XXVI World Congress of the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO)

Prof. Luigi Angrisani – Congress President

Associate Professor of General Surgery
Department of Public Health, "Federico II"
University, Naples, Italy

Prof Francesco Rubino, MD

Current Position:

Francesco Rubino is currently a ***(Full) Professor of Metabolic and Bariatric Surgery*** at King's College London and a ***Consultant Surgeon*** at King's College Hospital in London, UK.

Clinical Expertise:

His clinical expertise includes laparoscopic bariatric, metabolic and upper digestive surgery. He has practiced general surgery and bariatric-metabolic surgery in several countries including the United States, UK, France and Italy.

Prof Francesco Rubino, MD

Current Research Interests:

His research interests focus on mechanisms of action of gastrointestinal surgery, the role of the gut in type 2 diabetes, mechanisms of weight regulation, weight-bias/stigma of obesity, cost-effectiveness of bariatric/metabolic surgery and COVID-19-related new-onset diabetes

Prof Francesco Rubino, MD

Contributions to Changes in Healthcare Policies

- **Guidelines from the 2nd Diabetes Surgery Summit (DSS-II, London 2015)**, organised by Dr Rubino have been endorsed by 56 scientific societies from around the world, including the American Diabetes Association (ADA), International Diabetes Federation, American Society for Bariatric and Metabolic Surgery, Diabetes UK among others
- Following DSS-II guidelines, in 2016 the ADA recognised metabolic surgery as a standard treatment of type 2 diabetes in their ***Standards of Diabetes Care*.**
- DSS-II guidelines have led to changes in health insurance coverage for diabetes surgery (including in patients with BMI 27.5-34) in several countries, such as France, UK, Brazil, Switzerland, Korea, Saudi Arabia and USA among others.

Prof Francesco Rubino, MD

Current Leadership of International Projects:

- ***Chair of the Lancet Commission on Clinical Obesity,*** which aims to establish globally relevant criteria for the diagnosis of disease in obesity.
- ***President and Founder, Metabolic Health Institute,*** a newly formed, *non profit* global organization aimed at education of patients & public about evidence-based therapies of obesity and type 2 diabetes.
- ***International Co-PI of the CoviDIAB project***, a global research collaboration to investigate COVID-19 related diabetes.

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Reframing Obesity as a Chronic Illness: Why Does it Matter? And What Does it Mean for Metabolic Surgery?

Prof. Francesco Rubino

Chair Bariatric and Metabolic Surgery

King's College London

Consultant (Hon) Surgeon

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Disclosures

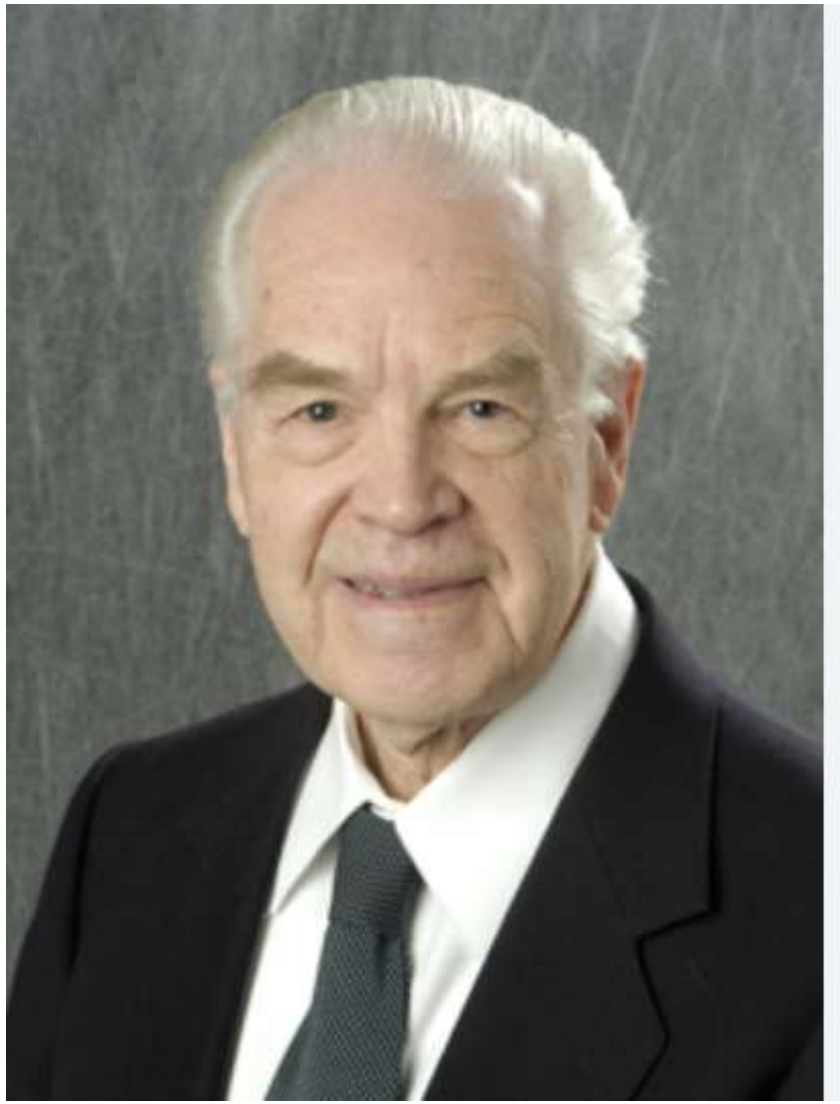
Research/Educational Grants: Novo Nordisk, Medtronic, Ethicon, MRC

