Obesity: Reflections on Our Journey Rethinking the Path Forward

Obesity Leadership Summit

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Disclosures

- Professional fees
  - Eisai
  - EnteroMedics
  - 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

- Provide perspective on progress to date in addressing the health impact of obesity
- Describe priorities for making further progress
- Discuss their importance and applicability for healthcare purchasers

Outline for Today

- Historical perspective
- Barriers to addressing obesity more effectively
- Finding prevention solutions that work
- Opportunities for better care, remissions, and someday, cures

Priorities for Making Progress to Reduce the Health Impact of Obesity

Historical Perspective

Early History: “Diet Pills”

- No real obesity care
- 1947: FDA approves amphetamines for weight loss
- 1957: Phentermine approved for appetite suppression

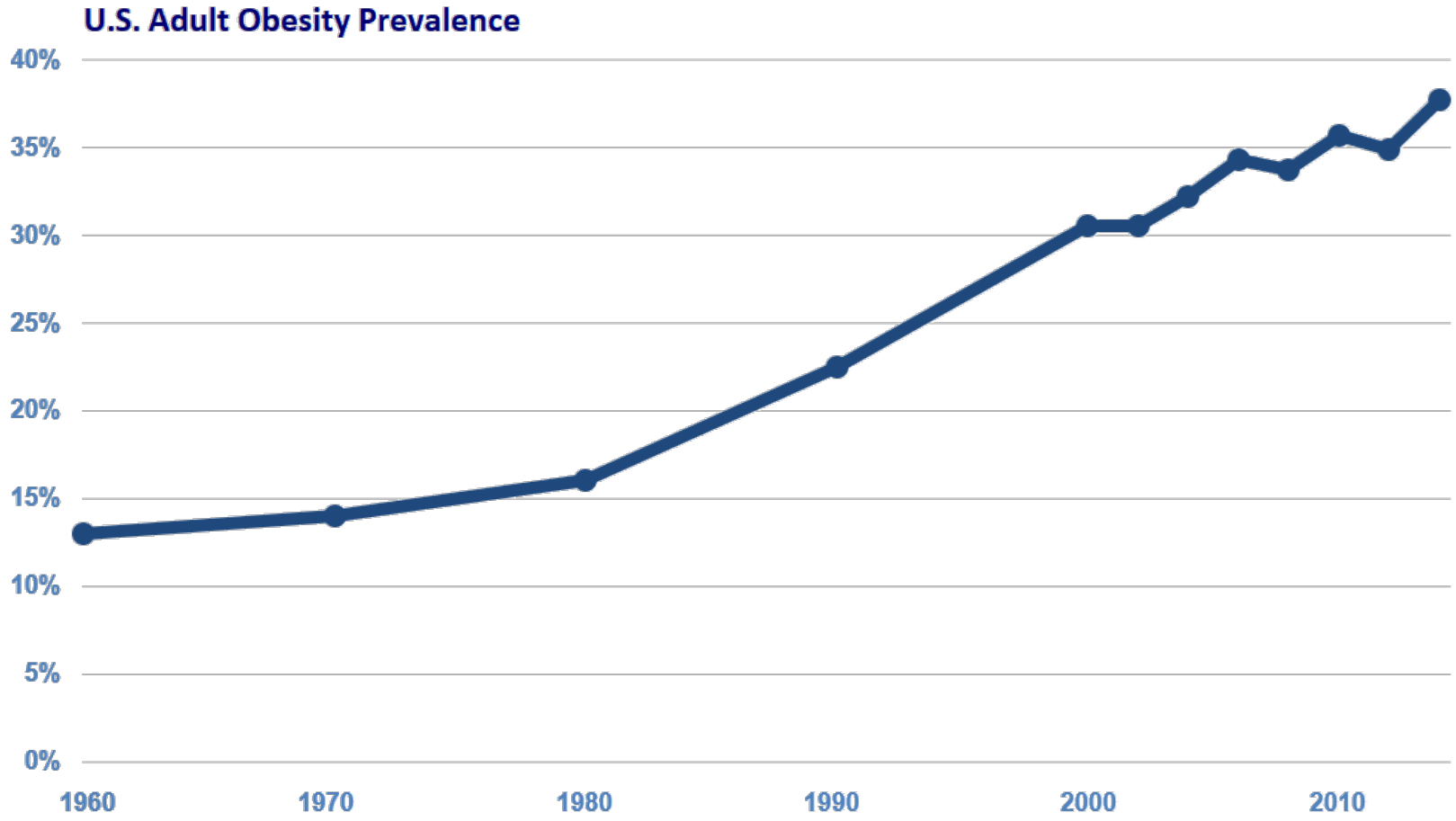
1960s: Early Days for Science and Clinical Obesity Care

- **Behavioral therapy**
  - Obesity considered a maladaptive response
  - First reported use of behavioral therapy to treat obesity by Richard Stuart at University of Michigan
- **IASO formed**
  - The first professional association to promote research in obesity
  - Initially the International Association for the Study of Obesity, IASO
  - Now known as World Obesity Federation
  - Inaugural meeting in London in 1968
- **Early gastric bypass operations**
  - Based on observation that females who had gastric resections for peptic ulcer disease tended to lose weight
  - Edward Mason performed gastric bypass operations to treat obesity

1970s: Organized Scientific Efforts in the U.S.

