Canada's Drug Agency
L'Agence des médicaments du Canada

CDA-AMC REIMBURSEMENT REVIEW

Patient and Clinician Group Input

semaglutide (Wegovy)

(Novo Nordisk Canada Inc.)

Indication: Wegovy (semaglutide injection) is indicated as an adjunct to a reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial body mass index (BMI) of: • 30 kg/m2 or greater (obesity), or• 27 kg/m2 or greater (overweight) in the presence of at least one weight-related comorbidity such as hypertension, type 2 diabetes mellitus, dyslipidemia, or obstructive sleep apnea.

December 06, 2024

This document compiles the input submitted by patient groups and clinician groups for the file under review. The information is used by CDA-AMC in all phases of the review, including the appraisal of evidence and interpretation of the results. The input submitted for each review is also included in the briefing materials that are sent to expert committee members prior to committee meetings. **If your group has submitted input that is not reflected within this document, please contact Formulary-Support@cda-amc.ca.**

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CADTH

Patient Input Template for CADTH Reimbursement Reviews

Name of Drug: Wegovy

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Name of Patient Group: Diabetes Canada

Author of Submission: Laura O'Driscoll

1. About Your Patient Group

Diabetes Canada (www.diabetes.ca) is a national health charity representing the millions of Canadians who are affected by diabetes. Diabetes Canada leads the fight against diabetes by helping people live healthy lives, preventing the onset and consequences of diabetes, and discovering a cure. It has a heritage of excellence and leadership, and its co-founder, Dr. Charles Best, along with Dr. Frederick Banting, is credited with the co-discovery of insulin. Diabetes Canada is supported in its efforts by a community-based network of volunteers, employees, health-care professionals, researchers, and partners. By providing education and services, advocating on behalf of people living with diabetes, supporting research, and translating it into practical applications, Diabetes Canada is delivering on its mission. Diabetes Canada will continue our work to prevent diabetes and its complications; help people with diabetes live healthy lives; and work to find a cure.

2. Information Gathering

This submission contains patient input from an online survey conducted from October 7th to November 28th, 2024. The survey was open to people across Canada and consisted of a self-administered questionnaire. The survey was directed at people living with type 1 and 2 diabetes and caregivers of people living with diabetes. The survey inquired about respondents' lived experience with diabetes and diabetes medications, and expectations for new drug therapies in Canada. Further, the survey posed several questions specifically about the drug under review, Wegovy. Awareness about the survey was generated through Diabetes Canada's social media channels (Twitter, LinkedIn and Facebook), e-blast to Diabetes Canada digital subscribers, and via a health-care providers' online forum (Diabetes Canada's Professional Section).

A total of 170 people responded to the survey – of those who responded to the general information section of the survey, 37 identified as living with type 1 diabetes,101 identified as living with type 2 diabetes, 9 respondents identified as a caregiver to somebody with diabetes,7 respondents identified as a caregiver to somebody with diabetes and living with diabetes and 20 respondents identified as living with prediabetes. Of those who responded to questions about age and time since diagnosis (n=107), 88% were over the age of 45, with the largest number of respondents (31%, n=33) in the 55–64-year-old category, and 56% having lived with diabetes for over 10 years (33% of this group reported having diabetes for over 20 years).

The majority of respondents live in Ontario (n=44), Alberta (n=17), and British Columbia (n=14), with less than 10 respondents from Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba and Saskatchewan and no respondents from the Territories. 65% of respondents indicated that they live in an urban or suburban region (n=69), with 31% indicating that they live in a rural or remote area (n=33). 38% (n=40) respondents identified as male and 61% (n=65) identified as female, 1% of respondents identified as non-binary. 74% of respondents identified as White Caucasian (n=78), 7% of respondents identified as being South Asian (n=7). Just under 10% of respondents identified as being Indigenous (n=3), African, Caribbean, Black (n=2), Arab (n=2), Latin American/ Hispanic (n=1), or Chinese (n=1).

3. Disease Experience

Wegovy is a medication used for weight management as an adjunct to a reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial body mass index (BMI) of equal to or greater than 27 kg/m2 and established cardiovascular disease (myocardial infarction, stroke or peripheral arterial disease).

Diabetes is a disease characterized by elevated levels of glucose in the blood. Common symptoms of diabetes include extreme fatigue, unusual thirst, frequent urination, and weight gain or loss. Diabetes necessitates considerable daily self-management. Treatment regimens differ between individuals, but most include eating in a balanced manner, engaging in regular physical activity, taking medications (oral and/or injectable) as prescribed, monitoring blood glucose, and managing stress.

About 90 to 95 percent of those diagnosed with diabetes live with type 2 diabetes. Type 2 diabetes occurs when the pancreas does not produce enough insulin, or the body does not effectively use the insulin that is produced. Among other things, treatment may include exogenous insulin, in addition to other therapies, like oral and/or other injectable medications. Typically, type 1 diabetes presents in children and adolescents, while type 2 develops in adulthood, though either type of diabetes can be diagnosed at any age. Those of advancing age, with a genetic predisposition, who are part of a high-risk population (African, Arab, Asian, Hispanic, Indigenous or South Asian descent, low socioeconomic position), and/or who are living with comorbid conditions, including obesity, are at increased risk of developing type 2 diabetes.

It can be quite serious and problematic for people with diabetes when blood glucose levels are not at target. Low blood sugar can precipitate an acute crisis, such as confusion, coma, and/or seizure that, in addition to being dangerous, may also contribute to a motor vehicle, school/workplace or other type of accident, causing harm. High blood glucose can cause weakness, nausea, vomiting, abdominal pain, and other symptoms. Over time, glucose levels above target can irreversibly damage blood vessels and nerves, resulting in issues like blindness, heart disease, kidney dysfunction, foot ulcers, and non-traumatic lower limb amputations. One of the goals of diabetes management is to keep glucose levels within a target range to minimize symptoms and decrease the risk of complications and consequences. 18% (n=29) of respondents indicated that they, or the person they care for, experienced cardiovascular disease (myocardial infarction, stroke or peripheral arterial disease) since being diagnosed with diabetes.

Most survey respondents indicated that living with is preoccupying, inconvenient, and burdensome. Management is constant, with the condition requiring a great deal of foresight and planning. The majority of respondents spoke of the challenges of managing their blood glucose in relation to their diet and food choices, and the constant pressure of diabetes management and its relationship with weight management. Survey respondents shared the ways in which diabetes impacts their daily life and overall quality of life. They provided the following insights:

> “On a good day, diabetes feels more like a mild inconvenience. It is rather time consuming having to carb count, give insulin, the countless appointments with a variety of healthcare providers (endocrinologist, diabetes educator, dietitian, optometrist, podiatrist, etc…) I unfortunately miss a lot of work due to these appointments. On a bad day, however, diabetes takes a heavy toll on me on the emotional/psychological level. Sometimes it makes me feel like a broken human in the sense that my own body turned on itself. It makes me worry about my future (dating, career, children) it makes me feel limited in what I can and can’t do with my life. Some days the fluctuations in my glucose levels gives me physical symptoms (dizziness, nausea, etc…) that can become too much to bear.”

> “Always trying to lose weight, diabetes impacts my life by controlling what I eat. Making me make better choices. Getting exercise. I find I crave sugar all the time. It is a constant battle with my cravings.”

> "Daily worries about blood sugar levels, always monitoring CGM, giving insulin, so much time spent on controlling sugars. Anxiety associated with all of this."

Respondents were also asked which conditions, in conjunction with diabetes, they experience. The table below represents conditions, other than diabetes, that respondents experience.

Condition	Rates
High blood pressure	57% (n=96)
Abnormal cholesterol levels	36% (n=60)
Heart condition or heart disease	21% (n=36)
Mental health concerns	25% (n=42)
Kidney issues or kidney disease	17% (n=28)
Foot problems	28% (n=47)
Eye problems	35% (n=59)
Weight management issues	46% (n=78)
Nerve damage	19% (n=32)
Damage to blood vessels or brain	3% (n=5)
Arthritis	44% (n=74)
Gastrointestinal issues	27% (n=45)
Other	25% (n=43)

Regarding the condition of pre-diabetes, 33% (n=50) of respondents living with Type 2 diabetes were diagnosed with prediabetes prior to their diabetes diagnosis. For those currently living with prediabetes or those who previously lived with prediabetes, the majority of respondents indicated that they were not prescribed any treatments to reduce the likelihood of progressing to type 2 diabetes. The majority of respondents (65%, n=85) who currently or previously lived with prediabetes, indicated that treatments that were made available to them were ineffective in preventing type 2 diabetes.

Regarding the condition of obesity, those currently living with obesity or those who previously lived with obesity, the majority of respondents indicated that they were not prescribed any treatments to reduce the likelihood of progressing to type 2 diabetes. A few respondents indicated that they were "just told to exercise and diet" and some indicated that they were prescribed currently available medications. The majority of respondents (56%, n=79) who currently or previously lived with obesity, indicated that treatments that were made available to them were ineffective in managing their weight.

4. Experiences With Currently Available Treatments

With respect to currently available treatments for diabetes the majority respondents (91%, n=149) reported taking medication for their diabetes.

162 respondents also indicated utilizing non-medication interventions to manage their diabetes:

92% reported healthy eating (n=149)

72% reported engaging in physical activity (n=177)

24% reported taking herbal remedies or over-the-counter supplements (n=39)

3% Using a commercial weight loss program (e.g., WW, Jenny Craig, Herbal Magic, etc.) (n=5)

2% Following a medically supervised weight management program (n=4)

5% reported that they have considered or done bariatric surgery (n=8)

55.21% (n=90) of respondents indicated that them, or the person they care for, are able to maintain a healthy weight while living with diabetes, while 37% (n=60) indicated they them, or the person they care for, are not able to maintain a healthy weight while living with diabetes.

People shared the following comments about barriers they have experienced in maintaining a healthy weight:

“The cost of food.”

“Prepared food options are generally not suitable at all to maintain health and weight. Low fat are usually high carb and so on.”

“When my glucose drops and I go into panic mode I tend to take in too many carbs that are not as healthy.”

“Blood sugar and medication impact ability to follow a strict diet.”

“Exercise and affordable medication is an issue.”

“Difficulty changing habits, i.e. eating habits, exercise habits.”

Over 60% of respondents commented that they were “very satisfied” or “satisfied” with their current diabetes medication(s). Approximately 12% of respondents reported that they were “dissatisfied” or “very dissatisfied” with their current medication(s). 21% of respondents that they were neither satisfied nor dissatisfied with their current diabetes medication(s).

The table below represents how current medications being used by respondents (n=149) help with the outlined goals of diabetes management (not applicable responses are not indicated in table).

	Better/much better than before	Same as before	Worse/Much worse than before
Maintaining or losing body weight	38% (n=56)	39% (n=57)	5% (n=7)
Avoiding end organ damage (for example, kidney complications and eye disease)	24% (n=34)	46% (n=65)	6% (n=8)
Preventing vascular complications (heart attacks, strokes, peripheral vascular disease)	30% (n=42)	43% (n=60)	4% (n=5)
Preventing frequent urination, thirst, and dehydration	20% (n=28)	39% (n=56)	19% (n=27)
Preventing gastrointestinal side effects (diarrhea, nausea, vomiting, abdominal pain	18% (n=26)	36% (n=52)	20% (n=28)

Avoiding yeast infections and/or urinary tract infections	19% (n=26)	34% (n=47)	11% (n=15)

Respondents were asked if they, or the person they care for, have any trouble accessing any of your medication(s). Here is their input:

"It's all too expensive. The benefits I have don't cover all of my costs, the government program for my pump supplies barely covers 1/2 the yearly costs. My husbands current benefits don't cover the medical expenses I need covered eg,) foot care, pump supplies. The only reason I have benefits is b/c my husband has extended health care. I can't find a full time job with benefits."

"Some are not covered by Pharma Care or employer health benefits."

"I have 3rd party insurance now. I am concern when I retire - pharmacare may not be enough to pay for my medication."

"Cost of medications is very high especially if not on drug plan. As a senior, I couldn't afford on my income."

5. Improved Outcomes

Respondents shared how important the following considerations are in choosing medications for diabetes management:

- Avoid high blood sugar at any time (92%, n=99)
- Avoid low blood sugar at any time (98%, n=93)
- Reduce the risk of heart problems (88%, n=91)
- Blood sugar kept at satisfactory level upon waking, during the day, after fasting, or after meals (93%, n=97)
- Avoid weight gain/reduce weight gain (87%, n=91)
- Reduce high blood pressure (82%, n=87)
- Reduce the risk of heart problems (88%, n=91)
- Avoid stomach side effects (diarrhea, nausea, vomiting, abdominal pain) (87%, n=90)
- Frequency of dosing (77%, n=79)

Respondents (n=88) highlighted the cost and accessibility of prescription medications and the financial burden it places on them as a consideration in choosing treatments. They also indicated that potential side effects and the efficacy of the medication as important factors to consider when choosing medication(s).

Many respondents (n=86) also provided detail on how their daily life and overall quality of life would be different if a new treatment provided their desired improvements. A few of their quotes are highlighted below:

“Less stress, longer life. better sleep. More time with family. More outings and hopefully less cost for us all.”

“Improved quality of life. Less anxiety about my health.”

“I would feel more healthy and in control of my diabetes.”

“Less financial stress, better day to day feeling (less symptoms).”

“Make a more ’normal’ lifestyle. Not having to worry so much about heart disease, kidney failure, vision problems, etc.”

“Would have better control over my eating habits. Lose weight and be able to exercise more regular and be able to do things with the grandchildren like they deserve.”

“Losing weight would reduce my pain levels, allow me to be more active, and improve my overall well being.”

6. Experience With Drug Under Review

Of those who responded to the question (n=119), seven respondents reported currently taking Wegovy along with other medications. The medication was obtained through private insurance or respondents paid full cost (out-of-pocket) for the prescription. Some participants obtained Wegovy through a clinical trail (2%) or from manufacturer’s samples (2%).

The table below represents what changes the respondent, or the person they care for, experienced with Wegovy compared to previous therapies (do not know responses are not indicated in table).

	Better/much better than before	Same as before	Worse/Much worse than before
Maintaining or losing body weight	13% (n=9)	6% (n=4)	4% (n=3)
Blood pressure	7% (n=5)	16% (n=11)	1% (n=1)
Cardiovascular disease	9% (n=6)	9% (n=6)	1% (n=1)
Chronic heart failure	7% (n=5)	4% (n=3)	1% (n=1)
Kidney function	9% (n=6)	9% (n=6)	1% (n=1)
Meeting target blood sugar levels after meals	9% (n=6)	14% (n=10)	4% (n=3)

Gastrointestinal side effects (diarrhea, nausea, vomiting, abdominal pain)	4% (n=3)	10% (n=7)	7% (n=5)
Organ damage (pancreas, liver, kidney, heart)	4% (n=3)	6% (n=4)	3% (n=2)

For respondents who have used or are currently using Wegovy, they shared the following comments about what they liked about medication and how Wegovy has impacted their life:

“Before wegovy I could not walk without shooting pain up my legs and shortness of breath - almost immediately upon using wegovy these symptoms disappeared and I have lost 21 pounds.”

“Once weekly dose. Not as many low blood sugar symptoms.”

“Feels better seeing a little weight loss.”

“It gives me hope for the treatment of DM & it's beneficial effects in DM-related CVD. However, universal funding for this medication is essential for most, working class Canadians.”

For respondents who have used or are currently using Wegovy, they shared the following comments about what they disliked about medication:

“Cost - wegovy is very expensive and quite a burden. I am rationing currently to reduce cost.”

“Never taken it but would certainly give it a try if wasn’t so darn expensive.”

“Currently experiencing gastrointestinal distress.”

7. Companion Diagnostic Test

Wegovy does not have a companion diagnostic, therefore this question is not applicable to our submission.

8. Anything Else?

Diabetes is a disease that requires intensive self-management. Diabetes Canada’s 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada highlight the importance of personalized care when it comes to treatment. Survey responses reinforce the message that different people require different modalities to help effectively manage their diseases. Their unique clinical profile, preferences and tolerance of therapy should direct prescribers to the most appropriate choice and combination of treatments for disease management. Health care providers must be supported in prescribing evidence-based therapies and, through public and private drug plans, patients should have access to a range of treatments that will allow them to optimize their health outcomes. For those paying out-of-pocket, costs should not be so high as to prohibit medication procurement.

While current therapies have generally led to improvement for many people, people living with diabetes and their caregivers hope for additional affordable agents that they can access in a timely manner and with good result to help them lead a normal life. Wegovy may help improve glucose management, thereby

reducing the risk of diabetes-related complications, improving lives, and saving millions in direct health-care costs. For this reason, Wegovy should be an option for people living with obesity.

Appendix: Patient Group Conflict of Interest Declaration

To maintain the objectivity and credibility of the CADTH reimbursement review process, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This Patient Group Conflict of Interest Declaration is required for participation. Declarations made do not negate or preclude the use of the patient group input. CADTH may contact your group with further questions, as needed.

1. Did you receive help from outside your patient group to complete this submission? If yes, please detail the help and who provided it.

There was no assistance from outside Diabetes Canada to complete this submission.

2. Did you receive help from outside your patient group to collect or analyze data used in this submission? If yes, please detail the help and who provided it.

There was no assistance from outside Diabetes Canada to collect or analyze data used in this submission.

3. List any companies or organizations that have provided your group with financial payment over the past 2 years AND who may have direct or indirect interest in the drug under review.

Table 1: Financial Disclosures

Check Appropriate Dollar Range with an X. Add additional rows if necessary.

Company	$0 to 5,000	$5,001 to 10,000	$10,001 to 50,000	In Excess of $50,000
Novo Nordisk				X
AstraZeneca	X			
Janssen			X	
Sanofi				X
Bayer	X			
Janssen				X
Novartis Pharmaceuticals Canada Inc.			X	
Moderna Canada			X	
Eli Lilly Canada Inc			X	

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Laura O’Driscoll
Position: Senior Manager, Policy
Patient Group: Diabetes Canada
Date: **December 6, 2024**

CADTH

Patient Input Template for CADTH Reimbursement Reviews

Name of Drug: Wegovy (Semaglutide)
Indication: As an adjunct to a reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial BMI of 30 kg/m2 or greater (obesity), or 27 kg/m2 or greater (overweight) in the presence of at least one weight-related comorbidity such as hypertension, type 2 diabetes mellitus, dyslipidemia, or obstructive sleep apnea.
Name of Patient Group: Fatty Liver Alliance
Author of Submission: Michael Betel

1. About Your Patient Group

Describe the purpose of your organization. Include a link to your website.