Scientific Advisory Board: Morphic Medical (formerly GI Dynamics), Keyron

DSAB: GT Metabolic Solutions Inc

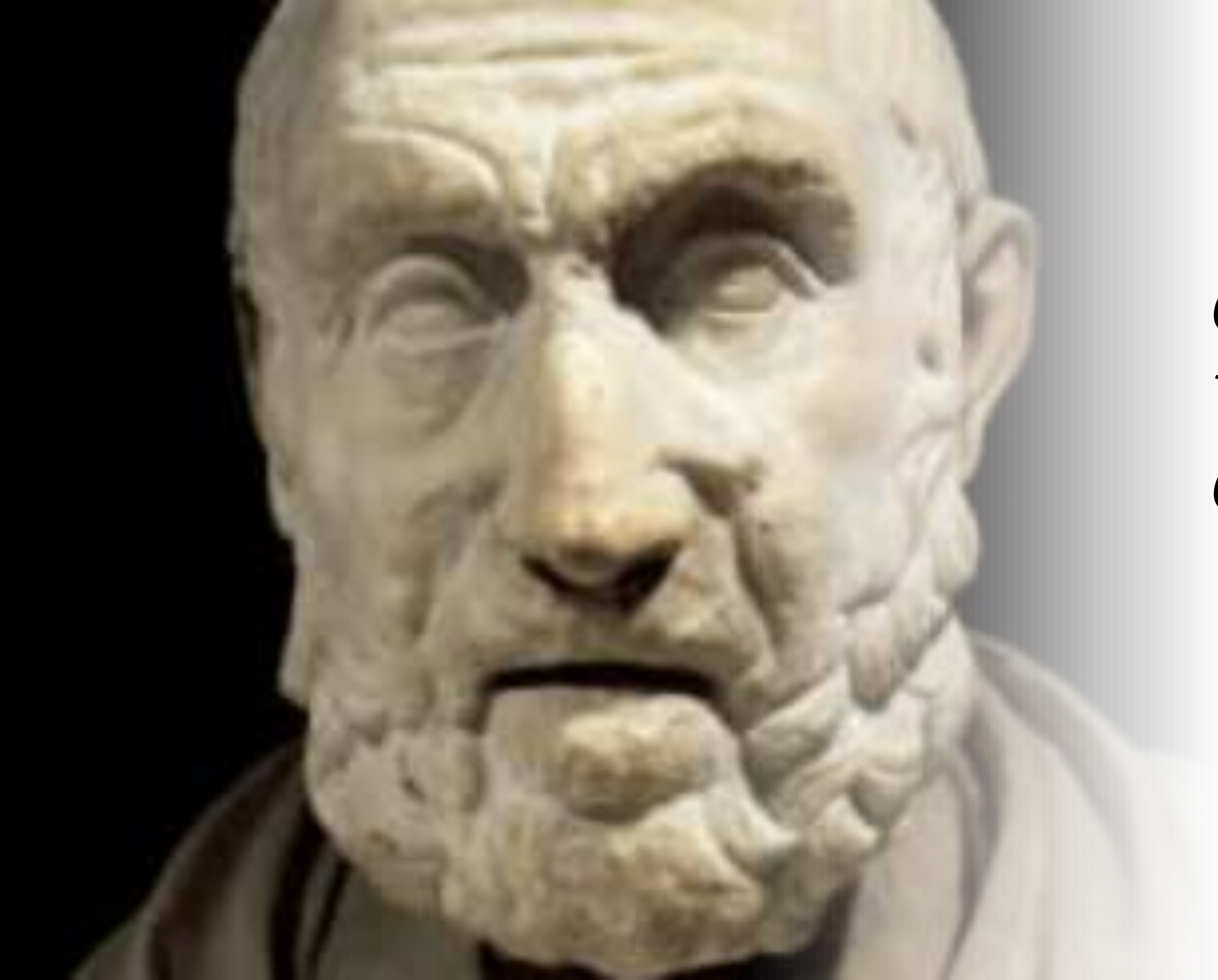
Speaker's Honoraria: Medtronic, Ethicon, Novo Nordisk


