Obesity: Changing the Conversation

MN Health Action Group
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Medical Affairs, Novo Nordisk Inc
# BMI: Definition

BMI (body mass index) = \( \frac{\text{body weight (kg)}}{\text{height [m]}^2} \)

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI (kg/m(^2))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
</tr>
<tr>
<td>Normal range</td>
<td>≥18.5 and &lt;25</td>
</tr>
<tr>
<td>Overweight</td>
<td>≥25 and &lt;30</td>
</tr>
<tr>
<td>Obesity</td>
<td>≥30</td>
</tr>
<tr>
<td>Obesity class I</td>
<td>≥30 and &lt;35</td>
</tr>
<tr>
<td>Obesity class II</td>
<td>≥35 and &lt;40</td>
</tr>
<tr>
<td>Obesity class III</td>
<td>≥40</td>
</tr>
</tbody>
</table>

BMI: body mass index  
Projected trends in obesity in the US by 2030

In **2010**, there were **>78 million** US adults with obesity **35.7%** of the population

By **2030**, **~65 million additional** US adults will have obesity **51.4%** of the population

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Obesity is not simply a problem of lifestyle, but has its own pathophysiology

“...[O]besity is a primary disease, and the full force of our medical knowledge should be brought to bear on the prevention and treatment of obesity as a primary disease entity....”¹ [2012]

Obesity is a chronic disease, prevalent in both developed and developing countries, and affecting children as well as adults.³ [2014]

“Recognizing obesity as a disease will help change the way the medical community tackles this complex issue that affects approximately one in three Americans.”² [2014]

“FDA agrees with these comments that obesity is a disease.... Being overweight, ie, being more than one's ideal weight but less than obese, however, is not a disease.”⁴ [2000]

Adults with obesity are at higher risk of developing chronic obesity-related complications

Relative Health Risks of Obesity

<table>
<thead>
<tr>
<th>3 fold</th>
<th>2-3 fold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 2 Diabetes$^{1-3}$</td>
<td>Cardiovascular disease$^3$</td>
</tr>
<tr>
<td>Dyslipidemia$^3$</td>
<td>Hypertension$^{1-3}$</td>
</tr>
<tr>
<td>Breathlessness$^3$</td>
<td>Osteoarthritis$^3$</td>
</tr>
<tr>
<td>Sleep apnea$^3$</td>
<td></td>
</tr>
</tbody>
</table>

The economic burden of obesity

Direct cost
- Direct medical spending associated with diagnosis and treatment of obesity-associated complications

Indirect cost
- Productivity loss
- Absenteeism
- Presenteeism
- Disability
- Unemployment claims
- Workers compensation
- Premature mortality

*Includes hypertension, type 2 diabetes, hypercholesterolemia, coronary heart disease (CHD), stroke, asthma, and arthritis.
Increasing annual spending on obesity and related comorbidities: 1998–2030

- $78.5 billion in 1998
- $190 billion in 2005
- ~$900 billion by 2030

51% in 2030

65 million more obese by 2030

- 5.5 million more cases of diabetes
- 5.4 million more cases of CHD and stroke
- 0.4 million more cases of cancer

CHD, coronary heart disease; US, United States

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Costs of presenteeism and absenteeism significantly impact obesity

- Depression
- Obesity
- Arthritis
- Back/neck pain
- Anxiety
- GERD
- Allergy
- Other cancer
- Other chronic pain
- Hypertension

Annual Costs per 1,000 FTEs ($)

- Medical
- Drug
- Absenteeism
- Presenteeism

Obesity

$16,750

$151,250

$101,000

FTE, full-time equivalent; GERD, gastroesophageal reflux disease. Data from 10 employers with 51,648 employees.

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Weight loss improves obesity-related comorbidities

Benefits of 5–10% weight loss

- Reduction in risk of type 2 diabetes\(^1\)
- Reduction in CV risk factors\(^2\)
- Improvements in blood lipid profile\(^3,4\)
- Improvements in blood pressure\(^4\)
- Improvements in severity of obstructive sleep apnea\(^5,6\)
- Improvements in health-related quality of life\(^7,8\)


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Weight loss reduces obesity-related complications and economic burden

<table>
<thead>
<tr>
<th>Obesity-related complications</th>
<th>Cases Avoided</th>
<th>Associated savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary Heart Disease &amp; Stroke</td>
<td><strong>2.9 million</strong> cases</td>
<td><strong>$110</strong> billion</td>
</tr>
<tr>
<td>Diabetes</td>
<td><strong>3.6 million</strong> cases</td>
<td><strong>$77</strong> billion</td>
</tr>
<tr>
<td>Arthritis</td>
<td><strong>1.9 million</strong> cases</td>
<td><strong>$20</strong> billion</td>
</tr>
<tr>
<td>Hypertension</td>
<td><strong>3.5 million</strong> cases</td>
<td><strong>$15</strong> billion</td>
</tr>
<tr>
<td>Cancer</td>
<td><strong>0.3 million</strong> cases</td>
<td><strong>$7</strong> billion</td>
</tr>
</tbody>
</table>

BMI, body mass index.
Treatments for weight management

- Lifestyle modification
- Anti-obesity medications + lifestyle modification
- Gastric band
- Gastric sleeve
- Gastric bypass