The Fatty Liver Alliance is dedicated to raising awareness about fatty liver disease, including metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH), which are significant and growing public health issues in Canada. Our mission is to "raise awareness about the risks, causes and complications of fatty liver disease and help those already diagnosed with metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH) by advocating for access to approved treatments and care. Through partnerships with healthcare professionals, patient groups, and policymakers, we work to ensure that those affected by MASLD and MASH receive the care and attention they need to prevent complications such as liver cirrhosis, cardiovascular disease, and diabetes.

We also strive to break the stigma around fatty liver disease by increasing public understanding of the condition and its metabolic roots. Our organization advocates for access to new, effective treatments, including therapies that address the underlying causes of the disease, such as obesity and metabolic dysfunction.

As part of our mission, the Fatty Liver Alliance also supports research efforts aimed at developing innovative treatment options and improving patient outcomes. We work closely with healthcare professionals, patients, and stakeholders to promote best practices and to foster early screening and intervention programs to reduce the progression of the disease.

You can learn more about our work and our advocacy efforts at Fatty Liver Alliance (www.fattyliver.ca)

2. Information Gathering

CADTH is interested in hearing from a wide range of patients and caregivers in this patient input submission. Describe how you gathered the perspectives: for example, by interviews, focus groups, or survey; personal experience; or a combination of these. Where possible, include **when** the data were gathered; if data were gathered **in Canada** or elsewhere; demographics of the respondents; and **how many** patients, caregivers, and individuals with experience with the drug in review contributed insights. We will use this background to better understand the context of the perspectives shared.

Our submission is based upon years of experience and the treatment of thousands of patients with MASLD and MASH by our team, including board members, Dr. Supriya Joshi (Hepatologist), Dr. Hsiao-Ming Jung (Primary Care Physician with MASLD/MASH focus), Cheryl Dale (Nurse Practitioner), and Michael Betel (MASLD patient and patient advocate, President of Fatty Liver Alliance).

Fatty Liver Alliance works closely with other Patient Advocate organizations. The Fatty Liver Foundation based in the US, in 2022 and 2023, surveyed 1,518 individuals in a survey; "The State of NAFLD/NASH Care in America", designed to capture

the lived experiences of adults in the U.S. diagnosed with nonalcoholic fatty liver disease (NAFLD) or nonalcoholic steatohepatitis (NASH), focused on their medical, social, and psychosocial journeys. In 2023, 82% of respondents indicated health as their greatest social insecurity, often driven by co-morbidities such as obesity, which is frequently linked with MASLD/MASH. Additionally, a significant portion of respondents—96.4% in 2023—were not currently enrolled in a clinical trial, highlighting the need for increased awareness and support for patient participation in such trials.

One patient commented, *"I want to know how bad my liver is and how to get healthy again,"* reflecting the desire for more information and better management of their condition. Another noted, *"We need doctors to look at the body as a whole, not so many specialists that don't communicate with one another,"* underscoring the importance of comprehensive, multidisciplinary care. These insights, along with caregiver support, are critical in addressing the complex needs of this patient population.

3. Disease Experience

CADTH involves clinical experts in every review to explain disease progression and treatment goals. Here we are interested in understanding the illness from a patient's perspective. Describe how the disease impacts patients' and caregivers' day-to-day life and quality of life. Are there any aspects of the illness that are more important to control than others?

For patients living with metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH), the disease significantly affects both their day-to-day life and their overall quality of life. These conditions are often interwoven with metabolic issues like obesity, insulin resistance, and cardiovascular disease, which means that patients face multiple health challenges simultaneously. From a patient's perspective, managing these overlapping conditions can be exhausting, both physically and mentally, and places a heavy burden on caregivers as well.

Impact on Day-to-Day Life:

Patients with MASLD and MASH report several areas where the disease directly interferes with their daily activities:

1. **Fatigue and Low Energy: One of the most debilitating symptoms of MASLD and MASH is chronic fatigue. Patients often feel lethargic and lack the energy needed to perform even basic daily tasks. This makes it difficult to maintain full-time employment, manage a household, or engage in physical activities, which are often recommended for weight loss and overall health management. This pervasive fatigue also increases dependence on caregivers, who may need to assist with activities of daily living, from cooking to personal hygiene.**

2. **Physical Limitations: Due to the strong association with obesity, many patients struggle with mobility issues. Simple tasks like climbing stairs, walking short distances, or standing for long periods can become difficult, reducing independence and adding further burden on caregivers. Additionally, some patients experience abdominal discomfort or pain, which can be aggravated by physical exertion or even sitting for extended periods.**

3. **Social Isolation: The combination of physical limitations, fatigue, and the stigma associated with obesity and liver disease often leads to social withdrawal. Many patients report feeling embarrassed about their condition or frustrated by the lack of understanding from family and friends. As a result, they may avoid social situations, leading to feelings of isolation, anxiety, and depression. Caregivers are similarly impacted, as their social lives may also shrink due to the demands of caring for a loved one with chronic illness.**

4. **Emotional and Psychological Strain: The emotional toll of living with a progressive liver disease is significant. Patients are often aware that their condition can lead to severe complications such as cirrhosis, liver failure, or the need for a transplant. This fear, combined with the challenge of managing obesity and other metabolic conditions, can lead to anxiety and depression. Caregivers, too, are emotionally affected, often feeling overwhelmed by their role in managing the patient's complex health needs.**

Aspects of the Illness that Are Most Important to Control:

From the patient and caregiver perspective, the following aspects of the disease are viewed as most critical to control:

1. **Weight Management: Obesity is a key driver of disease progression in MASLD and MASH. Many patients feel frustrated by their inability to lose weight through conventional methods like diet and exercise, especially given their fatigue and physical limitations. Weight loss is seen as a primary goal not only for liver health but also for improving overall metabolic health, and enhancing physical mobility.**

2. **Cardiovascular Risk: Patients with MASLD/MASH are often at elevated risk for cardiovascular disease, including heart attacks and strokes. This risk adds to the anxiety around disease progression, and managing cardiovascular health becomes a priority. Patients and caregivers often express concern that their treatments are not adequately addressing this risk.**

3. **Disease Progression: Patients are highly concerned about their liver health and the potential for progression to more severe conditions like cirrhosis or liver cancer. The lack of approved therapies to specifically target liver disease progression is a significant frustration. Patients often feel that managing their liver health through lifestyle changes alone is insufficient, and they express a desire for new treatments that directly address liver inflammation and fibrosis.**

4. **Quality of Life: Ultimately, patients want to maintain or improve their quality of life. This includes reducing fatigue, improving mobility, and addressing the emotional and social impacts of the disease. Both patients and caregivers are focused on treatments that can provide comprehensive improvements in overall health, not just symptom management.**

Caregiver Experience:

Caregivers for patients with MASLD/MASH often bear a significant emotional and physical burden. As the disease progresses, patients become more dependent on caregivers for daily support, whether it's helping with mobility, managing medical appointments, or providing emotional care. Caregivers may also face financial strain due to the cost of treatments, time off work, and travel to healthcare facilities. Additionally, the psychological impact of watching a loved one struggle with a chronic, progressive disease can lead to caregiver burnout and feelings of helplessness.

Conclusion:

For patients and caregivers alike, the most important aspects of managing MASLD and MASH are weight loss, slowing disease progression, and because of weight loss, positively impacting comorbidities like Type-2 Diabetes, sleep apnea all while improving quality of life. The introduction of a therapy like Wegovy, which targets obesity and improves metabolic risk factors, could provide a significant improvement in these critical areas, addressing many of the unmet needs that current treatments do not fully cover. The hope for patients is to regain energy, reduce the progression of their liver disease, and, most importantly, regain control over their lives.

4. Experiences With Currently Available Treatments

CADTH examines the clinical benefit and cost-effectiveness of new drugs compared with currently available treatments. We can use this information to evaluate how well the drug under review might address gaps if current therapies fall short for patients and caregivers.

Describe how well patients and caregivers are managing their illnesses with currently available treatments (please specify treatments). Consider benefits seen, and side effects experienced and their management. Also consider any difficulties accessing treatment (cost, travel to clinic, time off work) and receiving treatment (swallowing pills, infusion lines).

At the Fatty Liver Alliance, we have extensive experience with patients managing metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH). For most of these patients, managing their illness is complicated by the fact that there are no dedicated pharmaceutical treatments specifically approved for MASLD and MASH in Canada. Instead, patients rely on a combination of lifestyle modifications, off-label

medications, and treatments targeting their related conditions, such as obesity, Type 2-Diabetes, dyslipidemia, sleep apnea and hypertension.

Lifestyle Modifications and Limitations

The cornerstone of MASLD/MASH management is lifestyle modification, primarily focused on diet and exercise. Patients are typically advised to adopt weight loss plans to reduce adiposity, given that obesity is a major driver of disease progression. However, many patients struggle to achieve and sustain the significant weight loss required to improve liver health. While some patients see improvements in liver enzyme levels and metabolic parameters with weight loss, the long-term success rates are relatively low.

The challenges include:

- **Adherence to lifestyle changes: Many patients find it difficult to maintain restrictive diets or regular exercise routines, particularly when battling fatigue, comorbidities, and the emotional strain of managing chronic illness.**
- **Inadequate results: Even when patients are successful in losing weight, the extent of weight loss is often insufficient to halt or reverse disease progression.**

Off-Label Medications

Several off-label medications are used to target the metabolic drivers of MASLD and MASH, including:

- **Metformin: Used for patients with insulin resistance, this drug helps improve glucose metabolism but does not directly address liver health or inflammation.**
- **GLP-1 receptor agonists (like Ozempic): While approved for Type 2 Diabetes, these drugs are sometimes prescribed off-label for their weight-loss benefits. However, they are often restricted to diabetic patients, limiting access for non-diabetic MASLD/MASH patients who would benefit from their metabolic effects.**
- **SGLT-2 inhibitors: Used in patients with Type 2 Diabetes to improve glucose control and cardiovascular outcomes, these drugs may offer some liver protection benefits but are not widely accessible to non-diabetic patients.**

The primary benefits of these medications are their ability to target related metabolic dysfunctions (e.g., insulin resistance and obesity). However, their efficacy in directly addressing liver health is limited. Additionally, side effects, such as gastrointestinal issues with GLP-1 receptor agonists, can limit their use in some patients. While many patients tolerate these side effects, they can still cause temporary disruptions to daily life.

Side Effects and Patient Burden

Patients and caregivers frequently report that the side effects of these medications, though manageable, can still be burdensome. For instance:

- **Metformin: Causes gastrointestinal distress, including diarrhea, which can impact patients' ability to adhere to the medication.**
- **GLP-1 receptor agonists: These drugs are associated with nausea, vomiting, and constipation, which tend to lessen over time but still cause discomfort for patients early in treatment.**

For caregivers, these side effects create additional burdens, particularly when managing patients who already require help with daily activities due to the physical limitations associated with obesity or liver disease.

Access to Treatments and Cost Barriers

Access to these therapies can be limited by cost and the availability of private insurance coverage:

- **Cost: Many off-label treatments like GLP-1 receptor agonists are expensive and often not covered by provincial healthcare plans or private insurance unless the patient has a clear diagnosis of Type-2 Diabetes. This restricts access for many MASLD/MASH patients, particularly those without diabetes.**

- **Time and Travel: Most treatments require regular medical visits to monitor progress, which presents a logistical challenge for patients who live far from major healthcare centers. Traveling to clinics, taking time off work, and coordinating schedules with caregivers place additional burdens on families.**

The limitations of current therapies mean that many patients with MASLD/MASH do not receive adequate treatment to slow disease progression or reduce the burden of obesity and related metabolic comorbidities.

Gaps in Current Treatment and How Wegovy Can Address Them

Wegovy represents a significant advancement in treating MASLD and MASH patients because it directly targets the weight loss and metabolic risk factors that drive liver disease progression. Unlike current treatments that often only manage related conditions (e.g., diabetes or obesity) indirectly, Wegovy is shown to provide substantial and sustained weight loss and can for many patients improve metabolically related conditions like Type-2 Diabetes, unmet needs in MASLD/MASH patients.

Given the difficulties accessing current off-label treatments and the cost barriers for many patients, the approval of Wegovy for obesity without Type-2 Diabetes could fill a critical gap in care. It would allow patients to receive more targeted therapy, providing substantial metabolic and cardiovascular benefits with a tolerable side effect profile, which would improve long-term adherence.

In conclusion, while lifestyle changes and off-label treatments offer some benefits, they fall short in addressing the full spectrum of needs for MASLD and MASH patients. Wegovy, with its proven ability to reduce both weight and related metabolic risks, holds the potential to significantly improve outcomes for this population, while also reducing the physical, emotional, and logistical burdens on caregivers.

5. Improved Outcomes

CADTH is interested in patients' views on what outcomes we should consider when evaluating new therapies. What improvements would patients and caregivers like to see in a new treatment that is not achieved in currently available treatments? How might daily life and quality of life for patients, caregivers, and families be different if the new treatment provided those desired improvements? What trade-offs do patients, families, and caregivers consider when choosing therapy?

As President and Founder of the Fatty Liver Alliance, I lead efforts in Canada to raise awareness about the links between metabolic conditions such as obesity, cardiovascular disease (CVD), and metabolic dysfunction-associated steatohepatitis (MASH). Wegovy (semaglutide 2.4 mg) presents an innovative approach to addressing this intersection of metabolic dysfunction by significantly reducing multiple metabolic comorbidities in patients with obesity, a demographic that includes many of those suffering from metabolic dysfunction-associated steatotic liver disease (MASLD), including MASH.

Desired Improvements Not Achieved by Current Therapies

Current treatments for MASLD/MASH patients are often insufficient at addressing the underlying causes of their condition. Patients and caregivers express a need for therapies that deliver significant and sustained weight loss, which is a key factor in slowing the progression of liver disease. Most therapies today either focus on symptom management or deliver modest weight loss, which is insufficient for the long-term health needs of these patients.

Wegovy offers a breakthrough in this regard. Wegovy has been studied in trials for its efficacy in improving various metabolic comorbidities like Type 2 diabetes, hypertension, hyperlipidemia, and sleep apnea. Weight loss itself is known to contribute to improvements in these conditions, and Wegovy's mechanism of action, by reducing body weight, helps improve insulin sensitivity, reduce blood pressure, and improve lipid profiles. Additionally, weight loss can lead to improved outcomes in sleep apnea, as it often reduces airway obstruction caused by excess fat tissue.

Impact on Daily Life and Quality of Life

The potential benefits of Wegovy extend beyond clinical outcomes to a dramatic improvement in daily life and overall quality of life for both patients and caregivers. By addressing the primary metabolic drivers of MASLD/MASH, the drug helps alleviate the physical and emotional burdens that come with managing multiple comorbidities like liver disease, obesity, and cardiovascular risk. Patients often report increased energy, better mobility, and reduced anxiety over the risk of cardiovascular events. For caregivers, the reduced need for frequent medical interventions and complex care routines translates to less stress and a more manageable lifestyle.

Trade-offs Considered by Patients and Caregivers

When choosing therapies, patients and their families must consider several trade-offs, such as the tolerability of side effects, the complexity of the treatment regimen, and the overall impact on health outcomes. Wegovy, while associated with gastrointestinal side effects like nausea and vomiting, offers significant benefits that most patients and caregivers feel outweigh these temporary disadvantages. Its once-weekly injection is easier to manage compared to the daily routines required by some other therapies, and patients report that the side effects are typically short-lived and manageable with proper care.

Holistic Benefits for Subgroups

Given the strong metabolic overlap between MASLD, MASH, and cardiovascular disease, a reduction in cardiovascular events through significant weight loss would greatly benefit our patient population. Patients with obesity and liver disease are often at high risk for cardiovascular complications due to systemic inflammation, insulin resistance, and metabolic dysregulation. The demonstrated efficacy of Wegovy in reducing weight and improving cardiovascular outcomes means that it has the potential to dramatically improve both metabolic and liver health.

This is particularly true for subgroups of patients with MASLD and MASH who do not have Type 2 Diabetes but struggle with obesity. These patients often have limited treatment options, and Wegovy's demonstrated efficacy in weight reduction and cardiovascular risk mitigation addresses critical gaps in care. Furthermore, the drug's ability to address both metabolic and cardiovascular issues simultaneously simplifies the treatment regimen for these patients, reducing the need for multiple medications and improving adherence.

Role in Reducing Liver Disease Progression

Further, the metabolic relationship between obesity, CVD, and liver diseases like MASH cannot be overlooked. Obesity drives the progression of steatosis to more severe liver disease, increasing the likelihood of advanced fibrosis and cirrhosis. Wegovy's efficacy in reducing adiposity, alongside improvements in cardiovascular health, suggests it could be a critical intervention for halting or reversing the progression of liver damage in MASLD and MASH patients.

At the Fatty Liver Alliance, we are particularly encouraged by the fact that Wegovy treatment will benefit a significant proportion of patients with metabolic liver diseases. These improvements in metabolic health parameters are likely to translate into better liver outcomes for patients struggling with obesity and MASLD, who often face challenges accessing effective therapies that address the full spectrum of their metabolic and cardiovascular health issues.

Conclusion: Addressing the Full Spectrum of Patient Needs

Approving Wegovy for use in patients as an adjunct to a reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial BMI of 30 kg/m2 or greater (obesity), or 27 kg/m2 or greater (overweight)

in the presence of at least one weight-related comorbidity such as hypertension, type 2 diabetes mellitus, dyslipidemia, or obstructive sleep apnea, would fill a significant gap in care for patients with MASLD/MASH. By addressing both a number of metabolic risk factors through weight loss, Wegovy could contribute to better patient outcomes, reduced disease progression, and overall improvements in quality of life for a large and growing population of Canadians who struggle with these interrelated conditions.

6. Experience With Drug Under Review

CADTH will carefully review the relevant scientific literature and clinical studies. We would like to hear from patients about their individual experiences with the new drug. This can help reviewers better understand how the drug under review meets the needs and preferences of patients, caregivers, and families.

How did patients have access to the drug under review (for example, clinical trials, private insurance)? Compared to any previous therapies patients have used, what were the benefits experienced? What were the disadvantages? How did the benefits and disadvantages impact the lives of patients, caregivers, and families? Consider side effects and if they were tolerated or how they were managed. Was the drug easier to use than previous therapies? If so, how? Are there subgroups of patients within this disease state for whom this drug is particularly helpful? In what ways? If applicable, please provide the sequencing of therapies that patients would have used prior to and after in relation to the new drug under review. Please also include a summary statement of the key values that are important to patients and caregivers with respect to the drug under review.

At the Fatty Liver Alliance, our focus on MASLD and MASH has led us to explore various therapeutic interventions that address the underlying metabolic dysfunctions in these patients. Wegovy (semaglutide 2.4 mg) is a treatment that has shown significant promise, particularly for our patients who struggle with obesity and its related complications, such as sleep apnea and liver dysfunction.