Naples
Cosenza



Edward E. Mason

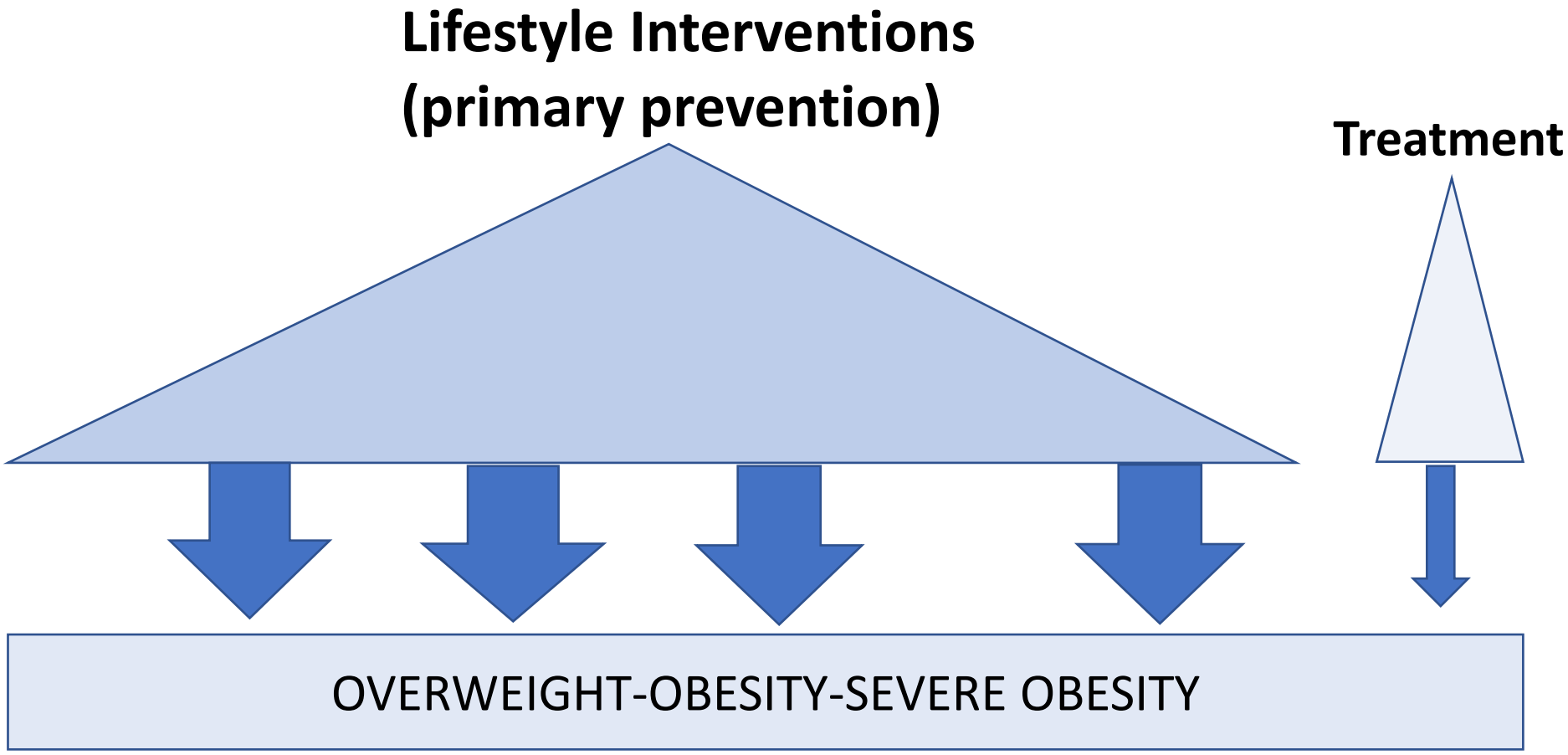
1920 – 2020



Cure Sometimes,
Treat Often,
Comfort Always

- Hippocrates –
460 BCE–370 BCE

CURRENT STRATEGY TO CONTROL OBESITY

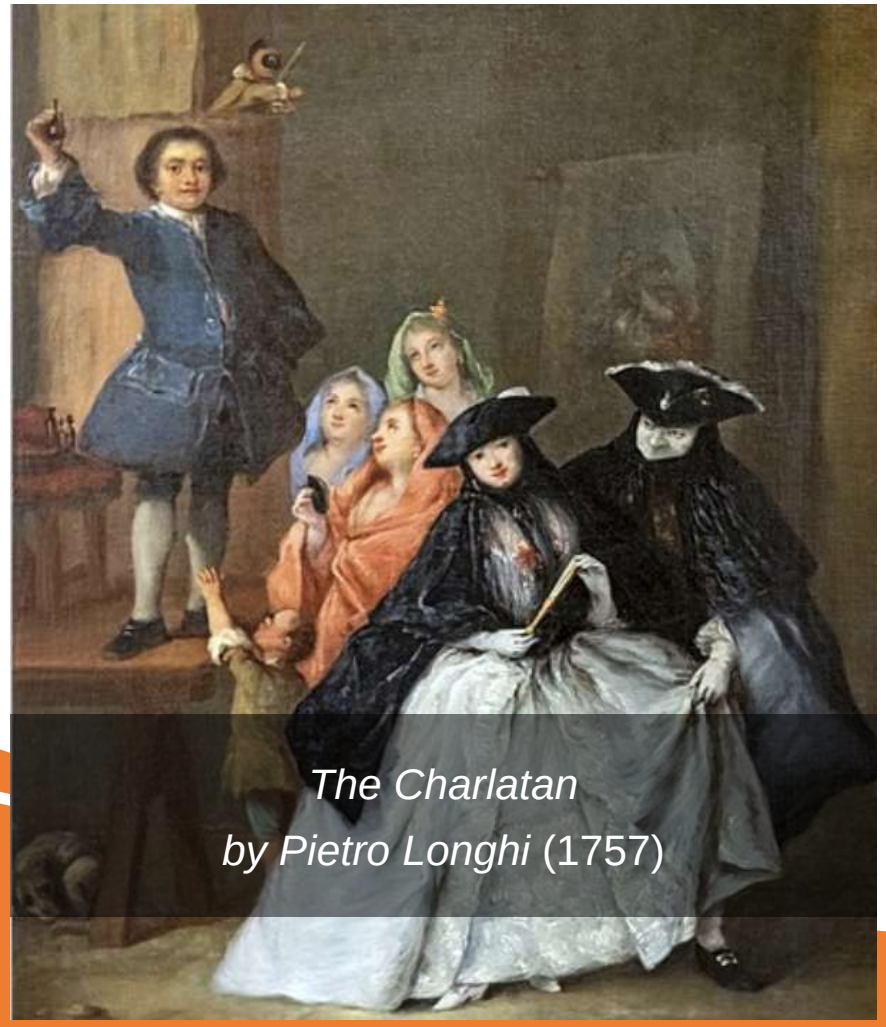


The New York Times

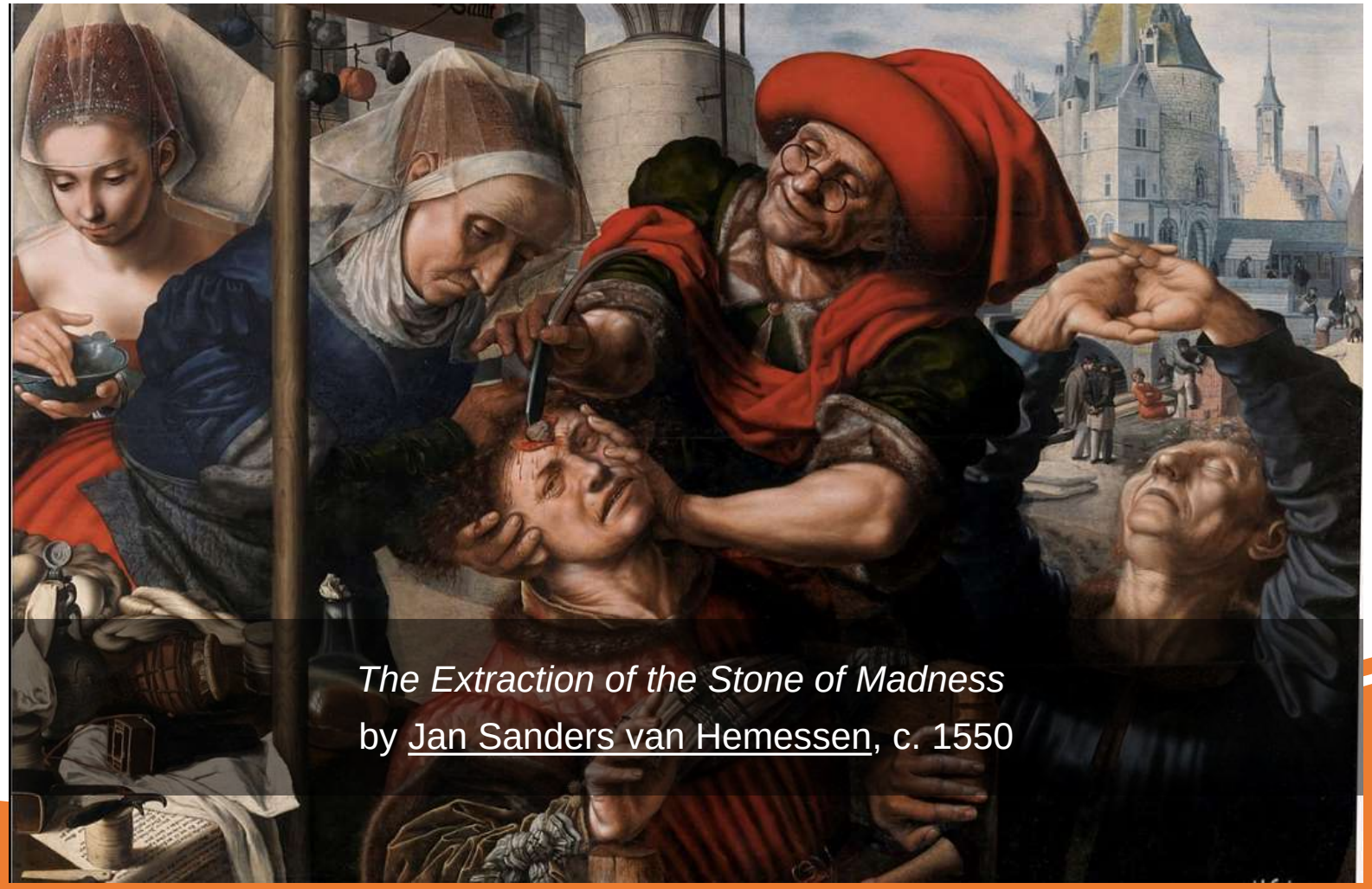
PERSONAL HEALTH

Fat Bias Starts Early and Takes a Serious Toll

Quackery and Obesity



The Charlatan
by Pietro Longhi (1757)