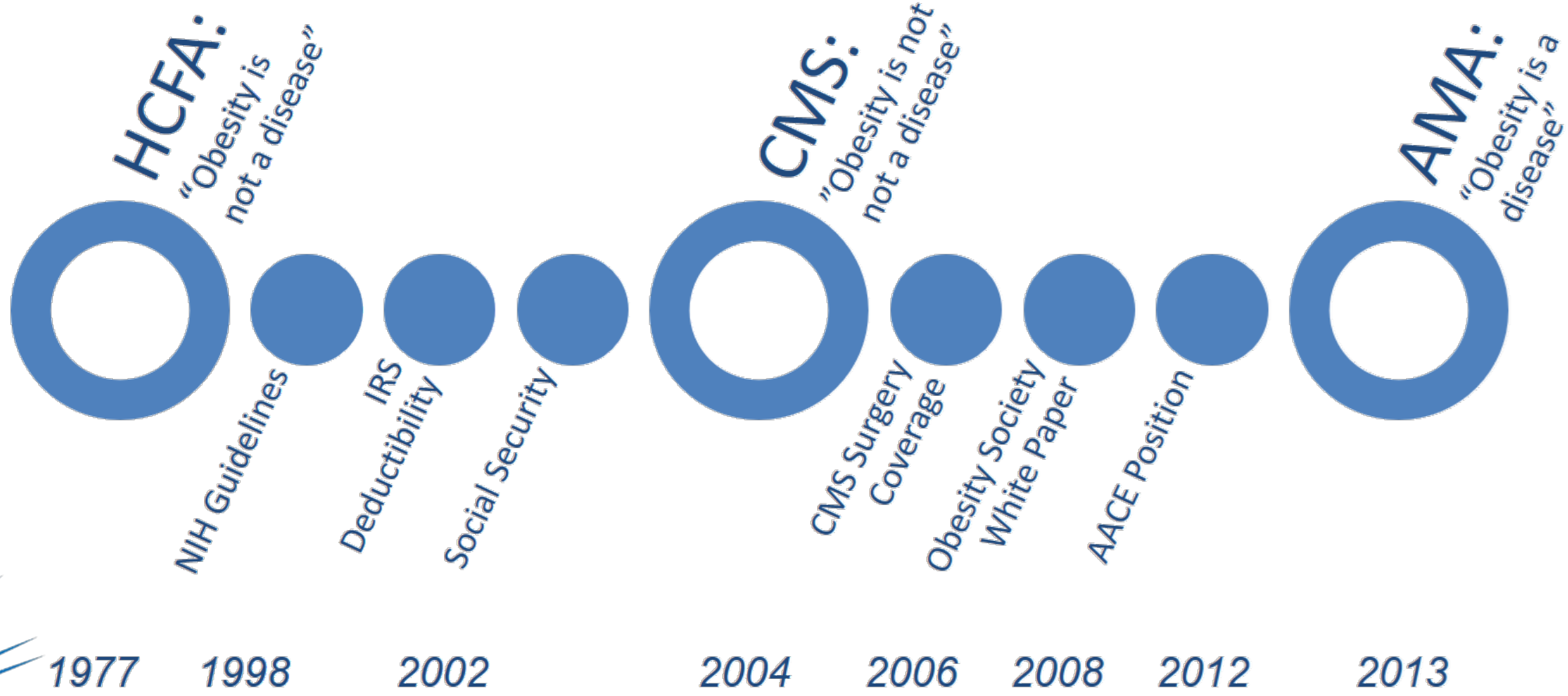
- First American conference organized by the NIH in 1973
- First International Congress on Obesity (ICO) held in London in 1974
- FDA approves fenfluramine (anorectic that increases serotonin)
- Michigan enacts law prohibiting discrimination against overweight people