Access to the Drug

To date, many patients have had access to Wegovy through clinical trials, or if they have been able to access it through their insurance coverage. As semaglutide has already been available in lower doses for the treatment of Type 2 Diabetes (marketed as Ozempic), many patients in our community have prior experience with the GLP-1 receptor agonist class of drugs.

Benefits Compared to Previous Therapies

For our MASLD/MASH patients, weight loss is a critical factor in managing disease progression. Wegovy's ability to reduce body weight significantly—by 15% or more in many patients—has proven to be a dramatic improvement over previous treatments, which were often limited to lifestyle modifications or off-label medications with modest effects.

For patients with obesity and MASLD/MASH, the benefits of Wegovy include:

- **Significant weight loss: Many patients report losing weight more effectively and sustainably than with diet or exercise alone, reducing the burden on caregivers and improving mobility and overall quality of life.**
- **Reduction in inflammation: Inflammation plays a major role in both liver disease progression and cardiovascular health. Patients often experience improvements in their overall metabolic profile, which could slow or reverse liver damage.**

Disadvantages and Side Effects

The most commonly reported side effects are gastrointestinal in nature, such as nausea, vomiting, and constipation. These side effects are often temporary and tend to diminish as patients continue therapy. While some patients experience initial discomfort, the side effects are generally manageable, especially with supportive care from healthcare providers.

From our interactions with patients, caregivers, and families, these side effects can initially cause disruption, but the benefits of weight loss and improved cardiovascular health far outweigh the short-term disadvantages. Importantly, many patients report that their caregivers experience a significant reduction in stress once patients start losing weight and improving their metabolic health.

Ease of Use Compared to Other Therapies

Compared to other therapies, Wegovy is relatively easy to use. The once-weekly subcutaneous injection is a welcome convenience for many patients, particularly those who have tried daily oral medications or who struggle with the complexity of managing multiple comorbid conditions like liver disease, obesity, and cardiovascular issues. The long half-life of the drug also allows patients more flexibility, contributing to improved adherence compared to more frequent dosing schedules. Additionally, many of our patients, familiar with insulin injections or other injectables like Ozempic, find the administration process manageable.

Subgroups of Patients Who Benefit Most

Wegovy appears to be particularly beneficial for MASLD/MASH patients who:

- **Struggle with obesity with or without Type-2 Diabetes: Many of these patients have limited options for effective weight loss therapies.**
- **Have a high risk of cardiovascular events: Given the strong link between MASLD/MASH, obesity, and CVD, the demonstrated reduction in abdominal and visceral fat is of immense value. These patients often have multiple overlapping metabolic conditions, and the broad-reaching benefits of Wegovy can address many of their health challenges simultaneously.**

In terms of sequencing, most of our patients would have tried lifestyle interventions (diet and exercise) before considering medical therapies. Some might have used off-label medications for weight loss, such as metformin or SGLT-2 inhibitors, with limited success. For many, Wegovy represents the first option that can deliver the kind of substantial and sustained weight loss necessary to improve liver health and reduce other comorbidities, including cardiovascular risk.

Summary of Key Values Important to Patients and Caregivers

The patients and caregivers we serve at the Fatty Liver Alliance prioritize the following key values when considering treatments like Wegovy:

- **Sustained and meaningful weight loss: For MASLD and MASH patients, effective weight loss is often the cornerstone of their treatment. Wegovy offers an unprecedented opportunity to achieve this.**
- **Manageability of side effects: While Wegovy does come with side effects, they are generally manageable, and most patients find them tolerable given the significant benefits in other areas of health.**
- **Ease of use: The convenience of once-weekly injections makes it easier for patients to adhere to treatment, which is critical in managing chronic conditions.**

In conclusion, Wegovy holds significant promise for improving the lives of patients with MASLD and MASH by addressing obesity, cardiovascular risk, and metabolic dysfunction in a single therapeutic approach. The drug aligns well with the treatment priorities of our patient population and has the potential to transform how we manage these interrelated conditions.

7. Companion Diagnostic Test

If the drug in review has a companion diagnostic, please comment. Companion diagnostics are laboratory tests that provide information essential for the safe and effective use of particular therapeutic drugs. They work by detecting specific biomarkers that predict more favourable responses to certain drugs. In practice, companion diagnostics can identify patients who are likely to benefit or experience harms from particular therapies, or monitor clinical responses to optimally guide treatment adjustments.

What are patient and caregiver experiences with the biomarker testing (companion diagnostic) associated with regarding the drug under review?

Consider:

- Access to testing: for example, proximity to testing facility, availability of appointment.
- Testing: for example, how was the test done? Did testing delay the treatment from beginning? Were there any adverse effects associated with testing?
- Cost of testing: Who paid for testing? If the cost was out of pocket, what was the impact of having to pay? Were there travel costs involved?
- How patients and caregivers feel about testing: for example, understanding why the test happened, coping with anxiety while waiting for the test result, uncertainty about making a decision given the test result.

Not applicable/no comment here.

8. Anything Else?

Is there anything else specifically related to this drug review that CADTH reviewers or the expert committee should know?

Consistently, clinical studies have shown a 7% weight reduction will decrease liver steatosis and a 10 % weight reduction will reverse liver fibrosis by one stage. Health life style with diet and exercise seldom can achieve or sustain such weight loss where continue use of Semaglutude is successful in achieving and maintain the target weight loss. Semaglutude has shown to reduce liver steatosis and there is an initial study which showed that it also improves liver fibrosis and a stage 3 study is ongoing for liver fibrosis regression.

To maintain the objectivity and credibility of the CADTH reimbursement review process, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This Patient Group Conflict of Interest Declaration is required for participation. Declarations made do not negate or preclude the use of the patient group input. CADTH may contact your group with further questions, as needed.

1. Did you receive help from outside your patient group to complete this submission? If yes, please detail the help and who provided it.

   Fatty Liver Foundation charity contributed quotes and some data.

2. Did you receive help from outside your patient group to collect or analyze data used in this submission? If yes, please detail the help and who provided it.

   In Information Gathering section, patient survey and comments provided by the Fatty Liver Foundation, a US based charity.

3. List any companies or organizations that have provided your group with financial payment over the past 2 years AND who may have direct or indirect interest in the drug under review.

Table 1: Financial Disclosures

Check Appropriate Dollar Range With an X. Add additional rows if necessary.

Company	$0 to 5,000	$5,001 to 10,000	$10,001 to 50,000	In Excess of $50,000

Novo Nordisk				X
Echosens	X			
Siemens-Healthineers		X		

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Michael Betel
Position: President and Founder
Patient Group: Fatty Liver Alliance
Date: October 17, 2024

CADTH

Patient Input Template for CADTH Reimbursement Reviews

Name of Drug: semaglutide (Wegovy®)
Indication: chronic weight management in adult patients with an initial body mass index (BMI) of equal to or greater than 27 kg/m2 and established cardiovascular disease (myocardial infarction, stroke or peripheral arterial disease)
Name of Patient Group: Gastrointestinal Society
Author of Submission: Gail Attara

1. About Your Patient Group

The GI (Gastrointestinal) Society is committed to improving the lives of people with GI and liver conditions, supporting research, advocating for appropriate patient access to healthcare, and promoting gastrointestinal and liver health, including obesity.

We are a national charity formed in 2008 on the groundwork of its partner organization, the Canadian Society of Intestinal Research (CSIR), which was founded in Vancouver in 1976. We receive national and international attention, simply because we have earned the respect of both the gastrointestinal medical community and Canadians who battle these issues daily. Our website, available in English and French, received 9,329,479 pageviews in 2023.

All our programs and services focus on providing Canadians with trusted, commercial-free, medically-sound information on a wide variety of topics related to obesity, gut, and liver diseases and disorders in both official languages. Our BadGut® lectures, quarterly *Inside Tract*® newsletter, pamphlets, support groups, and educational videos arm Canadians with the information they require to better understand and manage their specific needs. We also work closely with healthcare professionals and governments at all levels toward system-wide improvements in care and treatment.

2. Information Gathering

The lived information we used to complete this submission was obtained primarily through questionnaires and interviews:

1. 2024 international survey about the perspectives and experiences of individuals living with obesity, with 1,487 respondents, 1,050 of whom completed it, and 62% were from Canada. This, along with the focus group in 2023, informed the creation of our patient journey video on Obesity. The report and video are available in English and French at https://badgut.org/information-centre/obesity-journey-survey-report/.
2. In-person focus group in 2023 to discuss their experiences of living with obesity, including its physical, mental, and financial impacts.
3. 2022 animated video on obesity that explains the disease basics, developed with patients and healthcare professionals, available at https://badgut.org/obesity-video/.
4. 2021 international survey open to individuals who had experienced obesity, with 2,050 respondents, 1,550 who completed it. The majority (96%) of respondents were from Canada.
5. We also had contact with patients affected or currently living with obesity through one-to-one conversations at our BadGut® Lectures, recent phone/email/social media interactions, and stories submitted over time from patients.

3. Disease Experience

Obesity is a multi-factorial, chronic, relapsing disease that occurs when a person accumulates an excessive amount of body fat (adipose tissue) that might increase health complications. Several health organizations, including the Canadian Medical Association and the World Health Organization, classify obesity as a chronic disease. The European Union Commission has listed those living with obesity as one of the high-risk groups who are "medically vulnerable."

According to the 2022 Canadian Community Health Survey, nearly one in three adult Canadians (30%) were living with obesity.[1] Obesity is defined as having a body mass index (BMI) of 30 kg/m2 or greater. However, the journey often begins before conception, with complex genetics and epigenetics passed down through generations. Several factors also can affect weight, such as metabolic conditions, thyroid function, physical disabilities and injuries, medication side effects, eating disorders, trauma, grief, social standing, anxiety and depression, pregnancy, aging, lipedema, lymphedema, genetics, social isolation, and the microbiome. Clearly, obesity is related to the social determinants of health and health inequalities,[1] and persons living with obesity need kindness and care.

Many people experience obesity beginning from a very young age, and others find that certain events, such as puberty, college, pregnancy, starting a new job, relationships, relationships ending, etc., can lead to weight gain. More than half (55%) of our 2024 survey respondents had excess weight before the age of 20 years.

Many health complications can arise from obesity, especially in individuals who have the disease for a long time or those living with class III obesity (BMI of 40 kg/m2 or greater). Excess weight influences biology in diverse ways, which can range from excess pressure in the abdominal region to hormonal effects. This can have far-reaching health effects, including type 2 diabetes, high blood pressure, heart disease, sleep apnea, endocrine conditions, mental health problems, osteoarthritis, surgery complications, increased healing times, increased pregnancy risks, and worse outcomes from infections such as COVID-19. While these conditions can occur in individuals of any weight, they are more common in those living with obesity.

In our 2021 survey, only 9% of respondents said that they did not have any comorbidities. The most common were arthritis (51%), hypertension (33%), sleep apnea (30%), gastroesophageal reflux disease (29%), irritable bowel syndrome (29%), high cholesterol (25%), and diabetes (24%). These conditions come with their own symptoms, risks, and treatments, which can further complicate the management of obesity.

Stigma and Mental Health

One respondent wrote, "Many in the medical profession are the worst for misunderstanding obesity and discriminating against patients even though there are medical studies that show that many assumptions are untrue. It has taken me 25+ years to find a doctor to truly help me."

Obesity itself can affect many areas of life. There is a strong social stigma against individuals living with obesity, which can lead to mistreatment in many areas of life, including feeling ignored by physicians and being seen as lazy by potential employers. In fact, 71% of our 2024 survey respondents experienced social stigma due to their obesity. Patients also have higher rates of mental health conditions, as 59% indicated having an anxiety disorder, 58% insomnia/difficulty sleeping, 52% a mood disorder, 28% an eating disorder, and 4% another mental health condition. Many of our respondents had also experienced trauma, including childhood trauma (35%) and adulthood trauma (22%). Only 11% indicated having no mental health condition. It is unclear how many of these mental health concerns arose from the social interactions related to obesity.

"I don't go to the doctor as often as I should because I feel like a failure and that all my medical issues are caused by my obesity." According to another respondent, "I've received the most shame about my weight from doctors to the point I'm scared to go. They should help, not shame." One other person shared, "Obesity affects all of my life – family, social, and work."

[1] https://www.canada.ca/en/public-health/services/health-promotion/population-health/what-determines-health.html

4. Experiences With Currently Available Treatments

Most people living with obesity spend tons of time, money, and effort trying various diets, programs, devices, exercise routines, equipment, supplements, and other products to find an effective solution. They don't want to live with obesity, but they do. For those who seek medical guidance, healthcare professionals may recommend behavioural therapy, alternative diets, medications, or even surgical interventions.

Since obesity is a chronic disease, management is an ongoing, lifelong effort that can be overwhelming, confusing, isolating, and expensive. Many patients experience stigma within the healthcare system, often feeling unheard and not receiving the care they need. While some doctors are supportive, there are still widespread misconceptions and blame directed at the patient.

Lifestyle Modifications
The most common initial treatment for obesity is lifestyle modifications. This involves reducing the amount of food a person eats and/or increasing their physical activity. It involves persistent effort.

Telling patients that the only way to cure their disease is to constantly monitor their food intake and eat at a deficit puts a lot of pressure on individuals to cure their own disease, and increases stigma that obesity is easily fixed by diet and activity. However, weight loss is much more difficult to achieve because the causes of obesity are complex. The body has hormonal influences and metabolic adaptations that fight hard to keep a person from losing weight long-term. Research also shows that diet is rarely enough to cause lasting weight loss.

In our 2024 survey, only 6% of respondents had **never** tried to change their eating habits to lose weight. The most common methods included calorie counting (73%), WeightWatchers®/WW® (57%), and low carb diets such as keto or Atkins® (40%), which all risk balanced nutrient consumption. Also, it can be incredibly difficult to maintain many of these dietary changes in the long term while living in a community or culture that has nuances related to eating. Respondents considered their greatest difficulties dieting to be gaining weight back over time (54%), finding the diet difficult to stick to (52%), and the time and effort involved in eating this new way (39%).

Many individuals with obesity are constantly yo-yoing in weight, often successfully losing hundreds of pounds over and over in an endless cycle. When this is the only option, patients often feel hopeless. One respondent captured this frustration by sharing the following: "I don't believe in dieting. All my life, I've seen people lose weight and gain it back by following these diets. Diets give people who are too big a 'simple' solution to a consequence. But **there's no point in tackling a consequence without addressing the cause**. I've always seen **dieting as someone handing me a towel to wipe my hair because it's wet, while I'm standing under a huge breach in a dam**. There's no point in wiping my hair before repairing the breach in my dam."

Medications
For a disease that affects 30-35% of Canadians, there are very few medication options, and those that are available do not have public or full private coverage. As each individual reacts differently to medications, and might have different root causes to their obesity, having a wide variety of medications accessible is extremely important. Available medications include:

- **Dulaglutide (Trulicity® for type 2 diabetes treatment)**: improves blood sugar, regulates appetite level and controls food intake. Patients self-inject once a week and side effects include nausea, diarrhea, vomiting, and fatigue.
- **Liraglutide (Saxenda® for weight management or Victoza® for type 2 diabetes treatment)**: regulates appetite level. Patients self-administered it subcutaneously daily, starting at a low initial dose and slowly increasing to the maintenance dose. Side effects most commonly include digestive symptoms such as nausea and diarrhea, which usually disappear after a few days or weeks. It can also cause low blood sugar, headaches, and dizziness.
- **Naltrexone and bupropion (Contrave®)**: supresses appetite by affecting two areas of the brain involved in the regulation of food intake. It is available in pill form, starting with a once-daily dosage and increasing gradually to two pills twice daily. Side effects can include nausea, constipation, and headaches.

- **Orlistat (Xenical®):** inhibits the enzyme that breaks down dietary fat into absorbable components (lipase). Individuals who take this medication are unable to absorb all the calories from the fats they eat, so these fats are instead eliminated with bowel movements. Side effects can include diarrhea, oily stools, oily discharge when passing gas, and bowel urgency.
- **Semaglutide (Wegovy® for weight management, or Rybelsus® and Ozempic® for type 2 diabetes treatment)**: regulates appetite level. Patients self-administer it subcutaneously weekly, starting at a low initial dose and slowly increasing to the maintenance dose. Side effects most often include digestive symptoms such as diarrhea and nausea, along with headaches.
- **Tirzepatide (Mounjaro® for type 2 diabetes treatment)**: mimics hormones that regulate blood sugar and appetite, helping individuals feel full sooner and consume less food. Individuals self-administer this medication weekly. Common side effects are nausea, diarrhea, vomiting, constipation, headache, and fatigue.

However, many respondents expressed concerns over both obtaining prescriptions for medications and paying for the costs of these drugs out-of-pocket.

- "Obesity has been classed as a chronic disease yet there is no funding for medications in the same manner as other chronic diseases."
- "I have a good benefits plan but they do not cover the cost of weight loss medication."
- "Most of us who could benefit from the medication do not have coverage to use the medication that could actually be beneficial."
- "I would be more than willing to try weight loss medications but they are so cost prohibitive."
- "I've asked my doctor for weight loss medication and she says no."
- "I have tried going on weight loss medication but unfortunately it has never gone past the discussion point. I have been eagerly looking forward to trying any sort of medication for my weight loss."
- "My doctor refused to try any weight loss drugs for me."

With high unmet needs, we have also heard from many individuals whose healthcare providers have prescribed products off-label to support them with weight management. To provide information on these medications, we have an article reviewing medications used on- and off-label for obesity, available at: https://badgut.org/information-centre/obesity-medications/.

Surgery

Surgery is typically quite effective, but many patients and physicians prefer to leave it as a last resort because it can have serious side effects and often long wait times. There are four types of surgery currently available in Canada:

- **Gastric Sleeve:** a surgeon removes part of the stomach, leaving just a thin sleeve, approximately the size of a small banana, behind. This method simply reduces the amount of food a patient can eat during a window of time.
- **Gastric Bypass/Roux-en-Y:** a surgeon removes part of the stomach, leaving just a small pouch, and then connects the small pouch to the middle of the small intestine. This surgery works by reducing the size of the stomach and reducing calorie absorption in the small intestine.
- **Gastric Band:** a surgeon places a band around the upper part of the stomach to create a smaller pouch. The surgeon can adjust the band to make the available stomach area smaller or larger, as needed. However, surgeons do not often recommend it anymore, due to poor results.
- **Intragastric Balloons:** this is a newer and less common form of surgery at this time. It is a temporary measure that involves placing a fluid-filled balloon into the stomach that delays the rate of gastric emptying. It is different from other methods of surgery as it does not involve modifying the structure of the digestive tract and it is reversible, but it still has risks.

Bariatric surgery often leads to significant weight loss and reversal of several obesity-related diseases, such as type 2 diabetes and high blood pressure. However, it can cause severe side effects. In a focus group we conducted, several individuals who had bariatric surgery experienced weight loss and almost complete re-gain. One person, sadly, passed away from bariatric surgery complications just days after we met with her.

