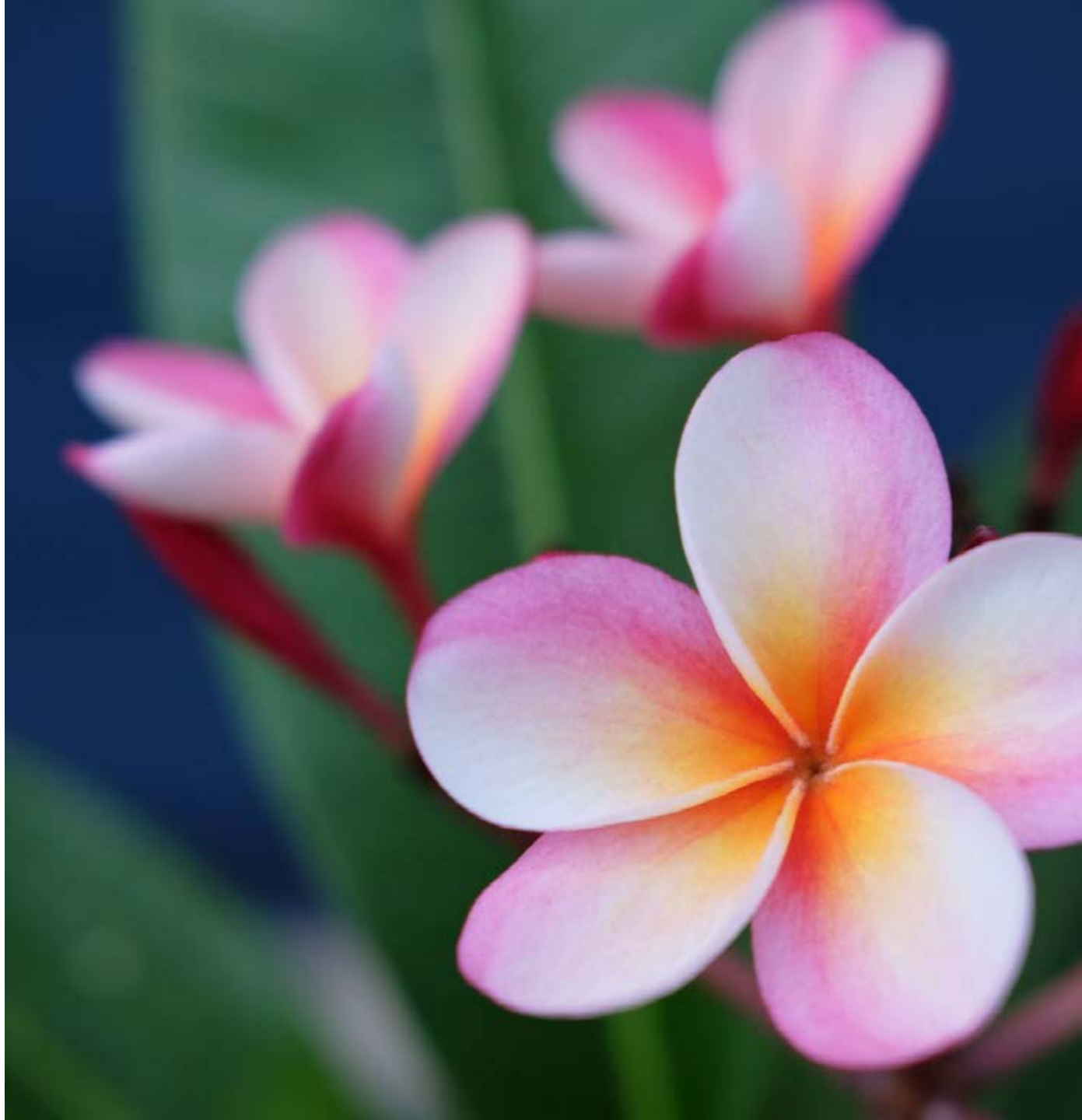
Beyond Weight: Health & Wellness Advice from your Family Doctor

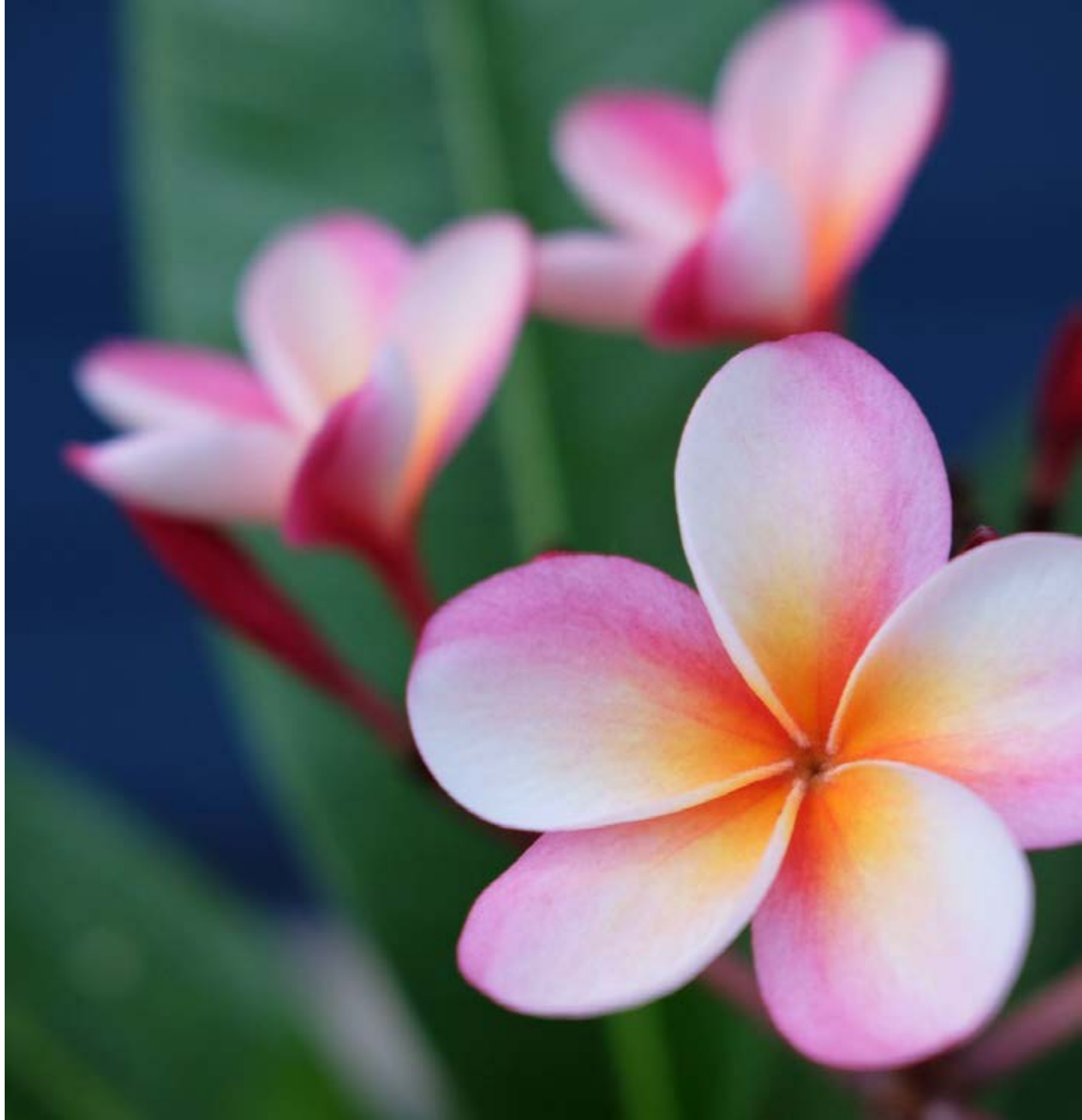
Peggy Latare, MD – Retired Family and Weight Management physician

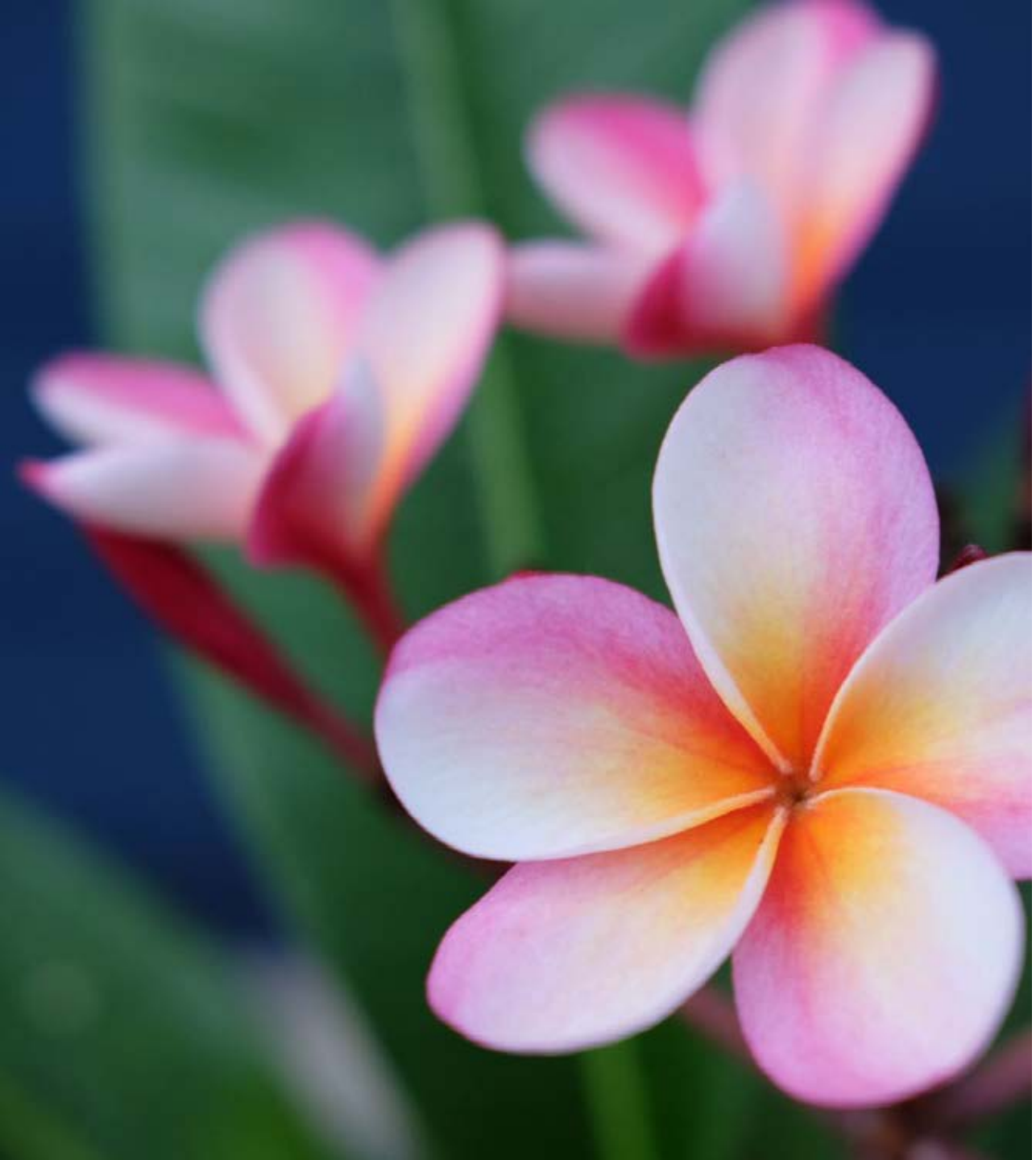
April 7, 2026. at the Amazing Care Network

What does Health & Wellness mean to you?



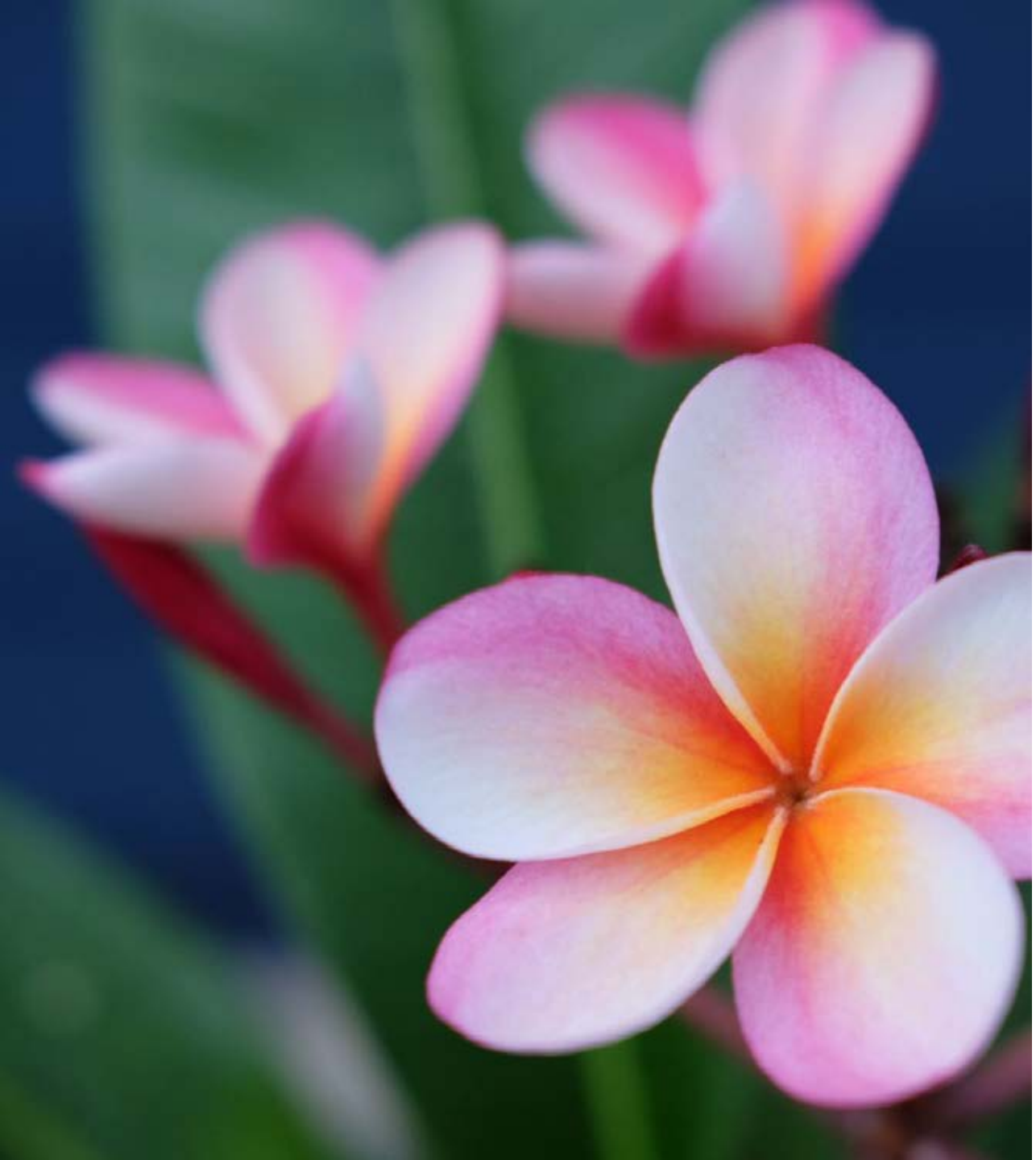
Lack of disease?





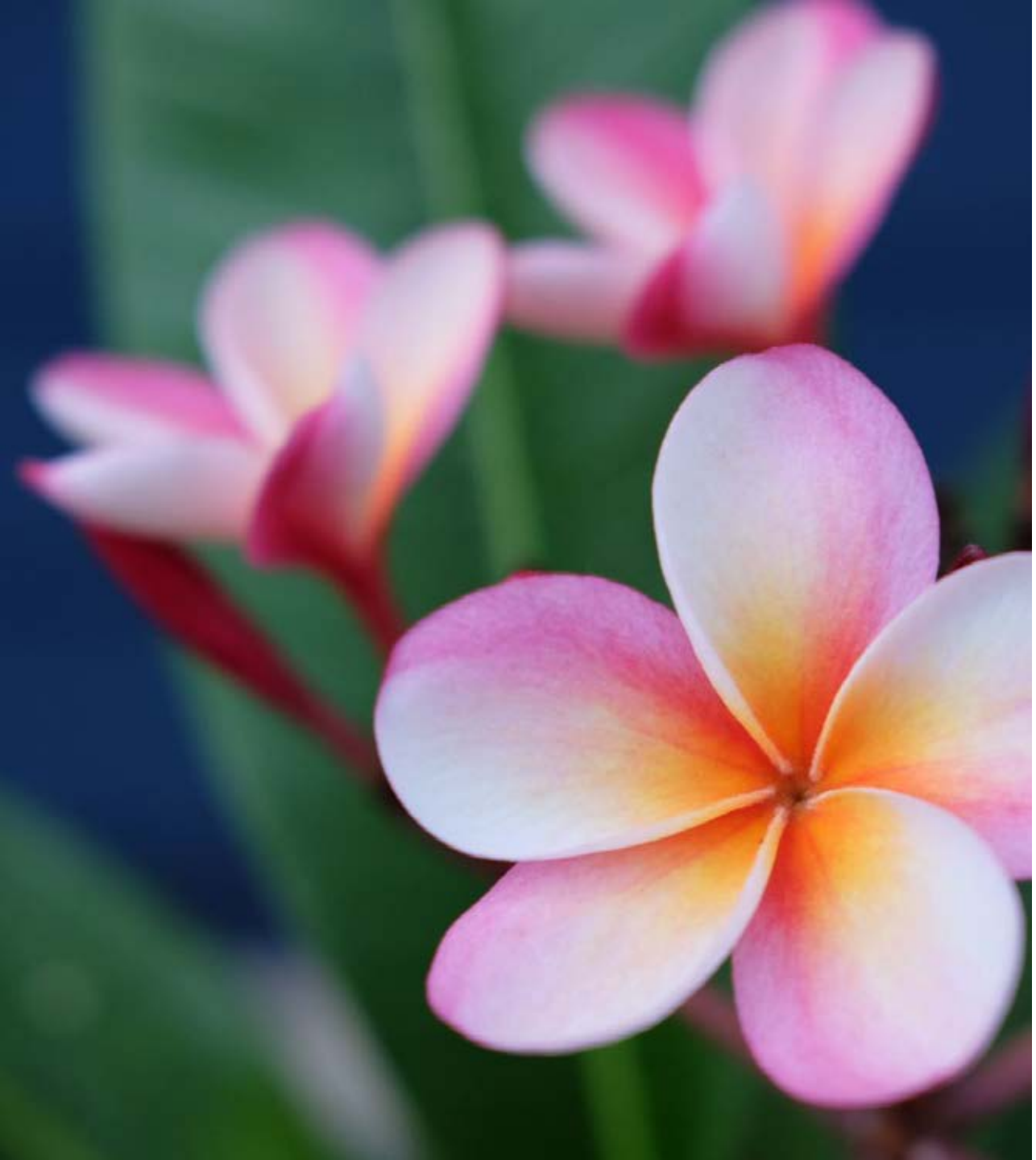
Health & Wellness is....

1. Lack of disease?



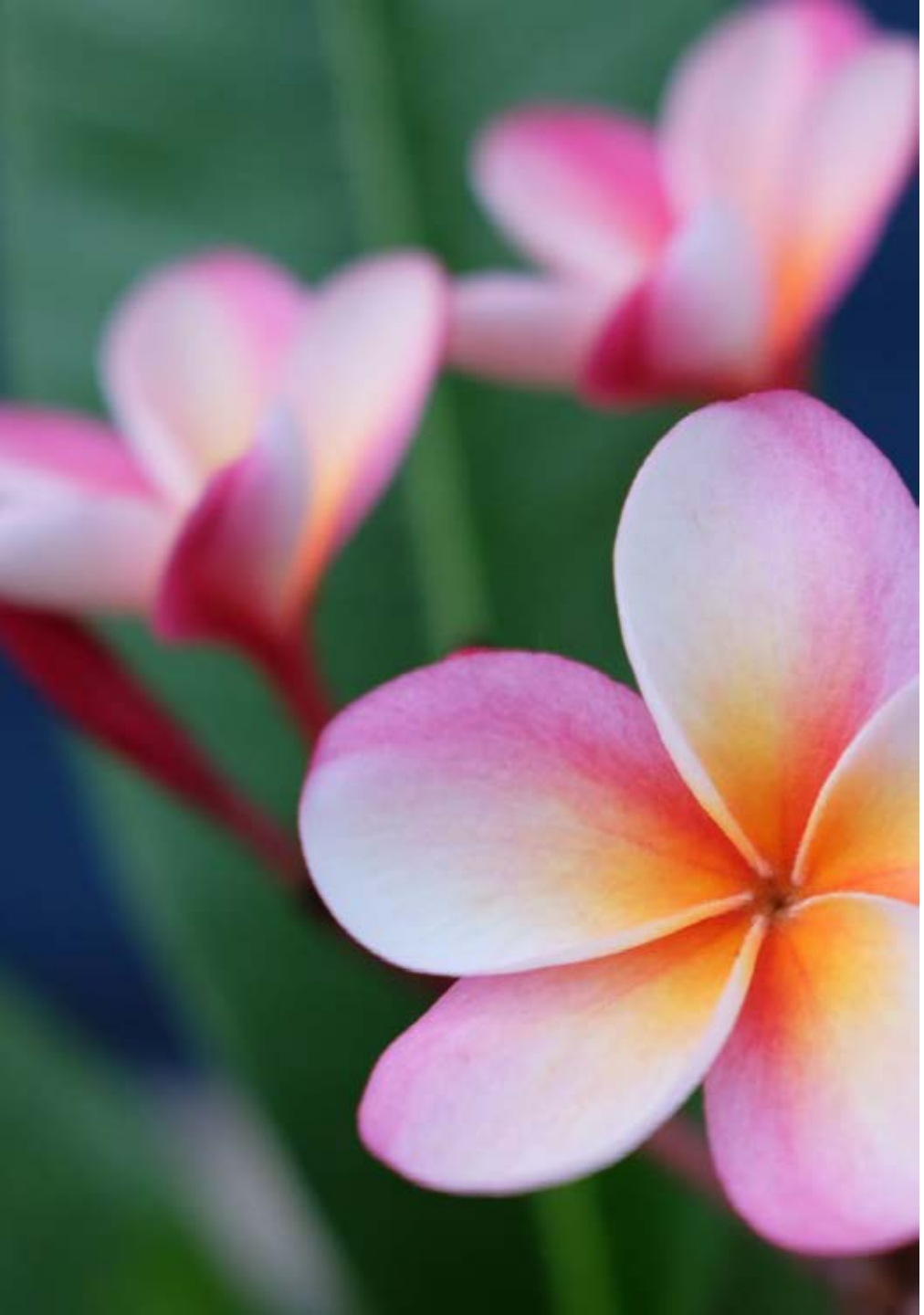
Health & Wellness is....

1. Lack of disease?
2. Achieving a balanced, proactive lifestyle that emcompasses physical fitness, mental and emotional well-being



Health & Wellness is....

1. Lack of disease?
2. Achieving a balanced, proactive lifestyle that emcompasses physical fitness, mental and emotional well-being
3. A holistic, daily commitment to healthy choices – eating, sleeping, socializing and exercising well – to reduce stress and improve overall quality of life



Advice from your Family Doctor

- Avoid the bad stuff
- Eat real foods (mostly plants, not too much)
- Find a joyful activity
- Be social!
- Keep you mind sharp
- Pay attention to your sleep
- Maintain a healthy weight

Avoid the Bad Stuff!

- Smoking (and vaping)
- Excess
  - Alcohol
  - Recreational Drugs
  - Caffeine
  - Stress
- Sitting
- Get vaccinated
- Do preventive screening

Alcohol

“There are no studies that would demonstrate that the potential beneficial effects of light and moderate drinking on cardiovascular diseases and type 2 diabetes outweigh the cancer risk associated with these same levels of alcohol consumption for individual consumers.”

-- WHO 2023

Caffeine

- Generally safe (3-4 cups/day or less); increases focus and energy, and is linked to lower risk of certain diseases (Parkinson’s, liver disease)
- Excess caffeine can cause insomnia, rapid heart rate, irritation and inflammation of the stomach, intestines

Sitting

Sitting more than 6-8 hours daily increases your risk of:

- Cardiovascular disease
- Type 2 diabetes
- Cancer (colon, lung, uterine, e.g.)
- Premature death

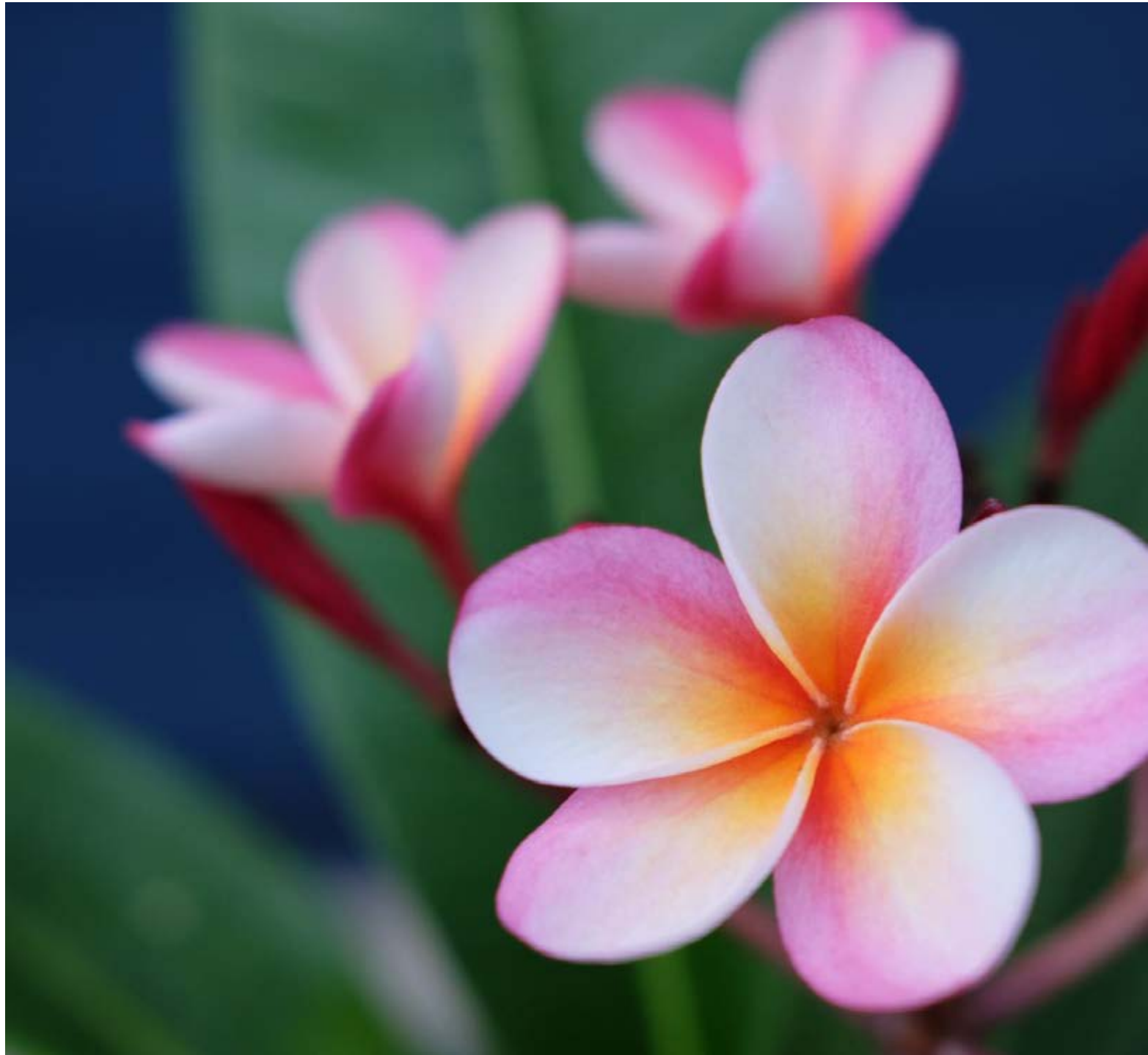
Vaccines

Essential:

- Influenza (annual)
- Covid (seasonal)
- RSV (once)
- Pneumococcal (once if newer version: 20 or 21)
- Shingles (2 doses, once)
- Tdap (every 10 years)

Preventive screening

- BP (yearly)
- DM (every 1-3 yrs)
- Bone density (at least once age 65W, 70M)
- Colon cancer: annual stool test after age 45, until age 75
- Mammograms: every 1-2 years until age 74
- Lung cancer: (high risk- ages 50-80, 20 pk/yr, in last 15 years)
- Prostate CA (shared decision-making)



Eat Real Food

- Michael Pollen: eat real food, mostly plants, not too much
- Blue Zones lessons:
  - 95-100% plant based
  - Meat ~5x/month
  - Hara Hachi Bu
  - Mindful eating in a social setting
  - Eat less as the day goes on

Find Joyful Activity

- What do you do?
- Aerobic
- Anerobic
- Build muscle!!
- Balance training

Sarcopenia

- Age-related loss of muscle mass and function
- Prevented by
  - Progressive resistance training
  - Adequate protein intake (~30gm per meal)
- Monitoring – MC wellness exam?

Be Social

- Harvard Study of Adult Development
- Initial and Second Generation Study
- Conclusion: Good relationships are the single strongest predictor of both a **happy** life and a **long** life

Risks of not being social

Risk of premature death:

- ⬆️ 26% (loneliness)
- ⬆️ 29% (isolation)
- ⬆️ 32% (living alone)

Keep your mind sharp

- Education creates a solid base
- Lifetime learning helps
- Take up new and challenging activities – establishes new brain connections
- Don’t retire 😆
- What do you do?

Sleep

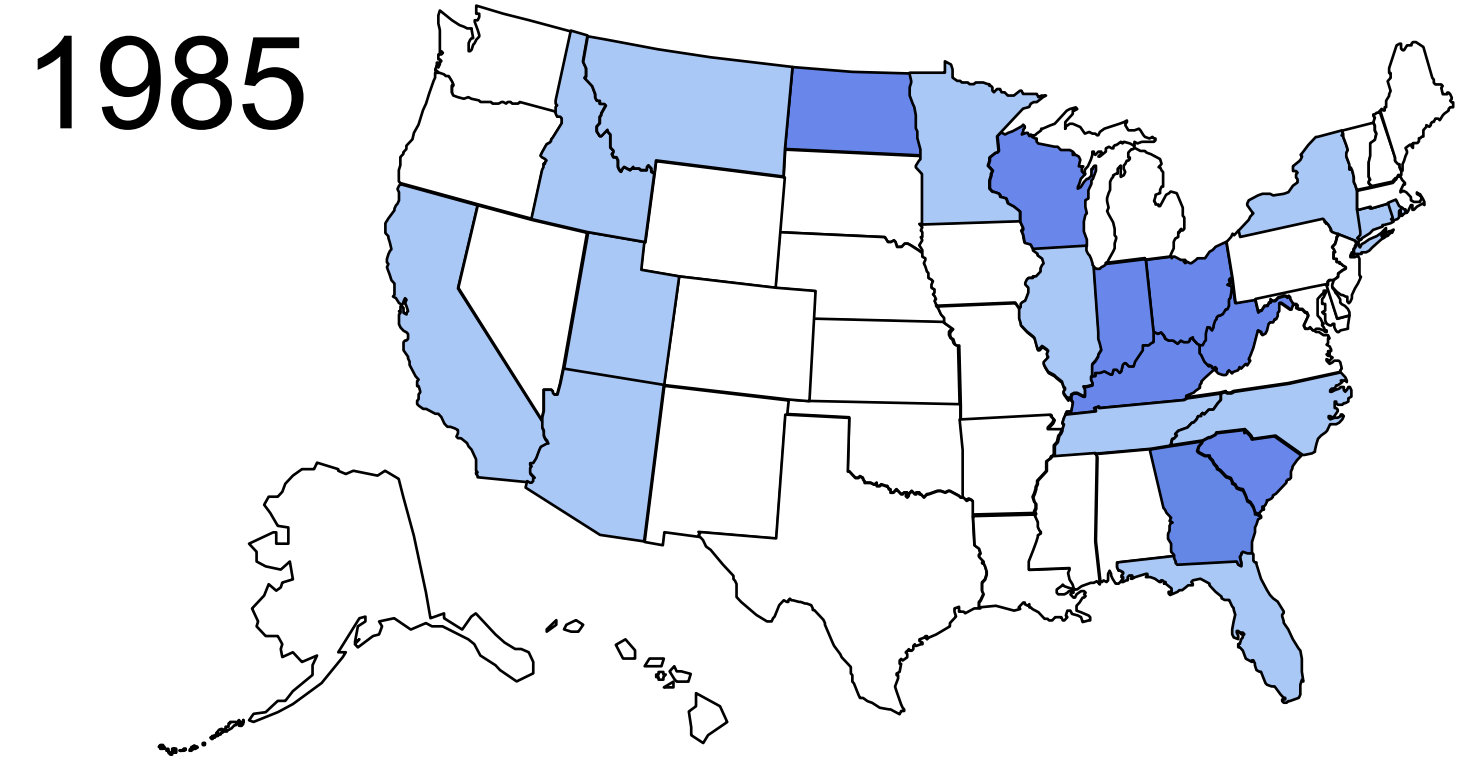
- Limited sleep (~5 hours/night):
  - 25% higher overall mortality
  - 27% higher cardiovascular mortality
- “Good sleepers”
  - Extra 4.7 years of life for men and 2.4 extra years for women

While we sleep...