1980s: Obesity Prevalence Begins to Grow



Source: NHANES estimates

As Science Advanced, Recognition Grew That Obesity Is a Chronic Disease



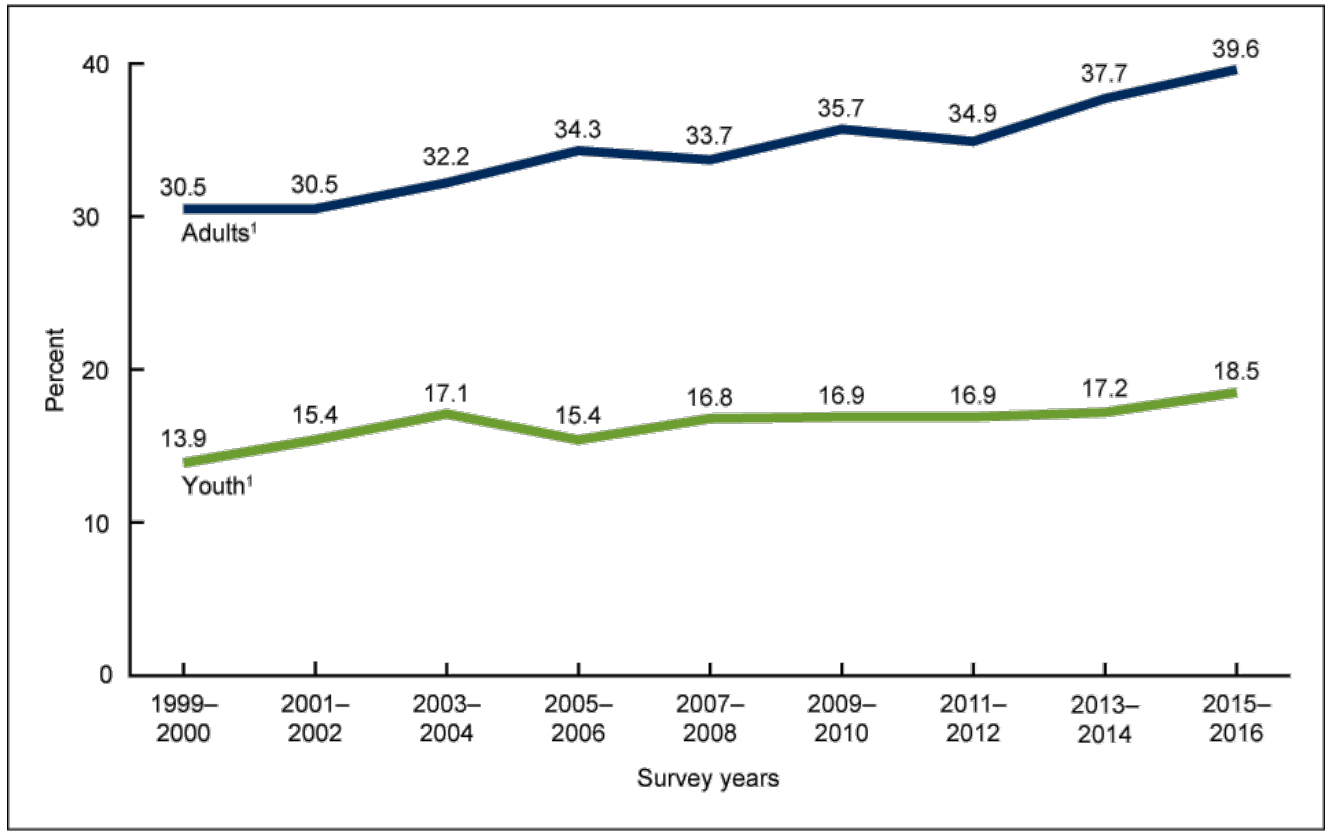
Source: Kyle et al, 2016

2000s: Intense Public Health Efforts Begin

- CDC organized to target obesity in 1997
- Surgeon General call to action in 2001
- Both GW Bush and Obama targeted obesity
- Efforts focused on urging people to eat less and move more

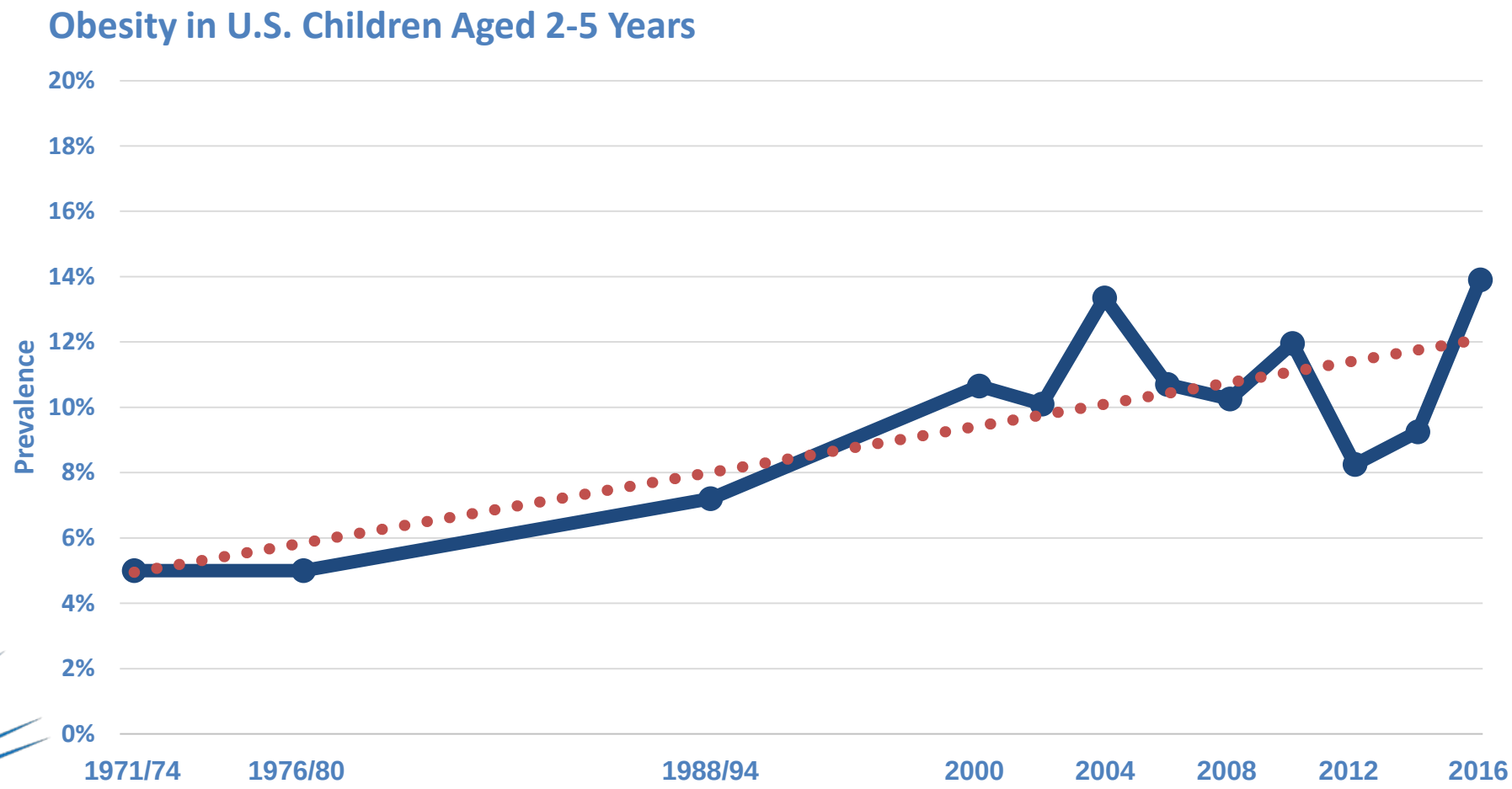
But Obesity Trends Haven't Budged

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



[1]Significant 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 2-5 Year-Old Children



