

DVHA Review of Obesity and Implications for Covering Obesity Medications

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Introduction

In Part 1, “*DVHA Review of Obesity and Implications for Covering Obesity Medications*” the Department of Vermont Health Access (DVHA) ventured into the complex landscape of pharmaceutical approaches in battling obesity. DVHA reviewed that obesity is a complex condition characterized by excessive body fat that increases the risk of chronic diseases such as diabetes, cardiovascular diseases, and certain cancers, exacting a high personal and financial cost. Medications for weight loss were reviewed, with considerable attention paid to the new class of anti-obesity drugs, called **glucagon-like peptide 1 (GLP-1)** agonists. It was noted that all these drugs were approved by the FDA based on studies that included a component of lifestyle modification. The review illuminated the nuanced benefits and drawbacks of medications and highlighted the importance of a comprehensive, holistic obesity treatment strategy that combines surgical and pharmaceutical interventions alongside lifestyle interventions.

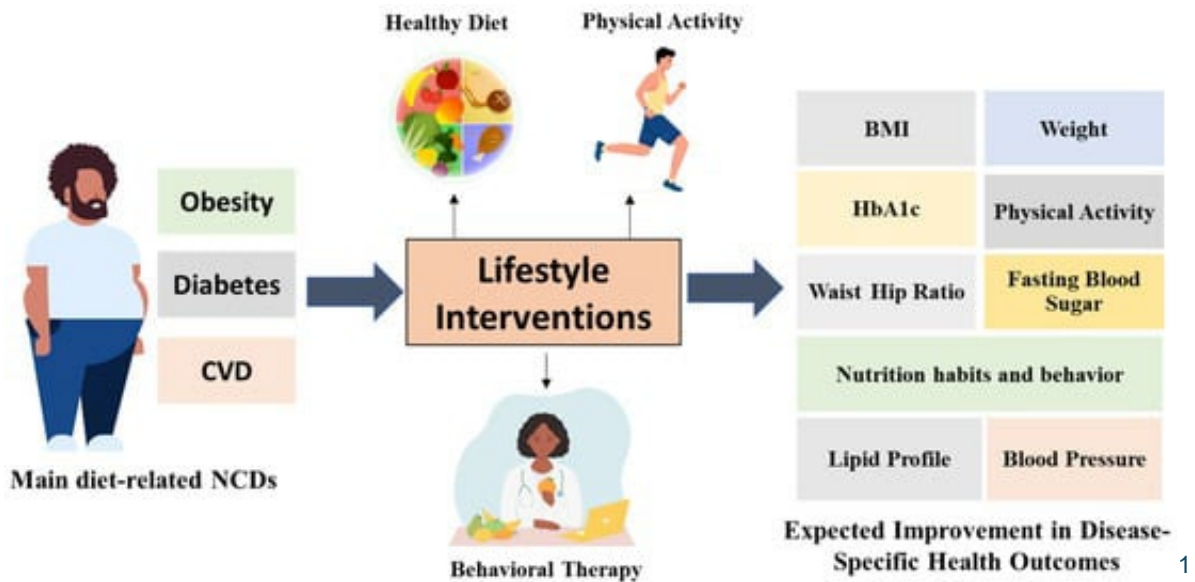
Part 2 of DVHA’s review of obesity treatment, transitions from medicinal to non-medicinal solutions and spotlights the importance and value of lifestyle interventions, like dietary changes, physical activity, counseling, and support groups for treating obesity in the context of the Vermont Medicaid population. Vermont has taken the lead in using comprehensive strategies in combating complex conditions like chronic pain and addiction, and DVHA endorses using this type of comprehensive, integrative approach to not only mitigate obesity rates but also foster a sustainable culture of health and wellness. Initiatives like farm-to-table programs, community gardening, and the promotion of physical activities through accessible parks and recreational trails are examples of the state’s dedication to a healthier, more engaged community.

The essence of non-medication strategies for Vermont’s battle against obesity needs to be multifaceted and should integrate promoting nutritional diets rich in whole foods and encouraging regular physical activity which can be tailored to leverage the state’s natural terrain. These approaches should be complemented by mental health support and behavioral modifications aimed at setting realistic health goals. Additionally, there should be a focus on crafting supportive environments for healthy decision-making. Vermont’s approach can be underpinned by local food movements and diverse physical activities, which will not only address the immediate impacts of obesity but will also lay the groundwork for lasting public



health improvements. Through a blend of dietary, exercise, and behavioral strategies, Vermont can exemplify how non-medical interventions can offer a sustainable, accessible, equitable, and holistic pathway to overcoming obesity, serving as a model for comprehensive health management.

Non-Medication and Lifestyle Interventions



Dietary Modifications

Obesity, a prevalent health challenge globally, is significantly influenced by dietary habits. Physiologic and psychologic factors aside, the relationship between diet and obesity is still complex, involving the interplay of calorie intake, nutrient density, and food quality, dietary modifications are a critical strategy in managing and preventing obesity.

¹ Tariq, M. N. M., Stojanovska, L., Dhaheri, A. S. A., Ismail, L. C., Apostolopoulos, V., & Ali, H. I. (2022). Lifestyle Interventions for Prevention and Management of Diet-Linked Non-Communicable Diseases among Adults in Arab Countries. *Healthcare*, 11(1), 45. <https://doi.org/10.3390/healthcare11010045>



Dietary changes can have a profound impact on obesity. Reducing calorie intake, increasing consumption of fruits, vegetables, whole grains, and lean proteins, and limiting processed foods and sugary beverages can lead to significant weight loss and improved metabolic health. Research² has consistently shown that diets emphasizing whole foods over processed ones are more effective in reducing body weight and associated health risks like Type 2 diabetes, heart disease, and certain cancers.

Examples of Effective Dietary Interventions

- Mediterranean Diet³: Rich in fruits, vegetables, whole grains, olive oil, and fish, this diet has been linked to significant reductions in body weight and improved metabolic markers. Its emphasis on heart-healthy fats and high fiber content supports weight management and overall health.
- Plant-based Diets: Vegetarian and vegan diets, characterized by low consumption of animal products and high intakes of plant-based foods, have been associated with lower body mass index (BMI) and reduced risk of obesity. These diets are high in dietary fiber, which can promote satiety and reduce overall calorie intake.
- Portion Control Strategies: Implementing portion control can effectively reduce calorie intake without drastically altering the types of foods consumed. This approach can be particularly beneficial for weight loss by teaching individuals to recognize hunger and fullness cues.