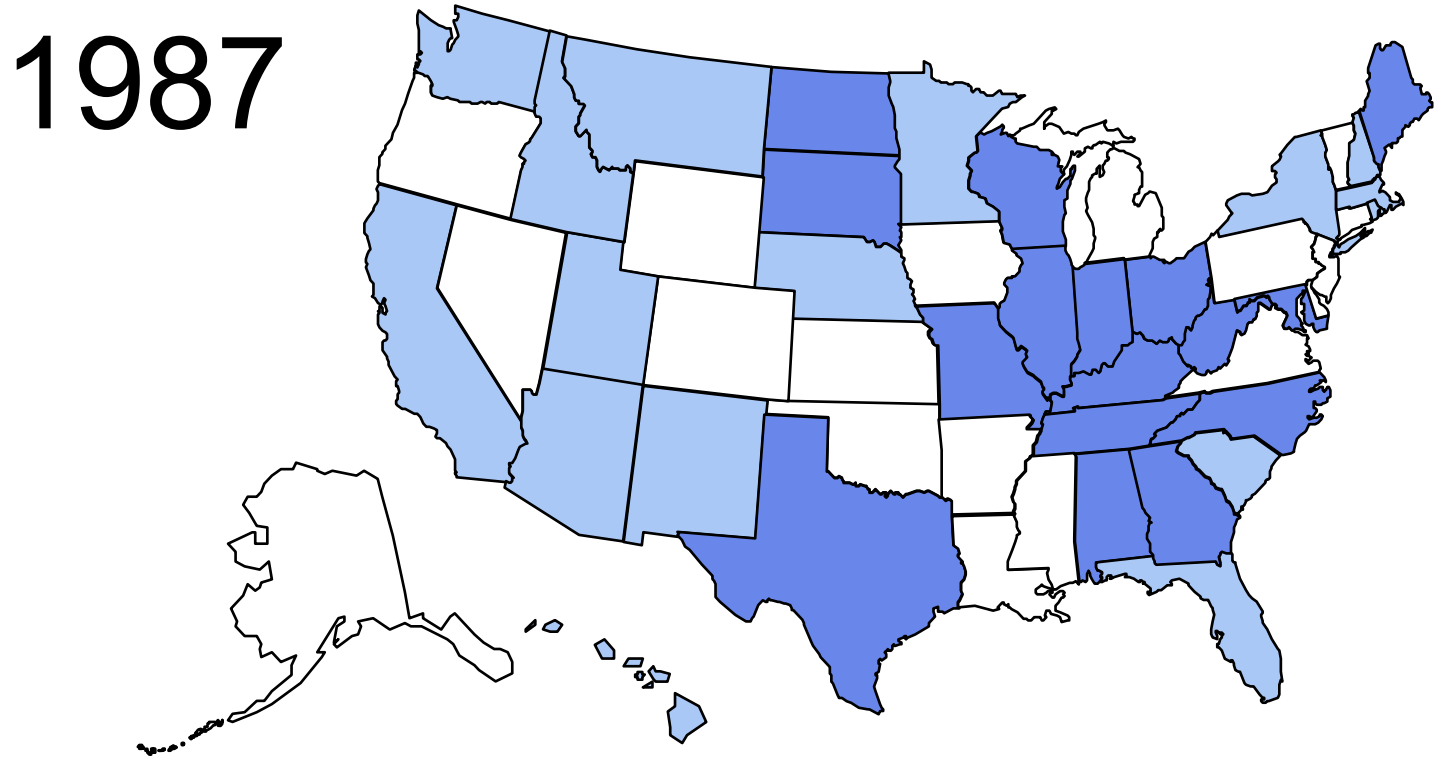
- Our brains “process” the day
- Cells repair and growth (especially the brain)
- Hormones “reset”
  - An example: ghrelin (hunger) and leptin (satiety)

Maintain a healthy weight....

Obesity Trends* Among U.S. Adults BRFSS, 1985



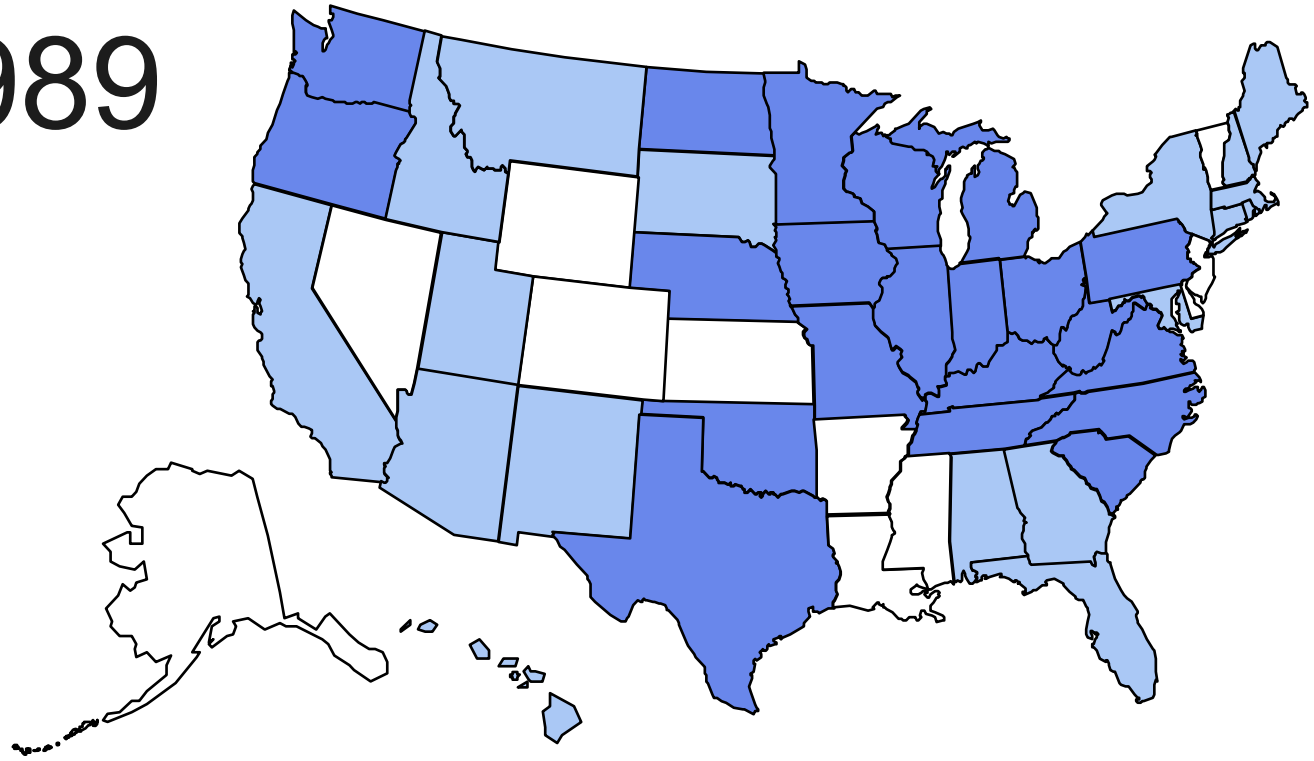
Obesity Trends* Among U.S. Adults
BRFSS, 1987



Obesity Trends* Among U.S. Adults
BRFSS, 1989

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

1989



No Data <10% 10%–14%

Obesity Trends* Among U.S. Adults
BRFSS, 1991

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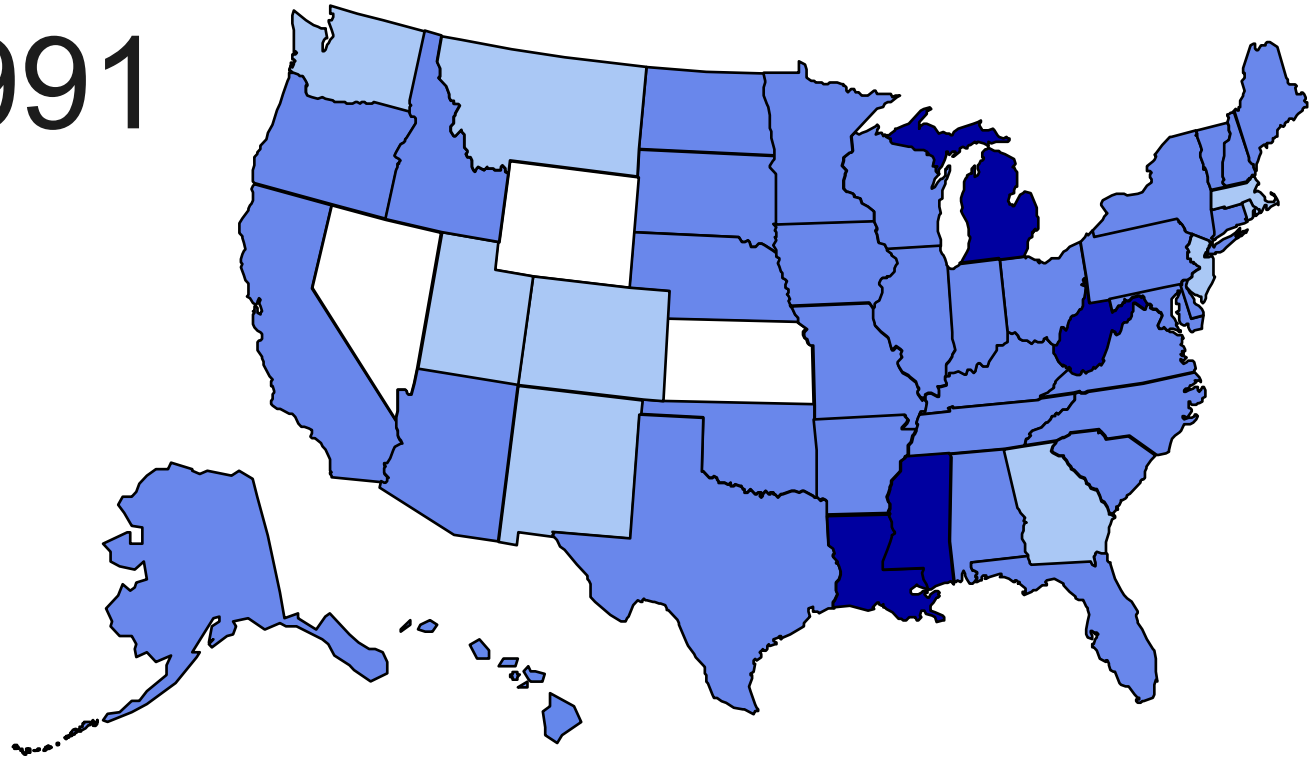
1991



No Data | <10% | 10%–14% | 15%–19%

Obesity Trends* Among U.S. Adults
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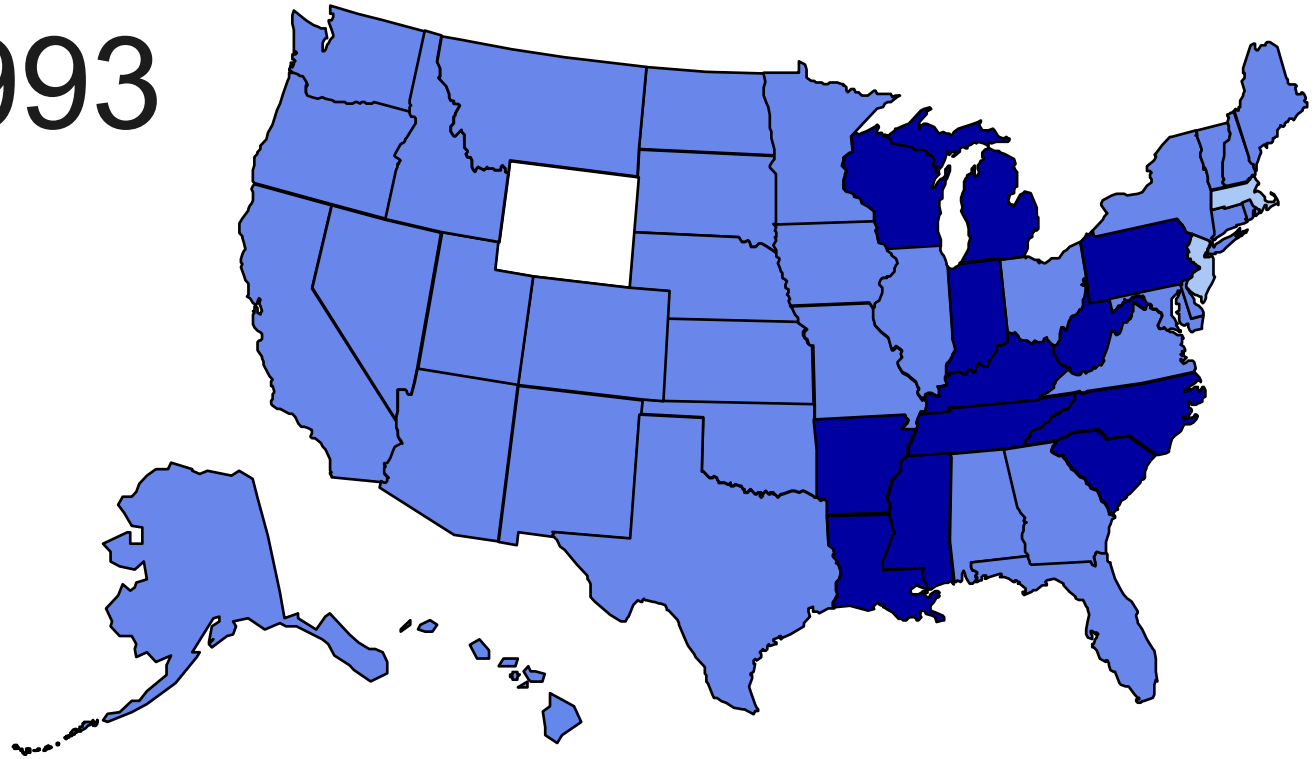
1993



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Obesity Trends* Among U.S. Adults
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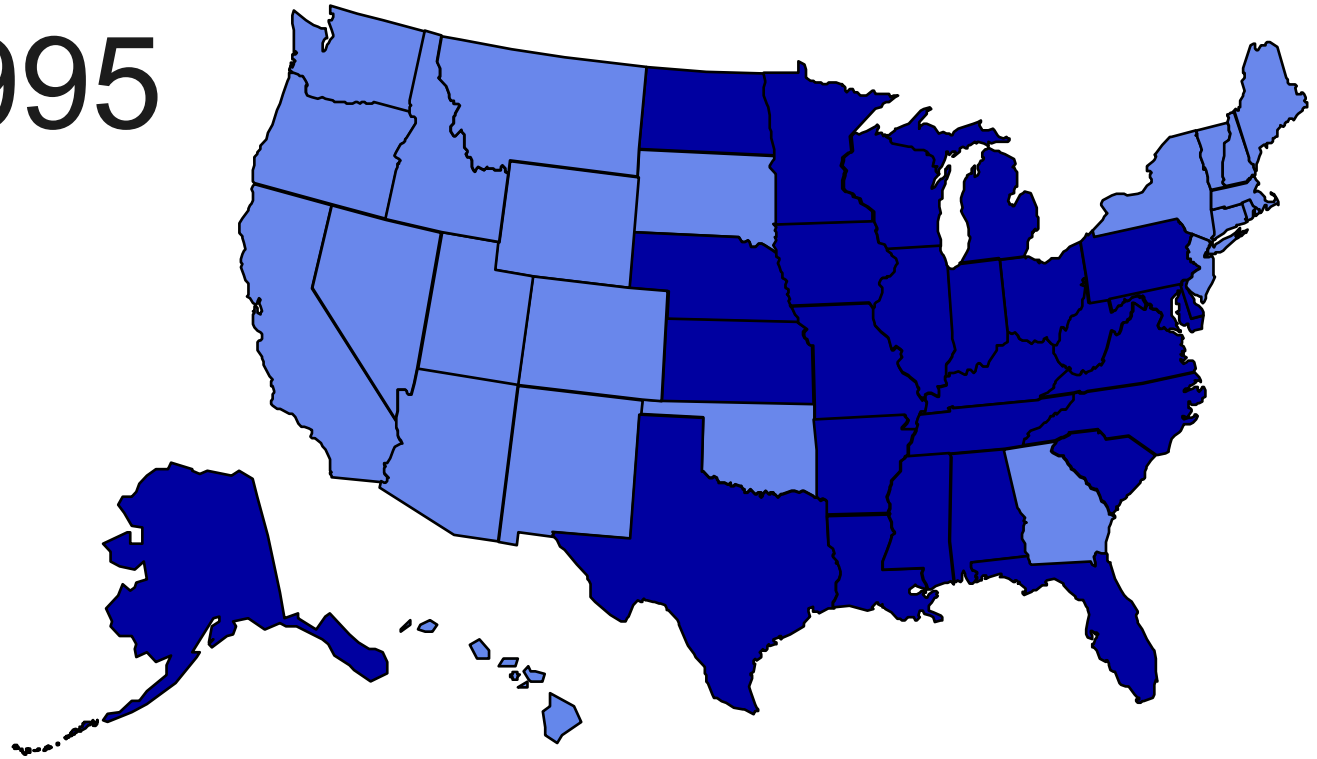

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Obesity Trends* Among U.S. Adults
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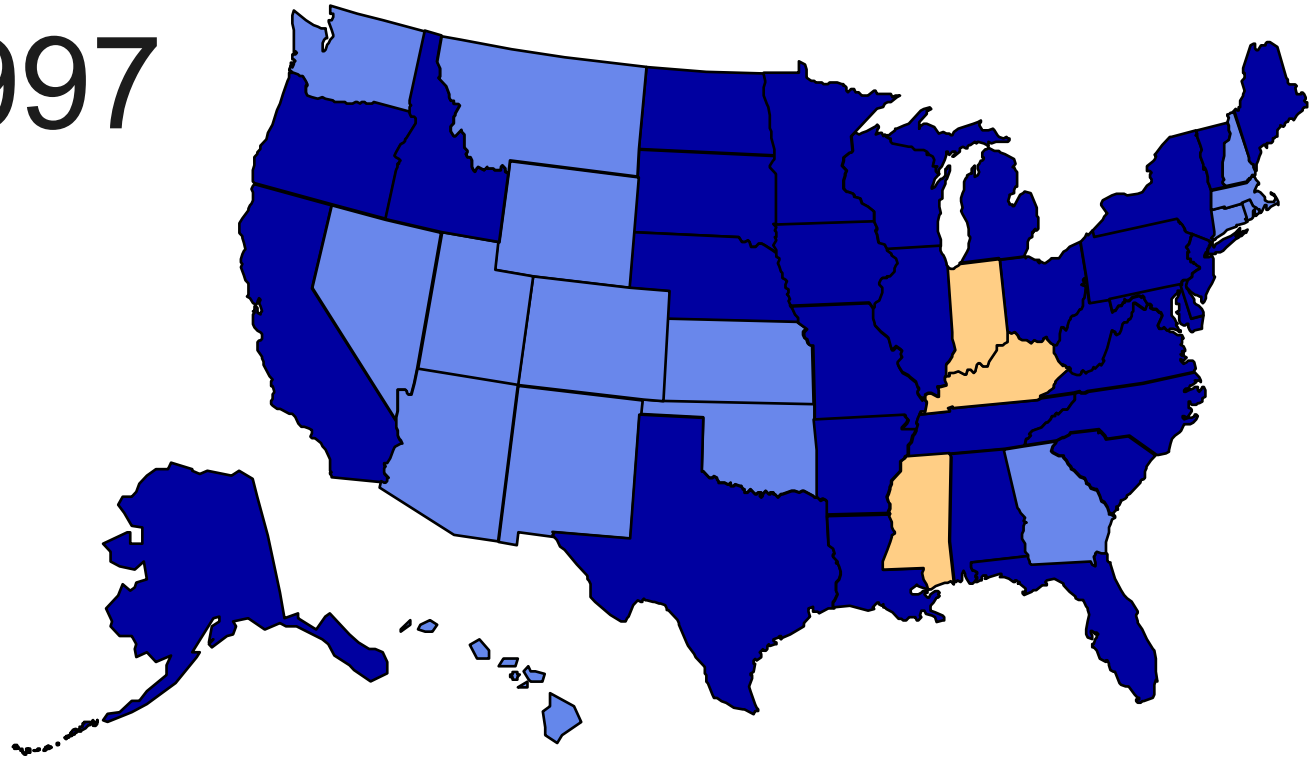
1997



No Data | <10% | 10%–14% | 15%–19% | ≥20%

Obesity Trends* Among U.S. Adults
BRFSS, 1999

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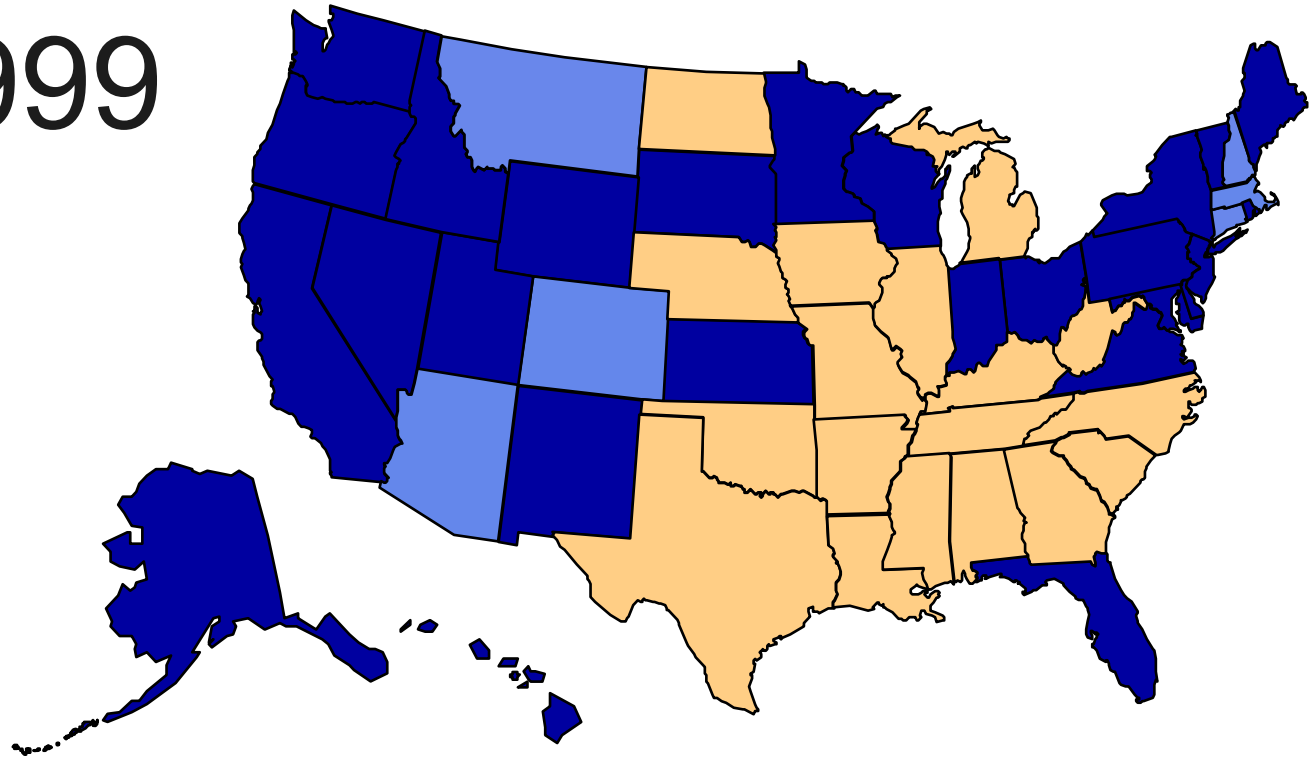
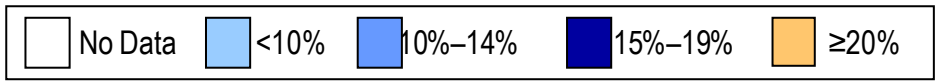
1999





Obesity Trends* Among U.S. Adults
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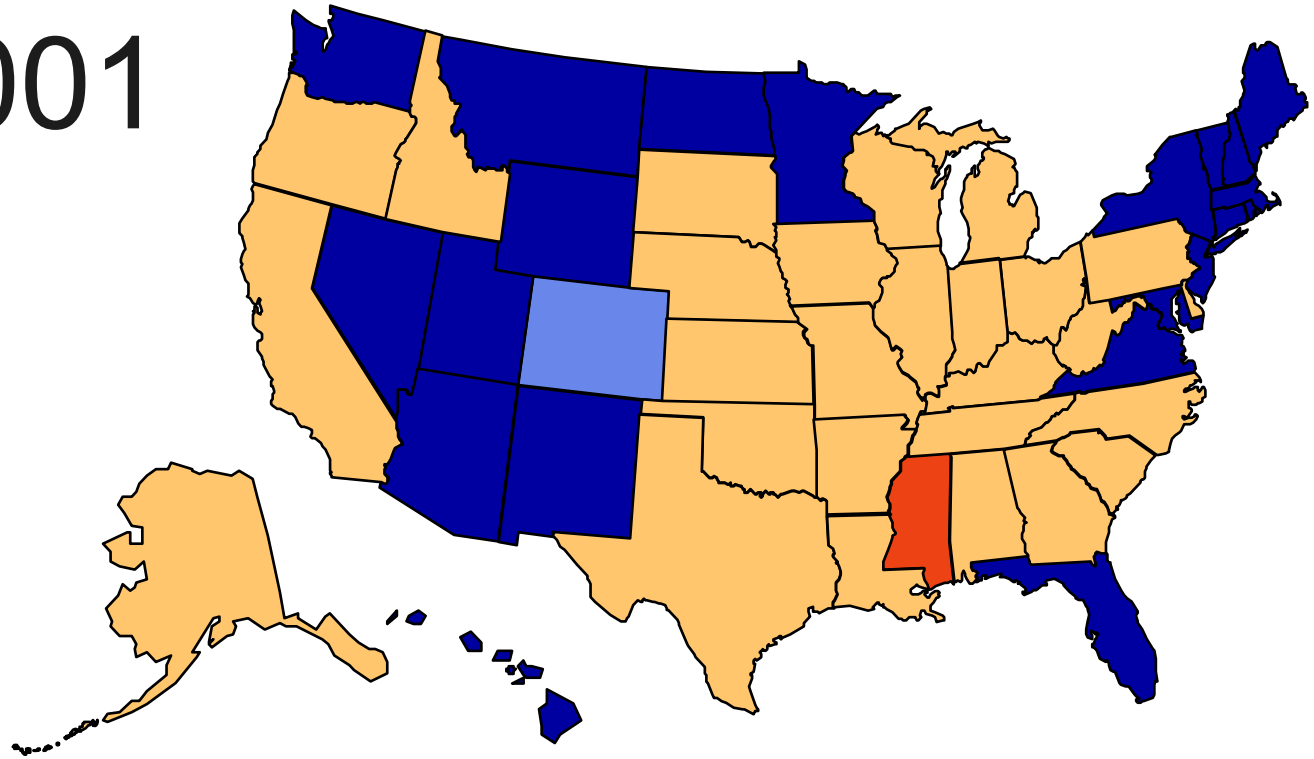
2001



No Data | <10% | 10%–14% | 15%–19% | 20%–24% | ≥25%

Obesity Trends* Among U.S. Adults
BRFSS, 2003

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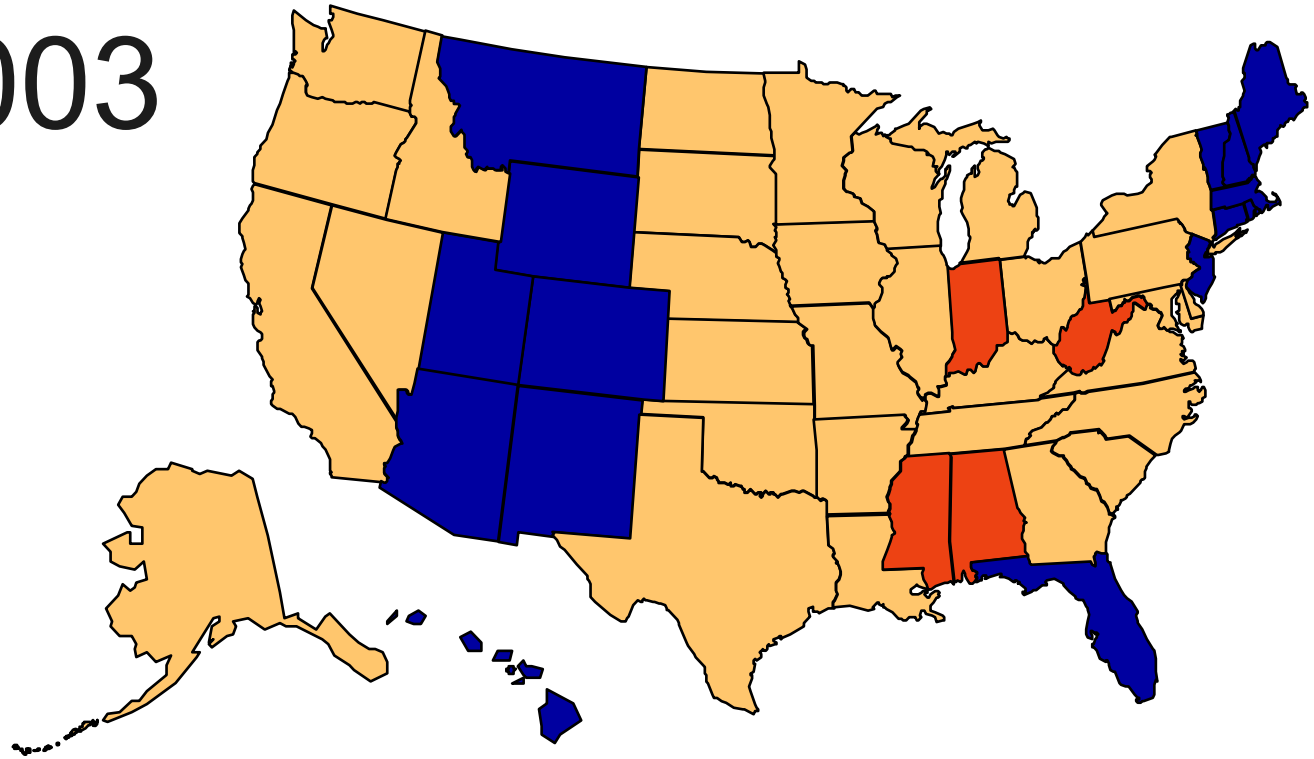
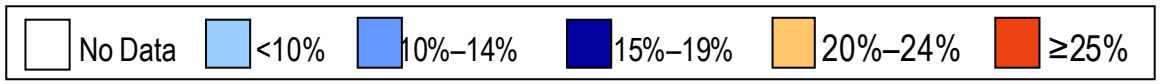
2003





