ABSTRACT: Overweight and obesity are epidemic in the United States. Obesity is a risk factor for numerous conditions, including diabetes, hypertension, high cholesterol, stroke, heart disease, certain types of cancer, and arthritis. The prevalence of obesity is high, exceeding 30% in adult women and men. Many women, irrespective of demographic characteristics or income, are vulnerable to becoming overweight or obese because of limited resources for physical activity and healthy food choices, work commitments, and family demands. Clinicians and public health officials should address not only individual behavior but also the built environment in their efforts to reduce overweight and obesity in their patient populations.

Overweight and obesity are epidemic in the United States. Obesity is a risk factor for numerous conditions, including diabetes, hypertension, high cholesterol, stroke, heart disease, certain types of cancer, and arthritis (1). More than two thirds (69%) of adults are overweight or obese and more than one third (35%) are obese (2). In 2011–2012, the prevalence of obesity was higher among middle-aged adults (39%) than among younger (30%) or older (35%) adults (2). Although all women are at risk of obesity, minority women, low-income women, and women who live in certain geographic regions, are at a particularly high risk of obesity (3). African American and Hispanic women are twice as likely as their white counterparts to be overweight or obese. Forty-two percent of women with incomes below 130% of the poverty level are obese (4). According to a 2011 Centers for Disease Control and Prevention (CDC) report, the average prevalence of obesity in the South was the highest at 30% compared with 29% in the Midwest, 25% in the Northeast, and 24% in the West (5). Of particular concern is the fact that no state or region met the Healthy People 2010 target to reduce obesity rates to 15% (6).

Identifying Women Who Are Overweight and Obese

The World Health Organization and the National Heart, Lung, and Blood Institute classify overweight and obesity based on body mass index (BMI), calculated as weight in kilograms divided by the square of height in meters (7, 8). A healthy or desirable BMI for adults is between 18.9 and 24.9. An adult is considered overweight if the BMI is between 25.0 and 29.9 and obese if the BMI is greater than or equal to 30. The term, morbid obesity, is still used to refer to a BMI greater than 35, but the National Heart, Lung, and Blood Institute recommends more respectful terminology, such as “stage III,” “extreme obesity,” or “clinically severe obesity” (9). Clinicians can access an online BMI calculator at the National Heart, Lung, and Blood Institute web site (www.nhlbi.nih.gov/guidelines/obesity/BMI/bmicalc.htm). It should be noted that BMI calculations do have limitations, especially in athletes and older adults because it can overestimate or underestimate body fat respectively (10). Weight and health risk can be further assessed by using three measures, including 1) BMI, 2) waist circumference, and 3) risk factors, for diseases and conditions associated with obesity (10).

Challenges for Overweight and Obese Women

There is growing recognition that the built environment, which encompasses a range of physical and social characteristics that make up the structure of a community, influences types of lifestyle behavior and obesity, particularly among adult women (11, 12). Access to healthy foods and designated areas for walking and other physical activities can substantially improve the health of many communities, but there may be women who live in communities with limited safe venues for exercise and few large grocery store chains that offer healthy foods at an economical price. National data also show that physical inactivity, a
primary risk factor for obesity, varies substantially among women in different geographic settings.

Limited availability of large supermarket chains or grocery stores within a designated area influences food choices and healthy eating among women and their families (13). Several studies show that large supermarkets with a variety of food choices often are located several miles outside of urban neighborhoods, requiring a car or long bus rides (13–15). These areas can be referred to as “food deserts,” a term used to describe geographic settings that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet (16). Among women in low-income areas, there are multiple challenges to healthy food selections. The primary food retailers in some communities are small, individually owned, corner markets with limited selections of fresh fruits, vegetables, or low-fat dairy products (17). The high number of fast food restaurants and convenience stores per square mile in low-income neighborhoods is another challenge (18). These restaurants and stores offer quick, low-cost meals, but the menu is composed primarily of high-calorie, high-sugar, and high-fat foods that further contribute to or exacerbate obesity among women and their family members. The large portion sizes and high-fat content of fast foods can be related to increasing obesity rates (19). The cost of healthier selections also may contribute to the increasing rates of obesity (ie, a bag of potato chips costs approximately 20% less than the same portion of raw carrots).

Physicians may find it difficult during a 10–15-minute office visit to explain the advantages of maintaining a healthy diet, especially when other problems must be addressed or if the patient is not receptive to a lifestyle change. The CDC offers several nutrition guides that can easily be accessed and used by clinicians in a busy office practice to help women achieve healthier eating habits (20, 21). These resources also address challenges that are unique to the underserved population, such as living in an area with limited access to low-cost nutritious foods. Motivational interviewing is a useful technique to improve patient–physician communication and elicit positive changes in patient behavior. Information on the principles and practice of motivational interviewing can be found in the American College of Obstetricians and Gynecologists (the College), Committee Opinion Number 423, “Motivational Interviewing: A Tool for Behavior Change” (22). Educating women about the calories consumed with fast food is an important step. Assisting the patient in comparing the number of daily calories she needs with the number of calories in convenient food items may be helpful. Calorie information of most fast food chains is listed on their web sites and in some chain locations it is included on the menu. Assisting the patient in identifying healthy options, such as grilled or skinless chicken, a salad, or other side vegetable selection, at popular fast food chains along with alternate food sources, such as a local farmers’ market, may be helpful in the motivational process. Several phone applications (“apps”) are available to provide information about the number of calories and fat in foods offered at fast food chains. Additionally, these apps provide information about the optimal caloric intake per day to maintain a healthy weight. Most mobile apps are free or available for a nominal fee.

