

Cancer and Obesity

The Challenge of Prevention and Treatment

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Disclosures

- Professional fees
 - Novo Nordisk
 - Nutrisystem
- Personal biases that favor:
 - Evidence-based interventions, both prevention and treatment
 - Respect for people living with obesity
 - Critical thinking about all evidence

Presentation Objectives

- Definition, physiology, and impact
- Bias and misconceptions
- Progress to date (lack thereof)
- Opportunities for better progress



Source: OAC Image Gallery

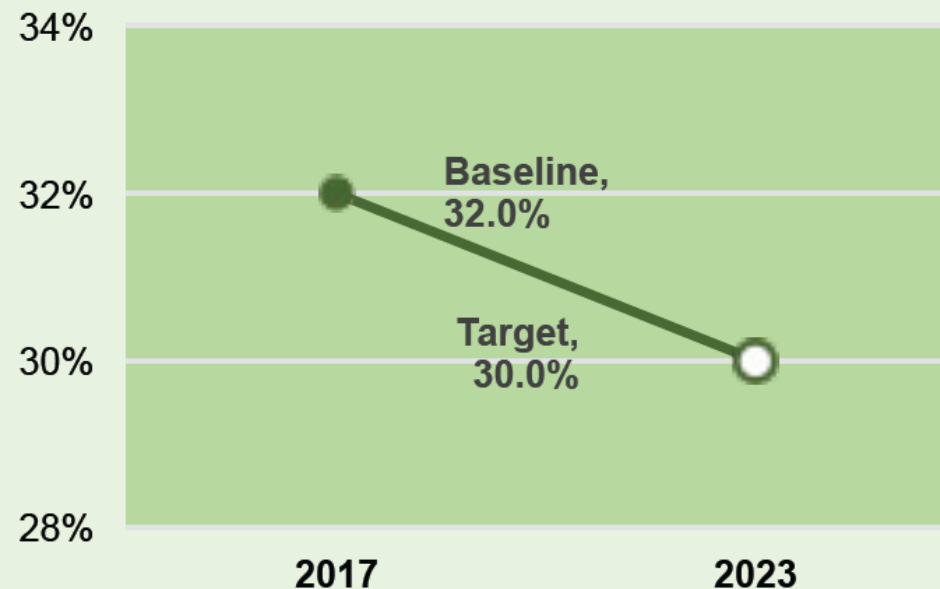
The Goal for the PA Cancer Control Plan

- Sounds great
- How hard can this be?

ADULT OBESITY PREVENTION

Objective

Decrease the rate of adult obesity by 2 percentage points



Source: Behavioral Risk Factor Surveillance System

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Definition, Physiology, and Impact

What Is Obesity?

- A state of being grossly fat or overweight?
- A behavioral problem?
- The result of bad choices?
- A disease of poor nutrition?
- Evidence of sloth and gluttony?
- A bogus diagnosis?
- A disease of excess adipose tissue?



Source: OAC Image Gallery

What Is Obesity?

A complex, chronic disease

- Defined by excess adipose (fat) tissue
- > 100 potential causes
- Many subtypes
- Not fully understood
- Badly misunderstood by the public

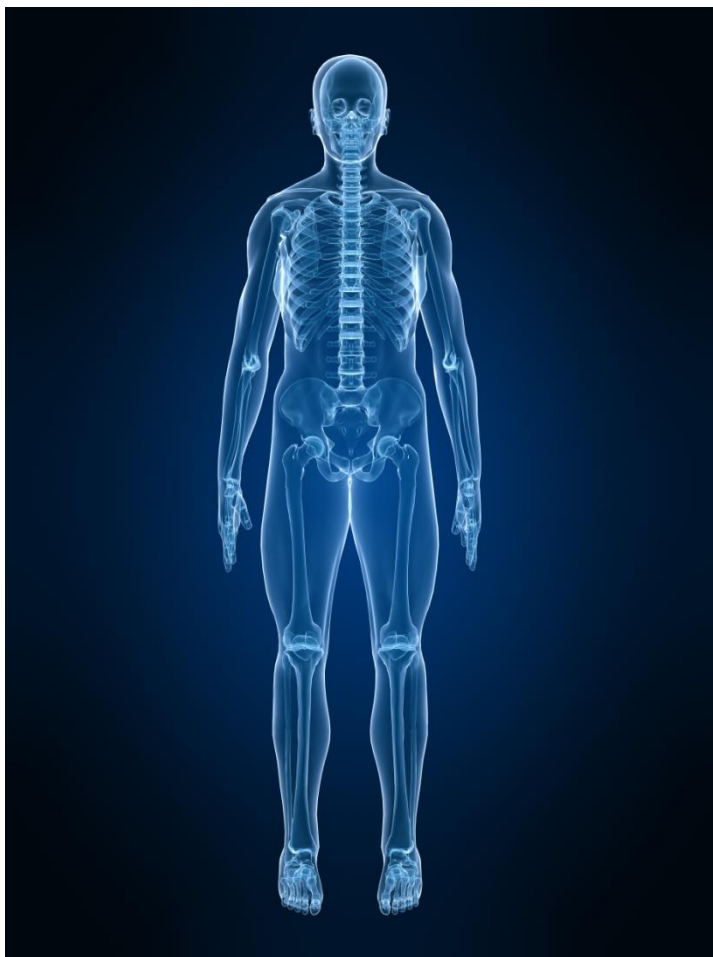


Source: OAC Image Gallery

Untreated Obesity

Harms Nearly Every Organ System

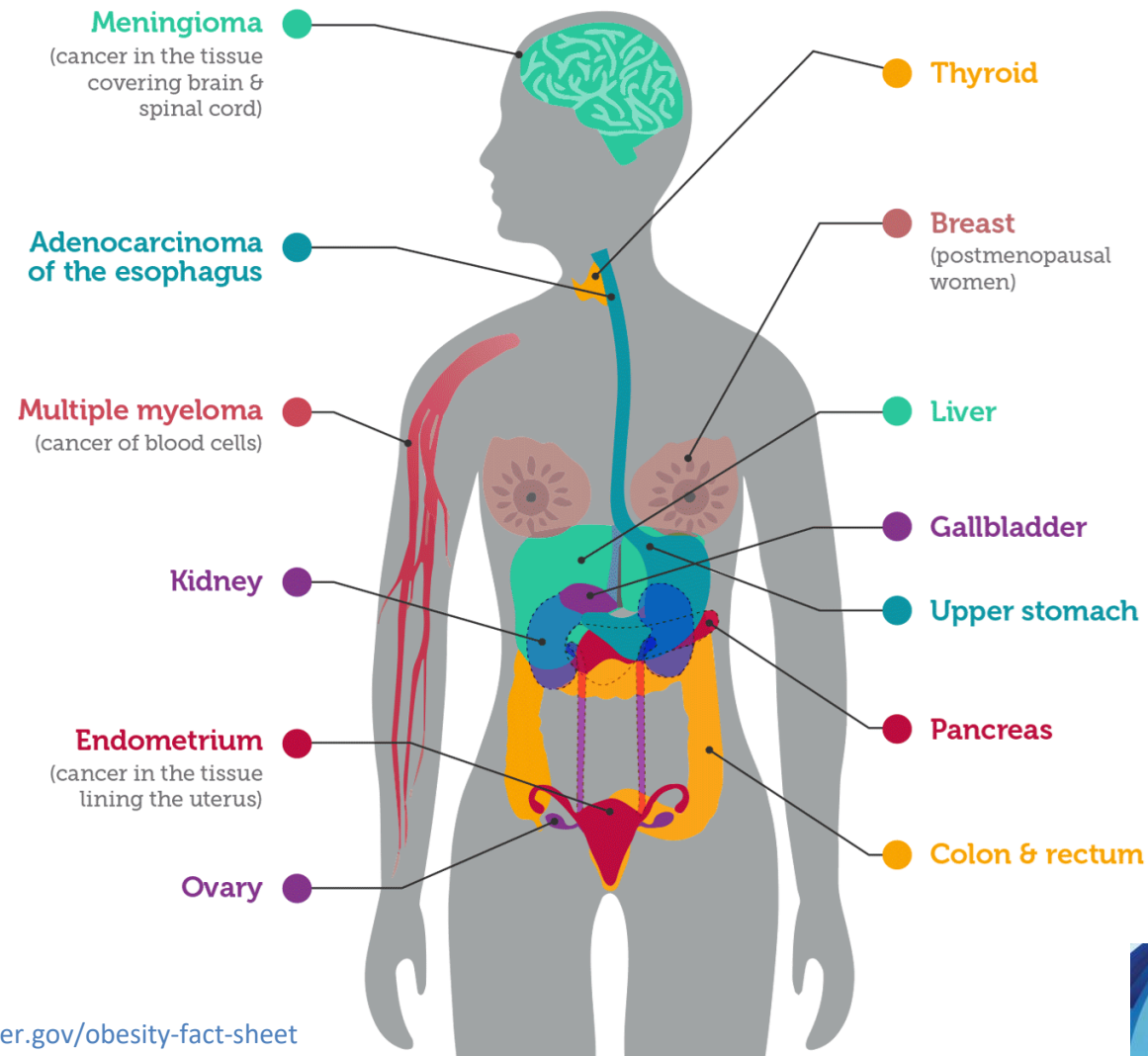
- Pulmonary
- Nonalcoholic fatty liver
- Gall bladder disease
- Gynecologic
- Osteoarthritis
- Dermatologic
- Gout