Obesity Trends* Among U.S. Adults
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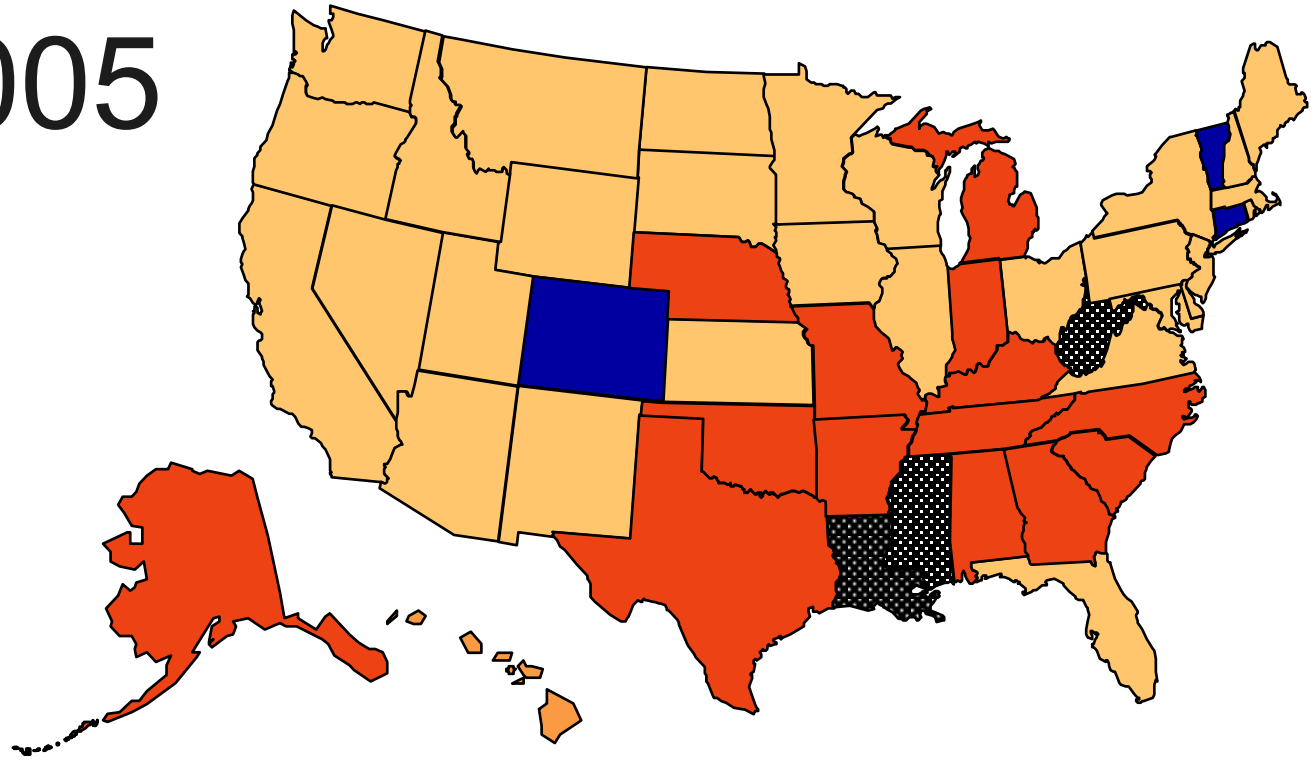
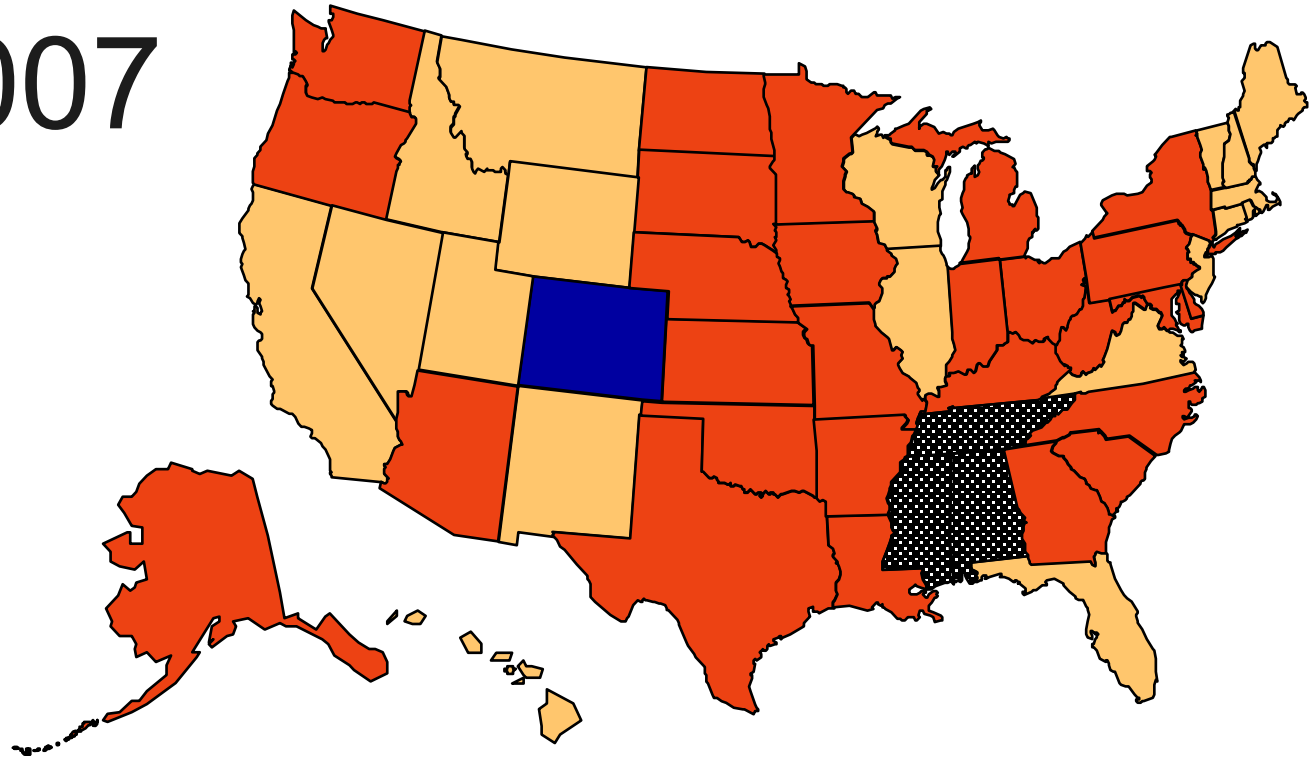


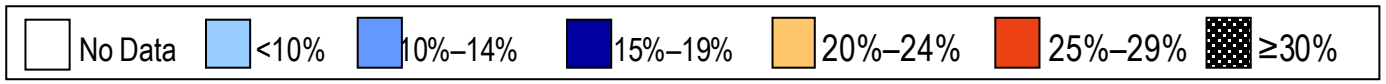
No Data | <10% | 10%–14% | 15%–19% | 20%–24% | 25%–29% | ≥30%

Obesity Trends* Among U.S. Adults
BRFSS, 2007

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

2007





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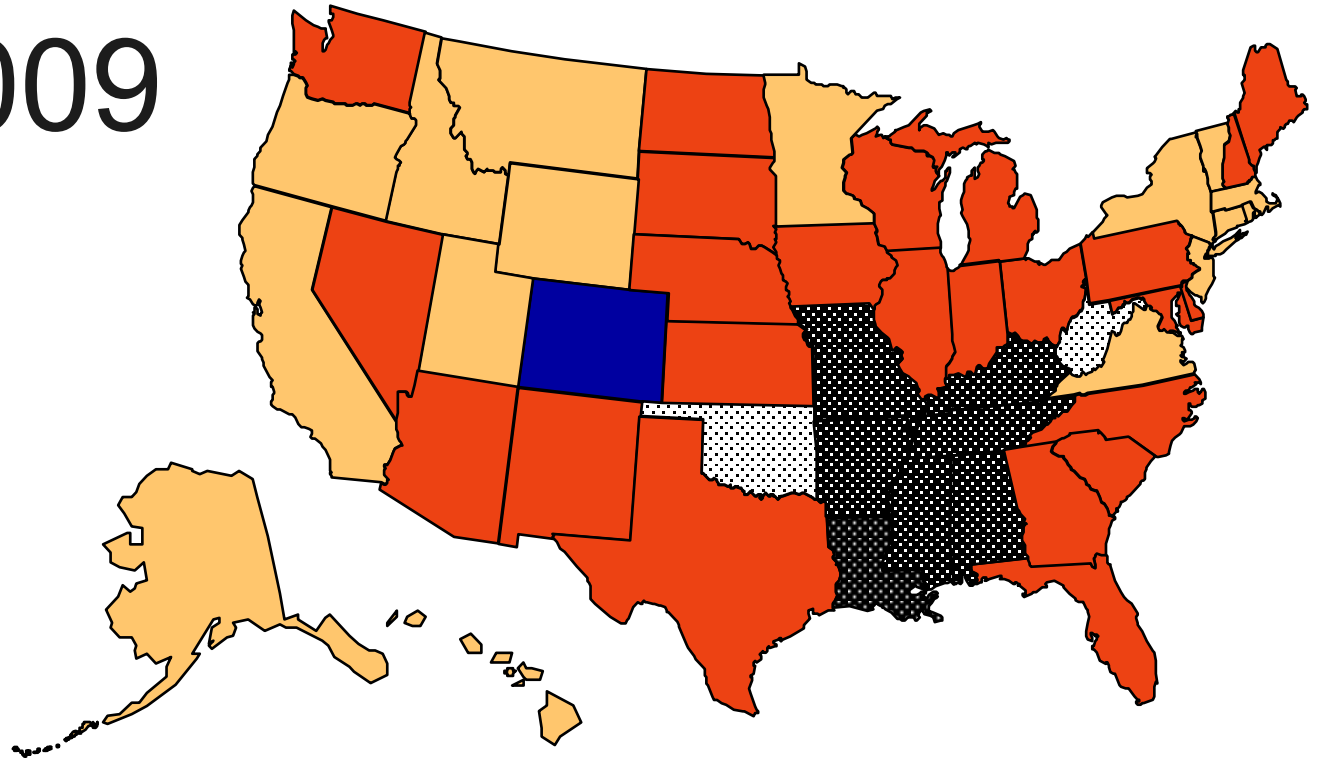
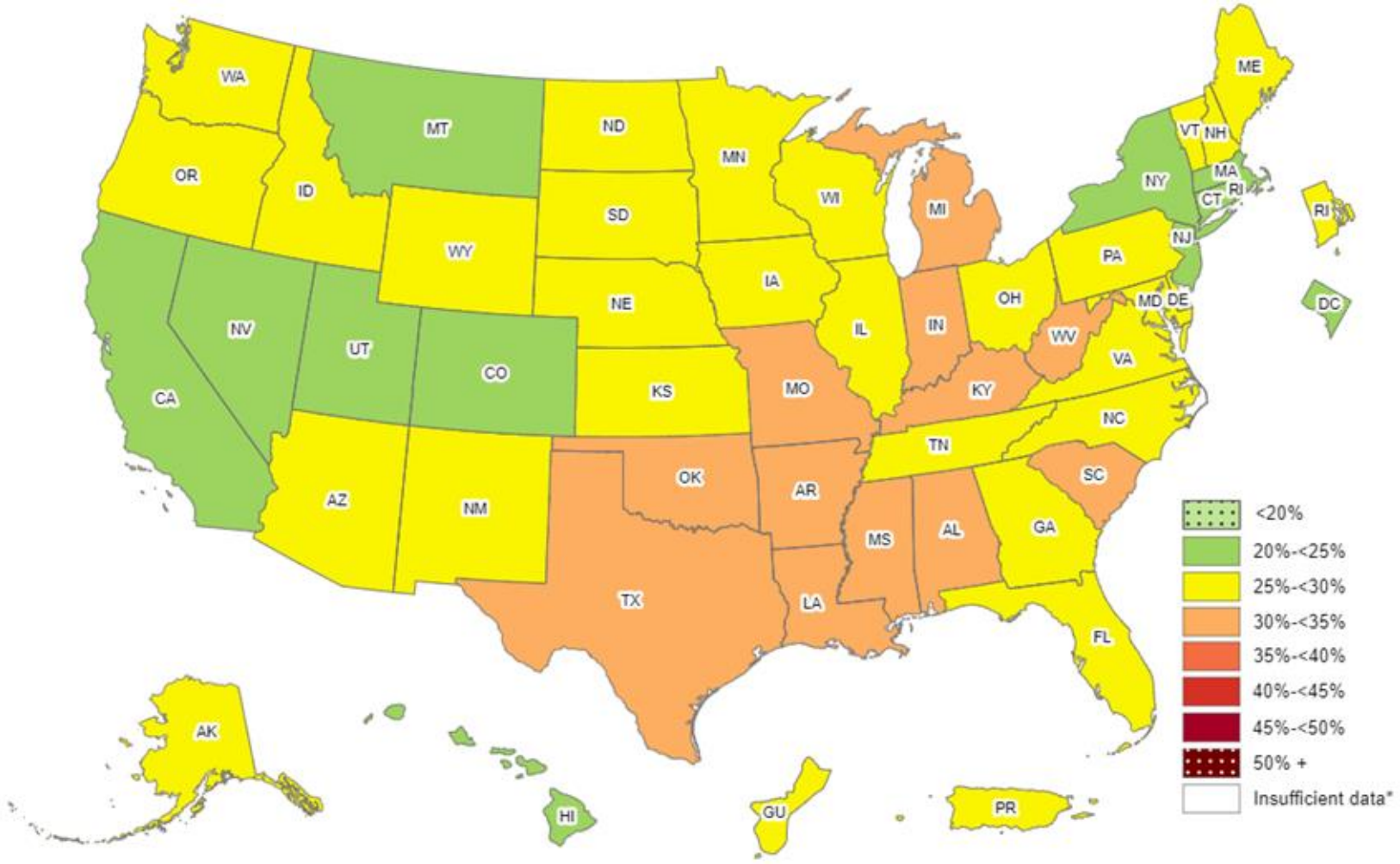


No Data | <10% | 10%–14% | 15%–19% | 20%–24% | 25%–29% | ≥30%

Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2011

¶ 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 of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2013

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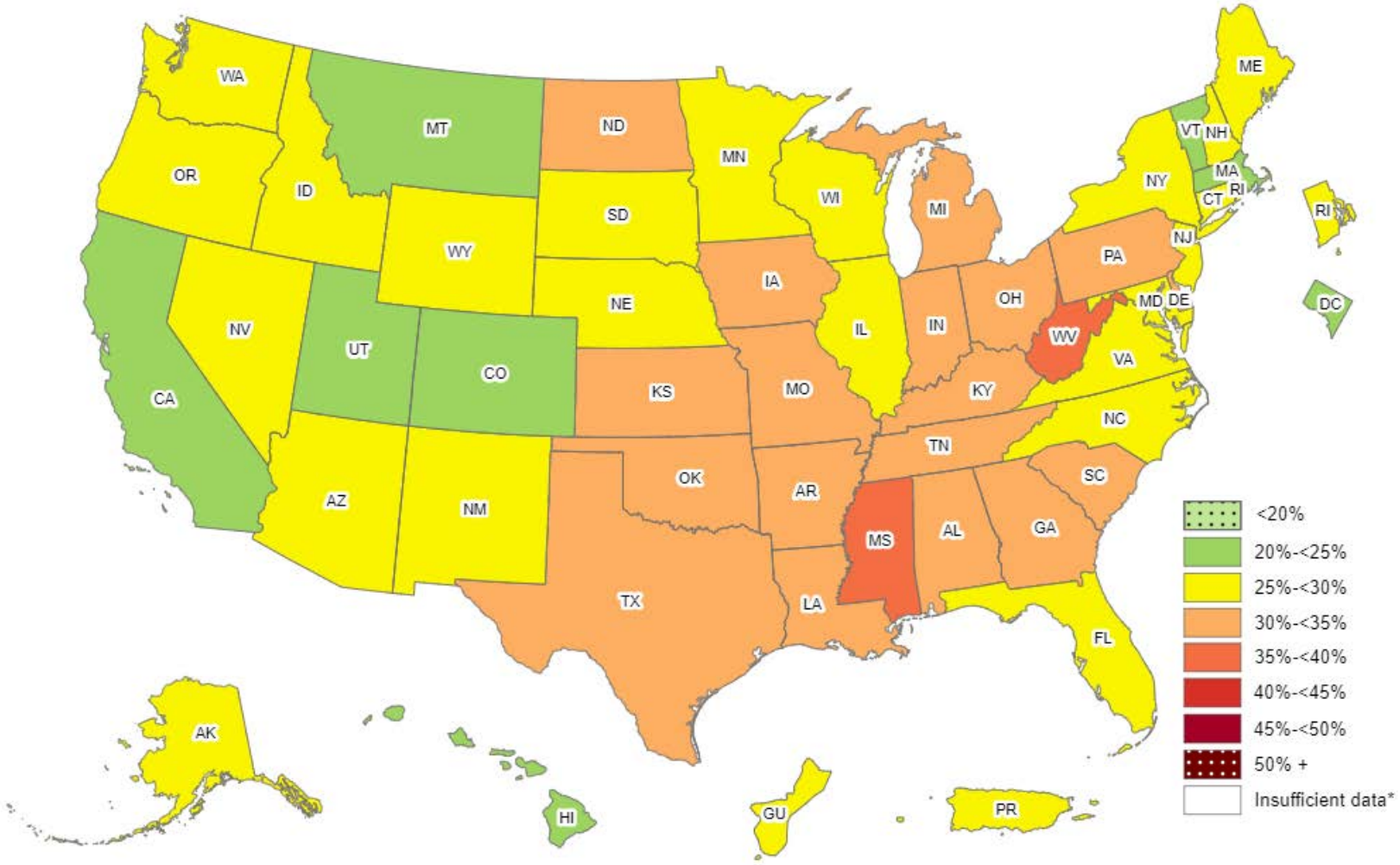

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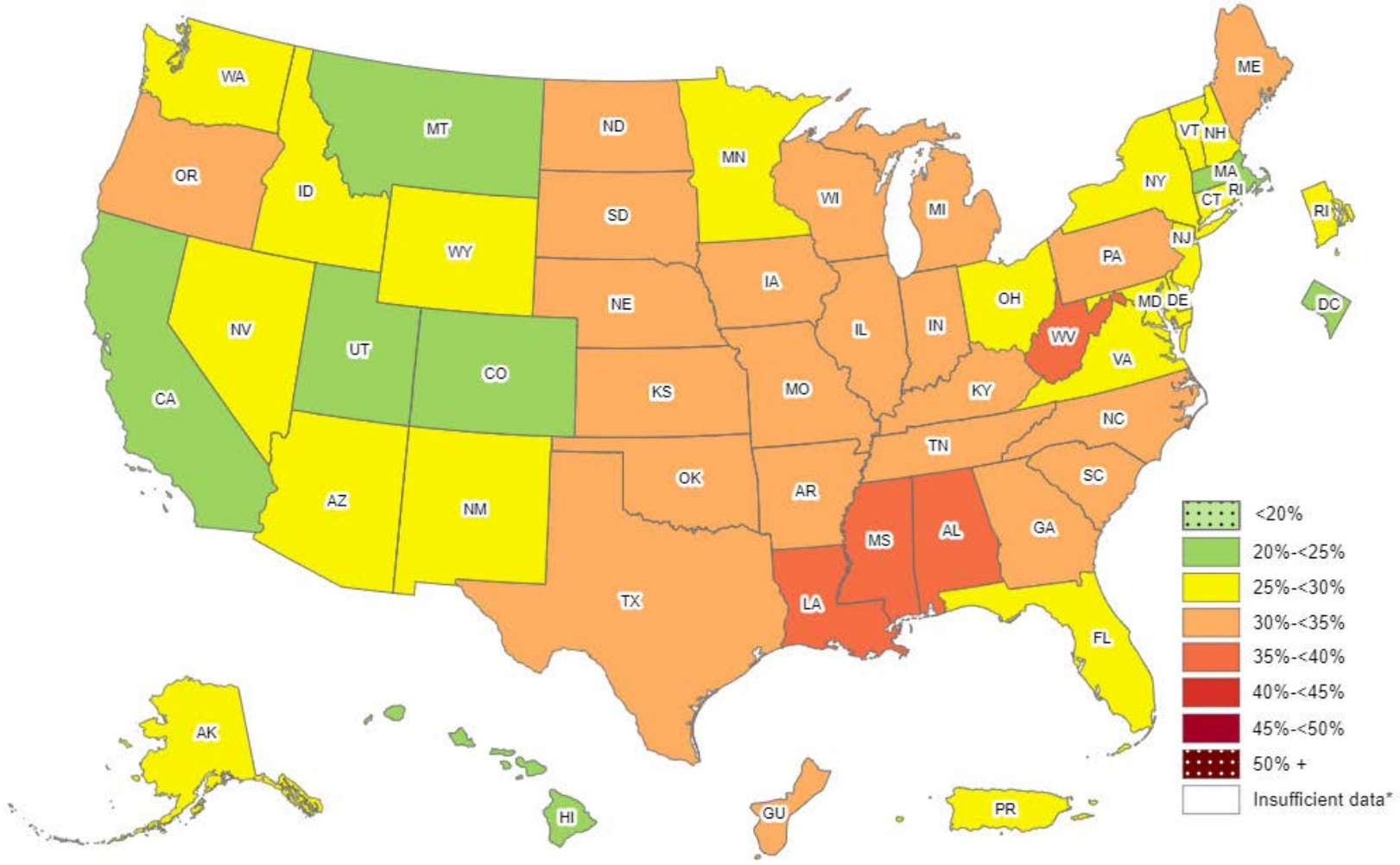

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Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2017

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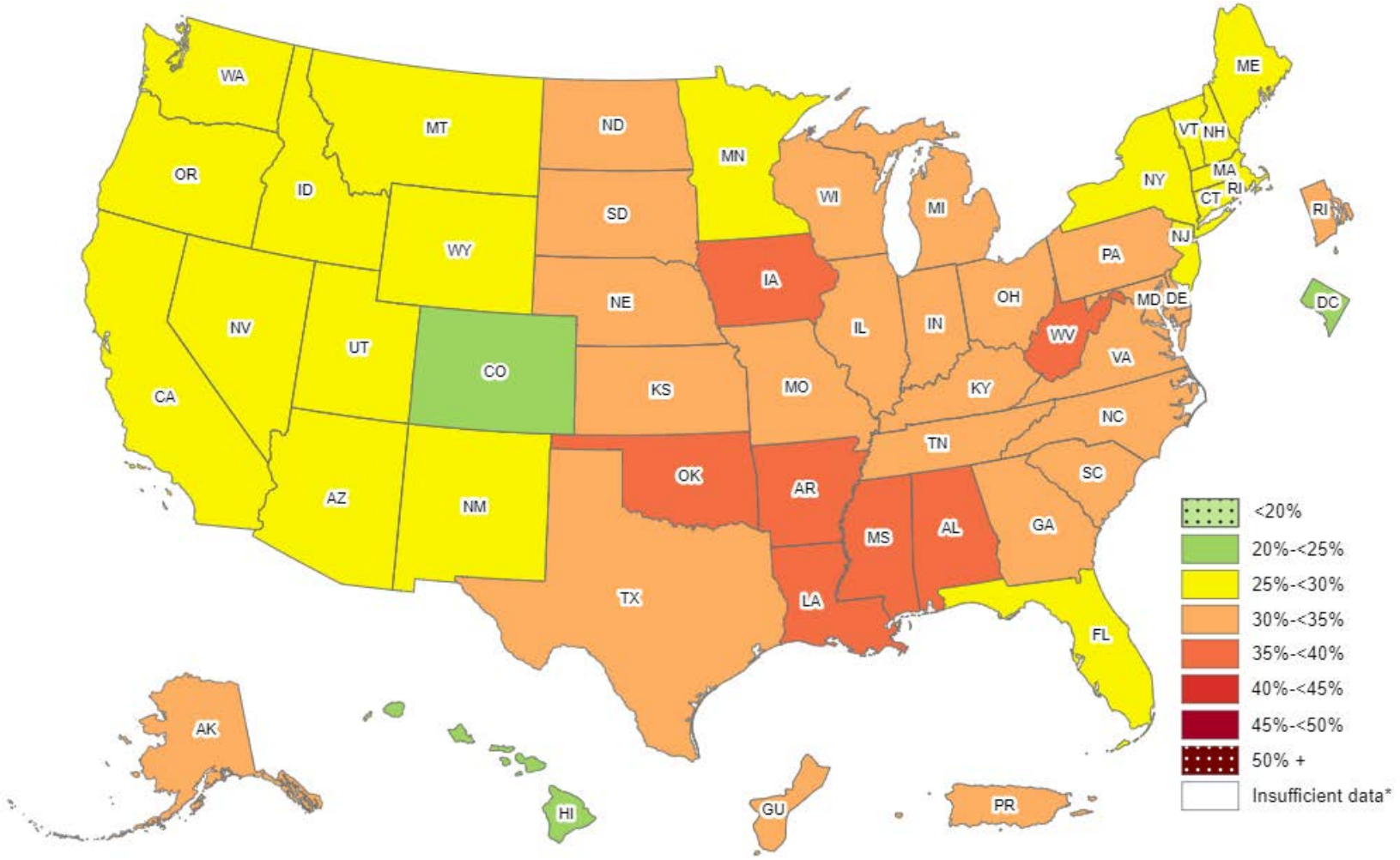

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Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2019

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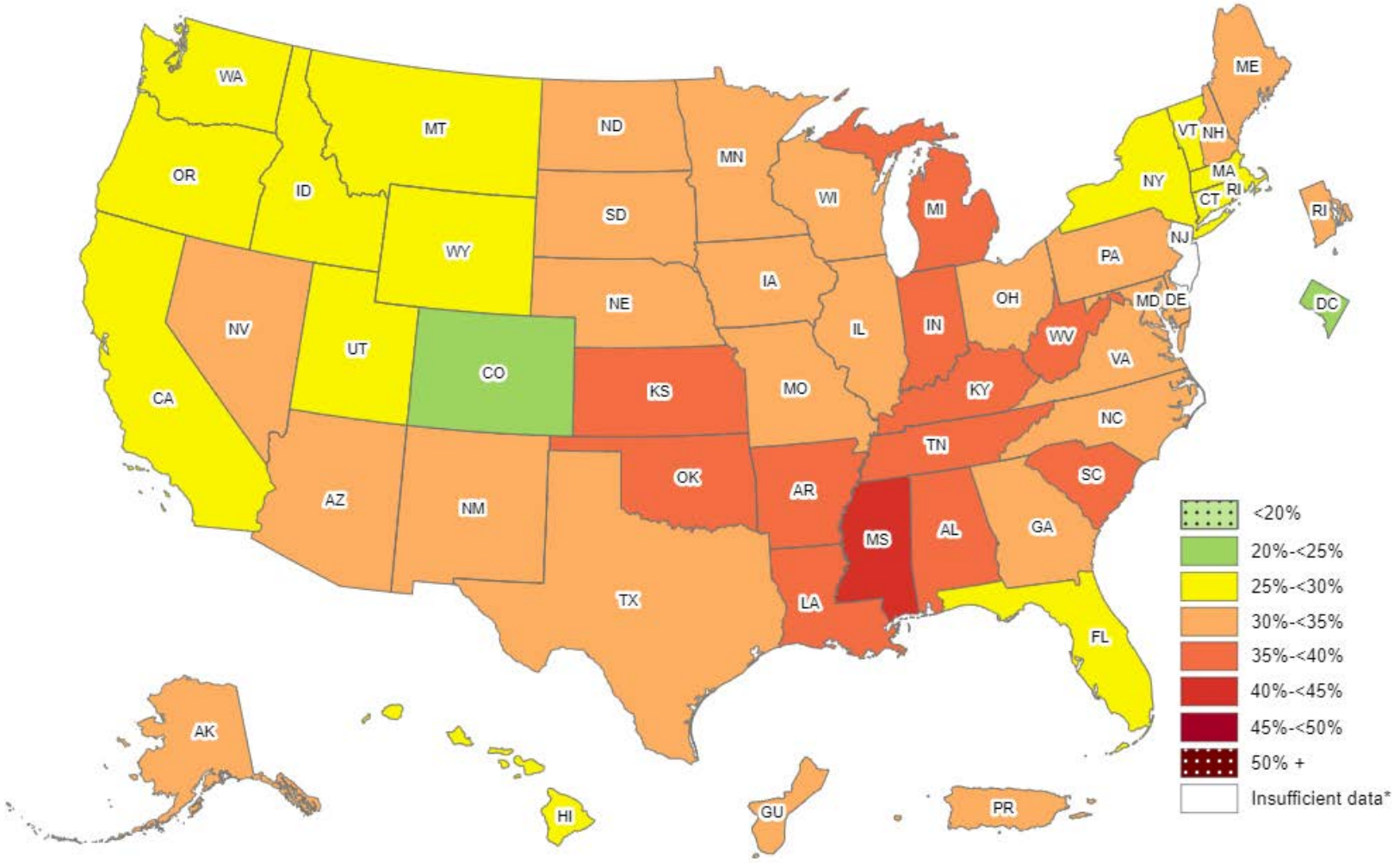

***Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.**

Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2021

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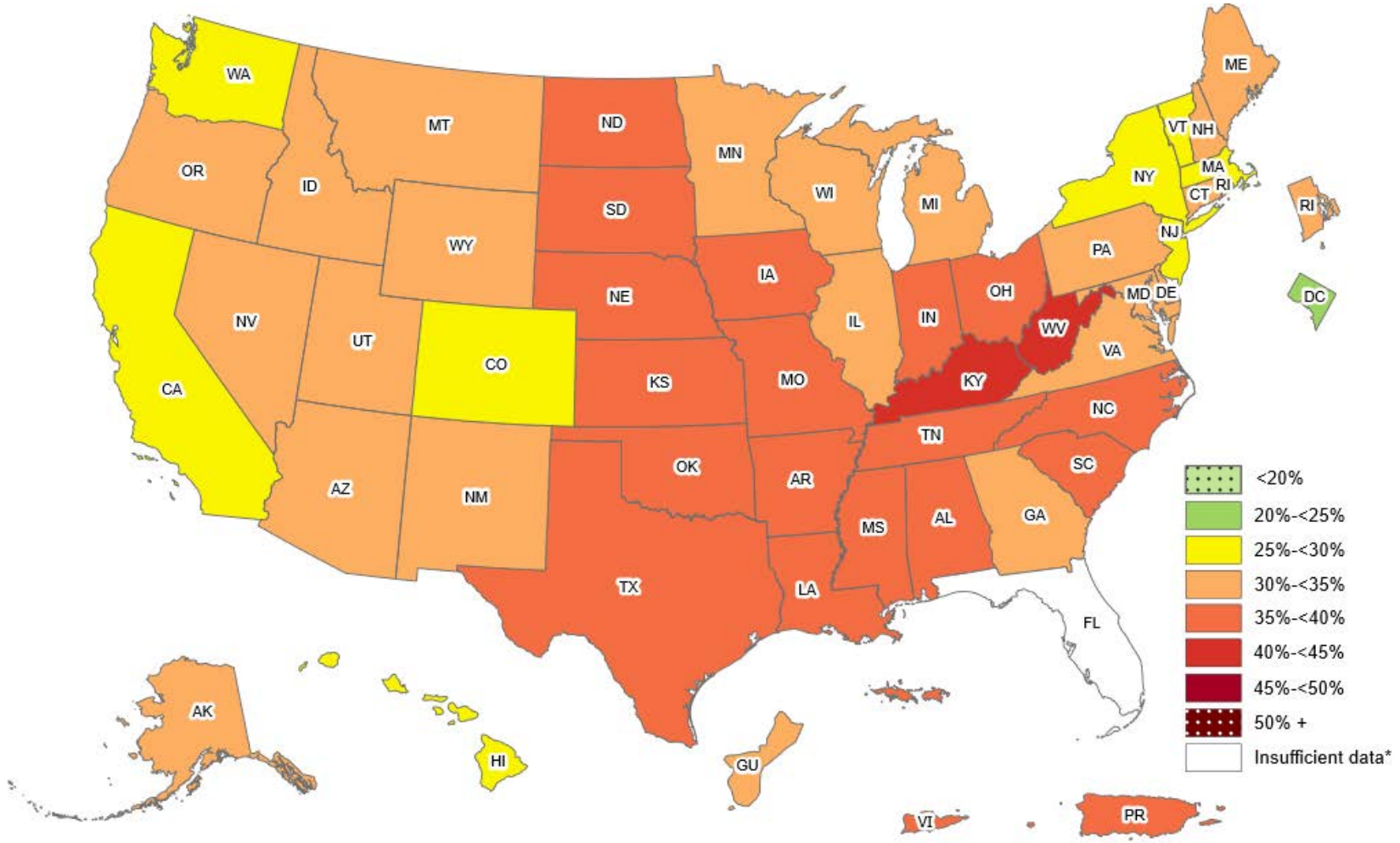

