the problem you can't afford to ignore

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Founder/medical director

HEARTLAND WEIGHT LOSS

AMERICAN BOARD of OBESITY MEDICINE
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Obesity Medicine Association
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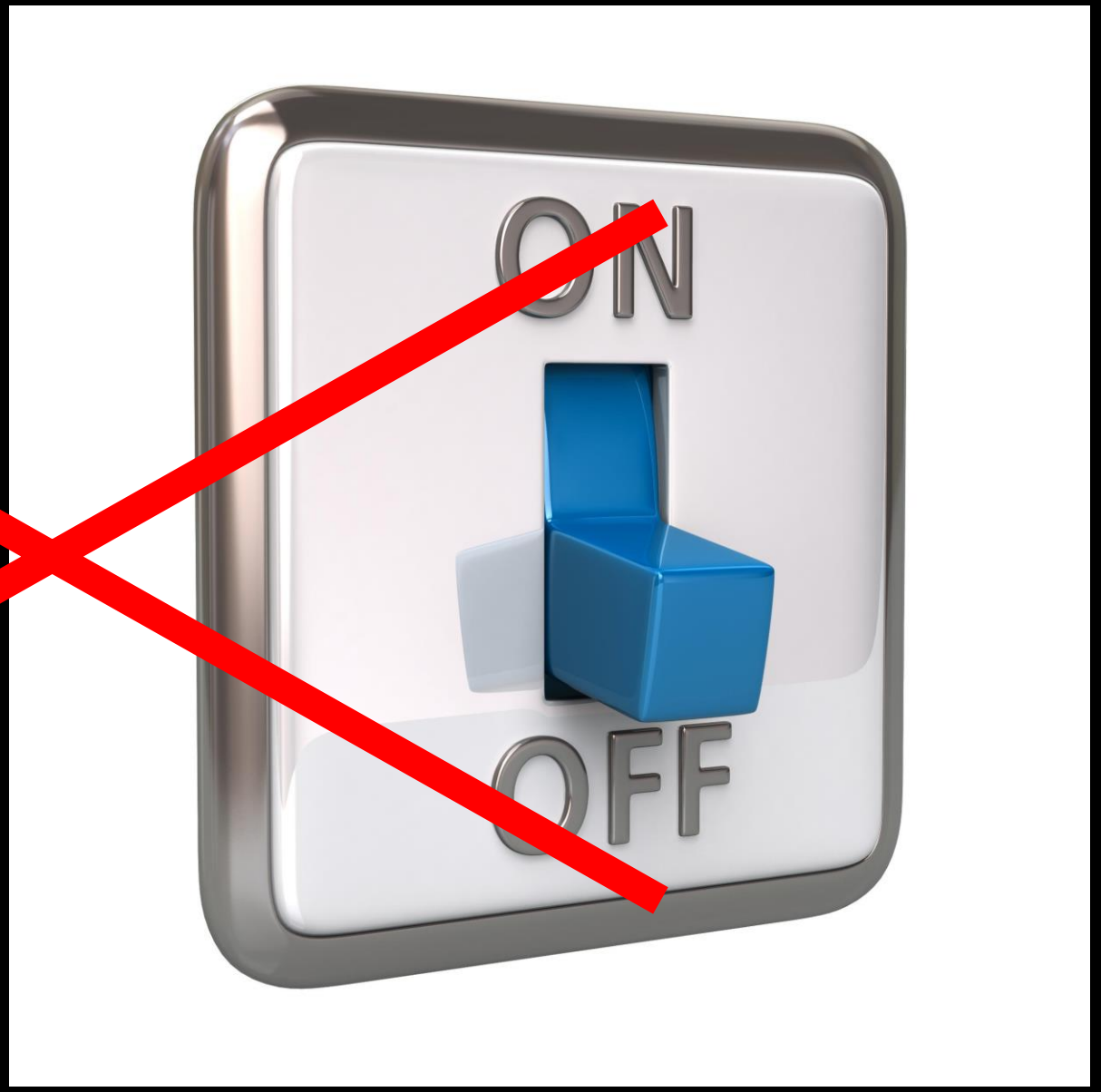
Dr. Younglove

Courtney Younglove, M.D. is board-certified in Obesity Medicine and Obstetrics and Gynecology and has practiced medicine in the Greater Kansas City area for over 20 years. She is one of only 70 clinicians in the country to have earned fellowship designation from the Obesity Medicine Association. She is the founder and medical director of Heartland Weight Loss, a private practice Obesity Medicine clinic with offices in Overland Park and Lawrence, Kansas.

In addition to practicing medicine, Dr. Younglove is also a leader in the field of Obesity Medicine and takes an active role in teaching other clinicians how to use evidence-based medicine to manage patients affected by excess weight. Dr. Younglove has always said that her role in life is to "change the weight of the world." She has recently developed a disease management platform targeting obesity and obesity-related comorbidities to help decrease the burden that excess weight places upon the cost of healthcare.

Type 2 diabetes?



This is much more accurate:

Normal

Insulin resistance

Prediabetes

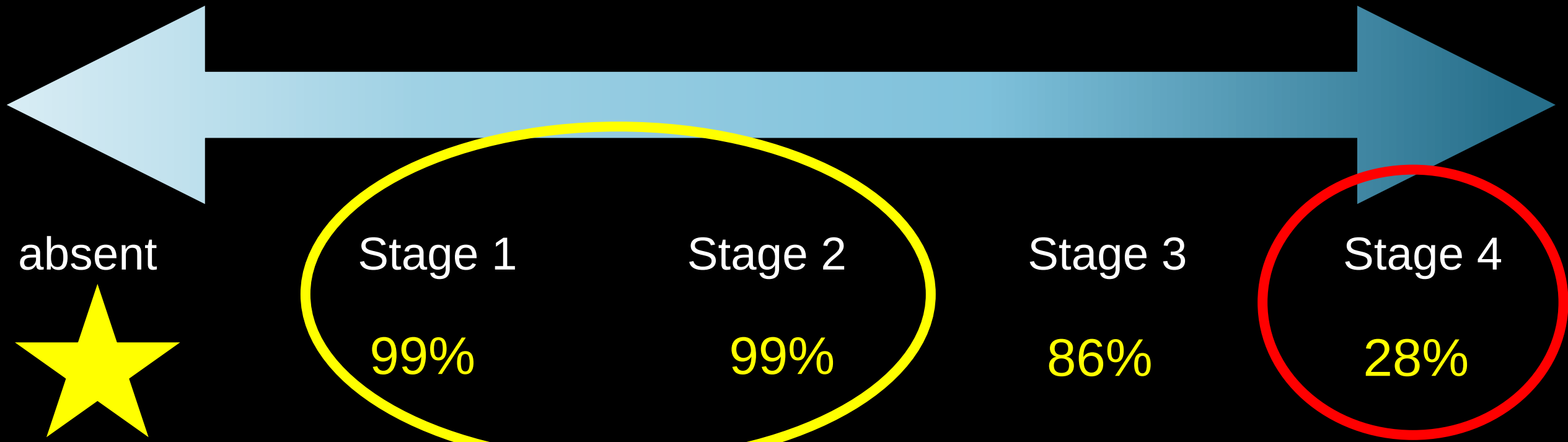
Type 2 diabetes

Type 2 diabetes w/ organ damage

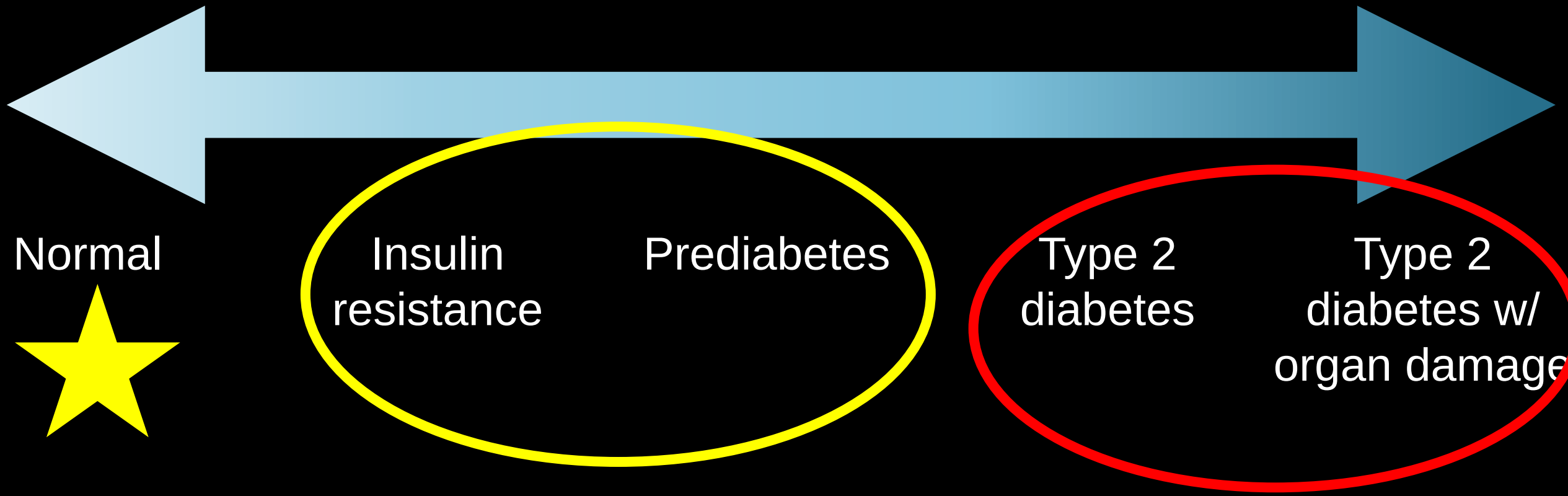
Breast Cancer:

absent Stage 1 Stage 2 Stage 3 Stage 4

Breast Cancer 5-year Survival:

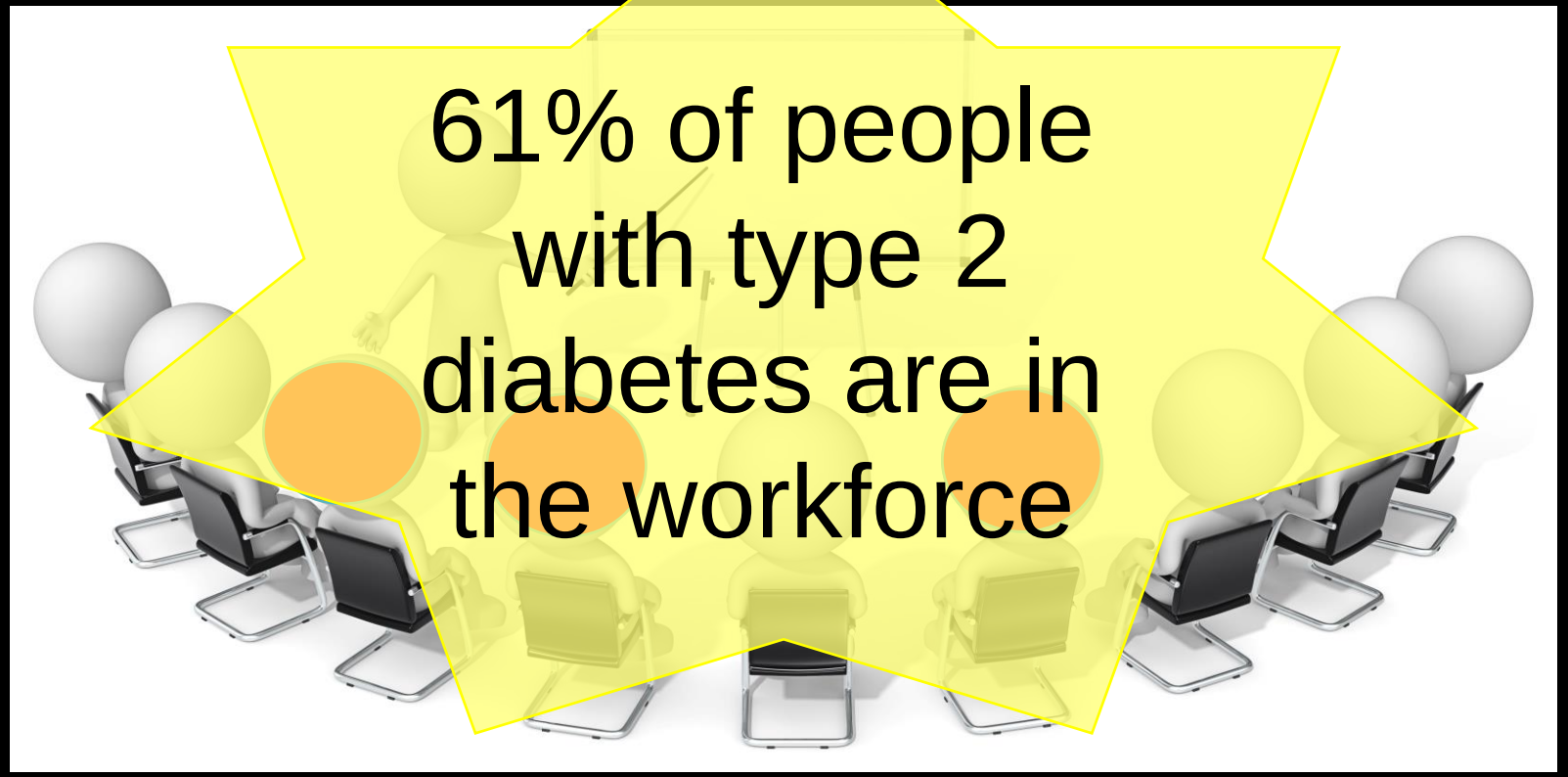


Think about it the same way:



Type II Diabetes (T2DM):

a chronic, progressive disease characterized by the body's inability to regulate glucose levels in the bloodstream



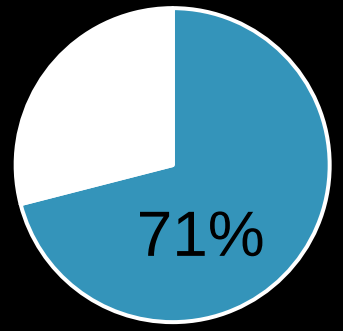
2018: 1 in 10 adults

2050: >3 in 10 adults

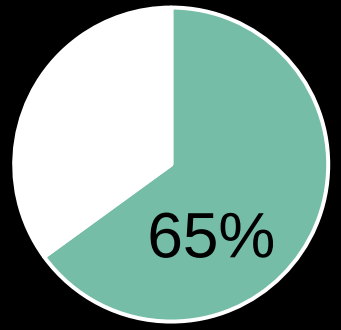
(National Center for Health Statistics 2019)

T2DM: Health Burden (in adults):

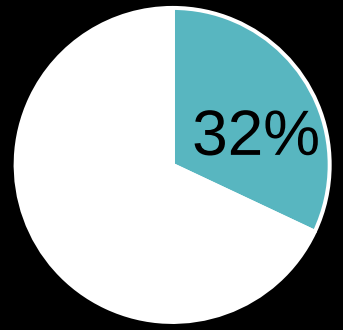
- 71% have HYPERTENSION (or take medications to lower blood pressure)



- 65% have HYPERLIPIDEMIA (or take medications to lower cholesterol)



- 32% have CARDIOVASCULAR DISEASE (ASCVD)
  - ASCVD death rate = 1.7x higher
  - Hospitalization for heart attacks = 1.8x higher
  - Hospitalization for stroke = 1.5 times higher



T2DM adversely affects ***every organ system***

↑↑↑ rate of MSK pain/injuries

↑↑↑ rate of pregnancy compliations

2-3x higher risk of depression

LESS COMMON – but devastating

- leading cause of ESRD (kidney failure) requiring dialysis
- leading cause of limb amputation
- leading cause of new-onset blindness in adults