The Extraction of the Stone of Madness
by Jan Sanders van Hemessen, c. 1550

THE "MISSING PIECE" in OUR IDEA OF OBESITY

Chronic Diseases

CONDITION(s) of RISK	(PRE-DISEASE)	DISEASE	COMPLICATIONS

Overweight and Obesity

CONDITION of RISK	"CO-MORBIDITIES"

DISEASE

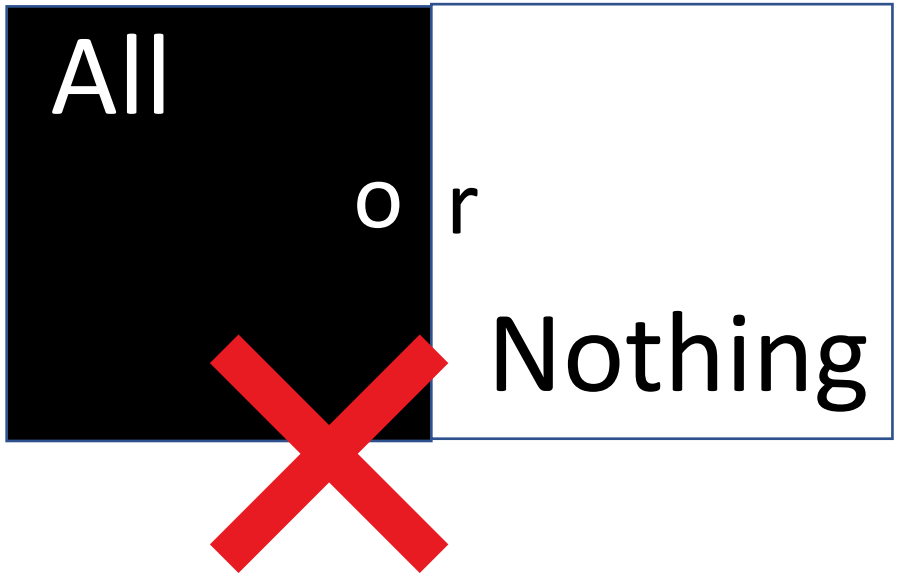
Is Obesity a Disease?

Organizations that Recognize Obesity as a Disease State

- WHO
- American Medical Association (AMA)
- World Obesity Federation (WOF)
- USA Institute of Medicine

- European Commission
- Italian Parliament

Disease or no Disease……



Is Obesity a Disease?

Is Obesity a Disease?

- Distinct pathophysiology (tissue and organs)
- Clinical characteristics of chronic illness
- Persistent/progressive signs & symptoms
- Increased risk of secondary complications

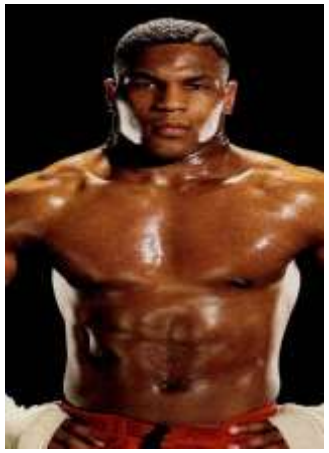
Is Obesity a Disease?

- A risk factor is not a disease
- Many people with obesity are healthy
- Not everyone with obesity has evidence of organ disease or functional limitations
- Defining obesity as a disease would unnecessarily medicalize a problem

“The BMI paradox”

BMI - Weight (Kg) / Height (m2)

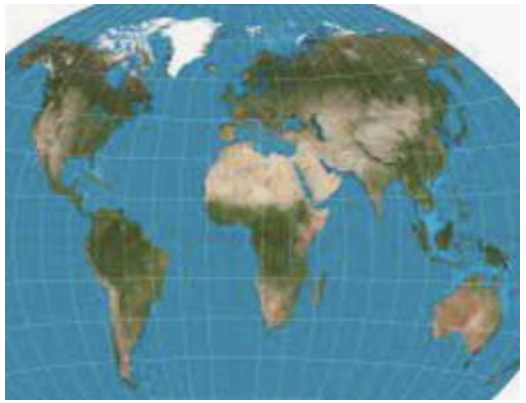
1



BMI does not necessarily indicate excess adiposity

Mike Tyson –
BMI > 35Kg/m2

2



BMI- associated risk of T2D or mortality varies with Ethnicity, Age, Gender,

3

BMI provides no information on the function of tissues/organs or the whole organism

1. **Measure of obesity ?**
2. **Measure of Risk ?**
3. **Measure of Health//Disease?**

sky news

More than half of the world's population will be overweight by 2035, obesity federation warns

13:30, Friday 03 March 2023

and 1.4 billions will have obesity

“Obesity is a Disease”

THE LANCET
Diabetes & Endocrinology

KING'S HEALTH PARTNERS
An Academic Health Sciences Centre for London
Pioneering better health for all

Lancet Commission on Clinical Obesity

Steering Committee

F. Rubino (Chair), R. Batterham, D. Cummings, E. Gregg, S. Farooqi,
N. Farpour-Lambert, C. leRoux. G. Mingrone

"Commissioners Group": Globally representative, multidisciplinary group of 60 world-leading experts, including:

- Academic clinicians specialised in obesity care
- Scientists (mechanisms underlying clinical manifestations of obesity)
- Public Health Specialists
- Patients Representatives
- WHO Representatives

Traditional Definition (and Narrative) of obesity:

"Obesity is characterized by a condition of excess adiposity .. that ***presents a risk to health***" (WHO and others)

"Obesity is a chronic disease…that ***presents a risk to health***"

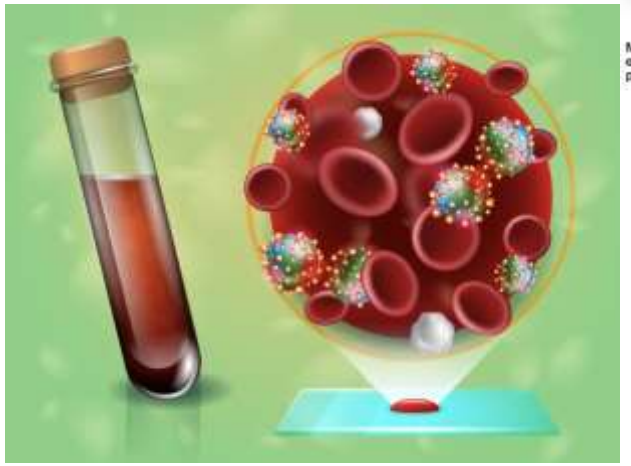
Definition of Disease vs Condition of Risk

Disease <u>not defined by risk</u> of future illness

Natural skin colour	Very pale, white, often freckled	Fair, white	Medium, white to olive brown	Olive to moderate brown	Medium brown to dark brown	Very dark brown to black
	 1	 2	 3	 4	 5	 6
Skin cancer risk	Greatest risk of skin cancer	High risk of skin cancer	High risk of skin cancer	At risk of skin cancer	Less risk of skin cancer, but when diagnosed it is often at a later stage.	Less risk of skin cancer, but when diagnosed it is often at a later stage.

