

# Practice Policy Statement

## Integrating Effective Weight Management Into Practice

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The American College of Preventive Medicine Prevention Practice Committee contributes to policy guidelines and recommendations on preventive health topics for clinicians and public health decision makers. As an update to a previously published statement on weight management counseling of overweight adults, the College is providing a consensus-based recommendation designed to more effectively integrate weight management strategies into clinical practice and to incorporate referrals to effective evidence-based community and commercial weight management programs. The goal is to empower providers to include lifestyle interventions as part of the foundation of clinical practice.

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### Introduction

The long-term risk of becoming overweight or obese is approximately 50% and 25%, respectively, for normal-weight adults.<sup>1</sup> In the U.S., 35.1% of adults and 20.5% of adolescents have an obesity diagnosis.<sup>2,3</sup> In minority populations, four of five African-American women are overweight or obese—the highest rate of all groups—with 25% of African-American adolescents having an obesity diagnosis.<sup>4–6</sup> The prevalence of extreme obesity has also increased, with about 6% of U.S. adults having a BMI 40 or higher.<sup>7</sup>

The combined morbidity and mortality associated with overweight and obesity is estimated to cause 18.2% of all U.S. adult deaths, including 44% of the diabetes burden and 23% of the ischemic heart disease burden.<sup>8–11</sup> Several health conditions, including respiratory problems, certain cancers, and musculoskeletal

disorders, are associated with obesity.<sup>12</sup> The benefits of maintaining a healthy weight are clinically substantial, such that, if the average BMI for the U.S. population were less than 25, an estimated 90,000 cancer deaths could be prevented.<sup>13</sup>

The financial burden of obesity is approximately 20.6% of national health expenditures. This contributes to the unsustainable growth of U.S. healthcare spending.<sup>14</sup> Patients with obesity have higher medical expenditures for both inpatient and outpatient services, as well as higher out-of-pocket costs for prescription drugs.<sup>10,15,16</sup> The loss in productivity due to obesity is estimated at \$73.1 billion. Obesity also contributes to social and employment-related discrimination.<sup>17–21</sup>

Although the etiology of obesity is complex, lifestyle modification, including physical activity and nutrition, remains the cornerstone of management.<sup>22–26</sup> Positive health behavior change, via weight loss, leads to improvements on a significant number of clinical outcomes related to obesity. The Diabetes Prevention Program and Look AHEAD (Action for Health in Diabetes) trials demonstrate that lifestyle intervention is effective in achieving clinically significant weight loss.<sup>27–29</sup> The lifestyle intervention approach in the Diabetes Prevention Program improved cardiovascular disease risk factor status via significant reductions in blood pressure, triglycerides, and low-density lipoprotein cholesterol levels and increases in high-density lipoprotein cholesterol levels.<sup>30</sup> The benefits extend further in the Look

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AHEAD Trial, an intensive lifestyle intervention for patients who were overweight or obese, with results demonstrating a reduced risk of developing clinically significant symptoms of depression and a preserved physical health-related quality of life.<sup>31</sup> A 10-year analysis demonstrated that an intensive lifestyle intervention was a cost-effective method for diabetes prevention in high-risk adults.<sup>32</sup> In addition, there was an increased likelihood of long-term and clinically meaningful weight loss in an integrated model where a physician and an auxiliary health professional team utilize enhanced weight loss counseling in a clinical setting.<sup>33</sup> Therefore, effective obesity management has the potential to reduce associated morbidity from diabetes and cardiovascular disease, improve emotional health and quality of life, and decrease healthcare costs.

### **Obesity Screening and Diagnosis Guidelines**

A number of guidelines are available for the screening, evaluation, and management of overweight and obesity, including those published by NIH, WHO, the U.S. Preventive Services Task Force, the American Heart Association (AHA), and the American Association of Clinical Endocrinologists.<sup>12,34-37</sup> There is consensus across these guidelines on screening and diagnosing adults for obesity with an assessment of BMI, waist circumference, and clinical risk factors. Though BMI provides the most useful population-level measure of overweight and obesity, the 2013 AHA guidelines also recommend use of an elevated waist circumference as a risk factor to prompt clinical intervention for weight loss.<sup>36,38,39</sup> A risk-stratification construct that predicts increased mortality, such as the Edmonton Obesity Staging System, can be useful in classifying those at risk from obesity.<sup>40,41</sup>

Despite this array of clinical guidelines, clinical obesity management has yet to become standard practice. This may be due to the difficulty that physicians have recognizing obesity unless patients' BMI is 35 or higher.<sup>44</sup> Only 20% of patients with obesity have an appropriate diagnosis or an obesity management plan made by their primary care clinician<sup>42</sup>; as a result, only 28.9% of physician office visits include counseling or education related to weight reduction, nutrition, or physical activity for patients with obesity.<sup>42,43</sup> This is an unacceptable rate for clinical practice, especially given the U.S. Preventive Services Task Force Grade B recommendation that clinicians not only screen but also manage adults who are overweight or obese with intensive, multicomponent behavioral interventions.<sup>45</sup>

### **Weight Management Program Criteria**

Effective weight management interventions require a comprehensive lifestyle approach, one that integrates physical activity, nutrition, behavioral management, and gives attention to psychosocial needs.<sup>46-48</sup> The clinical benefits of 5%–10% weight loss include lowered triglycerides, blood glucose, and risk for developing diabetes. Greater weight loss can improve lipids and blood pressure and reduce the need for some medications. This amount of weight loss is considered a clinical success and can be achieved and maintained with a high-intensity medical weight loss program.<sup>49</sup> As 5%–10% weight loss can lead to clinically significant risk reductions for heart disease and diabetes, standard clinical counseling for all patients who are overweight or obese should include clinical lifestyle modification as the foundation of treatment.

