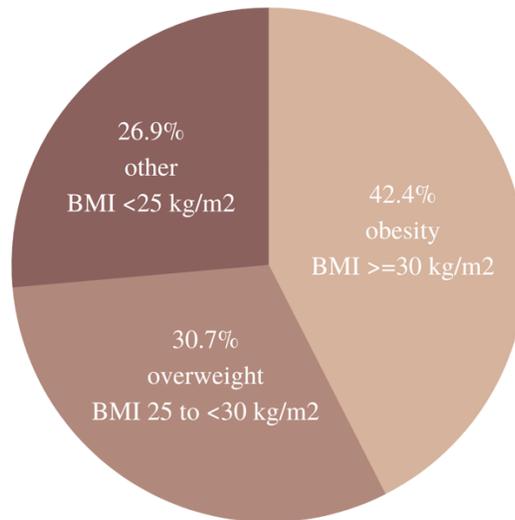
“The U.S. is one of the only countries with a high rate of obesity and no official policies to address the disease. As one of the most prevalent chronic diseases, obesity affects 42.4 percent of adults and 19.7 percent of children in the U.S. It impacts nearly every organ system and can lead to over 200 other chronic diseases.”

– Dr. Fatima Cody Stanford

Setting the Stage — The Status of Obesity in Women in the United States

According to the CDC, the prevalence of obesity in adults has been steadily increasing over the past several decades. In adults ages 20 years or older, the obesity prevalence is 42.4%.¹ Overall, the rates of obesity are comparable between men and women (43.0% men, 41.9% women), but more women have severe obesity (6.9% men, 11.5% women).¹ More men than women have overweight (34.1% men, 27.5% women).¹ While there are no significant differences in the prevalence of obesity by sex or age group when the data are broken down by race and ethnicity, rates are significantly lower in non-Hispanic Asians compared with non-Hispanic Whites, non-Hispanic Blacks, and Hispanics. The rate of obesity is exceptionally high among non-Hispanic Black women (56.9%).²

Figure 1. Prevalence of Overweight and Obesity Among U.S. Adults, 2017-2018¹



Measurement of Obesity

Body Mass Index (BMI) has a storied history as the primary metric by which obesity has been measured. It is an indirect measure of adiposity or fat deposition that originates from the Metropolitan Life Insurance tables from the 1940s, which did not include racial and ethnic populations traditionally underrepresented in clinical research.^{3,4} BMI is a surrogate measure of body fat levels but reflects excess weight rather than excess body fat. BMI also fails to consider age, ethnicity, bone structure, and lean muscle, nor does it provide any indication of the distribution of fat among individuals.^{3,4}

Categories of BMI and weight include: underweight (BMI < 18.5), healthy weight (BMI 18.5 to <25), overweight (BMI 25 to <30), and obesity (BMI ≥ 30).⁵

There are limitations in BMI's predictive ability to estimate body fat for any given individual, with considerable variation by sex, age, and race/ethnicity. There is a strong correlation between general obesity and abdominal obesity; hence, there has been a move by many obesity specialists to rely more on waist circumference (divided by height) as a more meaningful predictive value for risks of diabetes and cardiovascular risk.⁶

Understanding Obesity

There are many misconceptions about obesity that contribute to the disease being underrecognized and undertreated. A common myth, held even by practitioners, is that “obesity is primarily caused by a lack of physical activity or by unhealthy dietary habits.”⁷ Because of this, obesity is often not addressed in-office visits, which reinforces to the patient that obesity issues are not important. Other myths include the belief that “Diets work in the long term” and “Everyone can lose weight with enough willpower.”⁷

We commonly think of energy balance as “calories in” equal to “calories out.” The World Health Organization (WHO) states that “the fundamental cause of obesity and overweight is an energy imbalance between calories consumed and calories expended.” But it’s not simply the number of calories one consumes; it’s about where those calories are from and how they are processed.^{8,9} Highly processed foods, for example, should be restricted because they are energy dense and have a high glycemic load.⁹

Yet even maintaining a healthy diet does not guarantee protection from obesity because obesity is a multifactorial disease, where genetics, development over the life course, the environment, psychological factors, and behavior all influence a person's likelihood of developing obesity.¹¹ Regulation of food intake involves complex pathways with various hormones and enzymes, which, along with environmental and psychological factors, determine appetite, satiety, activity level, metabolism, fat storage, and neuropeptide regulation.¹⁰ So, while lifestyle factors can make a significant impact, addressing obesity is not just about diet and exercise.