Of those who have bariatric surgery, 5% experienced complications while in hospital and 6% needed hospital readmission within a month of release due to complications. The mortality rate for bariatric surgeries is between 0.1-2%. Severe nutritional deficiencies and gastrointestinal symptoms can also occur. Many individuals would prefer not to have surgery; in our 2024 survey 37% indicated that they would never consider bariatric surgery to treat their obesity. For the persons who do want bariatric surgery, the wait lists are often very long and it can be out of reach financially for many individuals. Additionally, this is not an absolute cure for obesity as several individuals identified significant weight gain following their bariatric surgery. For a few who have had surgery, there are dire, long-term complications that require medical mitigation (e.g., gastroparesis, iron deficiency anemia, and some rare conditions).

5. Improved Outcomes

The primary goal for treating obesity is weight loss, and this leads to improvements in other symptoms and conditions. However, most treatments for obesity are not effective in the long-term. Even in individuals who lose a significant amount of weight, many of them gain the weight back within five years.

Many healthcare professionals, researchers, decisionmakers, and the public still view obesity as a temporary issue or simply a matter of personal choice. Some believe that societal changes can cure this disease. There is still a disconnect in public education that obesity is a complex, multifactorial disease that requires long-term management. A medication that can be taken for chronic management of obesity will be extremely beneficial for the population, as part of a larger program that includes lifestyle modifications. Many patients have told us that these medications have helped them continue with their diet and physical activity, leading to better overall health and sustainable and successful weight management. Some have had to wait for knee replacements until they were able to reduce their BMI sufficiently to qualify for that care.

6. Experience With Drug Under Review

We understand that in this round of reviews, CDA is studying Wegovy® for chronic weight management in adults with a BMI of equal to or greater than 27 kg/m2 and established cardiovascular disease (myocardial infarction, stroke or peripheral arterial disease).

In our 2024 survey, respondents cited concerns with their heart health, including “the fear of a heart attack or other health scares due to excess weight.” Public coverage of this medication is critical, as heart disease is the second-leading cause of death after cancer and a leading cause of hospitalization in Canada. By providing access to Wegovy®, we can significantly reduce the risk of heart attack and alleviate these concerns. Effective prevention will lead to better patient wellbeing, supporting them on their journey to healthier lives.

Our 2024 survey also had respondents who have taken or currently take semaglutide. 0.5% of respondents had taken Wegovy® and 20% had taken Ozempic®. Patients have had access to semaglutide under the name Ozempic® to treat type 2 diabetes since 2018. In addition to good management of blood sugar levels, many of these individuals experienced reduced appetite and weight loss, and some physicians prescribed Ozempic® off label to treat obesity. Then, in November 2021, Health Canada approved Wegovy® for weight management. Wegovy® differs from most other weight management drugs because it only requires a single injection per week, which makes it easier for patients to manage than medications that they need to take daily. It is not an inexpensive medication, so drug coverage is important to those who need it.

However, there is ongoing stigma and lack of comprehension with weight management in past drug review decisions by CDA. On December 2022, CDA released a Do Not Reimburse recommendation on semaglutide (Wegovy®) for chronic weight management in adults. We were extremely disappointed with this recommendation, and it has contributed to ongoing health inequities and barriers to accessing treatments for obesity. There are currently only four medications – liraglutide (Saxenda®), orlistat (Xenical®), semaglutide (Wegovy®), and combination of bupropion and naltrexone (Contrave®) – that Health Canada has approved for chronic weight management. For all of them, CDA has delivered a Do Not Reimburse recommendation. With obesity stigma and persistent barriers to access and affordability, many individuals might resort to marketed over-the-counter supplements, extreme weight loss programs, and crash diets that have little evidence of efficacy and can even be dangerous.

Without public funding of medications for chronic weight management, particularly Wegovy®, patients who need the medication are forced to pay approximately $400 per month out-of-pocket. Even those with private insurance often face significant co-pays, making it a financial burden. CDA needs to recognize the critical value of public funding for obesity medications in supporting disease management, improving health outcomes, and alleviating the strain on our already overburdened healthcare system.

Too many patients are left to struggle on their own, without the tools they need to manage this lifelong and stigmatized chronic disease. Decisionmakers need to provide the support these individuals so desperately need. To date, **CDA has never recommended any medications for chronic weight management for public reimbursement**, leaving patients with no affordable options.

7. Companion Diagnostic Test

n/a

8. Anything Else?

Here are some quotes from people living with obesity that outline what they want others to know:

- "I feel that there are way less resources allocated in our current healthcare system towards the prevention and treatment of this disease. **Obesity is becoming a pandemic** now and I have seen first hand how **it had destroyed the health of so many near and dear ones** in the family; it's still so hard to get the healthier food because most of the healthier food is just way too expensive to be afforded by an average Joe. Also, a lot of effort is needed to pinpoint what causes one child to be obese and the other to be skinny in the same family - what genetic factors predispose someone to gain weight or not being able to lose it like others can? Or what resources are there to psychologically help obese people because often times, the dependency on food is there to mask other personal traumas that are mentally linked! Then there is this whole thing about some meds being insured by govt and some not. What if there is no private health coverage in place? There's a **lot of work needed in this field** if we want our next generations to be less obese and more healthy."
- "**Please help, not blame**, people suffering with obesity. We blame ourselves enough, hating what we have become."
- "There is a huge misconception that people living with obesity are lazy and don't care about their situation. The reality is it is so much more complicated than that. Obesity is a chronic medical condition that our society chooses to blame the patient for. **Obese patients living in poverty have a practically impossible mission to conquer**."

Appendix: Patient Group Conflict of Interest Declaration

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Novo Nordisk				x

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Gail Attara
Position: President and Chief Executive Officer
Patient Group: Gastrointestinal Society
Date: 2024-12-05

[1] Statistics Canada. An overview of weight and height measurements on World Obesity Day. 2024-04-04. Available at: https://www.statcan.gc.ca/o1/en/plus/5742-overview-weight-and-height-measurements-world-obesity-day.

CADTH

Patient Input Template for CADTH Reimbursement Reviews

Name of Drug: Semaglutide
Indication: Weight management
Name of Patient Group: HeartLife Foundation
Author of Submission: Marc Bains

1. About Your Patient Group

Describe the purpose of your organization. Include a link to your website.

The HeartLife Foundation is a patient-led charitable organization focused on transforming the care and quality of life for those affected by cardiovascular disease across Canada. We advocate for better health policies, provide education, and support patients and caregivers through community engagement, aiming to empower people living with cardiovascular disease and their families. Discover more about our initiatives at HeartLife Foundation. Weight management, obesity, and diabetes are key risk factors for heart failure as well as a multitude of other cardiovascular diseases.

2. Information Gathering

CADTH is interested in hearing from a wide range of patients and caregivers in this patient input submission. Describe how you gathered the perspectives: for example, by interviews, focus groups, or survey; personal experience; or a combination of these. Where possible, include **when** the data were gathered; if data were gathered **in Canada** or elsewhere; demographics of the respondents; and **how many** patients, caregivers, and individuals with experience with the drug in review contributed insights. We will use this background to better understand the context of the perspectives shared.

Our comprehensive data gathering included detailed narratives from cardiovascular patients and health care providers across Canada. Through structured interviews and focused discussions, we gathered a rich array of experiences that highlight the varied and profound impacts of heart failure and obesity on daily living, which are crucial in guiding our advocacy and education efforts. Furthermore, we reviewed study data on semaglutide from across the globe to understand primary and secondary outcomes and the impact they had on patients and caregivers.

3. Disease Experience

CADTH involves clinical experts in every review to explain disease progression and treatment goals. Here we are interested in understanding the illness from a patient's perspective. Describe how the disease impacts patients' and caregivers' day-to-day life and quality of life. Are there any aspects of the illness that are more important to control than others?

Heart failure and obesity related cardiovascular disease significantly disrupts patients' daily lives, affecting not only their physical capabilities but also their emotional and psychological well-being. The symptoms—extreme fatigue, shortness of breath, and fluid overload—severely limit activities such as walking, working, and even engaging in social interactions, which can lead to significant mental health issues, including depression and anxiety. According to a recent study in *The Lancet* (2024), patients with heart failure often experience a deterioration in quality of life as the disease progresses, underscoring the need for comprehensive symptom management strategies that address both physical and psychological aspects of the disease. *Patient 1 commented, "It's not just the breathlessness but also the constant anxiety about my next breath that keeps me from living my life fully."* This holistic understanding of the disease's impact is crucial for developing treatments that truly improve patients' quality of life. *Patient 2 shares "Heart failure along with my obesity makes every day hard for me. I get tired very easily, which means I can't go for long walks or play with my grandkids like I used to. The hardest part is the breathing; sometimes I just sit and catch my breath after walking up the stairs. My doctors say keeping my weight and fluid down is key to feeling better, but it's a daily challenge."*

4. Experiences With Currently Available Treatments

CADTH examines the clinical benefit and cost-effectiveness of new drugs compared with currently available treatments. We can use this information to evaluate how well the drug under review might address gaps if current therapies fall short for patients and caregivers.

Describe how well patients and caregivers are managing their illnesses with currently available treatments (please specify treatments). Consider benefits seen, and side effects experienced and their management. Also consider any difficulties accessing treatment (cost, travel to clinic, time off work) and receiving treatment (swallowing pills, infusion lines).

While current medications for cardiovascular, such as diuretics and ACE inhibitors, are effective in managing certain symptoms, they often fall short in addressing the full spectrum of the condition and come with burdensome side effects. *Patient 2 remarked, "The side effects of these drugs are almost as debilitating as the disease itself, with dizziness and nausea frequently disrupting my day."* Furthermore, a recent publication in the *New England Journal of Medicine* (2023) highlighted that despite available treatments, many patients continue to experience progressive symptoms, indicating a clear gap in effective management. Accessibility issues compound these challenges, with patients in remote or underserved areas facing significant barriers to obtaining timely and effective treatment. *Patient 3 explains: "Every day is unpredictable. I can have a good day and then suddenly feel awful. We constantly watch our diets to avoid too much salt because it can make her swelling worse. It's stressful. Managing my medication and diet is not easy."*

5. Improved Outcomes

CADTH is interested in patients' views on what outcomes we should consider when evaluating new therapies. What improvements would patients and caregivers like to see in a new treatment that is not achieved in currently available treatments? How might daily life and quality of life for patients, caregivers, and families be different if the new treatment provided those desired improvements? What trade-offs do patients, families, and caregivers consider when choosing therapy?

Patients are eager for treatments like semaglutide because they hope these can drastically change their daily lives, not just add years to them. *Patient 3 said, "With this new drug, I'm looking forward to spending less time worrying about my heart and more time enjoying what I love doing."* Another patient, *Patient 4, mentioned, "If I could reduce my hospital visits and manage my condition at home, it would give me and my family a much-needed sense of normalcy."* Studies have shown that this drug doesn't just help manage heart symptoms and obesity better but also improves patients' ability to do everyday tasks. *Patient 1 explained, "Being able to go for a walk or visit friends without fear of my heart condition flaring up is something I haven't experienced in a long time."* Additionally, *Patient 3 shared, "The new treatment has been a game-changer. I can plan activities without the constant fear of being sick or tired."* These improvements mean patients can have a more active role in their lives, providing a significant lift to their spirits and overall well-being.

6. Experience With Drug Under Review

CADTH will carefully review the relevant scientific literature and clinical studies. We would like to hear from patients about their individual experiences with the new drug. This can help reviewers better understand how the drug under review meets the needs and preferences of patients, caregivers, and families.

How did patients have access to the drug under review (for example, clinical trials, private insurance)? Compared to any previous therapies patients have used, what were the benefits experienced? What were the disadvantages? How did the benefits and disadvantages impact the lives of patients, caregivers, and families? Consider side effects and if they were tolerated or how they were managed. Was the drug easier to use than previous therapies? If so, how? Are there subgroups of patients within this disease state for whom this drug is particularly helpful? In what ways? If applicable, please provide the sequencing of therapies that patients would have used prior to and after in relation to the new drug under review. Please also include a summary statement of the key values that are important to patients and caregivers with respect to the drug under review.

The introduction of semaglutide has been met with positive feedback from those taking the medication, as they report significant changes in how they manage their heart failure. *Patient 4 commented, "This treatment has really decreased the number of my heart failure symptoms. It's like getting a part of my life back where I don't have to think about my heart all the time." Patient 2, noted, "I've been doing things I hadn't thought possible anymore. It's refreshing to feel this level of independence again."* However, patients also stress the importance of understanding how to handle the side effects. *Patient 1 mentioned, "There are some side effects, sure, but learning how to manage them has been worth the overall benefits." Patient 2 said, "The few side effects I've had are manageable, especially compared to how much better I feel overall."* These experiences highlight the potential for semaglutide to not only improve clinical outcomes but also enhance the quality of life by allowing more normalcy and less disruption from heart failure.

Important considerations from patient stories:

Persistence of Side Effects: Patient 1 experienced ongoing nausea and vomiting. This could reflect a need for better management strategies or more transparent communication about potential long-term side effects.

Variability in Treatment Efficacy and Tolerance: The experiences between Patient 2 and their sister highlight that individual responses to treatment can vary significantly, which can be frustrating and confusing for patients. It suggests a need for personalized treatment plans and possibly better diagnostic tools to predict treatment response.

Diet and Symptom Management: While Patient 3 found some relief from heart failure symptoms with medication, they still faced challenges like gastrointestinal distress, which required significant dietary adjustments. This situation points to a gap in treatments that can effectively control symptoms without imposing such burdens

7. Companion Diagnostic Test

If the drug in review has a companion diagnostic, please comment. Companion diagnostics are laboratory tests that provide information essential for the safe and effective use of particular therapeutic drugs. They work by detecting specific biomarkers that predict more favourable responses to certain drugs. In practice, companion diagnostics can identify patients who are likely to benefit or experience harms from particular therapies, or monitor clinical responses to optimally guide treatment adjustments.

What are patient and caregiver experiences with the biomarker testing (companion diagnostic) associated with regarding the drug under review?

Consider:

- Access to testing: for example, proximity to testing facility, availability of appointment.
- Testing: for example, how was the test done? Did testing delay the treatment from beginning? Were there any adverse effects associated with testing?
- Cost of testing: Who paid for testing? If the cost was out of pocket, what was the impact of having to pay? Were there travel costs involved?
- How patients and caregivers feel about testing: for example, understanding why the test happened, coping with anxiety while waiting for the test result, uncertainty about making a decision given the test result.

Semaglutide, used primarily for heart failure and weight management, does not typically require companion diagnostic tests for its general use. However, when used for specific conditions or patient populations, healthcare providers may utilize various tests to monitor the drug's effects and patient response.

8. Anything Else?

Is there anything else specifically related to this drug review that CADTH reviewers or the expert committee should know?

<Enter Response Here>

Appendix: Patient Group Conflict of Interest Declaration

CADTH

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Novo Nordisk			30000	
BI			20000	
Novartis				60000
BMS				65000

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Marc Bains
Position: Co-Founder
Patient Group: HeartLife Foundation
Date: Dec 4, 2024

CADTH

Patient Input for CADTH Reimbursement Reviews

Name of Drug: Wegovy®
Indication: Wegovy® (semaglutide injection) is indicated as an adjunct to a reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial body mass index (BMI) of: • 30 kg/m2 or greater (obesity), or• 27 kg/m2 or greater (overweight) in the presence of at least one weight-related comorbidity such as hypertension, type 2 diabetes mellitus, dyslipidemia, or obstructive sleep apnea.
Name of Patient Group: Obesity Matters
Author of Submission: Priti (Chawla) Karunakaran

1. About Your Patient Group

Obesity Matters is a patient advocacy organization dedicated to empowering individuals and communities through education, support, and advocacy. We address the unique challenges faced by those living with obesity, promoting inclusivity and evidence-based solutions for sustainable health outcomes. Our initiatives include educational programs like the OM Wellness Workshop series to improve health literacy and debunk obesity-related myths, advocacy efforts to drive policy changes and equitable access to treatment, and community support that fosters safe spaces for sharing experiences with compassion and understanding.

We are committed to representing the patient voice throughout the healthcare journey, supporting access to innovative therapies, and challenging the outdated narrative of "Eat Less, Move More," which oversimplifies the complexities of obesity and perpetuates stigma. Through these efforts, we aim to reduce barriers, break down stigma, and inspire meaningful change for those living with obesity.

For more information about our work, please visit our website: **Obesity Matters**

2. Information Gathering

For this patient input submission, Obesity Matters collected perspectives through a combination of methods to ensure a comprehensive understanding of the patient experience.

A survey conducted in October garnered 186 responses, focusing on the challenges, needs, and treatment experiences of individuals living with obesity. The data, gathered exclusively in Canada, provided a uniquely Canadian context to the feedback. Respondents represented a diverse range of lived experiences across different life stages, with 25% aged 45-54, 39% aged 55-64, and 20% over 65.

In addition to the survey, we included a personal testimonial from one of our advocates, sharing their firsthand experience navigating obesity and its treatments. This account highlighted the emotional and physical challenges of managing this chronic disease, as well as the transformative impact of access to innovative therapies.

By combining quantitative survey data with qualitative personal experiences, we aim to offer Canada's Drug Agency a rich and nuanced view of the patient journey. This approach underscores our commitment to amplifying patient voices, advocating for improved access to effective treatments, and challenging societal stigma surrounding obesity**.**

3. Disease Experience

Obesity profoundly impacts patients' and caregivers' daily lives and quality of life. Survey respondents highlighted physical limitations, such as reduced mobility and stamina, and emotional burdens, including frustration and stigma. Managing related comorbidities, particularly cardiovascular disease, is a priority, as it significantly affects daily functioning and long-term health. Respondents emphasized the importance of access to effective treatments, which address both obesity and cardiovascular risks, to improve mobility, mental health, and overall well-being. Addressing stigma and providing comprehensive care are critical to improving outcomes.

4. Experiences With Currently Available Treatments

Despite the availability of effective anti-obesity medications in Canada, such as Wegovy® (semaglutide 2.4 mg), Contrave®, Saxenda®, and Xenical®, none are publicly reimbursed due to the persistent stigma framing obesity as a lifestyle issue rather than a chronic disease.

The lack of public coverage denies patients access to these evidence-based treatments, despite their proven ability to manage obesity and related conditions. Public reimbursement of these medications is critical to addressing unmet medical needs, improving quality of life, and reframing obesity as a treatable chronic disease.