- Intracranial hypertension
- Stroke
- Cataracts
- Cardiovascular
- Diabetes
- Pancreatitis
- Cancer
- Phlebitis

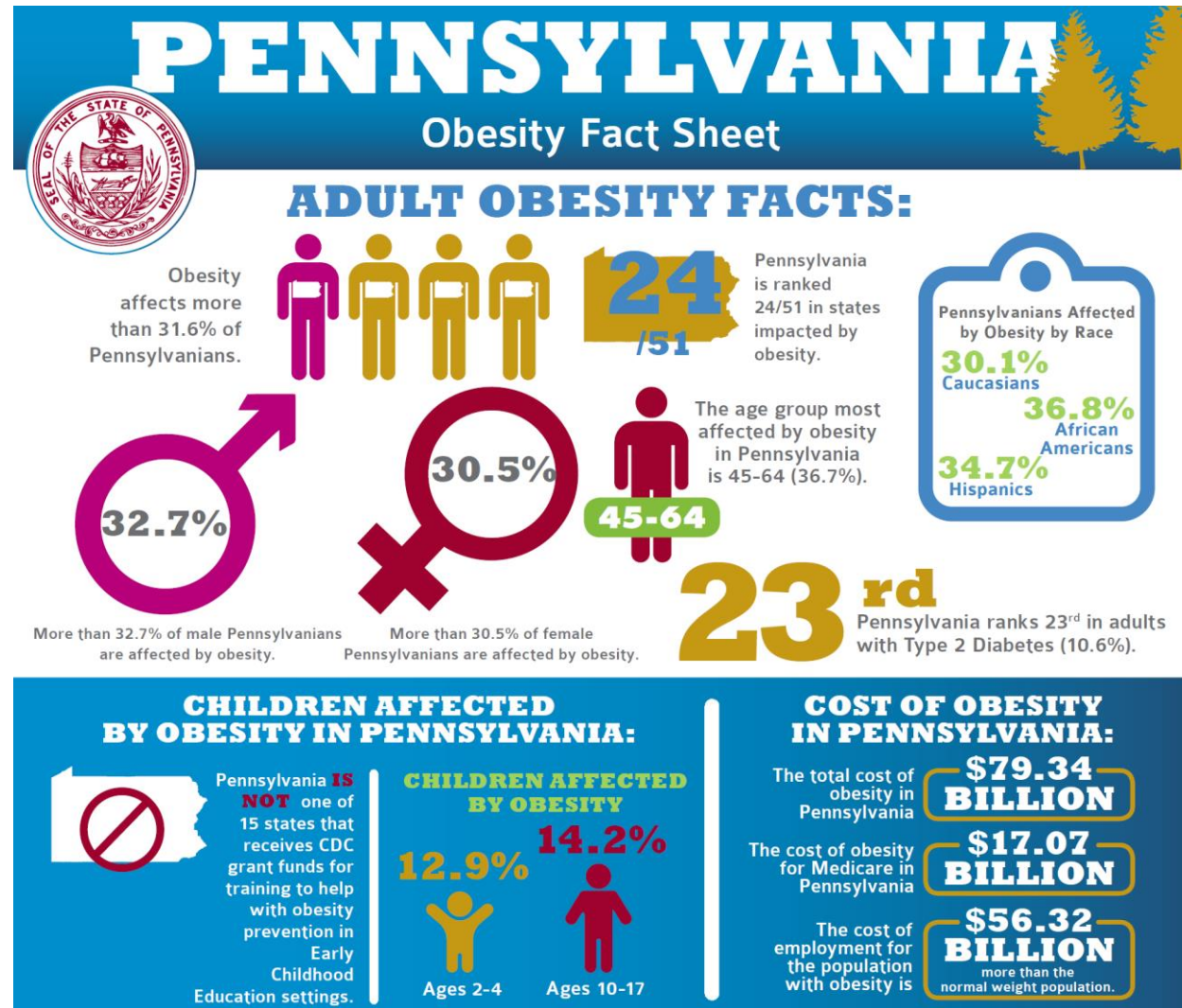
Obesity Contributes to Cancer Risk

Cancers Associated with Excess Weight and Obesity

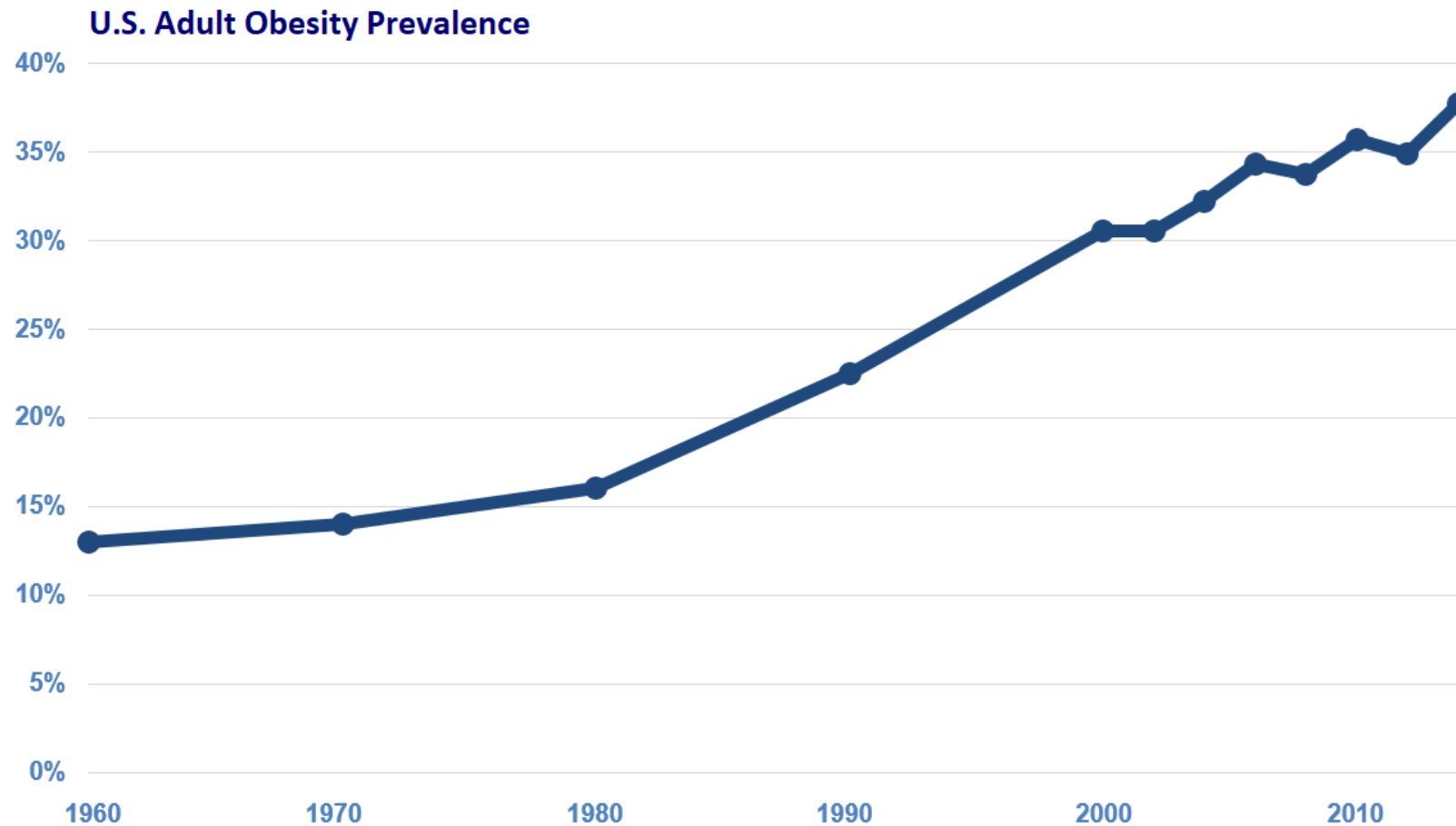


Source: cancer.gov/obesity-fact-sheet

Obesity Has a Big Effect on Health and Wealth in Pennsylvania