Sources: CDC/NCHS and Skinner et al, Obesity 2014.04

Priorities for Making Progress to Reduce the Health Impact of Obesity

Removing Barriers to Better Outcomes

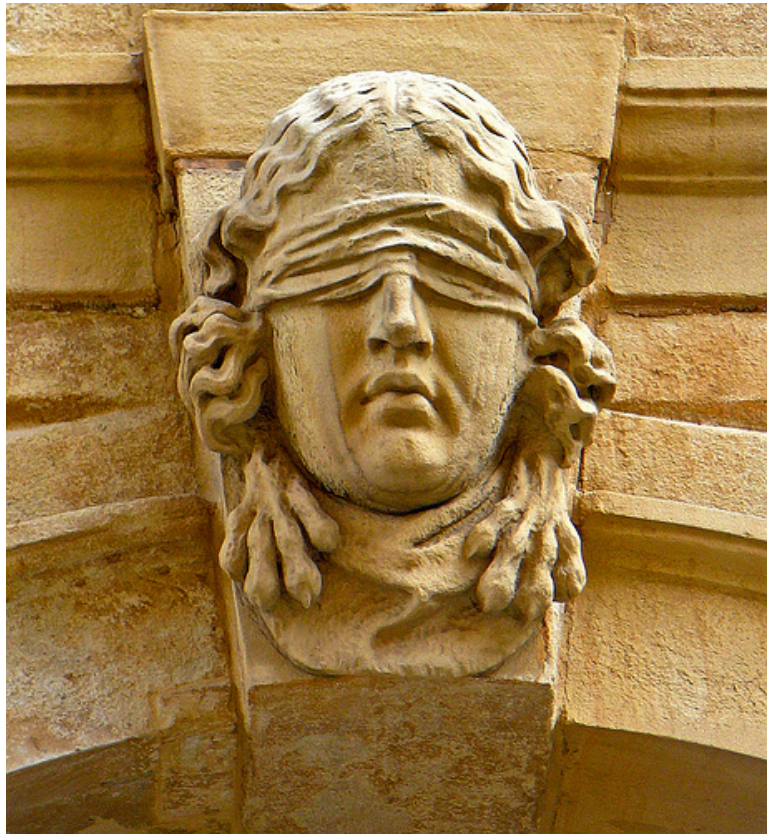
Three Key Barriers

- Entrenched bias and stigma
- Inadequate resources
- Payment systems that favor treating obesity complications

Bias Comes from Selective Blindness to Facts

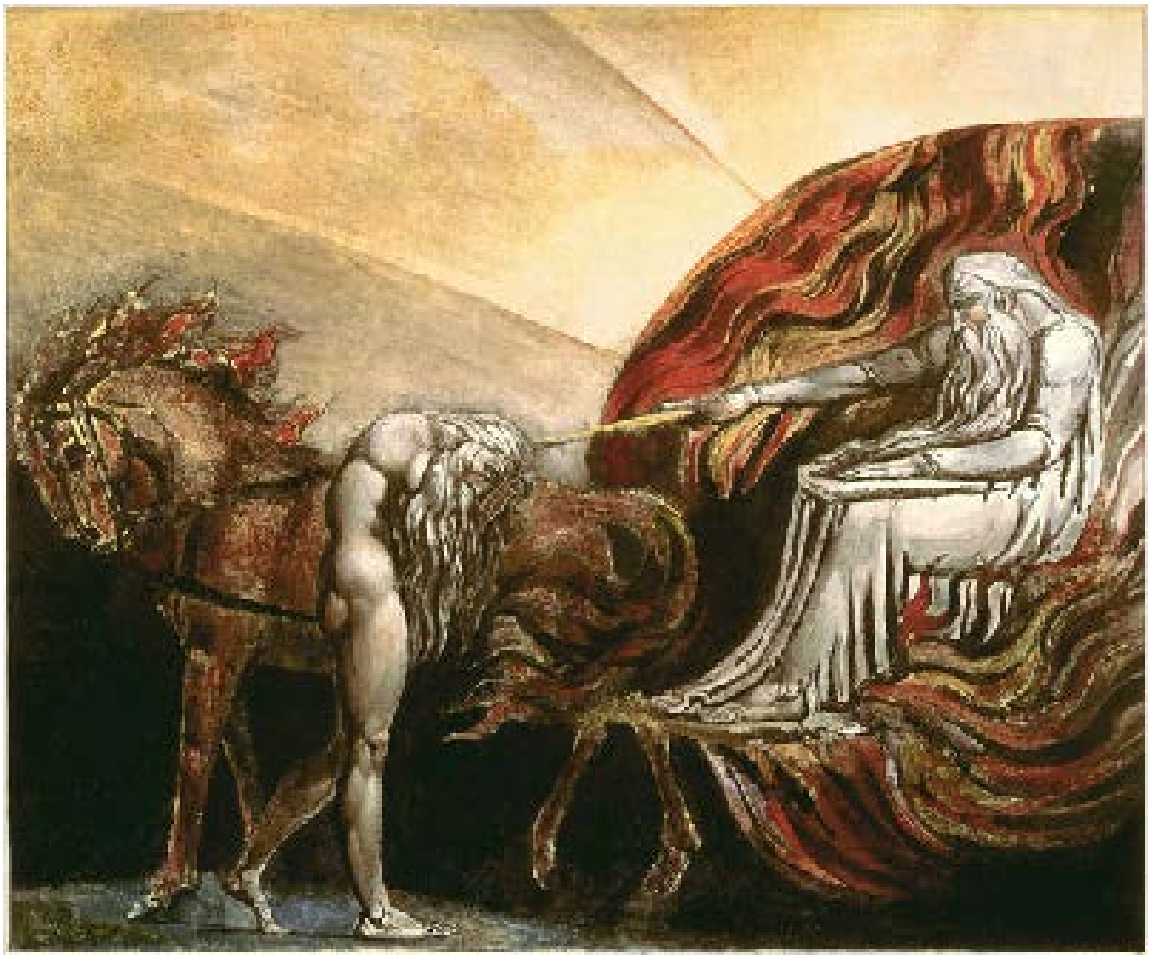
Bias is an inclination or outlook to present or hold a **partial perspective**, often accompanied by a **refusal to consider** the possible merits of **alternative points of view**. Biases are learned implicitly within cultural contexts. People may develop biases toward or **against** an **individual**, 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