Sex and Gender Influences

Sex and gender play a vital role in the development of obesity and the risks of cardiometabolic disease. Hormone regulation and fat deposition affect women more than men from puberty to postmenopausal. Estrogen has been shown to influence eating habits, food intake, energy expenditure, physical activity, and even the distribution of adiposity, which can directly affect inflammation.^{11,12} Hormone pathways can also cause different adiposity distributions in men and women that impact cardiometabolic risk and inflammation.¹³

The American Medical Women’s Association focuses on obesity in women, particularly the importance of teaching about sex and gender differences in obesity.¹⁴

Obesity as a Risk Factor for Co-morbid Conditions

Obesity is, in and of itself, a disease, but it also imposes adverse effects as a comorbid condition raising cardiometabolic risk, specifically of type 2 diabetes (T2D) and cardiovascular disease (CVD).

Numerous sources have reported an increased risk of diabetes in association with obesity or overweight.^{15, 16, 17} By some estimates, 85% of patients with T2D are assessed as having overweight or obesity.¹⁸ The Association of Diabetes Care and Education Specialists (ADCES) has several educational materials on obesity for patients with diabetes.¹⁹ Their annual conference provides education for practitioners, and they recently hosted a cardiometabolic summit.

Obesity impacts the diagnosis, clinical management, and outcomes of atherosclerotic cardiovascular disease, heart failure, and arrhythmias, especially sudden cardiac death and atrial fibrillation.²⁰ It also affects cardiovascular risk factors, including dyslipidemia, type 2 diabetes, hypertension, thromboembolic diseases, and sleep disorders.^{20, 21}

The good news is that obesity is a modifiable risk factor for T2D and CVD. Even a reduction in body weight of 5-10 percent is sufficient to reduce the risk of these chronic diseases.²²

In addition, obesity is a risk factor for other chronic diseases. Obesity is linked to fatty liver disease, digestive disorders, osteoarthritis, gallbladder disease, stroke, clinical depression, anxiety, and effects of stigma, and many types of cancer, including thyroid, pancreatic, breast, kidney, gastric, ovary, endometrial, esophageal, colorectal, multiple myeloma, meningioma, and gallbladder.^{22, 23}

Obesity and Reproductive Health Outcomes

Obesity can contribute to health issues in pregnant women before, during, and after pregnancy. During pregnancy, obesity leads to an elevated risk for gestational diabetes, preeclampsia, and sleep disorders, while the fetus suffers the risk of congenital anomalies and preterm and stillbirths.^{24, 25} Obesity may also contribute to labor difficulties, such as longer labors and increased likelihood of cesarean section.^{24, 25, 26} Later in life, children of mothers with obesity are at elevated risk for developing obesity, diabetes, and heart disease, and the mothers, too, are at risk of developing heart disease, diabetes, and hypertension.^{24, 26}

Obesity also places women at a higher risk of miscarriage and infertility. Factors include longer times to conception, issues with ovulation and endometrial function, miscarriage, and decreased success in assisted conception.²⁷

The Association of Black Cardiologists has launched a national campaign that expands awareness about Black maternal health, including the dire consequences of obesity for Black mothers and their children. We are the Faces of Black Maternal Health™ provides prevention strategies and tools for Black families during preconception, pregnancy, childbirth, and postpartum periods.²⁸

Obesity in the Aging Population

Obesity is known to increase the onset of metabolic changes, leading to a reduction in life span through an effect on both cellular and molecular processes.