5. Improved Outcomes

Medications like Wegovy are transformative, addressing weight loss and cardiovascular risks simultaneously. According to *The New England Journal of Medicine*, Wegovy has the potential to achieve an average weight loss of 15%, alongside significant cardiovascular improvements. This dual benefit resonates with patients, as 92% of survey respondents believe it is extremely important to have medications that target both obesity and cardiovascular risks. Furthermore, 77% of respondents expressed willingness to consider Wegovy as a treatment option to improve their overall health outcomes. Despite the proven benefits of pharmacological solutions they remain excluded from public health plans, even though more invasive interventions, such as bariatric surgery, are covered. As highlighted in the *JAMA Network*, GLP-1 medications represent a paradigm shift in chronic disease management, addressing interconnected conditions—obesity and cardiovascular disease—through a single treatment and reducing the need for multiple interventions. Public reimbursement of Wegovy would position Canada as a global leader in obesity care, aligning with international best practices, addressing the root causes of chronic disease, and ensuring equitable access to this groundbreaking therapy.

6. Experience With Drug Under Review

Patient testimonials and individual journeys provide compelling evidence of semaglutide, Wegovy's active ingredient, in addressing critical gaps in obesity care. These insights, including the transformative journey of John Adams, highlight the profound benefits, challenges, and overall value of this therapy for Canadians living with obesity. John Adams, who was once living with severe obesity and coronary artery disease and pre-diabetes, credits semaglutide with helping him lose over 30 pounds initially, which set him on a path to better health. Through a combination of semaglutide therapy, lifestyle changes, and continued use of Wegovy through private insurance, he has now reduced his body mass by 110 pounds, improved his cardiovascular health, and avoided what could have been a fatal heart attack. He describes the therapy as life-changing, stating, "I am alive today because of semaglutide and continue my journey with Wegovy." To hear more about John's transformative experience, watch his video **HERE.**

Survey respondents echoed these transformative benefits. Many shared that traditional methods such as exercise and dieting had been insufficient to manage their weight effectively and that Wegovy could provide the additional help needed to maintain better health. Others emphasized the financial challenges of accessing these medications, with some noting that the high cost prevented them from receiving the treatment they needed. The lack of public reimbursement was seen as a significant barrier, with respondents advocating for its inclusion to make these life-changing therapies more accessible.

The advantages of Wegovy include significant and sustained weight loss, with clinical studies reporting an average reduction of 15% of body weight, as well as improved cardiovascular health and a reduced risk of severe coronary events. Additionally, its once-weekly administration simplifies adherence compared to daily therapies. However, some patients reported temporary side effects, such as nausea, which are often manageable with gradual dose escalation. Despite its benefits, the high cost of Wegovy remains a key limitation, reinforcing the need for public reimbursement to improve accessibility and reduce financial burdens.

7. Companion Diagnostic Test

N/A

8. Anything Else?

Please refer to the attached document

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Bausch Health Canada				x
Boehringer Ingelheim	x			
Eli Lilly Canada			x	
Novo Nordisk Canada				x

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Priti (Chawla) Karunakaran
Position: Board and Executive Director
Patient Group: Obesity Matters
Date: 06/12/2024

CADTH

Patient Input Template for CADTH Reimbursement Reviews

Name of Drug: Wegovy (Semaglutide)
Indication: Chronic weight management in adult patients with an initial body mass index (BMI) of equal to or greater than 27 kg/m2 and established cardiovascular disease (myocardial infarction, stroke or peripheral arterial disease).
Name of Patient Group: Obesity Canada
Author of Submission: Ian Patton

1. About Your Patient Group

Obesity Canada - Obésité Canada (OC), a national registered charity association for healthcare professionals, researchers, and policy makers working in obesity prevention and treatment and for Canadians living with obesity. Obesity Canada's mission is to improve the lives of Canadians living with obesity through research, education and advocacy. This includes improving access to all evidence-based obesity treatments.

For more information about Obesity Canada, please visit obesitycanada.ca

2. Information Gathering

Obesity Canada engaged individuals living with obesity through an online survey that was conducted between September and October 2024. The survey was distributed throughout our network of social media, newsletter mailing lists as well as within our online patient support community OC-Connect. There was a total of 170 responses from Canadians living with obesity. The majority of responses came from Ontario (42%), British Columbia (17%), and Alberta (13%), with other responses coming from Saskatchewan, Manitoba, Quebec, New Brunswick, Nova Scotia and PEI. The majority of respondents were female (92%) and between the ages of 45-64 (58%). 100% respondents identified as patients or individuals living with obesity while 1 identified as both a patient and a health care professional. All respondents indicated past or present experience with prescription medications for obesity management with 89% reporting experience specifically with Semaglutide. 100% of respondents indicated that they have experienced an obesity related comorbid condition.

3. Disease Experience

"Obesity has directly contributed to my heart disease, causes me to be physically tired very frequently, and leads to social isolation in many cases"

Obesity is a prevalent, complex, progressive and relapsing chronic disease, characterized by abnormal or excessive body fat (adiposity), that impairs health. Obesity is directly connected to more than 200 downstream comorbid conditions including cardiovascular disease, hypertension, diabetes and liver disease.

Most concerning, it increases the risk of developing cardio- vascular disease and cancer, two primary causes of premature mortality in Canada, resulting in a reduction of life expectancy by 6-14 years. Responses from our survey indicate limited mobility, chronic pain, difficulty with daily tasks and other physical limitations are common experiences of individuals living with obesity. One survey respondent stated that living with obesity ***"Caused me to retire early due to pain and mobility issues".***

Beyond the difficult impacts on physical health, a vast majority of our community reported additional significant impacts on their mental, emotional and social health.

"Obesity has had a significant impact on my daily life and overall well-being. Physically, it makes simple tasks like walking, climbing stairs, or standing for long periods more difficult and tiring. The strain on my joints and body limits my mobility, and I often feel uncomfortable or out of breath doing everyday activities. This has also affected my ability to participate in things I once enjoyed, which can be frustrating. Mentally, obesity has taken a toll on my confidence and self-esteem. I often feel self-conscious about my appearance, which impacts how I interact with others. It also contributes to feelings of anxiety and stress, especially when it comes to my health. I'm constantly aware of how my weight affects my overall well-being, and that can feel overwhelming at times. Overall, obesity affects me both physically and emotionally, impacting my quality of life in many ways."

"I can barely take care of myself. I cannot walk far due to pain and swelling. I've missed out on my kid's childhood's because I cannot participate in everyday activities. I worry about no having a place to sit, or furniture breaking. My self esteem is low and I rather not leave my house. I am not motivated.

"I have had to manage many more health complications from my obesity and multiple comorbidities. It's difficult for me to move effectively, I deal with chronic pain from nerve issues, arthritis and other problems, diabetes and minor heart issues, lung problems kidney diseases, hypertension are all worsened by excess adipose tissue so I find myself having to deal with mobility, hygiene, multiple prescriptions, injections and inhalers to manage my bodies complex health issues, getting in and out of a Chair is challenging at times, my recovery from a recent infection has been long and difficult because just to walk I have to recover to a person who can do it in a 350 lb body it's also a life fraught with anxiety, with lack of care and concern from others medical professionals who lack empathy or have in the past make seeking help feel like a minefield. Mental anguish am from what one can't do or can no longer do, and the constant pain of stigma and bias from society and from writhing makes my life unbearable at times. And my ability to support and care for my family is affected daily. I want to have the energy to do more, and live better, longer, if possible, but quality of life could be better on so many counts"

Many of the responses to our survey describe daily living with obesity as exhausting or tiring, both mentally and physically. A lack of energy combined with the mobility issues or pain, makes regular everyday activities much more difficult. Many of our community members indicated frustration with missing out on life experiences and the social isolation associated with living with obesity. This speaks to the complex and compounding impact of living with obesity.

"Fatigue, making it harder to cope with day-to-day tasks. Being tired all the time made it hard to keep up with household tasks, including cleaning & cooking. This led to ordering out and my home being

in constant disarray. From there, this worsened how I felt about myself, added stress, and again, exacerbated current mental health issues."

Obesity affects individuals, families and society. In Canada, the cost of inaction in obesity management had an estimated cost of more than $27 billion due to direct (i.e., physician, hospital, emergency room use) and indirect costs (i.e., lost productivity, absenteeism, disability), in 2023. Obesity is more prevalent than diabetes, hypertension or virtually any other chronic diseases and also carries with it a more significant economic burden when left untreated. To date no government (federal, provincial, territorial) has taken serious steps to treat and manage this disease.

The Canadian Clinical Practice Guidelines for the Treatment of Obesity, outline the current evidence and best practices for obesity management. ***However, pervasive weight bias in our society is a major barrier to access to obesity care.***

Obesity Canada's report card on access to obesity treatments shows that there is a profound lack of access to the three pillars of evidence-based obesity management which include pharmacotherapy, metabolic surgery and psychological interventions.

Due to lack of availability of evidence-based treatments in the health system, Canadians affected by obesity are left to navigate a complex landscape of unregulated weight-loss products and services, many of which lack a scientific rationale and openly promote unrealistic and unsustainable weight-loss goals.

Further, the environments we are expected to navigate for work, school, healthcare and even at home, are not typically designed to accommodate larger bodies and thus accessibility becomes a major obstacle. The societal bias and stigma associated with obesity is a significant barrier to quality of life. There is an overwhelming incorrect perception that obesity is a self-inflicted condition that simply requires more willpower on behalf of the individual. **This has led to obesity being the only chronic disease that has effective, evidence-based treatments that are available but largely NOT accessible due to lack of coverage.** Living in a world that poorly misunderstands the chronic disease you live with and leaving the management of a complex chronic disease up to the individual using ineffective methods creates a cycle of failure and disease progression. This all can lead to further healthcare avoidance, lowered quality of life and increases in mental health issues.

4. Experiences With Currently Available Treatments

Like many other chronic diseases, obesity is a manageable disease. In 2020, The Canadian Adult Obesity Clinical Practice Guidelines were published, marking a much-needed significant update in the evidence-based best practices. The guidelines describe three pillars of obesity treatment that improve obesity outcomes and support successful behavioral interventions. These pillars include psychological and behavioural therapy, anti-obesity medications and bariatric surgery**.** Despite the comprehensive evidence covered in the Clinical Practice Guidelines, there remains a gap in access to obesity care in Canada. While we have evidence that the three pillars of treatment are effective and AVAILABLE in Canada, none of them are appropriately ACCESSIBLE.

"It is so frustrating and demoralizing that the things that work for me are unattainable, I cannot afford the medications or to see a therapist regularly and

the wait time for surgery is several years. I am left to try and manage on my own and it is just not possible"

All 170 respondents to the survey reported attempts of self-managed obesity treatment including restrictive dieting (96%), exercise (92%), commercial weight management (77%) and over the counter supplements (57%). Overwhelmingly (96%) indicated that these methods were not effective long term and 86% indicated they were not sustainable long term.

"Whenever I have attempted programs (and I have tried so many). I can only sustain the patterns for so long. It's tough to explain if you've never experienced it but the constant internal struggle of every minute of the day to plan, prep, be mindful, guilt if I made a mistake… just becomes exhausting to maintain. I am a certified exercise instructor in many modalities, I have taken nutrition classes, seen dieticians, therapists, but I can never sustain all of the pieces long enough over time to have impact on my body."

"Eating well and exercising are great things! They just don't work all that well for me anymore. No matter how hard I tried, nothing actually moved the needle all that much."

"Obesity is often beyond our control. I did all the right things for years and nothing happened."

This is not an isolated finding as we know from research that although healthy eating and physical activity interventions alone are important for overall health and wellbeing, they are not effective treatments for any chronic disease, including obesity.

There are 4 medications approved for obesity management in Canada. Orlistat, the oldest of the medications is very rarely used anymore as it is not as effective as the newer treatments combined with a fairly unpleasant side effect profile that make it a very unpopular choice. Members of our community that responded to the survey and have been privileged enough to have access to the 3 other medications, Contrave (14%), Saxenda (20%) and Wegovy (89%) have reported a range of success. The side effect profile is relatively similar for these medications with mainly some gastrointestinal issues that are generally well tolerated and many report them dissipating once titrating up to full dose. No medication is 100% effective or appropriate for everyone, however, the many who do experience success with medications often describe it as life changing.

"Being on an obesity medication has changed my life. Being able to not constantly think about food and what not to eat. I no longer desire to eat unhealthy. Being able to exercise and live a full active life and not be exhausted and depressed."

While 77% of respondents reported experiencing side effects of the medication, 94% reported the side effects to be manageable. The majority of individuals (60%) reported accessing the medications by paying out of pocket while 40% reported having partial coverage through a drug plan, the average coverage for these individuals was 50%. Cost continues to be overwhelmingly the single biggest barrier to utilizing these effective treatments.

"The barrier is cost. I was covered for the first 1.5 years. Now I pay out of pocket and the cost is very high. I'm lucky we can afford it. It's a massive barrier for others and one many can't overcome."

"The cost. I am mother of 2 small children. I am paying for this medication to help me reduce risks of weight related disease. But in an economy where grocery prices are skyrocketing, it is a great burden to my family's finances."

Many patients report a great deal of success through bariatric surgery which is considered the current gold standard for obesity treatment, however, surgical intervention is not appropriate for all individuals living with obesity and it is not scalable for the population that could benefit from it, which is evident by the multi-year wait from time of referral across the country. This is a gap in care that effective obesity medications can help fill.

5. Improved Outcomes

When considering outcomes for treatment for obesity, the main effectiveness measure, weight loss, is often a proxy measure for other important indicators such as reducing risk associated with obesity-related conditions like cardiovascular disease or diabetes. Effective obesity management through these treatments have the potential to have significantly far-reaching positive impacts on the health, wellbeing and participation in daily life for individuals living with obesity and the related comorbid conditions.

"To have my medical condition taken seriously and not managing symptoms would be validating and a relief. It would help me start to manage some of the resulting conditions and potentially extend my life"

To be diagnosed with cardiovascular disease is scary enough, but then to add in obesity as a complicating factor is particularly terrifying because we know that we will be shamed and told to lose weight without access to effective treatment to support that. We will be left on our own to "eat less and move more" which has been proven to be woefully ineffective as a standalone treatment for obesity. Having access to a treatment that can significantly reduce the risk of cardiovascular events while also helping to manage obesity and the many physical and mental health outcomes directly related to it, is a significant improvement on current practice for this population.

When choosing a therapy patients living with obesity consider effectiveness and cost equally (84%) followed by health improvements related to comorbid conditions (77%), side effects (70%) and impact on daily life and activities (67%).

6. Experience With Drug Under Review

Semaglutide (Wegovy) is by far the medication that survey participants had the most experience with (89%). Wegovy has been approved in Canada since 2021 for weight management but availability due to supply has only been about a year in Canada now. As mentioned above, the majority of individuals access these medications by paying out of pocket which means that the treatment is out of reach for the vast majority of individuals that could benefit from it. The popularity of this obesity treatment is in part due to the significant effectiveness that many experience with the amount of weight loss, but for many it is the fact that the medication is addressing a biological root cause of obesity that no amount of willpower can overcome. Many patients speak of the treatment quieting their "food brain" or silencing their "food noise" and describe themselves as finally feeling "normal" in relation to food. This medication can not only support individuals in losing weight, but many indicate it gives them back a sense of control and supports them in being more successful with the healthy behaviours around food and activity.

"Honestly, the major impact of the medication compared to all other treatments is the major improvement in my mental health. The medication has literally switched off that food obsession in my brain."

"This treatment controls the constant food noise. With gastric bypass I still felt hungry and obsessed with eating. It feels wonderful not to be controlled by food."

"I lost 25% of my initial body weight and have maintained it so far for a year. I no longer have obstructive sleep apnea or high blood pressure. I'm walking mostly without pain for the first time in decades, using half as much arthritis medication as I was."

"It seems to help in normalizing my relationship with food. Being able to stop eating when I am full is something that I had found difficult in the past. Wegovy has been been helpful."

"I'm naturally more active now and feeling more confident. I don't think about food all the time and I can just exist."

"This medication changed my life. I have been on it two years, the last one just maintaining. I lost 70lbs in the first year and I feel so amazing. I have energy. I love myself more. I have better focus and absolutely a better quality of life."

7. Companion Diagnostic Test

8. Anything Else?

To date, the CDA (or CADTH), has not made a positive recommendation for any of the obesity medications, including this current medication, Wegovy, for the general obesity management indication. This decision has led to significant barriers for individuals living with obesity in gaining access to effective, evidence-based treatments. While the Canadian Medical Association and the WHO, along with virtually all major scientific organizations working in the obesity space recognize and understand obesity to be a chronic disease, Canadian policy on treatment does not reflect this reality, leaving Canadians living with obesity with few options. **These decisions appear to be grounded in deeply rooted weight bias and stigma associated with obesity and obesity treatments**. For example, Semaglutide (Ozempic), under the indication for diabetes received a positive recommendation from CADTH in 2019, yet the same molecule (Wegovy) for a different indication (obesity) did not receive a positive recommendation in 2022. When considering the basis of this decision from a patient's perspective, either CADTH does recognize obesity to be a chronic disease but Semaglutide is a significantly more effective treatment for diabetes than it is for obesity OR CADTH does not recognize obesity to be a chronic disease and it is not worthy of treatment in alignment with other chronic diseases. Both of these positions are factually and morally incorrect.

In August of 2022, CADTH indicated that Semaglutide demonstrated clinically significant weight loss compared to placebo but ***"did not demonstrate improvement in or prevention of weight-related comorbidities".*** Further CADTH suggested ***"Semaglutide demonstrated effectiveness in weight loss for up to 2 years with an acceptable side effect profile, but it is unclear whether this translates into a reduction in weight-related comorbidities or improvement in HRQoL.".*** The same molecule for a different disease indication (diabetes) did not face similar goal posts. When providing positive recommendation for coverage for Ozempic, CADTH did not consider the impact of the medication on the improvement or prevention of diabetes-related comorbidities, but rather just looked at the effectiveness of the medication within the indication it was listed under. This shifting of the goal posts for access to effective disease treatment is biased, unfair and has meant that Canadians living with obesity have been without appropriate access for years, leading to disease progression.

Obesity is a complex chronic disease that is related to more than 200 comorbid conditions. Upstream obesity management **IS** treatment and prevention of downstream chronic diseases such as cardiovascular disease and diabetes.

Despite the previous decision by CADTH for Wegovy, **the current submission for a much narrower indication - chronic weight management in adult patients with obesity and established cardiovascular disease, does in fact provide evidence to support the new goal posts established by CADTH, as the treatment now clearly demonstrates improvement in, or prevention of weight-related comorbidities**. As such, Canadians living with obesity are very much looking forward to your positive recommendation.

Appendix: Patient Group Conflict of Interest Declaration

To maintain the objectivity and credibility of the CADTH reimbursement review process, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This Patient Group Conflict of Interest Declaration is required for participation. Declarations made do not negate or preclude the use of the patient group input. CADTH may contact your group with further questions, as needed.

1. Did you receive help from outside your patient group to complete this submission? If yes, please detail the help and who provided it.