The 2013 AHA guidelines describe the most effective treatments as those that are in person, high intensity (>14 sessions in 6 months), and led by a trained interventionist in either individual or group sessions.<sup>36</sup> These kinds of programs should be encouraged prior to adjunctive therapies, as a substantial portion of patients will lose sufficient weight using this intervention alone.<sup>36</sup> Programs that ensure session attendance are associated with greater weight loss, as increased adherence leads to better weight management outcomes. Similarly, programs that increase the length of treatment and ensure continued contact have improved weight maintenance outcomes.<sup>50</sup>

Behavioral strategies form the foundation of these weight management programs. These techniques include self-monitoring, stimulus control, goal setting, behavioral contracting, reinforcement, and the normalization of healthy eating.<sup>51</sup> These cognitive behavioral techniques, when combined with a diet and exercise approach, lead to greater weight loss.<sup>52,53</sup>

Psychosocial needs are also critically important to address in these programs, as those with social support achieve greater long-term success.<sup>54</sup> Therefore, it is important to consider the family as a unit for treatment, as obesity runs in families and simultaneously treating parent and child can create benefits for both.<sup>55,56</sup> Social support in the form of a group-based format is time efficient and may lead to more weight loss than individual counseling.<sup>57,58</sup> Psychosocial counseling should additionally include an assessment and guidance on sleep and stress management, as both impact weight gain.<sup>59,60</sup> Approaching obesity with this ecologic perspective, looking into the intrapersonal, interpersonal, and community levels may have a greater influence by holistically addressing multiple obesity-related risk factors.<sup>61</sup>

A social-ecologic model, one that factors in social norms, environment, social networks, and organizational support, can provide a strong theoretic basis to guide health behavior interventions in multiple populations.<sup>62</sup>

The basis for many weight management programs includes guidance on nutrition and physical activity. A nutrition plan that reduces caloric intake for weight loss is recommended as part of a comprehensive lifestyle intervention. The AHA guidelines recommend any of the following methods: prescribing 1,200–1,500 kcal/day for women and 1,500–1,800 kcal/day for men; a 500–750 kcal/day energy deficit; or an evidence-based diet that restricts certain food types to create an energy deficit by reduced food intake.<sup>36</sup> No particular diet can be described as best for weight loss; however, effective diets lead to an energy deficit of 500–750 kcal/day or about a 30% caloric deficit per day. The strength of the evidence for using meal replacements is low; though they were shown to be associated with increased weight loss at 6 months, evidence for continued weight loss beyond 6 months is lacking.<sup>36</sup>

Physical activity combined with dietary restriction results in greater weight reduction and weight stability than diet alone.<sup>63,64</sup> Exercise is one of the most successful predictors of weight maintenance and control, with increasing exercise intensity leading to an increased magnitude of weight loss.<sup>64</sup> To prevent weight gain, 150–250 minutes/week of moderate-intensity physical activity is recommended; for weight loss, > 150 minutes/week is associated with modest weight loss, with increasing amounts, > 250 minutes, leading to clinically significant weight loss.<sup>65</sup>

The expected outcomes from these comprehensive weight management programs include an average weight loss of approximately 8 kg in 6 months, or about 5%–10% of initial weight. The usual pattern is a maximal weight loss at 6 months, followed by a period of equilibration with plateau and gradual regain over time. This is also true for medication-assisted weight loss.<sup>36</sup> The plateau phenomenon, leading to a high rate of relapse, may have a strong physiologic basis and may not simply be the resumption of old habits. Structural changes in the hypothalamus and hormonal changes may be mediating the weight regain.<sup>66</sup> Strategies for weight maintenance include a long-term weight management program that extends for more than 1 year and incorporates monthly or more frequent contact with a provider, frequent self-weighing, a reduced calorie diet, and high levels of physical activity (> 200 minutes/week).<sup>36</sup>

The primary care setting may be effective in modifying risk factors with intense interventions provided by trained personnel. Such personnel can provide targeted information and they can be as effective as weight loss

clinics in achieving reductions in body weight and body fat percentage.<sup>67,68</sup> This setting may also serve as an entryway into a longitudinal connection for a clinical and community partnership with multifaceted behavioral intervention programs. It is therefore an imperative for healthcare providers to take the lead in managing obesity and its preventable consequences.<sup>36</sup> Clinicians will likely need to enhance their weight management counseling skill set to ensure patients' long-term success in addressing obesity. Training programs on counseling skills such as motivational interviewing, an established method of effectively interacting with patients to enhance behavior change,<sup>69</sup> are available online and for continuing medical education credits.<sup>70</sup> However, the main barrier for clinicians involves a lack of sufficient resources, including time in a standard office visit to translate behavioral interventions into clinical practice.<sup>24</sup>