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Prevalence of Self-Reported OBESITY Among U.S. Adults by State and Territory, BRFSS, 2022

¶ Pre
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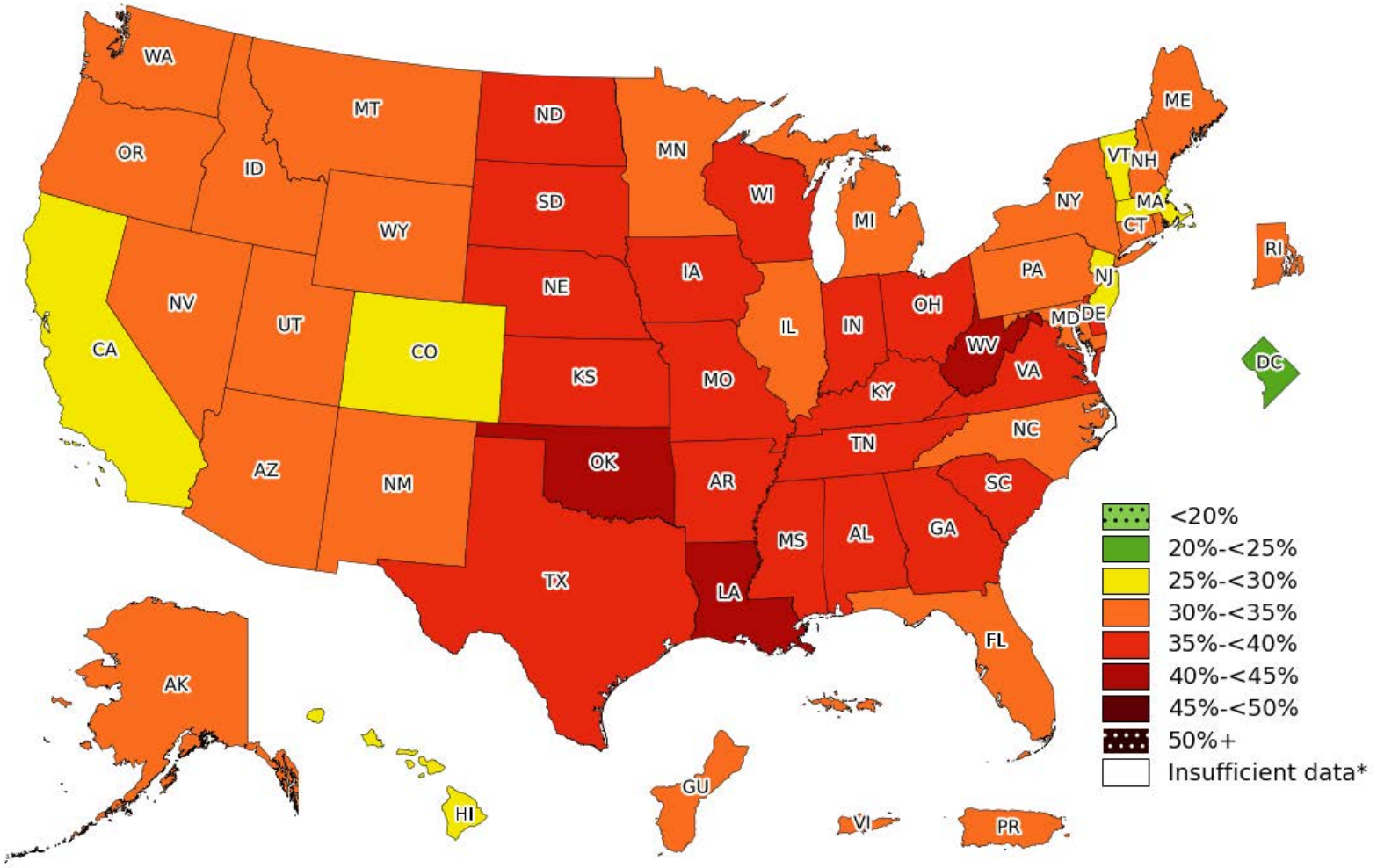

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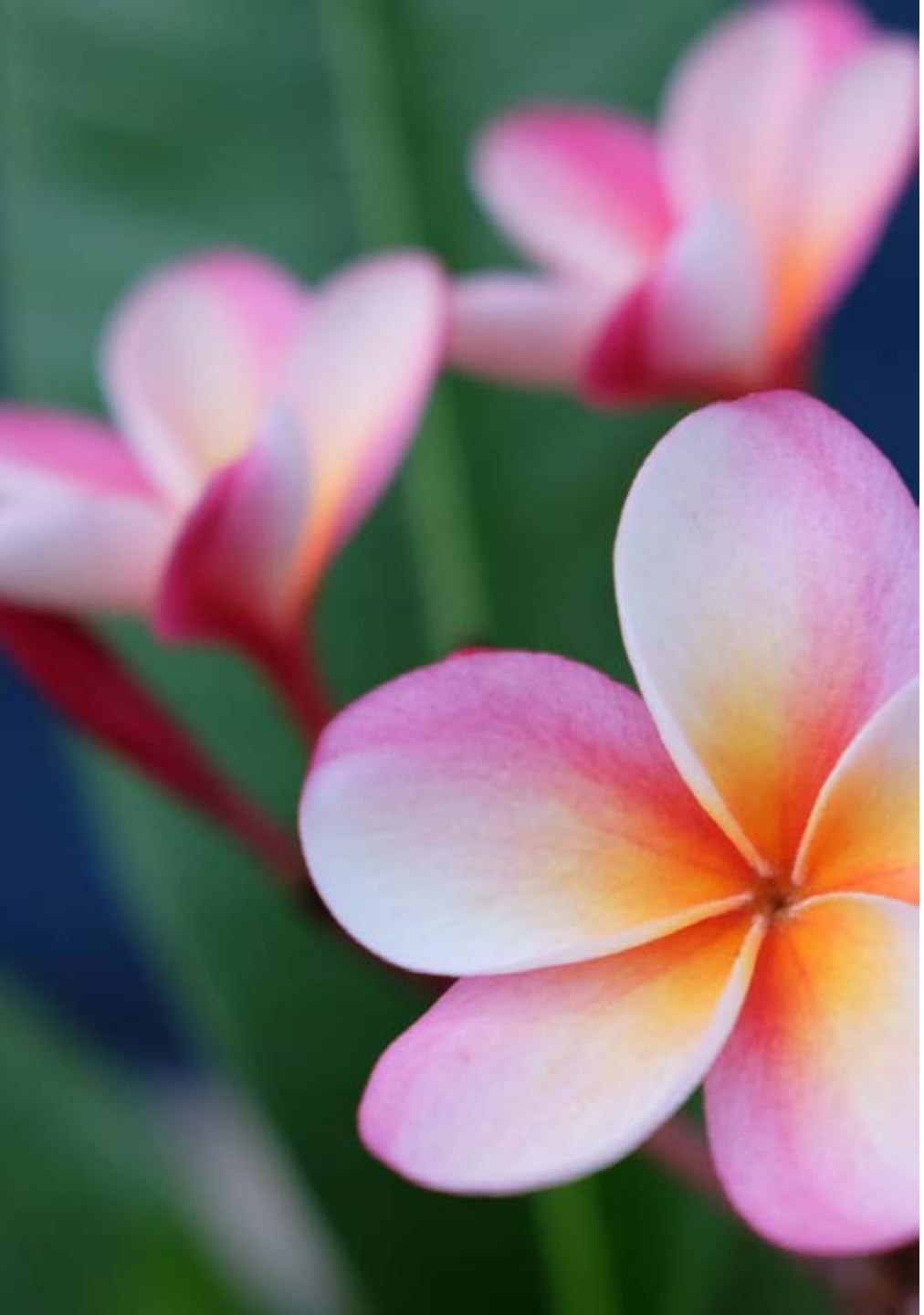


Obesity is a disease

- First recognized by the Obesity Society in 2008
- Endocrinology associations joined in 2012
- Policy statement by the AMA in 2013
- The Obesity Society updated their position statement in 2018 to include the term ”excess adiposity”, association with premature mortality, and comment that the disease is distinguished by multiple phenotypes, clinical presentations, and treatment responses

BMI-based obesity staging system Kg/m²

Rukia Swaleh et al. CMAJOpen 2021;9:E1141-E1148

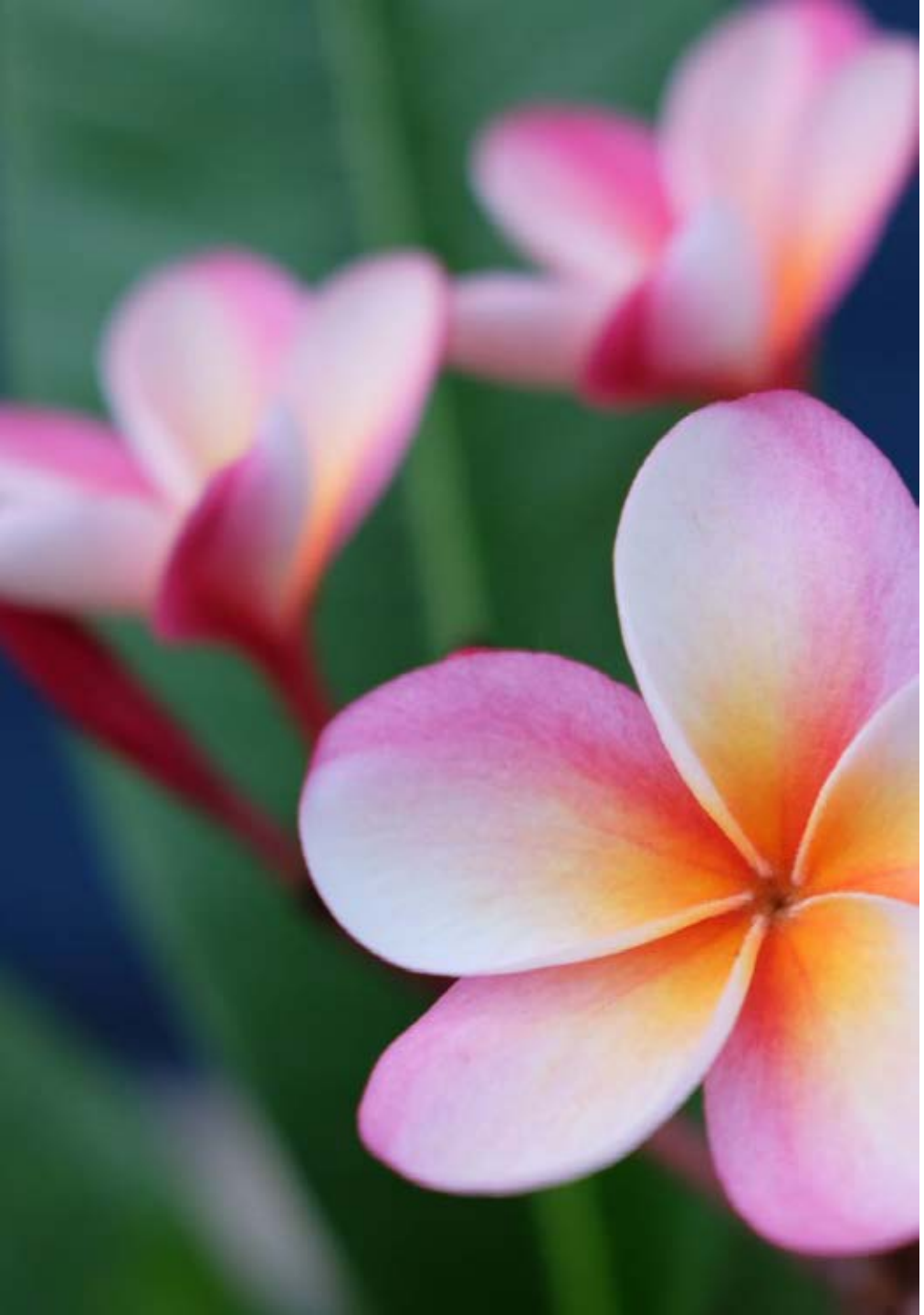
Obesity staging using recommended classification of BMI

Category	Body mass index
Underweight	< 18.5
Normal (healthy weight)	18.5–24.9
Overweight	25–29.9
Obesity class I	30–34.9
Obesity class II	35–39.9
Obesity class III	≥ 40

> In people of South, Southeast or East Asian ethnicity metabolic risk is observed at lower BMI values.

Limitations:
Less accurate in extremes of body fat (sarcopenia and high muscle mass)

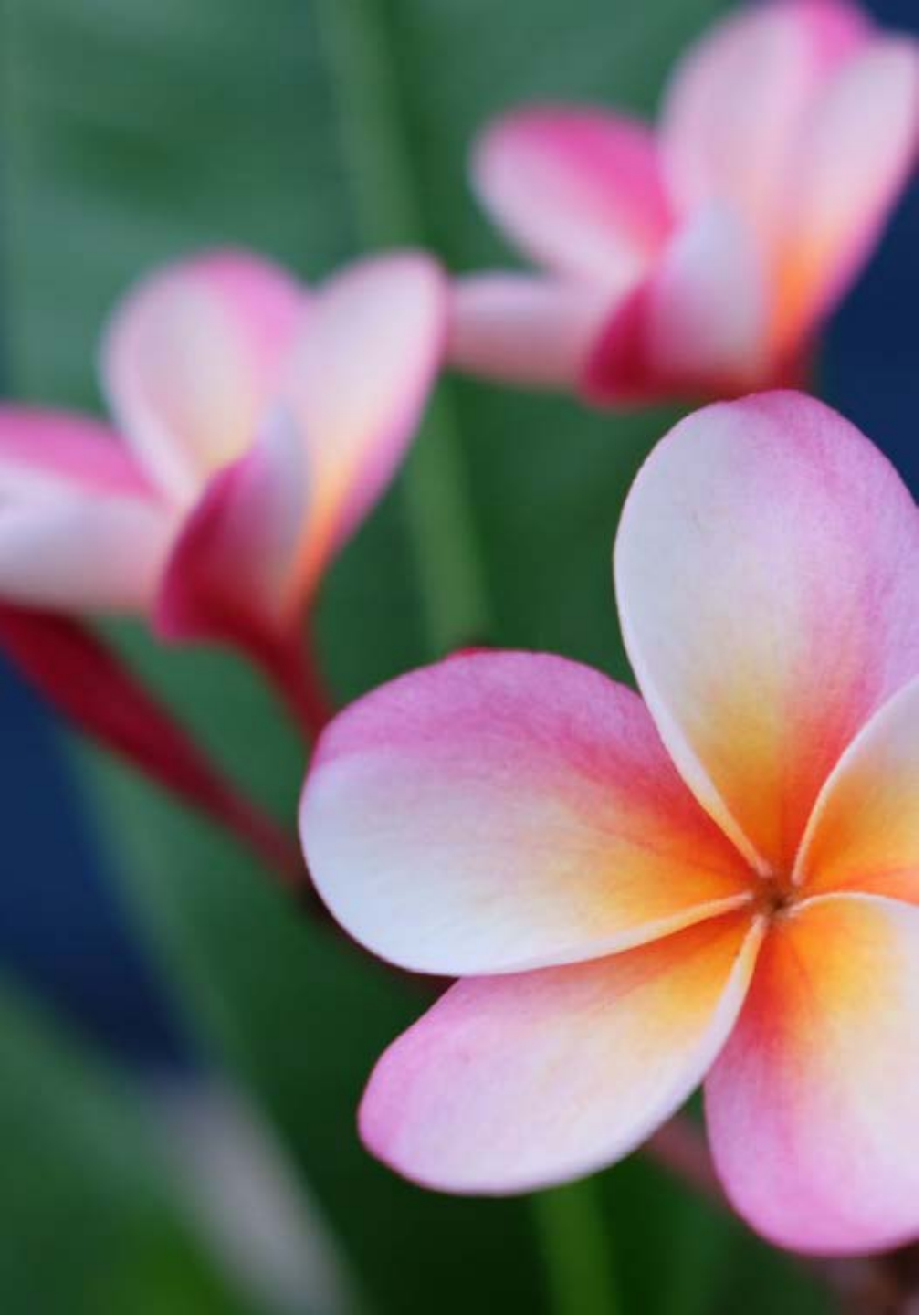
Ethnic variations exist – risk for DM and pre-DM increases at lower BMI for Asian ethnicities, e.g.



Weight Stigma

- Weight stigma refers to individuals' social devaluation and denigration due to their excess body weight, leading to negative attitudes, stereotypes, prejudice, and discrimination.
- This issue has escalated, with a two-thirds increase over the past decade
- Its prevalence now rivals discrimination based on race and age, yet it lacks comparable legal and social safeguards

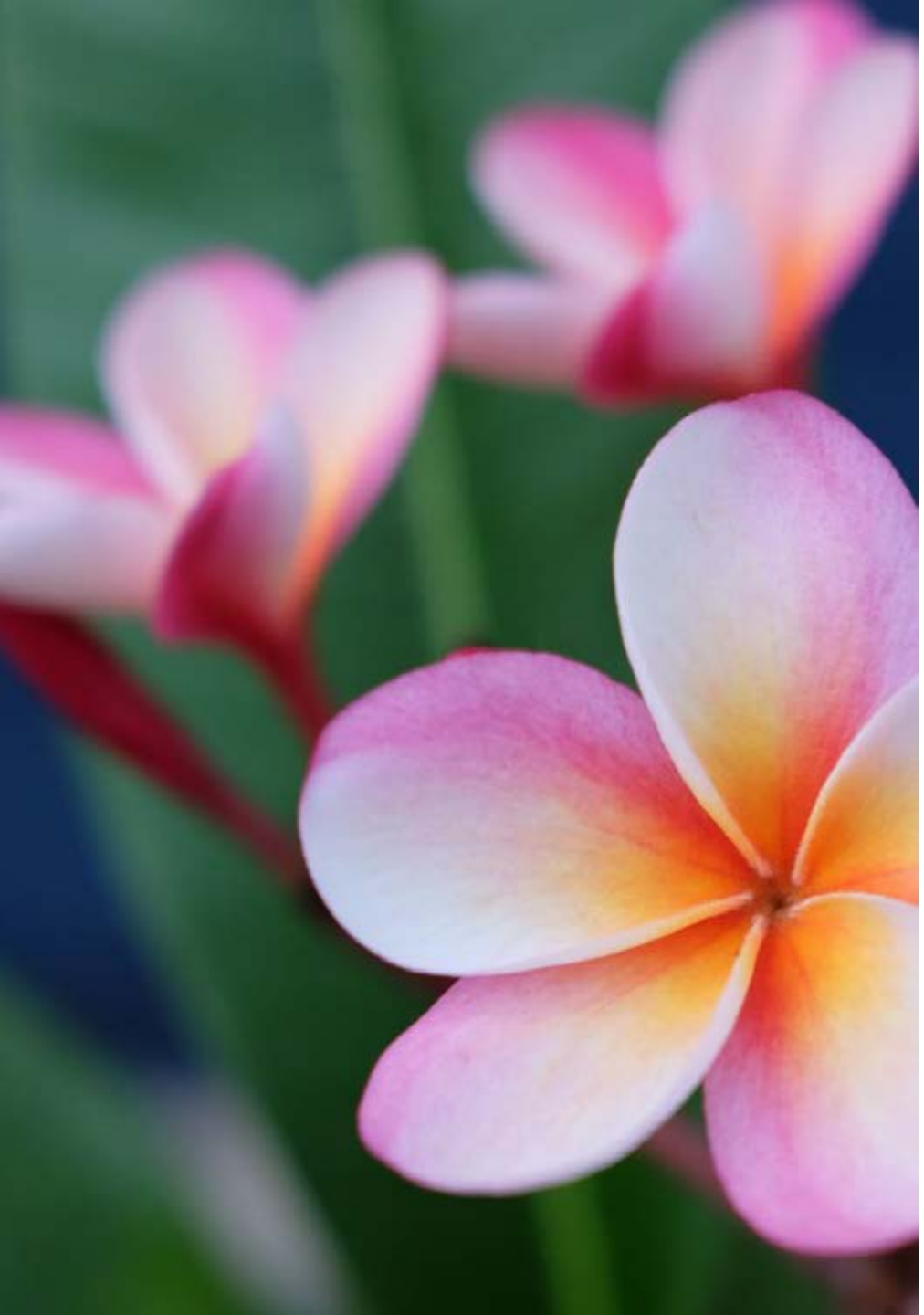
Rubino F, et al, Nat Med. 2020 Apr;26(4):485-497
Puhl, RM. Am J Public Health. 2010 Jun;100(6):1019-28
Andreyeva T. Obesity (Silver Spring). 2008 May;16(5):1129-34



Stigma in Health Care

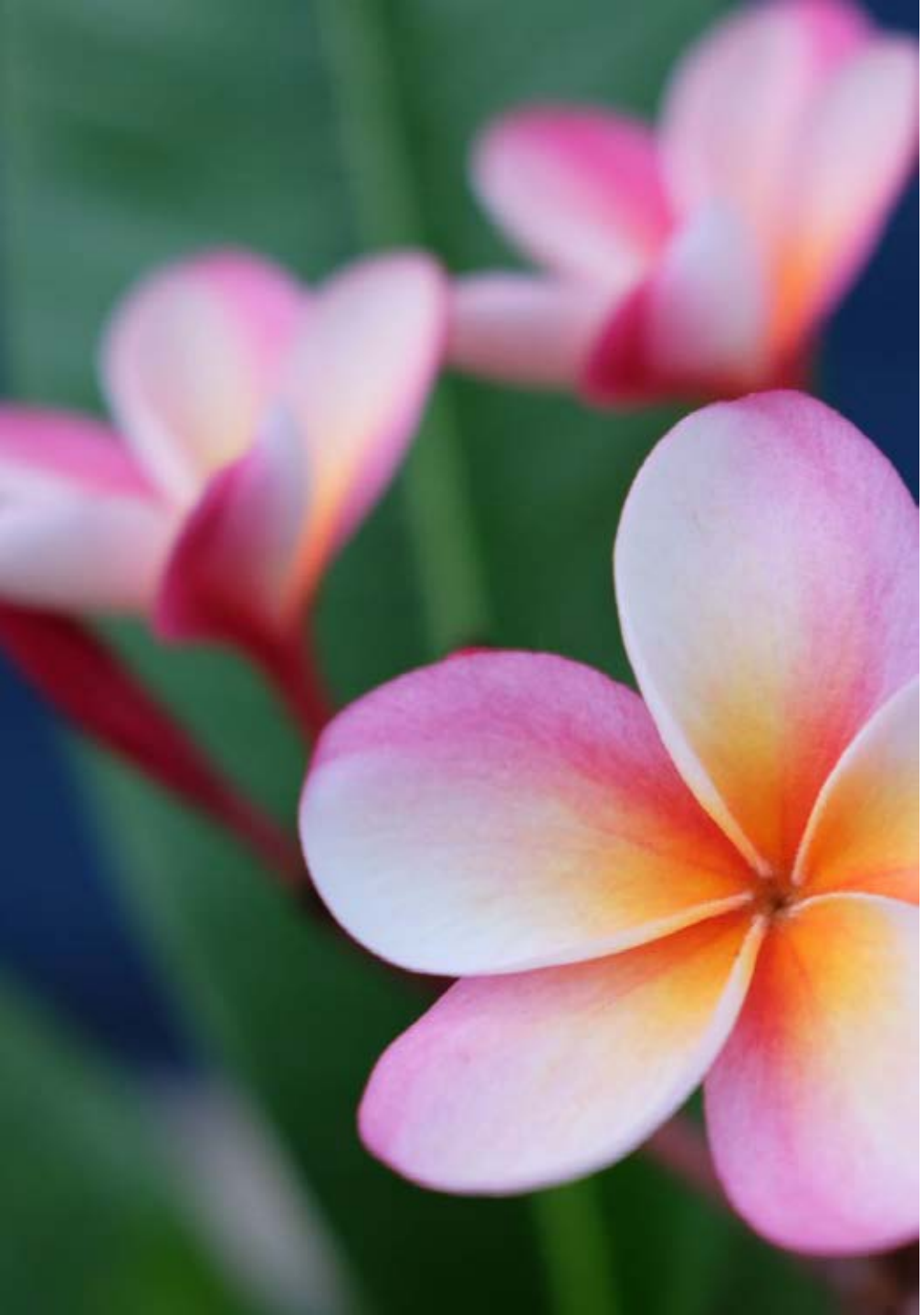
- A large-scale study comprising 13,996 individuals across various countries found that at least 66% of those experiencing weight stigma also encountered it from healthcare providers.[16]
- Another study involving 1697 individuals with a BMI >25 reported suboptimal treatment in 48% of cases, with more than 50% noting insensitive and judgmental comments from various healthcare professionals.[17]
- Research has shown primary care providers spend less time during office visits with obese individuals as they view them as noncompliant patients.[18]

Puhl RM, et al. PLoS One. 2021;16(6):e0251566
Sagi-Dain L, Echar M, Paska-Davis N. Isr J Health Policy Res. 2022 Jan 31;11(1):5
Phelan et al. Obes Rev. 2015 Apr;16(4):319-26..

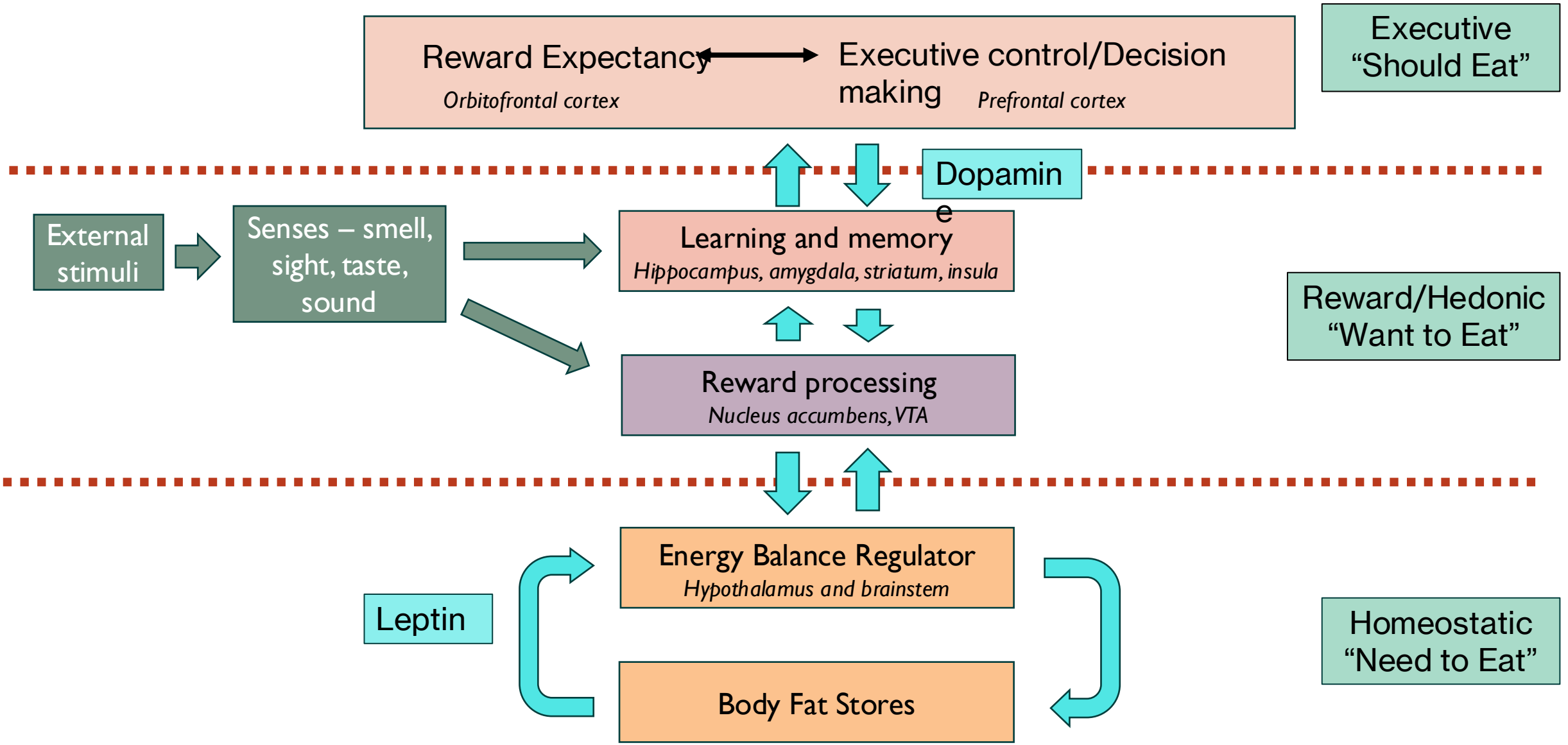


Clinical significance

- Physical and psychological consequences for this group.
- Individuals with obesity tend to **internalize this stigma**, reducing confidence in their ability to lose weight
- Children and young adults with obesity often face **weight-based bullying and discrimination**
- Increased risk of depression, anxiety, suicidal thoughts, and low self-esteem
- **Negatively impacts individuals' eating patterns:** increased their calorie consumption, more frequent binge eating and reduced physical activity
- More likely to **cancel appointments and avoid future preventative health care**



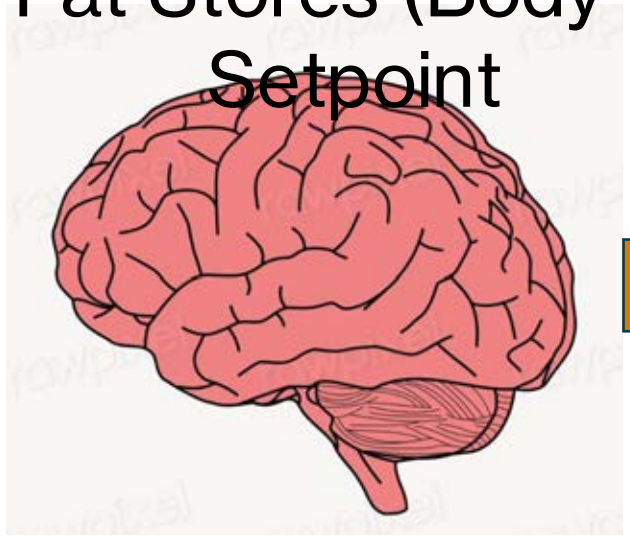
Biology of obesity



Adapted from Berthoud. PHYSIOLOGY 23: 75–83, 2008

Body Fat Stores (Body Weight) Setpoint

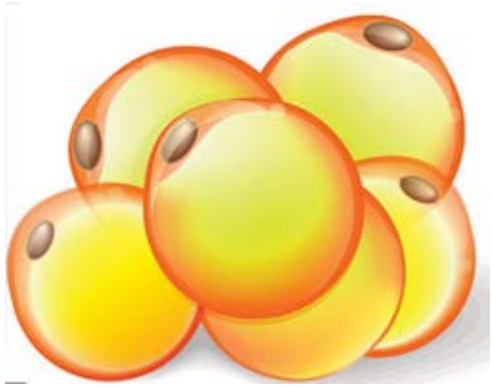
"LIPOSTAT"