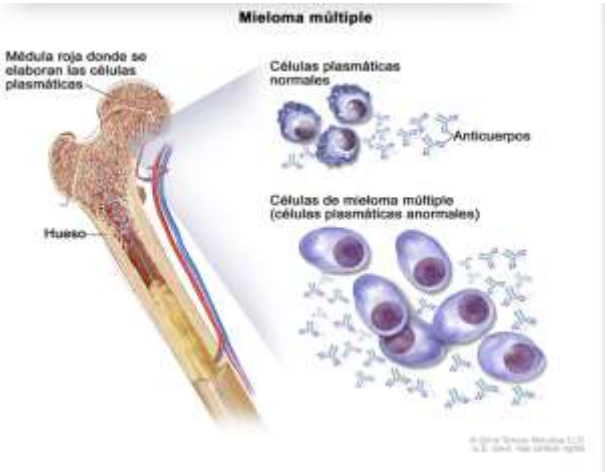
SOURCE: The Fitzpatrick scale

MGUS



CONDITION

MIELOMA



DISEASE

Current Definition of Obesity

"**abnormal or excessive fat accumulation** that presents a **risk to health**… A body mass index (BMI) over 30 is obese. **(WHO)"**

"Risk to health" = not ongoing disease, but possible future disease/complications

Disease

*A **harmful deviation from** the **normal** structural or functional state of an organism, associated with certain **signs and symptoms** **And** **limitations of daily activities***

Disease = Negative impact on health at present

Diagnosis of Lupus: ACR criteria

- Antinuclear antibodies (ANAs)
- malar rash;
- discoid rash;
- photosensitivit
- oral or
-

ease indicated by
in or casts in the urine;

- Neurological disorders such as seizures and psychosis;
- Hemolytic anemia, leukopenia, and lymphopenia.

Four or more criteria must be present for confirmation of diagnosis

Clinical Depression: DSM-5 criteria

Depressed mood most of the day, nearly every da

- Markedly diminished interest or pleasure almost all, activities most of the day
- Significant weight loss when gain, or decrease or inc day.
- A slowing phys on of

arly every day.

ssness or excessive or guilt nearly every day.

ished ability to think or concentrate, or decisiveness, nearly every day.

- Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

Five or more criteria must be present for confirmation of diagnosis

“Recognizing a disease without knowing whether and how it can cause illness independently of other comorbidities

(ie, without knowing what the disease looks like)

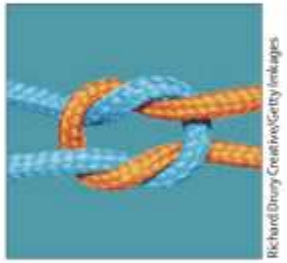
is a difficult, and perhaps impossible, task”

Lancet Diabetes & Endocrinology Commission on the Definition and Diagnosis of Clinical Obesity

Obesity was first recognised as a disease by WHO in 1948, then between 2013 and 2022 by several medical societies and countries.[1-8] However, the notion that obesity is a disease and not merely a risk factor for other illnesses remains highly controversial, both within and beyond medical circles. This debate constitutes far more than arcane semantics, and seriously affects the provision of therapeutic strategies to improve health among people living with obesity.

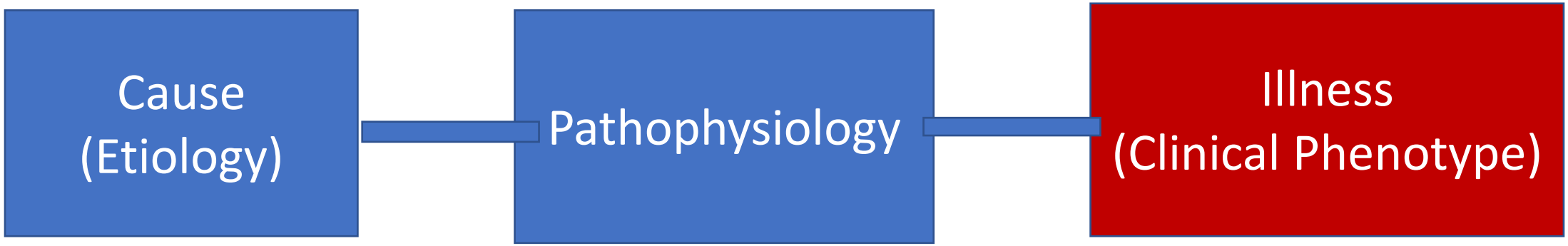
On one side of the controversy, there is concern that defining obesity as a disease could have negative

On the other side of the controversy, those who support the recognition of obesity as a disease cite evidence that the condition, like any other chronic disease state, is associated with distinct pathophysiological alterations of tissues and organs, discrete clinical signs and symptoms, increased risk of secondary complications, and restrictions of daily activities. Defining obesity as a standalone disease would be consistent with such scientific evidence and would provide stronger medical legitimacy to the condition. This validity would help increase access

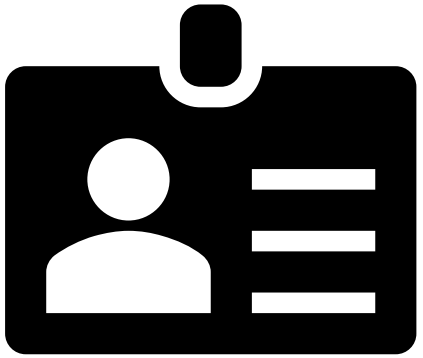


Lancet Diabetes Endocrinol 2023
Published Online
March 3, 2022
https://doi.org/10.1016/
S2213-8587(23)00058-X