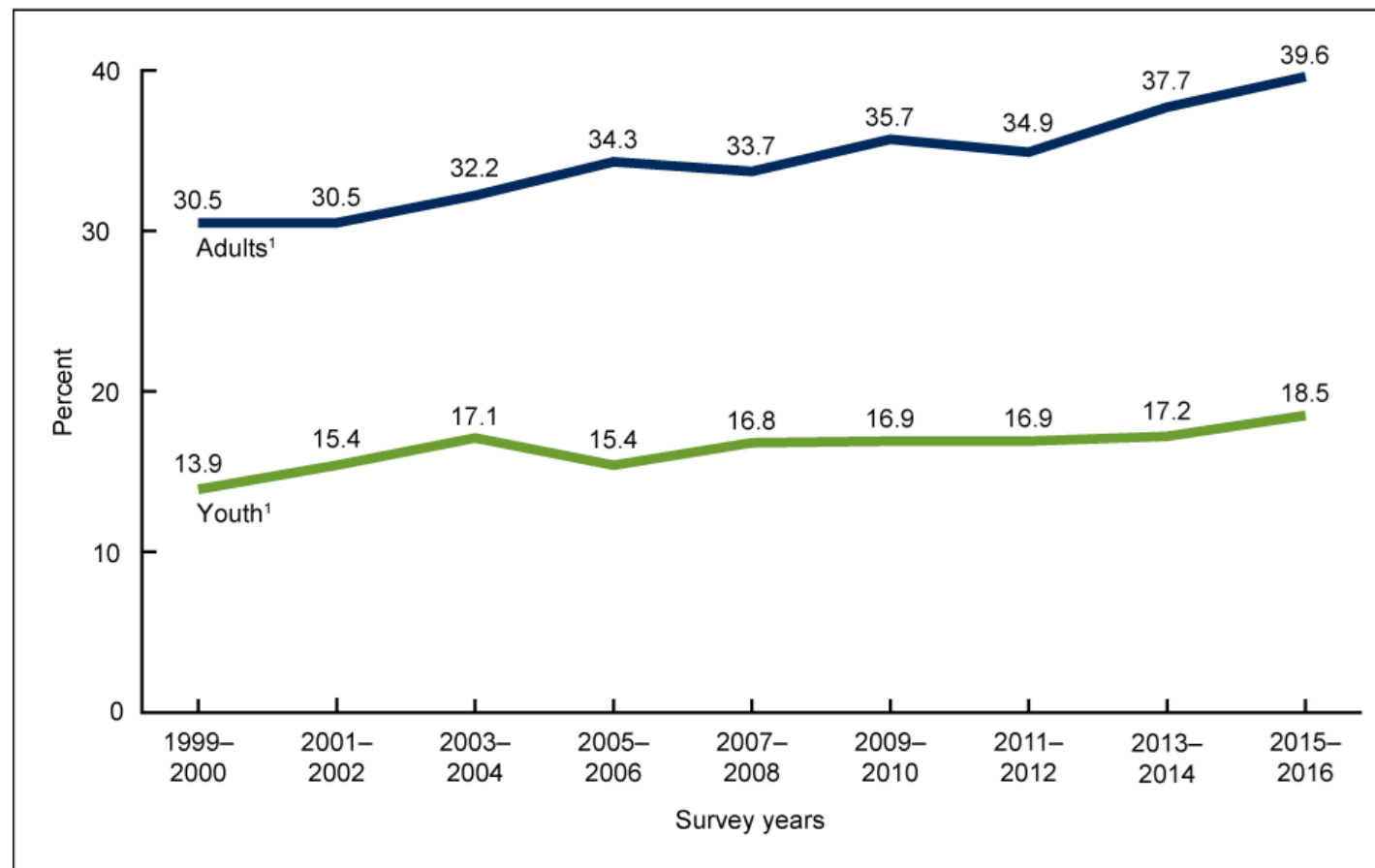
Obesity Prevalence Began to Grow in the 1980s



Source: NHANES estimates

Despite All Our Best Efforts, Obesity Trends Haven't Budged

Figure 5. Trends in obesity prevalence among adults aged 20 and over (age adjusted) and youth aged 2–19 years: United States, 1999–2000 through 2015–2016