Considerations for Implementing These Modifications in Vermont

Helping Vermonters implement dietary modifications needs to take into account the state's unique socioeconomic, cultural, and environmental factors.

² Cena, H., & Calder, P. C. (2020). Defining a Healthy diet: Evidence for the Role of Contemporary Dietary Patterns in Health and Disease. *Nutrients*, 12(2), 1–15. <https://doi.org/10.3390/nu12020334>

³ Papadaki, A., Nolen-Doerr, E., & Mantzoros, C. S. (2020). The Effect of the Mediterranean Diet on Metabolic Health: A Systematic Review and Meta-Analysis of Controlled Trials in Adults. *Nutrients*, 12(11), 3342. <https://doi.org/10.3390/nu12113342>



- **Accessibility to Healthy Foods:** Ensuring that all Vermonters have access to fresh, affordable produce is crucial. Initiatives like community gardens, farmers' markets, and subsidies for local agriculture can help increase the availability of healthy foods⁴.
- **Education and Awareness:** Educational campaigns focused on the benefits of dietary changes and how to implement them effectively are essential. This includes providing resources on meal planning, cooking classes, and nutrition education in schools to instill healthy eating habits from a young age.
- **Cultural Sensitivity:** Dietary recommendations should respect and integrate Vermont's cultural food practices. Tailoring interventions to include local and culturally significant foods can enhance their acceptance and effectiveness.
- **Policy Support:** Government policies that support healthy eating environments, such as taxes on sugary drinks, regulations on food advertising, and nutrition labeling, can reinforce individual efforts to adopt healthier diets⁵.
- **Climate and Terrain:** Provision of healthy food to Vermonters should focus on understanding which low-glycemic foods grow best in Vermont and which are easiest to distribute statewide.
- **Community-Based Approaches:** Local farm share programs should be increased and leveraged to provide access to fresh produce to all Vermonters, but especially to our neediest citizens.
- **Engaging community organizations** in the design and implementation of obesity prevention programs can foster local support and ensure interventions are well-suited, accessible, and equitable to meet the needs of Vermonters.

⁴ Vermont Department of Health. (2024, June 11). *Nutrition & Food Access Resources in Vermont*. HealthVermont. <https://www.healthvermont.gov/wellness/physical-activity-nutrition/nutrition-food-access-resources-vermont>

⁵ Krieger, J., Bleich, S. N., Scarmo, S., & Ng, S. W. (2021). Sugar-Sweetened Beverage Reduction Policies: Progress and Promise. *Annual Review of Public Health*, 42(1), 439–461. <https://doi.org/10.1146/annurev-publhealth-090419-103005>



Physical Activity Enhancement

Physical activity and in particular aerobic exercise play a pivotal role in the management and prevention of obesity. This cannot be overstated. Planned exercise or just increasing overall physical activity burns calories, improves metabolism, builds muscle mass, combats depression, and provides an overall enhanced sense of well-being. All of which collectively contribute to weight loss and maintenance and/or maintenance of a healthy weight.



Promoting and Supporting Physical Activity and Exercise

In considering whether to cover GLP-1 medications for weight loss, it is essential to provide the infrastructure for those taking them to be able to easily access safe and appropriate means to increase physical activity and exercise. This is because the medications were approved by the FDA **“as an adjunct to a reduced calorie diet and increased physical activity.”** In all of the studies on which approval was based, all participants engaged in these lifestyle modifications, and the medications are not intended to be a replacement for diet and activity.



Unfortunately, many Vermonters, especially low-income Vermonters cannot afford to join a fitness center or get a pool membership, let alone easily access them in terms of location and transportation. While some individuals may be motivated to find ways to exercise at home or in the neighborhood, others may not feel safe to do so, nor be able to stick with it, without structured guidance.

To combat the obesity epidemic Vermont needs to not only promote physical activity physical activity and exercise but needs to continue to invest in creating supportive environments that encourage participation in and provide access to exercise and physical activities. This can be achieved through the development of safe and accessible recreational spaces, such as parks, walking trails, and bicycle lanes, which provide opportunities for people to engage in physical exercise. Additionally, community-based programs that offer structured physical activity sessions, such as fitness classes, sports leagues, and wellness workshops, can significantly increase the levels of physical activity within the community.

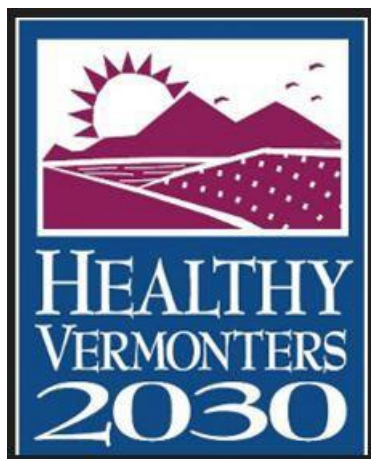
Education and awareness campaigns are also crucial in promoting physical activity. By educating the population about the benefits of physical activity for health and well-being, as well as providing practical guidance on how to incorporate physical activity into daily routines, it is possible to motivate individuals to become more active. Of equal importance, schools play a critical role in this regard by incorporating physical education programs that emphasize the importance of physical activity from an early age.

Furthermore, workplace wellness programs that encourage employees to adopt more active lifestyles, such as standing desks, onsite fitness facilities, and organized physical activity breaks, can significantly contribute to increasing physical activity levels among adults.

In Vermont, the Department of Health actively promotes physical activity through initiatives like the "**Healthy Vermonters**" program, which encourages healthy lifestyles for all ages by enhancing access to recreational facilities and organizing fitness events. Furthermore, the



"Healthy Vermonters 2030"⁶ framework provides a detailed set of health indicators, updated annually, to track the state's health trends and the impact of public health initiatives. This dataset, vital for evaluating the progress towards healthier living in Vermont, includes information on utilization by the Health Department and its partners and breaks down data by geographic and demographic factors, ensuring a comprehensive view of health across Vermont's communities.



