

2024 Carolyn P. Horchow  
Women's Health Symposium

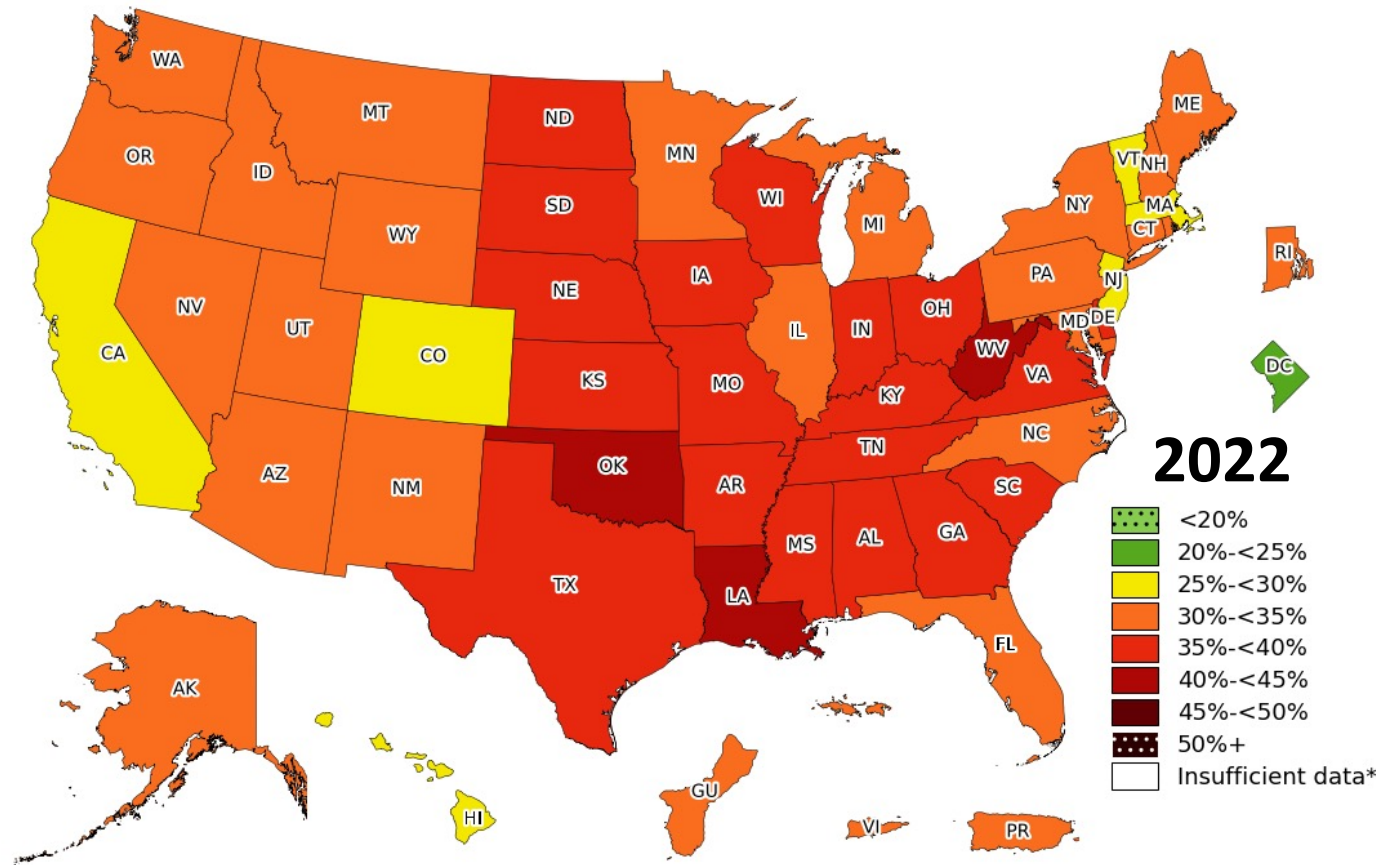
**UT Southwestern**  
Medical Center

# Tipping the Scales: Are new weight loss drugs the answer to the obesity epidemic?

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Associate Professor of Internal Medicine

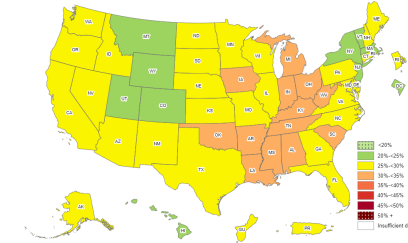


# Obesity Rates Are Higher Than Ever



Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2012

<sup>1</sup> Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.

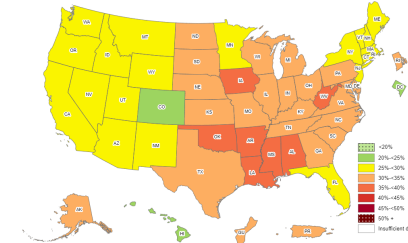


\*Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.



Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2017

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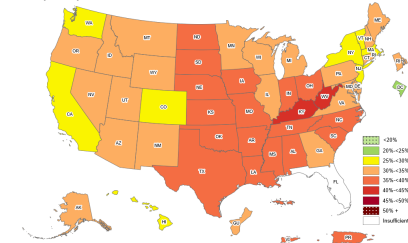


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Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2021

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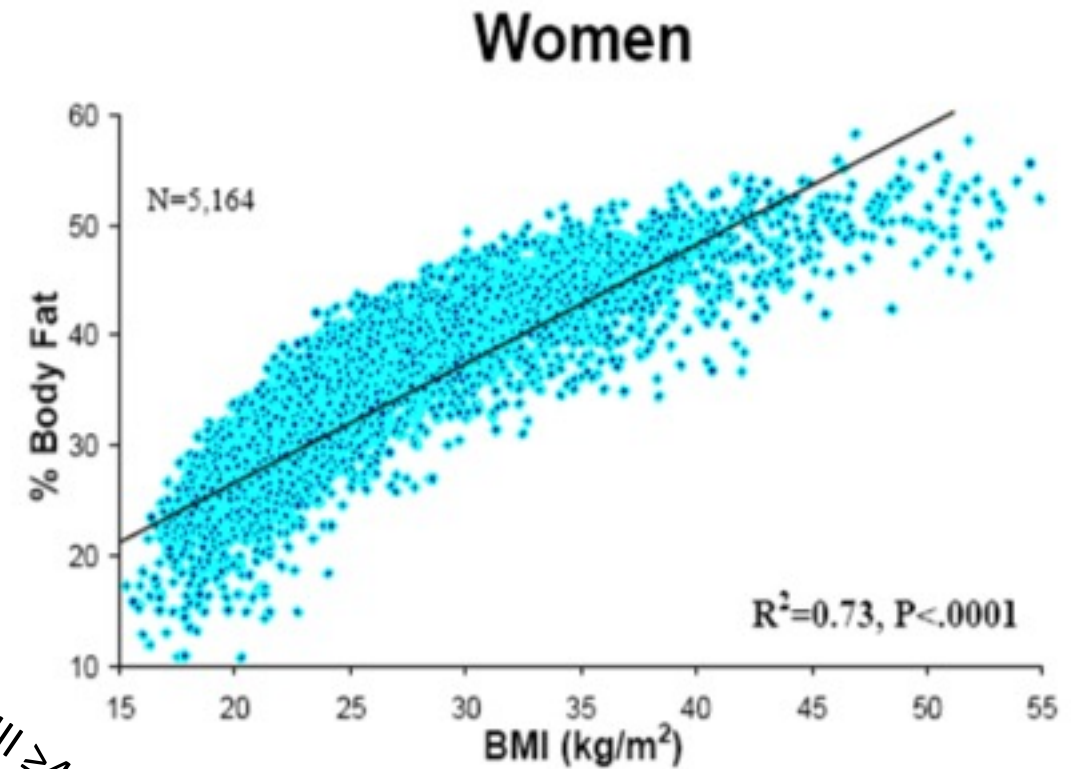
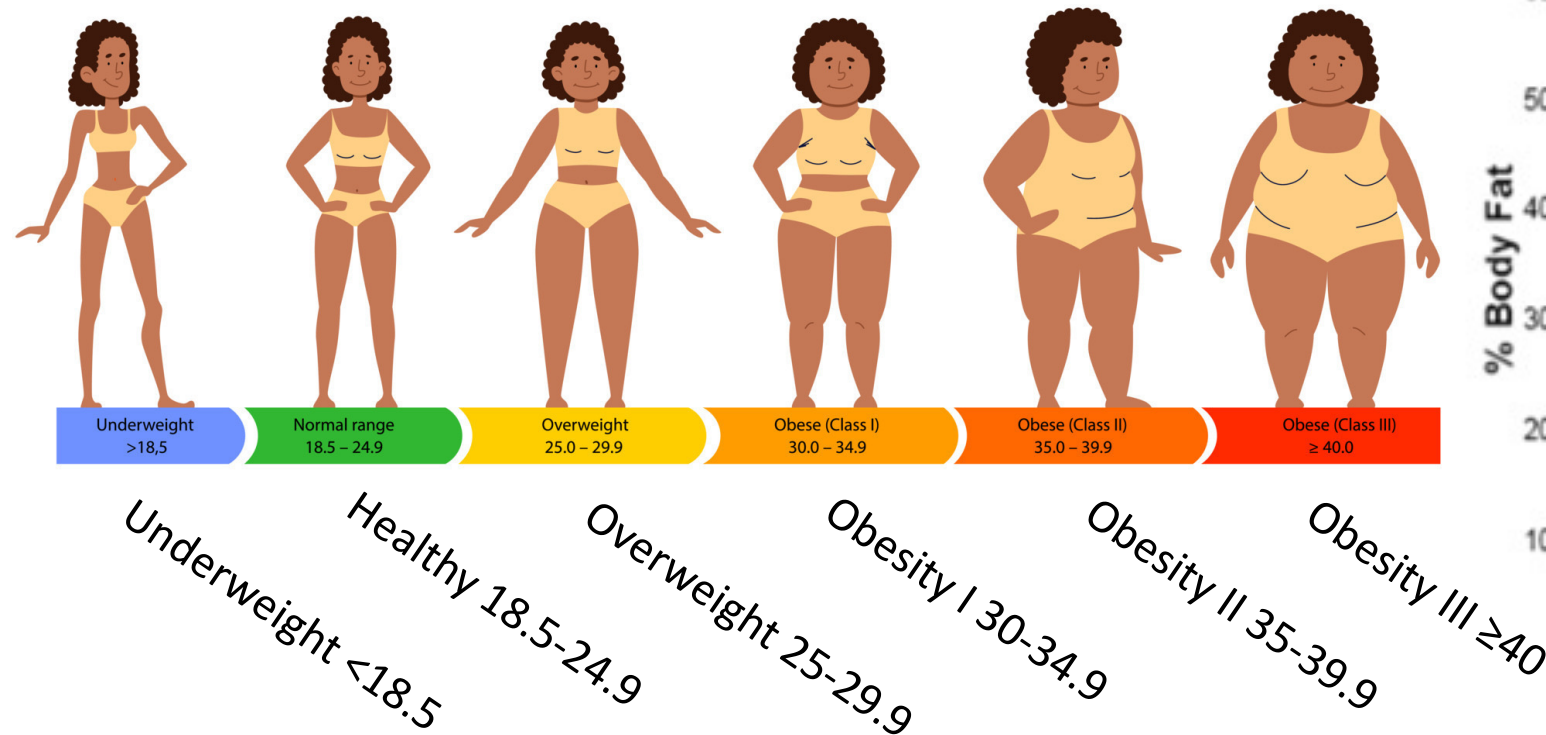