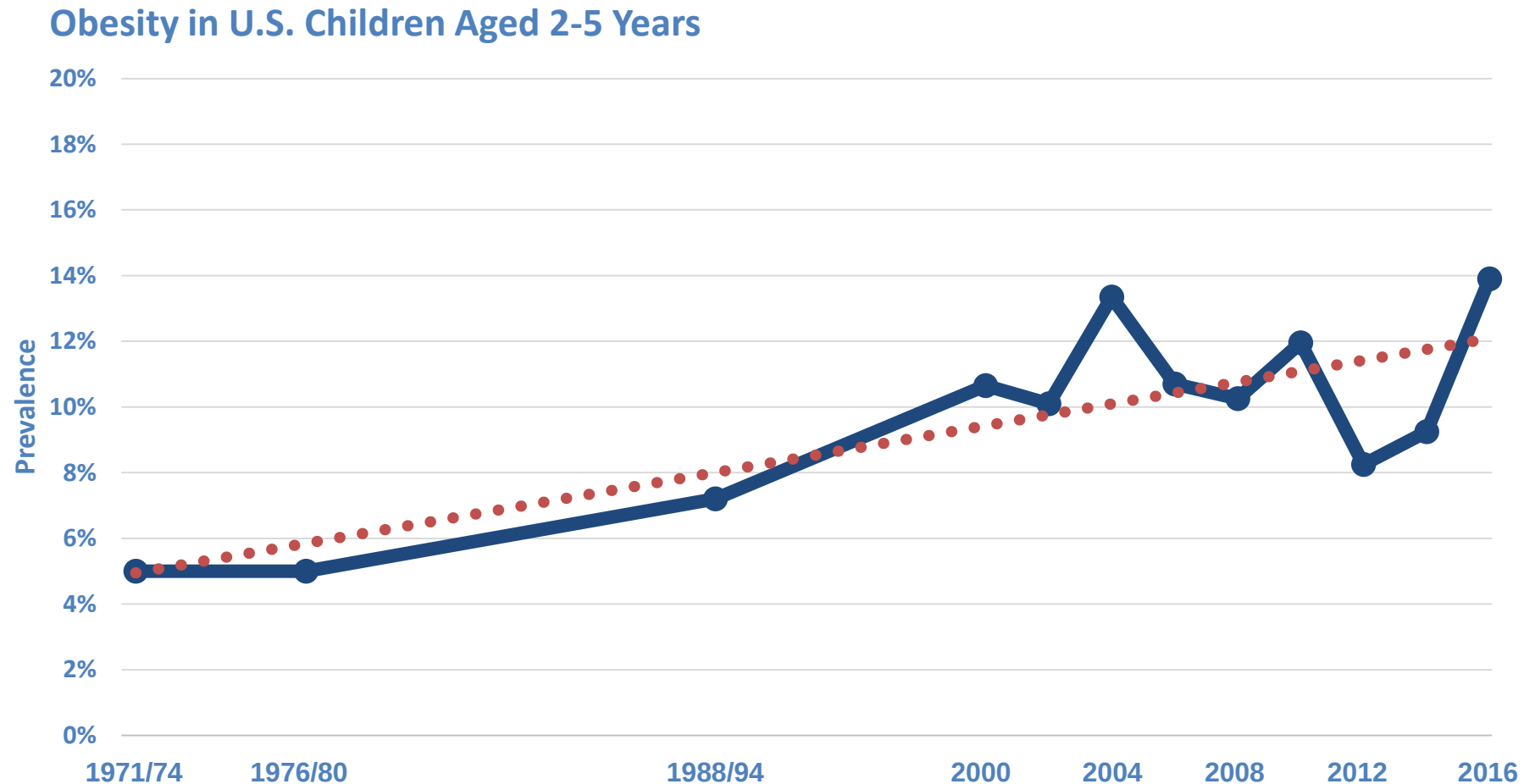


¹Significant increasing linear trend from 1999–2000 through 2015–2016.

NOTES: All estimates for adults are age adjusted by the direct method to the 2000 U.S. census population using the age groups 20–39, 40–59, and 60 and over. Access data table for Figure 5 at: https://www.cdc.gov/nchs/data/databriefs/db288_table.pdf#5.

SOURCE: NCHS, National Health and Nutrition Examination Survey, 1999–2016.

Not Even in Children 2-5



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Why Has Progress Been So Elusive?

Two Kinds of Bias

Corrupt Our Response to Obesity

- **Intellectual bias**
favoring personal convictions
- **Weight bias**
directed at people with obesity

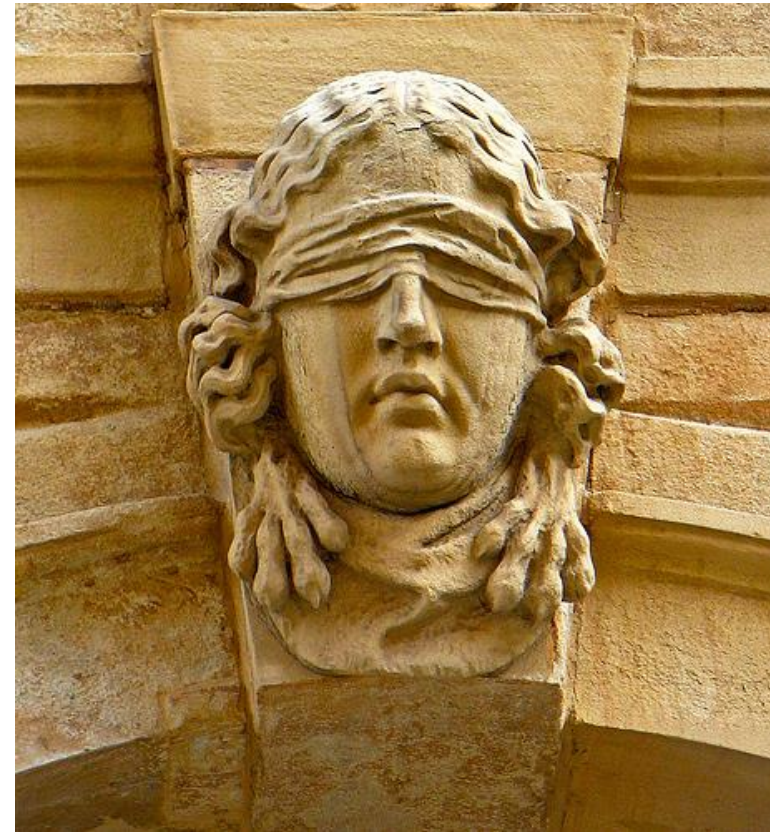


God Judging Adam, Etching by William Blake / WikiArt

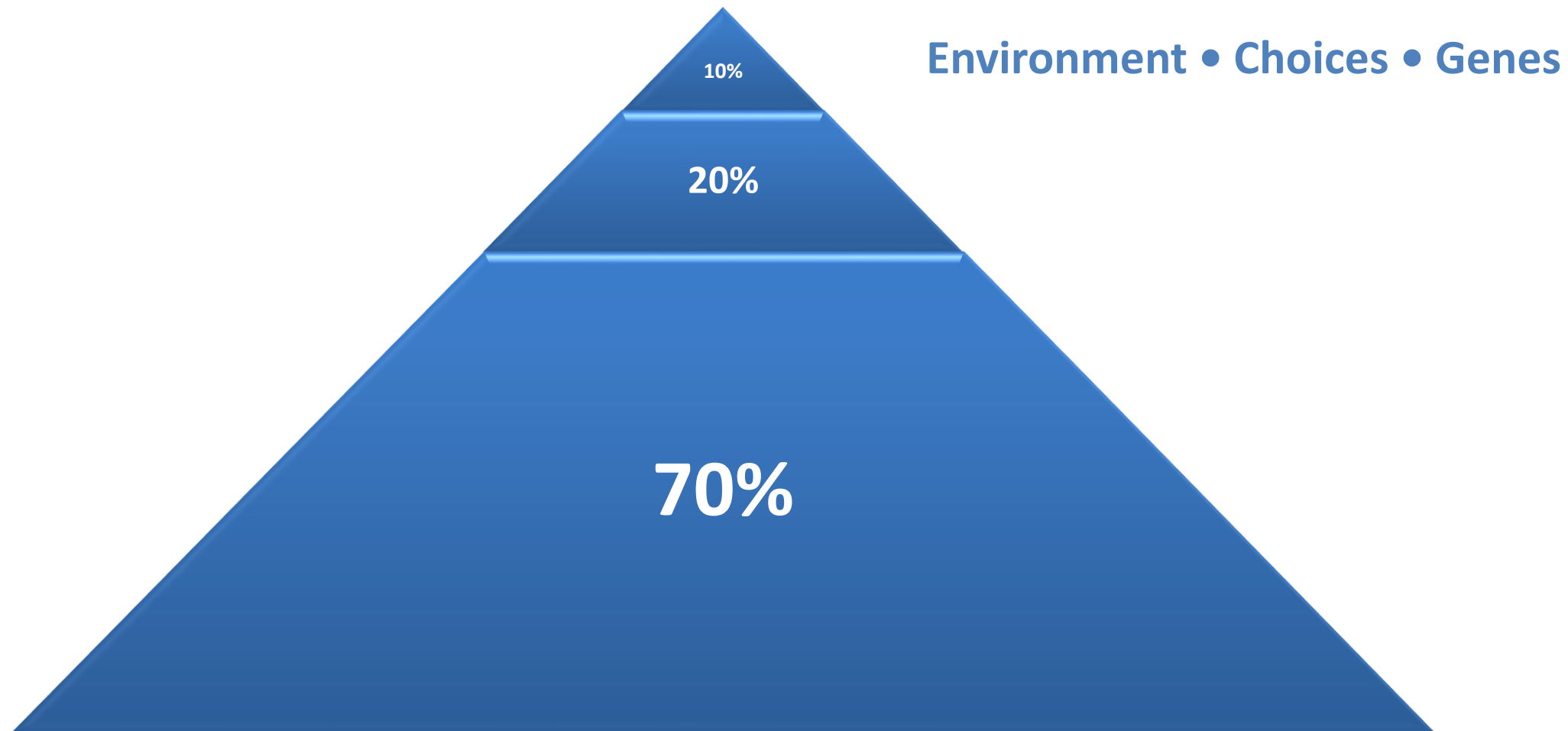
Bias Comes from Selective Blindness to Facts