Two Kinds of Bias Are Pervasive in Nutrition and Obesity

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



God Judging Adam, Etching by William Blake / WikiArt

The Impact of Bias Starts with Research & Scientific Literature

- Observational studies
- Short-term endpoints
- Surrogate endpoints
- Publication bias
- Repetitive studies build a bias of familiarity

"Many conjectures commonly advanced as recommendations to reduce weight gain or promote weight loss – 'eat breakfast every day,' 'eat more fruits and vegetables', 'eat more meals with family members', 'reduce fast food availability,' 'eliminate vending machines from schools,' etc. – could be tested and we should challenge ourselves to do so more often."

Casazza and Allison:
Stagnation in the clinical, community and public health domain of obesity

Weight Bias Flows from Common Assumptions About People with Obesity

Untitled, photograph by Boohoomian / flickr

Photograph courtesy of the UCONN Rudd Center

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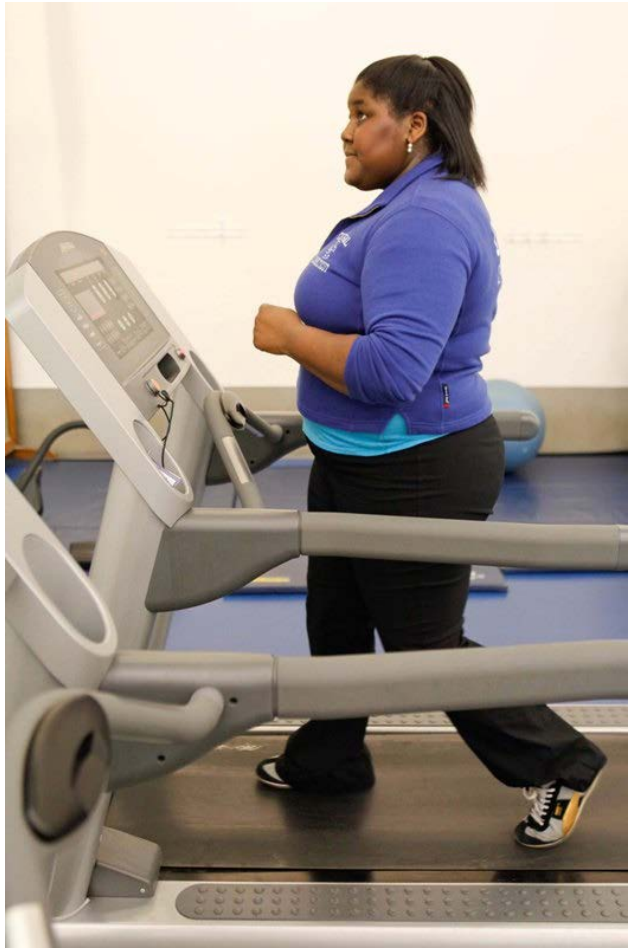


Health Professionals Harbor Bias Against Patients with Obesity

- Non-compliant
- Lazy
- Lack self-control
- Awkward
- Weak-willed
- Sloppy
- Unsuccessful
- Unintelligent
- Dishonest

Ferrante et al., 2009;
Campbell et al., 2000; Fogelman et al., 2002; Foster, 2003;Hebl & Xu, 2001; Price et al., 1987; Puhl & Heuer, 2009; Huizinga et al., 2010.

Encountering Bias Discourages Patients from Seeking Care

- Delaying appointments
- Avoiding routine preventive care
- Seeking care in emergency departments
- More frequent doctor shopping

Bias Compromises Quality of 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."

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 Bramblette, who advocates awareness of

You must lose weight, a doctor told Sarah Bramblette, advising a 1,200-calorie-a-day diet. But Ms. Bramblette 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. Bramblette, 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

Weight Bias
Makes the Obesity Worse

Source: UCONN Rudd Center

Bias Drives
Policy Decisions That Affect Clinical Care

"Prevention obviously has to be the primary strategy for dealing with obesity, because there's just too much obesity to treat."

Barriers to Progress in Reducing the Impact of Obesity on Health

Inadequate Resources for Obesity Care

Often, for Obesity
The Standard of Care Is No Care

- Most PCPs do not routinely address obesity
- Limited training on obesity physiology
- If PCPs address obesity at all,
  they instruct the patient to lose weight
  - Referral to IBT is uncommon
  - Drug therapy seldom utilized
  - Few are considered for surgery

Self-Care Is Often the Only Option Available for Obesity

Evidence-Based Care Is Mostly Out of Reach for People with Obesity

Only 37 Clinics for 5 Million Children with Severe Obesity

Source: conscienhealth.org

Barriers to Progress in Reducing the Impact of Obesity on Health

Payment Systems That Favor Treating Complications

Many Health Plans Discourage People from Seeking Obesity Care

- Routine policy exclusions for obesity
  "Regardless of any potential health benefit"
- Lifetime procedure caps
- High out of pocket costs
- Problematic reimbursement rates and procedures
- But, obesity complications are fully covered