Leptin

Energy intake

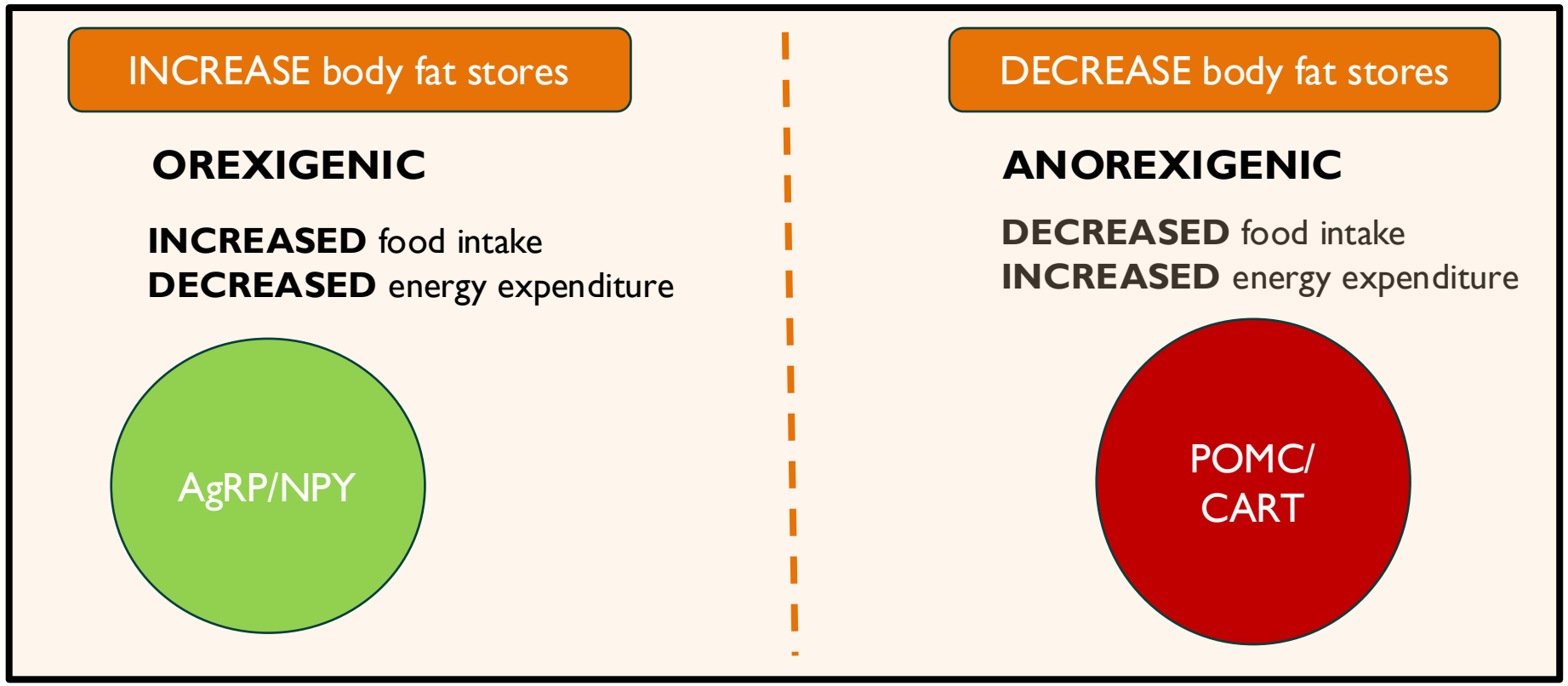
Energy expenditure



Body Fat

Adapted from Guyenet S. The Hungry Brain. 2017. Flatiron

Arcuate Nucleus
Hypothalamus



AgRP = agouti-related peptide
NPY = Neuropeptide Y
POMC = Pro-opiomelanocortin
CART = cocaine- and amphetamine-regulated transcript

Zheng H and Berthoud H. Physiology 23: 75-83. 2008

DECREASED leptin

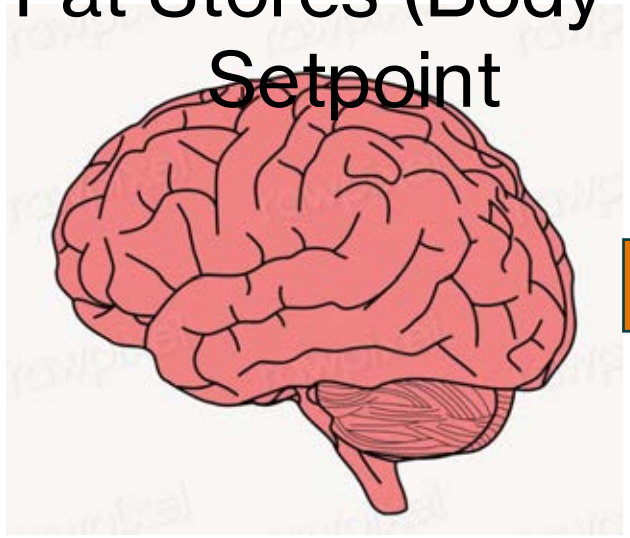
DECREASED body fat stores

INCREASED leptin

INCREASED body fat stores

Body Fat Stores (Body Weight) Setpoint

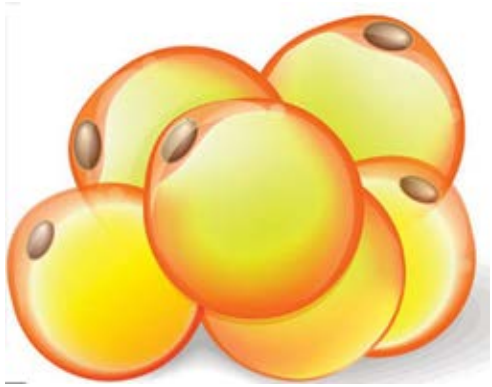
"LIPOSTAT"



Leptin and Ghrelin

Energy intake
"eat less"

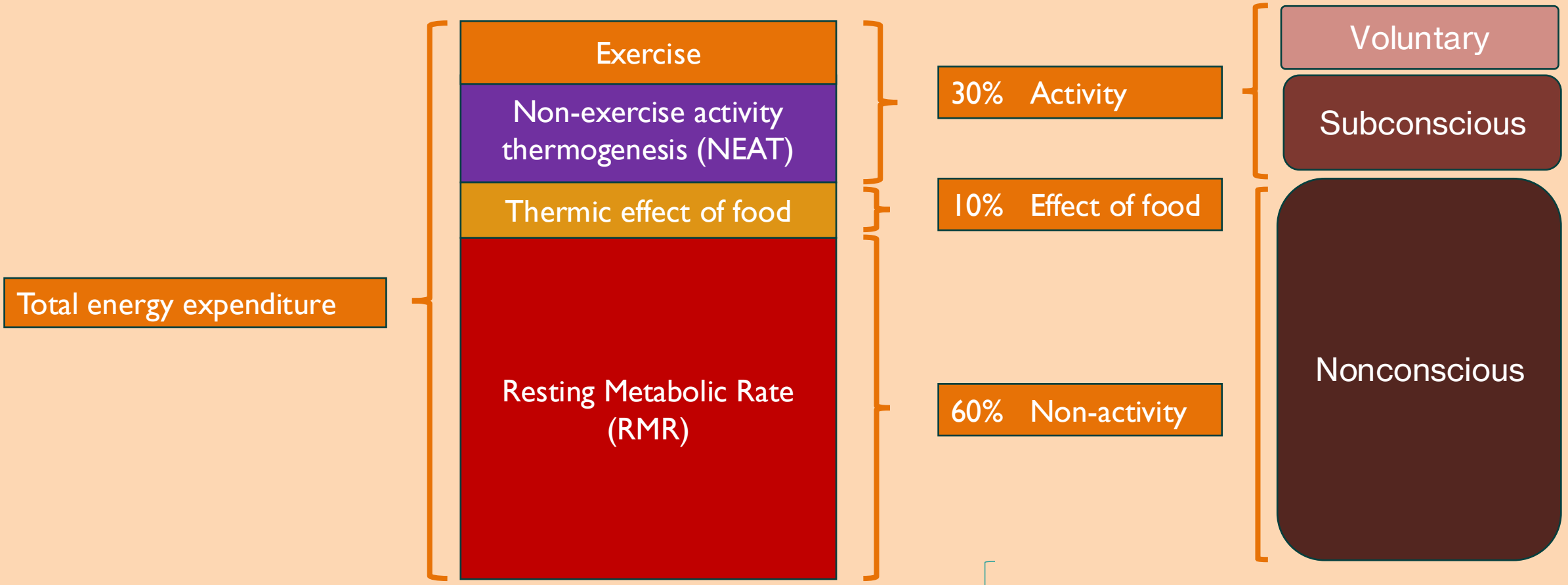
Energy expenditure
"exercise more"



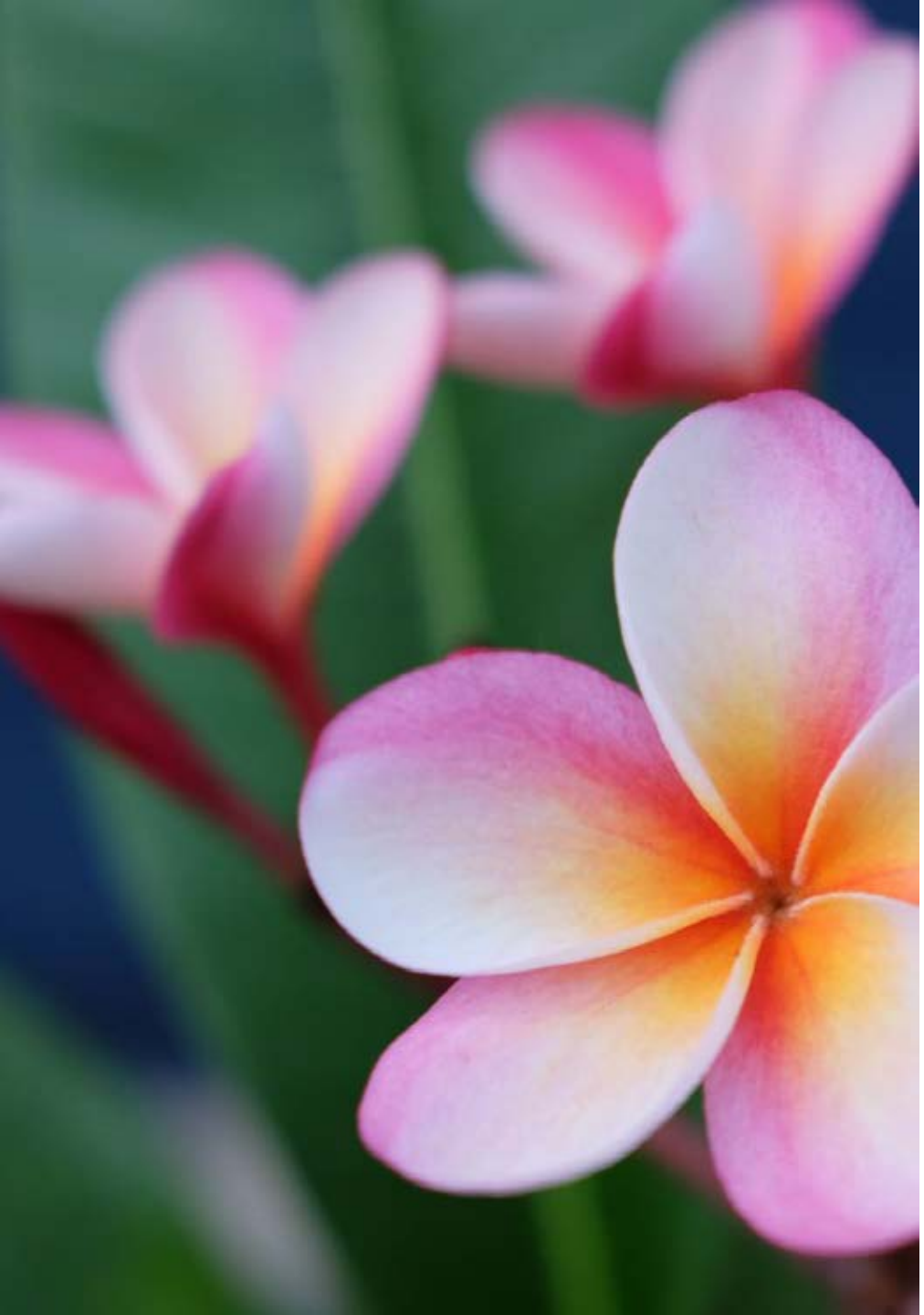
Body Fat

Adapted from Guyenet S. The Hungry Brain. 2017. Flatiron

Components of energy expenditure



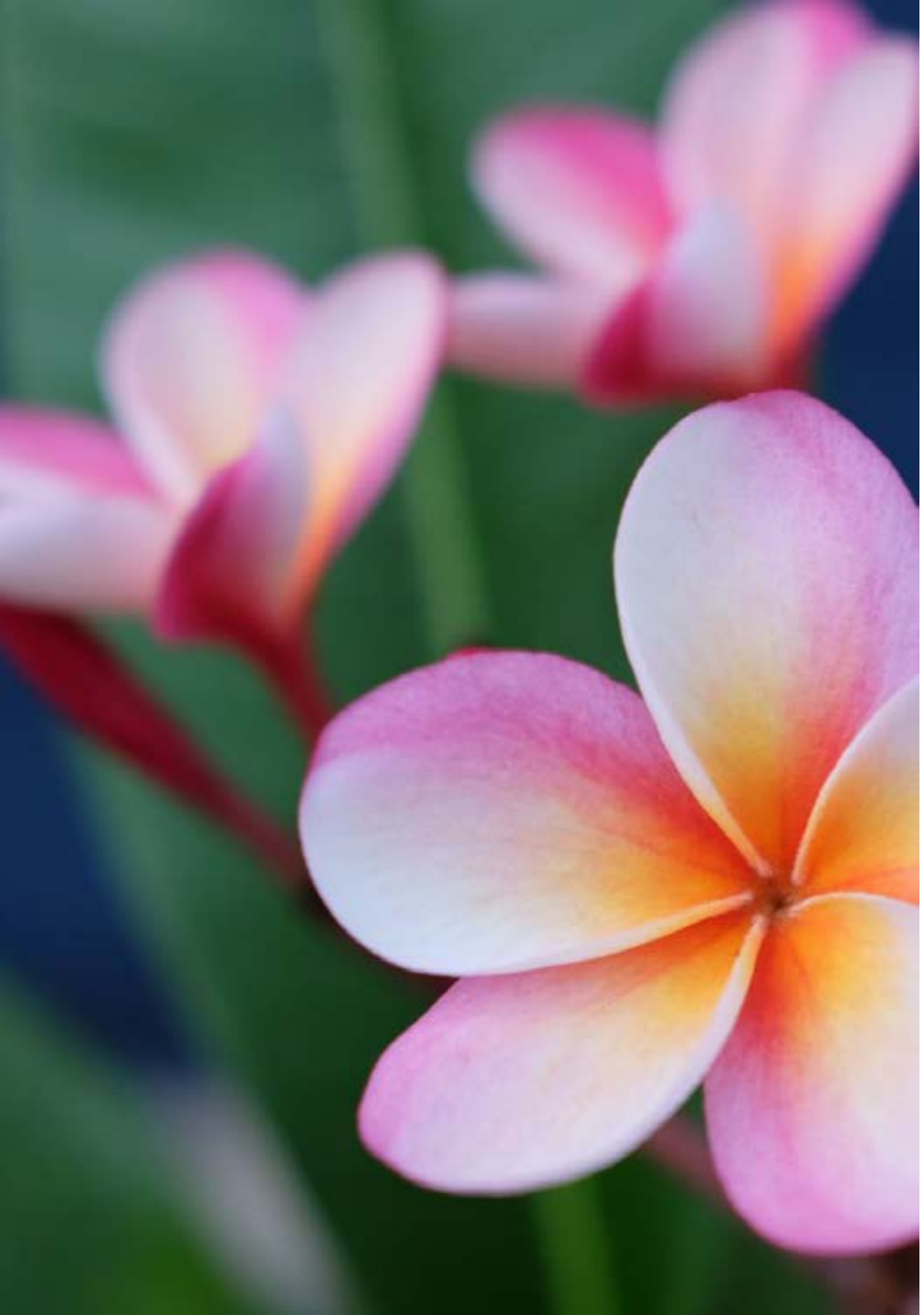
Adapted from The Obesity Algorithm 2018. Obesity Medicine Association



Resting metabolic rate

- Energy needed to support basic metabolic and cellular processes
- Makes up 60% of our daily energy expenditure
- RMR of fat free body mass > RMR of body fat mass
- Decreases with age

Non-Exercise Activity thermogenesis (NEAT)



Non-exercise activity thermogenesis (NEAT)

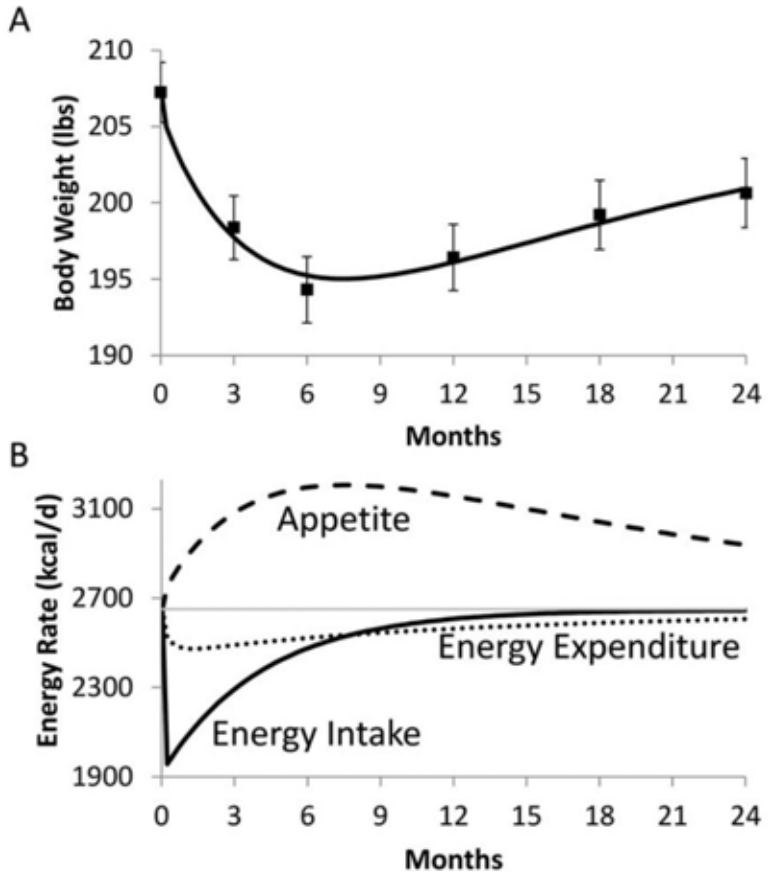
- Activities of daily living
- Makes up ~ 20% of total energy expenditure
- Often the most variable aspect of energy expenditure (can vary 3- to 10-fold between individuals)
- Area for intervention in lifestyle and behavioral management

Homeostatic changes in response to weight loss

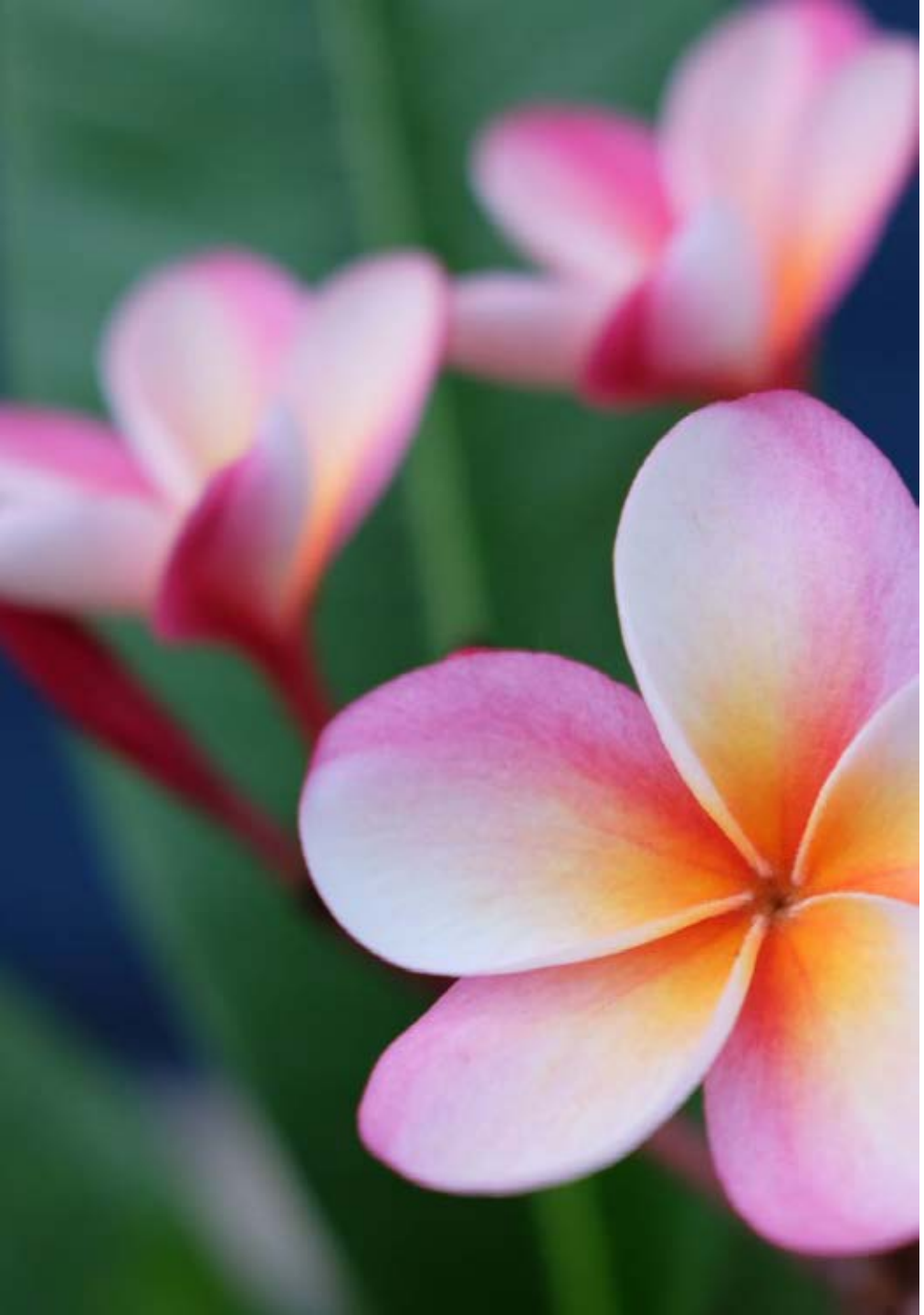
Significant increase in appetite

Increasing levels of energy intake

Drop in energy expenditure

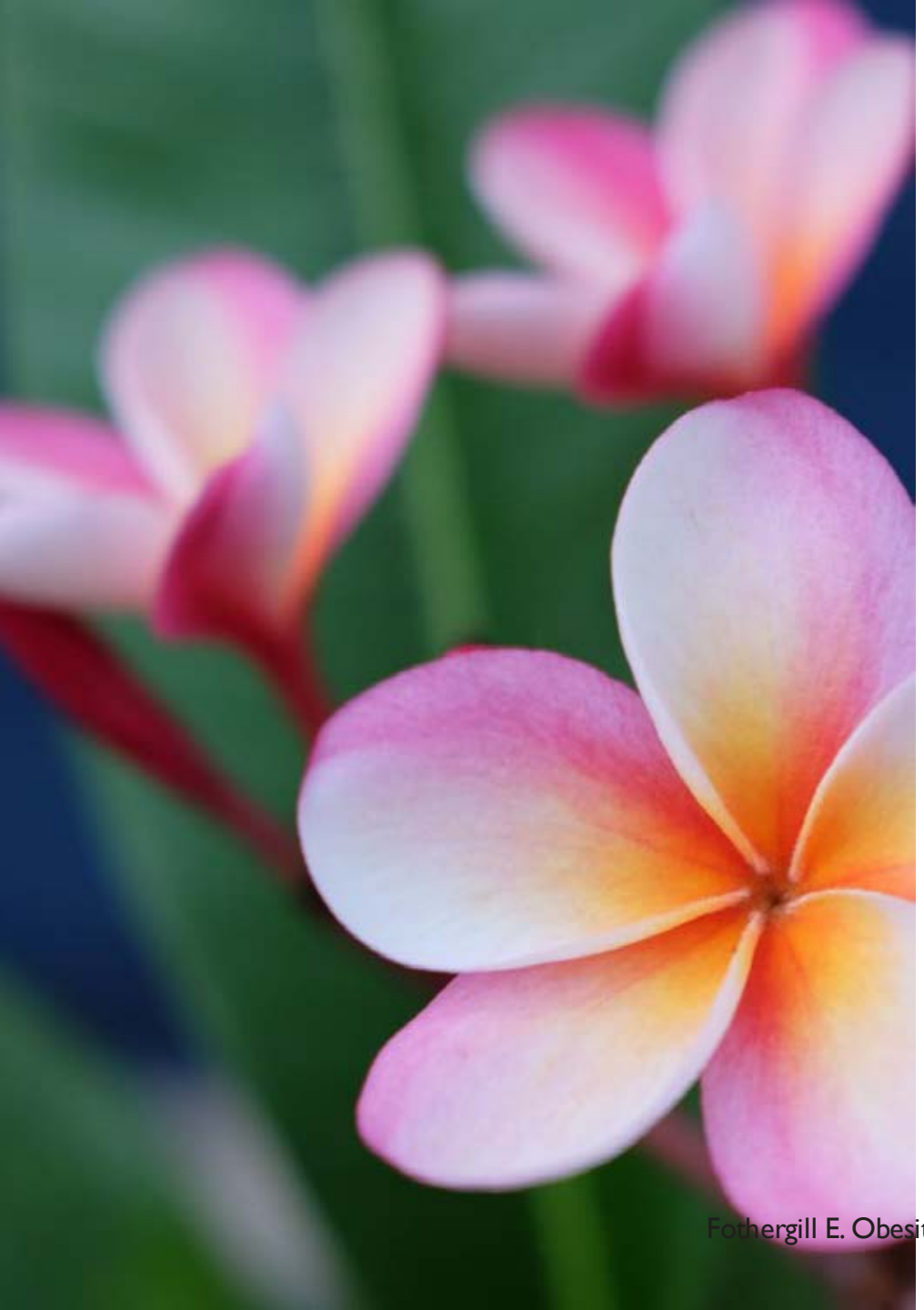


Polidori, et al. Obesity (2016) 24, 2289–2295



metabolic adaptation

- Reduction in energy expenditure below predicted levels in response to weight loss
- Observed reduction in metabolic rate is 10-15% below predicted levels
- Persists in those who maintain their weight loss over a year
- Physiologic defense against weight loss

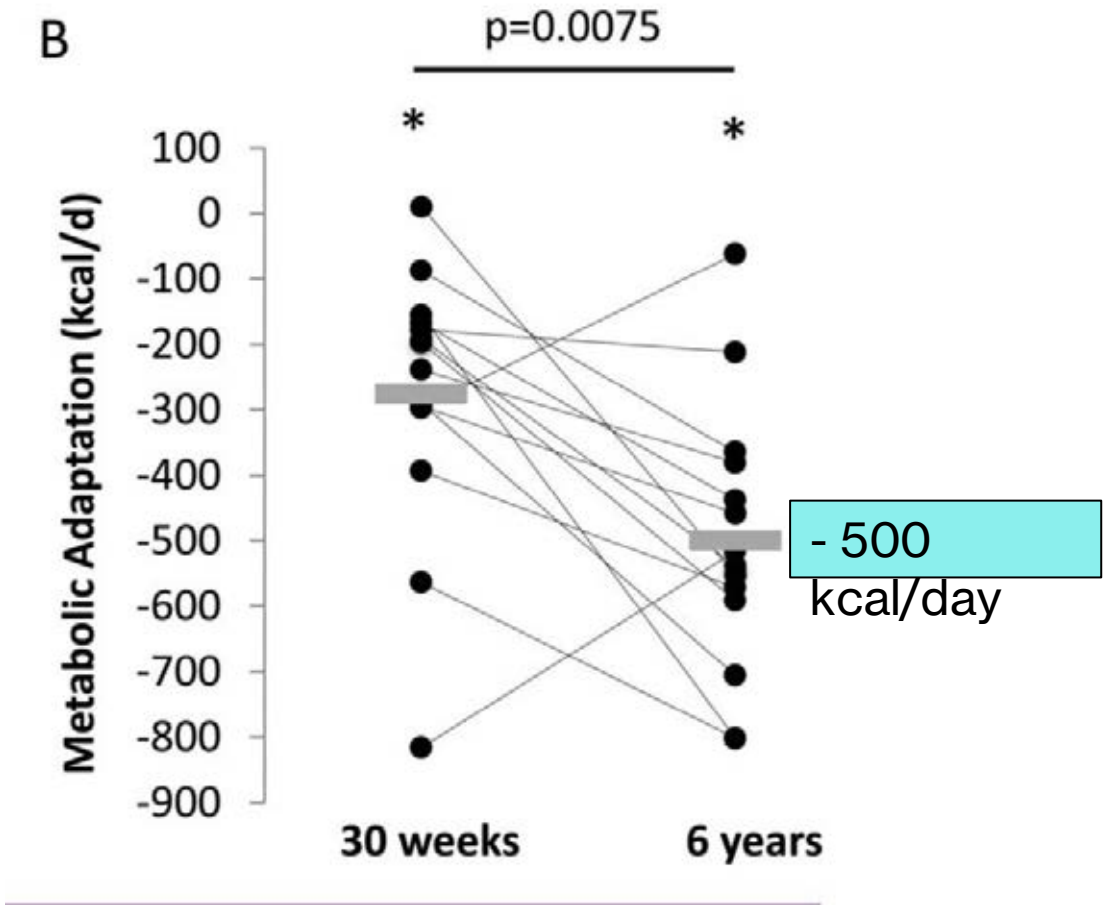


Long-term metabolic adaptation

The Biggest Loser

Fothergill E. Obesity (2016) 24, 1612-1619

Long-term metabolic adaptation

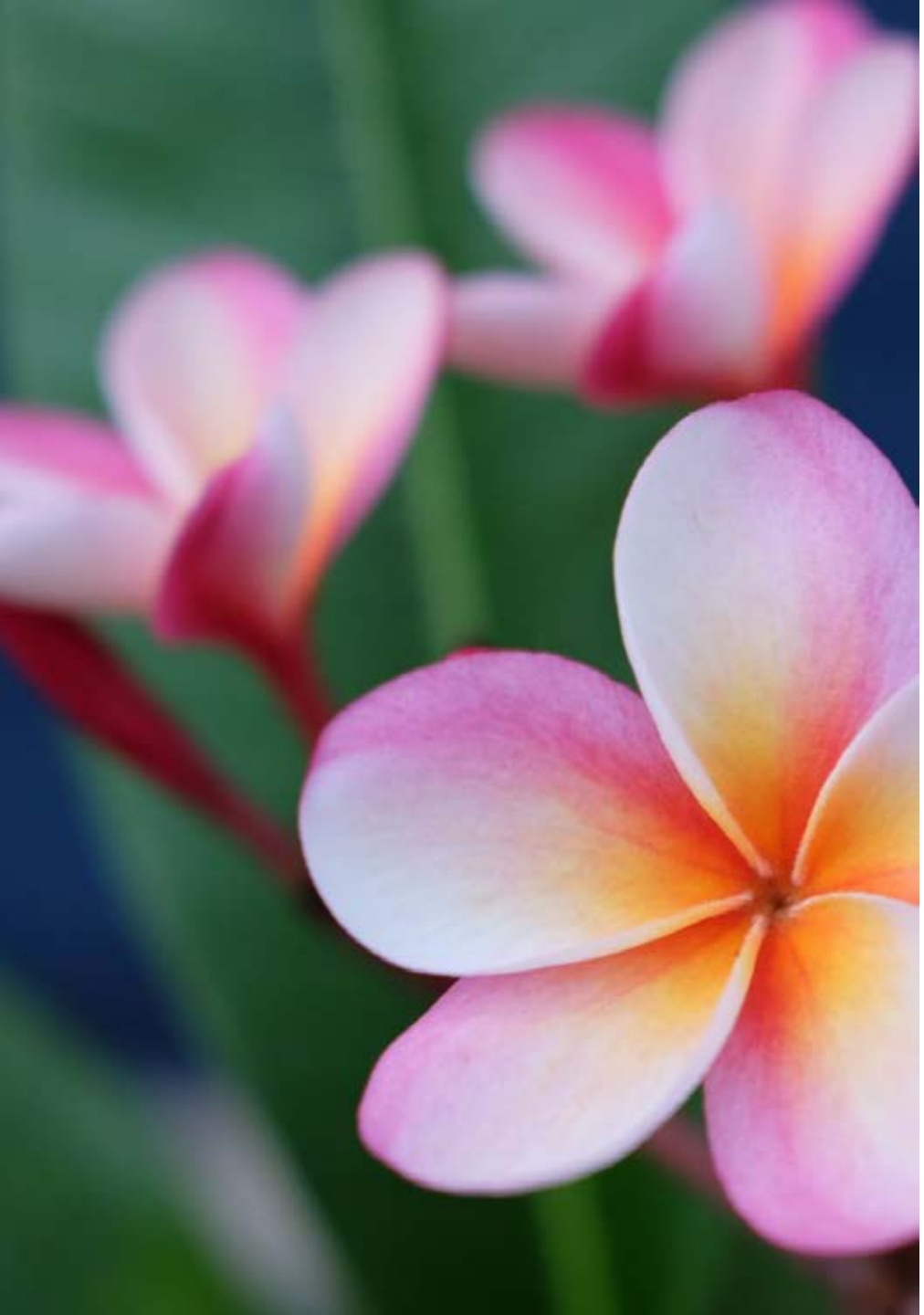


- 500 kcal/day

At 6 years, most had regained a significant amount of weight

At 6 years, there is still significant metabolic adaptation

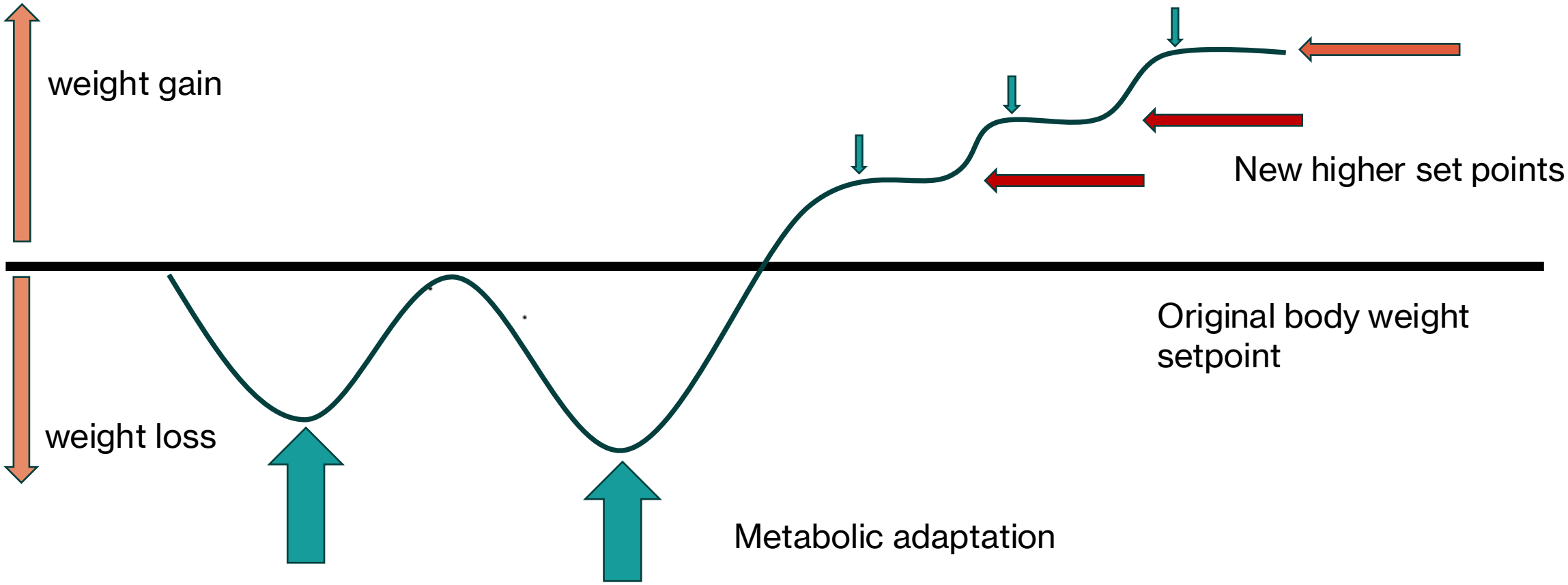
Fothergill E. Obesity (2016) 24, 1612-1619