Bias is an inclination or outlook to present or hold a **partial perspective**, often accompanied by a **refusal to consider** the possible merits of **alternative points of view**. Biases are learned implicitly within cultural contexts. People may develop biases toward or **against** an **individual**, an ethnic **group**, a nation, a religion, a social class, a political party, theoretical **paradigms** and **ideologies** within academic domains, or a species.

– Adapted from
Psychology: Contemporary Perspectives
Paul Okami

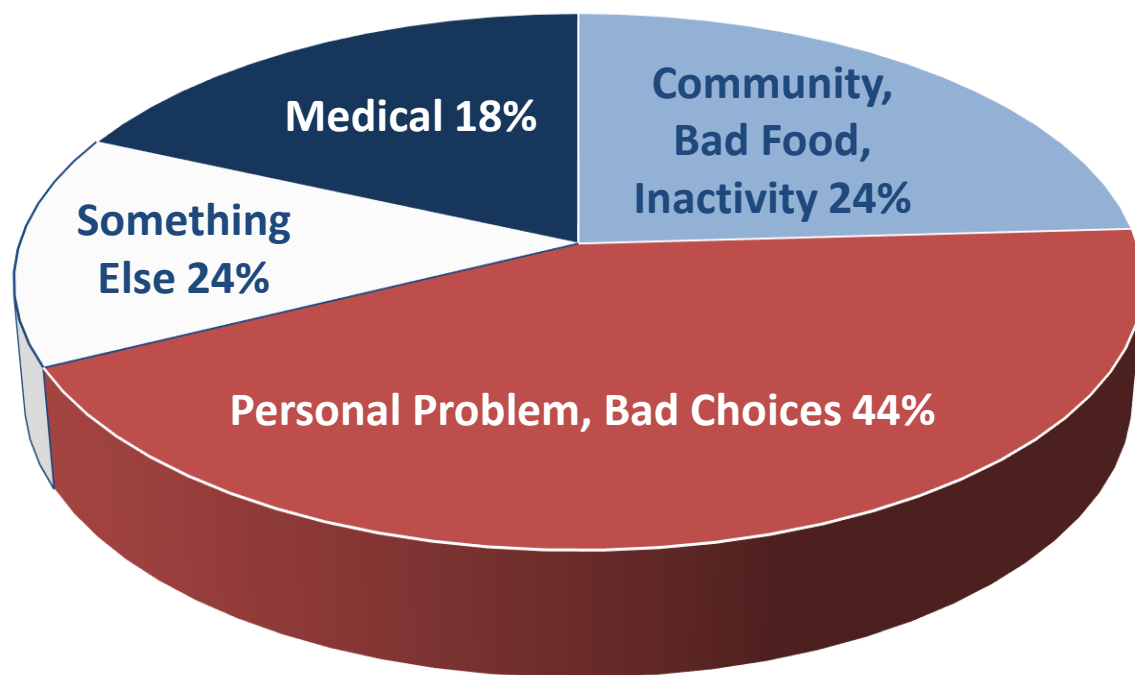


People Typically View Obesity as the Result of Poor Choices



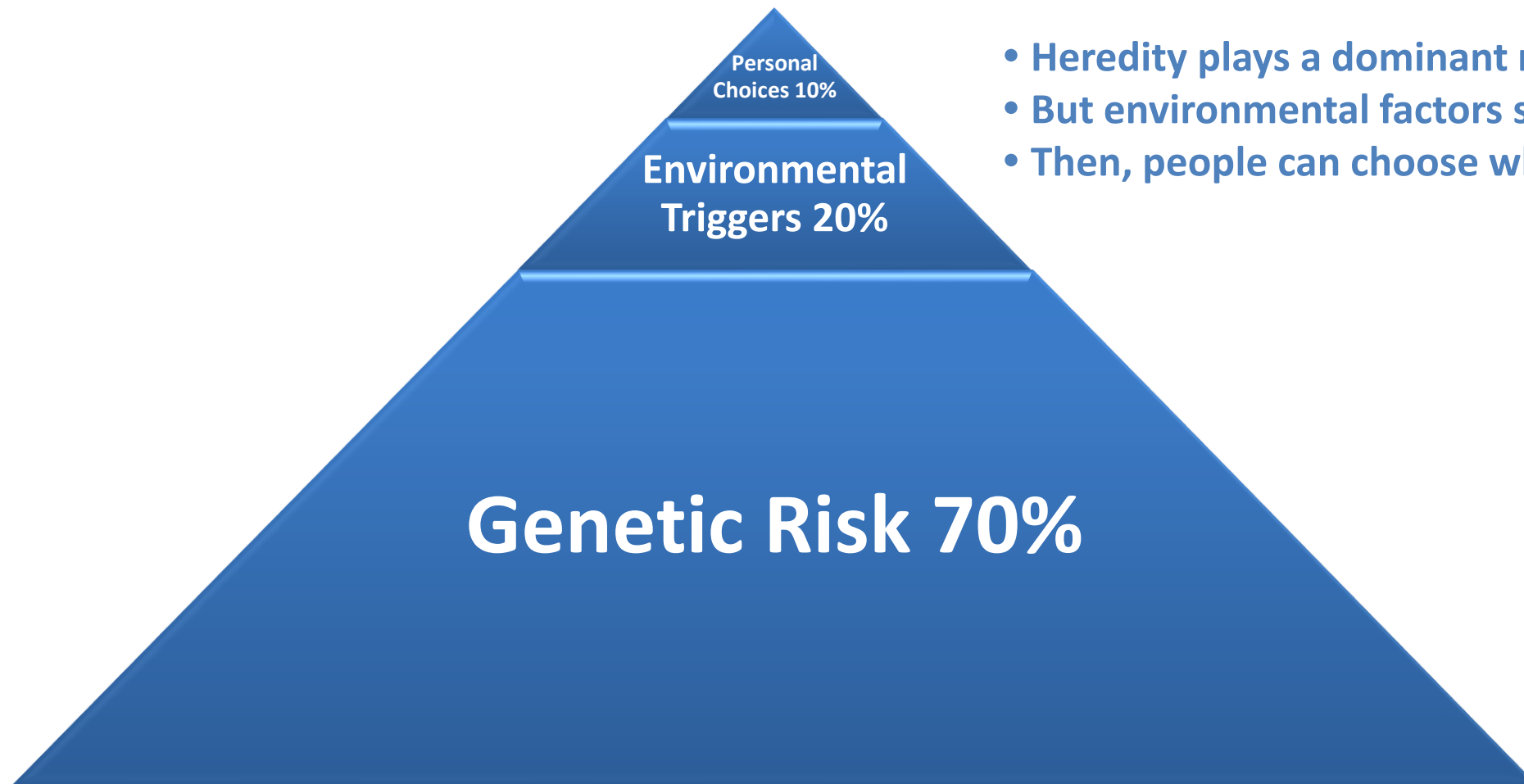
Long Viewed as a Matter of Choice

“Which phrase comes closest to describing the type of problem that you think obesity is?” (Feb 2013)