Our Sick Care System Treats the Results of Obesity

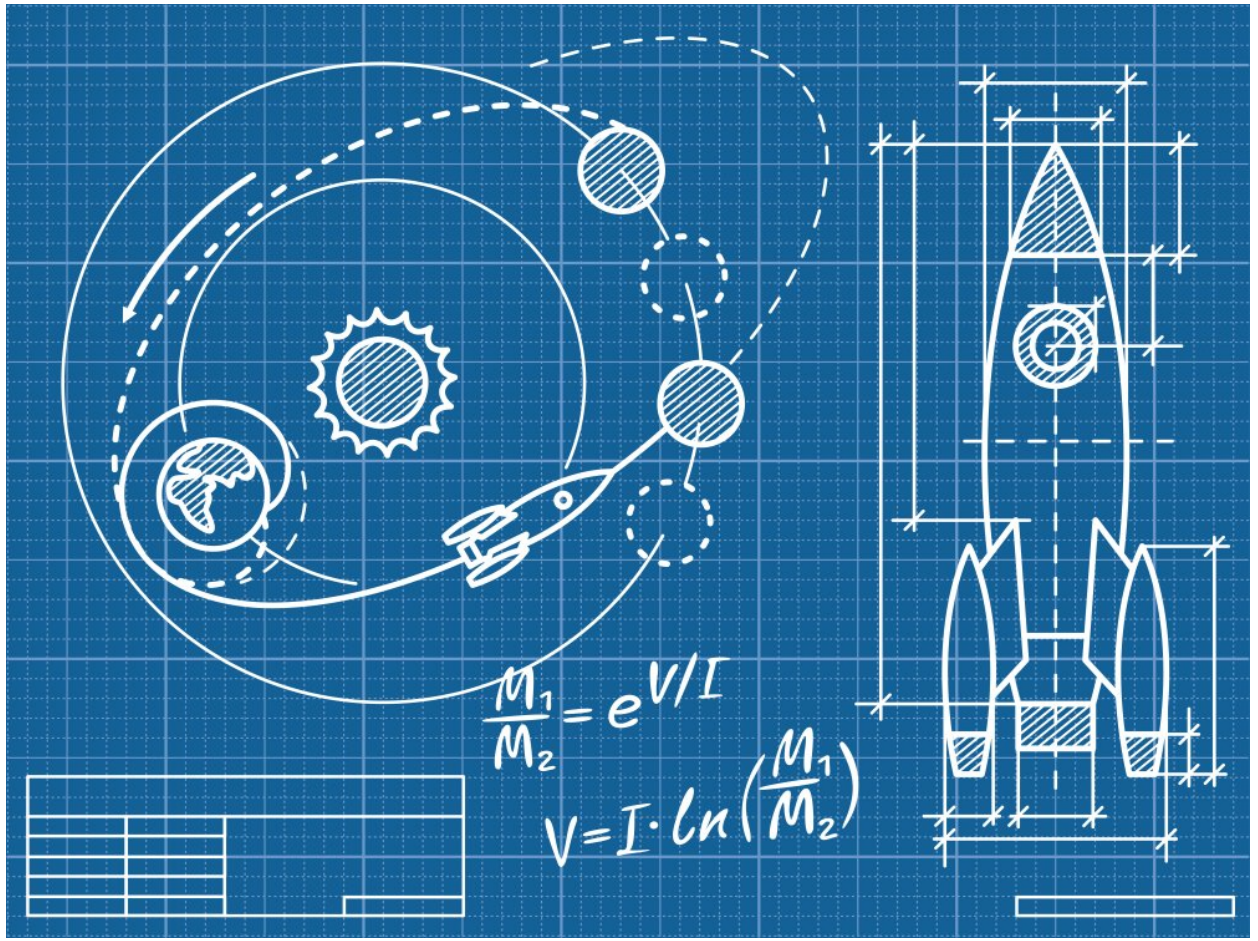
- Heart disease
  - Dyslipidemia
  - Hypertension
  - Coronary Artery Disease
  - $444 billion
- Diabetes
  - Heart attacks
  - Strokes
  - Kidney failure
  - Amputations
  - $245 billion
- Cancer, liver disease, and more
- Economic impact: $1.4 trillion

Source: Milken Institute report, "Weighing Down America – The Health and Economic Impact of Obesity