The "**3-4-50: Prevent Chronic Disease**"⁷ program in Vermont, which stands for 3 behaviors (lack of physical activity, poor diet, and tobacco use) leading to 4 chronic diseases (cancer, heart disease and stroke, type 2 diabetes, and lung diseases) that are responsible for more than 50% of all deaths in Vermont, also emphasizes the importance of physical activity. It works by partnering with organizations across the state to implement policies and practices that encourage physical activity and healthy lifestyles.

⁶ Vermont Department of Health. (2024a, June 10). *Healthy Vermonters*. HealthVermont. <https://www.healthvermont.gov/about/plans-reports/healthy-vermonters>

⁷ Vermont Department of Health. (2024a, April 25). *3-4-50: Prevent Chronic Disease*. HealthVermont. <https://www.healthvermont.gov/wellness/3-4-50-prevent-chronic-disease>



Additionally, the Vermont State Parks system offers the "**Venture Vermont Outdoor Challenge**"⁸ a statewide outdoor scavenger hunt designed to encourage families and individuals to explore the natural beauty of Vermont while engaging in physical activities such as hiking, biking, and swimming.

On the federal level, in 2005 Congress passed legislation creating the National **Safe Routes to School (SRTS)** program. The program administered through the Federal Highway Administration, led to the creation of Safe Routes to School programs in all 50 states. The Vermont SRTS program is currently supported by the not-for-profit organization, Local Motion⁹. SRTS programs promote healthy lifestyle choices through their advocacy of and support for kids, whenever possible to have access to safe "active transportation" essentially making it safer and easier for students to walk and bike to school. This not only promotes physical activity among children but also fosters a culture of active transportation that can continue into adulthood. A highlight of the program is the national Walk, Bike & Roll to School Day.¹⁰

⁸ Vermont Department of Forests, Parks, and Recreation. (2024). *Vermont Venture Outdoor Challenge*. Vermont.gov. <https://fpr.vermont.gov/recreation/activities/venture-challenge>

⁹ State of Vermont. (n.d.). *Safe Routes to School*. Vermont.gov. <https://saferoutes.vermont.gov/>

¹⁰ *Walk & Bike to School*. (2024). Walk, Bike & Roll to School; UNC Highway Safety Research Center. <https://www.walkbiketoschool.org/>



Behavior Modification

Behavior modification encompasses a broad spectrum of strategies aimed at altering individuals' behaviors in a way that leads to healthier lifestyles and, specifically for this context, effective weight management. While dietary changes and exercise routines are the tools of healthy weight management, often the journey needs to start with a comprehensive shift in behavior. Accomplishing this shift can be facilitated by, incorporating strategies from behavioral psychology and, more specifically, cognitive-behavioral therapy (CBT). These approaches are crucial in helping individuals develop habits that not only facilitate weight loss but also ensure its long-term maintenance. This section aims to explore these behavioral strategies and the adaptation of these interventions to fit Vermont's unique demographic and cultural landscape.

Behavioral Strategies for Effective Weight Management¹¹

Behavioral strategies for weight management involve modifying an individual's environment and lifestyle to encourage healthier eating and increased physical activity. Techniques such as self-monitoring, goal setting, and positive reinforcement play pivotal roles. Self-monitoring involves keeping a record of food intake and physical activity, providing individuals with a clear understanding of their habits and progress. Goal setting, particularly when goals are specific, measurable, achievable, relevant, and time-bound (SMART), offers direction and motivation. Positive reinforcement, such as rewarding oneself for meeting specific goals, helps in maintaining motivation over time.

Stimulus control is another effective strategy, involving modifications to one's environment to reduce the temptation of unhealthy choices and encourage healthier ones. This could mean keeping unhealthy snacks out of sight or placing exercise equipment in a more accessible location. Portion control and understanding hunger cues are also crucial, teaching individuals to listen to their bodies and differentiate between actual hunger and emotional or habitual eating.

¹¹ Yearwood, L., & Masood, W. (2024, January 31). *Behavioral Approaches to Obesity Treatment*. StatPearls - NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK570565/>



Cognitive-Behavioral Therapy (CBT) and Its Application¹²

CBT stands out as a particularly effective approach in behavior modification for weight management. It operates on the principle that unhealthy behaviors and negative thought patterns contribute to weight gain, and by altering these thoughts and behaviors, individuals can achieve weight loss. CBT helps in identifying and challenging negative thoughts about self-image, food, and exercise, and replacing them with positive, constructive ones.

Techniques such as cognitive restructuring enable individuals to combat negative self-talk, which can often sabotage weight management efforts. Problem-solving skills are honed to address barriers to exercise and healthy eating, while stress management techniques can reduce emotional eating. Additionally, CBT fosters the development of a more balanced and forgiving self-view, reducing the likelihood of disordered eating patterns.

Tailoring Behavioral Interventions to Vermont's Demographic and Cultural Specifics

Adapting behavioral interventions to fit Vermont's demographic and cultural specifics is essential for their success. Vermont's population is characterized by its rural makeup, strong community ties, and a cultural inclination towards outdoor activities and local, sustainable food sources. These unique features provide both opportunities and challenges for weight management interventions.

Interventions in Vermont can leverage the state's outdoor culture by encouraging activities such as hiking, biking, and skiing, making physical activity a culturally congruent and enjoyable part of residents' lifestyles. Moreover, the local food movement can be integrated into dietary recommendations, emphasizing the consumption of locally grown fruits and vegetables, which supports both health and the local economy.

¹² Grave, R. D., Sartirana, M., & Calugi, S. (2020). Personalized cognitive-behavioural therapy for obesity (CBT-OB): theory, strategies and procedures. *BioPsychoSocial Medicine*, 14(1).
<https://doi.org/10.1186/s13030-020-00177-9>



However, the rural nature of much of Vermont may pose challenges, such as limited access to healthcare providers trained in CBT and other behavioral strategies, transportation barriers, and fewer gyms or other facilities for physical activity. Telehealth services and community-based interventions can help overcome these barriers, offering remote support, and leveraging community resources like schools, community centers, and outdoor spaces for group activities and support networks.