Adult Obesity Prevalence Maps. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity, and Obesity. (21 September 2023)

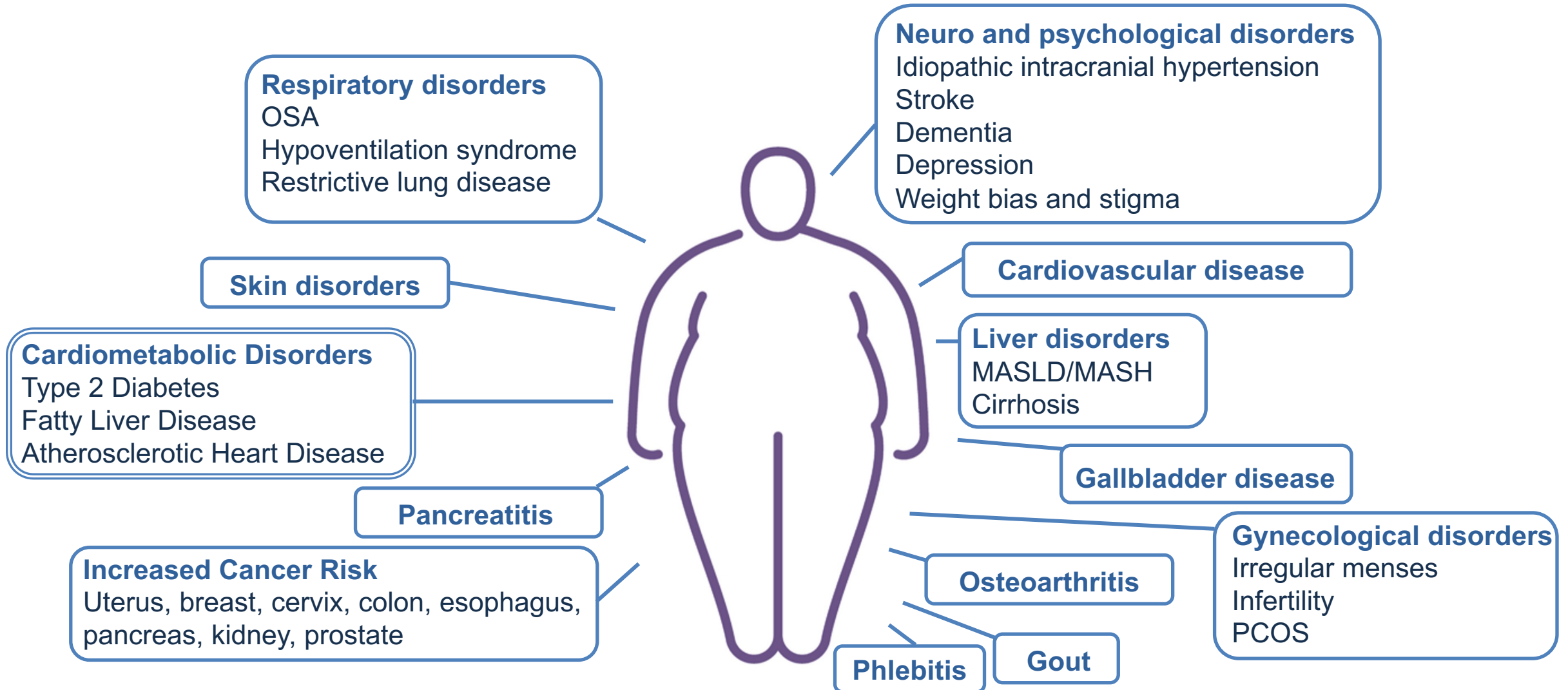
# Obesity Is Diagnosed by BMI and Body Fat

## BODY MASS INDEX

$$\text{BMI} = \frac{\text{BODY MASS}}{\text{HEIGHT}^2}$$



# Obesity Is a Chronic Complex Disease



# Weight Bias Impacts Care and Quality of Life



Maya Cohen, of Cape Elizabeth, Maine, lost 54 pounds using a drug for which her pharmacy was charging \$1,500 a month. Ryan David Brown for The New York Times

## ***The Doctor Prescribed an Obesity Drug. Her Insurer Called It 'Vanity.'***

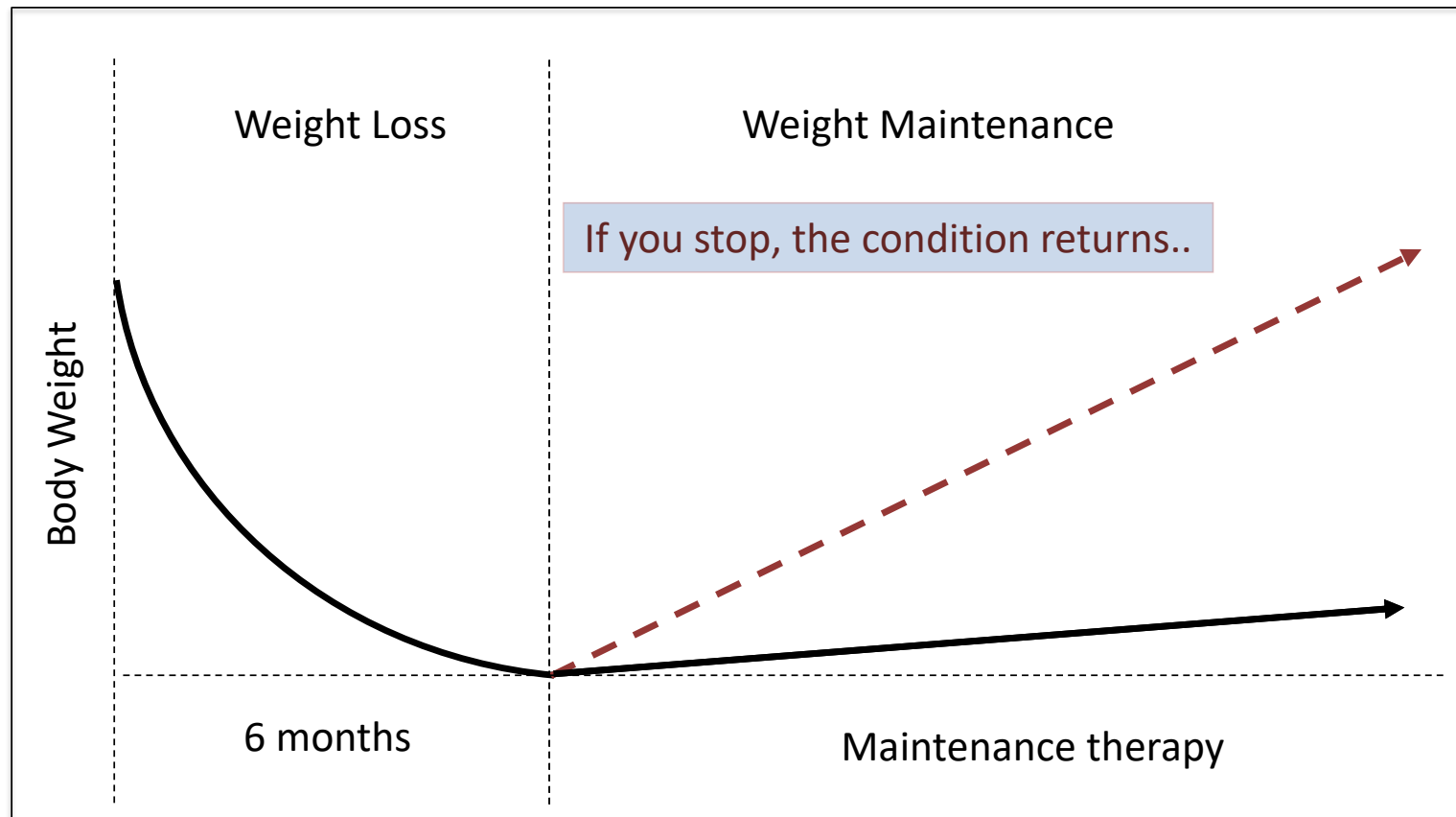
Many insurance companies refuse to cover new weight loss drugs that their doctors deem medically necessary.