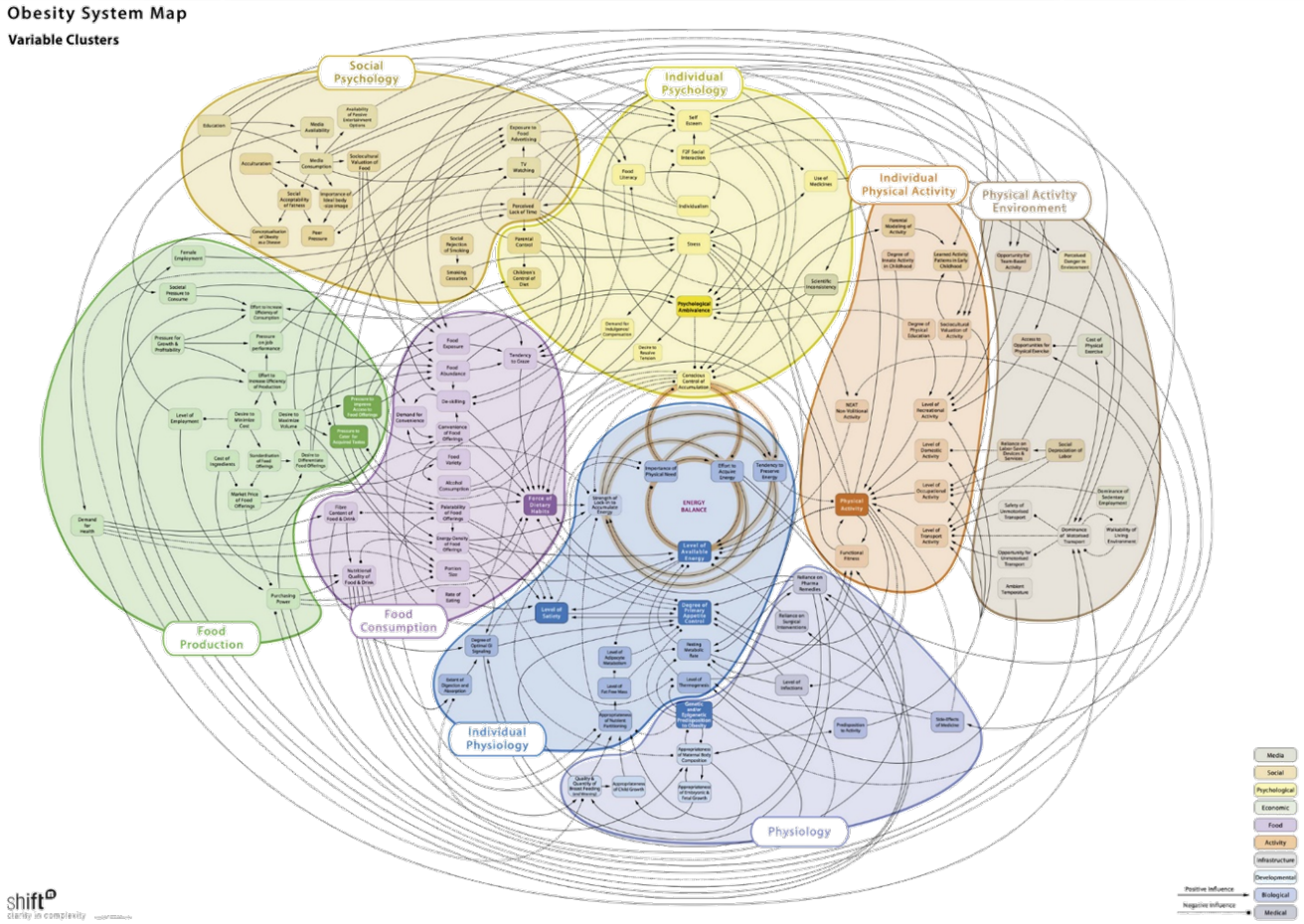
Priorities for Making Progress to Reduce the Health Impact of Obesity

Finding Public Health Solutions That Work

Rocket Science Is Complicated

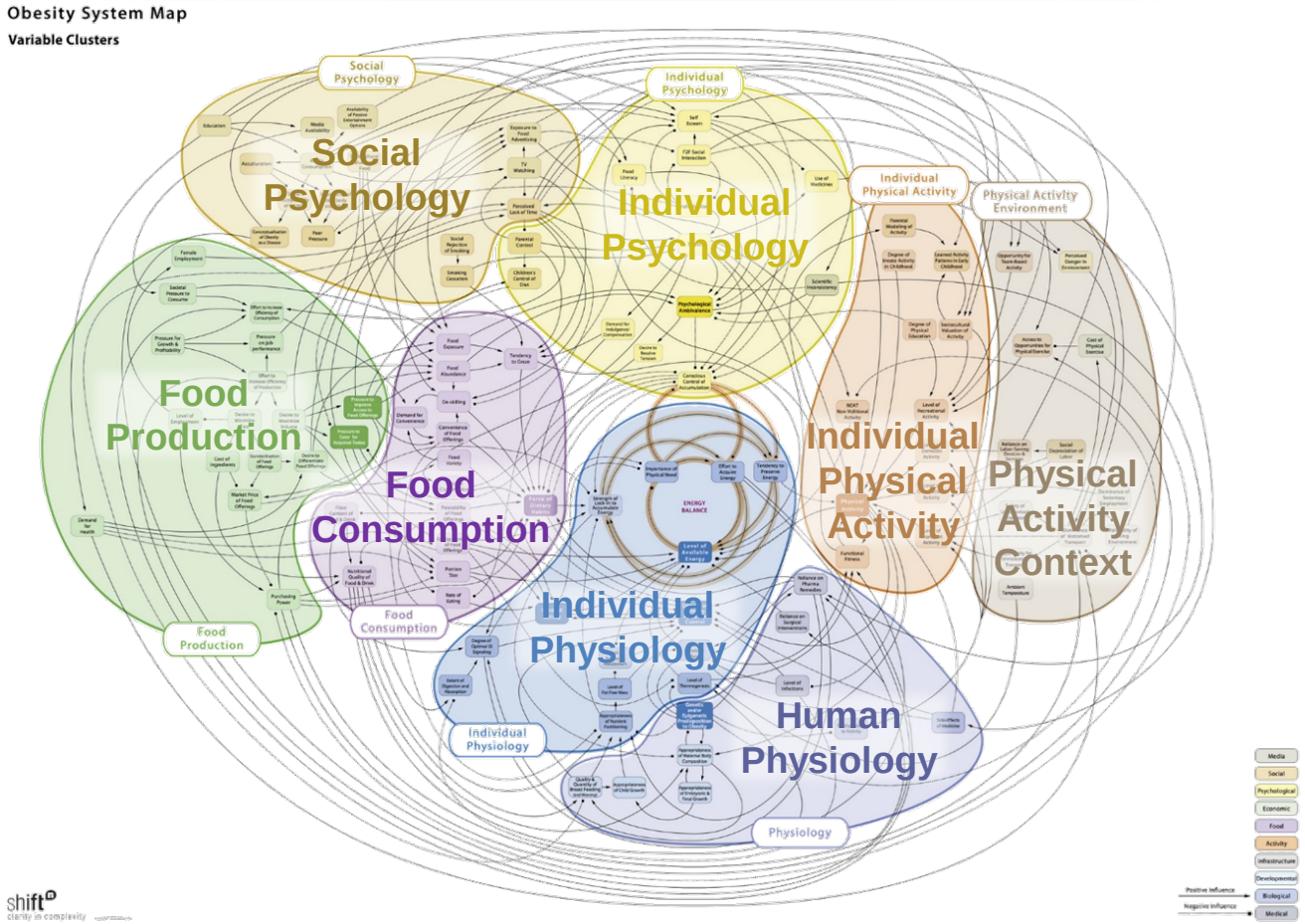


But Obesity Is Not So Simple



Source: Vandenbroeck IP, Goossens J, Clemens M. 2007. Building the Obesity System Map.