“Anatomy” of a Disease

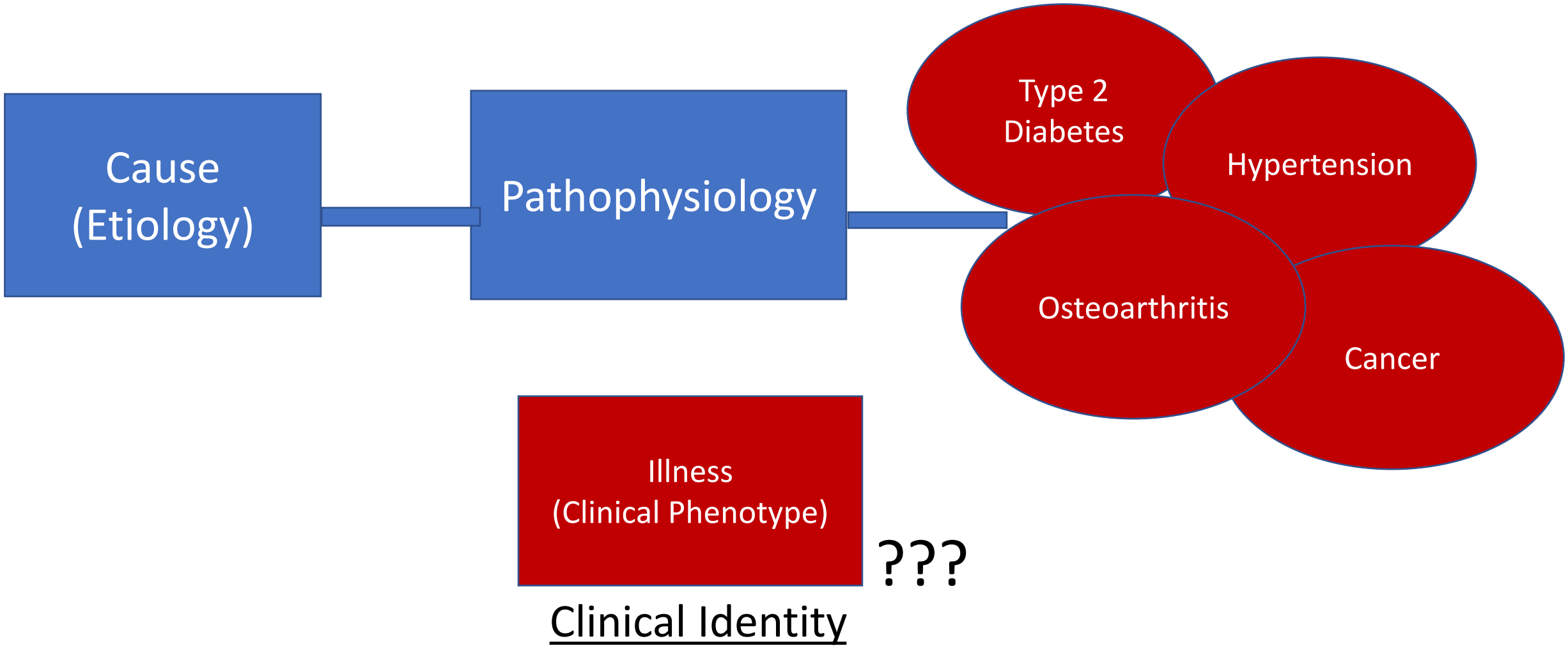


Clinical Identity



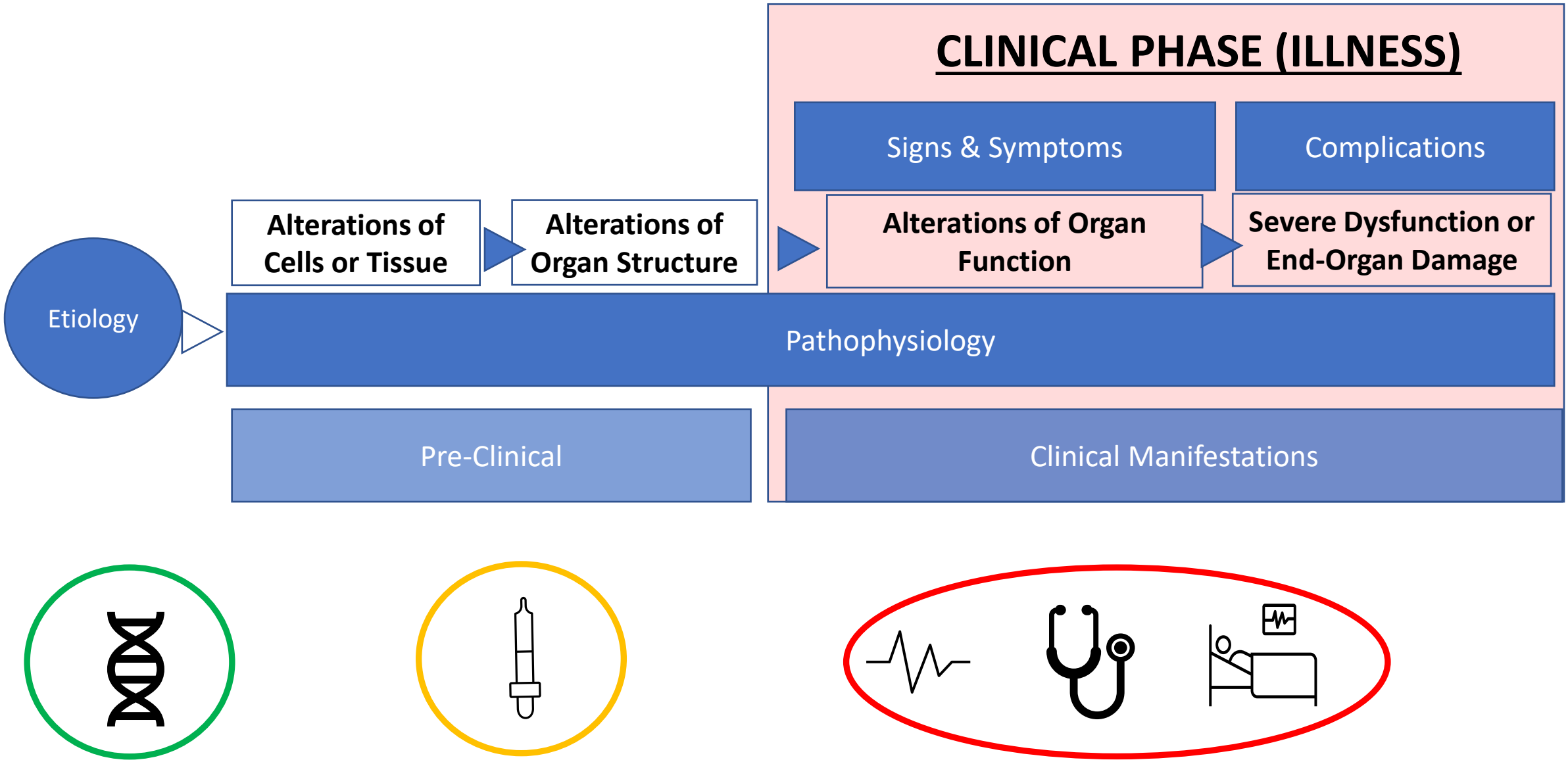
Cluster of clinical manifestations
Abnormal organs/tissue function
Typical evolution
Specific complications

Obesity as a Disease?