- **Bad personal choices was the dominant explanation in 2013**
- **Data from ongoing tracking**
- **Respondents asked to pick one**

The Truth Is That Obesity Is a Highly Heritable Chronic Disease



- Heredity plays a dominant role in obesity risk
- But environmental factors serve to activate it
- Then, people can choose what to do about it

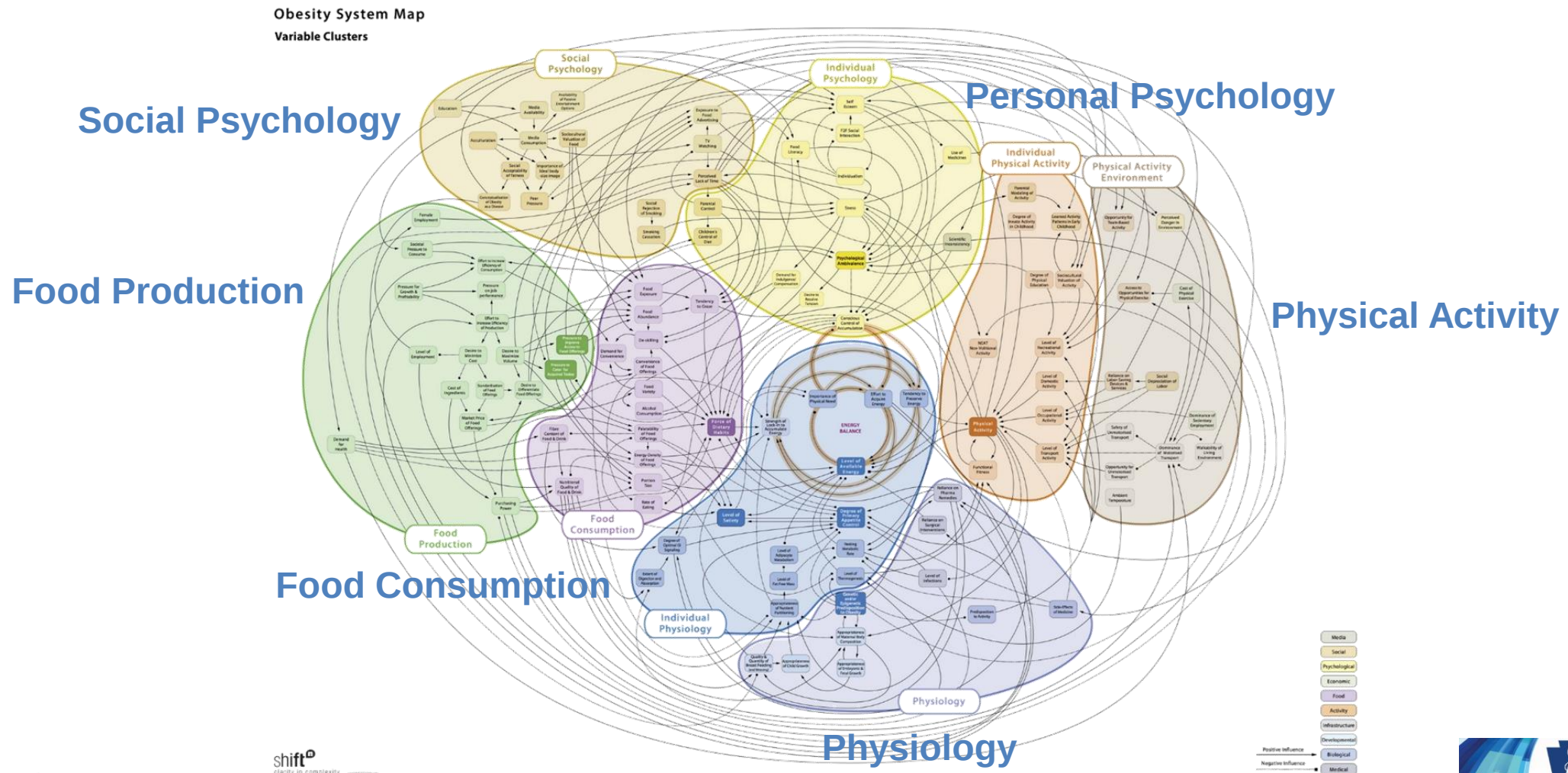
The Obesity Pandemic Comes from a Perfect Storm of Environmental Triggers

Environmental Drivers of Obesity



- Simplistic explanations are invariably wrong
- The more accurate view is a perfect storm of multiple factors

Obesity Grows from Complex, Adaptive Systems



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Weight Bias Directed at People with Obesity

Weight Bias Flows from Common Assumptions About People with Obesity

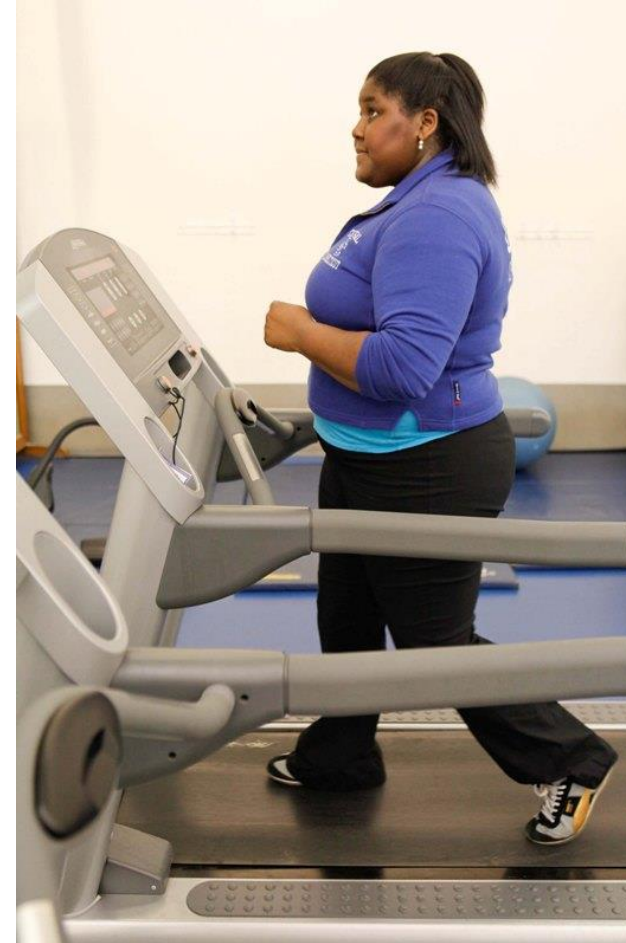


Untitled, photograph by Boohoomian / flickr



Photograph courtesy of the UCONN Rudd Center

Assumptions Can Be Wildly Misleading



Demeaning Stereotypes About People with Obesity

- Lazy
- Stupid
- Undisciplined
- Sloppy
- Awkward
- Losers
- Dishonest
- Won't follow directions
- Uniformly unhealthy
- Ignorant about nutrition
- Lives spent gorging on junk food



In the Kitchen, photograph © Obesity Action Coalition / OAC Image Gallery

Bias Compromises Quality of Care

The New York Times

Why Do Obese Patients Get Worse Care? Many Doctors Don't See Past the Fat

By GINA KOLATA SEPT. 25, 2016



Sarah Bramlette, who advocates awareness of

You must lose weight, a doctor told Sarah Bramlette, advising a 1,200-calorie-a-day diet. But Ms. Bramlette had a basic question: How much do I weigh?