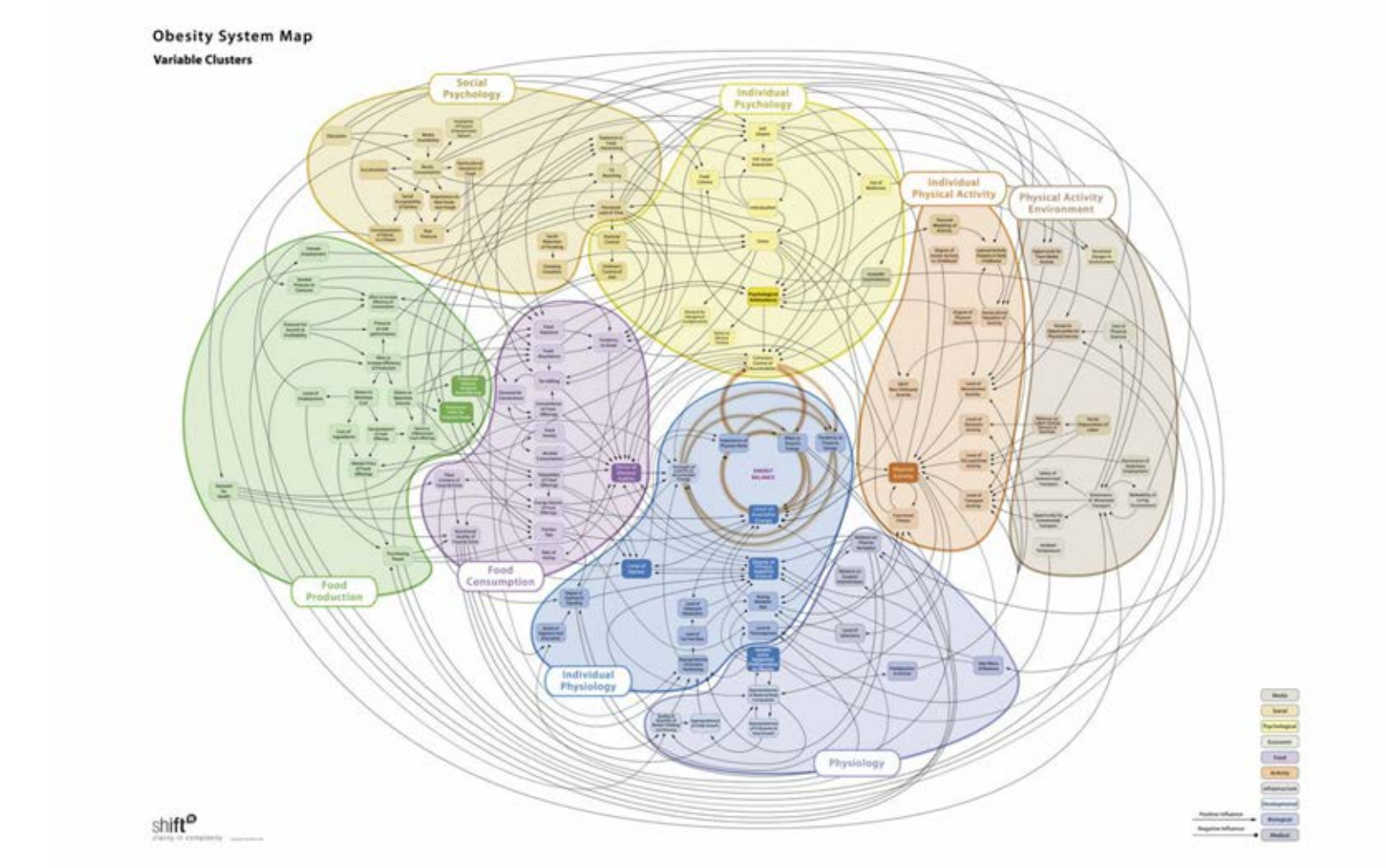
“Long slow gain in the same direction”

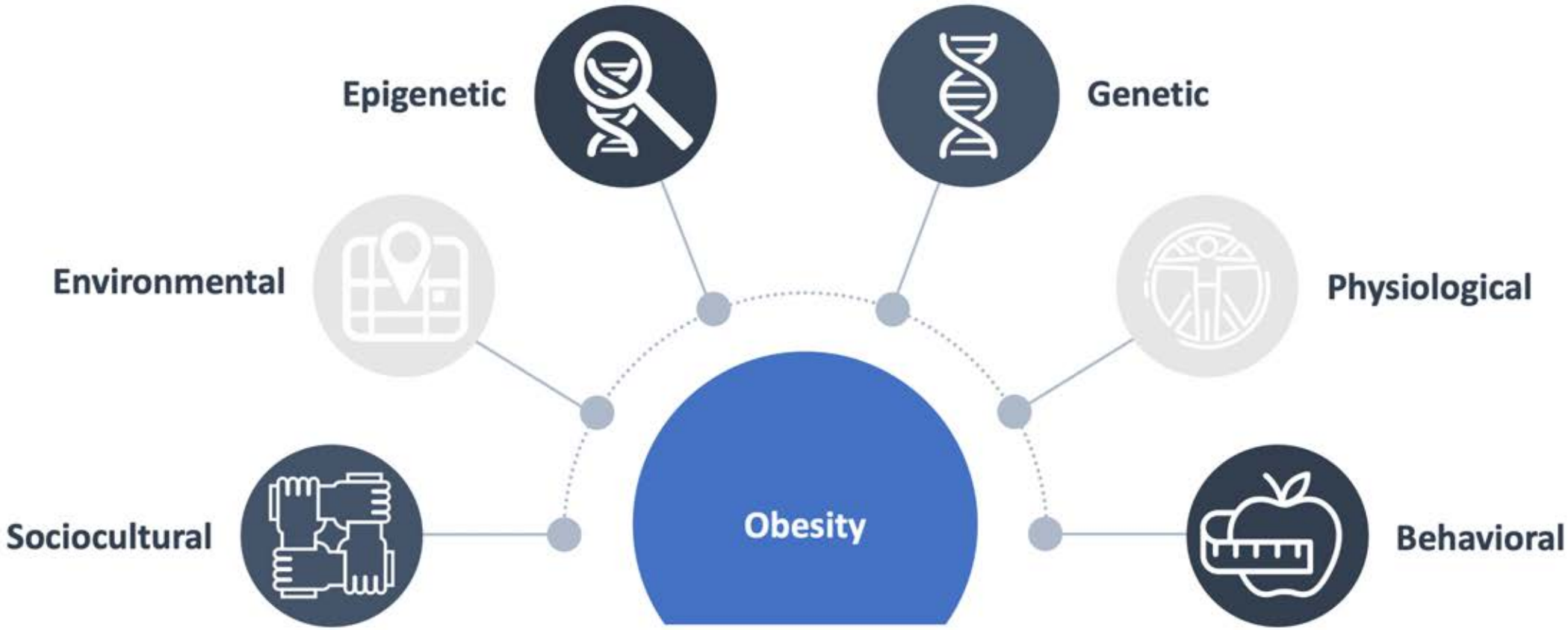
- Many adults in the U.S. slowly gain weight at an average of 1-2 pounds per year
- For the average U.S. adult, this turns out to be an energy excess of 0.5 – 1.0% per year
- This means that a functional homeostatic system that maintains energy balance with 99% - 99.5% accuracy can still allow slow accumulation of weight over time

MORE AGGRESSIVE defense AGAINST WEIGHT LOSS



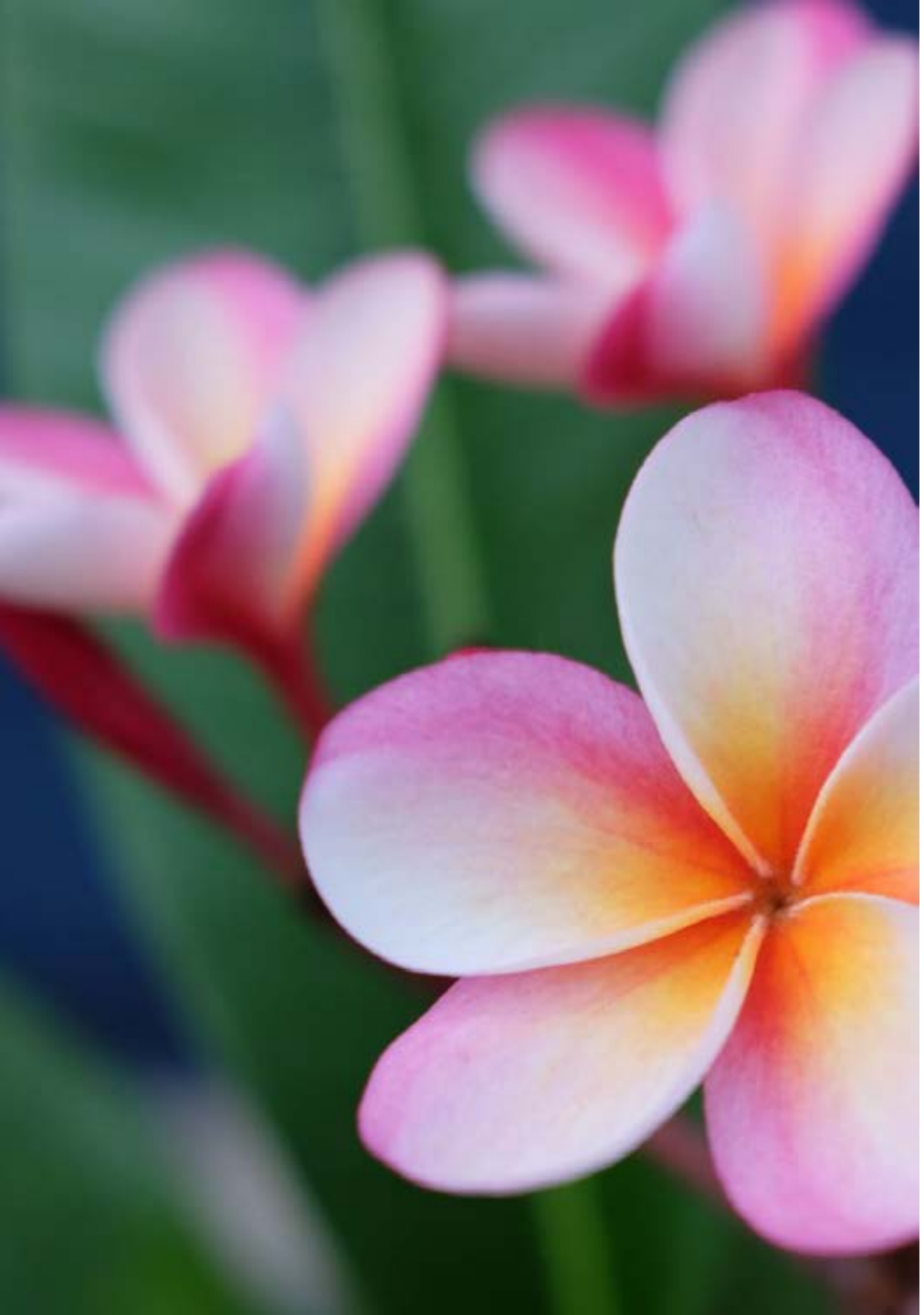
CAUSES ARE likely complex and multifactorial





Obesity is driven by the interaction of multiple factors beyond lifestyle, many of which are outside an individual's control.

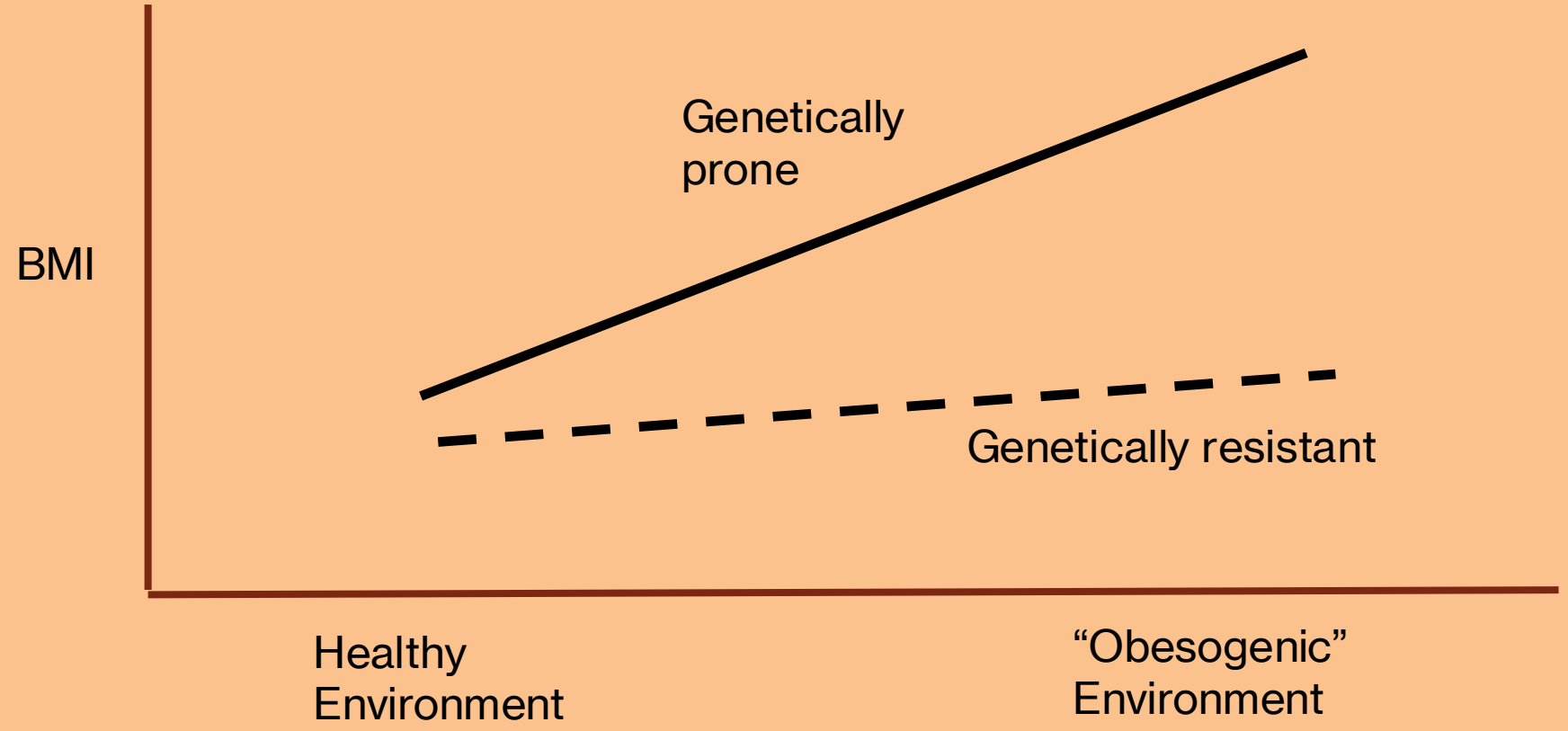
Source: UConn Rudd Center for Food Policy & Health



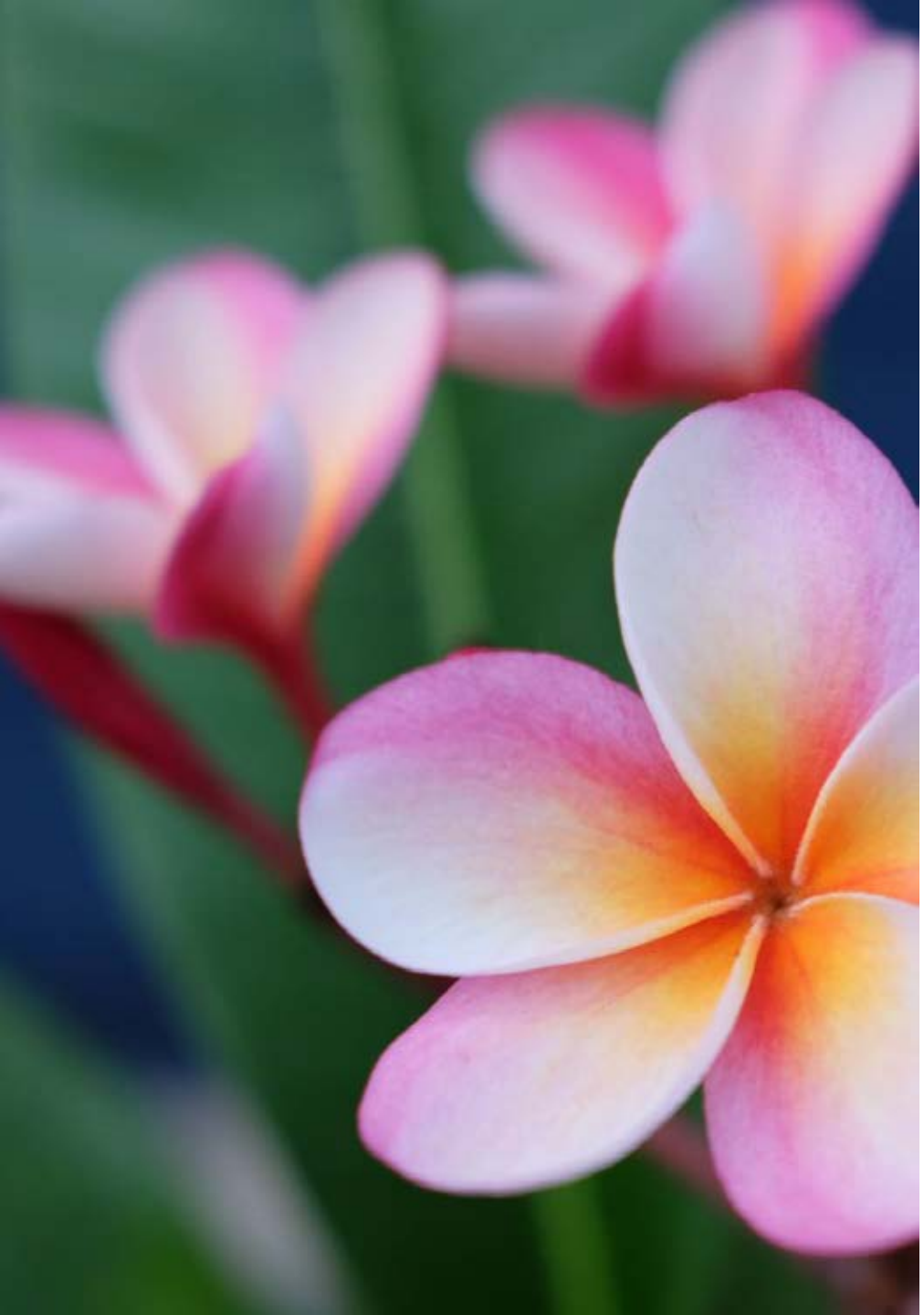
genetics

- Genetics of obesity is predominantly polygenic involving a number of different alleles
- Genetics influences multiple aspects involved in obesity
  - Eating behavior - appetite, food preference, sensitivity to food reward, strength of impulse control
  - Metabolism – energy expenditure, fat storage

Interaction of environment and GEnetics

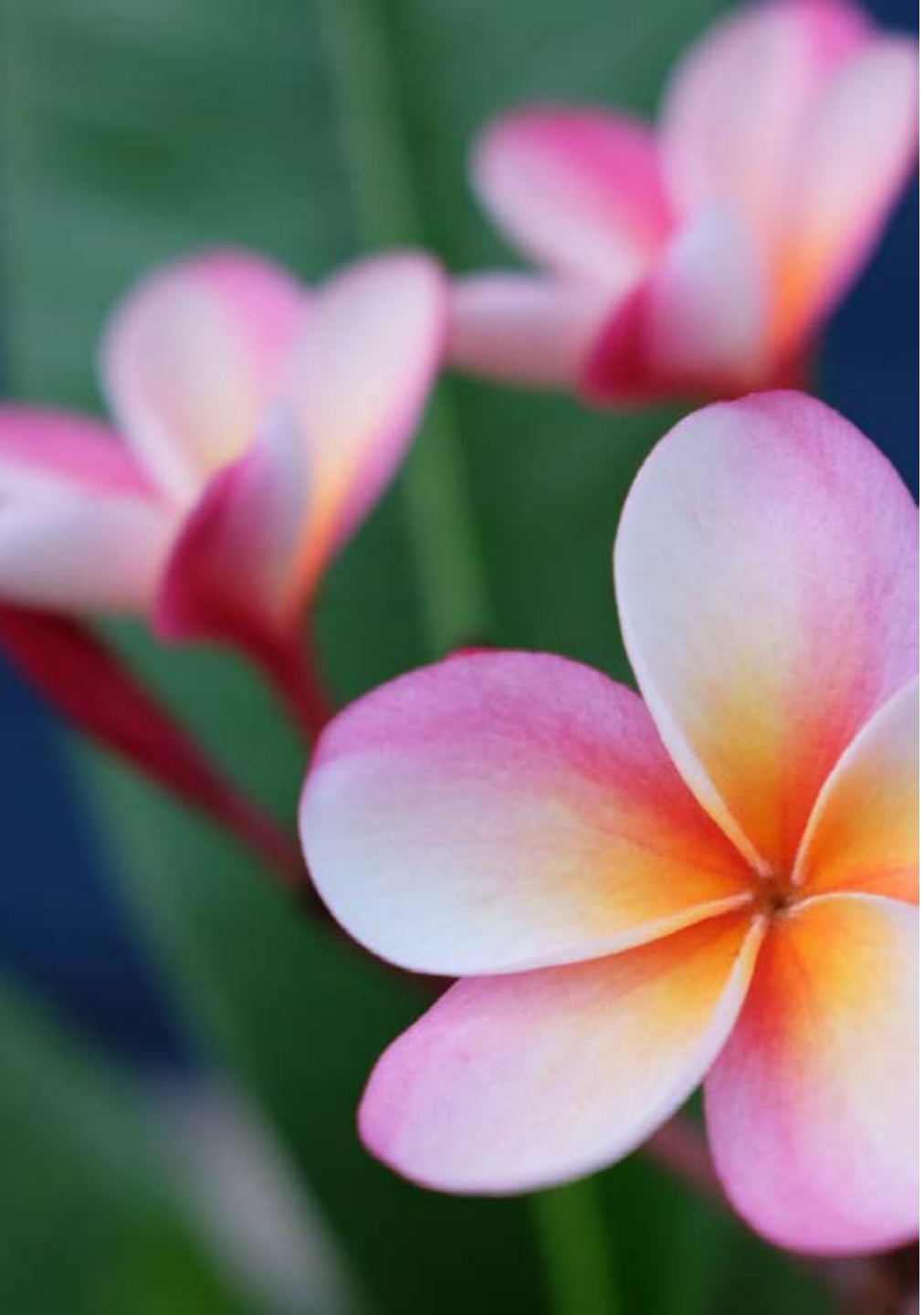


Adapted from Allyn M. Volume: 51, Issue: 6, Pages: 1426-1434



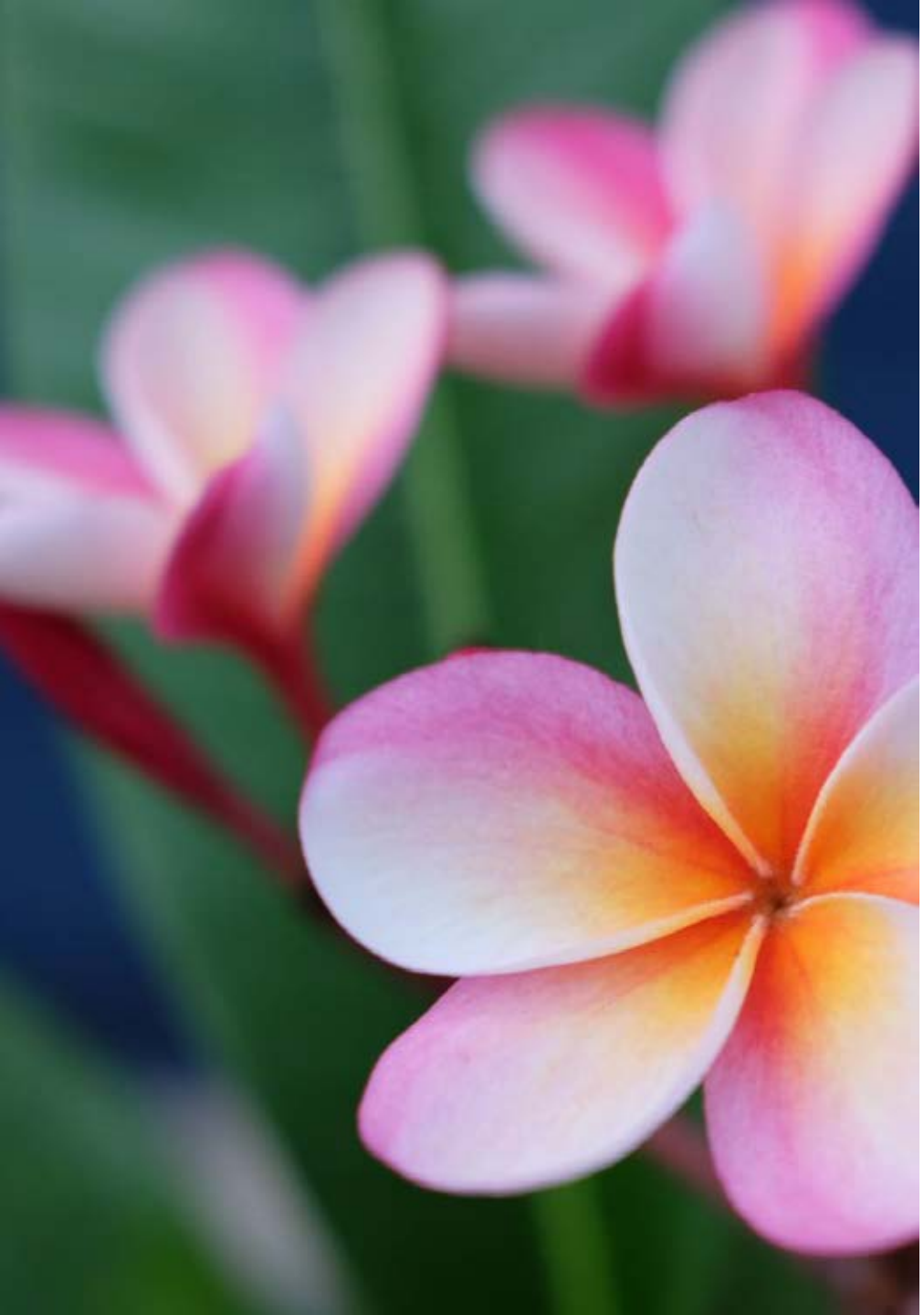
Behavior Therapy – why do people eat the way they eat?