Reported weight loss (% body weight)

Overview

1. Current state of obesity
2. Population health and comorbidity reduction
3. Fairview’s approach
   • Comprehensive Weight Management Program
   • 24-week Intensive Lifestyle Program
Obesity is an epidemic in Minnesota, nationwide

27.8% of Minnesota residents are obese

34.5% of Minnesota residents are overweight

*Rate increasing by 4% annually nationwide

Obesity leads to significant, unsustainable costs

$73.1B
Annual employer cost for overweight employees

21%
Percent of healthcare spending due to obesity

7.3x
Medical claim rate for obese employees compared to non-obese employees

Spending (including indirect costs) due to obesity are as high as $450B

We are moving into a value-based world

<table>
<thead>
<tr>
<th>Volume</th>
<th>Value</th>
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<tbody>
<tr>
<td>Payment</td>
<td>Fee for Service</td>
</tr>
<tr>
<td>Incentives</td>
<td>Volume</td>
</tr>
<tr>
<td>Focus</td>
<td>Acute Episodes of Care</td>
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<tr>
<td></td>
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<tr>
<td>Role of the providers</td>
<td>Single Episodes</td>
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<td></td>
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<tr>
<td>Information</td>
<td>Retrospective</td>
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</table>
Weight loss improves overall health, reducing medical complications and expense

- Stop prediabetes from becoming diabetes
- A1C reduction
- Triglycerides reduction
- HTN reduction
- Fatty Liver Disease
- NASH activity
- Sleep Apnea
- Reduction in CV events, mortality, remission of T2DM

Evidence-based weight loss interventions are often limited and siloed
Patient needs are not being met by current weight loss programs

80% of people use a “do it yourself” approach

Resulting in...

- Fad diets
- Unsustainable results
- Low level of support
- Poor quality care and outcomes
- Lack of proactive solutions to prevent weight gain in people with BMI under 35
- Lack of integrated solutions for non-surgical patients

Current models are failing – we need a new model
Fairview is leading to create solutions that effectively treat and prevent overweight and obesity
What is Fairview’s medical weight loss vision?

**Vision:** A unique, member-centric, integrated care model that provides overweight patients with the tools, education, & support to obtain **sustainable** weight loss.

### Integrated Design
- Medical + Surgical + Intensive Lifestyle Intervention
  - Focuses on the whole person
  - Ability to support complex medical cases
  - Proactive design, aimed at improving health and preventing obesity

### Evidence-Based & Accessible
- Obesity board certified medical providers
- Comprehensive & coordinated care team
- Ongoing, supportive partnership
Every patient is different, and their needs vary. Their options should, too!

**Multidisciplinary Provider Team**
- Registered Dietician
- Health Coach
- Surgical Weight Management
- Medical providers who are board certified in Obesity Management

**Patient Centered Care**
- One size does not fit all
- Individualized modules of care
- Quality of life measurements
- Plateau awareness

**Patient Resources**
- Healthy Hands on Cooking class
- Food journals
- Modules of care
- Webinars
- Messaging through MyChart

**Full Spectrum of Therapies**
- Meal Replacements
- Antiobesity medications
- Ongoing support programs
- Intensive lifestyle visits
- Hands on Cooking classes

**EMPLOYER MEMBER**
Fairview’s approach addresses 4 pillars of weight loss

- Stress
- Food
- Activity
- Sleep

4 Pillars of Weight Loss
Intensive Lifestyle Concept Design

24-week Lifestyle Retail Product
Program Fees

Engage
Week 0
• Eligibility
• Registration & scheduling

Week 1
Visits:
• Medical Provider Registered
• Dietician/Health Coach
• Determine goals and 1-month care module plan

Empower
Week 2 – 12
• Intense Lifestyle Visits
• Weekly appointments

Visits:
• 9 - Health Coach
• 2 - Registered Dietician
• Meal replacement use
• Monthly goal planning

Transition
Week 13 – 16
• Medical Provider health assessment and identification of medical needs
• Bi-weekly appointments

Visits:
• 1 - Medical Provider
• 1 - Health Coach
• 3 - Healthy Kitchen Classes: 2 hour workshop with professional Chef

Thrive
Week 17 – 24
• Transition reliance on food product
• Focus on maintenance of weight loss and ongoing goals
• Bi-weekly appointments

Visits:
• 1 - Medical Provider
• 2 - Registered Dietician
• 2 - Health Coach
• Assess final results
• Congratulations and continued plan of care

Ongoing Support 6-months

Week 25 – 12 months
• Annual celebration event
• Optional 6-month membership
  – Webinar-based group sessions
  – Quarterly health coach visits (2)
• Ways to Wellness benefits
• Optional 8-week cooking session
• Ongoing individual visits

Ongoing Support 6-months
By addressing obesity through integrated, evidence-based approaches, what can employers expect?

Enhanced Health Outcomes:
- Improve employee lives through increased quality of life and a decreased risk of comorbidities related to obesity.
- Employees will focus not only on pounds lost but healthier lifestyles. Employees will “choose healthier lifestyles”.

Population Health Focus:
- Improving the health and wellness of the consumers and communities we serve.

- Increased employee satisfaction
- Increased employee retention
- Decreased healthcare costs
- Improved employee quality of life and patient activation
- Improved employee satisfaction
Q/A

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