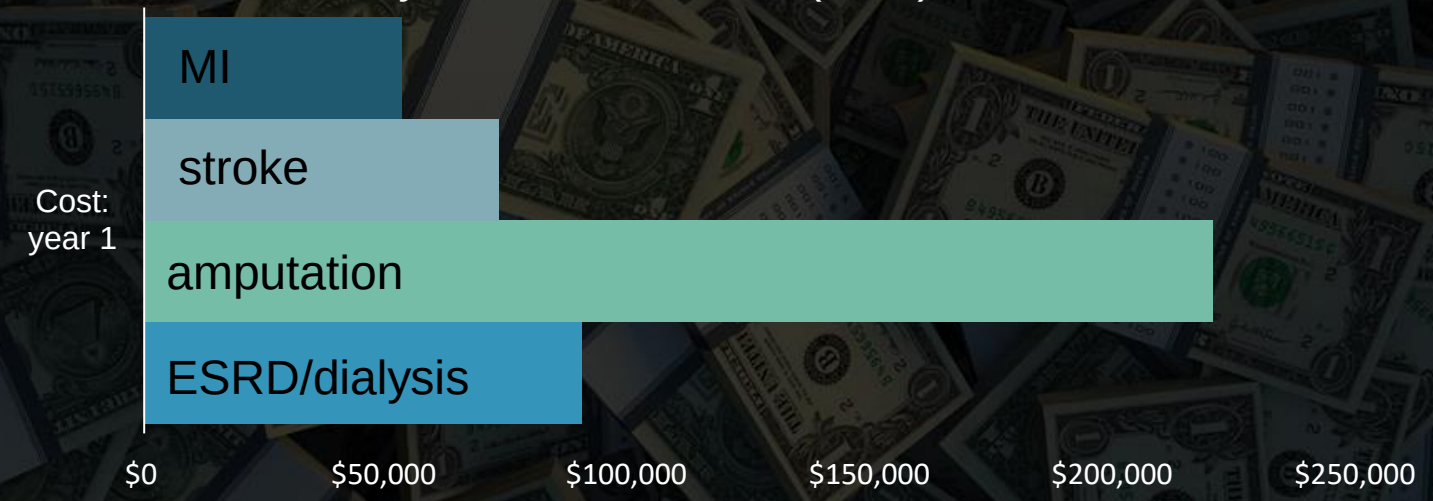
T2DM: Economic Burden: Direct Costs

- 20%+ of health care spend is attributed to people with diagnosed diabetes

2017 = $237B

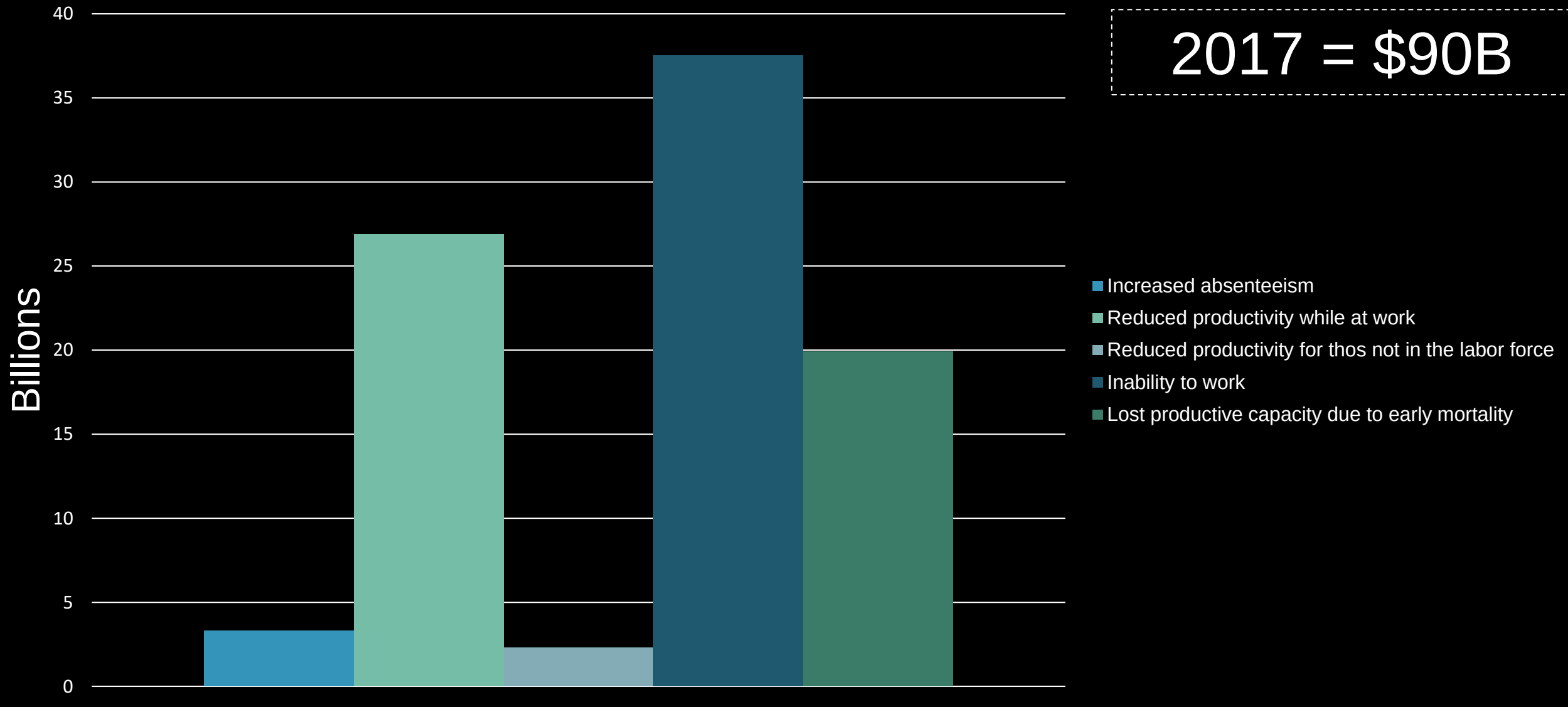
- Hospital inpatient care (30%)
- Prescription medications to treat complications (30%)
- Anti-diabetes medications and supplies (15%)
- Physician office visits (13%)

- People with T2DM have at least 2X higher average healthcare costs per year than people without

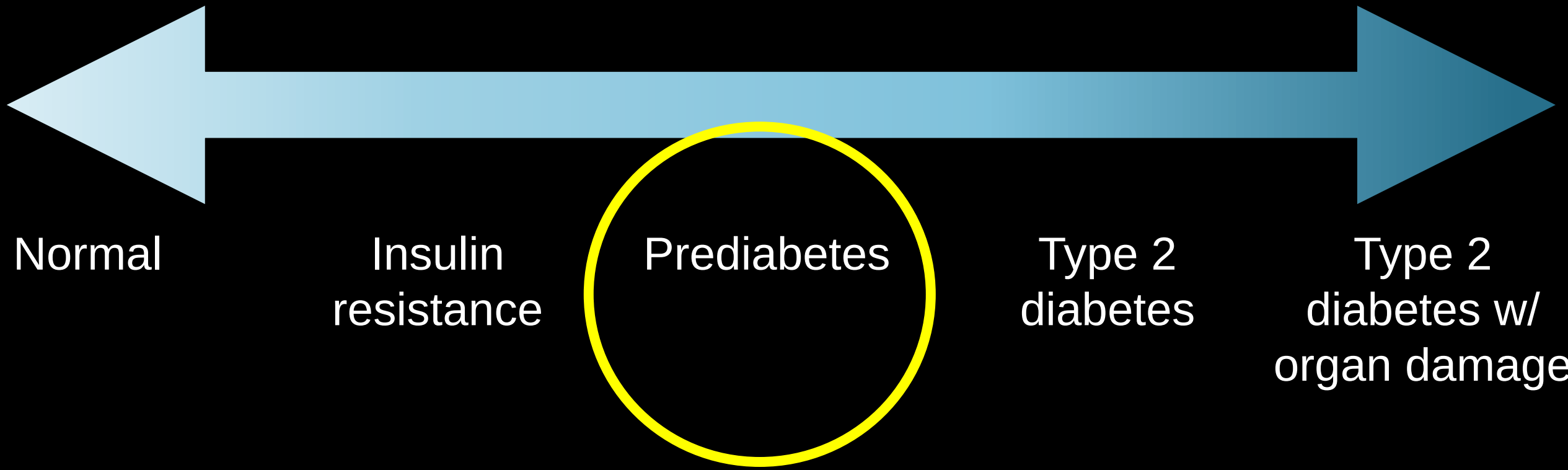


Type 2 diabetes is one of the most prevalent and expensive diseases confronting the nation

T2DM: Economic Burden: Indirect Costs



Remember this?



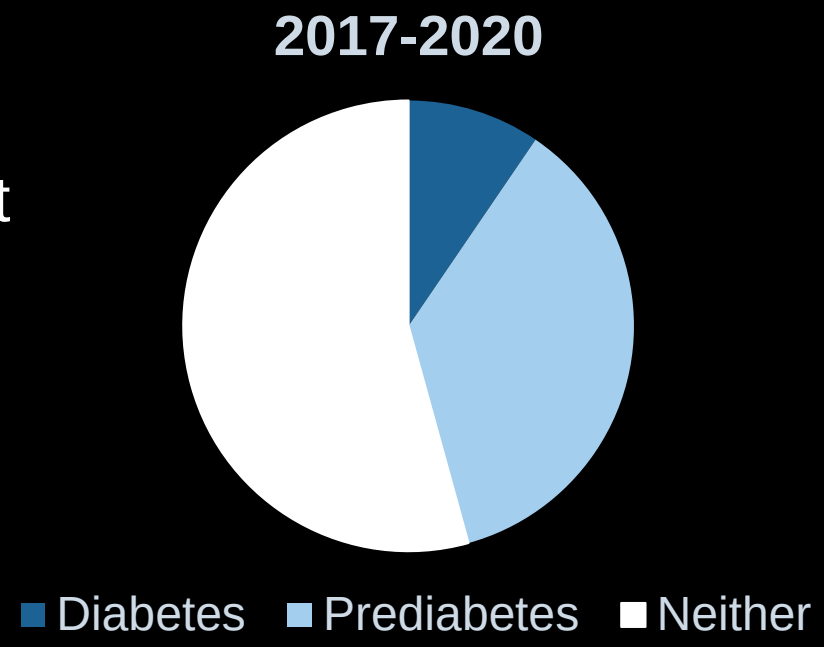
PREdiabetes

= having high blood glucose or hemoglobin A1C levels - but not high enough to be classified as diabetes.

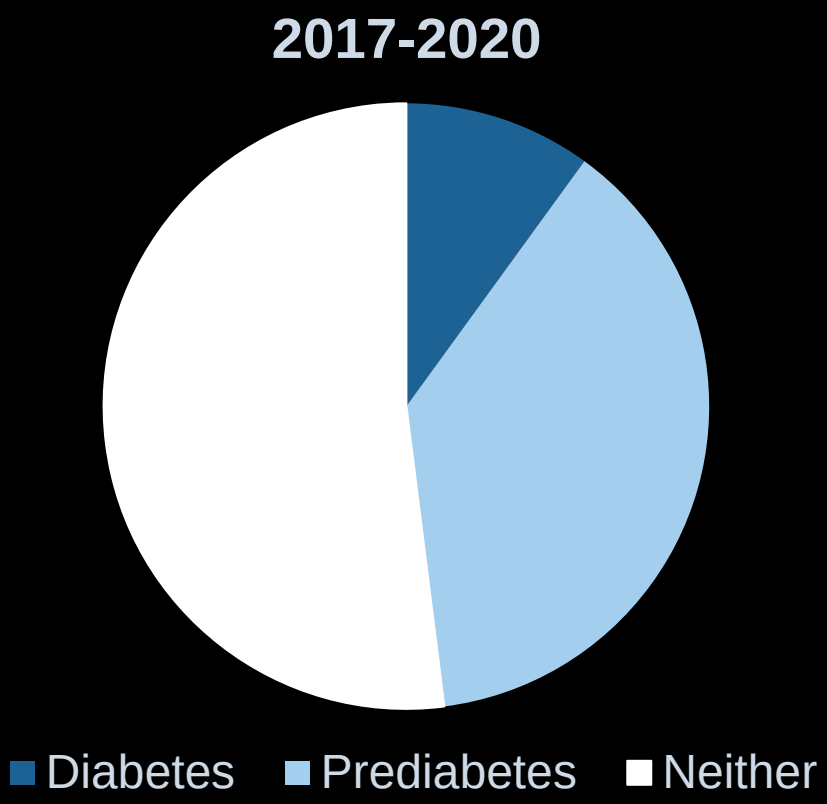
Without intervention, approximately 11% of people with prediabetes will develop type II diabetes within 5 years and almost all will develop it within 10 years

The Centers for Disease Control and Prevention estimate that one in three American adults currently have prediabetes