Age Strong VT¹³ represents a forward-looking, decade-long initiative designed to cultivate an environment in Vermont that supports people of all ages and life stages. With Vermont's older demographic emerging as the fastest-growing age group, projections suggest that by 2030, one in three residents will be over 60. To truly become age-friendly, a comprehensive approach is necessary, one that unites communities to harness the contributions of older Vermonters and address evolving needs such as housing, healthcare, transportation, caregiving, access to nutritious food, education, and employment.

Tailored interventions must reflect the unique characteristics of Vermont's aging population. Recommendations for physical activity and dietary guidance should be sensitive to age and varying abilities. Engaging community leaders and utilizing local media channels are instrumental in promoting these interventions, ensuring their accessibility and resonance among Vermonters of diverse ages, capabilities, and geographic locations.

Psychological Support and Counseling

Obesity is a complex and multifaceted condition that not only affects physical health but also has profound implications on mental and emotional well-being. Recognizing the intrinsic link between the mind and body, psychological support is an integral component of obesity treatment. A holistic approach that incorporates addressing the psychological factors

¹³ Vermont Department of Health. (2024d, July 24). *Age Strong Vermont: Our Roadmap for an Age-friendly State*. HealthVermont. <https://www.healthvermont.gov/wellness/brain-health-dementia/age-strong-vermont-our-roadmap-age-friendly-state>



contributing to obesity, such as emotional eating, low self-esteem, and depression, is an essential component of an effective treatment plan with long-term results.

Role of Psychological Support in Obesity Treatment



Psychological support plays a pivotal role in the treatment of obesity by addressing the mental and emotional barriers that often hinder weight loss efforts. It can facilitate a deeper understanding of emotional triggers and unhealthy eating patterns, enabling individuals to develop healthier coping mechanisms. Psychological interventions aim to enhance motivation, improve self-esteem, and foster a positive body image, which is crucial for long-term weight management.

Moreover, by tackling the psychological aspects of obesity, individuals are better equipped to face the challenges of lifestyle changes, including diet modification and physical activity, thus increasing the likelihood of treatment success.

Counseling Approaches and Techniques for Obesity Management

Several counseling approaches and techniques have shown efficacy in managing obesity, each addressing different facets of the condition:



- A. Cognitive Behavioral Therapy (CBT): CBT is the most widely used approach for obesity management. It focuses on changing negative thought patterns and behaviors related to food and body image. Techniques such as self-monitoring, goal setting, and problem-solving are employed to help individuals modify their eating habits and physical activity levels.
- B. Motivational Interviewing (MI): MI is a client-centered counseling style that enhances motivation to change by resolving ambivalence. It encourages individuals to articulate their desire to change, explore their own reasons for change, and develop a plan of action that aligns with their values and goals.
- C. Mindfulness-Based Interventions: These interventions encourage present-moment awareness and non-judgmental acceptance of thoughts and feelings. Mindfulness practices, such as mindful eating, can help individuals develop a healthier relationship with food and improve their ability to recognize hunger and satiety cues.
- D. Interpersonal Psychotherapy (IPT): IPT addresses interpersonal issues that may contribute to emotional eating. By improving communication skills and increasing social support, IPT aims to reduce reliance on food as a coping mechanism.

Availability and Accessibility of Psychological Support Services in Vermont

In Vermont, efforts are underway to enhance the availability and accessibility of psychological support services for obesity management. While healthcare facilities and community health centers across the state are starting to offer counseling services that are tailored to individuals struggling with obesity, access to these services can be limited by factors such as geographic location, insurance coverage, and the availability of specialized professionals.¹⁴ To address these challenges, DVHA is promoting and supporting the increased use of telehealth services, thus providing remote counseling options that can reach a broader population. Recent legislation has helped by codifying parity in provider reimbursement for all telehealth services, including audio-only making it easier for more providers to perform remote services. Additionally, community-based programs and support groups offer alternative avenues for psychological

¹⁴ Tello, M. (2018, November 23). *Behavioral weight loss programs are effective, but where to find them?* Harvard Health. <https://www.health.harvard.edu/blog/behavioral-weight-loss-programs-are-effective-but-where-to-find-them-201811215340>



support, fostering a sense of community and shared experience among individuals facing similar challenges.

Despite these advancements, there remains a need for increased awareness and utilization of psychological support services in obesity management. Healthcare providers play a crucial role in this regard, by recognizing the signs of psychological distress in their patients and referring them to appropriate counseling services. Moreover, policy initiatives aimed at improving insurance coverage for mental health services could further enhance access to these vital resources.



Community and Environmental Interventions

Community-Based Programs

Community-based programs aimed at preventing and managing obesity represent a crucial approach in public health strategies worldwide. These programs are localized efforts that leverage the social, cultural, and physical resources of communities to foster lifestyles conducive to maintaining a healthy weight. Unlike broad public health campaigns, community-based interventions are tailored to meet the specific needs and characteristics of local populations, ensuring greater relevance and effectiveness.

Examples of Successful Community Interventions: The Case of Vermont

Vermont, a state known for its proactive health policies, offers insightful examples of successful community-based interventions targeting obesity. These programs stand out for their innovative, inclusive, and sustainable approaches to weight management and health promotion.

- A. Vermont's Farm-to-School Program¹⁵: This initiative connects schools with local farms to supply fresh, locally-grown produce for school meals. It incorporates nutrition education into the curriculum, teaching children the importance of healthy eating habits. By making healthier food options accessible and engaging students in the process, the program aims to instill lifelong healthy eating habits.
- B. The Vermont Healthy Communities Campaign¹⁶: A comprehensive effort that brings together local governments, schools, businesses, and community members to create environments supportive of physical activity and healthy eating. Through policy changes, infrastructure improvements (such as bike paths and community gardens), and public awareness campaigns, the campaign addresses various factors contributing to obesity.