The doctor's scale went up to 350 pounds, and she was heavier than that. If she did not know the number, how would she know if the diet was working?

The doctor had no answer. So Ms. Bramlette, 39, who lived in Ohio at the time, resorted to a solution that made her burn with shame. She drove to a nearby junkyard that had a scale that could weigh her. She was 502 pounds.

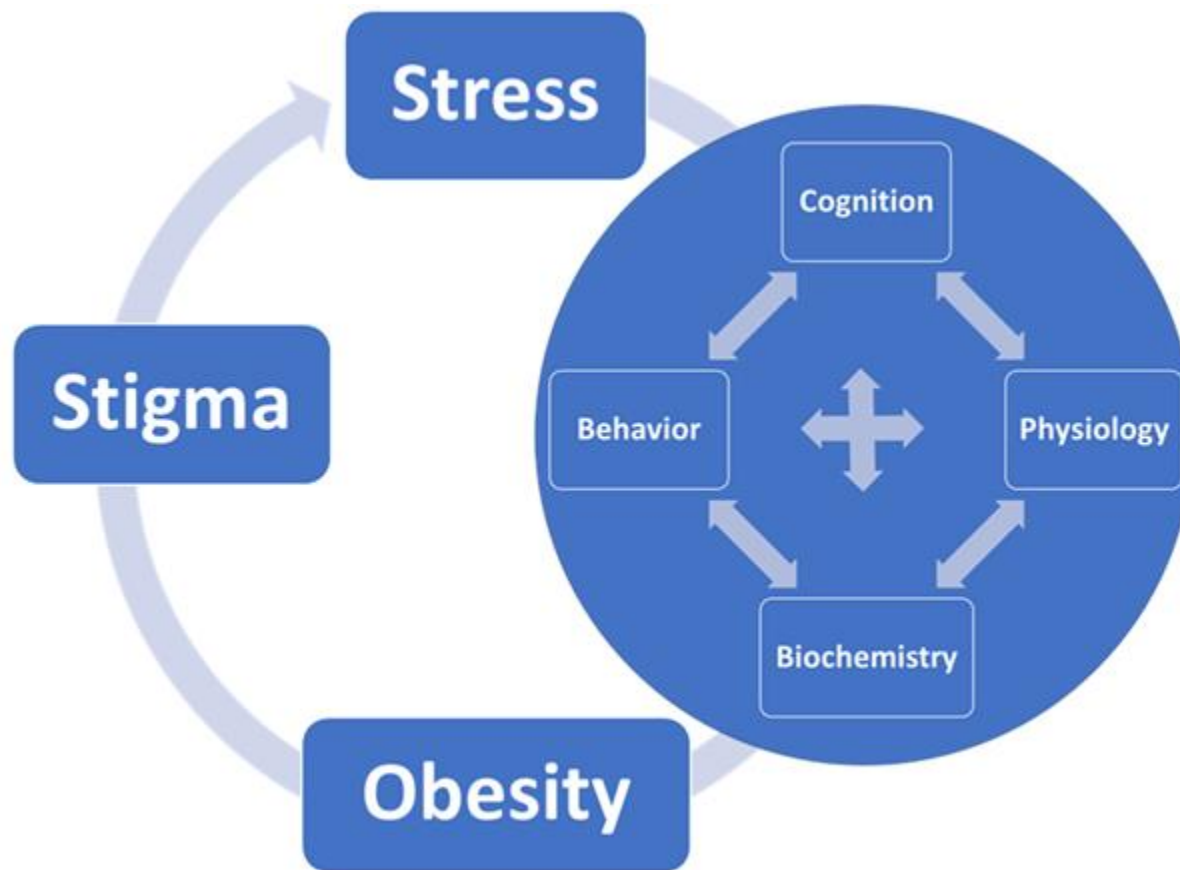
One in three Americans is obese, a rate that has been steadily growing for more than two decades, but the health care

- Less empathetic care
- Less preventive care
- Patients feel berated and disrespected
- Obesity blamed for every symptom

“You could walk in with an ax sticking out of your head and they would tell you your head hurt because you are fat.”

Living with Discrimination Makes People Sicker

Pathways from stress to obesity



Bias Gets in the Way of Progress

Blame, image © Ian Design / flickr



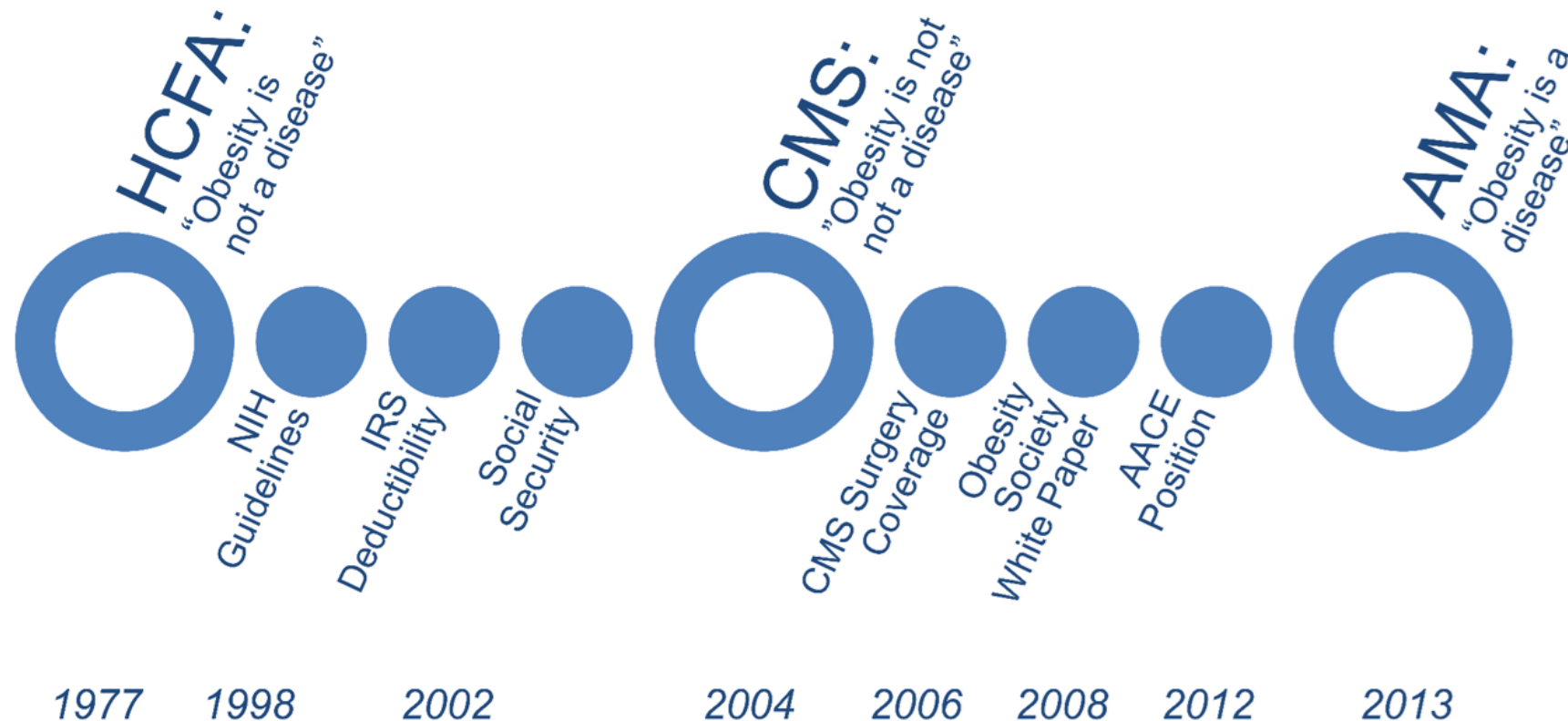
- **Stigma leads to denial and inaction**
 - Blame directed at people with obesity
 - Assumptions of
 - Laziness
 - Poor discipline
 - Social rejection
- **People seek less care, get poor care, so health suffers**
- **Leads to ineffective policies**

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Where Are We Making Progress?

