

The Lancet Commission Perspective: Treatment Intensity Across the Obesity Spectrum

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Personal Disclosures

Research/Educational Grants: Medtronic, Ethicon

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Lancet Commission on Clinical Obesity

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The Lancet Diabetes & Endocrinology Commission

January 15, 2025

Definition and diagnostic criteria of clinical obesity



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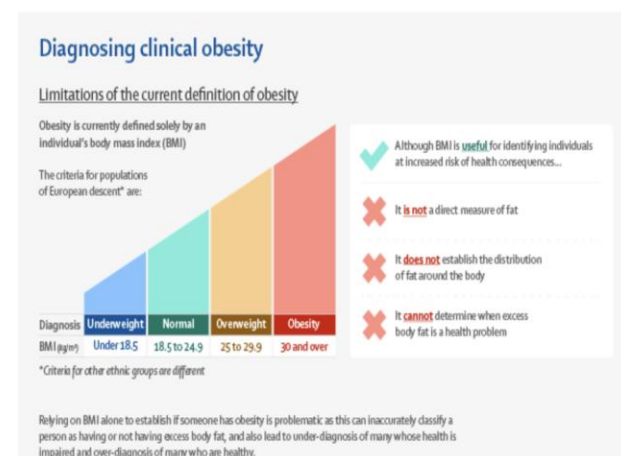
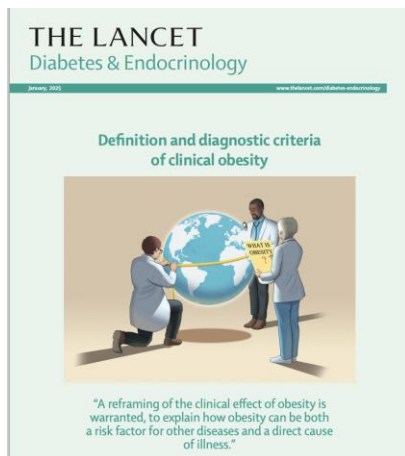
Executive summary

Current BMI-based measures of obesity can both underestimate and overestimate adiposity and provide inadequate information about health at the individual level, which undermines medically-sound approaches

measurement of body fat, where available, or at least one anthropometric criterion (eg, waist circumference, waist-to-hip ratio, or waist-to-height ratio) in addition to BMI, using validated methods and cutoff points appropriate to age, gender, and ethnicity. In people with

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For the Arabic, Chinese, French

Cited by 2315 (PubMed - 04^h Sept 2026)



Video

Video 1 Video 2



Offline: Making obesity matter



"None of us were entirely right, none of us were entirely wrong." That was Francesco Rubino's wry comment on his Commission, published by *The Lancet Diabetes and Endocrinology* on Jan 14, 2025, and launched at the Royal College of Physicians in London. The scope of the project was narrow—the definition of obesity—but the implications were colossal. The Commission identified a major and, in truth, surprising gap: the absence of a clinical definition of obesity. It is worth pausing for a moment and reflecting on the scale of the clinical challenge and why this omission matters so much. Donald Trump was this week inaugurated the 47th US President. He begins

definitions and diagnostic criteria for entities they call preclinical and clinical obesity. Instead of measuring obesity with an abstract number (body-mass index, BMI) that neither doctors nor the public find intuitive or meaningful, Rubino and colleagues have reframed obesity as a chronic illness characterised by excess adiposity, together with alterations in the functioning of tissues, organs, or the whole body. Preclinical obesity is an observable phenotype—excess adiposity, but with no symptoms or signs of organ damage. After more than 5 years of work, their Commission has radically rewritten our understanding of what it means to be obese.



In Obesity the Cure is Now Ahead of the Diagnosis

The
Economist

By Invitation | Cure before diagnosis

Medicine can treat obesity, but can't agree on what obesity is

Labelling it a disease means millions will get treatment they may not need, writes Francesco Rubino

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Medicine's Approach to Disease: From Definition to Management



Management framework "*How do we treat —what else matters?*" Other conditions can compound health impact of index disease. **Plurality by design.**

Staging / risk stratification "What is the extent? What factors may accelerate progression or worsen outcomes?"