## Weight Stigma

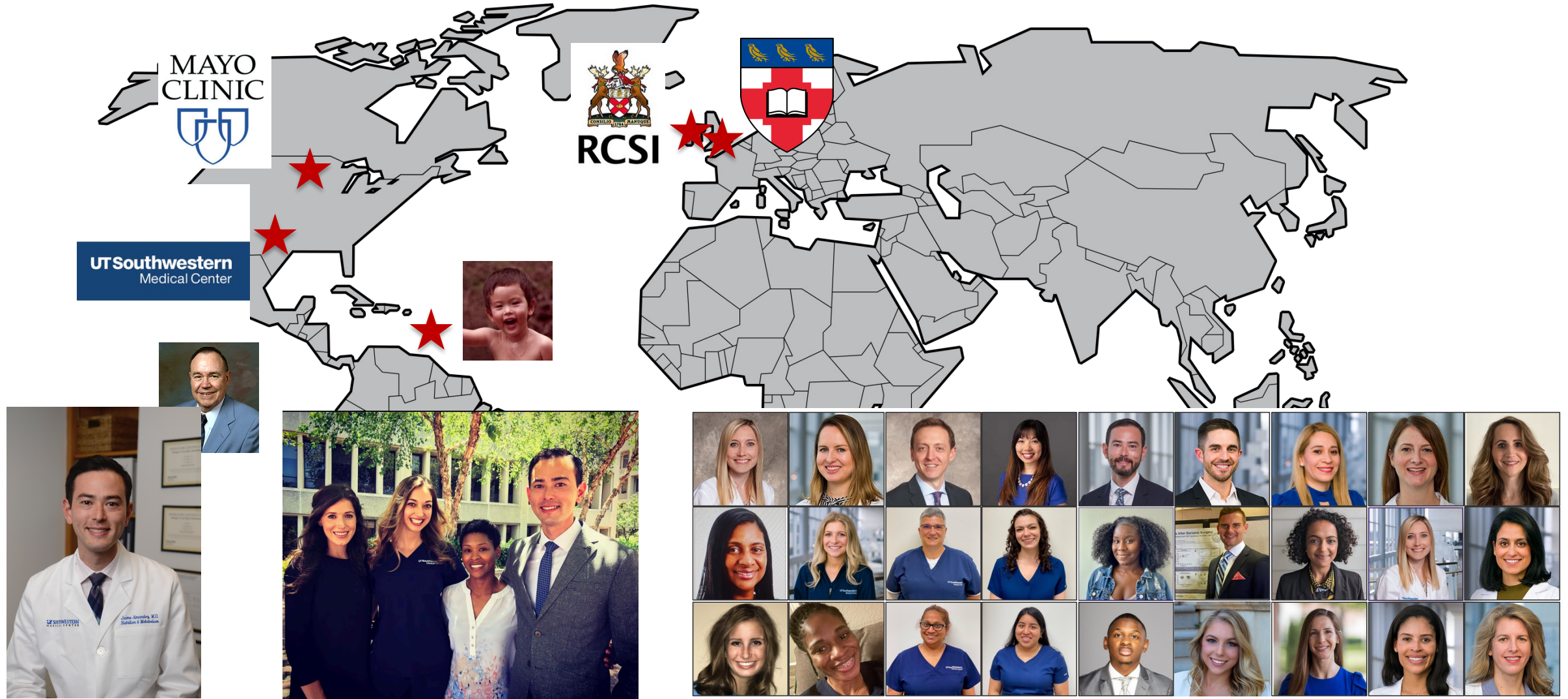
Weight stigma refers to the discriminatory acts and ideologies targeted towards individuals because of their weight and size. Weight stigma is a result of weight bias. Weight bias refers to the negative ideologies associated with obesity.