- Strong physiologic forces (metabolic adaptation, certain disease states)
- CNS signaling (5 senses, hunger sensation)
- Mental stress
- Timing and Emotions (”It’s noon, time to eat”)
- Environment (availability of food, type of food)
- Information/Knowledge gap
- Reward
- Lack of time/resources
- Eating disorders/disordered eating



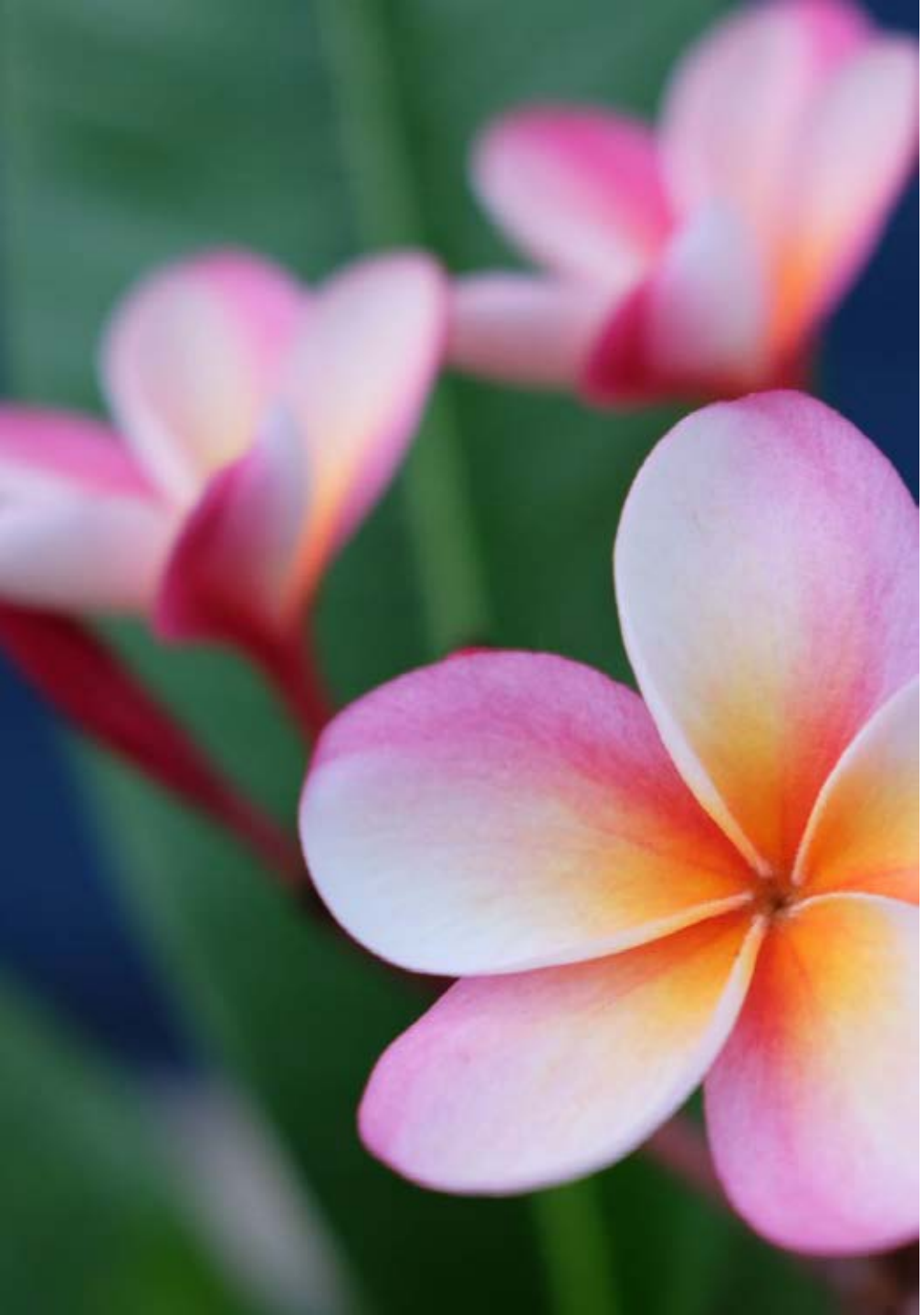
Behavior Therapy – why do people exercise the way they exercise?

- Physiologic (health conditions, limitations from pain and fatigue)
- Environment (automation, lack of access in built environment)
- Lack of time and resources (competing priorities, memberships, equipment)
- Disinterest (emphasis in childhood, don’t like to sweat)



Behavioral Modification for Weight Management

- Social Support
- Goal Setting
- Stress Management
- Coping Skills
- Problem Solving
- Self-monitoring
- Stimulus Control and Environmental Cues
- Cognitive Restructuring and Thought Cues
- Choice Architecture
- Automatic Thoughts
- Relapse Prevention



Mood and Psychological status is crucial

Mood comes first, then weight management.

… your mental health is far more important than your weight.

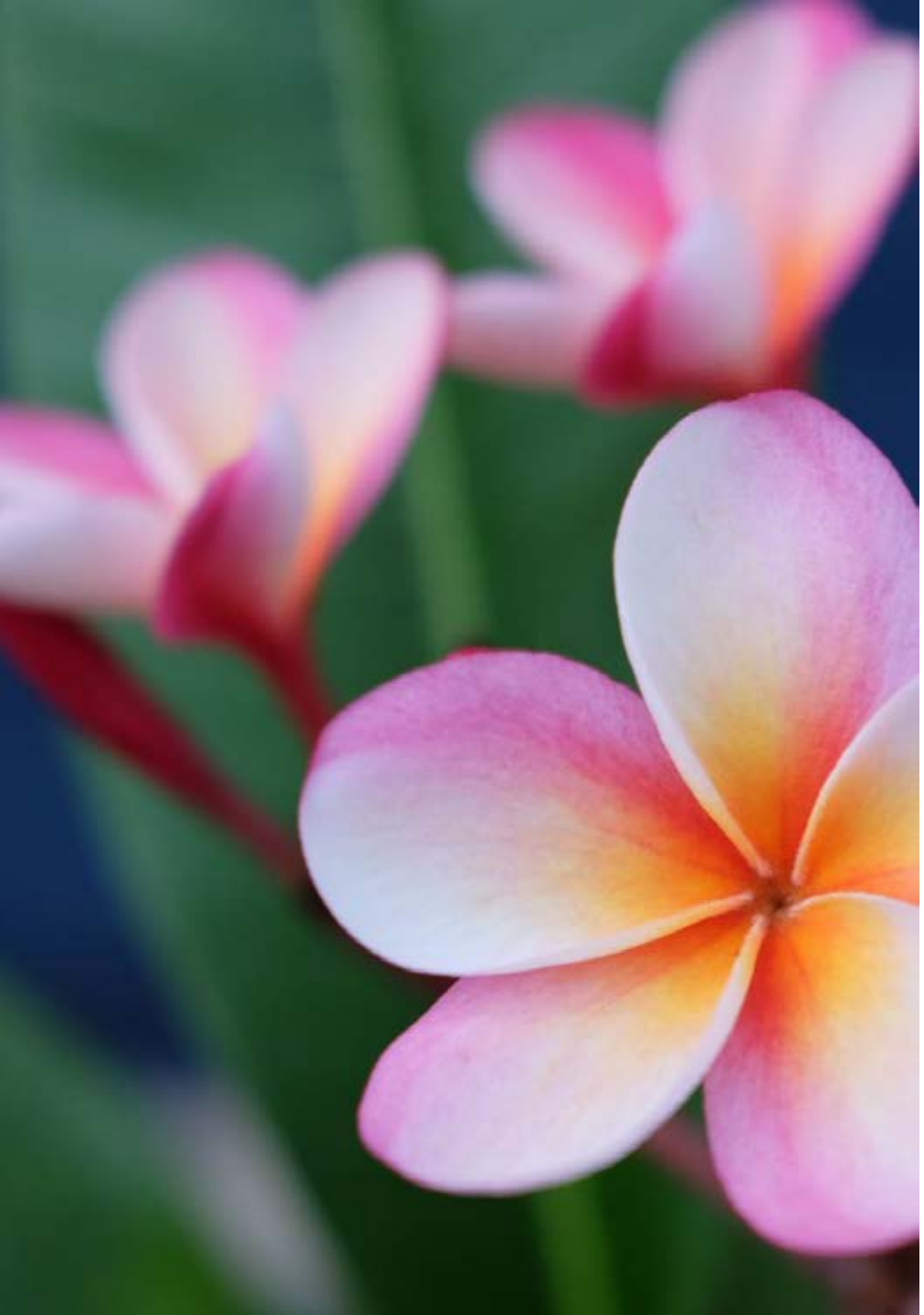
… **mental health should be your first priority.**

Freedhoff. Jan 2017

Nutritional therapy

Which OF THE FOLLOWING DIETS LEADS TO THE BEST LONG-TERM WEIGHT LOSS?

1. Low fat diet
2. Keto diet
3. Paleo diet
4. American Heart Association Diet
5. Dash Diet
6. Plant based diet
7. Mediterranean diet
8. All of the above
9. None of the above

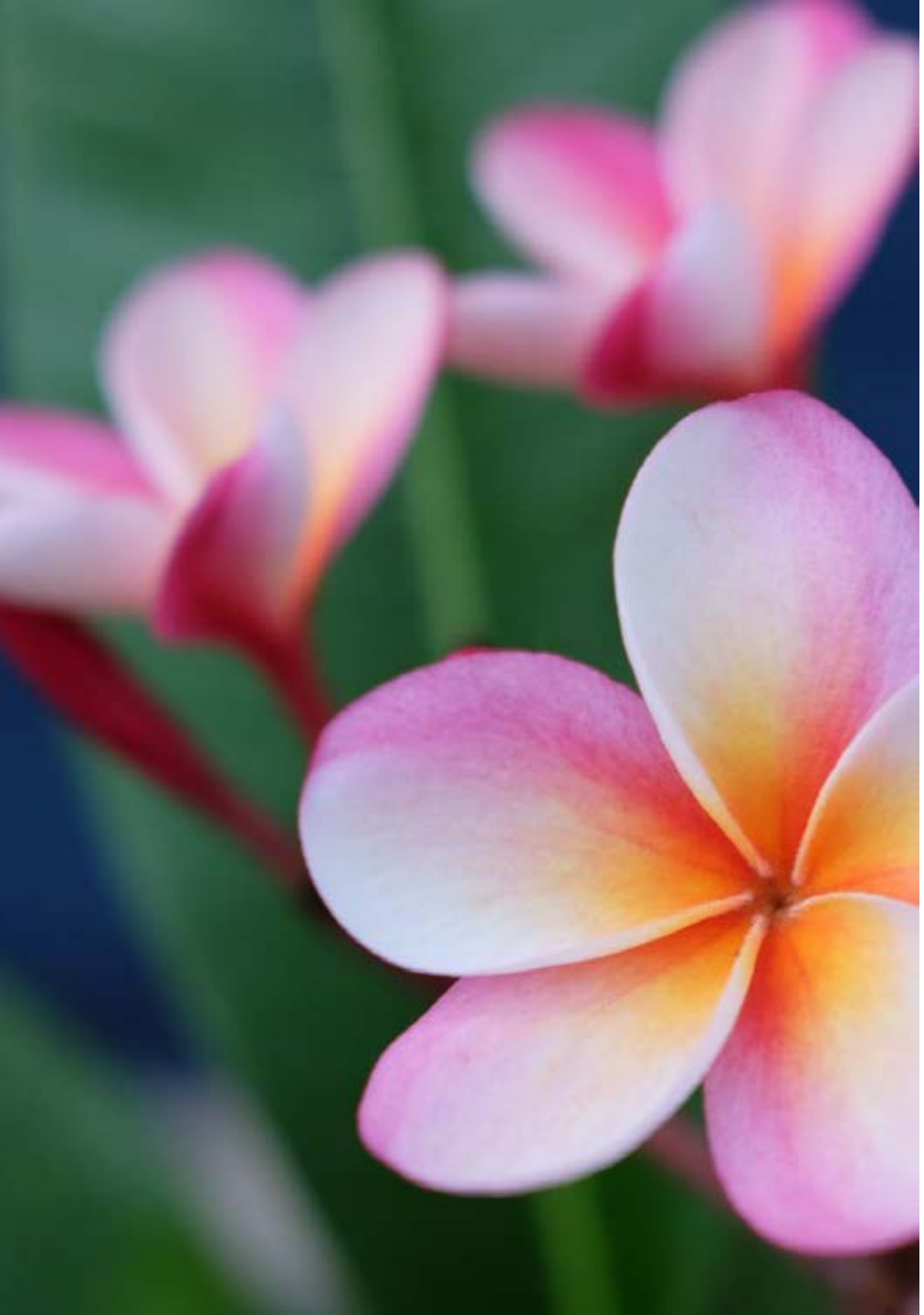


Diet (the noun) therapy

"Inconvenient truth of healthy choices and portion control is that it does require effort, but if effort is perceived as suffering, it's not going to last.

No diet works for everyone and Every Diet works for someone. Temporary efforts will only yield temporary outcomes no matter how exciting that outcome might be in the short term. What counts is sustainable adherence, it has to "fit" you."

Freedhoff. Weighty Matters. 2015



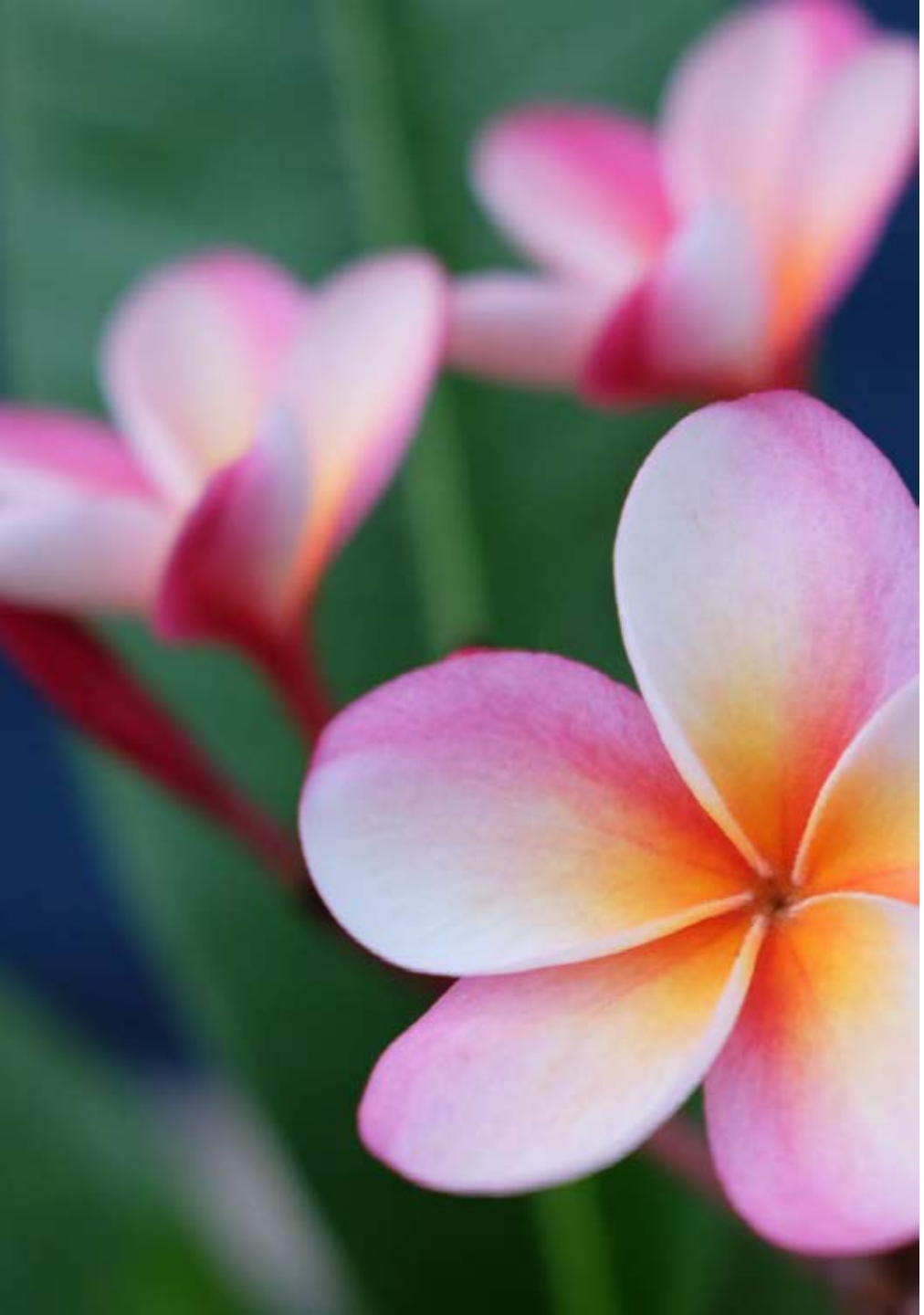
Intermittent fasting/Eating timing

- Another tool/approach
- Several types, work similarly
- Does it fit with their natural eating pattern?
- “might help, won’t hurt”
- Overall, eating for fewer hours, eating earlier in the day, and eating fewer meals leads to modest weight loss (3-4#)

Activity prescription

What is the Most Effective Exercise for Weight Loss?

1. Running
2. Walking
3. Swimming
4. Cross-training
5. Intermittent intensity exercise
6. All of the above
7. None of the above



- **Exercise is NOT a good predictor of weight loss**

"…many still wrongly believe that obesity is *entirely* due to lack of exercise." Malhotra et al. *Br J Sports Med* 2015

" … increased physical activity is largely ineffective as a *stand-alone* weight loss intervention …" Schwartz. *Endocrine Reviews* 2017

"Regular exercise is key in preventing excess weight gain in the first place - and in keeping the pounds off after someone loses weight.

Church, Pennington Biomedical Research Center. 2017

How many minutes of walking will it take to burn off one donut?

A. 15-30 minutes

B. 30-60 minutes

C. 60-90 minutes

D. 90-120 minutes

*Based on 150# person walking 3 mph

ACSM Position Stand, appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults

All cited at MODERATE aerobic activity – 4 mph walk ~ 100 steps per min

Fitness	
At least 150 min walking/wk	1000 kcal/wk
Prevention Weight Gain	
180 min/wk	1200 kcal/wk
To Lose Weight	
250 min/wk PLUS diet	2000 kcal/wk
Prevention of Weight Regain after loss	
300 min/wk	3000 kcal/wk

In Elderly Patients, Exercise Beats Weight Loss:

RCT of diet, exercise training, or both in patients age ≥ 65 and BMI ≥ 30 kg/m². Primary Outcome = modified Physical Performance Test (PPT):

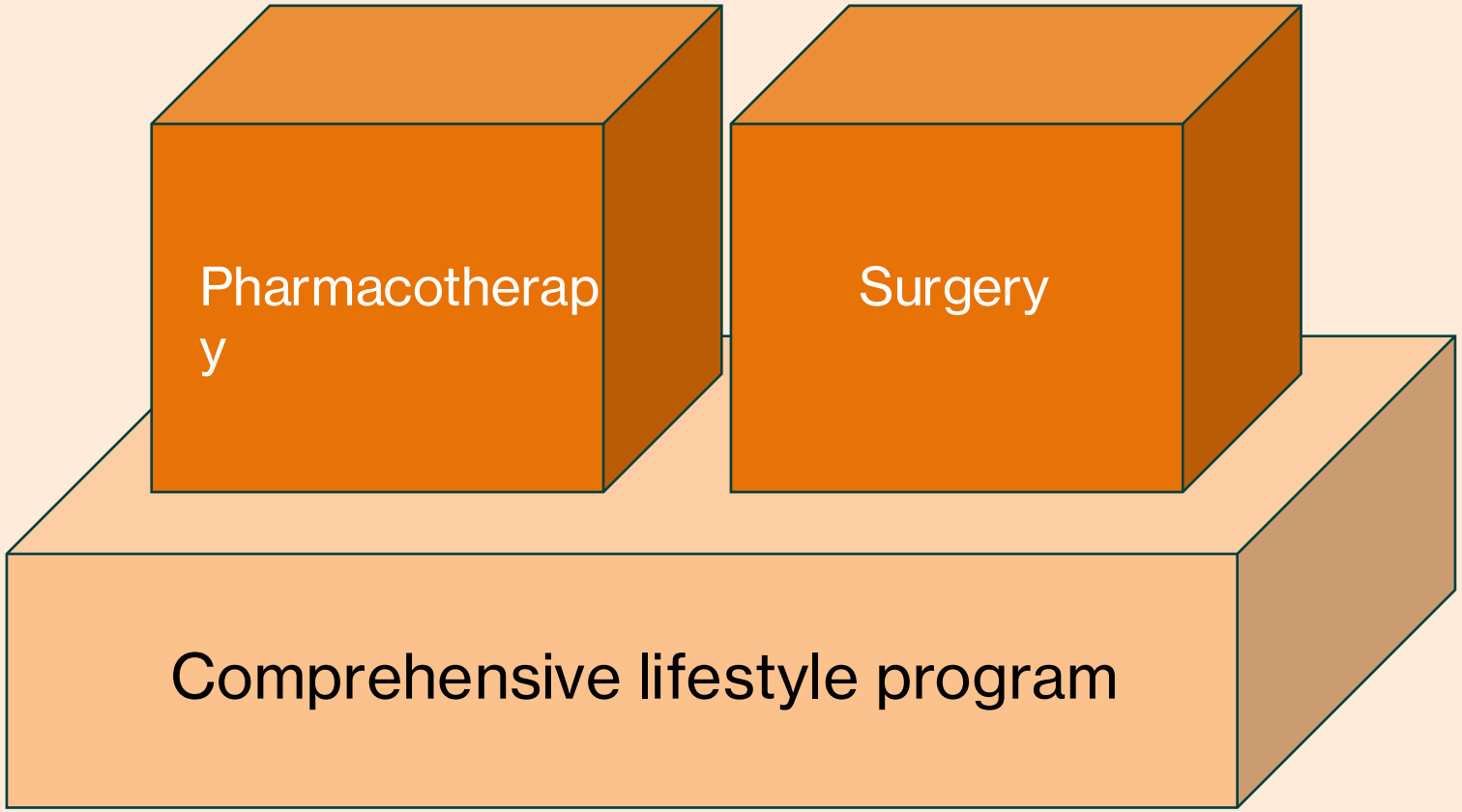
Table 2. Effect of Diet, Exercise, or Both on Primary and Secondary Outcome Variables in Obese Older Adults.*

Outcome Variable	Control (N=27)	Diet (N=26)	Exercise (N=26)	Diet–Exercise (N=28)	P Value†				
					Interaction between Group and Time	Diet vs. Control	Exercise vs. Control	Diet–Exercise vs. Diet	Diet–Exercise vs. Exercise
Primary outcome									
PPT score†									
Baseline	26.8±4.5	28.6±1.9	27.1±3.1	28.0±2.9					
Change at 6 mo	0.6±1.7	2.3±1.8‡	3.4±2.4‡	4.7±2.4‡					
Change at 1 yr	0.2±1.8	3.1±1.4‡	4.0±2.5‡	5.4±2.4‡	<0.001	<0.001	<0.001	<0.001	0.04

Villareal DT et al. N Engl J Med 2011;364:1218-1229.

Pharmacotherapy

Role of pharmacotherapy



- lifestyle program is the foundation of a comprehensive treatment plan
- medications improve adherence to lifestyle and behavioral changes
- benefits for CV and overall health and well-being

Current fDA-ApPROVED ANTi-obesity Medications (AOMs)

Name	Class
Phentermine	sympathomimetic
Phentermine/topiramate	sympathomimetic, anticonvulsant
Naltrexone/bupropion	opioid receptor antagonist, dopamine and norepinephrine reuptake inhibitor
Orlistat	pancreatic lipase inhibitor
Liraglutide	GLP-1 receptor agonist
Semaglutide	GLP-1 receptor agonist
Tirzepatide	GLP-1 receptor agonist/GIP receptor agonist

Decreased body fat stores

corticolimbic structures

autonomic and endocrine systems

oromotor systems in brainstem

3rd Order and Higher Neurons

lateral hypothalamus (LH)

dorsomedial hypothalamus (DMH)

paraventricular nucleus (PVN)

ventromedial nucleus (VMN)

2nd Order Neurons

GLP-1, GIP?

α-MSH

naltrexone

OREXIGENIC

AgRP/NPY

topiramate

ANOREXIGENIC

POMC/ CART

GLP-1, bupropion, phentermine

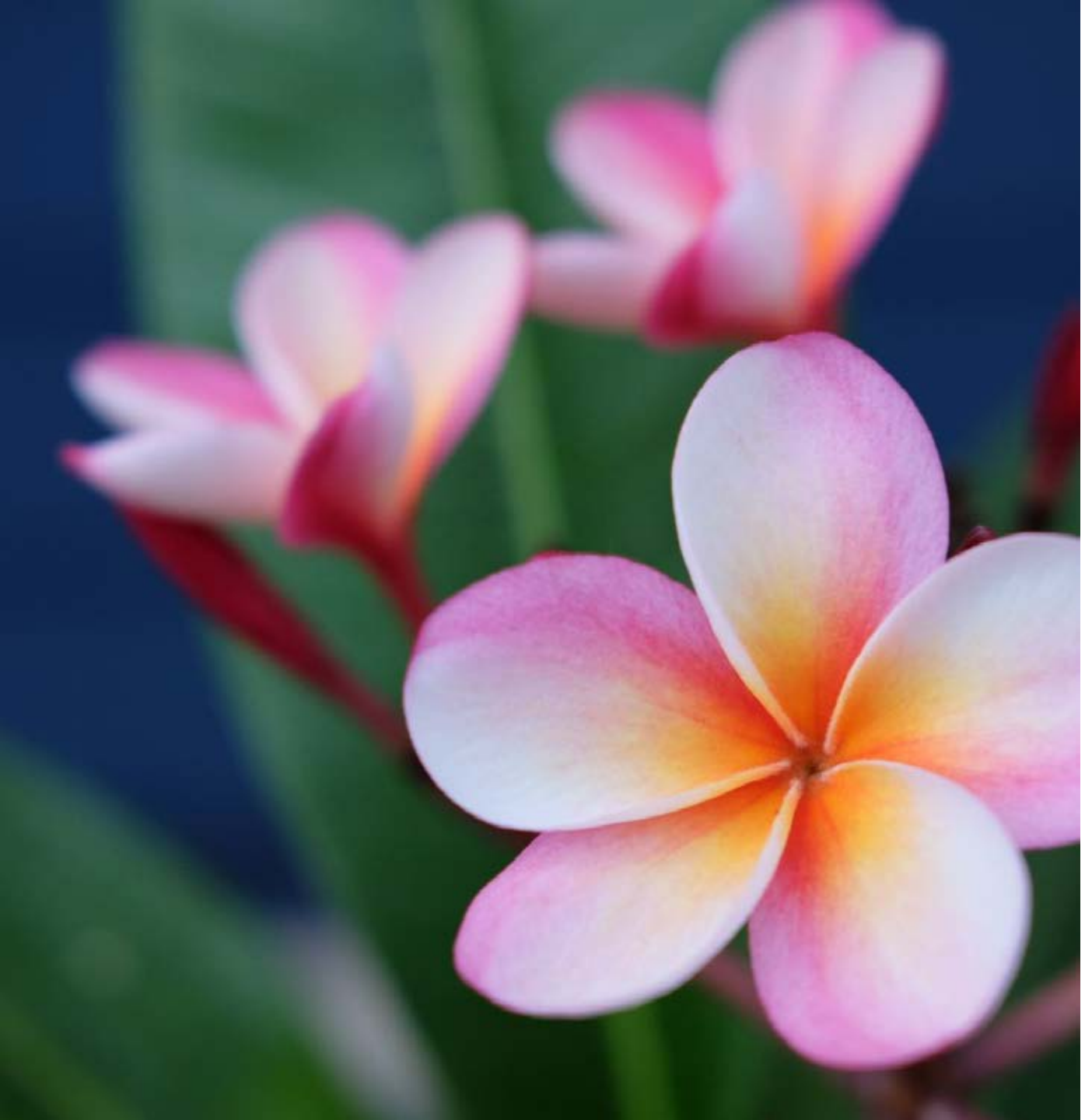
1st Order Neurons

Arcuate nucleus

Hypothalamus

α-MSH = melanocyte-stimulating hormone

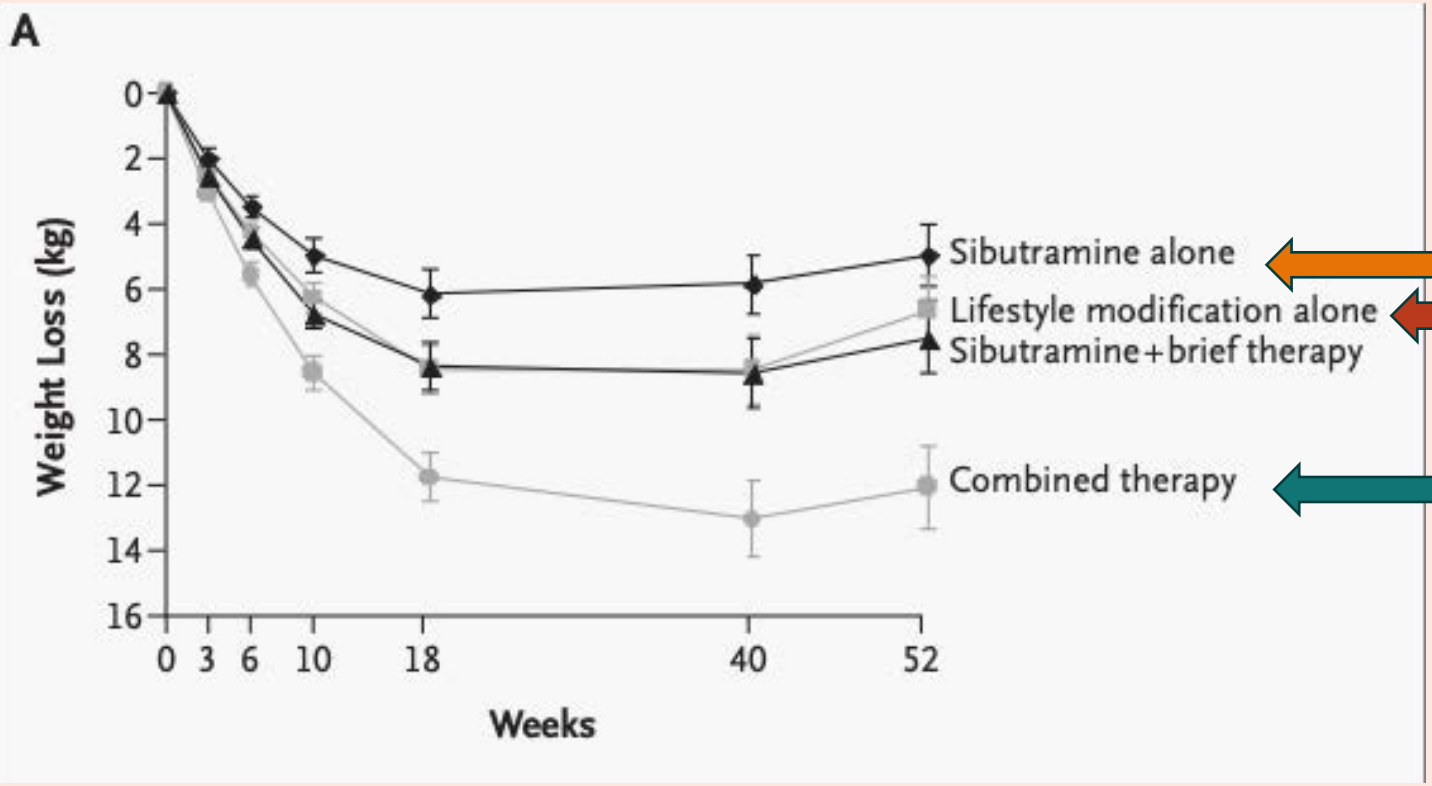
Zheng H and Berthoud H. Physiology 23: 75-83. 2008



Indications for pharmacotherapy

- BMI ≥ 30 kg/m^2
- BMI ≥ 27 kg/m^2 with a weight-related complication
- Consider for patients who have not achieved their weight goal with lifestyle changes
- Post-surgical weight regain or suboptimal response to surgery