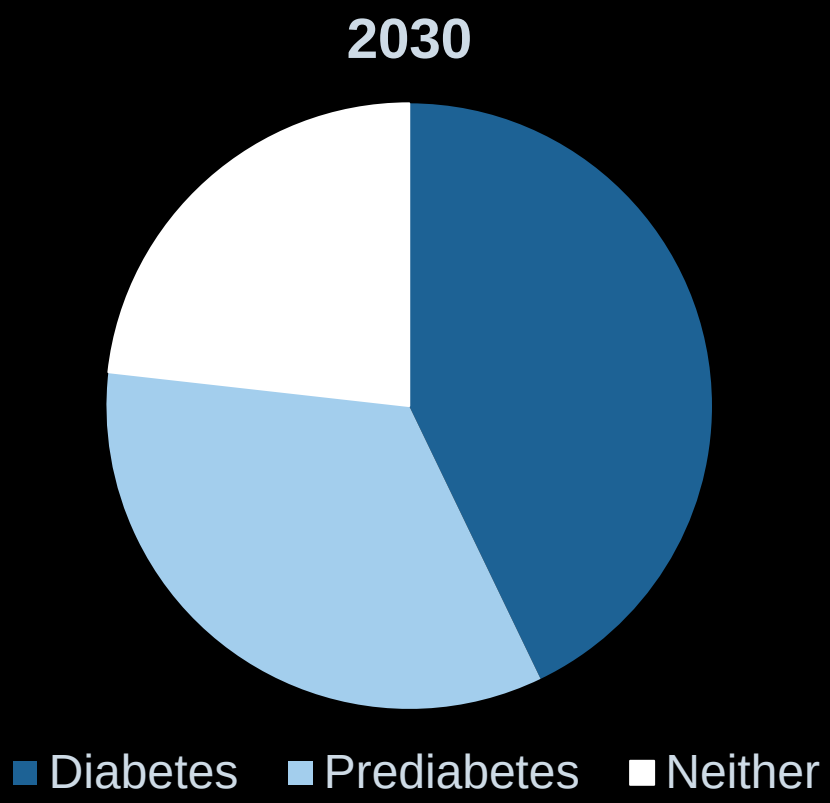
One in five adolescents (age 12-18) currently have prediabetes



85% don't know they have it



	Prediabetes, 2017-2020 estimates (95% CI)
Total	38.0 (35.7-40.3)
Age Group	
18-44	27.8 (24.0-32.0)
45-64	44.8 (41.7-47.9)
≥ 65	48.8 (44.3-53.2)
Sex	
Men	41.9 (38.4-45.6)
Women	34.3 (31.2-37.5)
Race-Ethnicity	
White, non-Hispanic	38.7 (35.5-41.9)
Black, non-Hispanic	39.2 (35.8-42.6)
Asian, non-Hispanic	37.3 (32.6-42.3)
Hispanic	34.5 (31.3-37.7)



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45-64	44.8 (4[illegible]7-47.9)
≥ 65	48.8 (4[illegible]3-53.2)
Sex	
Men	41.9 (3[illegible]4-45.6)
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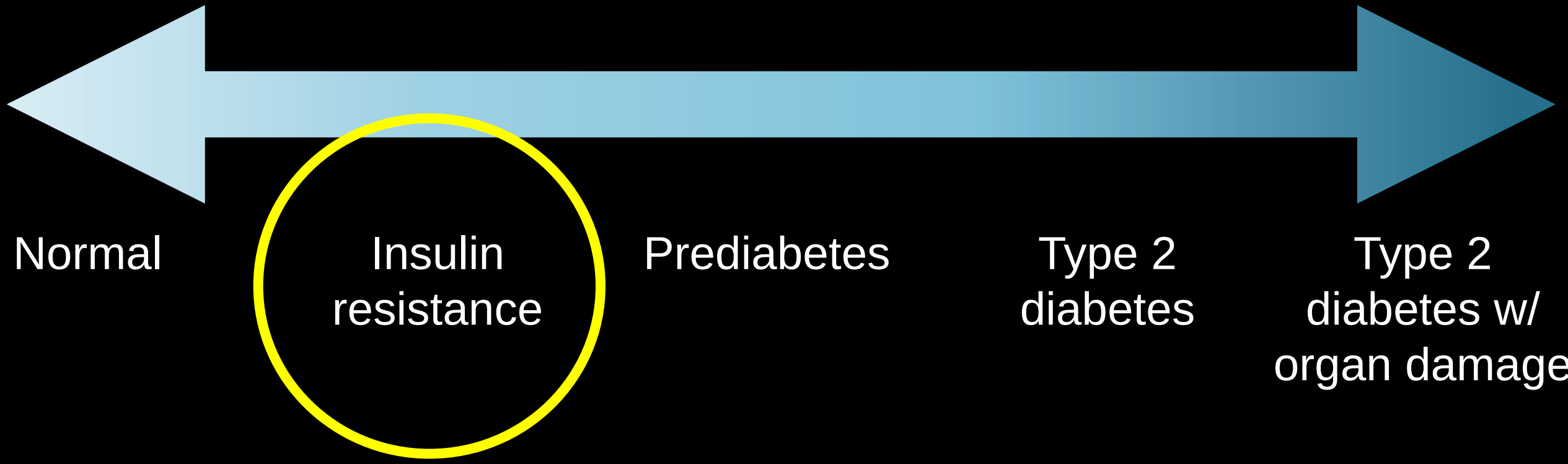
Race-Ethnicity	
White, non-Hispanic	38.7 (3[illegible]5-41.9)
Black, non-Hispanic	39.2 (3[illegible]8-42.6)
Asian, non-Hispanic	37.3 (3[illegible]6-42.3)
Hispanic	34.5 (31.3-37.7)

Remember this?



Normal

Insulin resistance

Prediabetes

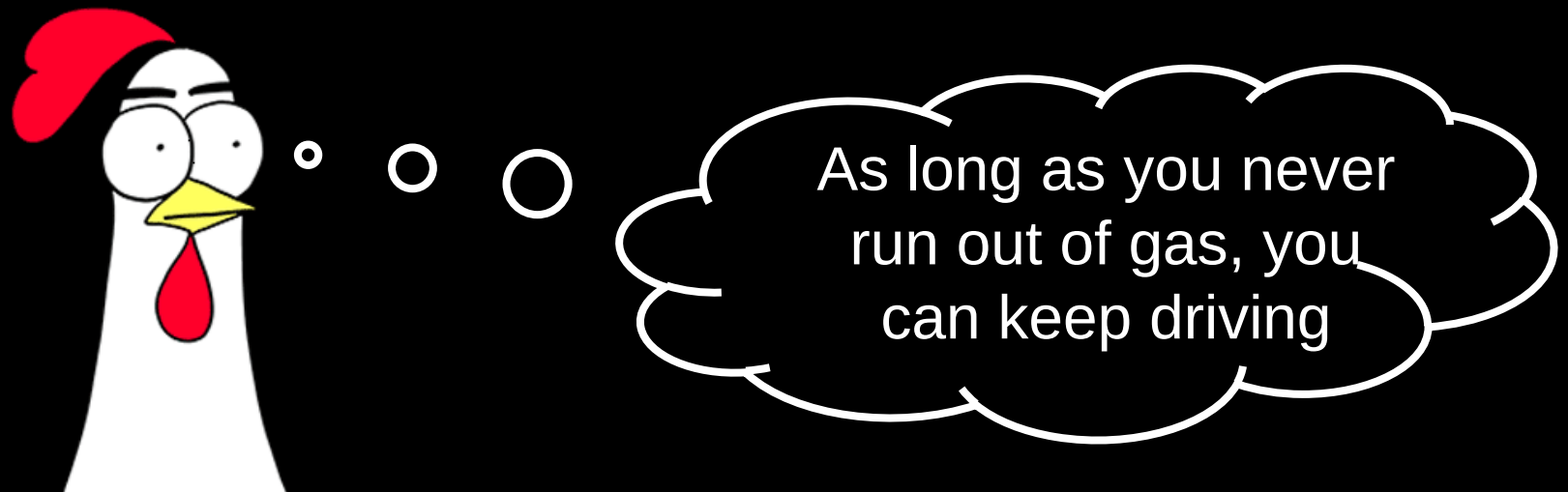
Type 2 diabetes

Type 2 diabetes w/ organ damage

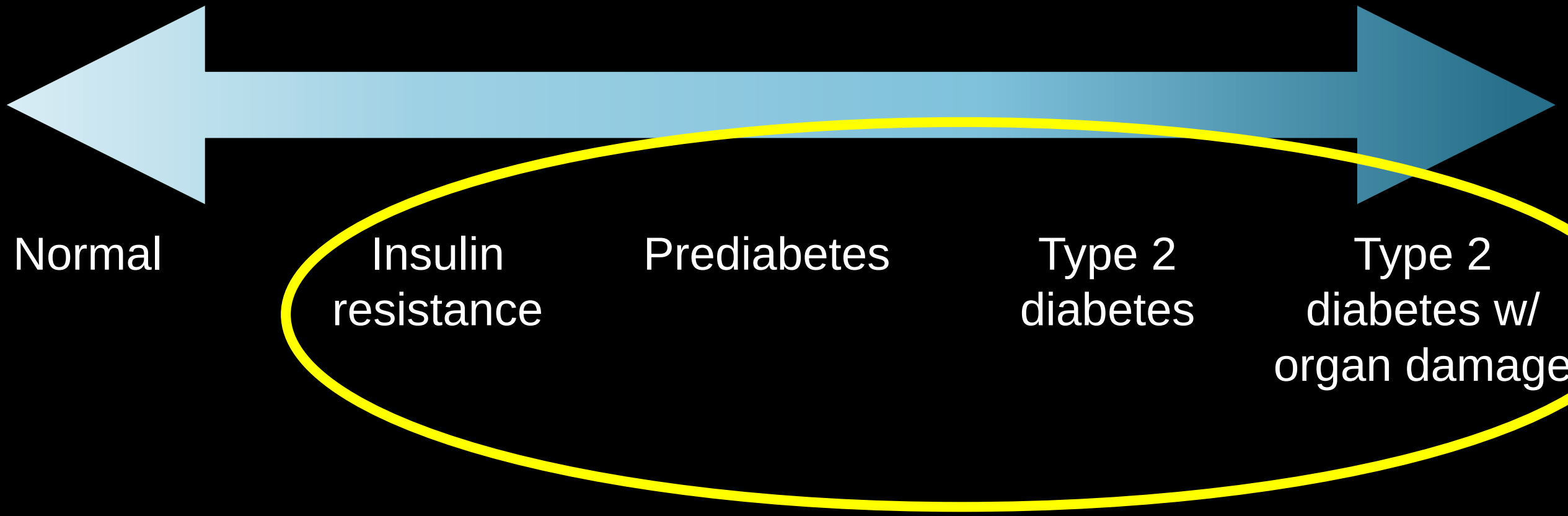
Insulin Resistance (PRE-PREdiabetes)

Insulin resistance is when cells in your muscles, fat, and liver don't respond well to insulin and can't easily take up glucose from your blood. As a result, your pancreas makes more insulin to help glucose enter your cells. As long as your pancreas can make enough insulin to overcome your cells' weak response to insulin, your blood glucose levels will stay in the healthy range.