# Why Is Obesity Treated Differently?

## Normalize Treating Obesity like Hypertension



# My Journey to Weight Wellness



# Introduction to Weight Wellness

**UT Southwestern**

Medical Center

Weight Wellness Program

**2015**

1 Location  
2 Exam Rooms  
1 BIA Scale

1 Physician  
1 Nurse

**2024**

2 Locations  
18 Exam Rooms  
3 BIA Scales  
Telehealth opt.

7 Physicians  
7 APPs  
7 Dietitians  
5 Nurses  
1 Psychologist

## Weight Wellness Provider Pods



Physician



Advanced Practice Provider



Dietitian



Psychologist



Nurse



Medical Assistant



Clinical Staff Assistant



Pharmacy Technician

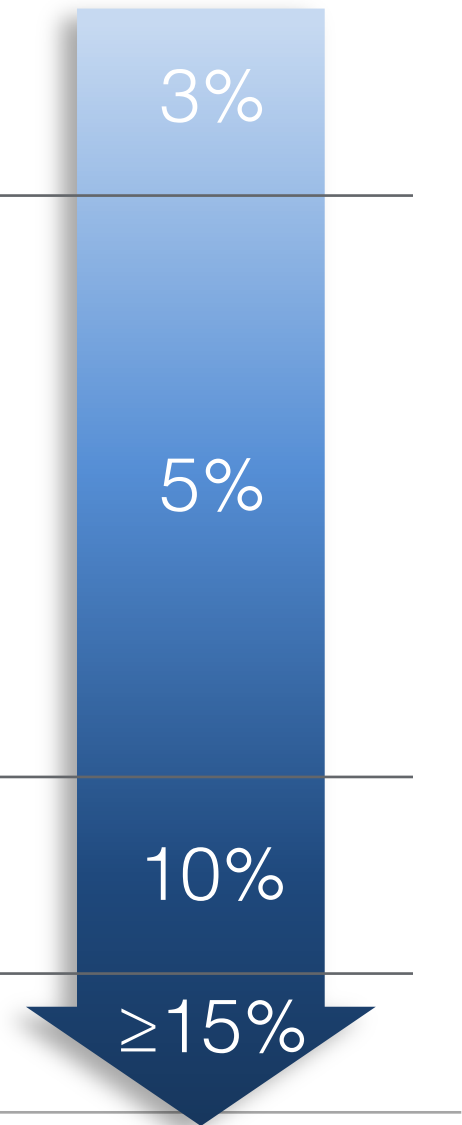


Social Worker

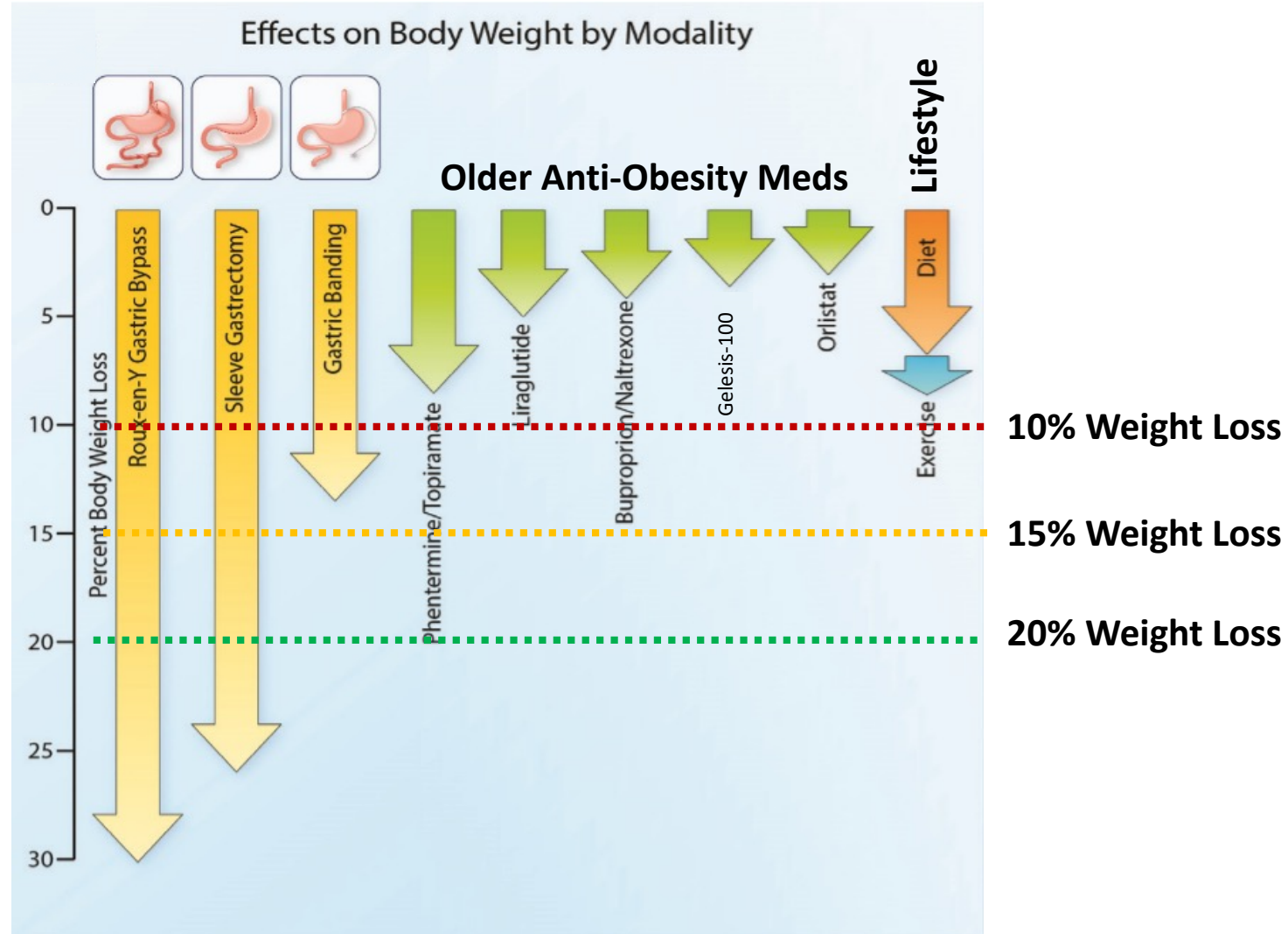


# Weight Loss and Health Improvements

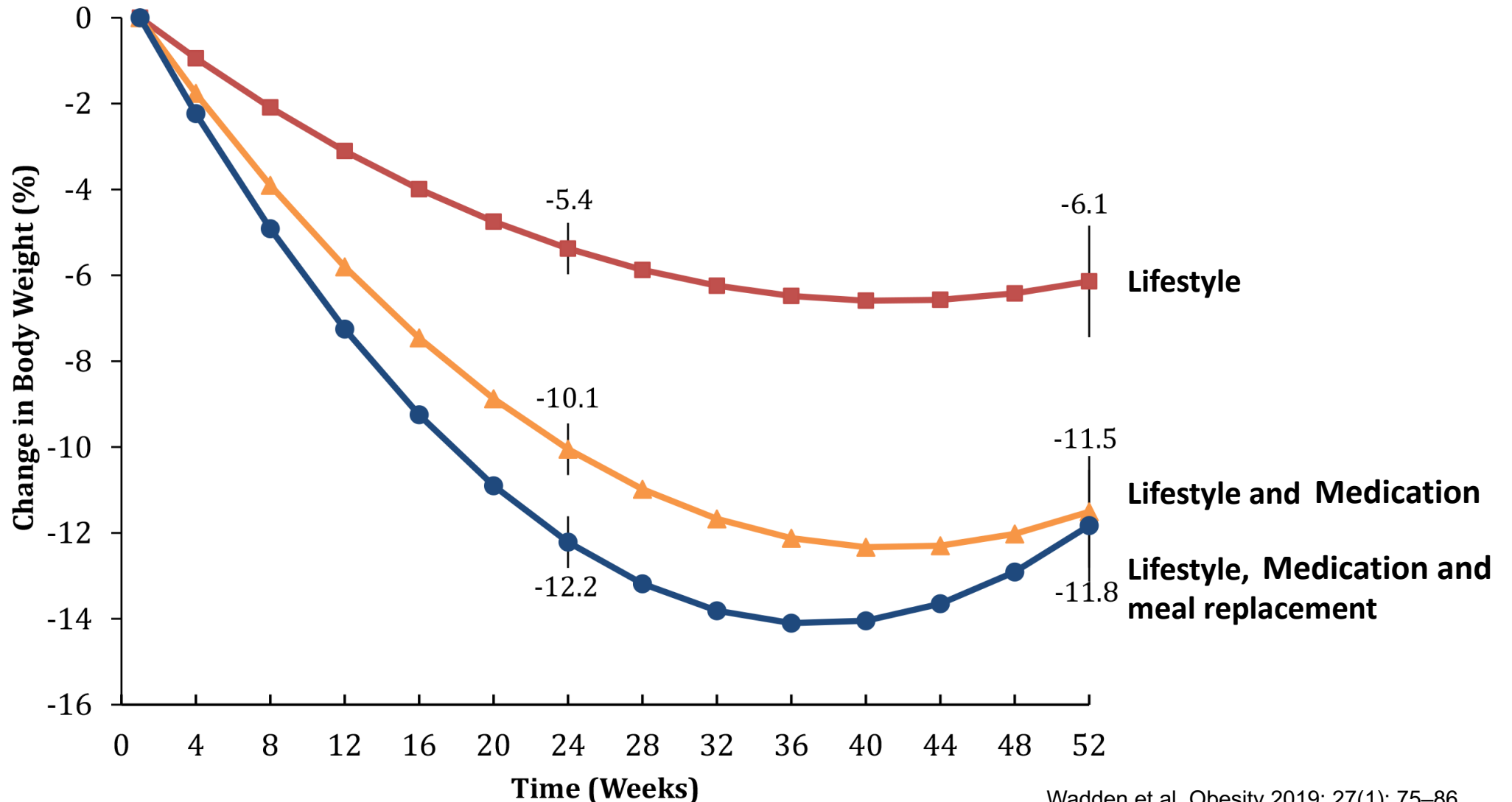
- Blood sugar
  - Triglycerides
- 
- Cholesterol
  - Systolic and diastolic blood pressure
  - Liver fat seen on MRI scans
  - Measures of feeling and function
    - Symptoms of urinary stress incontinence
    - Measures of sexual function
    - Quality of life measures
- 
- Decreased fatty liver inflammation on biopsy
  - Improved obstructive sleep apnea AHI score
- 
- Remission of T2D, reduction in CV events, mortality
- 