As a result, patients end up relying on a wide variety of weight management products and services from other providers, ranging from over-the-counter supplements and community-based classes to commercial weight loss programs. As the key components comprising an effective weight management strategy have been identified, they should be used in assessing whether these programs promote long-term health via weight management. Interventions that focus on lifestyle changes have demonstrated weight loss of 8%–10% of initial weight; interdisciplinary programs have attained clinically significant weight loss, even at 24 month follow-up, for approximately 20% of patients who were included in such interventions.<sup>71</sup>

In addition to the high-intensity weight management interventions described previously, emerging evidence also supports the efficacy, albeit with less weight loss, of electronically delivered interventions via either the Internet or telephone that provide personalized feedback by a trained interventionist.<sup>36</sup> Patients were able to achieve and sustain clinically significant weight loss over 24 months whether the intervention was offered in person or delivered remotely.<sup>72</sup> The addition of a personal digital component and telephone coaching have been shown to enhance short-term weight loss in combination with an existing system of care. As a result, mobile connective technology may hold promise as a scalable mechanism to augment physician-directed weight loss treatment.<sup>73</sup>

There is also support for some commercial programs that use counseling with or without prepackaged meals.<sup>36</sup> A systematic review on the efficacy of commercial weight loss programs that examined 45 studies, including RCTs of at least 12 weeks' duration, reported that at 12 months, participants can achieve at least 2.6%–4.9% greater weight loss than those in a control/health education group in two commercial programs. The main

limitations, as described by the authors, included the short lengths of the trials as well as the high rates of attrition in the multiple programs. Based on this systematic review, the authors concluded that at least two nationally available programs could be considered for referrals for patients who are overweight or obese.<sup>74</sup>

There is evidence to support the integration of clinical and community-based strategies to address obesity.<sup>75</sup> The Community Task Force recommends the use of multicomponent interventions, within employee health, to control overweight and obesity. Accountable Care Communities, a collaboration that leverages the resources of multiple organizations, including health organizations and community entities, can serve as a key resource to address the health of the population.<sup>76</sup> These models should therefore form the foundation underlying any medical or surgical intervention for overweight and obesity and become a standard for healthcare delivery.<sup>77</sup>

### **Position of the American College of Preventive Medicine**

This statement is an update on the 2001 American College of Preventive Medicine (ACPM) “Position Statement on Weight Management Counseling of Overweight Adults.”<sup>78</sup> This statement was developed through a literature review by the authors, who are ACPM members. The final position statement was reviewed and approved by the Prevention Practice Committee and subsequently by the ACPM Board of Regents. Since 2001, there have been updates to the guidelines on the recommended evidence-based strategies for weight loss or weight maintenance. Jensen et al.,<sup>36</sup> in their 2013 obesity guidelines, summarized the existent knowledge on the optimal diets for weight loss, and the efficacy and effectiveness of comprehensive lifestyle interventions. In addition, the components of effective behavioral weight loss treatments were identified, resulting in the need for an updated position statement by ACPM. The authors reinforce here that obesity must be addressed consistently in clinical practice, as counseling by clinicians is a means to effectively assist in the weight management strategy of patients.<sup>78</sup> This message is even more compelling now, with worsening obesity incidence rates and resulting increasing healthcare costs. Clinicians are inadequately responding to the challenges of obesity, a preventable and modifiable disease. As a result, patients’ risk for a multitude of chronic conditions and mortality increases, with significant economic burden felt by the individual and society. As only 20% of patients with overweight or obesity are being screened and managed appropriately, clinical systems and reimbursement policies are severely lacking when it comes to addressing this

significant epidemic. Until clinical practice models transform to value clinical lifestyle interventions as the foundation of medicine, patients will search for alternative solutions that address their unmet needs for weight management.

Few clinical programs, however, offer services that meet the criteria identified by a number of national and professional organizations for successful weight management: intensive counseling with more than 14 sessions in 6 months. It is therefore the ACPM’s position that clinicians must continue to integrate weight management programs into clinical practice and incorporate referrals to effective and evidence-based community and commercial programs that are in person, online, or a combination of both. These online programs may increase access to counseling on weight management. Underserved populations with higher obesity prevalence will benefit the greatest from accessible and community-based approaches.

At the individual and public health levels, clinical and community partnerships, enabled by digital advances, offer a way to maintain the clinical integrity and continuity in managing obesity. The U.S. Preventive Services Task Force has stated that “coordinated interventions at multiple levels—from the primary care setting to the community—are likely to be needed to effectively prevent obesity and promote weight loss.”<sup>75</sup> Practice guidelines and clinical support for managing obesity have been promoted for more than 2 decades. It is now time to establish an evidence-based, accessible, and systematic model for weight management in the fight against obesity.

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