Obesity Grows from Complex, Adaptive Systems



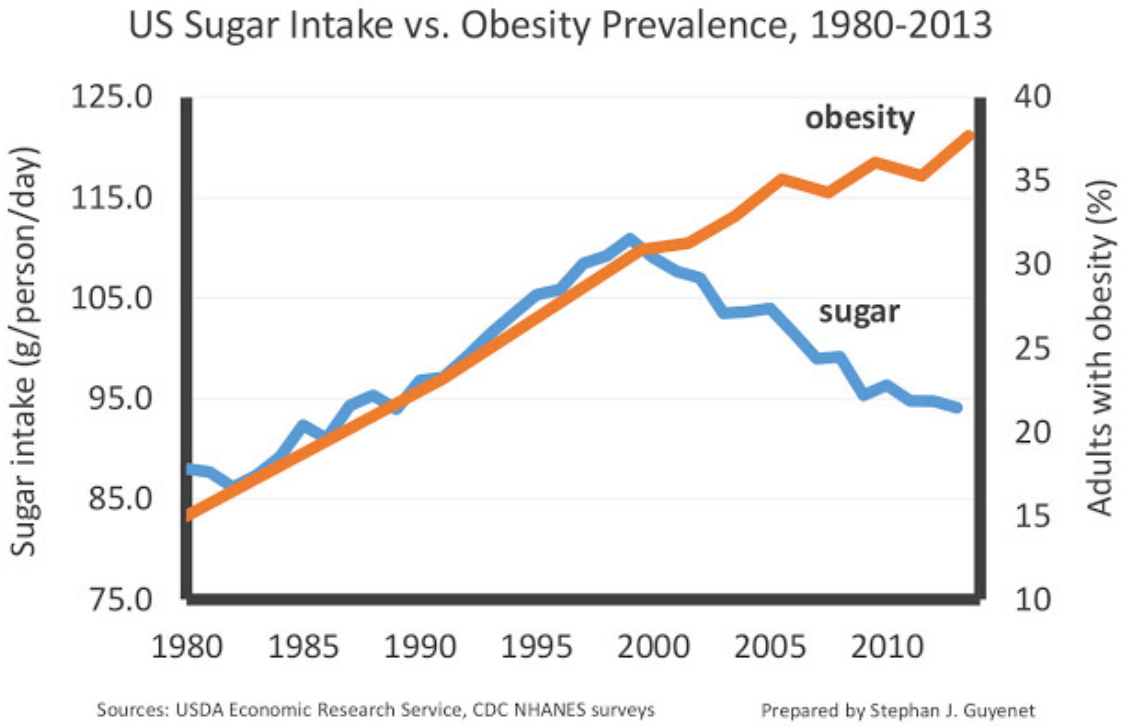
Source: Vandenbroeck IP, Goossens J, Clemens M. 2007. Building the Obesity System Map.

A Simplified View:
Why Do We Have an Excess of Obesity?

- **The food supply**
  - Likely not individual "bad" foods
  - More likely complex changes in the overall food environment
  - Ref: Hall, *Obesity 26.1* (2018), 11-13
- **Physical activity**
  - A deficit of routine, not recreational exercise
  - Ref: Church and Martin, *Obesity* 26.1 (2018), 14-16
- **A variety of contributing factors**
  - E.g., sleep, CO_2, endocrine disruptors, nicotine withdrawal, technology, pharmaceuticals, altered microbiomes
  - Ref: Davis et al, *Obesity* 26.1 (2018): 17-21

Simple Public Health Strategies Are Having Little Obvious Impact on Obesity

- Soda and other targets for taxes are associated with obesity
- Correlation ≠ causation
- Sugar consumption falling for two decades
- But obesity climbs regardless



Many Wellness Programs Have Little Impact on Obesity

- Controlled study finds no effect
  - Spending, behaviors, health status, productivity unchanged
  - Strong selection effect
  - People who enroll are already healthy

  Source: Jones et al. NBER working paper 24229, 2018.
- Irrelevant to 83% of people with obesity

  Source: Kaplan et al. *Obesity* 26.1 (2018): 61-69

Cubicles, photograph © Stephen Coles / flickr

Priorities for Making Progress to Reduce the Health Impact of Obesity

Opportunities for Better Care

Research and Practice Innovations for Better Obesity Care

- Advances in pharmacotherapy
- Precision, personalized therapeutic strategies
- Attention to long-term outcomes

Summary of Opportunities

Better outcomes will require:

- **Removing barriers to obesity care**
  - Bias and stigma
  - Inadequate resources
  - Payment systems that favor complications of obesity
- **Tested, effective, systematic approaches to obesity prevention**
- **Research and innovation**

Targets of Opportunity, photograph by Randy Robertson / flickr

Implications for Healthcare Purchasers

- Seize opportunity for smarter benefit designs
  - Defaults may exclude obesity care to prevent chronic disease
  - Result: high costs for complications of untreated obesity
  - Benefit design professionals can find alternatives
- Anchor community health and wellness initiatives with evidence

More Information

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http://conscienhealth.org/wp-content/uploads/2018/03/NationalAlliance.pdf