

# The Interplay of Obesity, Obesity-Related Comorbidities, and Obesity Stigma

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*#AccessToHealthCare*

# **It's all interconnected: The interplay of obesity, obesity-related comorbidities, and obesity stigma**

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# Obesity is a major public health concern in the United States

41.9% of adults and 19.7% of children in the United States are living with obesity<sup>1</sup>

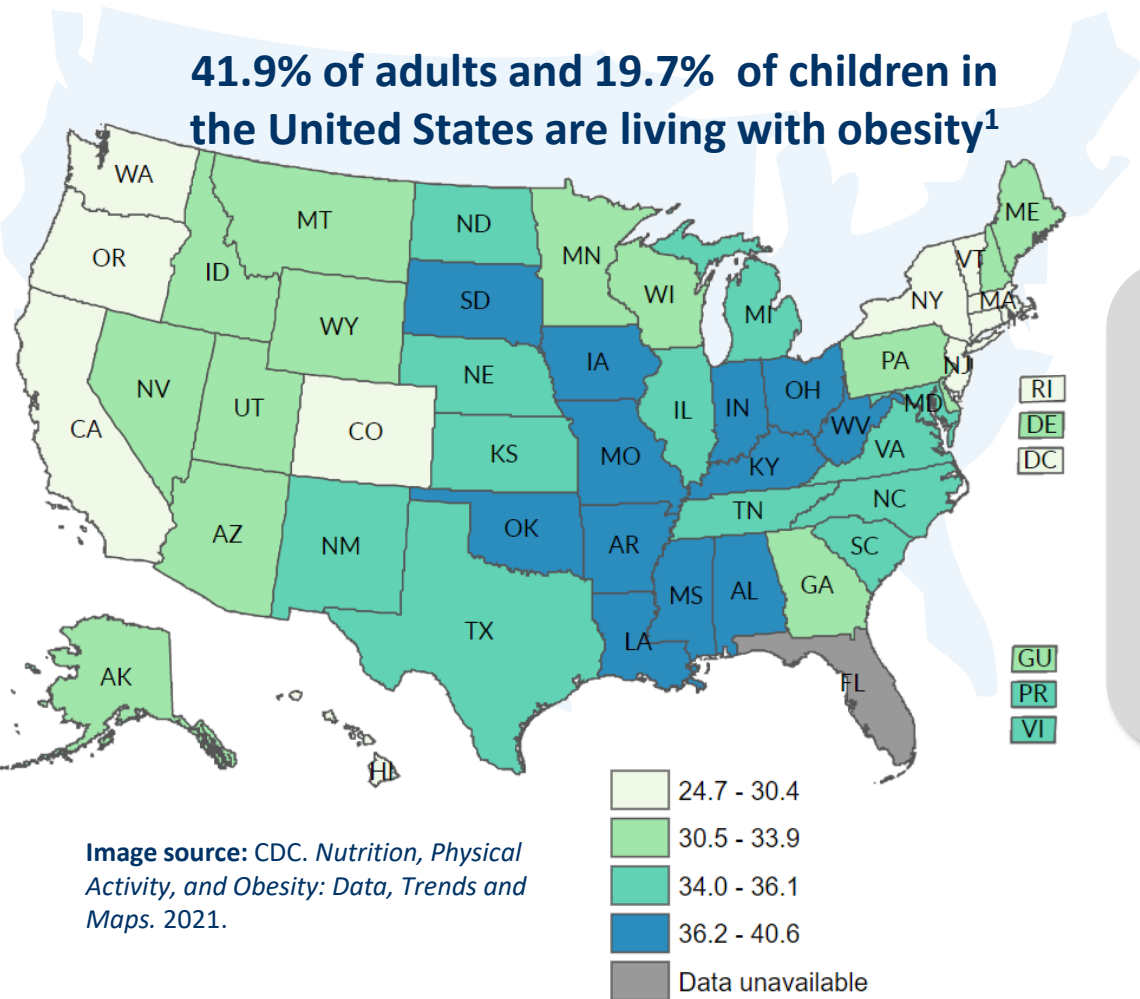


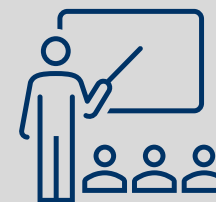
Image source: CDC. *Nutrition, Physical Activity, and Obesity: Data, Trends and Maps*. 2021.