# Achieving Significant Weight Loss

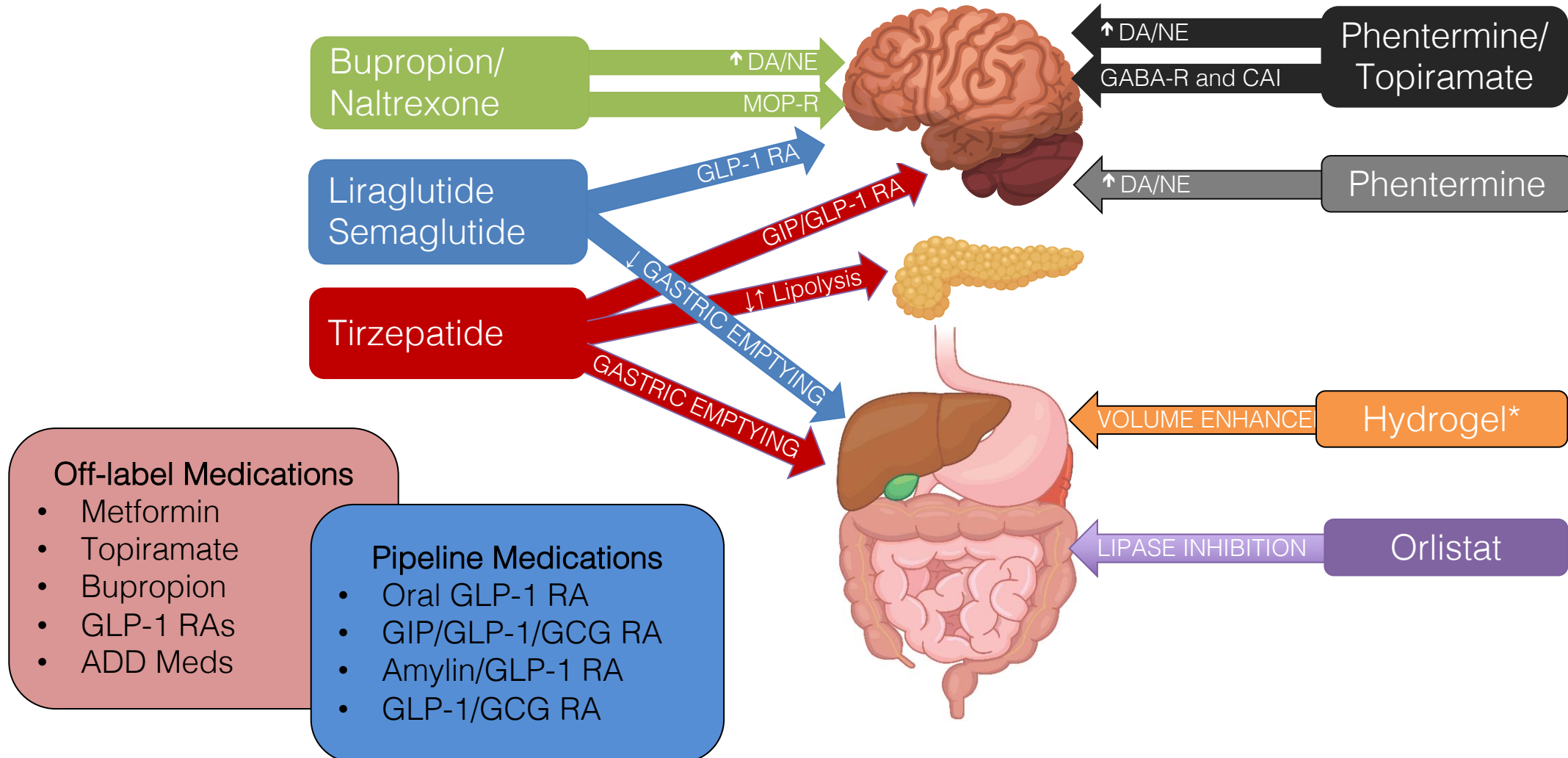


# Medications Augment Lifestyle Changes

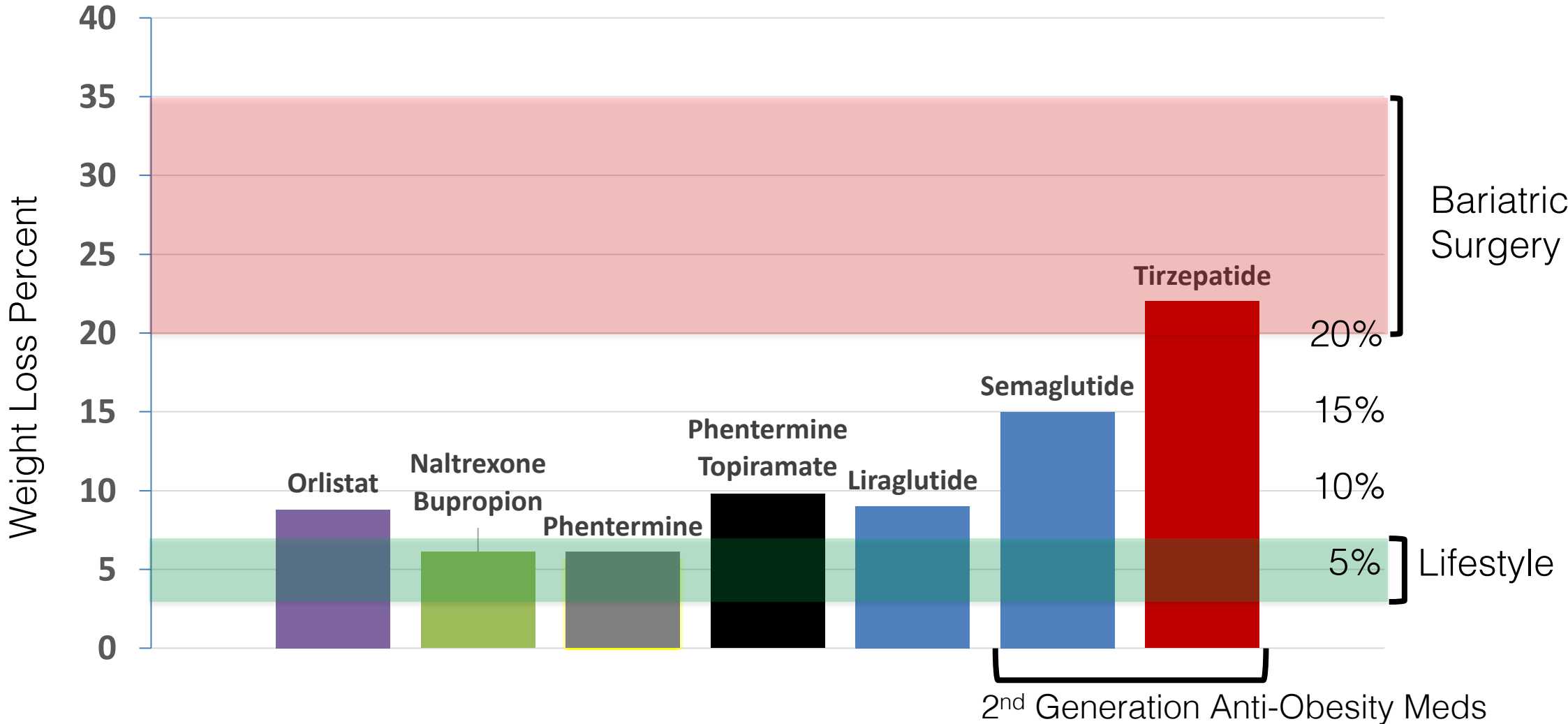


Wadden et al. Obesity 2019; 27(1): 75–86

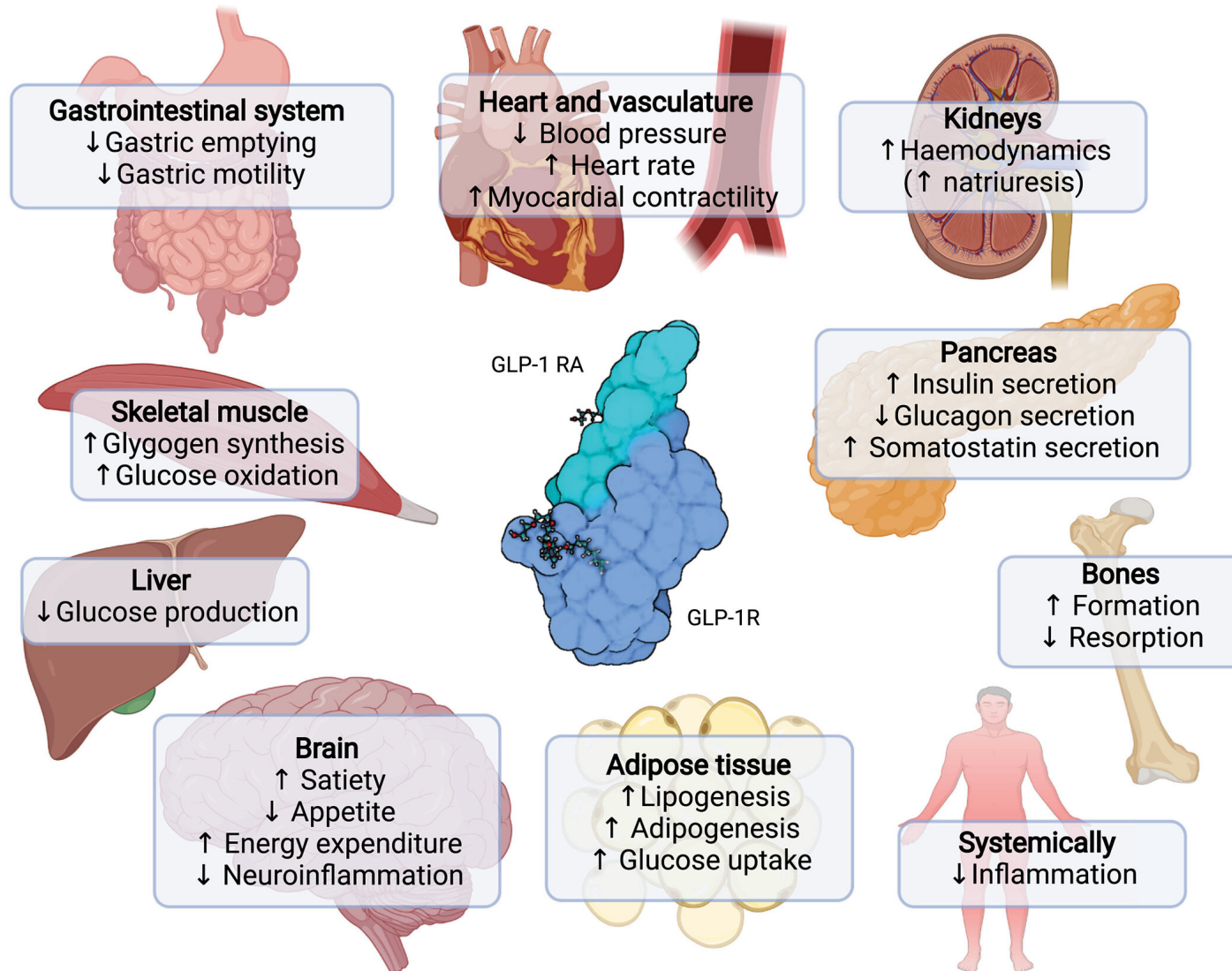
# FDA-Approved and Emerging Medications



# Effectiveness of Medication vs Lifestyle, Surgery



# How Do Medications Like Ozempic Work?



Ozempic and other drugs in the same family are known as **GLP-1 anti-obesity medications**

# How Do Medications Like Ozempic Work?

## People on Drugs Like Ozempic Say Their 'Food Noise' Has Disappeared

For some, it's a startling side effect.

Share full article



1.4K

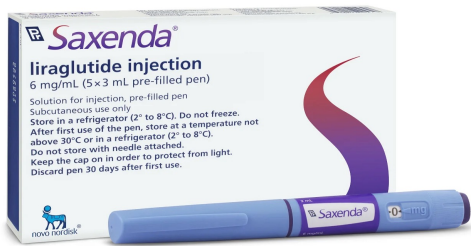


“It was like a sense of freedom from that loop of, ‘What am I going to eat? I’m never full; there’s not enough. What can I snack on? - It’s like someone took an eraser to it.”