Obesity appears to accelerate a decline in the integrity of neural connections in the brain's gray and white matter. While it is evident that obesity negatively affects cognition, any role of obesity in Alzheimer's disease has yet to be ascertained.²⁹ Many factors in the aging process are under consideration, including pathways affecting pro-inflammatory response, oxidative stress, alterations in epigenetics, impaired insulin signaling, and more.^{30, 31}

The National Council of Aging has launched education campaigns on nutrition and obesity for older adults. Last year, they held a stakeholder roundtable on "A call for solutions for healthy aging through a systems-based, equitable approach to obesity," which identified several challenges and solutions.³²

Obesity and Health Disparities

There is a significant opportunity to prevent and reduce the epidemic of obesity in Black and Hispanic populations, which have been disproportionately affected. But to do so requires an effort to dismantle systems of structural racism that have created a history of inequity in these communities. Research also needs to properly disaggregate data to understand better the disparate impact of obesity in the studied population. The collaboration will be essential. Food policies, food systems, and environmental factors must address known obesity-promoting challenges that may perpetuate disparities. This includes managing the presence of food deserts, the ready access to highly processed and fast foods, the lack of access to safe outdoor spaces for physical activity, and the psychosocial stress caused by living in neighborhoods that have experienced discriminatory housing policies and disinvestment. As options for fresh fruit, vegetables, and whole grains are considered, one should also be aware of cultural sensitivities to ensure adherence to a healthier diet.

The Supplemental Nutrition Assistance Program (SNAP) presents direct access to at-risk, low-income populations who have increased rates of obesity.³³ Proposed improvements to SNAP include targeted pricing to promote healthy options. Focused education and food preparation demonstrations can raise awareness of recommended shopping and food preparation strategies that foster healthy eating behaviors.

Instituting changes to align SNAP benefits with dietary guidelines and incentivizing healthier food options among participants represents an opportunity to reach a necessary target population.³⁴

The Nurses Obesity Network (NON), a group of diverse national nursing organizations, is committed to eliminating the obesity epidemic. NON is using its collective voices to change the stigma about obesity. The organization's goal is to change how people view, treat, and advance care for people with obesity. Collectively, the nursing organizations plan to become role models for well-being, champions for change, and advocates for better quality obesity care and treatment.³⁵

Obesity and the Workplace

A 2009 survey of employers found that most large employers (5,000 or more workers) offer programs like on-site exercise facilities, nutritional counseling, and health assessments. Employers and employees view weight management programs as appropriate and effective. Given the impact of obesity on workplace productivity and higher healthcare costs, these interventions can help improve the overall success of the company as well as enhance employee wellbeing.³⁶

Treatment of Obesity

Strategies for treating and addressing obesity are not one-size-fits-all. There is a need for a multi-pronged, clinical approach to obesity that reflects lifestyle (and access to healthy food and lifestyle resources) and behavioral modification, counseling, pharmacotherapy, and surgical procedures.

One big challenge is coverage. Coverage for obesity treatment varies significantly across states. The Stop Obesity Alliance has created an obesity coverage map that reports the number of treatment categories covered (preventive services and counseling, nutrition counseling, drug therapy, and bariatric surgery). Most states offer 2-3 services, with few offering 0-1 services and some offering all

four services.³⁷ One study showed that even when employers provide employee wellness programs, they often don't offer obesity medication coverage.³⁸

The mainstay of obesity treatment is lifestyle intervention. Coverage for nutritional counseling or dietary interventions, however, can be limiting. In some cases, patients with obesity can only receive nutritional counseling when they meet diagnostic criteria for other chronic diseases, like diabetes. Medicare, for example, only covers Intensive Behavioral Therapy with primary care providers when specific criteria are met.³⁹ The U.S. Department of Veterans Affairs (VA), on the other hand, has a goal of annually screening every veteran who receives care at VA facilities for obesity and referring interested individuals to weight management services and other treatment options.⁴⁰ Military health insurance programs cover nutritional counseling services when determined to be medically necessary. In 2023, Federal Employee Health Benefits (FEHB) carriers will be required to offer childhood obesity screening and treatment that includes “multi-component, family-centered intensive behavioral interventions.”^{41, 42}