## Obesity affects some groups more than others

Non-Hispanic Black adults<sup>2</sup>



Adults without a high school degree<sup>1</sup>



People with mobility limitations and intellectual or learning disabilities<sup>3</sup>



# Risk factors for obesity<sup>1-3</sup>

Inactivity



Easy access to food  
with low nutritional  
value



Not enough  
sleep/change in  
sleep-wake cycle



Genetics



**Factors  
affecting  
many of us  
during the  
COVID-19  
pandemic**

Stress



Some medications



Hormonal  
conditions



Some mental  
health conditions



# Stigmatization is one of the fundamental causes of health inequity among people living with obesity

Stigmatization of individuals with obesity poses serious risks to their psychological and physical health, generates health disparities, and interferes with implementation of effective obesity prevention efforts<sup>1,2</sup>



Societal beliefs obesity is a behavioral and lifestyle choice



Beliefs held by people with obesity that weight loss is their responsibility



Low concern about the impact of weight on future health



Lack of formal obesity diagnoses from health care providers



Lack of follow up care



Divergent beliefs between people with obesity and health care providers about obesity treatment effectiveness



Low perceived value of employer and community wellness programs among people with obesity

# Interventions for obesity



**Lifestyle interventions:** Diet counseling, physical activity interventions, behavioral therapy



**Bariatric surgery:** Gastric bypass, Gastric band, Sleeve gastrectomy, BPD/DS

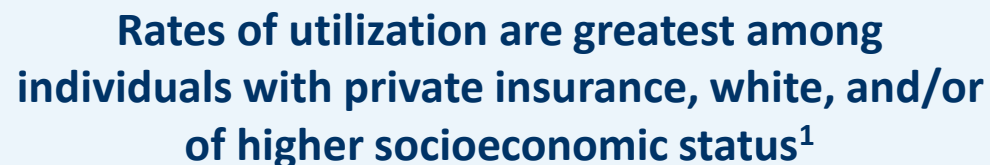
Indicated for adults with BMI of 40kg/m<sup>2</sup> or higher; or 35kg/m<sup>2</sup> or higher with at least one obesity related comorbidity



**Anti-obesity medications:** Orlistat (Xenical, Alli), phentermine-topiramate (Qysmia), naltrexone bupropion (Contrave), setmelanotide (IMCIVREE), liraglutide (Saxenda), semaglutide (Wegovy)

Indicated for adults with BMI of 30kg/m<sup>2</sup> or higher; or 27kg/m<sup>2</sup> or higher with at least one obesity related comorbidity