Achieving the recommended amount of daily physical exercise (30–60 minutes per day) is another aspect of the built environment that is challenging to women across the lifespan (23, 24). Development of safe neighborhood walking paths and maintenance of accessible sidewalks in high-traffic areas can increase physical activity. Research documents a direct correlation between sidewalk accessible streets and pedestrian activity. Limited access to public parks or recreational centers within individual neighborhoods is another barrier to physical activity. Concerns about personal safety may prohibit outdoor activities. Some urban neighborhoods, for example have safe, one to two block areas bordered by several blocks of high crime activity. Rural regions often have isolated outdoor areas with limited lighting. Although a park or walking trail may be a short distance from their homes, women may be reluctant to use such facilities if they are afraid of crime. Community resources, such as the YMCA or community swimming pools, are alternative, safe venues. Strategies to improve viable, safe pedestrian activity in urban neighborhoods are necessary for women to sustain a healthy level of activity. Also, there are a multitude of free apps available for women to track their physical activity.

In 2010, the Institute of Medicine issued recommendations for gestational weight gain based on prepregnancy BMI (See Table 1) (25). The College recommends nutrition assessment and counseling during preconception and prenatal visits, including counseling on nutrition, exercise, and weight gain based on height and prepregnancy weight. Following these guidelines in combination with the aforementioned resources can assist pregnant women with maintaining a healthy weight during pregnancy and establishing healthy nutritional practices. Additionally, overweight and obese women face unique challenges in their choices for contraception. Overweight or obese women are at high risk of venous thrombosis, metabolic aberrations, and decreased drug efficacy.

<table>
<thead>
<tr>
<th>Prepregnancy Body Mass Index</th>
<th>Total Weight Gain Range (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight &lt;18.5</td>
<td>28–40</td>
</tr>
<tr>
<td>Normal weight 18.5–24.9</td>
<td>25–35</td>
</tr>
<tr>
<td>Overweight 25–29.9</td>
<td>15–25</td>
</tr>
<tr>
<td>Obese &gt;30</td>
<td>1–20</td>
</tr>
</tbody>
</table>

Table 1. Institute of Medicine and Weight Gain in Pregnancy

Committee Opinion No. 591

The CDC funds state-based programs to promote healthy living. Additional information can be accessed at www.cdc.gov/obesity/stateprograms/fundedstates.html.

Ready, Set, Thrive! The Kaiser Permanente Walk to Thrive Program is an on-going shopping mall walking club open to local communities and Kaiser employees in the Sacramento, California area. Physicians and other staff members at Kaiser volunteer to host the early morning mall walking events to promote healthy habits to decrease weight, blood pressure, and cholesterol level. Additional information can be found at www.kpwalktothrive.org/.

The New York City Health Department amended the city Health Code to require the posting of calorie counts by chain restaurants on menus, menu boards, and item tags. Additional information can be found at www.nyc.gov/html/doh/downloads/pdf/cdp/calorie_compliance_guide.pdf.

Recommendations for the Obstetrician–Gynecologist

Addressing obesity and lifestyle behavior during a busy clinical office session is challenging to the obstetrician–gynecologist. The following steps can help initiate a dialogue about lifestyle modifications between the patient and her physician:

• Discuss healthy lifestyle behavior at each visit. Multiple discussions can facilitate an open dialogue and opportunities to develop weight loss strategies.

• Encourage discussions of physical activity and the range of food choices available in local neighborhoods during prenatal and postpartum visits. Information on obstetric management of obesity during pregnancy can be found in the College’s Committee Opinion Number 549, “Obesity in Pregnancy.” (27).

• Use motivational interviewing techniques to assist women in developing a long-term commitment to weight loss and healthy living. Additional information is available in the College’s Committee Opinion Number 423, “Motivational Interviewing: A Tool for Behavior Change” (22).

• Advocate for the sponsorship of a free exercise or wellness program at your hospital or medical organization.

• Partner with your hospital’s community liaison office to advocate for further construction of safe, accessible outdoor recreational areas.

• Volunteer to represent your hospital at community initiatives to increase supermarkets or improve recreational venues in the city.

• Encourage patients to consider shopping at farmers’ markets, if few large grocery stores with ample, reasonably priced vegetables are available to them. According to the U.S. Department of Agriculture, more than 2,000 farmers’ markets accept benefits...
from the Supplemental Nutrition Assistance Program and the Women, Infants, and Children Program (28–30).

• Support city and state health department efforts to expand data collection and improve surveillance of trends in obesity and other chronic conditions.

• Encourage your hospital administration to partner with nutritionists, social workers, and community-based fitness clubs (eg, YMCA) to provide a multifaceted approach to lifestyle behavior change.

• Collaborate with other clinicians to encourage local grocery store owners to expand the selection of fruits and vegetables and encourage the development of farmers’ markets. Some hospitals support local farmers’ markets to set up shop directly at the hospitals, where physicians and patients can obtain access to healthy produce.

• Display handouts, when possible, in examination rooms or the reception area with recommendations for daily calorie intake and physical activity. A list of educational documents, books, and trusted web sites can be found in the College’s “Resource Guide—Nutrition and Physical Activity to Address Overweight and Obesity,” available at www.acog.org/About_ACOG/ACOG_Departments/Health_Care_for_Underserved_Women (31).


References


22. Motivational interviewing: a tool for behavioral change. ACOG Committee Opinion No. 423. American College