# Differences Between GLP-1 Medications

Liraglutide  
9% Weight loss

Saxenda



Victoza



Semaglutide  
15% weight loss

Wegovy



Ozempic



Tirzepatide  
21% weight loss

Zepbound



Mounjaro





# What Are Compounded GLP-1 Peptides?

New, Effective Weight Loss Peptide  
**SEMAGLUTIDE**  
Real Weight Loss Results With Our *Semaglutide* Program

**Generic Compound Semaglutides:**

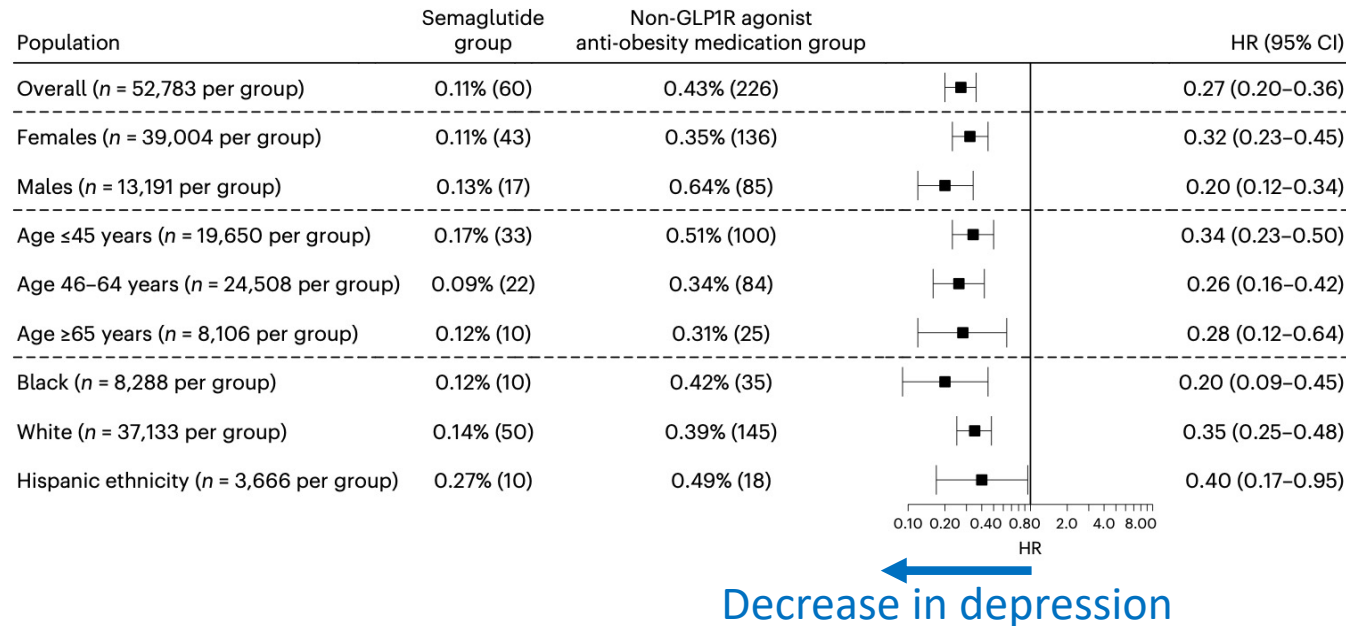
1. Semaglutide B-12
2. Semaglutide B-6
3. Semaglutide L-Carnatine
4. Semaglutide 2.5



The image shows three glass vials of compounded semaglutide. Each vial has a white label with a blue header and a red, blue, or yellow dot. The labels are: 1. Semaglutide COMPOUNDED WITH VITAMIN B-12 (red dot), 2. Semaglutide COMPOUNDED WITH L-CARNATINE (blue dot), and 3. Semaglutide COMPOUNDED WITH VITAMIN B6 (yellow dot). All labels include 'Richard Lipman MD' and 'Subcutaneous use only'. A syringe is partially visible on the left.

- Started during semaglutide shortages
- There are no generic GLP-1 drugs
- These are complicated to make
- The sources are unclear
- Effect of additives is unknown
- Marketed as cheaper alternatives
- FDA advises **against** compounded GLP-1

# Mental Health and Suicidality

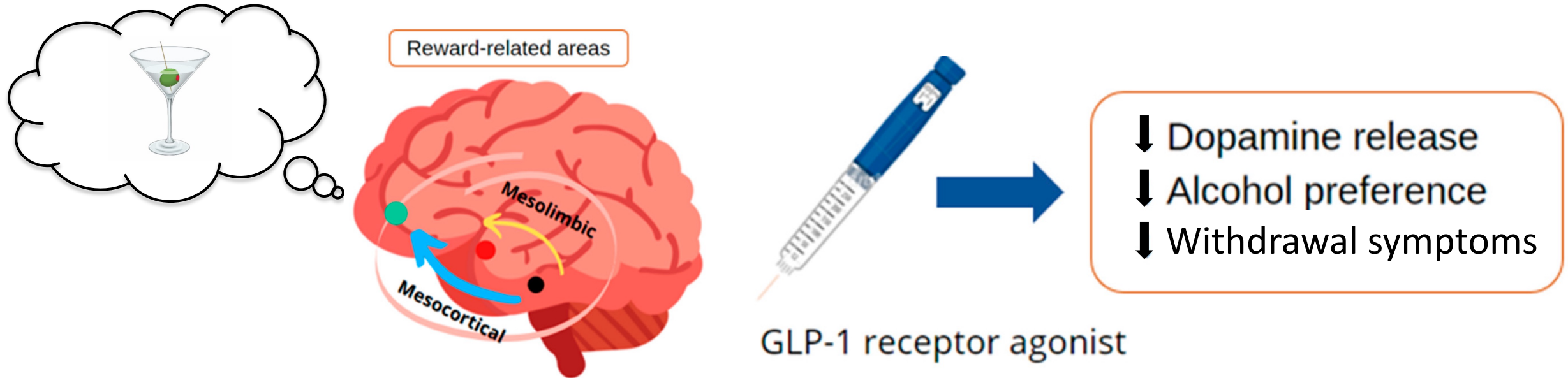


Reports of suicidal ideation 2023

Wang et al. Nature Medicine January 4, 2024

- Recent study shows that treating obesity with GLP-1 like semaglutide decreases depression and suicidality.
- People with obesity have higher rates of depression and other diagnoses

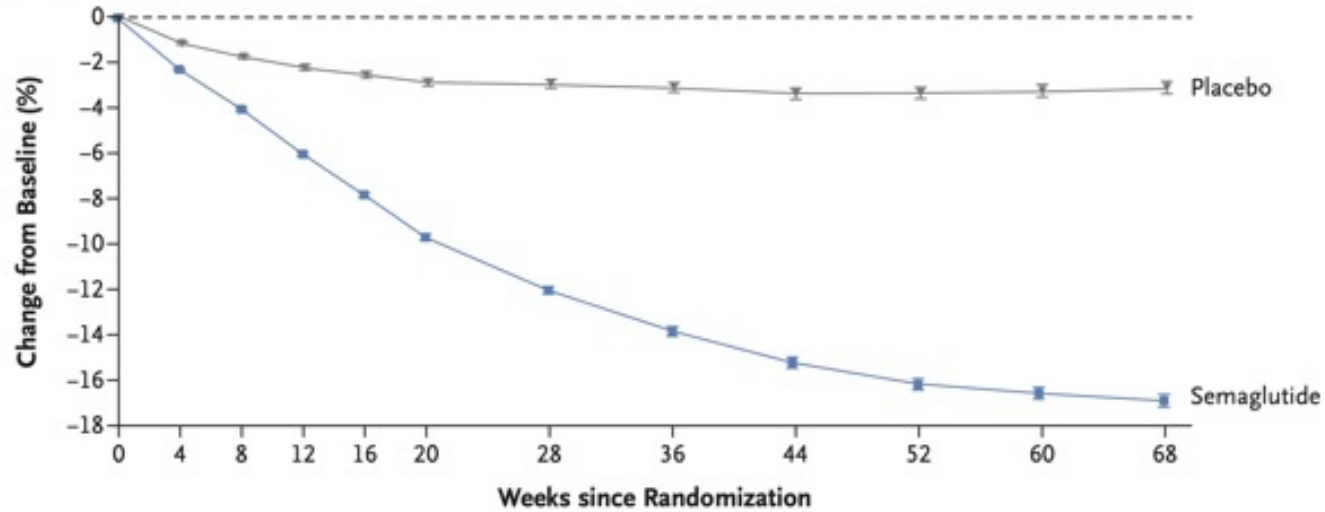
# GLP-1 Medications and Alcohol Consumption



- Many patients report reduced consumption of alcohol
- Some report decreased impulsivity with shopping and other “fun activities”