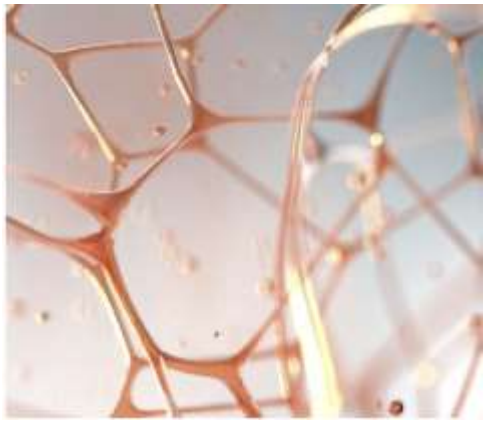
Clinical Identity

DIAGNOSIS of CHRONIC DISEASES

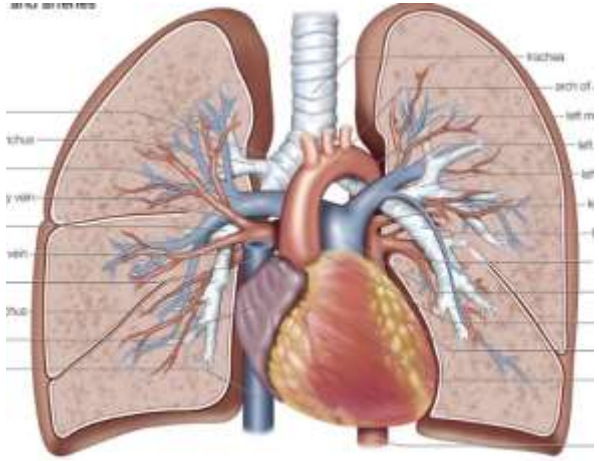


What is Clinical Obesity ?

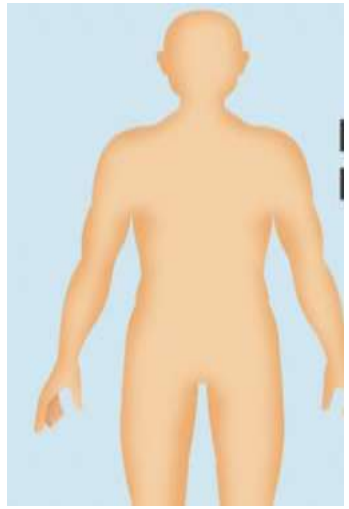
a condition in which the risk to health associated with excess adiposity has already materialised and can be objectively documented by specific signs and symptoms reflecting biological alterations of tissues and organs, which are consistent with extant illness.



Tissue



Organ



Organism

Excess Adiposity vs Illness

Excess Body Weight (BMI)

Excess Adiposity

??

Defining Obesity Clinically

Clinical Practice

Public Health

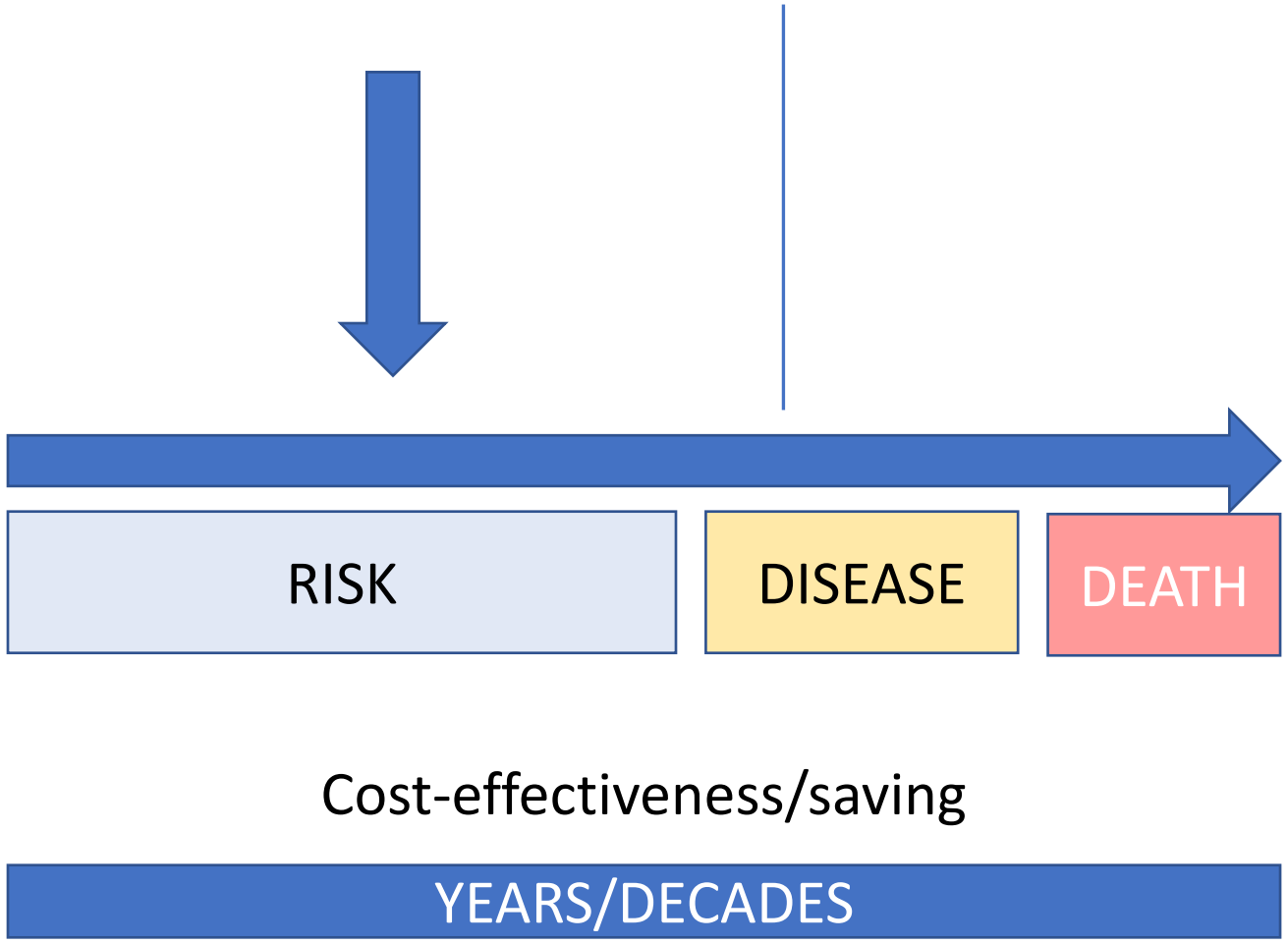
Society

Bias Stigma

Reframing Obesity as a Chronic Illness: What Does it Mean for Metabolic Surgery?