**Real-world utilization of anti-obesity medication is low (<1-3%)<sup>1-3</sup>**

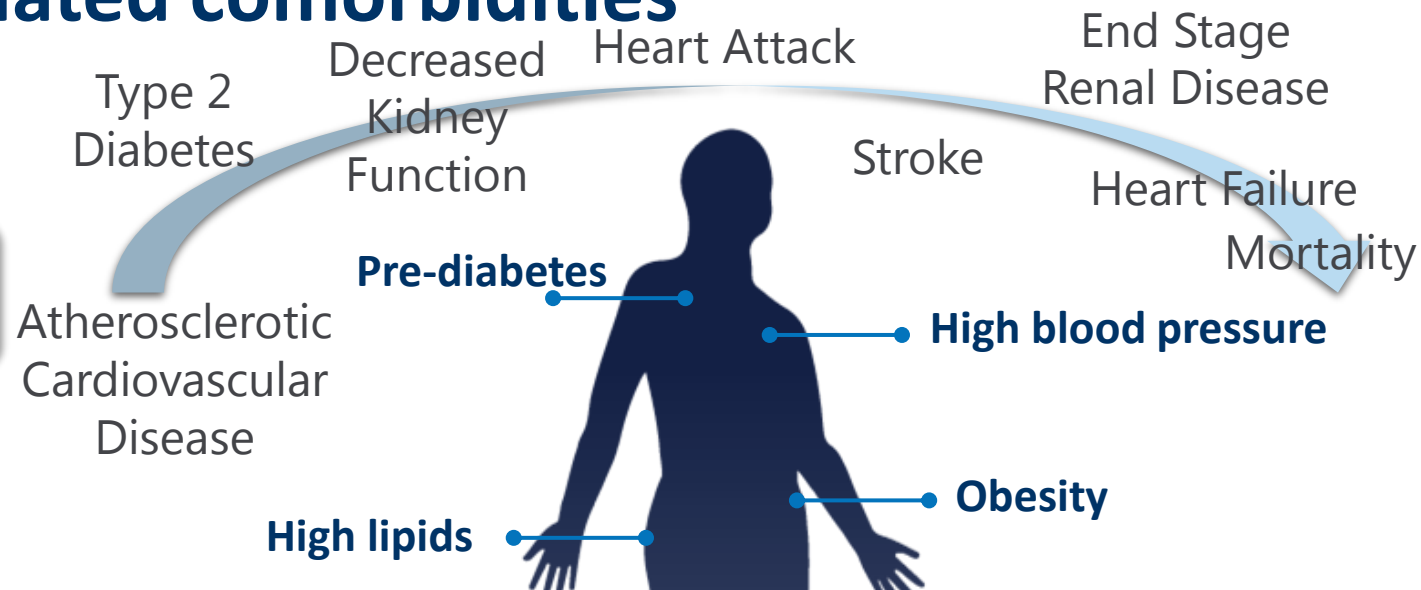


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# More than 60% of individuals with obesity have two or more obesity related comorbidities

**There is a predictable increase in the level of multimorbidity associated with increasing BMI<sup>1</sup>**

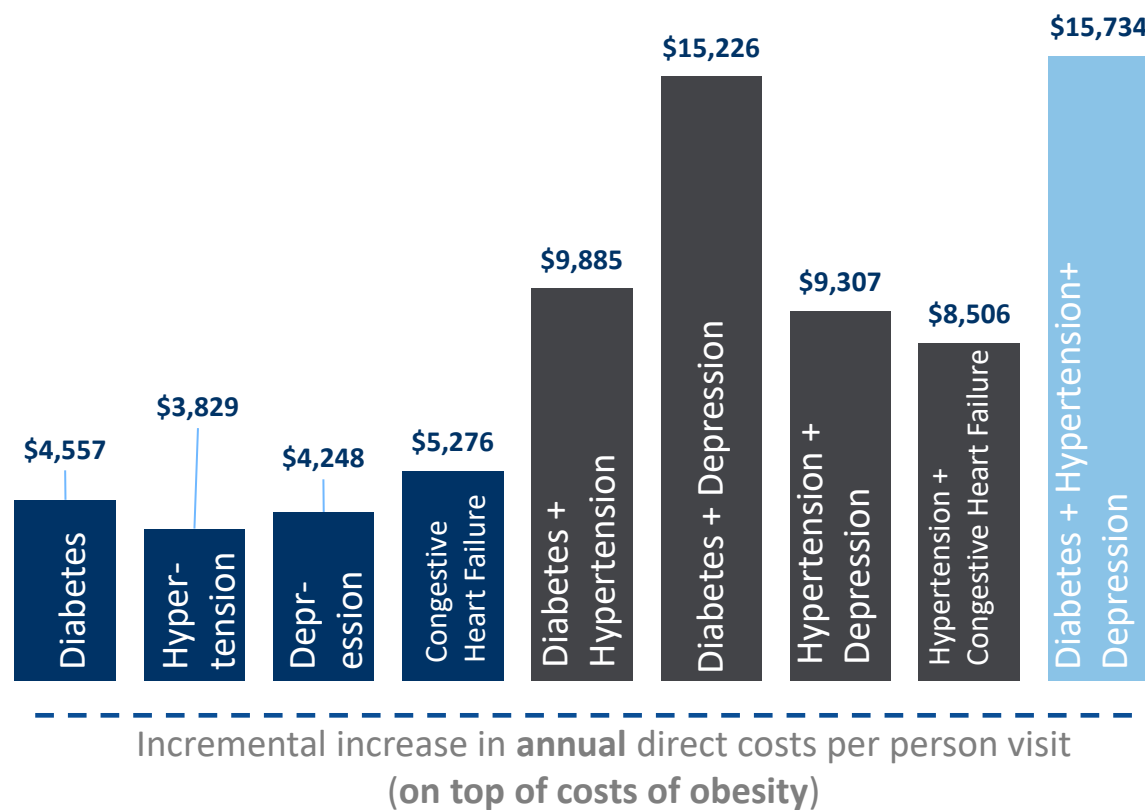
- Normal weight: High blood pressure and back/spine pain
- Class 1 obesity: + joint disorders, high lipids
- Class 2 obesity: + diabetes
- Class 3 obesity: + sleep disorders and chronic kidney disease