Anti-obesity medications are also variably covered by commercial insurance plans and some state Medicaid programs. When criteria are met, they are covered under the military health insurance program and the VA. Beginning in 2023, FEHB carriers “must have adequate coverage of FDA-approved anti-obesity medications on their formulary to meet patient needs.”^{42, 43, 44, 45} A notable exception is that anti-obesity medications are not covered by Medicare Part D, the insurance plan for most older Americans. Medicare policy currently omits therapies labeled as “weight loss” or “weight gain” agents.⁴⁶ This can pose a significant challenge for patients covered through commercial plans who lose that coverage when they switch to Medicare. Lack of coverage also conveys the unspoken message that obesity treatment is not essential, even though studies have shown otherwise.

Most types of insurer payment plans offer some coverage for bariatric surgery, though requirements for eligibility, pre-authorization, and documentation of prior treatment may limit access to this intervention.⁴⁷

The table below summarizes obesity treatment coverage among various insurers.

Table 1: Coverage of Obesity Treatment^{39, 40, 41, 42, 43, 44, 45, 46, 47}

	Nutritional Counseling	Anti-Obesity Medications	Bariatric Surgery
Medicaid	Variable	Variable	Variable
Medicare	Yes, if criteria met	No	Yes, if criteria met
Commercial Insurers	Variable	Variable	Variable
Veterans Affairs	Yes	Yes, if criteria met	Yes, if criteria met
Military Health Insurance	Yes, if criteria met	Yes, if criteria met	Yes, if criteria met
Federal Employee Health	Variable. Mandated for childhood obesity in 2023.	Yes, in 2023	Yes, if criteria met

Compared to individuals with commercial insurance, those participating in Medicare, Medicaid, or other government or state-funded programs were 26-27% more likely to have or develop obesity, as shown in a statewide cross-sectional study.⁴⁸ In that study, Medicaid and Medicare provided health coverage to 40% of individuals with obesity and 46% with obesity-related co-morbidities.⁴⁸ The lack

of insurance coverage makes treatment out of reach for many patients, particularly those of lower socioeconomic status and who live in historically under-resourced areas.

Telehealth Opportunities

Telehealth may be an ideal platform for healthcare visits solely focused on obesity management. Providing time to discuss obesity-related issues can ensure sufficient time to explore complex topics. Patients may feel safer and less self-conscious during a virtual visit than an in-person one. Conversations may also be more holistic when patients speak from their surroundings.

Mental Health and Stigma

The psychosocial burden of obesity often leads to mental health challenges, including depression, anxiety, eating disorders, substance use disorders, and other mood disorders. Medications to treat mental health conditions may also be contributing factors to obesity.⁴⁹ Addressing mental health concerns can also be an essential part of the overall treatment for obesity,

WomenHeart has provided several educational modules focused on the growing concern about the link between mental health and obesity.⁵⁰ Reclaim Your Wellness is a program by HealthyWomen and Black Women's Health Imperative, which raises awareness of obesity as a national health crisis and addresses the mental health issues and stigma associated with obesity.⁵¹

Weight stigma is an external perspective of weight bias or weight-based discrimination based on body weight. Weight stigma can also lead to increased body dissatisfaction, a leading risk factor in developing eating disorders.