Benefits of Lifestyle Modification in the Pharmacologic Treatment of Obesity



Medication alone

Lifestyle alone

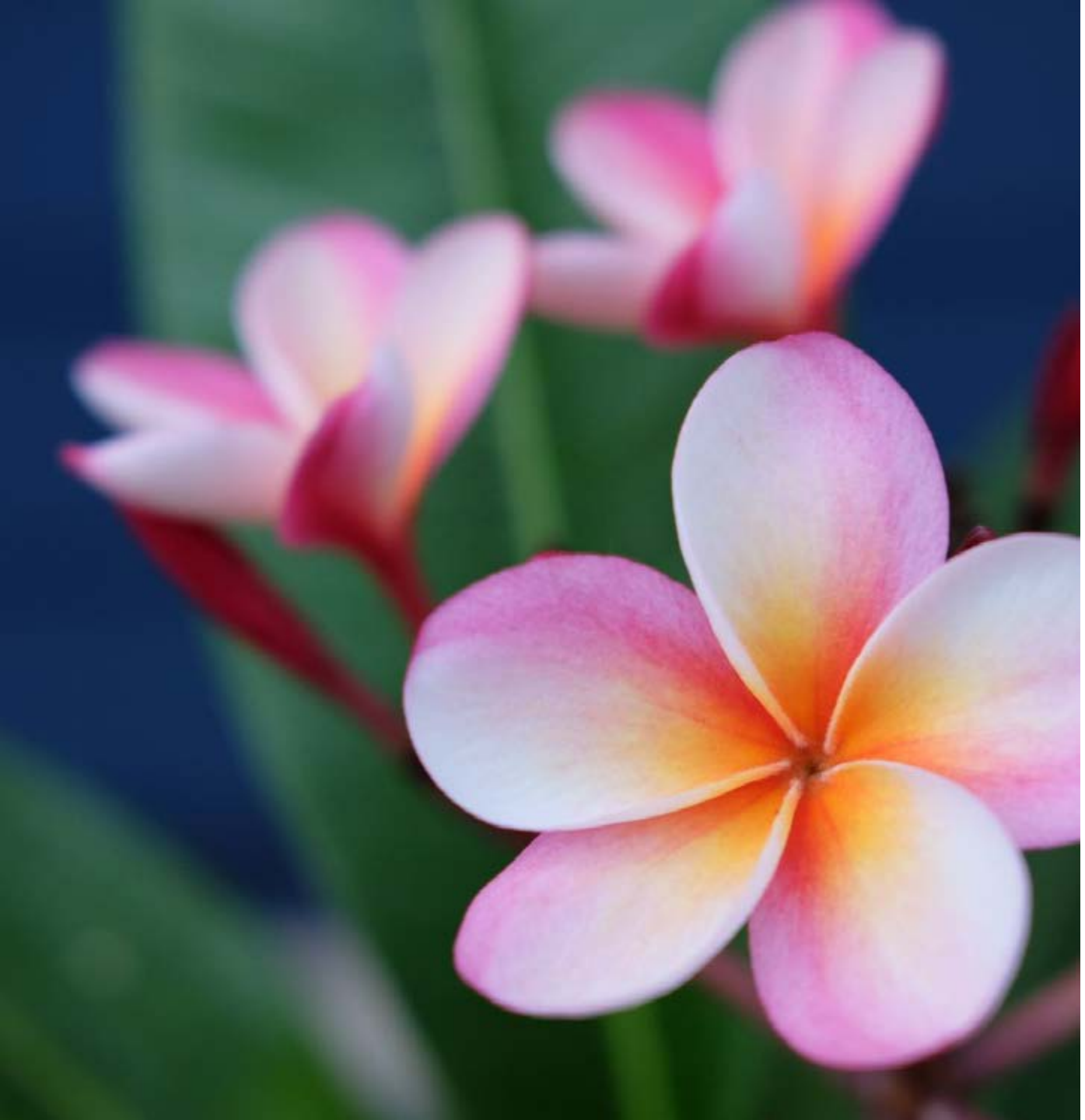
Medication + lifestyle

Wadden, et al. N Engl J Med 2005;353:2111-20

RelATIONSHIP OF WEIGHT LOSS TO CLINICAL BENEFIT

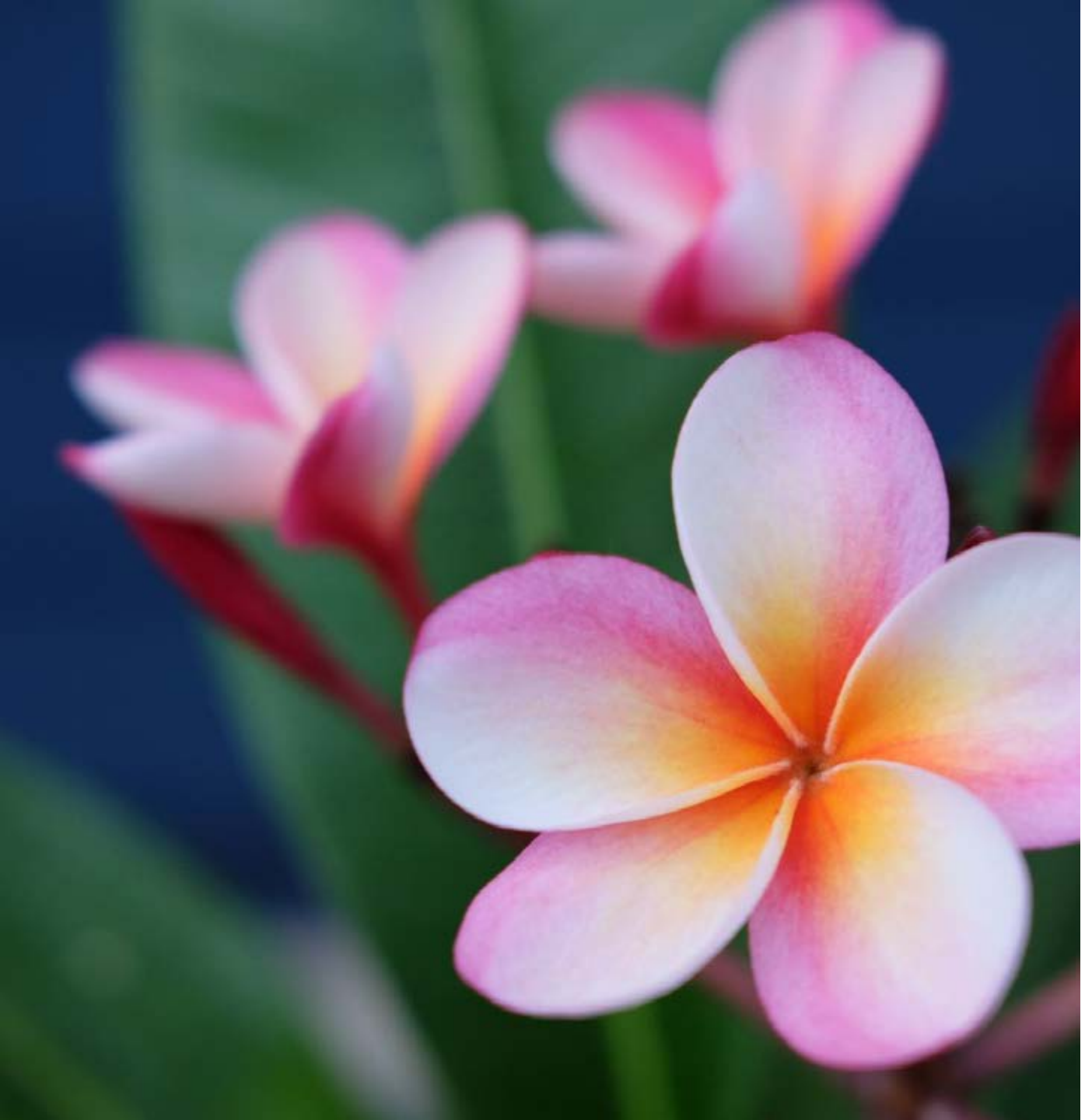
Clinical Condition	Weight Loss Target
Nonalcoholic fatty liver disease (NAFLD)	4% to 10%
Dyslipidemia	5% to 10%
Male hypogonadism	5% to 10%
Urinary stress incontinence	5% to 10%
Osteoarthritis	5% to 10%
Type 2 diabetes mellitus (HbA1C)	5% to 15%
Hypertension	5% to 15%
Polycystic ovary syndrome	5% to 15%
Asthma	7% to 8%
Obstructive sleep apnea	7% to 10%
Major adverse cardiovascular events (semaglutide)	9%
Prediabetes and metabolic syndrome	10%
Gastroesophageal reflux disease	10%
Infertility	10%
Non-alcoholic steatohepatitis	10% to 40%

Garvey. Endocrine Practice. Vol 22 (Suppl 3) July 2016
Marso SP. N Engl J Med 2016;375: 1834-1844.



Medications can cause weight gain

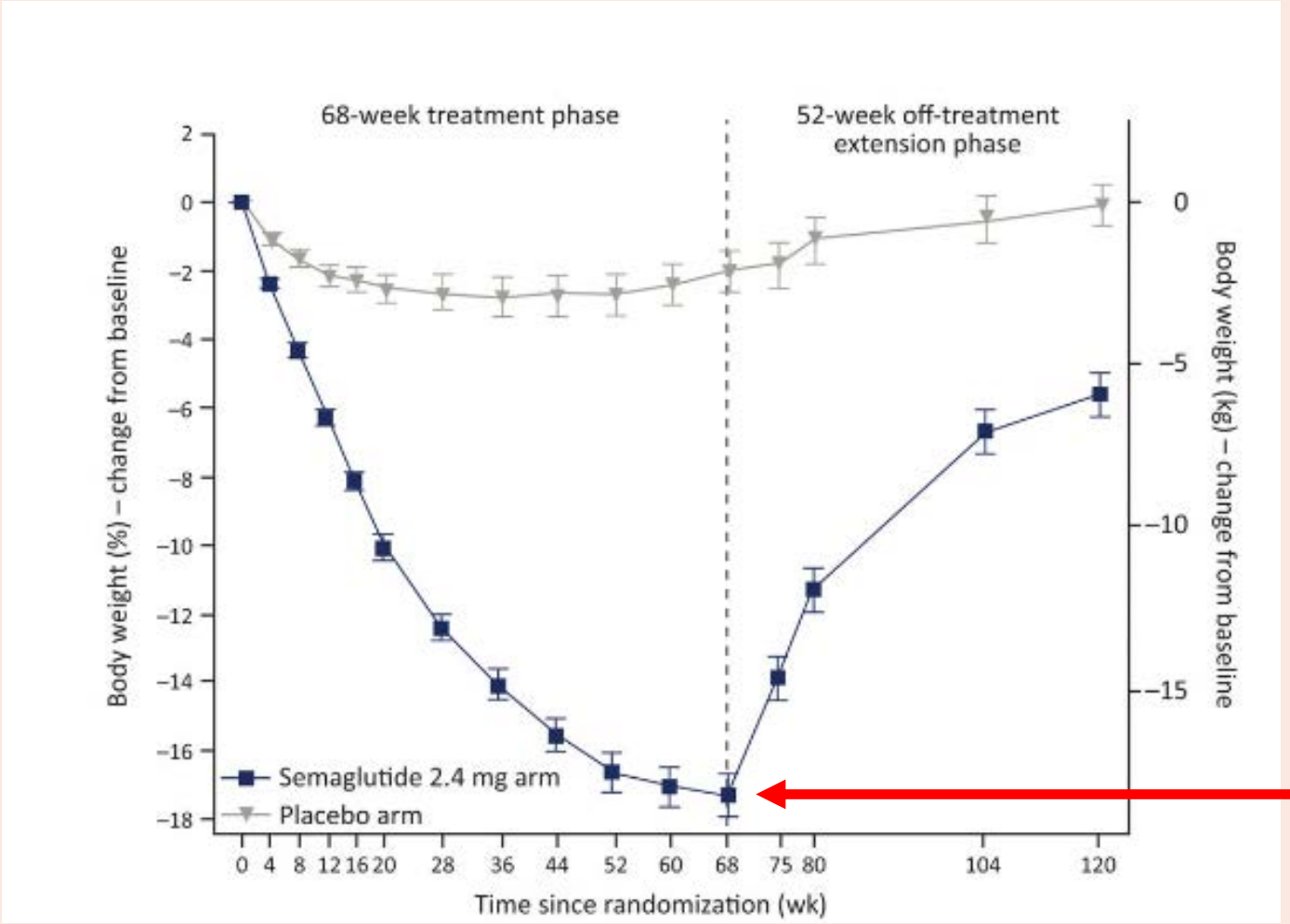
- **Diabetes medications** – insulin, sulfonylureas, thiazolidinediones
- Antipsychotic agents – clozapine, olanzapine, risperidone
- **Antidepressants** – tricyclics, paroxetine
- Antiseizure medications – carbamazepine, gabapentin, valproic acid
- **Nonselective beta blockers**
- First generation calcium channel blockers
- **Antihistamines** – diphenhydramine, cyproheptadine, cetirizine
- Glucocorticoids



Obesity is a chronic disease

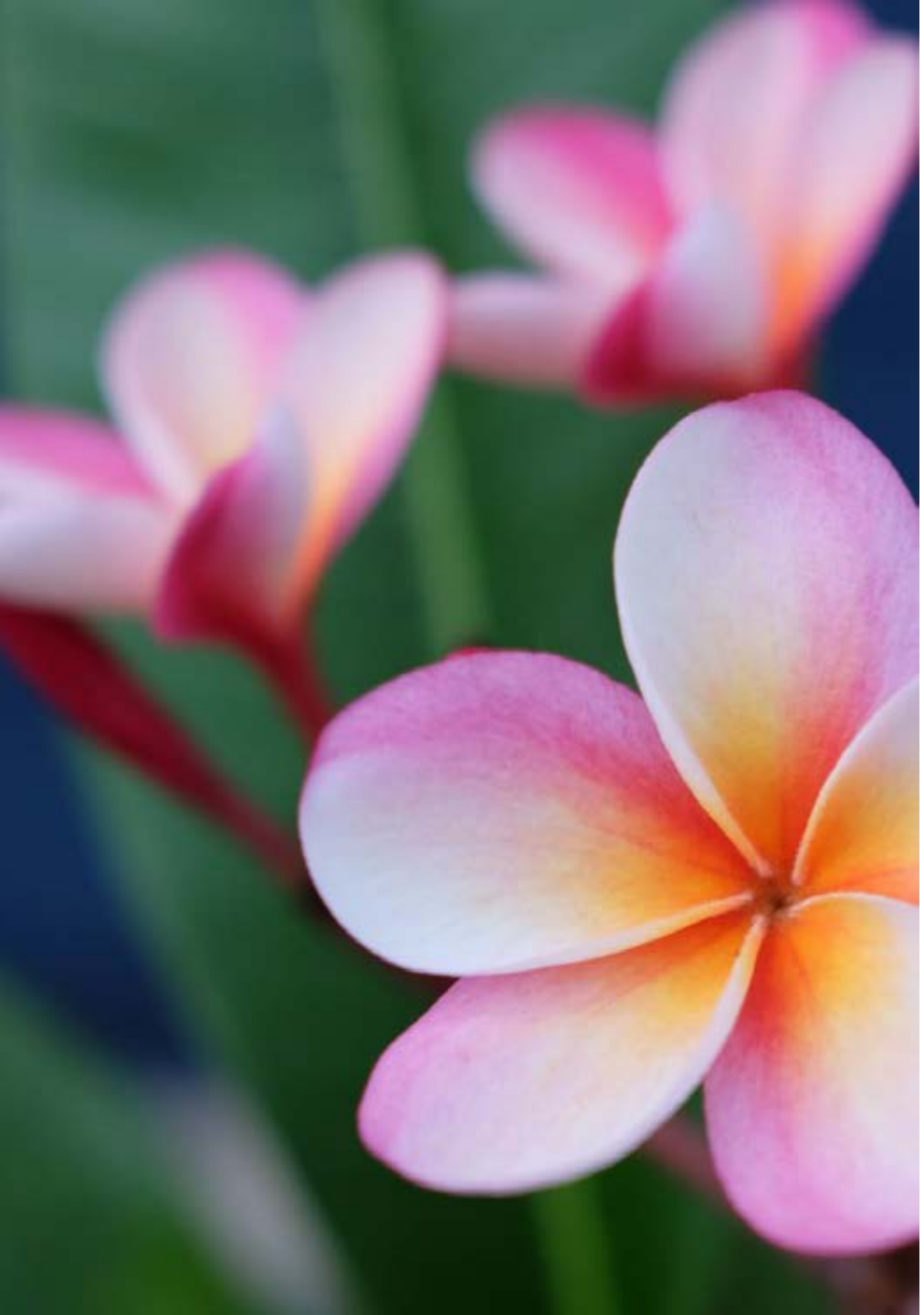
- Manage in the same way as other chronic diseases – diabetes, hypertension, dyslipidemia
- Use medications for control and maintenance
- Clear communication with patients

Weight regain after cessation of medication



Medication stopped at 68 weeks

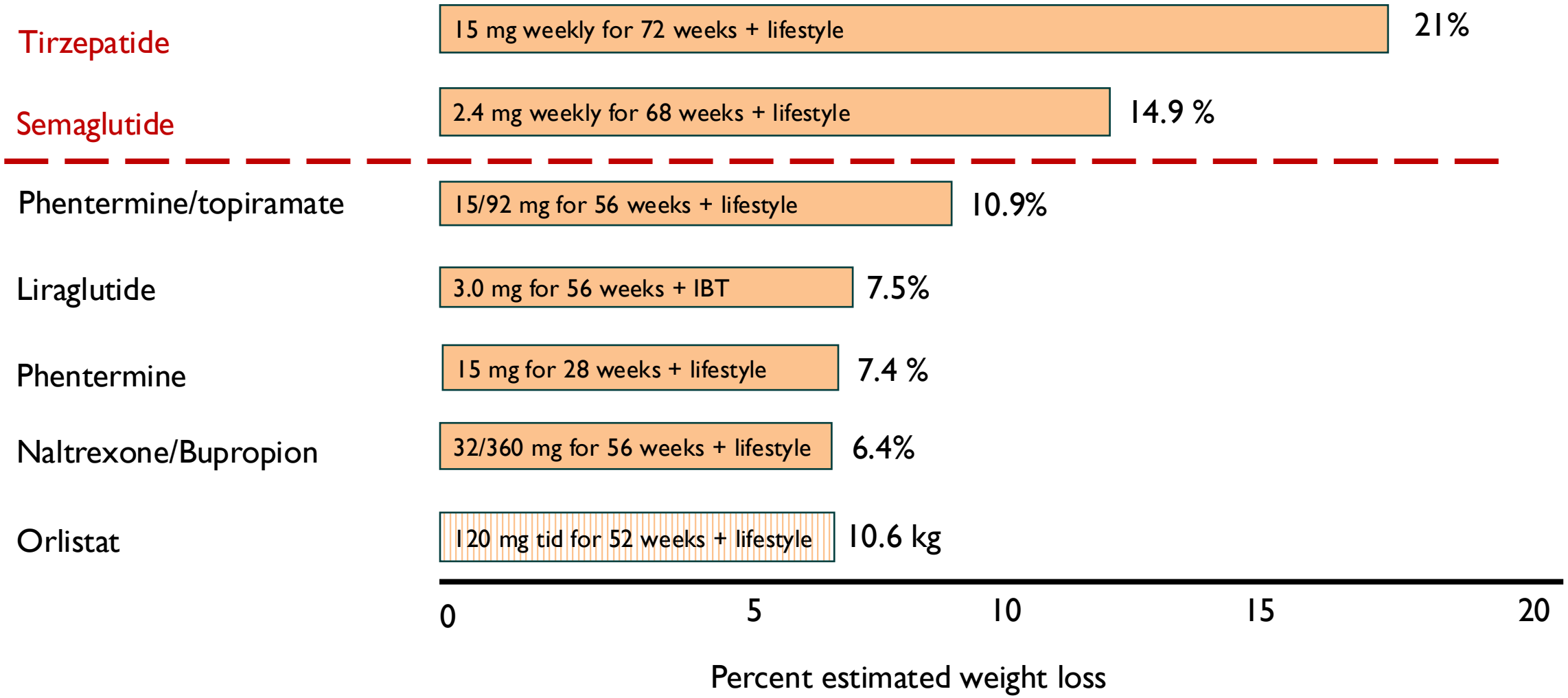
Diabetes Obes Metab.2022;24:1553–1564.



Guiding Principles

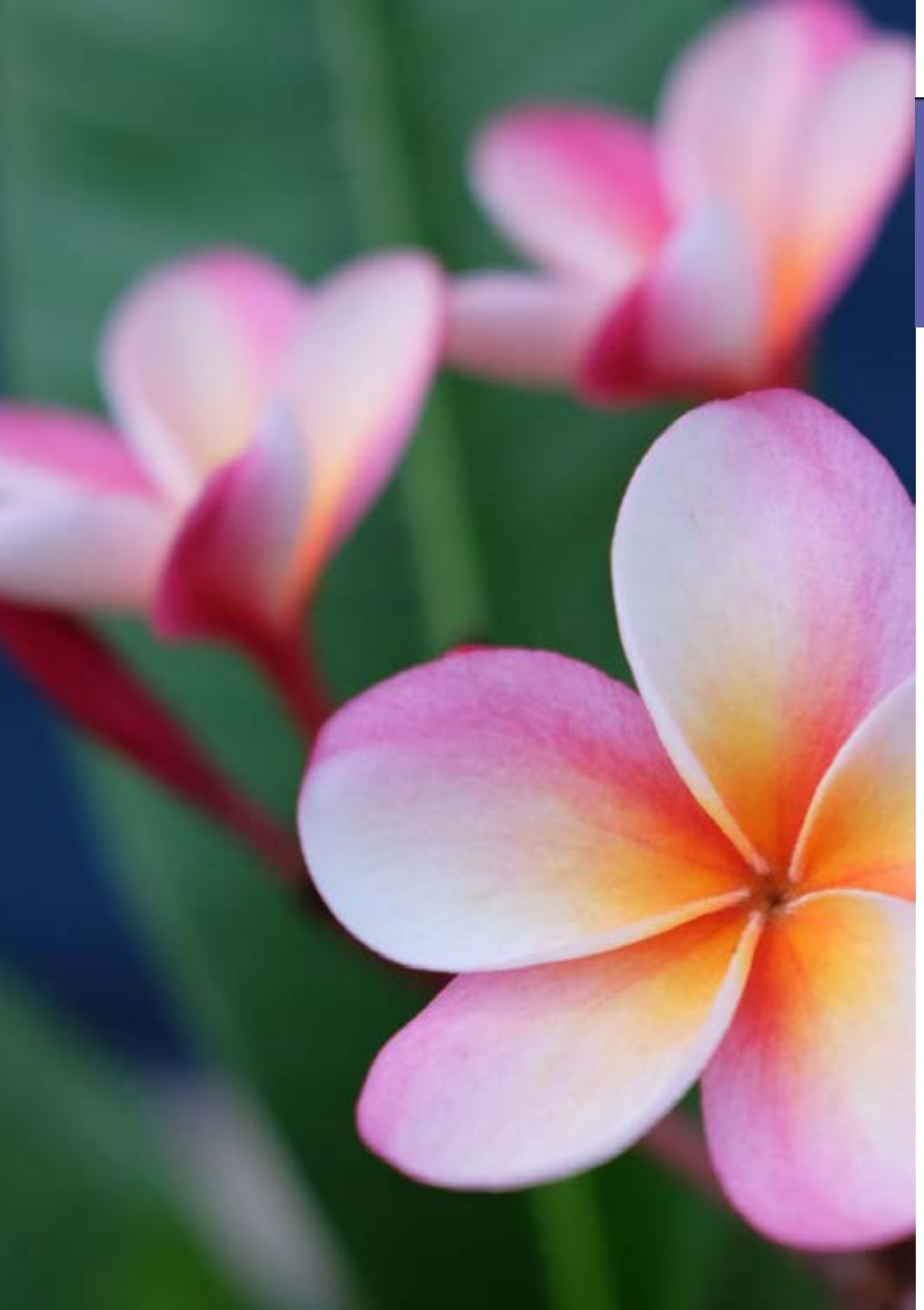
- Use as part of a comprehensive lifestyle management strategy
- Get to know the specific contraindications and adverse effects of these medications
- Agree on realistic expectations (health vs weight)
- Reduce dose, substitute, or discontinue weight-promoting medications
- Individualize medication selection
- Use long term for weight loss and weight maintenance
- Discontinue, add or change if there is little to no response

EFFICACY OF ANTI-OBESITY MEDICATIONS



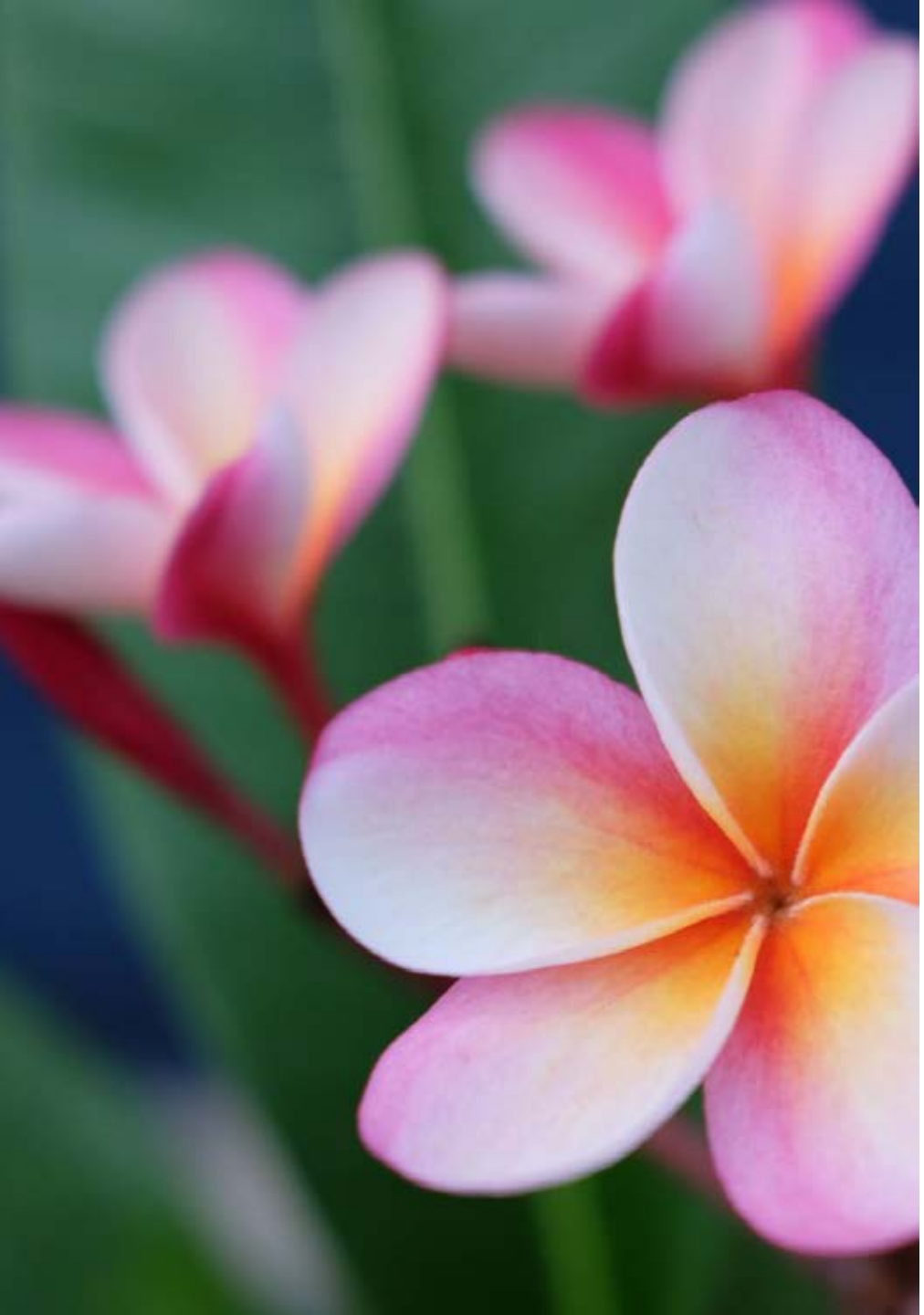
Jastreboff AM. et al. N Engl J Med. 2022;387:205–216; Wilding JPH et al. N Engl J Med. 2021;384:989–1002; Allison DB et al. Obesity (Silver Spring) 2012;20:330–342; Wadden TA et al. Obesity. 2020;28:529-536; Aronne LJ et al. Obesity. 2013;21:2163–2171; Apovian CM et al. Obesity (Silver Spring). 2013;21:935–943; Torgerson JS et al. Diabetes Care 2004;27:155–161

Adapted from Srivastava G and Apovian C. Nat Review Endocrinol. 2018 Jan;14(1):12-24



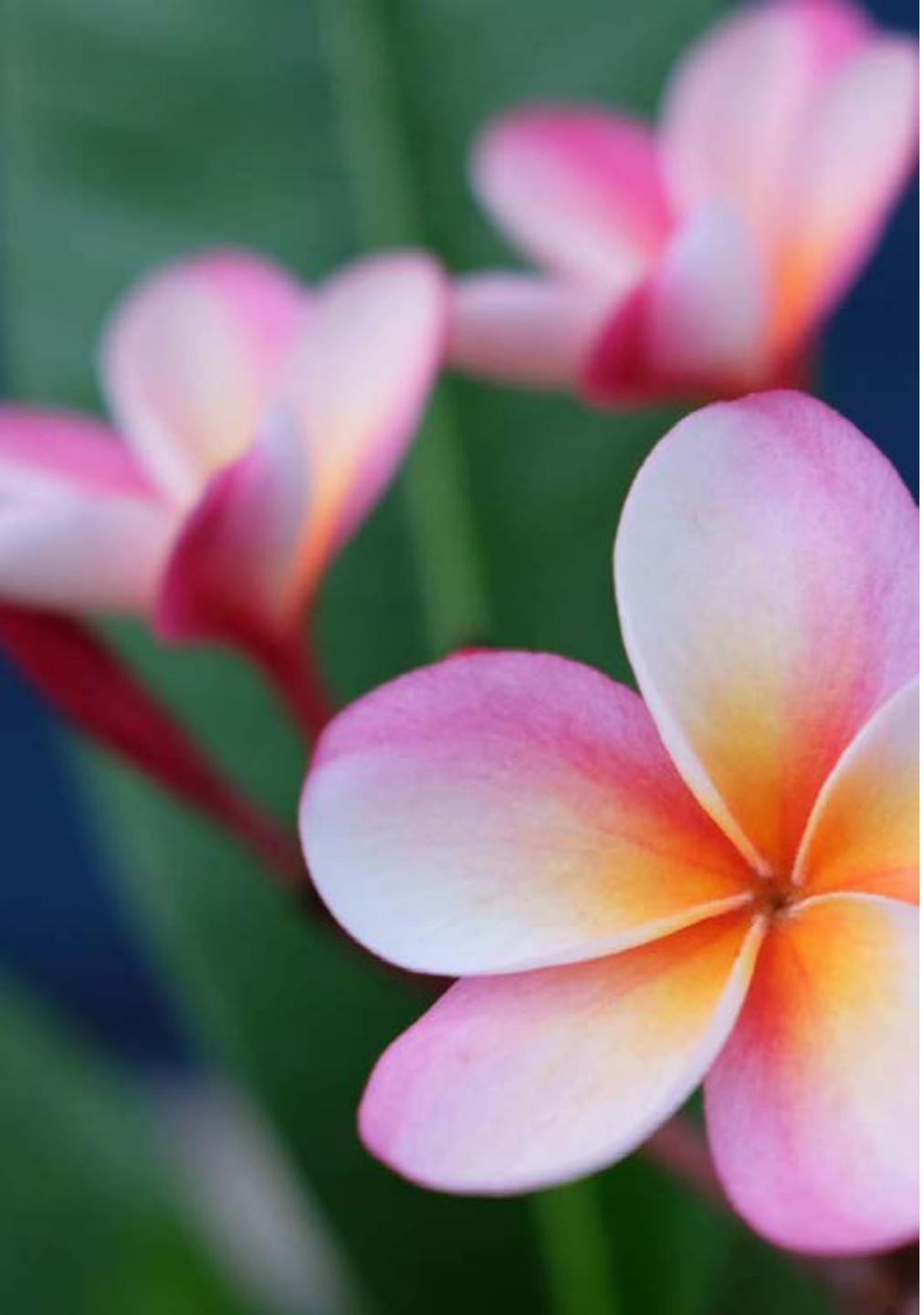
The National Weight Control Registry

- Established in 1994
- Largest prospective investigation of long-term successful weight loss maintenance – now at 10,000 individuals
- Eligible participants must have maintained a weight loss of at least 30 pounds for at least one year
- Early enrollees have been able to maintain 22% weight loss out to 10 years



Common Strategies- National Weight Control Registry

- low-fat, low-calorie diet
- consistent daily eating pattern during the week and weekends
- consistent self-monitoring of body weight and food intake
- regular breakfast
- high levels of regular exercise – average of one hour a day



Mahalo!

Comments?

Questions?

Thoughts?