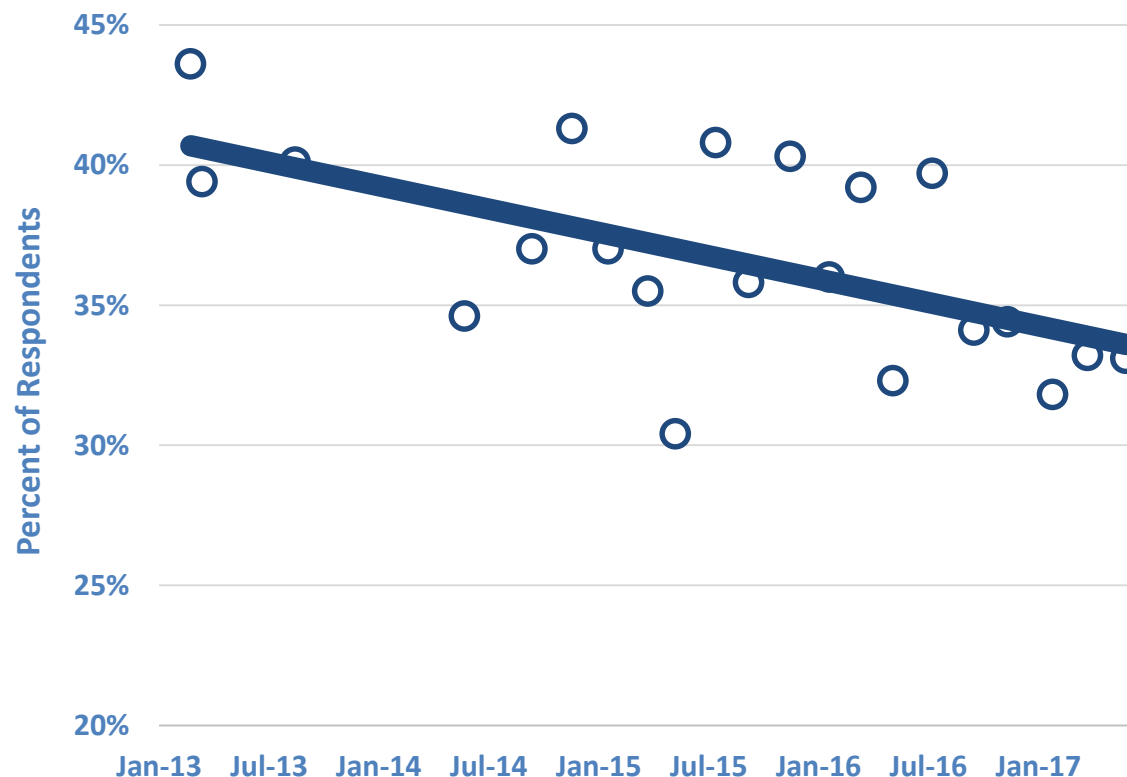
In 2013 AMA Declared Obesity Is a Complex, Chronic Disease

Milestones in Regarding Obesity as a Disease



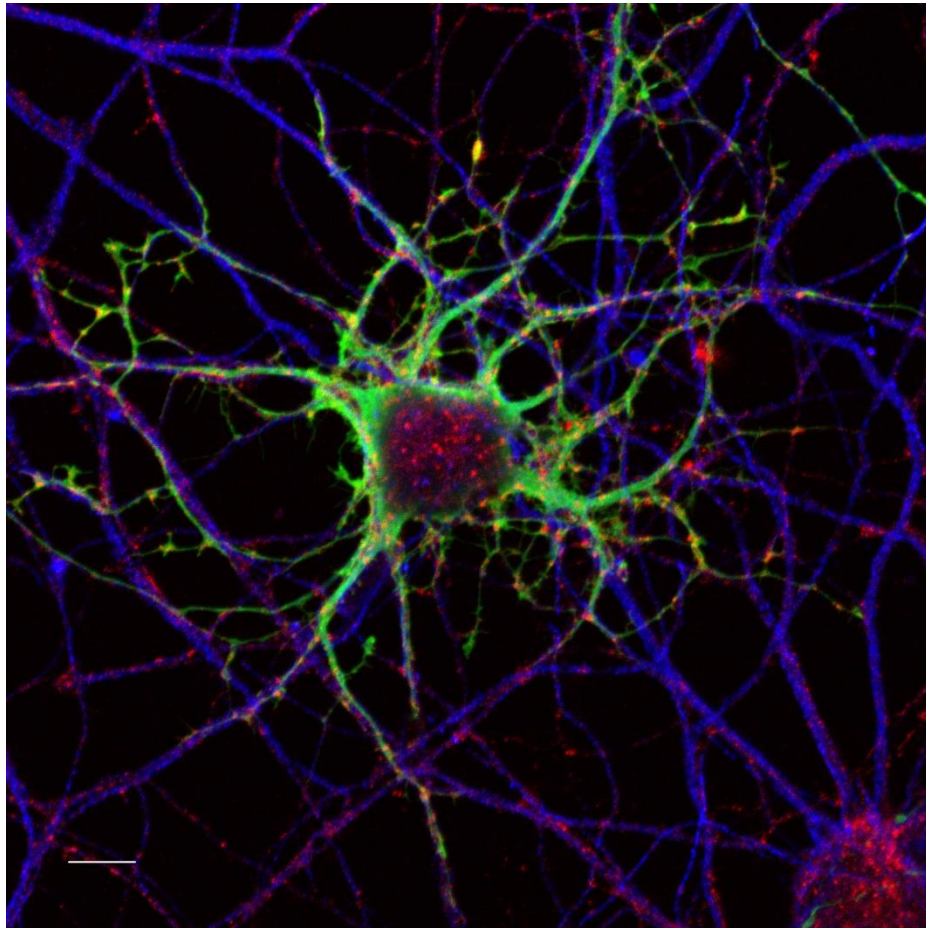
Public Views Began a Slow Shift

“Obesity is a personal problem of bad choices”



- Fewer people think of obesity as a problem of bad personal choices
- People are shifting toward more diverse views of obesity

Obesity Science Is Bringing Better Insights and Solutions



Neurons, photograph © ZEISS Microscopy / flickr

- Hypothalamus controls fat mass and blood sugar
- More therapies to manage obesity
- Bariatric surgery extends life and puts diabetes in remission

Summary of Opportunities

Better progress will require:

- Objectivity to replace bias
- Curiosity about obesity and the people it affects
- Care for these people



Targets of Opportunity, photograph by Randy Robertson / flickr

More Information



conscienhealth.org/news



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For these slides:

<https://conscienhealth.org/wp-content/uploads/2019/04/Cancer.pdf>