# GLP-1 Medications and Loss of Muscle Mass

Body Weight Change from Baseline by Week, Observed On-Treatment Data



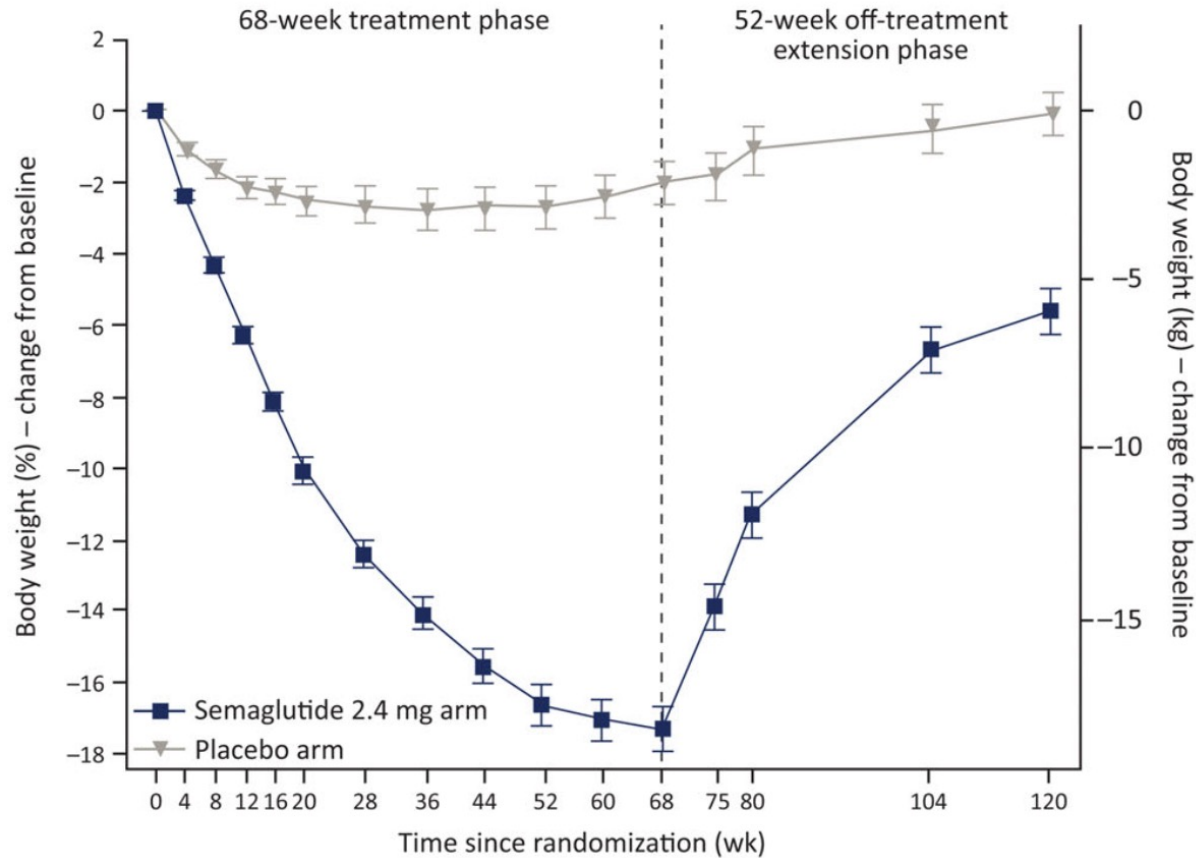
## Weight loss with semaglutide

## Sarcopenia

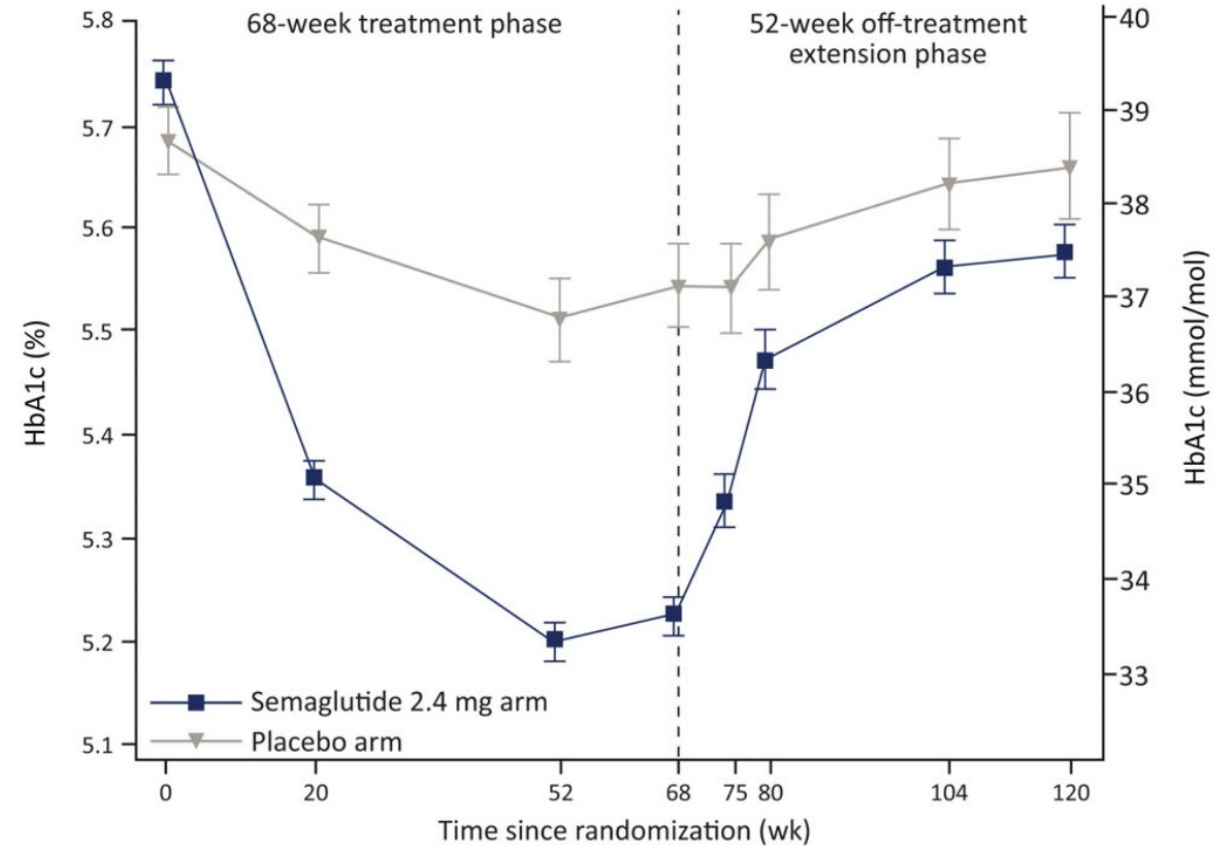
- When we lose weight by any means ~1/3 will be lean mass
- Optimized protein intake and resistance exercise can minimize muscle loss