NIDDK, Insulin Resistance and Prediabetes



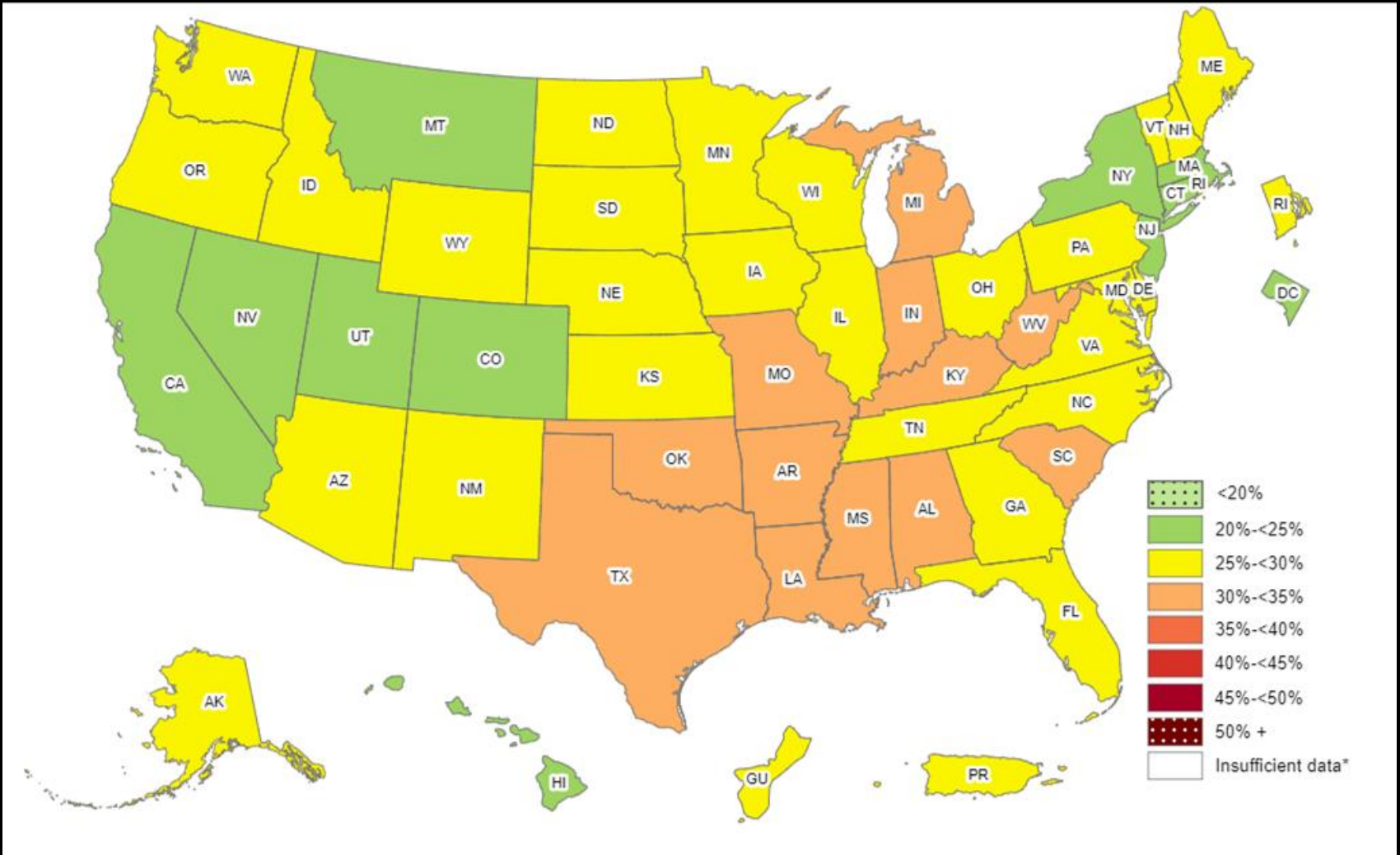
Ideally, we should be treating and preventing all of these:



Most people are NOT motivated by a desire to prevent disease in the future

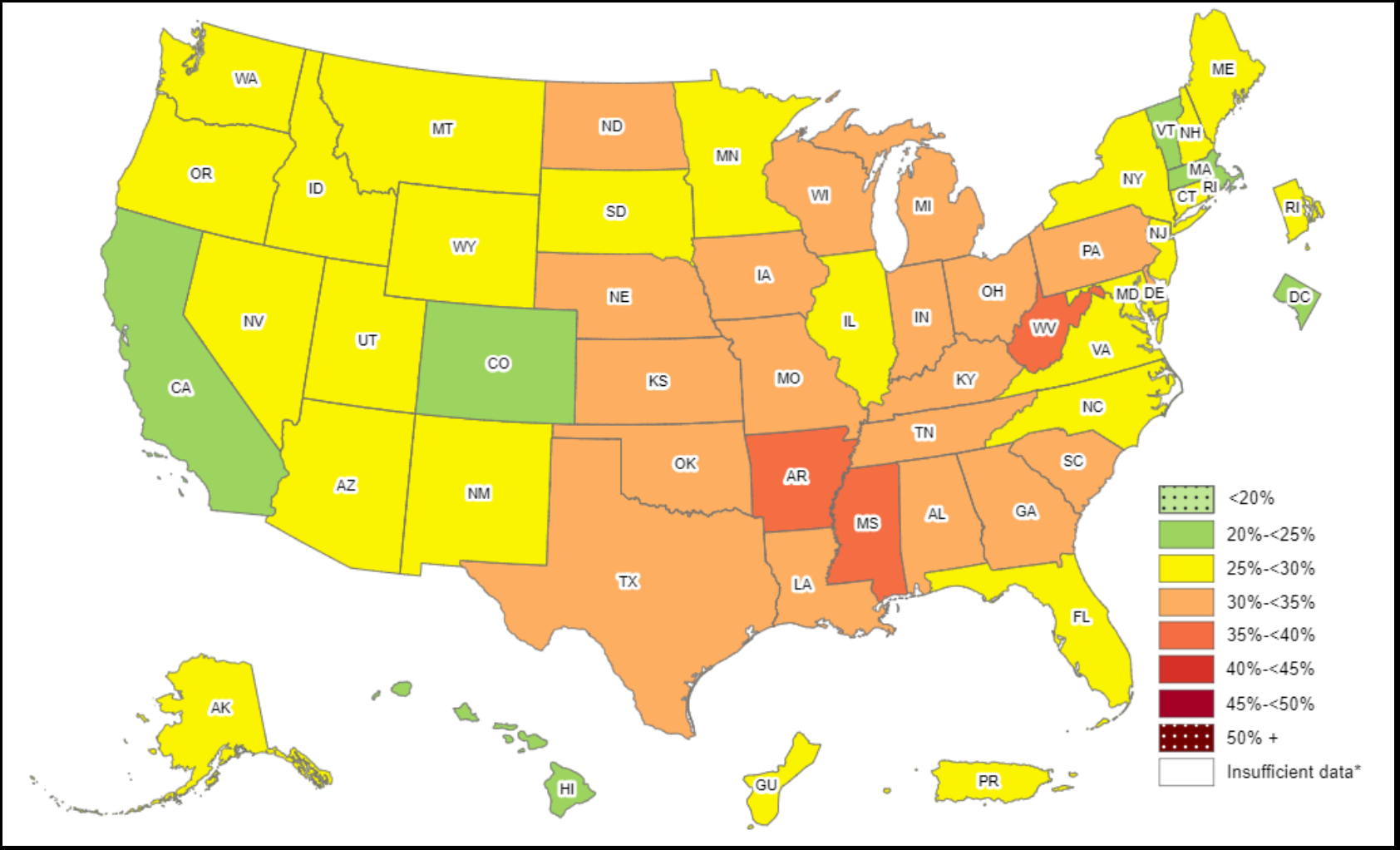
- T2DM, prediabetes and insulin resistance are intimately related to excess weight
- The more adiposity a person has, the more likely they are to suffer from T2DM or prediabetes (RR 3.43)
  - 18% of people with obesity have T2DM
  - 8.2% of people with overweight have T2DM
  - 5.4% of people with normal weight have T2DM

Prevalence of self-reported obesity among US adults by state and territory 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 US adults by state and territory 2014