   No

2. Did you receive help from outside your patient group to collect or analyze data used in this submission? If yes, please detail the help and who provided it.

   No

3. List any companies or organizations that have provided your group with financial payment over the past 2 years AND who may have direct or indirect interest in the drug under review.

Table 1: Financial Disclosures

Check Appropriate Dollar Range With an X. Add additional rows if necessary.

Company	$0 to 5,000	$5,001 to 10,000	$10,001 to 50,000	In Excess of $50,000
Novo Nordisk				x
Eli Lilly				x
Boehringer Ingelheim				x

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Ian Patton
Position: Director of Advocacy and Public Engagement

Patient Group: Obesity Canada
Date: December 5, 2024

OBESITY MATTERS

Wegovy® Reimbursement Recommendation Review:

Empowering Canadians with Comprehensive Health Solutions

Priti (Chawla) Karunakaran,
Executive Director, Obesity Matters

OBESITY MATTERS

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A Brighter Future for Canadians Living with Obesity and Cardiovascular Disease

"I could not afford the medication, and that's why public reimbursement would make a significant difference." – **Survey respondent, October 2024**

"Exercising and dieting have not been enough to manage my weight effectively. Wegovy could provide the help I need to maintain better health." – **Survey respondent, October 2024**

These are just two voices among the **186 respondents** from the **October 2024 Obesity Matters survey**. Their lived experiences highlight the urgent need for public reimbursement of Wegovy® in Canada. The survey, which gathered feedback from our community members underscores the transformative potential of medications like Wegovy for Canadians managing obesity and cardiovascular conditions.

The Need for Public Reimbursement

The survey responses offer a stark message: **equitable access to effective, evidence-based obesity treatments is essential**. Wegovy, known for its dual benefits of weight loss and cardiovascular risk reduction, received overwhelming support.

- **90% of respondents** strongly support public reimbursement for medications addressing obesity and cardiovascular risks.
- **65% of respondents** believe reimbursement would significantly improve their health management, with an additional 25% indicating moderate improvement.

According to the Canadian Adult Obesity Clinical Practice Guidelines[1], pharmacotherapy should complement lifestyle interventions like diet and exercise for effective obesity management. Wegovy's proven impact aligns seamlessly with these guidelines, offering Canadians a comprehensive treatment.

[redacted]

Cardiovascular and Weight-Related Health Concerns

Health Canada's recent approval of Wegovy® (semaglutide injection) for reducing non-fatal myocardial infarction risk marks a critical milestone. This decision, based on the SELECT trial[2], demonstrates Wegovy''s ability to reduce major adverse cardiovascular events (MACE) by 20%, including cardiovascular death, non-fatal heart attacks, and strokes.

Survey results reveal that 18% of respondents have been diagnosed with cardiovascular disease. Among this group, 36% believe their weight has worsened their condition. Additionally:

- **52% of these respondents** reported significant daily limitations due to their obesity and cardiovascular disease.

Dr. Subodh Verma, lead investigator for the SELECT trial, highlights the groundbreaking implications:

> *"The introduction of semaglutide 2.4 mg as the only therapy proven to reduce non-fatal myocardial infarctions in patients with obesity is a pivotal moment. This therapy shifts obesity from being seen as a risk factor to a primary therapeutic target."* – ***Dr. Subodh Verma***

The prevalence of obesity in Canada has surged over the past two decades, increasing risks for chronic illnesses, including heart disease. The Canadian Community Health Survey[3] (2022) reports that one in three Canadian adults lives with obesity, with these individuals being more than twice as likely to develop heart disease.

Challenges in Sustainable Weight Loss

Despite concerted efforts, 62% of respondents expressed frustration over their inability to achieve lasting weight loss through diets, exercise, or other interventions.

One respondent noted:

> *"Metformin and exercise alone aren't enough; I need more support, and medications like Wegovy could provide that."*

Wegovy's ability to address both weight management and cardiovascular outcomes represents a transformative solution for these challenges, as underscored by the SELECT trial findings.

Urban-Rural Disparities in Obesity

The burden of obesity is disproportionately higher in **rural areas (31.4%)** compared to **urban centers (25.6%)**. Rural Canadians face additional barriers, including limited healthcare access and fewer healthy food options. Conversely, smaller urban centers often lack specialized care and affordable treatments.

This dual challenge emphasizes the need for widespread accessibility to evidence-based treatments like Wegovy to address urban-rural health inequities.

Financial Barriers to Access

The survey reveals that 40% of respondents face significant financial barriers to accessing anti-obesity medications, with an additional 30% experiencing moderate difficulty. Notably:

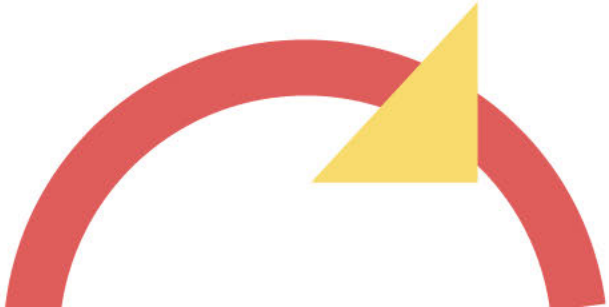
- **45% reported** that cost challenges have prevented them from seeking necessary treatment.

A respondent lamented:

"The cost of these medications has been very challenging, which has prevented me from accessing the treatment I need."

The Public Health Agency of Canada[4] highlights the economic burden of obesity, driven by comorbidities like cardiovascular disease, diabetes, and cancer. Public reimbursement for Wegovy would reduce these costs by addressing obesity as a root cause.

Many countries, including the UK and Israel, have successfully integrated obesity pharmacotherapy like Wegovy into their public reimbursement systems[5]. Canada must seize this opportunity to improve health outcomes and reduce economic strain.



Comprehensive Treatment for Chronic Conditions

Medications like Wegovy are game changers, addressing weight loss and cardiovascular risks simultaneously. The New England Journal of Medicine[6] reports Wegovy's potential to achieve an average weight loss of 15%, alongside significant cardiovascular improvements.

Survey respondents agree, with **92% believing** it's extremely important to have medications that address both issues. Moreover, **77% expressed willingness** to consider Wegovy as a treatment option to improve their overall health outcomes.

Canada's Opportunity to Lead

The need for a comprehensive treatment approach is evident. Bariatric surgery and other interventions are already covered under provincial health plans, raising an important question: why aren't pharmacological solutions like Wegovy included?

As highlighted in JAMA Network[7], GLP-1 medications like Wegovy represent a paradigm shift in chronic disease management. They address interconnected conditions—obesity, cardiovascular disease, and type 2 diabetes—through a single treatment, reducing the need for multiple interventions.

Public reimbursement of Wegovy would position Canada as a global leader in obesity treatment, aligning with international best practices and addressing the root causes of chronic disease.

One respondent summed up the situation:

"I fight every day for my health. I need more support. Every moment of my life is dedicated to getting better, I can't give more than that. Stop the bias and give us the safety nets we deserve as humans."

Conclusion

Survey responses strongly advocate for Wegovy's reimbursement in Canada. With **90% of respondents in favour** and **65% seeing significant health benefits**, the case is clear: public reimbursement would transform the lives of Canadians managing obesity and cardiovascular disease.

Health Canada's approval of Wegovy's cardiovascular indication reinforces the urgency of including this medication in public healthcare systems. By doing so, Canada can reduce health inequities, improve population health outcomes, and embrace a cost-effective solution to the growing obesity crisis.

The testimonial from John Adams, featured in **this video** (transcript in the appendix), highlights the profound impact semaglutide, the active ingredient in Wegovy, has had on his journey. His story showcases the tangible benefits this medication offers and serves as a powerful reminder of the real-world value of providing access to innovative treatments like Wegovy.

We respectfully urge Canada's Drug Agency (CDA) to recommend public reimbursement for Wegovy and solidify Canada's commitment to treating obesity as a chronic disease deserving comprehensive care.

Priti Chawla

Executive Director, Obesity Matters

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7. JAMA Network, GLP-1 Medications and Chronic Disease
   JAMA Network Study

Appendix: Testimonial from John Adams

Video transcript youtube.com/watch?v=5R54_Z8v_wk&ab_channel=ObesityMatters

John Adams
CEO & Co-Founder, Canadian PKU and Allied Disorders (CanPKU+)
Senior Fellow, Macdonald Laurier Institute (MLI)
Board Chair, Best Medicines Coalition

My name is John Adams, and I am a success story for an innovative drug therapy. Let me explain briefly my journey.

I was morbidly obese. I had severe coronary artery disease. My A1C also rose to the point where my family doctor insisted we had to do an intervention. I was officially pre-diabetic. This goes back to the middle of 2022.

I said, how about the version of semaglutide that was available in the marketplace at that time? She said yes. My family doctor said yes. I credit it, since the middle of 2022, I have managed to change my life, improve my health, and reduce my body mass by 110 lbs. The first 30 lbs were directly the result of semaglutide. It brought me on the right track.

I also had a professional health coach who insisted upon 1% improvements—many 1% improvements in my lifestyle over those two and a half years, almost now. In addition to the weight loss, I've also switched my diet to a Mediterranean diet, eliminated most red meats, eliminated all forms of added sugar, and increased my exercise regime as well. A classic combination of diet, exercise, and effective drugs.

Along the way, I also plateaued after losing 30 lbs. I turned to other tools—a health coach, the diet changes, and the exercise. Then I lost a total of 50 lbs. And then, I had a significant coronary event. It was not a heart attack or stroke; it was massive and acute angina. It turns out I had a 90% obstruction of the main coronary artery, which was successfully removed non-invasively.

I credit the fact that I did not suffer a heart attack to the fact that I was on semaglutide therapy in March and before March of 2023. Since then, I've continued to lose weight, continued to improve my diet, improve my exercise, and eliminated all forms of alcohol.

I've also had a cancer scare along the way that is successfully resolved so far and I continue. I'm happy to report that, in my migration across more than one semaglutide therapy, I have now, through my private insurance, received prior authorization to commence the use of Wegovy®. I note that just last week, Health Canada expanded the label indication to include the prevention of some forms of coronary disease—exactly the type of coronary disease I have and that I experienced back in March of 2023.

I'm alive and well today, because of semaglutide. Please make it available to lots more Canadians.

Non-profit Name: Obesity Matters
Address: 100 King Street West, Suite 5700
Toronto, Ontario M5X 1C7 Canada
[redacted]

OBESITY MATTERS

CADTH

CADTH Reimbursement Review

Clinician Group Input

CADTH Project Number: SR0841-000
Generic Drug Name (Brand Name):semaglutide
Indication: weight management
Name of Clinician Group: Obesity Canada and the Canadian Association for Bariatric Physicians and Surgeons
Author of Submission: Dr. Sanjeev Sockalingam

1. About Your Clinician Group

Obesity Canada - Obésité Canada (OC), a national registered charity association for healthcare professionals, researchers and policy makers working in obesity prevention and treatment and for Canadians living with obesity, coordinated the group clinician response. Obesity Canada's mission is to improve the lives of Canadians living with obesity through research, education and advocacy. This includes improving access to all evidence-based obesity treatments.

For more information about Obesity Canada, please visit obesitycanada.ca

The Canadian Association of Bariatric Physicians and Surgeons (CABPS) represents Canadian specialists interested in the treatment of obesity and severe obesity for the purposes of professional development as well as coordination and promotion of common goals.

For more information about the Canadian Association of Bariatric Physicians and Surgeons, please visit cabps.ca

2. Information Gathering

Obesity Canada engaged clinicians through direct email and text message requests. Clinicians also directly engaged their networks. Clinicians provided responses to the templated questions in the submission based on research results, clinical experience, and their understanding of patient needs and challenges.

3. Current Treatments and Treatment Goals

Obesity has been recognized as a chronic disease by the Canadian Medical Association since 2015, and most medical organizations globally, including the WHO. In 2020, the updated evidence-informed Canadian Adult Obesity Clinical Practice Guidelines define obesity as "a chronic relapsing disease characterized by abnormal and/or excessive adipose tissue that impairs health". Currently, more than 8.3 million adults and about 25-30% of Canadian children and youth live with obesity and may require medical support to manage

their disease. Approximately (26.4%) 8 million Canadians have a body mass index (BMI) ≥30 kg/m2 or 1 in 3 Canadians. While obesity is recognized as a chronic disease, obesity management is not included in any provincial, territorial or federal chronic disease strategies. As outlined in the Canadian Adult Obesity Clinical Practice Guidelines, behavioural interventions targeting healthy calorie-reduced diets and increased physical activity remain as the cornerstone of obesity management. It requires long-term support by the three pillars of evidence-based obesity management including: 1) psychological & behavioral therapy 2) pharmacotherapy 3) metabolic bariatric surgery, in order to effectively treat obesity long term. Most individuals living with obesity who rely solely on diet and exercise will have difficulty sustaining their efforts due to the biological way that our body defends our highest weight. Weight regain is largely due to hormonal and metabolic adaptation which occurs following weight loss, experienced by most as disappointment and a feeling of hopelessness, along with worsening obesity, and obesity related complications. Furthermore, a meta-analysis of clinical trials using calorie-reduced diets, exercise, or both, showed only modest ~3 kg body weight loss (Peirson L, et al. CMAJ Open 2014;2:E306-317 (DOI:10.9778/cmajo.20140012), which is often inadequate to improve obesity-related medical complications, such as type 2 diabetes and metabolically associated steatosis liver disease (MASLD, previously known as non-alcoholic fatty liver disease). This underscores the importance of the three pillars of obesity management, which includes pharmacotherapy. Managing obesity in our patients requires a multimodal chronic disease approach and access to appropriate existing pharmacotherapy. Behaviour change cannot overcome the biology underlying weight regulation for most people, emphasizing the need for medical and surgical options to address the biology of the appetite system.

Untreated overweight and/or obesity leads to obesity related complications, such as type 2 diabetes, hypertension, osteoarthritis, cancer, obstructive sleep apnea and MASLD. These complications not only lead to a significant burden to our healthcare system, but are detrimental to the quality of life of persons with obesity. Canadians are currently offered "weight loss" programs that unfortunately focus ***solely*** on diet and exercise, which is not rooted in the current available evidence-based approach and has not been successful in improving comorbidities related to weight. Many feel trapped in an endless cycle of multiple restrictive diet programs that ultimately are unsustainable and, ironically given their poor efficacy, further perpetuate the belief that obesity can simply be treated with "eat less, move more" approaches. The evidence clearly does not support this approach as being an effective management plan. Unfortunately, treatment advice focusing on eat less, move more perpetuates stereotypes of people with obesity to be lazy, unmotivated, lacking willpower and contributes further to the stigma of the disease.

The current treatment paradigm for the chronic disease of obesity consists of:

- Hospital based Bariatric Centers
    - Bariatric Centers of Excellence/Regional Assessment & Treatment Centres (BCOE/RATC)
    - Adult Bariatric Specialty Clinics
    - Pediatric Bariatric/Obesity Programs

All of the above offer multidisciplinary support, medical nutrition therapy (MNT), activity prescription, psychological and behavioural, pharmacotherapy and surgical interventions

- Private Bariatric Medicine Centers
    - Offer various support from multidisciplinary support, MNT, activity, psychological support and pharmacotherapy interventions.
    - Private Pay
- Non medical Weight Loss clinics

    - These types of clinics may or may not be commercial weight-loss/ diet programs and typically do not have multidisciplinary or regulated health professional support and may or may not provide evidence-based care
- Community Obesity management Clinics / Bariatric Medicine Centers
    - A systematic review of obesity management in primary care showed that improvements in clinically relevant health outcomes could be achieved by multi-component interventions that are delivered over the longer term by an interdisciplinary health team. The substantial impact of treating obesity as a chronic disease in improving a wide range of clinical conditions including osteoarthritis, diabetes, sleep apnea, hypertension, urinary incontinence and even infertility has also been well demonstrated in recent research.

Health Canada has approved four medications for the treatment of obesity in adults in Canada – orlistat 120 mg (Xenical®), liraglutide 3.0 mg (Saxenda®), naltrexone-bupropion 16/180 mg (Contrave), and Semaglutide 2.4mg (Wegovy). The clinical criteria for eligibility of medications include a body mass index (BMI) of equal to or greater than 27 kg/m2 with comorbidities related to weight or a BMI > or equal to 30 in adults as an adjunct to lifestyle changes. Of these medications, Saxenda, Wegovy and Contrave target the neuro endocrine pathology associated with obesity and are clinically the most effective long term medical treatments available.Semaglutide (Wegovy) has been approved by Health Canada in November of 2021 for obesity management and was most importantly recently approved by Health Canada in November 2024 to reduce the risk of non-fatal myocardial infarction in adults with established cardiovascular disease and BMI equal to or greater than 27 kg/m2. This is the first Health Canada approved treatment to support both chronic weight management and to reduce the risk of non-fatal MI

Despite the growing tool box of safe and effective medical treatments available for Canadians with obesity, access to these treatments are still desperately lacking. Canadians obtain access to these medications through a patchwork of public insurance, private benefit plans, and out-of-pocket payments. Based on CADTH prior review of Saxenda and Contrave, most provinces and public insurance policies still do not cover obesity medications, leaving a significant treatment gap in vulnerable populations that are at high risk of morbidity and mortality from the disease of obesity.This lack of coverage by private insurers is at least in part due to bias and stigma that still exists in recognizing obesity as a chronic disease and improving access to allow it to be treated as such. In the meantime, Canadians continue to struggle, and chronic complications from untreated obesity continue to plague the healthcare system.

Obesity treatment is often mistakenly equated with weight loss. However, the true goal of effective obesity management is to address dysfunctional adipose tissue that drives adverse health outcomes. Obesity treatment is more about health gains than weight loss.

In Canada, the treatment landscape for obesity faces significant unmet needs, which negatively affect patient outcomes. Chronic diseases are on the rise nationwide, and obesity is a leading contributor to conditions such as type 2 diabetes, hypertension, arthritis, cancer, and other serious health issues. Left untreated, obesity not only profoundly impacts those who live with it but also places a considerable strain on the healthcare system. Alarmingly, an estimated 1 in 10 premature deaths among Canadian adults aged 20 to 64 is directly attributable to obesity.

The ideal treatment of obesity needs to include the ability to:

- Improve or resolve obesity-related complications, such as type 2 diabetes, hypertension, obstructive sleep apnea, and osteoarthritis, which are placing a significant burden on the Canadian healthcare system.

.

- Access to scalable, evidence-based treatment options to complement medical nutrition therapy and behavioral management and have shown evidence to long term success

4. Treatment Gaps (unmet needs)

4.1. Considering the treatment goals in Section 3, please describe goals (needs) that are not being met by currently available treatments.