# Weight Regain After Stopping GLP-1

## Changes in Body Weight

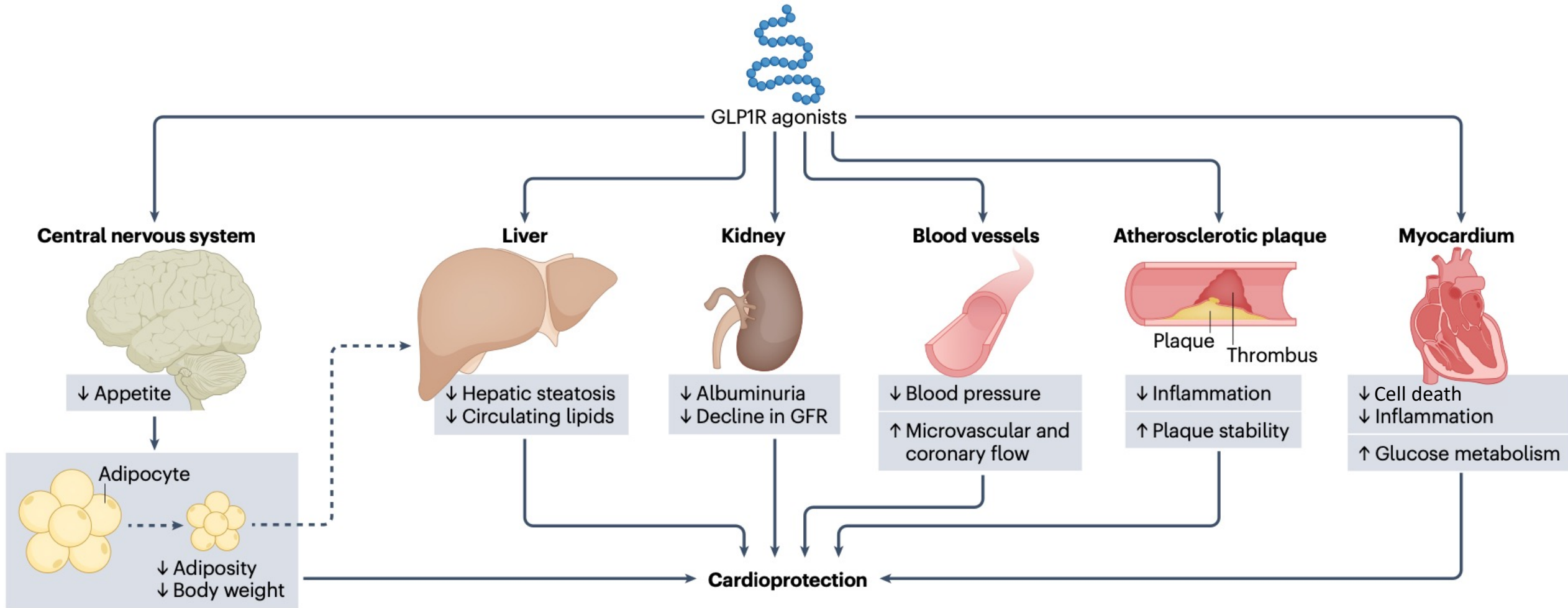


## Changes in HbA1c (blood sugar)



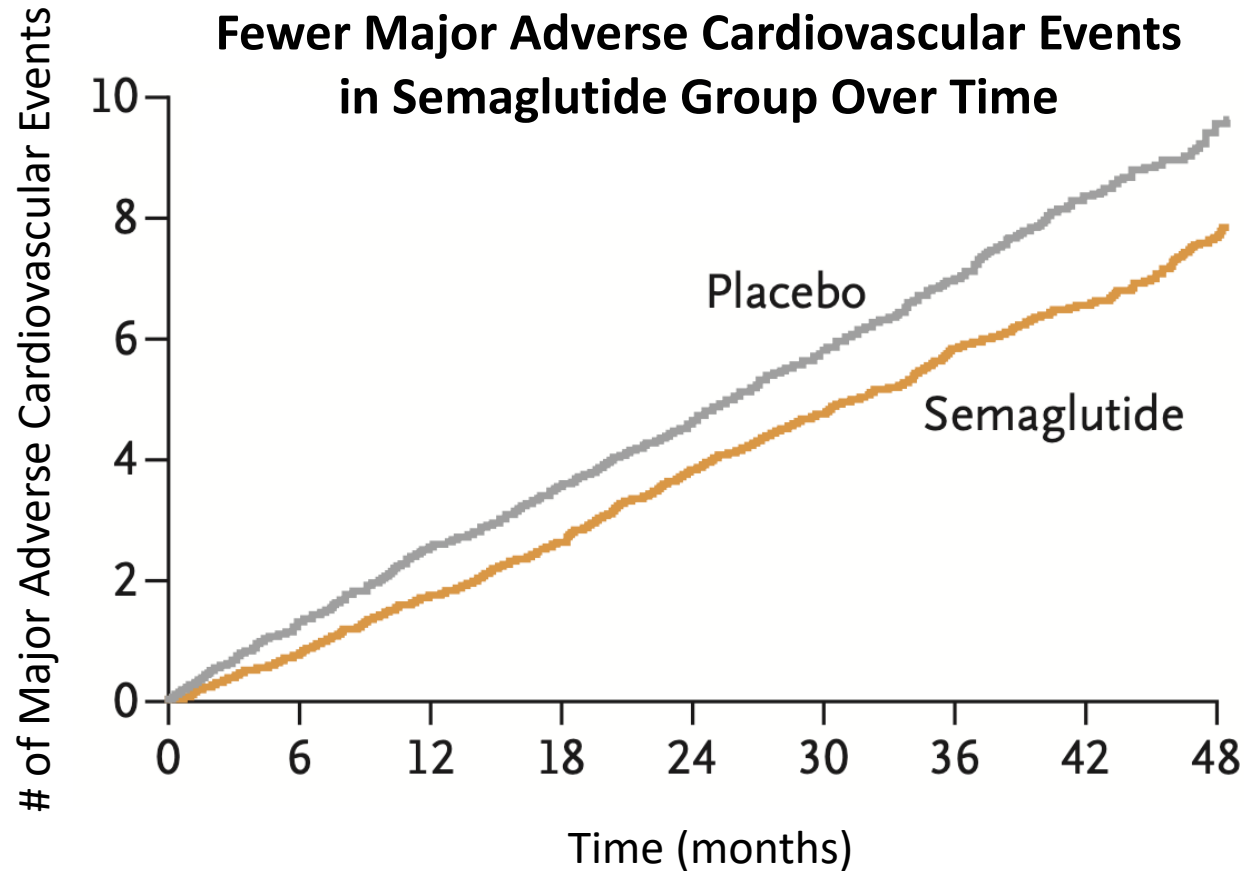
Wilding et al. Diabetes Obes Metab. 2022;24:1553–1564

# GLP-1 and Cardiovascular Prevention



Ussher and Drucker Nat Rev Cardiol 2023 Jul;20(7):463-474

# Semaglutide Lowers Heart Disease Risk



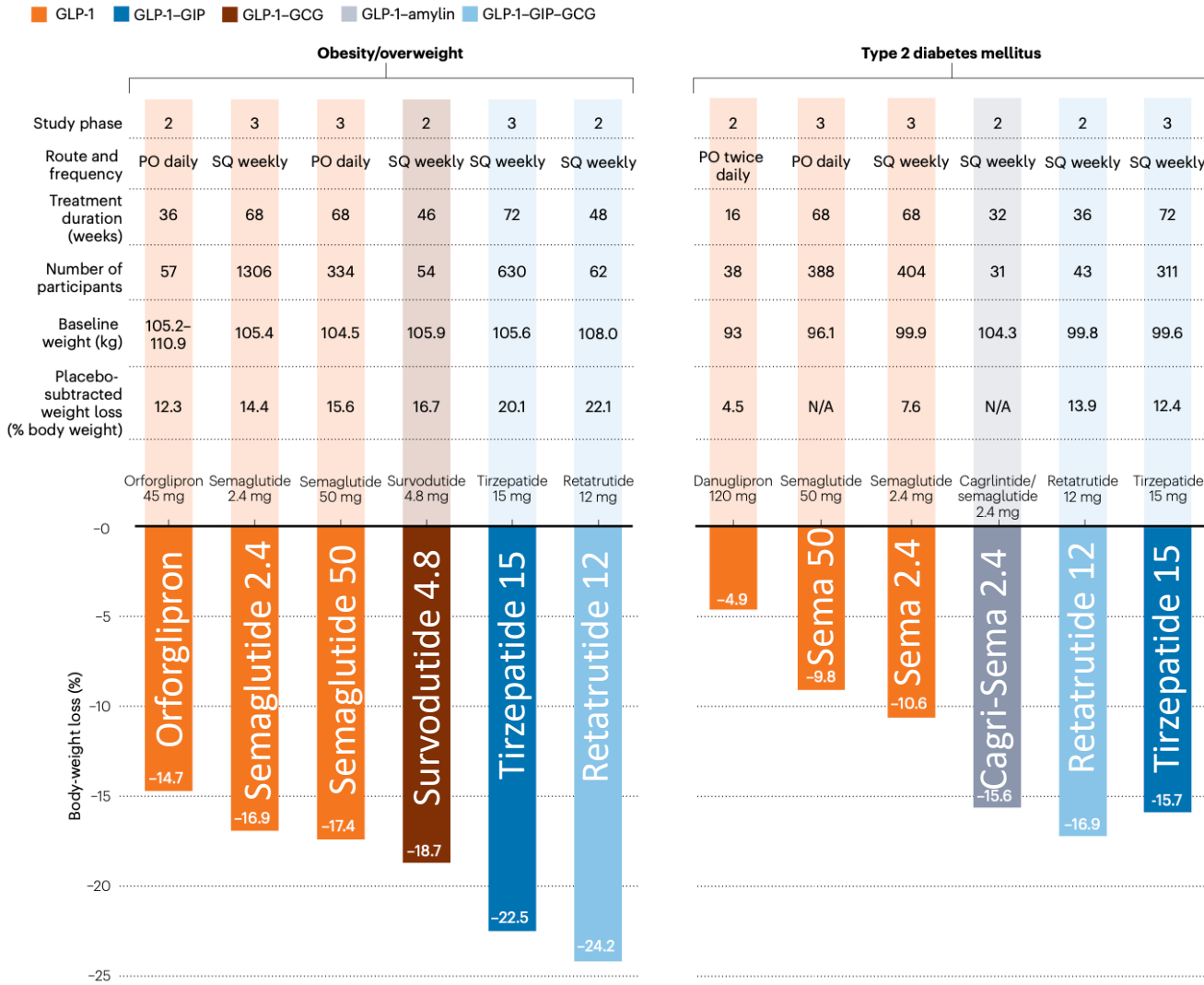
**20% Reduction in Major Adverse Cardiovascular Events (MACE) in people treated with semaglutide vs. placebo**

**Primary endpoint**

Composite outcome of the first occurrence of MACE

- Cardiovascular death
- Non-fatal myocardial infarction
- Non-fatal stroke

# New and Emerging Anti-Obesity Meds



## Exciting Developments

- Oral GLP-1
  - Peptide, small molecule
- New combinations
  - GLP-1, amylin
  - GLP-1, glucagon
  - GLP-1, GIP, glucagon
- More effective for weight loss



# GLP-1 Medication Fun Facts

- Half of US adults are interested
- 90 million US adults are eligible
- List price: \$12,000-16,000 per year
- Cost if all eligible US adults took them: \$600 billion per year
  - Equal to all other U.S. prescription drug spending combined



# Take Home Points



Obesity is a complex disease, which makes weight loss difficult to achieve and maintain.



New and emerging therapies are safe and effective, with benefits beyond weight loss for health.



Greater advocacy is needed to destigmatize obesity and treat it as a chronic disease. This has the potential to optimize weight, health and quality of life.



# Questions?

## Thank you!

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