¹⁵ VT Farm to School & Early Childhood Network. (n.d.). *Vermont Farm to School & Early Childhood Network*. <https://vermontfarmtoschool.org/>

¹⁶ Vermont Department of Health. (2024d, July 19). *Healthy Communities*. HealthVermont. <https://www.healthvermont.gov/healthy-communities>



- C. RiseVT¹⁷: Originating in Franklin and Grand Isle counties, RiseVT expands statewide, embodying a grassroots approach to wellness. It encourages Vermonters to embrace healthier lifestyles through physical activity and nutrition. RiseVT's success lies in its engagement with all sectors of the community, offering tailored programs that resonate with diverse groups, including worksite wellness programs, school-based initiatives, and community events promoting physical activity.

Analysis of the Impact on Obesity Rates

The impact of these community initiatives on Vermont's obesity rates is multifaceted and suggests a positive trend towards healthier communities. Although attributing changes in obesity rates directly to specific programs can be challenging due to the multifactorial nature of obesity, evidence points to beneficial outcomes:

- A. Increased Awareness and Behavioral Change: Programs like RiseVT have reported significant engagement levels, indicating heightened awareness and adoption of healthier lifestyle choices among participants. This behavioral change is a critical step toward reducing obesity rates over the long term.
- B. Improved Access to Healthy Foods and Physical Activity Opportunities: Initiatives such as the Farm-to-School Program and the Vermont Healthy Communities Campaign have directly improved access to nutritious foods and physical activity opportunities. Such access is known to correlate with lower obesity rates, as it facilitates the adoption of healthier lifestyles.
- C. Community Engagement and Support: The success of these programs lies not only in their direct health interventions but also in fostering a sense of community and mutual support towards health goals. This social fabric becomes a powerful tool in sustaining long-term health behavior changes.

Although it's premature to precisely measure the long-term effects on obesity rates, initial data and program assessments suggest encouraging trends. For example, schools involved in the

¹⁷ OneCare Vermont. (2018). *RiseVT Update*. OneCare Vermont. <https://www.onecarevt.org/risevt/>



Farm-to-School Program have noted heightened consumption of fruits and vegetables among students. Likewise, communities actively participating in RISE VT¹⁸, a program promoting and celebrating healthy behaviors across various settings such as families, schools, worksites, municipalities, and childcare facilities, have observed increased engagement in physical activities and wellness challenges.

Community-based programs in Vermont exemplify how localized, collaborative efforts can effectively address the complex issue of obesity. By focusing on education, accessibility, and community engagement, these programs create environments where healthy lifestyle choices are easier to make and maintain. While measuring the direct impact on obesity rates requires more time and research, the positive behavioral changes and community feedback signal a promising path forward. The Vermont model underscores the potential of community-based interventions in fostering healthier populations and offers valuable insights for other regions aiming to combat obesity through localized strategies.

Environmental Strategies

Obesity is a complex, multifaceted issue that is influenced by a myriad of factors, including the environment in which individuals live. The environment can significantly impact both the likelihood of becoming obese and the effectiveness of efforts to combat obesity. This section explores the influence of environmental factors on obesity, strategies for fostering environments that support healthy lifestyles, and highlights Vermont's environmental initiatives and policies aimed at combating obesity.

Influence of Environmental Factors on Obesity

Environmental factors play a crucial role in shaping dietary habits, physical activity levels, and, consequently, individuals' weight. The built environment, including the availability of parks, sidewalks, and recreational facilities, can encourage or discourage physical activity. Similarly, the food environment, characterized by the accessibility and affordability of healthy food options versus fast food outlets and convenience stores, significantly impacts dietary choices. Areas

¹⁸ Health Care Innovation Project. (2016). *RISE Coalition Project Profile*. Vermont.gov; State of Vermont. <https://healthcareinnovation.vermont.gov/content/rise-coalition-project-profile>



with limited access to fresh produce but an abundance of high-calorie, low-nutrient food options contribute to higher rates of obesity. Moreover, socio-economic factors, such as income and education, intersect with these environmental variables, further complicating the obesity epidemic.

Strategies for Fostering Healthy Environments



Creating environments that support healthy lifestyles is essential in the fight against obesity. Strategies to achieve this goal include:

- **Improving Access to Healthy Foods:** Initiatives like community gardens, farmers' markets, and incentives for grocery stores to offer affordable, healthy options can make a significant difference in food deserts.
- **Enhancing Physical Activity Opportunities:** Developing and maintaining parks, trails, and safe walking or biking paths encourages regular physical activity. Urban planning that prioritizes pedestrian-friendly designs and connectivity between residential areas, workplaces, and recreational spaces can foster more active communities.
- **Educational Campaigns and Policies:** Raising awareness about healthy lifestyle choices through public health campaigns, coupled with policies that, for example, limit the availability of sugary drinks and snacks in schools, can influence both individual and community health outcomes.



- **Community-Based Approaches:** Engaging communities in the design and implementation of health-promoting initiatives ensures that interventions are tailored to meet local needs and are more likely to be embraced by community members.

Vermont's Environmental Initiatives and Policies

Vermont has been recognized for its proactive stance towards promoting public health, particularly in the realm of obesity prevention and management. The state's strategies typically focus on creating a supportive environment that encourages healthy living practices among its residents.

State-Sponsored Programs

Vermont has implemented various state-sponsored programs aimed at reducing obesity rates across all age groups. These programs often focus on:

- **Nutritional Education:** Providing resources and information to help individuals make healthier food choices. This might include workshops, school curriculums, and public campaigns about the benefits of a diet rich in fruits, vegetables, whole grains, and lean proteins.
- **Physical Activity Promotion:** Encouraging regular physical activity through community events, public awareness campaigns, and providing access to recreational facilities and parks.
- **Farm to School Programs:** Connecting schools with local farms to supply fresh, local produce for school meals, thereby improving nutritional quality and supporting local agriculture.

Community Initiatives

Community-led initiatives are vital to Vermont's approach, fostering grassroots movements towards healthier lifestyles:



- Community Gardens and Farmers' Markets: These not only provide access to fresh, affordable produce but also educate the community on the importance of nutritious food choices.
- Active Transportation Plans: Encouraging walking, cycling, and other forms of active transportation through the development of bike lanes, trails, and pedestrian-friendly infrastructure.