In Canada, accessibility of evidence-based effective obesity treatments is extremely limited. Wait times for bariatric surgery are unacceptably long (according to the 2019 Obesity Canada Report Card on Access to Obesity Treatment for Adults in Canada, metabolic bariatric surgery times can vary pre-covid from 8 months to 106 months). It should be noted that bariatric surgery, while an important and necessary treatment option, is not a scalable solution for addressing the needs of most individuals living with obesity. Due to its limited accessibility, it cannot reasonably be considered a widespread intervention for the Canadian population. Current evidence suggests that Wegovy, a potentially scalable treatment, is approaching the effectiveness of bariatric surgery, with clinical trials showing that approximately one-third of participants achieved weight loss exceeding 20%. However, the availability of obesity medications in Canada is limited, and coverage through public or private drug plans is minimal for most Canadians. In addition, individuals living with obesity face significant barriers to accessing multidisciplinary healthcare teams, including specialists trained in obesity management and professionals focused on obesity care. Access to critical services such as cognitive behavioral therapy, medical nutrition therapy, and psychotherapy is also highly limited.

Patients who have the greatest need for this medication are those with established obesity related complications that would directly impact their quality and quantity of life.. Also, patients who are denied access to medical or surgical procedures due to their obesity, such as surgical management for certain orthopedic procedures and certain fertility related treatments would strongly benefit. Over a quarter of the Canadian population, including children, have overweight or obesity and that number continues to increase, therefore this is not considered a niche population.

5. Place in Therapy

5.1. How would the drug under review fit into the current treatment paradigm?

Health Canada has approved four medications for the treatment of obesity in adults in Canada: orlistat 120 mg (Xenical®), liraglutide 3.0 mg (Saxenda®), naltrexone-bupropion (Contrave), and semaglutide 2.4mg (Wegovy).

Semaglutide is currently the most effective medication available in Canada for weight reduction, demonstrating an average placebo-adjusted weight loss of 12.4% by the end of a one-year clinical trial. There is also sufficient data to support that this weight reduction is sustained long term over at least 104 weeks, as seen in this study https://pubmed.ncbi.nlm.nih.gov/36216945/. In general, most clinical trials and real world experience show that semaglutide is a safe and effective long term treatment for obesity. Although side effects exist, most commonly gastrointestinal upset with nausea, constipation and diarrhea, these are mild, usually time-limited, and often mitigated through slower titration and nutritional guidance. Wegovy

would be the first once-weekly dosing available for patients who prefer this convenience or for those who are needle averse.

Semaglutide is the first of this class of medications to be approved by Health Canada for the use of cardiovascular Risk Reduction(https://www.nejm.org/doi/full/10.1056/NEJMoa2307563) for patients with cardiovascular disease. It is also the first drug in this class to demonstrate a 20% relative risk reduction in cardiovascular disease in patients with obesity without diabetes. This is the first trial of its kind to show significant benefit in such a patient population. The trial involving more than 17,000 patients (30% women) reflects a groundshift in treating not just weight itself but in reducing overall outcomes that impact morbidity and mortality. Not since statins have we seen such a significant reduction in a population at risk.

Semaglutide 2.4mg per week can also be considered in the setting of weight regain and appetite resurgence post bariatric surgery. Weight regain and appetite resurgence are a reflection of the chronic progressive nature of obesity and why it is so important to manage it as a chronic disease, which means adding on new treatments as needed due to the course of the disease.

Semaglutide 2.4mg could be used as a first line treatment in selected patients. It would be used as an integral part of any multimodal treatment plan, including nutritional and behavioral management. It could also be implemented pre or post bariatric surgery. In terms of "failure" of the medication: if a patient has an intolerance to the medication or the medication has not been effective (e.g., weight regain or lack of successful comorbidity improvement) then this could be discontinued. At this point any other medications available could potentially be trialed, along with further nutritional and behavioral management, and/or surgical intervention.

Semaglutide is poised to shift the current treatment paradigm, as studies such as https://www.nejm.org/doi/full/10.1056/NEJMoa2032183 demonstrate it to be the most efficacious pharmacological treatment currently available, achieving double-digit percentage body weight loss—approaching the outcomes seen with bariatric surgery. This medication has the potential to reduce the number of patients requiring surgical bariatric interventions and may also help prevent weight regain following bariatric surgery. Most importantly, and for the first time ever in medical or lifestyle treatment of obesity, semaglutide 2.4mg offers mortality benefits by reducing the risk of cardiovascular disease, independent of its weight-loss effects, in those with established cardiovascular disease.

Given the effectiveness of semaglutide 2.4mg in achieving significant weight loss and improving obesity-related health outcomes, it is not necessary to try other treatments before starting this medication, especially for patients with established cardiovascular disease. Obesity is a complex condition involving multiple factors, and lifestyle interventions alone often do not provide sufficient results for the vast majority of individuals, for known reasons. Semaglutide has shown substantial weight loss and improvement in related conditions like type 2 diabetes, making it an effective treatment option. Furthermore, delaying pharmacological treatment can worsen obesity-related complications.

5.2. Which patients would be best suited for treatment with the drug under review? Which patients would be least suitable for treatment with the drug under review?

Patients best suited for this medication would be diagnosed with overweight or obesity, with or without obesity-related complications. Patients who are in most need for intervention are those that have established obesity and disease-related complications that are affecting quality of life and would benefit from reduction in weight. Patients who have established disease and have not yet developed complications from obesity would also greatly benefit from intervention at this stage as this will prevent obesity related complications that generally would be chronic in nature. Please refer to Edmonton Obesity Staging System for information on disease staging.

Patients best suited for this treatment would be identified primarily through visits to their physicians/ allied health professionals or via self identification. Diagnostic tools are available for objective diagnosis including body mass index (BMI), waist circumference, and where appropriate disease-staging systems such as the Edmonton Obesity Staging system.

The Edmonton Obesity Staging system is a validated tool to assess the disease of obesity allowing a clinician to not only classify a patient based on their body mass index but also the degree of associated conditions such as type 2 diabetes, impaired mobility, or psychological distress.

Issues related to diagnosis and underdiagnosis include:

1) Weight bias (both from the health care professional and the patients themselves),

2) Inadequate professional training in diagnosing and managing obesity at all stages (undergraduate, post-graduate and continuing professional education),

3) Access to bariatric medical and surgical specialist physicians

4) Lack of available medical treatment options

Patients who are pre-symptomatic (Patients who do not have diagnosed obesity currently but do have overweight and a consistent weight increase or are at high risk for obesity related complications) could consider this treatment.

Early and strong responders exist to all obesity medications, including semaglutide. To date there are no methods of identifying the patients that will most likely respond or respond most strongly. Stopping rules apply to both liraglutide 3.0 mg (Saxenda) and naltrexone-bupropion (Contrave) to assist primary care providers to discontinue medications due to lack of efficacy. There is no stopping rule for semaglutide as a majority of individuals respond to semaglutide treatment. With semaglutide treatment approximately 92% of patients will lose 5% or greater of their total body weight at 12 months, 75% of patients will lose 10% or more of their total body weight at 12 months. In a two-year trial, 2 out 3 patients lost greater than or equal to 10% total body weight loss.

5.3 What outcomes are used to determine whether a patient is responding to treatment in clinical practice? How often should treatment response be assessed?

Currently, clinical outcomes that are considered positive or successful in clinical practice are aligned with the outcomes used in clinical trials and individual patient needs. Clinical trials use percentage weight loss and categorical weight loss as a primary outcome. Secondary outcomes include cardiometabolic parameters,

such as the resolution of prediabetes and the improvement in lipids and blood pressure. However, patient reported outcomes such as control of eating, mobility and quality of life measures are equally important in defining the success of treatment.

Treatment response should be assessed periodically after initiation of medication. This could vary from clinician to clinician and patient to patient. Response can be measured every four to 6 weeks initially and then shift to every 3 months. These numbers will vary depending on patient and clinician preference.

A clinically meaningful response to treatment would include

1. 5% reduction in total body weight in 3 months on the maximum therapeutic dose of 2.4 mg weekly
2. Improvements in laboratory markers of obesity related complications such as fasting glucose, hemoglobin A1c, and elevated triglycerides.
3. Reduction in pain scores for osteoarthritis
4. Improvement in general quality of life
5. Improvement in mobility
6. Reduction in obesity associated conditions such as obstructive sleep apnea, high blood pressure, and metabolic-dysfunction associated fatty liver disease and steatohepatits.
7. Weight stability in those patients who would otherwise have continued upward weight trajectory
8. Ability to move forward with greater safety for a procedure such as a hip replacement.

5.4 What factors should be considered when deciding to discontinue treatment with the drug under review?

The decision to discontinue treatment would be considered if:

1. There has not been a meaningful response to the treatment as described above IN POINT 6.10
2. The patient has an intolerance to the medications or has experienced side effects that are intolerable that are not improving over time with appropriate countermeasures
3. There is a more effective treatment available in the future that required the discontinuation of current medication
4. The medication becomes unaffordable for the patient to continue.

5.5 What settings are appropriate for treatment with [drug under review]? Is a specialist required to diagnose, treat, and monitor patients who might receive [drug under review]?

It would be appropriate you use this treatment while under review in the following settings:

1) Family medicine or primary care clinics - obesity should be managed in the same way as most other chronic disease, in the primary care setting with a longitudinal care provider, with a multidisciplinary team approach.

2) Community based obesity management programs or metabolic medicine clinics - specialist clinics are important supports for primary care for more complicated patients who require specialist review.

3) Hospital-based metabolic medical and surgical centers

We recommend that all healthcare providers, including primary care physicians, specialty physicians and allied health professionals obtain obesity medicine education/training to manage obesity. Any specialty should be comfortable in the diagnosis, treatment, and monitoring of obesity, as with most other chronic diseases.

6. Additional Information

Despite the availability of safe and effective treatments, many Canadians with obesity remain untreated, highlighting a critical gap in care. Obesity is a chronic, relapsing disease—similar to hypertension or diabetes—and requires long-term management. Yet, the healthcare system's failure to adequately support patients living with obesity leaves them vulnerable to misinformation and social media influences when making treatment decisions. As healthcare providers, we must prioritize fair assessment of treatment benefits, considering obesity's impact on mortality, chronic disease, and quality of life. Patients who benefit from treatments like semaglutide should continue them, just as pharmacotherapy is sustained for diabetes management. Treating obesity with the same evidence-based, chronic care approach can ensure better outcomes and reduce reliance on unreliable external sources.

7. Conflict of Interest Declarations

To maintain the objectivity and credibility of the CADTH drug review programs, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This conflict of interest declaration is required for participation. Declarations made do not negate or preclude the use of the clinician group input. CADTH may contact your group with further questions, as needed. Please see the *Procedures for CADTH Drug Reimbursement Reviews* (section 6.3) for further details.

1. Did you receive help from outside your clinician group to complete this submission? If yes, please detail the help and who provided it.

No.

2. Did you receive help from outside your clinician group to collect or analyze any information used in this submission? If yes, please detail the help and who provided it.

No.

3. List any companies or organizations that have provided your group with financial payment over the past two years AND who may have direct or indirect interest in the drug under review. **Please note that this is required for each clinician who contributed to the input — please add**

more tables as needed (copy and paste). It is preferred for all declarations to be included in a single document.

Declaration for Clinician 1

Name: Dr. Sanjeev Sockalingam
Position: Centre for Addiction and Mental Health, University of Toronto
Date: 03-12-2024

X **I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 1: Conflict of Interest Declaration for Clinician 1

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novo Nordisk		X		
Bausch Health	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 2

Name: Dr. Stephen Glazer
Position: University of Toronto
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 2: Conflict of Interest Declaration for Clinician 2

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Bausch Health		X		

Novo Nordisk		X		
Eli Lilly	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 3

Name: Dr. Sean Wharton
Position: Medical Director, Wharton Medical Clinic
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 3: Conflict of Interest Declaration for Clinician 3

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novo Nordisk			x	
Eli Lilly			x	
Bausch Health Canada		x		

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 4

Name: Dr. Shahebina Walji
Position: Medical Director, Calgary Weight Management Centre
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 4: Conflict of Interest Declaration for Clinician 4

Company	Check appropriate dollar range*

	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Novo Nordisk			X	
Bausch Health		X		
Eli Lilly	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 5

Name: Dr. Joseph Roshan Abraham
Position: Associate Professor, University of Alberta
Date: 03-12-2024

XI hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 5

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 6

Name: Dr. Tasneem Sajwani MBBS, FCFP, ABOMd
Position: Medical Director of Edmonton Weight Management Centre
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 6

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**

NOVO NORDISK		x		
Bausch Health Canada	x			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 7

Name: Dr. Megha Poddar
Position: Assistant Clinical Professor (Adjunct), McMaster University
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 7

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novo Nordisk			x	
Eli Lilly		x		
Bausch Health		x		

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 8

Name: Dr. Yvonne Kangong
Position: Family Medicine/Obesity Medicine Clinical lecturer, University of Calgary
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 8

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**

Bausch Health	X			
Novo Nordisk		X		

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 9

Name: Dayna Lee-Baggley
Position: Psychologist
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 9

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novo Nordisk		x		
Bausch Health		x		
Eli Lilly	x			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 10

Name: Ali Zentner, MD, FRCPC
Position: Internal Medicine, Obesity Medicine
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 10

Company	Check appropriate dollar range*

	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
NovoNordisk		X		
Bausch Health	X			
Eli Lilly		X		

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 11

Name: Padmaja Naidu
Position: Internal Medicine/Obesity Medicine, Windsor, Ontario
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 11

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
NovoNordisk		x		
Bausch		x		
Eli Lilly	x			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 12

Name: David C.W. Lau
Position: Professor Emeritus of Medicine, Univ. of Calgary
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 12

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Boehringer Ingelheim, Novartis, Novo Nordisk		X		
Amgen, HLS Therapeutics, Structure Therapeutics USA, Viatris, Zealand Pharma	X			
CME at Sea	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 13

Name: Raed Hawa MD FRCPC DABOM
Position: Psychiatry and Obesity Medicine
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 13

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 14

Name: Dr Shawna Stafford, MD, FRCSC, dABOM
Position: Obstetrics and Gynecology, Obesity Medicine
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 14

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Novo Nordisk	x			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 15

Name: Dr Michael Vallis, PhD R Psych
Position: Psychologist & Associate Professor
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 15

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Novo Nordisk			X	
Bausch Health			X	
Boehringer Ingelheim		X		
Lilly	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 16

Name: Dr Jooho Lee, MD FRCPC
Position: Internal Medicine, Endocrinology
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 16

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Novo Nordisk, Amgen		X		
Eli Lilly, Boehringer Ingelheim,	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 17

Name: Meghan Patterson
Position: RN, CDE, CBE
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 17

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 18

Name: Daniel Burton BScPharm, PharmD, CBE, CDE
Position: Pharmacist and Obesity Medicine
Date: 03-12-2024

X I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 18

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Novo Nordisk				X

* Place an X in the appropriate dollar range cells for each company.

CADTH

CADTH Reimbursement Review

Clinician Group Input

CADTH Project Number: **SR0841-000**
Generic Drug Name (Brand Name): **semaglutide**
Indication: To reduce the risk of major adverse cardiovascular events (cardiovascular death, non-fatal myocardial infarction or non-fatal stroke) in adults with established cardiovascular disease (myocardial infarction, stroke or peripheral arterial disease) and BMI equal to or greater than 27 kg/m2.
Name of Clinician Group: TotalCardiology Rehabilitation (TCR)
Author of Submission: Sandeep Aggarwal

1. About Your Clinician Group

Please describe the purpose of your organization. Include a link to your website (if applicable).

TCR (TotalCardiology Rehabilitation) is the sole provider of cardiac rehabilitation for the City of Calgary and surrounding area. We provide rehabilitation to over 2000 patients per year and have been providing rehabilitation for more than 30 years. We manage patients with ASCVD (atherosclerotic Cardiovascular disease). We are a multidisciplinary group of family physicians, internists and cardiologists.

2. Information Gathering

Please describe how you gathered the information included in the submission.

A detailed review of the literature (pubmed and University of Calgary) was carried out to obtain references.

3. Current Treatments and Treatment Goals

Please describe the current treatment paradigm for the disease.

- Focus on the Canadian context.
- Please include drug and non-drug treatments.
- Drugs without Health Canada approval for use in the management of the indication of interest may be relevant if they are routinely used in Canadian clinical practice. Treatments available through special access programs are relevant. Are such treatments supported by clinical practice guidelines?
- Do current treatments modify the underlying disease mechanism? Target symptoms?
- What are the most important goals that an ideal treatment would address?
- **Examples:** Prolong life, delay disease progression, improve lung function, prevent the need for organ transplant, prevent infection or transmission of disease, reduce loss of cognition, reduce the severity of symptoms, minimize adverse effects, improve health-related quality of life, increase the ability to maintain employment, maintain independence, reduce burden on caregivers.

Current Treatments:

The current standard treatment for reducing major adverse cardiovascular events (MACE) in patients with cardiovascular disease (CVD) primarily includes:

- **Statins:** The cornerstone of lipid-lowering therapy aimed at reducing cholesterol levels and preventing atherosclerotic cardiovascular disease (ASCVD). In Addition PCSK9 inibitors have been shown to reduce events in patients with ASCVD (especially when LDL is not controlled, patients with higher risk and those with obesity).
- **Antihypertensives:** ACE inhibitors, ARBs, and beta-blockers are commonly used to control blood pressure and reduce cardiovascular risk.
- **Antiplatelet agents:** Aspirin or P2Y12 inhibitors (e.g., clopidogrel) are used to reduce the risk of thrombotic events.
- **SGLT2 inhibitors and GLP-1 receptor agonists are increasingly recommended for both cardiovascular and renal protection, especially in patients with type 2 diabetes at high cardiovascular risk.**
- **Lifestyle modifications:** Weight loss through diet and exercise remains a fundamental component of managing cardiovascular risk, but success rates can be limited due to challenges in sustaining meaningful weight reduction.

Despite the above treatments morbidity and mortality remain high. This is especially true of obese patients who have an increased cardiovascular risk. To date there are no drug therapies targeted to weight loss that have been shown to reduce cardiovascular risk in obese patients with ASCVD. This is especially true in a non-diabetic population.

Treatment Goals:

The **primary goal in this population is to reduce the incidence of MACE** (cardiovascular death, myocardial infarction, and stroke). Additional goals include:

- **Weight management:** Obesity (BMI ≥ 27 kg/m²) significantly increases cardiovascular risk. Managing weight in this population is crucial, as overweight and obesity are independent risk factors for cardiovascular events, as supported by the findings from the SELECT trial. Existing therapies for cardiovascular disease do not target weight loss, which is a significant unmet need for patients with elevated BMI. The SELECT trial demonstrated that weight reduction in obese patients without diabetes is possible with semaglutide, addressing this gap. There are many non-cardiac related conditions that could potentially be reduced with the weight reduction (including hip and knee arthritis).
- **Improving glycemic control (where applicable):** Though not all patients are diabetic, maintaining optimal glucose levels in patients at risk of developing type 2 diabetes is also important.