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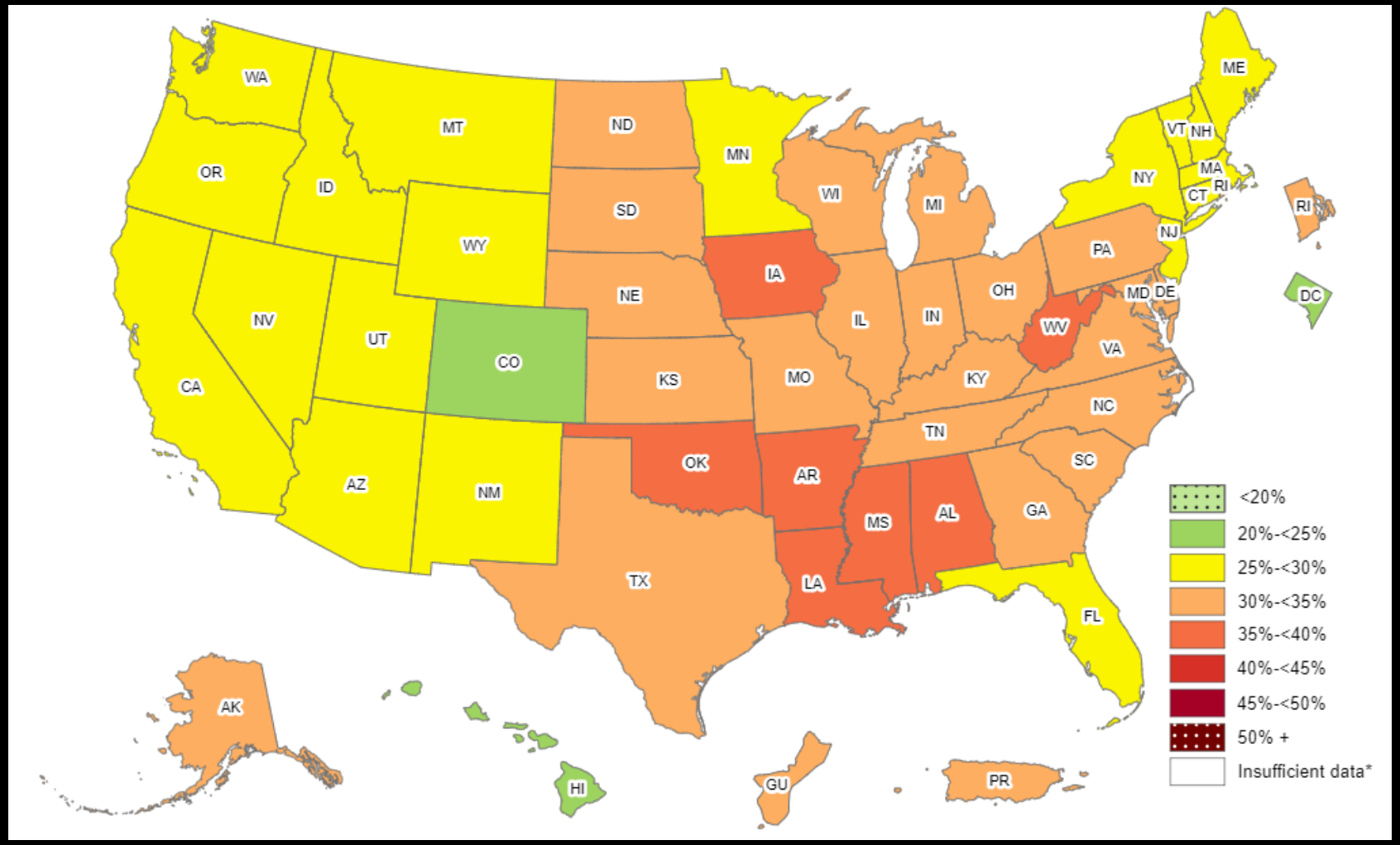
Prevalence of self-reported obesity among US adults by state and territory 2017



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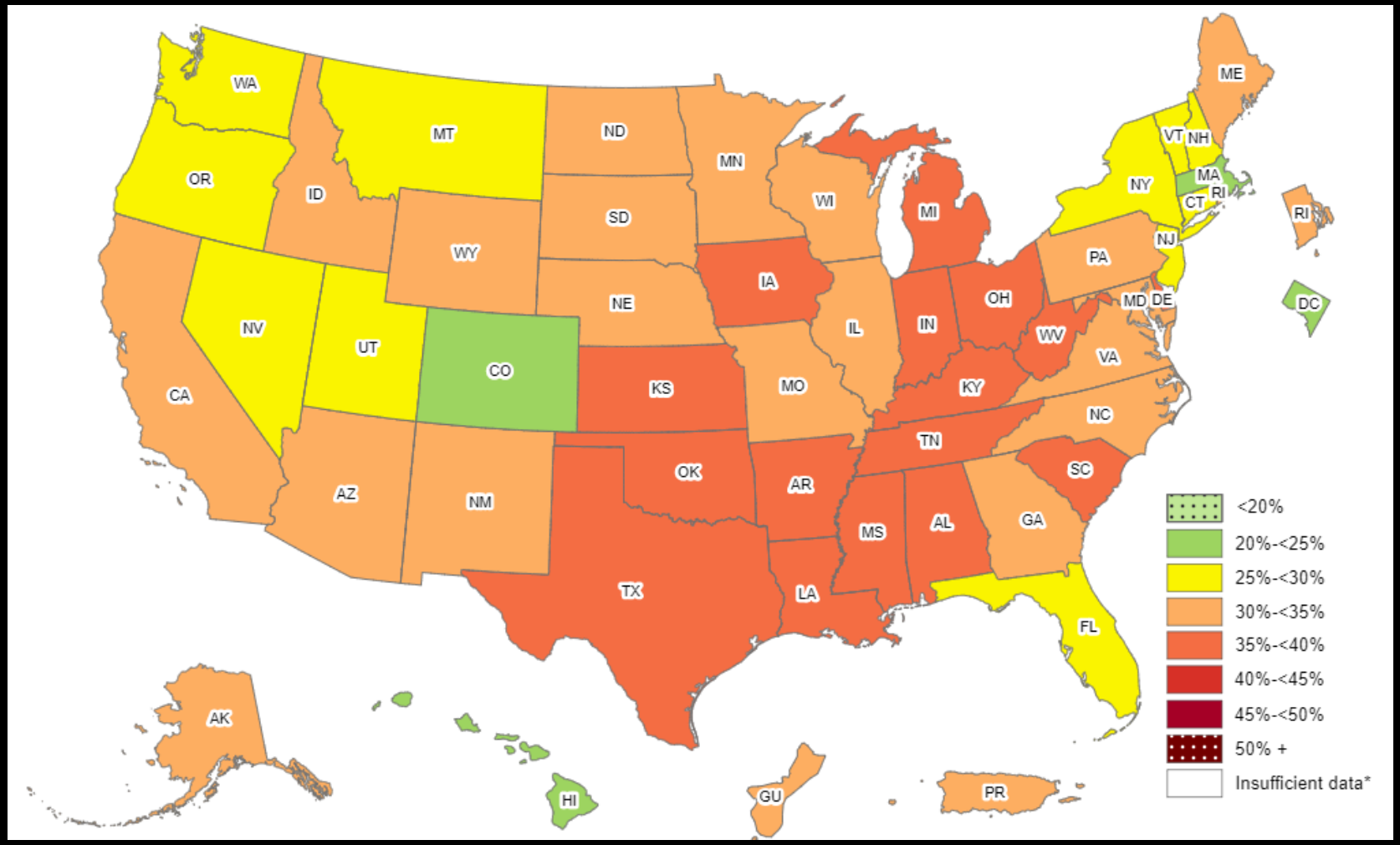
Prevalence of self-reported obesity among US adults by state and territory 2020



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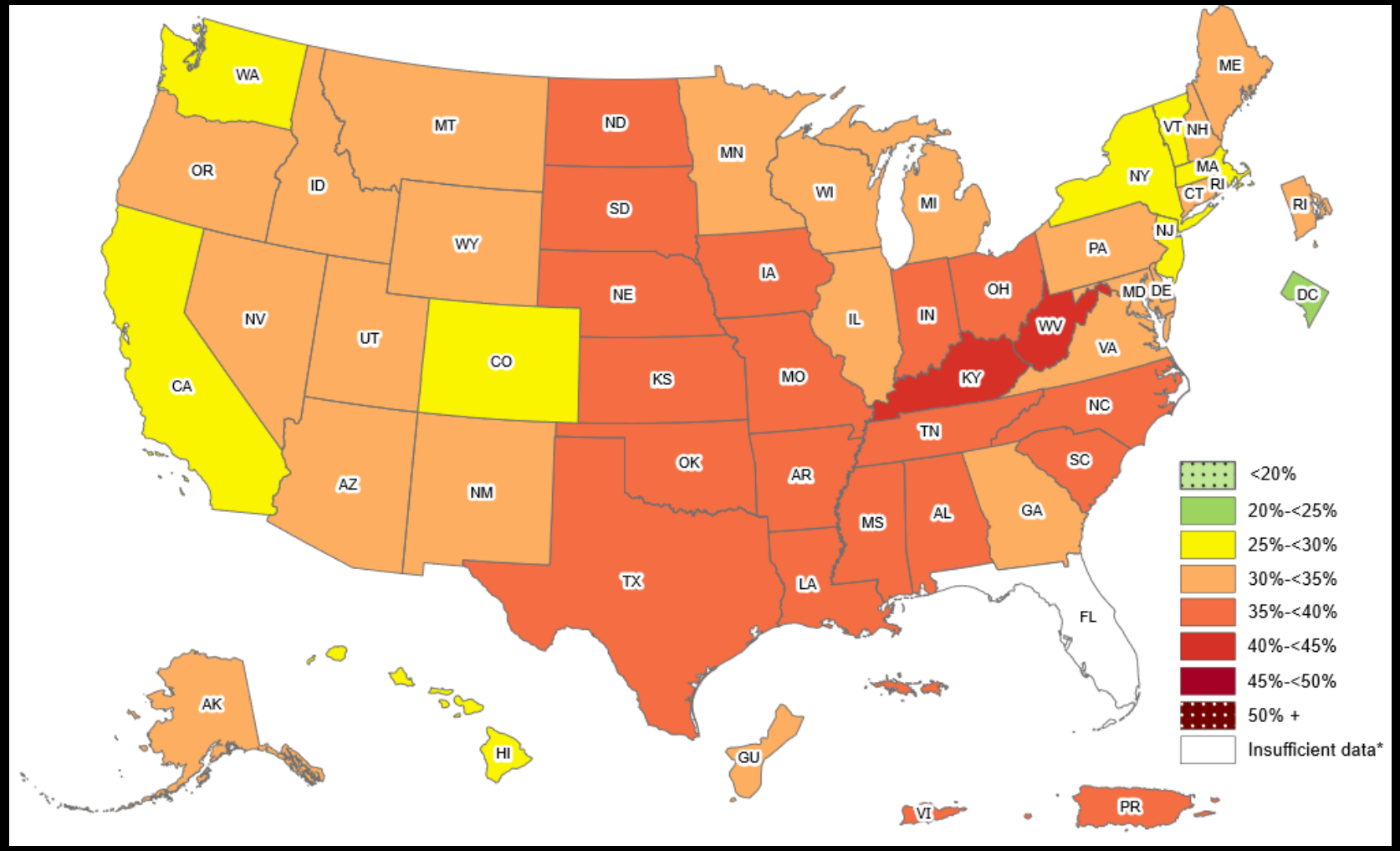
Prevalence of self-reported obesity among US adults by state and territory 2021