Policy and Environmental Changes

Vermont has also looked towards policy and environmental changes to support healthy living:

- Sugar-Sweetened Beverage Taxes¹⁹: Implementing taxes on sugary drinks to reduce consumption and generate funding for public health initiatives.
- Nutrition Standards in Schools²⁰: Setting high nutritional standards for school meals to ensure children have access to healthy food options.

¹⁹ Senate Finance Work Group. (2022). *Sugar-Sweetened Beverage Excise Tax Proposals*. (2022). Vermont Legislature #361968 v.1.
<https://legislature.vermont.gov/Documents/2022/WorkGroups/Senate%20Finance/Taxes/W~Abby%20Shepard~Sugar-Sweetened%20Beverage%20Excise%20Tax%20Proposals~4-7-2022.pdf>

²⁰ Vermont Agency of Education. (n.d.). *Nutrition*. Education.vermont.gov.
<https://education.vermont.gov/student-support/nutrition>



Integrating Healthcare Services

Integrated healthcare services for obesity management offer a comprehensive, multidisciplinary approach to address the complex etiology of obesity. This integrative strategy emphasizes the convergence of nutritional counseling, psychological support, and physical activity programs, tailoring interventions to individual needs to enhance outcomes. By considering the multifaceted nature of obesity, this approach fosters a more holistic treatment plan, targeting not just weight loss but also the psychological and physical well-being of individuals.



Nutritional Counseling

Nutritional counseling is a cornerstone of obesity management, focusing on educating patients about healthy eating habits and the nutritional value of food. It involves personalized meal planning based on individual dietary needs, preferences, and medical conditions. Registered dietitians play a pivotal role in this aspect, offering guidance on portion control, food selection, and understanding food labels, aiming to instill sustainable eating habits that support weight management.

Psychological Support

Obesity is not solely a physical health issue but also encompasses psychological dimensions. Psychological support addresses the emotional and mental health challenges associated with



obesity, such as body image issues, depression, and anxiety. This support can take various forms, including individual therapy, group sessions, and family counseling, providing a safe space for individuals to explore their feelings, understand the psychological triggers of their eating behaviors, and develop coping strategies.

Physical Activity Programs

Physical activity is integral to obesity management, enhancing weight loss efforts, and improving cardiovascular health. Tailored exercise programs that consider an individual's fitness level, interests, and health conditions are essential. These programs might include aerobic exercises, strength training, and flexibility exercises, gradually increasing in intensity and duration. Encouraging regular physical activity not only aids in weight reduction but also boosts mood and self-esteem.

Cognitive-Behavioral Therapy (CBT)

CBT is a psychotherapeutic approach that helps individuals recognize and alter detrimental thought patterns and behaviors related to eating, physical activity, and body image. Through CBT, patients learn to challenge and replace negative thoughts with more realistic and positive ones, fostering healthier eating patterns and attitudes towards exercise. This method is particularly effective in addressing the psychological barriers to weight loss, enhancing self-efficacy, and promoting long-term weight management.

Mindfulness-Based Stress Reduction (MBSR)

MBSR is a therapeutic approach that incorporates mindfulness meditation to reduce stress and improve emotional and physical well-being. In the context of obesity management, MBSR helps individuals cultivate a non-judgmental awareness of their eating habits, hunger cues, and emotional states. This heightened mindfulness can reduce binge eating and emotional eating, leading to more mindful food choices and a healthier relationship with food.



Motivational Interviewing (MI)

MI is a counseling method that strengthens a person's own motivation and commitment to change. In obesity management, MI involves collaborative conversations that elicit and explore the individual's own reasons for change within an atmosphere of acceptance and compassion. This approach helps individuals overcome ambivalence about lifestyle changes, enhancing their motivation to adhere to dietary, psychological, and physical activity recommendations. Integrating healthcare services for obesity management offers a holistic, patient-centered approach that addresses the physical, psychological, and behavioral aspects of obesity. By combining nutritional counseling, psychological support, and physical activity programs with evidence-based therapeutic interventions like CBT, MBSR, and MI, individuals are empowered to make sustainable lifestyle changes. This integrated strategy not only facilitates effective weight management but also improves overall health and quality of life, underscoring the importance of a multidisciplinary approach in the treatment of obesity.



Sustainable Obesity Management: Medication and Lifestyle Integration

This approach advocates for the integrated use of medication alongside lifestyle modifications to address both the immediate and prolonged challenges of weight management. The process generally initiates with pharmacotherapy to jump-start weight loss, then progressively focuses on lifestyle adjustments to maintain weight reduction, and enhance health outcomes, reducing long-term medication dependence. Supported by numerous studies, this dual strategy proves more effective than either method alone.



Phase 1: Adding Pharmacotherapy

Initially, patients who have struggled to achieve weight loss goals through lifestyle adjustments alone, or who are at considerable health risk due to their weight, may be prescribed FDA-approved medications such as orlistat, liraglutide, and bupropion-naltrexone. These drugs function by diminishing appetite, enhancing satiety, or obstructing fat absorption. A notable study published in *JAMA*²¹ highlighted semaglutide's efficacy, showing significant weight loss in

²¹ Ghusn, W., De la Rosa, A., Sacoto, D., Cifuentes, L., Campos, A., Feris, F., Hurtado, M. D., & Acosta, A. (2022). Weight Loss Outcomes Associated With Semaglutide Treatment for Patients With Overweight or Obesity. *JAMA Network Open*, 5(9), e2231982. <https://doi.org/10.1001/jamanetworkopen.2022.31982>



participants, which emphasizes the potential of pharmacotherapy in reducing obesity-related risks.

Phase 2: Transitioning to Lifestyle Modifications

Subsequently, the strategy shifts towards emphasizing dietary changes, increased physical activity, and behavioral therapy as primary means for sustaining and augmenting weight loss. This phase is pivotal, as integrating medication with lifestyle changes has been shown to significantly enhance weight loss and metabolic health. Noteworthy research demonstrates the superior outcomes of this combined approach, with medications like phentermine/topiramate and liraglutide leading in achieving considerable weight reductions. Yet, it's critical to assess the benefits against potential costs and side effects of these medications.