Emerging Role of Semaglutide :

Semaglutide , a GLP-1 receptor agonist, is currently used for its glucose-lowering effects in type 2 diabetes. However, trials such as STEP 1 and SELECT demonstrate its additional benefits in:

- **Reducing cardiovascular risk:** Semaglutide significantly reduces the risk of MACE, **even in non-diabetic patients**, as evidenced by the SELECT trial (hazard ratio of 0.80 for the primary cardiovascular endpoint)
- **Supporting weight loss:** Semaglutide's ability to promote sustained weight loss (mean reduction of 9.39% of body weight in SELECT) is a key advantage, particularly in patients with elevated BMI(select trial)

Thus, the addition of semaglutide to current treatments provides both cardiovascular protection and substantial weight loss, addressing two major risk factors in patients with CVD and obesity.

Unmet Needs:

- A therapy that effectively reduces cardiovascular events while also addressing weight management.
- Long-term, sustained weight loss interventions in the cardiovascular disease population, particularly in the non-diabetic subset.

Semaglutide's ability to address these gaps with significant reductions in MACE and meaningful weight loss makes it a critical addition to the current therapeutic landscape in Canada.

4. Treatment Gaps (unmet needs)

4.1. Considering the treatment goals in Section 3, please describe goals (needs) that are not being met by currently available treatments.

Please describe goals (needs) that are not being met by currently available treatments. Examples of unmet needs:

- Not all patients respond to available treatments
- Patients become refractory to current treatment options
- No treatments are available to reverse the course of disease
- No treatments are available to address key outcomes
- Treatments are needed that are better tolerated
- Treatments are needed to improve compliance
- Formulations are needed to improve convenience

Please describe limitations associated with current treatments (e.g., adverse events, administration, etc., if applicable).

Current Gaps in Therapy:

- **Suboptimal Weight Loss:** Existing cardiovascular therapies (statins, antihypertensives) do not directly target weight loss, and weight management through lifestyle interventions alone has limited long-term success in many patients. This gap is particularly significant for patients with elevated BMI and established CVD.
- **Limited Dual Cardiovascular and Weight Benefits:** While therapies like SGLT2 inhibitors and statins offer cardiovascular benefits, their impact on weight loss is minimal. Furthermore, they are primarily used in patients with diabetes or heart failure and may not fully address the cardiovascular risks in obese, non-diabetic patients.
- **Lack of Comprehensive Cardiovascular Risk Management:** For patients with cardiovascular disease but without diabetes, there is a gap in therapies that address both cardiovascular risk and weight reduction. The SELECT trial provides compelling evidence that semaglutide fills this gap, reducing both cardiovascular events and body weight, particularly in patients with a BMI ≥ 27 kg/m².

Unmet Needs:

- A therapy that effectively reduces cardiovascular events while also addressing weight management.
- Long-term, sustained weight loss interventions in the cardiovascular disease population, particularly in the non-diabetic subset.

Semaglutide's ability to address these gaps with significant reductions in MACE and meaningful weight loss makes it a critical addition to the current therapeutic landscape.

5. Place in Therapy

5.1. How would the drug under review fit into the current treatment paradigm?

Is there a mechanism of action that would complement other available treatments, and would it be added to other treatments?

Is the drug under review the first treatment approved that will address the underlying disease process rather than being a symptomatic management therapy?

Would the drug under review be used as a first-line treatment, in combination with other treatments, or as a later (or last) line of treatment?

Would the drug under review be reserved for patients who are intolerant to other treatments or in whom other treatments are contraindicated?

Is the drug under review expected to cause a shift in the current treatment paradigm?

Please indicate whether or not it would be appropriate to recommend that patients try other treatments before initiating treatment with drug under review. Please provide a rationale for your perspective.

Proposed Role of Semaglutide: First-Line Treatment for Obesity and Cardiovascular Risk

Semaglutide is positioned as a dual-benefit therapy for patients with established cardiovascular disease (CVD) and obesity (BMI ≥27). Current therapies often address either cardiovascular risk (e.g., statins, antihypertensives) or weight loss (e.g., lifestyle changes), but rarely both. The SELECT trial demonstrates that semaglutide effectively reduces major adverse cardiovascular events (MACE) while also providing significant and sustained weight loss in a population that is difficult to manage through lifestyle modifications alone.. Its efficacy in weight management adds to its cardiovascular protective effects, making it an ideal therapy in this high-risk population. Patients with ASCVD should be placed on all secondary prevention therapies that they can tolerate (ex statins) as this is the basis for management of patients with ASCVD and there is ample evidence to support those therapies (see section 3). Additionally, in contrast to other weight loss medications, semaglutide's cardiovascular benefit makes it uniquely suited for this high-risk population.

5.2. Which patients would be best suited for treatment with the drug under review? Which patients would be least suitable for treatment with the drug under review?

Which patients are most likely to respond to treatment with drug under review?

Which patients are most in need of an intervention?

Would this differ based on any disease characteristics (e.g., presence or absence of certain symptoms, stage of disease)?

How would patients best suited for treatment with drug under review be identified (e.g., clinician examination/judgement, laboratory tests (specify), diagnostic tools (specify))

Are there any issues related to diagnosis?

Is a companion diagnostic test required?

Is it likely that misdiagnosis occurs in clinical practice (e.g., underdiagnosis)?

Is it possible to identify those patients who are most likely to exhibit a response to treatment with drug under review?

Semaglutide 2.4 mg was studied in patients 45 year of age or older with ASCVD and obesity (BMI > 27). This would be the primary population that would benefit from this drug. Although patients with diabetes were excluded this was maninly because this drug class has clear evidence of benefit in patients with Diabetes and is all major guidelines including European, American and Canadian.

Patients who are best suited for treatment with semaglutide include:

- **Obese patients (BMI ≥27 kg/m²)** with established cardiovascular disease (myocardial infarction, stroke, or peripheral arterial disease) who are seeking to reduce both their cardiovascular risk and body weight.
- **Non-diabetic patients** who are at high cardiovascular risk and have difficulty achieving weight loss through lifestyle modifications alone.
- **Diabetic patients** with cardiovascular disease who require additional cardiovascular protection beyond glycemic control. These patients benefit from semaglutide's combined ability to manage weight and reduce cardiovascular events.

The study did exclude NYHA IV heart failure and end stage kidney disease or dialysis as these patients have very poor prognosis.

Patients who may be less suitable for semaglutide treatment include:

- **Patients with a history of pancreatitis** or other gastrointestinal conditions that may be exacerbated by GLP-1 receptor agonists.
- **Patients with type 1 diabetes**, as the benefits seen in cardiovascular outcomes were specific to those with type 2 diabetes or without diabetes (as studied in the SELECT trial).
- **Patients planning major cardiovascular procedures** or who have recently had a major cardiovascular event (e.g., myocardial infarction or stroke within the past 60 days).
- **Patients with severe kidney or liver disease**, as the safety profile of semaglutide in these populations has not been fully established.
- **Pregnant patients.** There is limited evidence in this population.

In such cases, alternative therapies for cardiovascular risk reduction should be considered based on the patient's specific health conditions and needs

5.3 What outcomes are used to determine whether a patient is responding to treatment in clinical practice? How often should treatment response be assessed?

Are outcomes used in clinical practice aligned with the outcomes typically used in clinical trials?

What would be considered a clinically meaningful response to treatment? Consider the magnitude of the response to treatment. Is this likely to vary across physicians?

Examples: improved survival; reduction in the frequency/severity of symptoms (provide specifics regarding changes in frequency, severity, etc.); attainment of major motor milestones; ability to perform activities of daily living; improvement of symptoms; and stabilization (no deterioration) of symptoms.

There is no response to treatment that can be assessed. Although the expectation is that the patient will have weight loss there is no evidence that lack of weight loss does not give the same result.

5.4 What factors should be considered when deciding to discontinue treatment with the drug under review?

Examples: disease progression (specify, e.g. loss of lower limb mobility); certain adverse events occur (specify type/frequency/severity); or additional treatment becomes necessary (specify).

Discontinuation should be considered if there is intolerance to the medication, pnacreatitis, increased Calcitonin or patient becomes pregnant.

5.5 What settings are appropriate for treatment with [drug under review]? Is a specialist required to diagnose, treat, and monitor patients who might receive [drug under review]?

Examples: Community setting, hospital (outpatient clinic), specialty clinic

If a specialist is required, which specialties would be relevant?

This drug should not be restricted to a specialist as long as they meet criteria to be treated.

6. Additional Information

Is there any additional information you feel is pertinent to this review?

None

7. Conflict of Interest Declarations

To maintain the objectivity and credibility of the CADTH drug review programs, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This conflict of interest declaration is required for participation. Declarations made do not negate or preclude the use of the clinician group input. CADTH may contact your group with further questions, as needed. Please see the *Procedures for CADTH Drug Reimbursement Reviews* (section 6.3) for further details.

1. Did you receive help from outside your clinician group to complete this submission? If yes, please detail the help and who provided it.

   No outside help was obtained

2. Did you receive help from outside your clinician group to collect or analyze any information used in this submission? If yes, please detail the help and who provided it.

   No outside help was obtained.

3. List any companies or organizations that have provided your group with financial payment over the past two years AND who may have direct or indirect interest in the drug under review. **Please note that this is required for each clinician who contributed to the input — please add more tables as needed (copy and paste). It is preferred for all declarations to be included in a single document.**

Declaration for Clinician 1

Name: Sandeep Goel Aggarwal
Position: Medical Director, TotalCardiology Rehabiliation
Date: September 29, 2024

☒ **I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 1: Conflict of Interest Declaration for Clinician 1

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novo Nordisk	x			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 2

Name: <Enter full name>
Position: <Enter currently held position>
Date: <DD-MM-YYYY>

☐ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 2: Conflict of Interest Declaration for Clinician 2

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Add company name				
Add company name				
Add or remove rows as required				

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 3

Name: <Enter full name>
Position: <Enter currently held position>
Date: <DD-MM-YYYY>

☐ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 3: Conflict of Interest Declaration for Clinician 3

Company	**Check appropriate dollar range***

	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Add company name				
Add company name				
Add or remove rows as required				

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 4

Name: <Enter full name>
Position: <Enter currently held position>
Date: <DD-MM-YYYY>

☐ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 4: Conflict of Interest Declaration for Clinician 4

	Check appropriate dollar range*			
Company	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Add company name				
Add company name				
Add or remove rows as required				

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 5

Name: <Enter full name>
Position: <Enter currently held position>
Date: <DD-MM-YYYY>

☐ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 5

	Check appropriate dollar range*			
Company	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Add company name				
Add company name				

Add or remove rows as required				

* Place an X in the appropriate dollar range cells for each company.

CADTH

CADTH Reimbursement Review

Clinician Group Input

CADTH Project Number: SR0841-000
Generic Drug Name (Brand Name): Semaglutide
Indication: Weight management as an adjunct to a reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial body mass index (BMI) of: • 30 kg/m2 or greater (obesity), or • 27 kg/m2 or greater (overweight) in the presence of at least one weight-related comorbidity such as hypertension, type 2 diabetes mellitus, dyslipidemia, or obstructive sleep apnea
Name of Clinician Group: Western University, Division of Cardiology, Cardiac Rehabilitation and Secondary Prevention Program
Author of Submission: Dr. Neville Suskin, Dr. Robert McKelvie & Dr. Ashlay Huitema

1. About Your Clinician Group

Our program delivers comprehensive cardiac rehabilitation care including secondary prevention using lifestyle and pharmacotherapeutic interventions to meet or exceed guideline recommendations. 2. Information Gathering

Literature review, group experience including program evaluation and publications.

3. Current Treatments and Treatment Goals

Annually, approximately 250,000 patients in Canada are diagnosed with atherosclerotic cardiovascular disease (ASCVD) (Tran et al, CJC: 34; S252-S262, 2018), and as such are eligible for multidisciplinary cardiac rehabilitation to optimize cardiovascular health, including mitigation of obesity, using lifestyle and pharmacotherapeutic interventions (Thomas, N Engl J Med 2024;390:830-41. DOI: 10.1056/NEJMra2302291).

4. Treatment Gaps (unmet needs)

4.1. Considering the treatment goals in Section 3, please describe goals (needs) that are not being met by currently available treatments.

Our real-world research has demonstrated that patients who complete our cardiac rehabilitation program experience 50% less mortality or readmission for cardiac events over the next decade compared to propensity matched patients (including matching for body weight) who did not participate in cardiac rehabilitation (Suskin et al, J Clin Med. 2019 Feb 28;8(3):290. doi: 10.3390/jcm8030290).

However, there is room for improvement, as 57% of patients without diabetes who complete our cardiac rehabilitation program have a BMI of 27 kg/m2 or greater. Noting that 78% of our cardiac rehabilitation patients do not have diabetes, 45% (57% of 78%), of patients completing evidence-based cardiac rehabilitation programming such as ours could potentially benefit from additional therapy such as semaglutide as per the SELECT study intervention.

The SELECT study demonstrated that in patients with preexisting cardiovascular disease with a BMI of 27 kg/m2 or greater without diabetes, treatment with weekly subcutaneous semaglutide at a dose of 2.4 mg, was associated with a 20% reduction of death from cardiovascular causes, nonfatal myocardial infarction, or nonfatal stroke at a mean follow-up of 3.3 years (Linkoff et al, N Engl J Med 2023;389:2221-32. DOI: 10.1056/NEJ.5Moa2307563).

Moreover, if the 250,000 incident cases of of ASCVD annually in Canada have a similar risk profile to ours, this would translate into a potential 110,000 (45% of 250,000) patient annual treatment gap for SELECT study dosing of semaglutide to reduce the risk for future ASCVD events.

5. Place in Therapy

5.1. How would the drug under review fit into the current treatment paradigm?

Semaglutide 2.4 mg subcutaneous injection weekly is approved by Health Canada as an adjunct to reduced calorie diet and increased physical activity for chronic weight management in adult patients with an initial body mass index (BMI) of: 30 kg/m2 or greater (obesity), or 27 kg/m2 or greater (overweight) in the presence of at least one weight-related comorbidity such as hypertension, type 2 diabetes mellitus, dyslipidemia, or obstructive sleep apnea.

The SELECT study demonstrated that treating patients with preexisting cardiovascular disease with a BMI >=27 kg/m2 without diabetes, with weekly subcutaneous semaglutide at a dose of 2.4 mg, is associated with a 20% reduction of death from cardiovascular causes, nonfatal myocardial infarction, or nonfatal stroke at a mean follow-up of 3.3.

Consequently, patients with a BMI of 27 kg/m2 or more and cardiovascular disease, should be offered the option of semaglutide in combination with the lifestyle interventions, such as that delivered by cardiac rehabilitation programming, per the SELECT study dosing.

We have received positive feedback from our patients for government funded pharmacotherapy to mitigate obesity. Thus, a weekly semaglutide 2.4 mg subcutaneous injection provides a novel addition to existing optimal lifestyle interventions, such as cardiac rehabilitation, for patients with cardiovascular disease.

5.2. Which patients would be best suited for treatment with the drug under review? Which patients would be least suitable for treatment with the drug under review?

Patients with a BMI of 27 or greater, with a diagnosis of cardiovascular disease, should be offered the option of semaglutide (per SELECT study dosing) as adjunct therapy to the lifestyle interventions delivered by cardiac rehabilitation programming (guidance for improving physical activity and diet).

5.3 What outcomes are used to determine whether a patient is responding to treatment in clinical practice? How often should treatment response be assessed?

While the aim of including semaglutide as a pharmacological option in suitable patients with ASCVD is to reduce secondary events, the intermediate outcome of weight loss (demonstrated in SELECT as 4% at 12 weeks, around 7% at 24 weeks and approximately 9% at 52 weeks) could be used to assess treatment adherence and response in the

context of 12-24 weeks of cardiac rehabilitation programming. Per SELECT, treatments should be continued indefinitely similar to maintenance of statin therapy or ASA post-myocardial infarction.

5.4 What factors should be considered when deciding to discontinue treatment with the drug under review?

Adverse effects, patient choice and contra-indications.

5.5 What settings are appropriate for treatment with [drug under review]? Is a specialist required to diagnose, treat, and monitor patients who might receive [drug under review]?

Any prescribing health care practitioner could prescribe semaglutide for eligible patients.

Progression from baseline dose to the target of 2.4mg weekly requires a commitment of 16 weeks. Both patient and practitioner should commit to frequent communication and monitoring during the dose escalation period. This is similar to the increased patient-clinic interactions during cardiac rehabilitation programming.

6. Additional Information

None

7. Conflict of Interest Declarations

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1. Did you receive help from outside your clinician group to complete this submission? If yes, please detail the help and who provided it.

   No

2. Did you receive help from outside your clinician group to collect or analyze any information used in this submission? If yes, please detail the help and who provided it.

   No

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Declaration for Clinician 1

Name: Neville Suskin
Position: Professor of Medicine, Div. Cardiology, Western University, Ontario, Canada

Date: 24-10-2024

☒ **I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 1: Conflict of Interest Declaration for Clinician 1

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novartis (consultancy)			X ($11,090)	
Sanofi (speaker)	x			
HLS (Ad Board/grant)	x		X ($25,000)	
Boehringer Ingelheim (grant)			X ($25, 000)	

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 2

Name: Robert McKelvie
Position: Professor of Medicine, Div. Cardiology, Western University, Ontario, Canada
Date: 24-10-2024

☒ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 2: Conflict of Interest Declaration for Clinician 2

	Check appropriate dollar range*			
Company	**$0 to $5,000**	**$5,001 to $10,000**	**$10,001 to $50,000**	**In excess of $50,000**
Novartis		x		
Add company name				
Add or remove rows as required				

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 3

Name: Ashlay Huitema
Position: Assistant Professor of Medicine, Div. Cardiology, Western University, Ontario, Canada
Date: 10-07-2023

☒ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 3: Conflict of Interest Declaration for Clinician 3

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Amgen	X			
Bayer	X			
Boehringer Ingelheim	X			

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 4

Name: <Enter full name>
Position: <Enter currently held position>
Date: <DD-MM-YYYY>

☐ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 4: Conflict of Interest Declaration for Clinician 4

Company	Check appropriate dollar range*			
	$0 to $5,000	$5,001 to $10,000	$10,001 to $50,000	In excess of $50,000
Add company name				
Add company name				
Add or remove rows as required				

* Place an X in the appropriate dollar range cells for each company.

Declaration for Clinician 5

Name: <Enter full name>
Position: <Enter currently held position>
Date: <DD-MM-YYYY>

☐ I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Table 5: Conflict of Interest Declaration for Clinician 5

Company	Check appropriate dollar range*			
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Add company name				
Add company name				
Add or remove rows as required				

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