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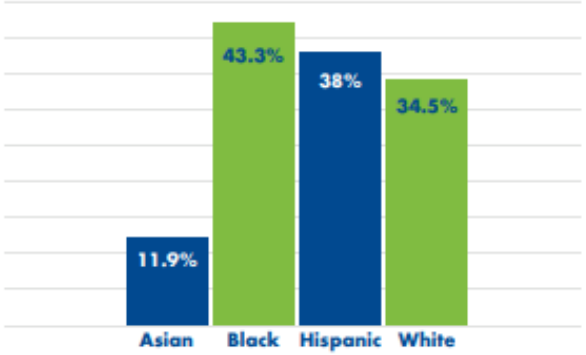
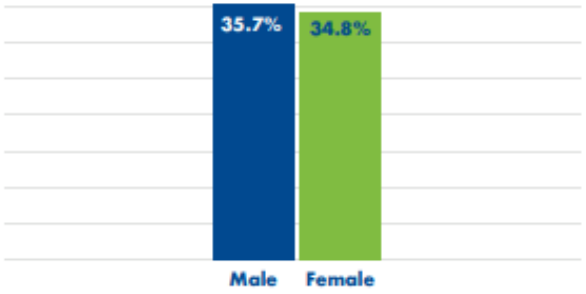
KANSAS | Obesity Fact Sheet

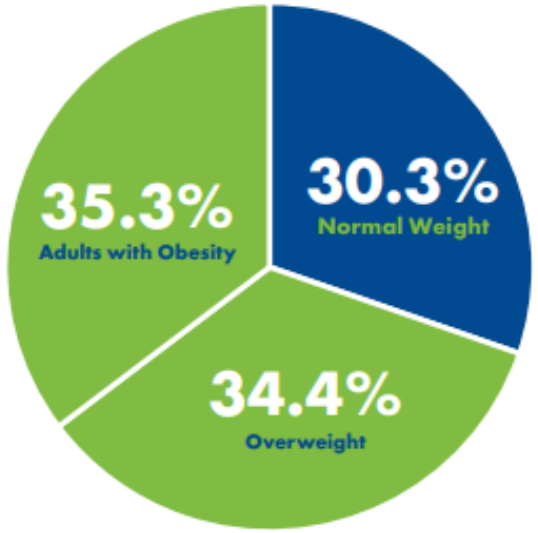
Kansas ranks **15th** in states impacted by obesity.

Adults with Obesity by Race & Ethnicity



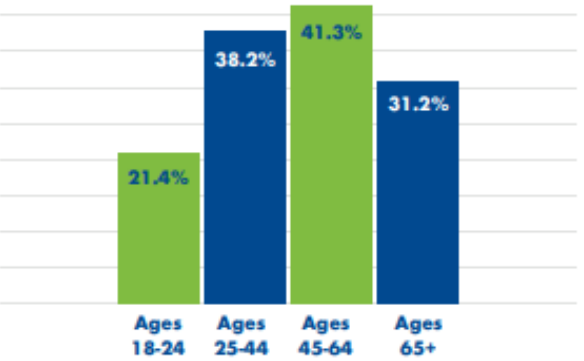
Adults with Obesity by Gender



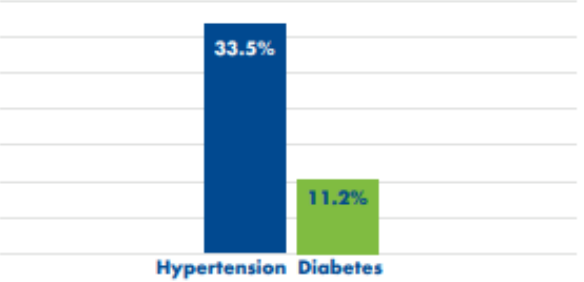


Adults with Obesity, Overweight, & Normal Weight

Adults with Obesity by Age Group



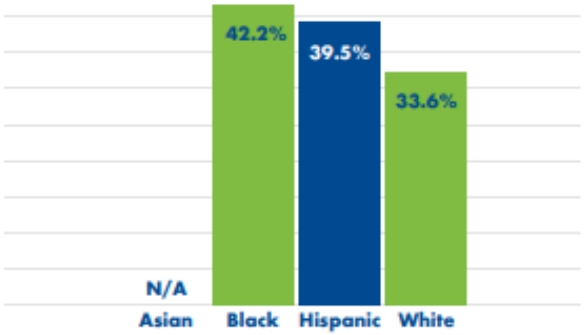
Adults with Hypertension and Diabetes



MISSOURI | Obesity Fact Sheet

Missouri ranks **18th** in states impacted by obesity.

Adults with Obesity by Race & Ethnicity



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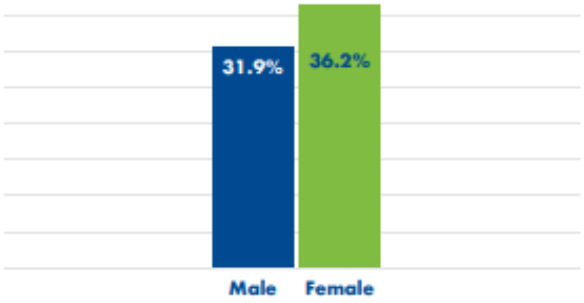

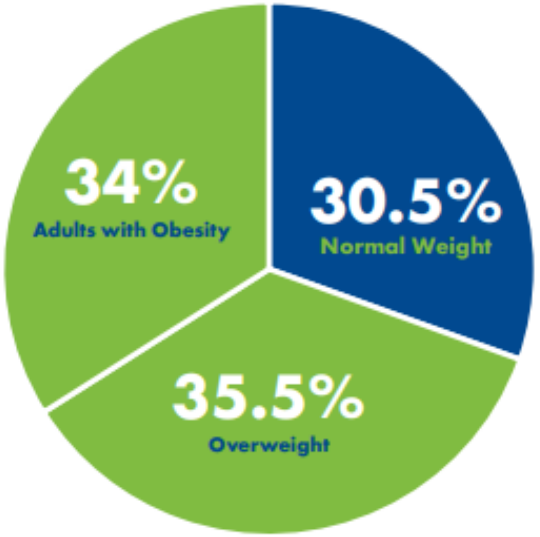

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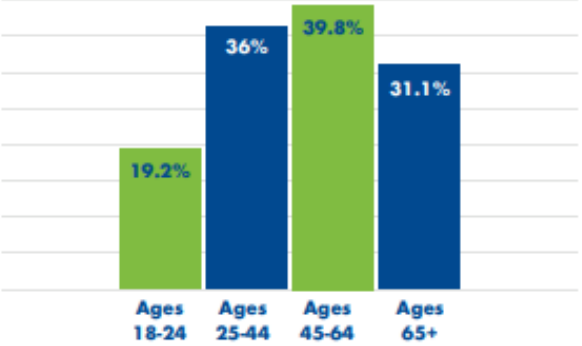

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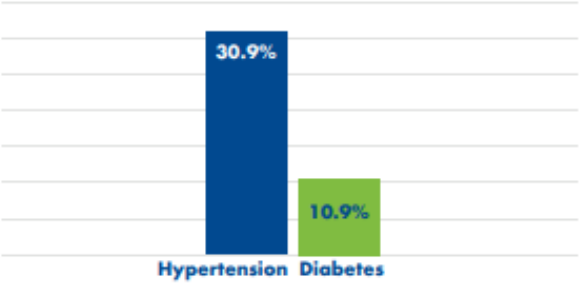


Impact of COVID

42% of Americans gained on average 29 lbs during the pandemic

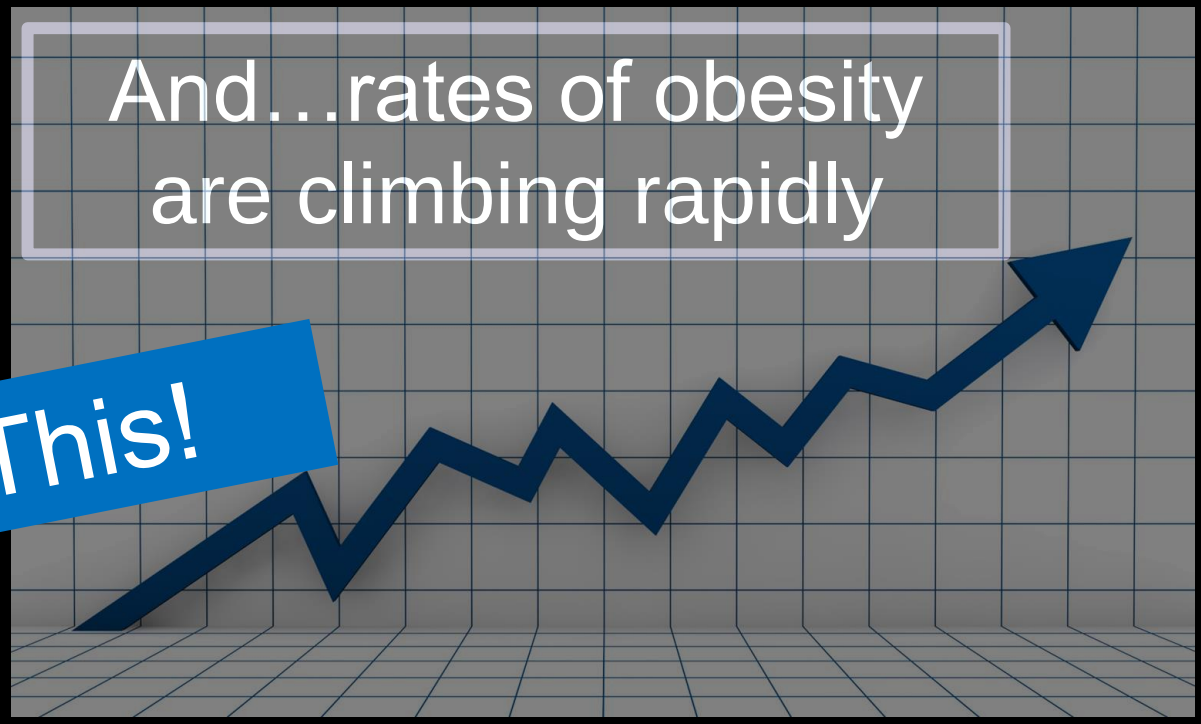
Risk factors for weight gain included:

- Male
- white or Hispanic
- Married
- aged 45 or older
- have a full-time job
- have less than a college education
- live in southern and western states or rural area

Most people are NOT motivated by a desire to prevent disease in the future

However, most people with excess weight ARE motivated by a desire to lose it

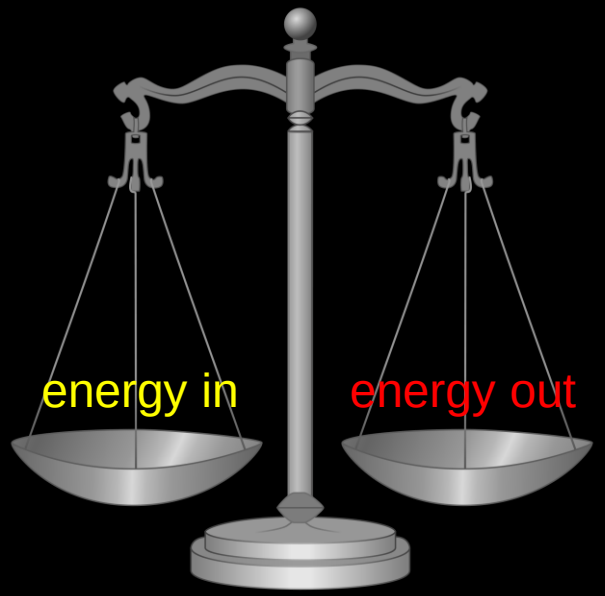
49% of adults make at least one attempt/year (CDC survey 2017-2018)



If they want it so badly, why aren't people losing weight?

"you're doing it wrong"

"eat less and move more"
"calories in, calories out"



Failure to execute assumes:

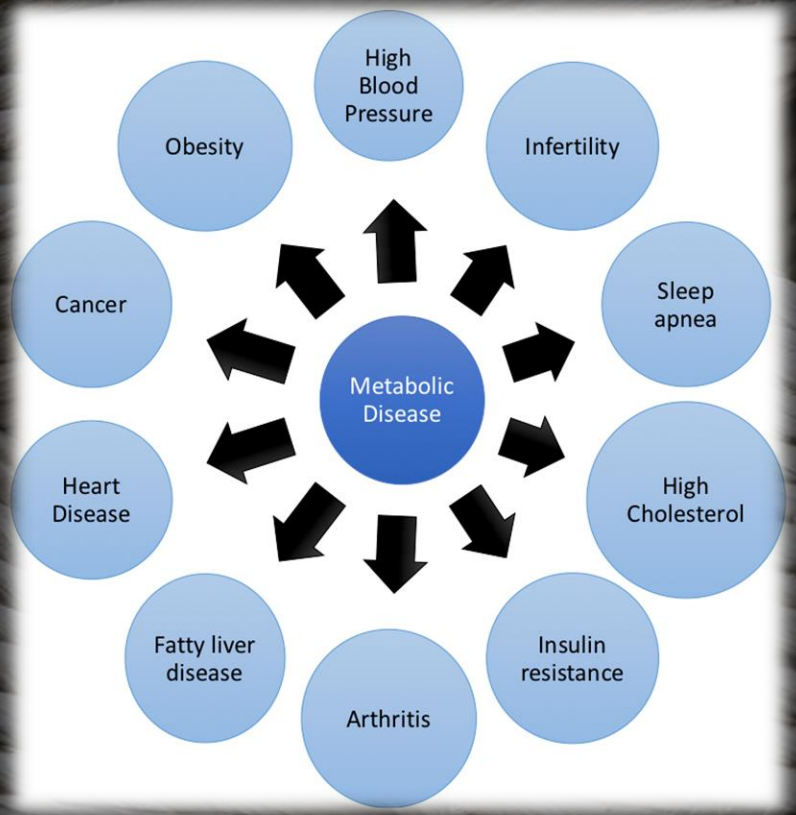
Ignorance	*"read labels better"*
Stupidity	*"count better"*
Laziness	*"try harder"*

Treating excess weight using math and/or motivational speaking isn't working

Obesity is a chronic, relapsing, multi-factorial, neurobehavioral disease, wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences

We don't treat any other diseases in medicine with math or motivation – why do we think this one will respond?

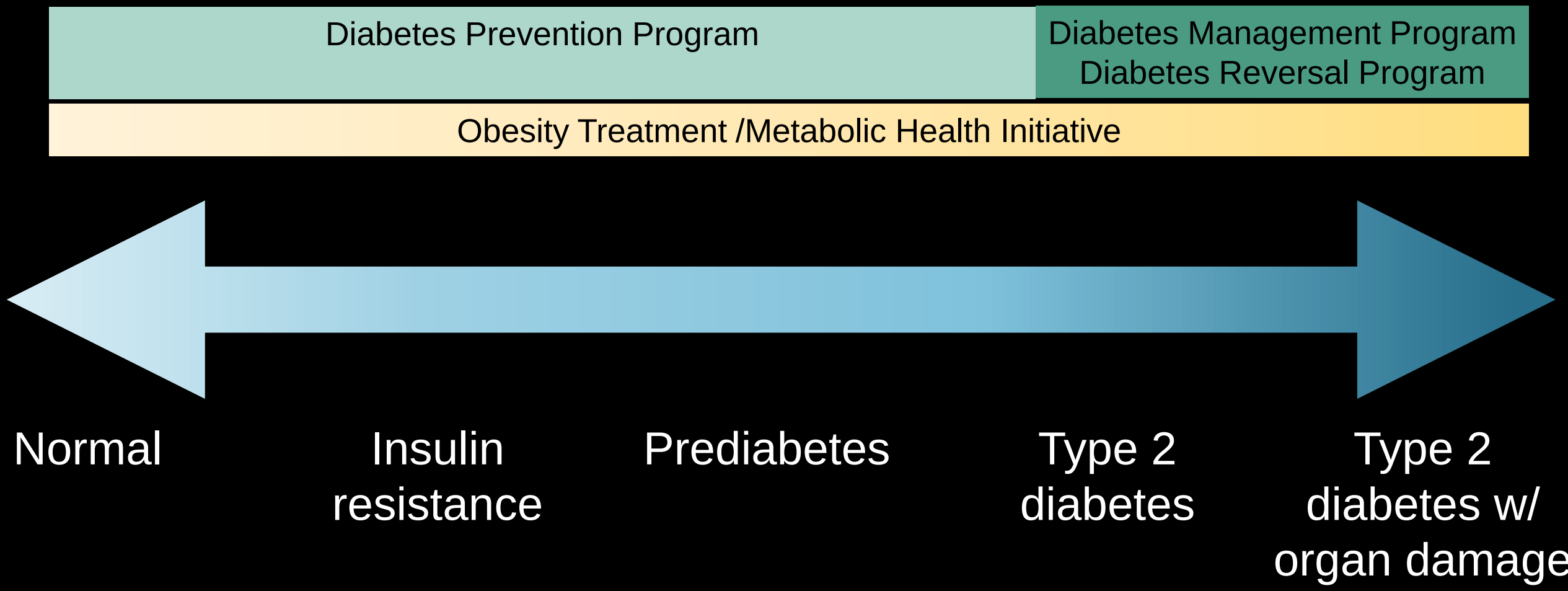
Obesity is a disease of metabolic dysregulation



Obesity and Insulin Resistance/Prediabetes/Diabetes are lanes on the same highway

Metabolic Syndrome: (3 or more)

- Abdominal obesity: waist circumference >35” (women) or >40” (men)
- High Triglycerides: ≥ 150mg/dl ← *(or taking medications to alter these values)*
- Low HDL cholesterol: < 50mg/dl (women) or < 40mg/dl (men) ←
- High Blood Pressure: ≥ 130/85 (or taking medication to treat blood pressure)
- High Fasting Blood Glucose: ≥ 100mg/dl (without the use of meds)



A comprehensive strategy can address all of these

Ignoring this problem is expensive:

- Elevated health risks typically precede health care cost increases
- Prevention of future health risks is imperative to decrease healthcare costs
- Longitudinal studies have demonstrated that health care cost increases associated with health risk increases are typically greater than the health care cost decreases associated with health risk decreases
- Not surprisingly, cost changes associated with both decreases and increases in health risks are much larger among individuals with chronic conditions

It *is* your problem:

If you have more than 50 employees, you are running a healthcare company.

You might be outsourcing the work, but it’s a division of your company

Dr. Colleen Rand, an obesity researcher at the University of Florida, asked forty-seven men and women that had overcome obesity whether they would rather be their previous weight or have some other disability. Every one of the forty-seven people said they would rather experience deafness, dyslexia, diabetes, bad acne or heart disease than have obesity again.

Ninety-one percent said they would rather have a leg amputated.

Eighty-nine percent would rather be blind.

If you helped employees with this, what would happen to your:

- Morale
- Engagement
- Turnover
- Recruiting
- Absenteeism
- Presenteeism