Phase 3: Maintaining Weight Loss without Medication

The aim is to preserve weight loss and health improvements attained through the initial phases without continued dependence on medications. This involves steadfast commitment to healthy eating, regular physical exercise, and the behavior strategies developed during the treatment process. The WRAP trial²², among others, provides evidence of the effectiveness of lifestyle-change programs in sustaining long-term weight loss, underscoring the value of structured programs and the resilience of weight loss achievements over time.

Transforming Weight Loss into Lifestyle Mastery

The transformation from medication to lifestyle mastery in obesity treatment underscores the synergy between pharmacological treatments and lifestyle adjustments for durable health benefits. The selection of obesity medications should consider the patient's health profile and potential side effects, with a focus on drugs that curb appetite or limit fat absorption. However, these medications are not substitutes for the critical components of a healthy lifestyle: exercise

²² O'Neil, P. M. (2022). Long-term maintenance of weight loss. *The Lancet Public Health*, 7(10), e806–e807. [https://doi.org/10.1016/s2468-2667\(22\)00235-3](https://doi.org/10.1016/s2468-2667(22)00235-3)



and a balanced diet. Comprehensive health benefits, sustainability, limitations of medications, and a holistic health approach advocate for a multifaceted strategy incorporating medical, behavioral, and lifestyle interventions.

Research, like that presented at the ENDO 2022 conference, supports the effectiveness of an integrated approach, showing significant long-term weight loss through lifestyle and medication combinations.²³ This strategy, particularly applied to contexts such as Vermont's unique challenges with obesity, emphasizes the need for collaboration with healthcare providers, patient advocacy groups, and public health initiatives for tailored community-specific interventions. Utilizing technology and digital health tools may further support lifestyle changes, engagement, and monitoring, offering a promising avenue for combating the obesity epidemic and advancing public health.

²³ Endocrine Society. (2022, June 12). *Study finds long-term 10% weight loss with anti-obesity medications and lifestyle changes*. <https://www.endocrine.org/news-and-advocacy/news-room/2022/study-finds-long-term-weight-loss-with-anti-obesity-medications-and-lifestyle-changes>



Evaluation of Treatment Strategies

The management of obesity is a multifaceted challenge that extends beyond the realm of medical treatment. In evaluating the treatment strategies for obesity, it is imperative to explore the availability and efficacy of non-medication interventions, consider the cost-benefit aspect of various strategies, and reflect on the core values driving these approaches.

Availability and Efficacy of Non-Medication Interventions

Non-medication interventions for obesity primarily include lifestyle modifications, dietary changes, physical activity, behavioral therapy, and, in some cases, surgical interventions such as bariatric surgery. The availability of these interventions often varies based on geographic location, socioeconomic status, and the presence of supportive healthcare policies.

- A. **Lifestyle and Dietary Changes:** The cornerstone of obesity management involves dietary modifications and increased physical activity. Programs emphasizing balanced nutrition, portion control, and regular exercise show promising results in weight reduction and maintenance. The efficacy of these interventions is often enhanced by ongoing support and education, highlighting the importance of accessibility to nutritionists and fitness experts.
- B. **Behavioral Therapy:** This involves strategies to help individuals modify their eating habits and behaviors related to physical activity. Cognitive-behavioral therapy (CBT) has been effective in addressing the psychological aspects of eating and weight management, showing significant long-term benefits.
- C. **Surgical Interventions:** Bariatric surgery has been a mainstay of treatment for individuals with severe obesity when other interventions have failed. It has proven results and while the initial cost is high, as discussed in part one of this review, the lifetime cost is significantly lower than a lifetime of taking the GLP-1 medications at their current price. The risks and long-term benefits in terms of significant weight loss and reduction in obesity-related comorbidities can be substantial and are well understood and these interventions need to remain a foremost option for individuals who cannot meet goals with lifestyle interventions alone.



Cost-Benefit Aspect of Various Strategies

The cost-benefit analysis of obesity treatment strategies is complex and multifaceted. While lifestyle and dietary modifications are the least costly options, their success depends heavily on individual compliance and the long-term sustainability of behavior changes. Behavioral therapy and structured weight management programs may incur moderate costs but offer the advantage of professional guidance and support.

Bariatric surgery, although expensive upfront, can be cost-effective in the long term, especially for those with severe obesity and related health conditions. It reduces the cost associated with chronic diseases like diabetes, hypertension, and cardiovascular diseases.

Core Values Driving Obesity Management Approaches

At the heart of obesity management are the core values of respect, empathy, and a holistic view of health. Effective obesity treatment strategies are those that respect the individual's dignity, acknowledge the complexities of obesity, and focus on overall well-being rather than solely on weight loss.

- A. Empathy and Understanding: Recognizing obesity as a chronic disease rather than a result of individual failure is crucial. Strategies should be designed with empathy, offering support and understanding to those struggling with obesity.
- B. Holistic Approach: A comprehensive approach that addresses the physical, psychological, and social aspects of obesity is essential. This includes not just the reduction of body weight but also the improvement of metabolic health, mental well-being, and quality of life.
- C. Inclusivity and Accessibility: Obesity management should be inclusive, considering the diverse needs of individuals across different ages, races, and socioeconomic backgrounds. Ensuring the accessibility of treatment options for all segments of the population is crucial for equitable health outcomes.



Employer Support for Wellness and Obesity Treatment

Employer-supported wellness programs have gained momentum as organizations recognize the direct link between employee health and organizational performance. These programs, often encompassing obesity treatment and prevention, represent a holistic approach to employee well-being, focusing on physical, mental, and emotional health. By adopting strategies that encourage healthier lifestyles, companies can reap significant benefits, although implementing these initiatives comes with its own set of challenges and opportunities.

Employee wellness



Strategies for Employer-Supported Wellness Programs

- A. Comprehensive Health Assessments: Offering health screenings and assessments can help identify risk factors for obesity and other health conditions early, allowing for timely interventions.
- B. Nutritional Support and Education: Providing access to nutritionists, healthy eating workshops, and healthy food options in the workplace can empower employees to make healthier dietary choices.
- C. Physical Activity Promotion: This can include subsidized gym memberships, on-site fitness facilities, group exercise classes, and challenges or incentives to encourage regular physical activity.
- D. Mental Health Resources: Since mental health is closely linked to physical health, offering access to counseling services, stress management workshops, and mindfulness training is essential.