When interacting with patients with obesity, language is essential. We should use people-first language and avoid labels such as "obese patient" or "morbid." Instead, we should talk about obesity as a disease. The importance of having sensitive conversations about obesity cannot be emphasized enough. Too often, patients with obesity have experienced discrimination and bias from healthcare providers, so it is essential to approach this work with compassion and appropriately educate healthcare practitioners on these strategies. Patients may be hesitant to bring up obesity-related issues for fear of fueling a blame cycle that focuses on obesity as the root of all their health issues. For example, the American College of Obstetricians and Gynecologists has developed evidence-based programming around compassionate conversations when caring for patients with obesity.⁵²

Education

Appropriate recognition of obesity as a disease requires integration into healthcare curricula. The Obesity Medicine Education Collaborative (OMEC) has developed a set of obesity competencies for promoting obesity medicine education throughout medical training.⁵³ These competencies have been designed to be used by medical, nursing, and PA educators to develop an obesity medicine curriculum at their respective institutions. Another critical component is patient and public education.

HealthyWomen, in partnership with Black Women's Health Imperative, has developed tailored educational content for the public, along with interactive tools and podcasts that feature testimonials from women and data from medical experts on the physical and emotional effects of obesity.⁵⁴ *Real Women, Real Stories* (English, Spanish) gives a voice to women living with obesity, and *Beyond the*

Body highlights the stigma many patients with obesity face.⁵⁵ The National Association of Nurse Practitioners in Women’s Health has a mobile app that includes obesity care as a resource for healthcare practitioners.⁵⁶ A consumer-facing app is under development. The Preventive Cardiovascular Nurses Association has developed resources that address obesity and health disparities and approaches to challenging conversations.⁵⁷ A good resource for patients is *Facing Overweight and Obesity: A Complete Guide for Children and Adults* (Stanford, Stevens, Stern).⁵⁸

Public Policy

The Treat and Reduce Obesity act of 2021 (S.596, H.R.1577) has been introduced every year since 2013, but despite bipartisan support, it has unfortunately not moved forward.^{59, 60} This bill would recognize obesity as a treatable medical condition, expand access to comprehensive, affordable, and clinically effective treatments for obesity, ensure broader coverage for intensive behavioral therapy by practitioners who are not primary care physicians and allow for a range of FDA-approved weight loss medications.^{61, 62} Currently, at the time of this publication, H.R.1577 has been referred to the Subcommittee on Health of both the Committee on Energy and Commerce and the Committee on Ways and Means, and S.596 has been referred to the Committee on Finance.^{59, 60}

Reasons for the inability of these bills to move forward over the past decade may include concerns about cost, competing priorities, and “misconceptions of obesity as a lifestyle choice and limited awareness for the burden obesity imposes on our health care system.”⁶² With increased awareness of the importance of preventive health and the recent White House Conference on Hunger, Nutrition, and Health, there may be opportunities for renewed advocacy that would help propel this bill forward.⁶³ Roundtable participants uniformly agreed on the need for more voices within the healthcare community to prioritize the bill’s passage.