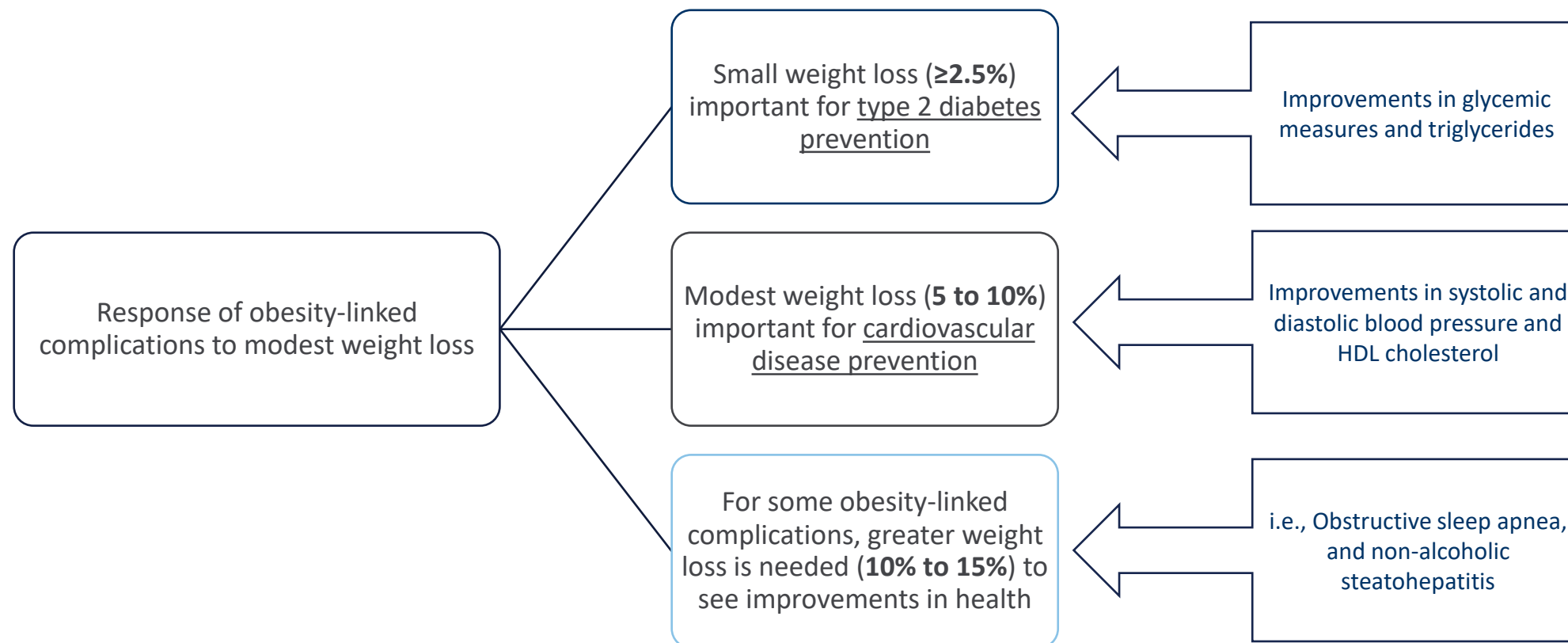
**Obesity is a risk factor for progressive damage to cardiovascular, renal, and metabolic systems ultimately resulting in organ failure and/or death<sup>2,3</sup>**



# Among people living with obesity the total cost of care increases with increasing number of obesity-linked comorbidities