- E. Customized Wellness Plans: Recognizing that each employee's health journey is unique, personalized wellness plans can cater to individual needs and preferences, increasing engagement and effectiveness.
- F. Policy and Environmental Changes: Modifying the workplace environment to support healthy behaviors, such as standing desks, walking meetings, and accessible stairwells, can subtly encourage a more active lifestyle.

Benefits of Employer-Supported Wellness Programs

The benefits of these programs are multifold, impacting both the individual and the organization:

- Improved Employee Health: Reduced prevalence of obesity and associated health conditions leads to a healthier workforce.
- Increased Productivity: Healthier employees are often more energetic and focused, contributing to higher productivity levels.
- Reduced Healthcare Costs: Preventive health measures can lead to significant savings in healthcare costs for both employees and employers.
- Enhanced Employee Engagement and Morale: Wellness programs can improve job satisfaction and employee retention by demonstrating an employer's investment in their staff's health and well-being.
- Attracting Talent: A strong wellness program can serve as a competitive advantage in attracting top talent who value health and well-being support in the workplace.

Challenges in Implementing Wellness Programs

Despite the benefits, organizations face several hurdles in rolling out effective wellness programs:

- Cost: The initial investment in wellness programs can be significant, deterring some employers, especially smaller businesses.
- Engagement: Encouraging sustained employee participation remains a challenge, with varying levels of interest and motivation among staff.



- **Measuring ROI:** Quantifying the return on investment (ROI) of wellness programs in terms of health outcomes and financial savings can be complex and requires time.
- **Cultural and Environmental Barriers:** Creating a culture that genuinely supports wellness and changing long-standing workplace habits can be difficult.

Opportunities for Enhancing Wellness Program Effectiveness

To overcome these challenges, employers can explore various opportunities:

- **Leveraging Technology:** Digital tools, such as fitness trackers, health apps, and online platforms, can enhance engagement and make it easier to track progress.
- **Partnerships and Collaborations:** Collaborating with health insurers, local fitness centers, and wellness experts can reduce costs and enrich program offerings.
- **Customization and Flexibility:** Offering a range of options that cater to diverse needs and preferences can boost participation rates.
- **Communication and Education:** Regular communication about the benefits of participation, success stories, and educational resources can increase awareness and motivation.



Concluding Comments



In both part one and part two of this review of obesity and its treatment, DVHA has attempted to detail the seriousness of the disease, the importance of treating the disease, and the complexity of both. While both the disease and the treatment are physiologic, they are also significantly intertwined with and affected by geographic, cultural, and socio-economic factors. Factors that lead to higher disease burden and reduced access to treatment in low-income families and racial and ethnic minorities. Many of the factors are easy to identify but can go ignored by busy and overwhelmed clinicians. These factors include discrepancies in access to transportation, food insecurity, and the constraints of a full-time work schedule, all of which complicate an individual's ability to access and be compliant and adherent with the healthy lifestyle modifications that DVHA believes should be a cornerstone of obesity treatment and management.

As if these logistical disparities in access to treatment weren't enough, the exorbitant prices demanded by pharmaceutical companies for the new GLP-1 weight loss medications add an additional and untenable dilemma to the issue of how best to provide treatment to those who need it.



Further, the media storm around the new medications diverts attention from the real issue. **How do we help the nation and Vermonters in particular, lead a healthier life?** DVHA, encourages lawmakers, health professionals, advocates, and all interested parties in Vermont to focus on this question and solution it.

In this review, DVHA has highlighted the good work Vermont has already done in laying the foundation for a comprehensive approach to obesity management and treatment that addresses various aspects of lifestyle and behavior. Vermont's efforts in promoting dietary modifications underscore the importance of local context, education, and community engagement in combatting obesity. Similarly, initiatives aimed at enhancing physical activity levels and employing behavior modification strategies demonstrate the effectiveness of structured interventions tailored to demographic and cultural specifics. The state's focus on increasing access to psychological support of all kinds emerges as a vital component in the battle to treat and manage obesity. Acknowledging the mental health and emotional dimensions of obesity treatment, which are not addressed by the reliance on medication is essential to achieving sustained weight loss.

Community-based programs in Vermont fostering healthier populations, exemplify our state's long-standing belief and pride in localized, collaborative efforts to support our neighbors in need. The same can be said of Employer-supported wellness programs which can offer substantial health benefits, and leverage opportunities for creating healthier, more engaged workforces. DVHA fully supports the continuation of all these efforts and calls upon all employers, state and local government, hospitals, and provider networks to join and expand upon them, so that all Vermonters have access to long-lasting obesity management modalities.

Yet, while we can and should continue to build and improve access to all Vermonters to healthy diets, exercise and physical activity programs, and the psychological and behavioral support and tools necessary for weight loss, this may not be enough for some individuals. Additionally, the high cost of the medications, which in Part 1 DVHA estimated to be in the tens of millions of dollars annually raises the question of whether it might be better to invest that money in healthier ways to help Vermonters achieve and maintain a healthy weight.

Consequently, the State of Vermont should strongly consider covering individual exercise programs for its members, or as part of a Comprehensive Lifestyle Intervention (CLI) program.



CLI programs offer a whole-person approach to obesity prevention, treatment, and management by providing a structured supportive environment for patients to develop and maintain the lifestyle modifications needed for weight loss and obesity prevention. One existing program that could perhaps serve as a model to be expanded upon is the University of Vermont Medical Center’s “Move to Lose Program” (Move To Lose (uvmhealth.org)) which is offered to UVMHC employees. This a 16-week support group that combines an initial visit with a cardiac rehab provider followed by nutrition and dietary counseling with 5 day a week access to a gym and medically supervised exercise.

Finally, if the State does decide to create a State Plan Amendment to allow the coverage of weight loss medications, their great upfront cost and yet unproven end results, call for a careful and fiscally responsible approach to their use,

Overall, DVHA supports and encourages a whole-person approach to obesity management that embodies Vermont’s core values, and which integrates access for all Vermonters to a healthy diet, physical activity, assistance with behavior modifications, and psychological support, tailored to the individual needs of each Vermonter.