“BARIATRIC” (WEIGHT-LOSS) SURGERY: 1950-2000s

BMI



Attitudes About New Obesity Drugs and Metabolic Surgery Research Survey Among U.S. Adults with Self-reported Obesity

Ted Kyle

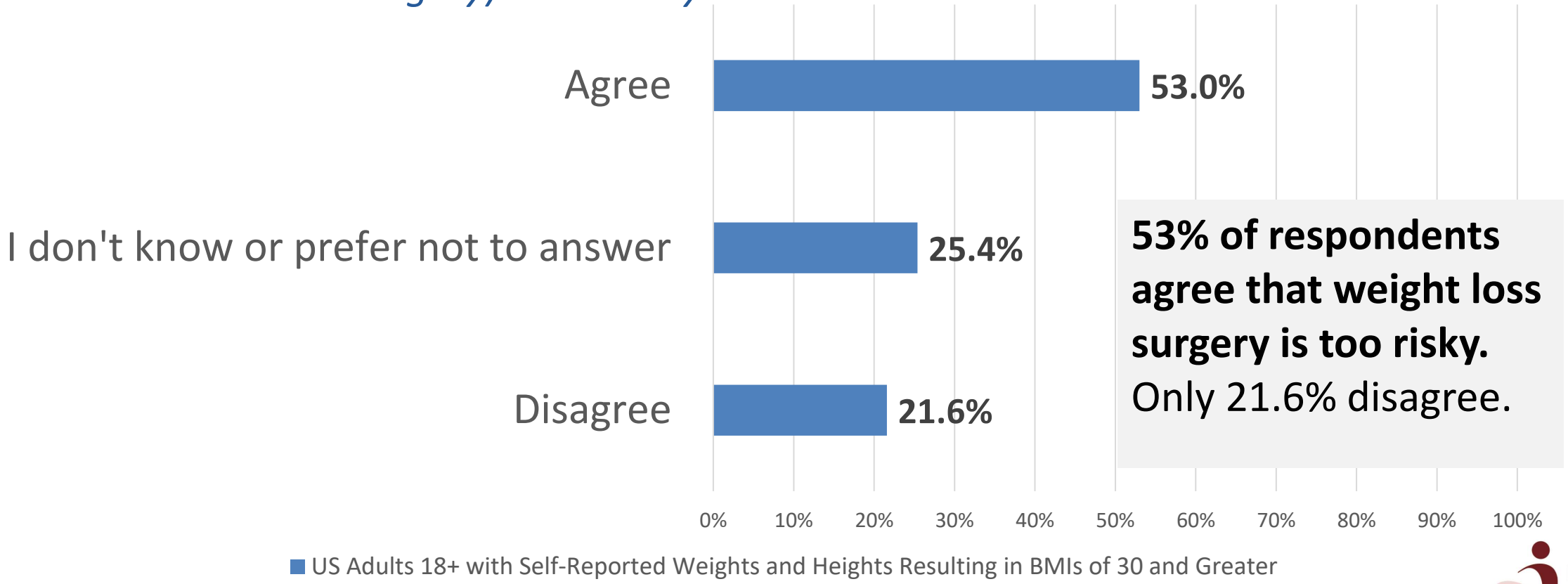
Francesco Rubino

IFSO August 31, 2023

Metabolic Health Institute

Bariatric/Metabolic Surgery Continues to be Seen as "Too Risky"

Do you agree or disagree with the following statement? "Weight loss surgery (also known as bariatric or metabolic surgery) is too risky."

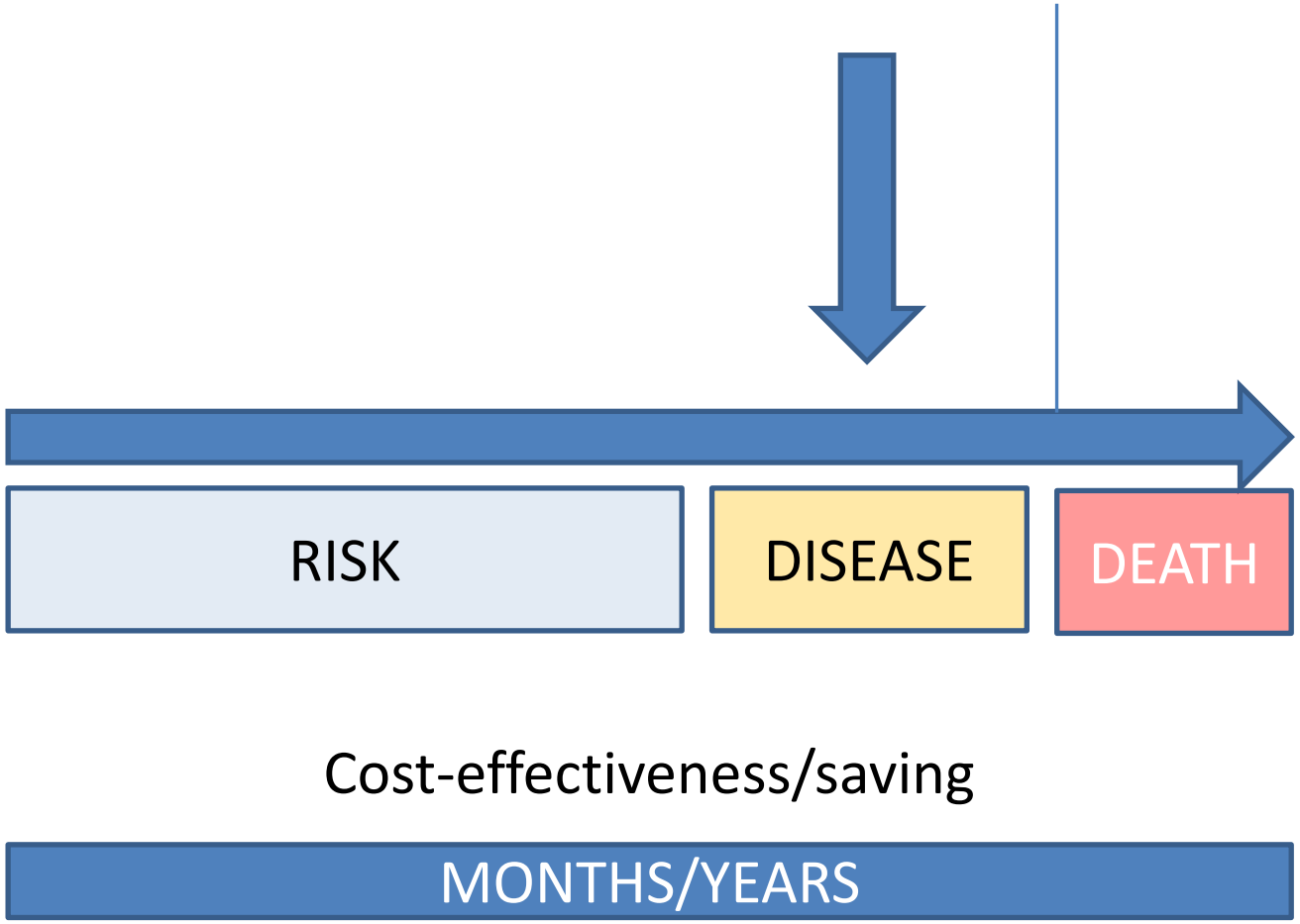


53% of respondents agree that weight loss surgery is too risky.
Only 21.6% disagree.

Metabolic Health Institute

METABOLIC SURGERY

BMI



Metabolic Health Institute

Obesity as a Chronic Illness – Implications for surgery

- Indications
- Criteria for coverage of surgery (no more BMI thresholds)
- Outcome measures (not just weight loss)
- Choice of procedure
- Prioritization of surgery
- Clinical research
- Surgical Innovation

“Medicalizing Obesity”…..

Clinical Obesity