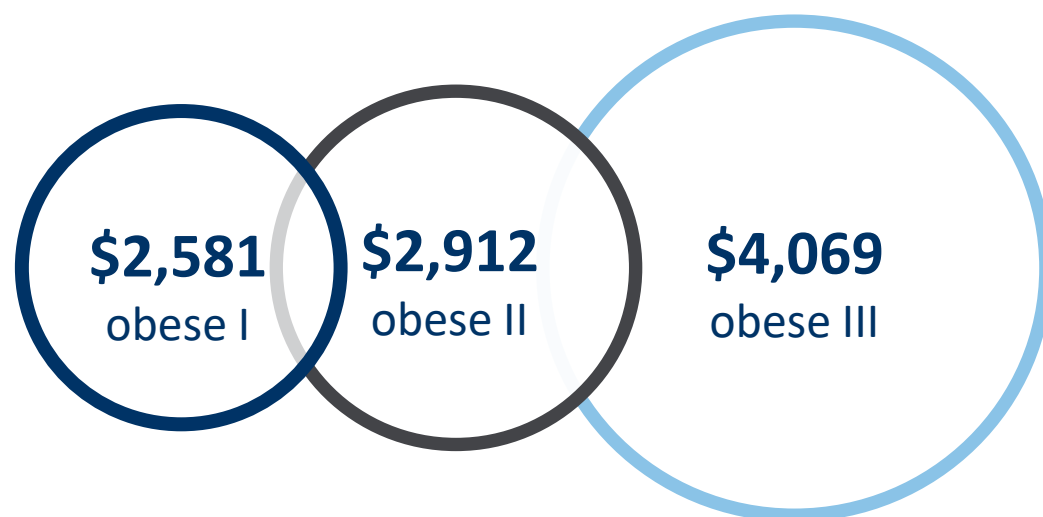


# Modest weight loss (5-10%) associated with improvement in obesity-linked comorbidities<sup>1</sup>

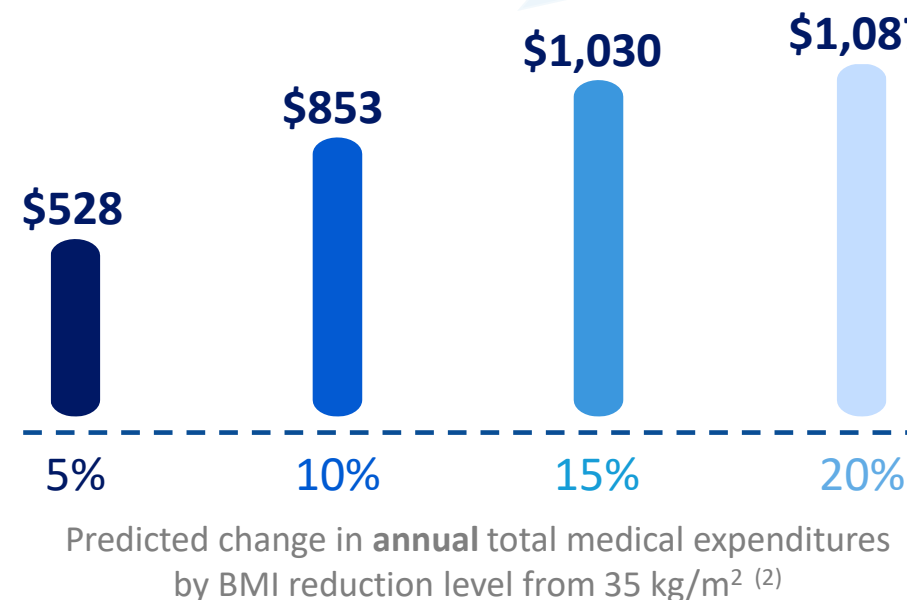


# Modest weight loss (5-10%) associated with short-term direct medical cost savings<sup>1,2</sup>

Substantial savings in medical costs over 5 years with 5% weight loss<sup>1</sup>



Though, additional weight loss leads to further reduction in medical costs<sup>2</sup>



# Reducing obesity reduces direct medical care costs by averting obesity-related complications<sup>1</sup>

Case study: Lifetime impact of Weigh and Win (WAW)  
community-based weight loss program (n=33,656; follow-up period=4 year)

- 19% of participants lost at least 5% of their bodyweight
- Predicted to **save medical costs by averting obesity-related comorbidities** over the participants' lifetime



78 cases of Congestive Heart Disease averted  
**\$28 million in lifetime savings**



9 cases of strokes averted  
**\$971,832 in lifetime savings**



92 cases of Type 2 Diabetes averted  
**\$24 million in lifetime savings**

# Why is this important?

- Obesity was a major and growing public health problem before the pandemic, and with COVID-19 it has increased in importance
- Obesity does not exist in a silo
  - People who are obese have numerous other health complications, that are challenging to manage
  - Interconnectedness of comorbidities and social drivers of health ( e.g., race, gender and socioeconomic status)
- Both obesity and obesity related comorbidities require extensive use of the health care systems resulting in substantial costs
- Small changes can have positive impact on health outcomes
  - Improvement in the mental and physical health of people with obesity, resulting in increased productivity and quality of life
  - Reduces total costs to the healthcare system

## Calls to action: Small changes and positive impact

1. Advance the dialogue around obesity to educate the public and shift perceptions of obesity away from the view that it is a lifestyle choice or aberrant behavior
2. Ensure that people with obesity have equitable access to care; and incentives for adherence to optimal care
3. Consider implementing guideline-based care in obesity to reduce total costs of care and improve health outcomes
4. Implement an evidence-based total cost of care model when making coverage decisions on obesity-related management and treatments



- For more information have a look at:
- <https://www.boehringer-ingenelheim.us/>

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