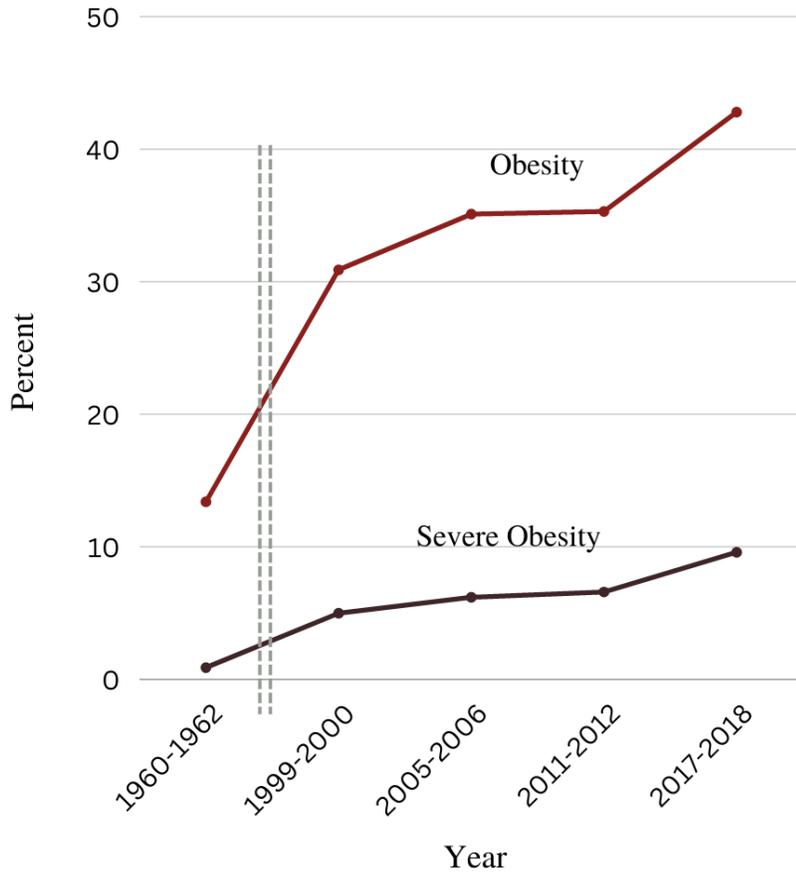
Public policies can also help address the stereotype bias that can impact well-being, economic livelihood, and health. A few cities (Madison, WI; Santa Cruz, CA; San Francisco, CA; Urbana, IL; Washington, DC; Binghamton, NY) and one state (Michigan) have implemented policies that prohibit weight discrimination.⁶⁴ Washington State Supreme Court has also included obesity as a protected class under the state’s anti-discrimination law.⁶⁵

How Stakeholders Can Work Together

The following key points identified how stakeholders could work together to advance change:

- When evaluating research studies, be sure that the data is disaggregated by sex and race/ethnicity.
- Promote education of practitioners and students on the multifactorial etiology of obesity, the health disparities caused by obesity, and sex and gender differences in obesity.
- Destigmatize obesity through empathy and appropriate language.
- Advocate for coverage of obesity treatment through the Treat and Reduce Obesity Act or other means.
- Publish position papers, op-eds, newsletter articles, blogs.
- Write letters or meet with legislators.
- Participate in awareness weeks and coalitions.
- Explore limitations of the BMI – and alternatives that are more applicable to differences in sex/gender and race.

Figure 2. Trends in age-adjusted obesity and severe obesity prevalence among adults aged 20-74 ¹



Source: NCHS, National Health and Nutrition Examination Survey and Nutrition Examination Surveys

Figure 3. Impact of Obesity



Figure 4. Population Impact



ROUNDTABLE AGENDA

Women and the Obesity Epidemic: Overview and Opportunities for Action

July 14, 2022

2:00-2:05 Welcome and Roundtable Goals

2:05-2:30 Obesity and Women

Fatima Cody Stanford, MD, MPH, MPA, MBA, FAAP, FACP, FAHA, FAMWA,
FTOS, DABOM
Associate Professor of Medicine and Pediatrics
Harvard Medical School and Massachusetts General Hospital

2:30-3:30 Moderated Discussion

Eliza Lo Chin, MD, MPH, MACP, FAMWA
AMWA Executive Director

Questions for Discussion

1. Please share the work your organization is doing or planning to do in this space.
2. Please share any research findings that identify knowledge gaps among practitioners on obesity. What are strategies to address these knowledge gaps?
3. What are the most significant barriers to the care and treatment of obesity, and what are some strategies to overcome those barriers?
4. Consider the impact of obesity over a woman's lifespan – from childhood and puberty to maternal health, middle age, and menopause. What are the key issues that need to be addressed?
5. How can we better address the disproportionate impact of obesity on underrepresented/ethnic groups and socioeconomically disadvantaged communities? Have you seen innovative efforts that are having an effect?
6. How can we advance public policy at the state or federal level to address obesity and access to care? Please share any advocacy work that your organization is doing.

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