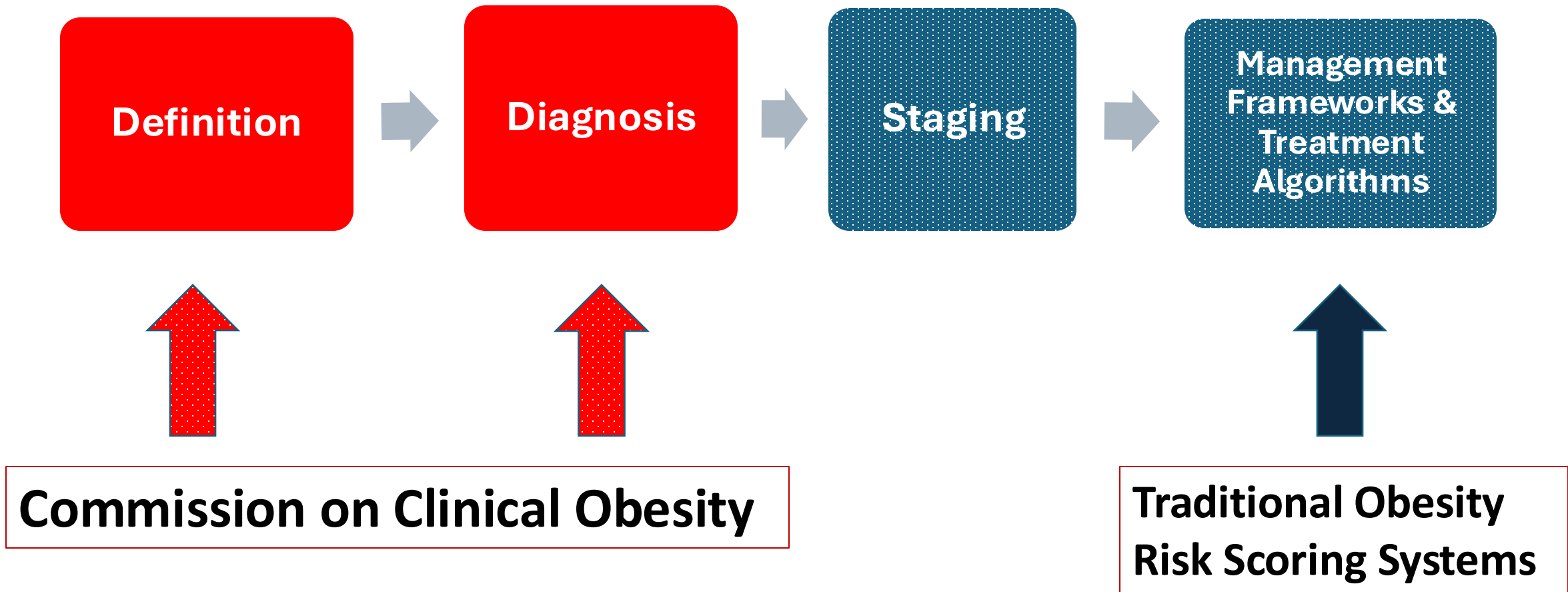
Diagnosis "*Does this patient have it?*" Or not?
Distinguishes each disease from all others — including those that cluster with it.
Singular entity, by design.

Definition "*What is this disease?*"
What Does it Look Like (Signs & Symptoms)? How Does it Affect Organs? What is its Natural Evolution? > **Consistent clinical presentation, prognosis and biological basis.** **Singular entity, by design.**

Definition and Diagnosis of Clinical Obesity

“The definition of Clinical Obesity is a sharp before and after moment”

(Richard Horton; *Editor-in-Chief, The Lancet*)



Definition of Disease

"The urine is remarkably sweet, as if it were honey."

Galen
(c. 129–c. 216 AD)



Diabetes was recognised as a distinct disease thousands of years ago

Its characteristic and consistent symptoms — especially excessive urination — were recognised and it was often referred to as a “pissing evil” in ancient writings.

Early recognition

Ancient Egypt, Greece and Rome

Described by its distinct and consistent symptoms.

Characteristic symptoms and progression

A recognisable clinical course

"A disease in which the body wastes away by passing too much water."
(Ancient description)

Excessive urination

Frequent and large volumes of urine



"Diabetes"

(Greek: to pass through)

Intense thirst

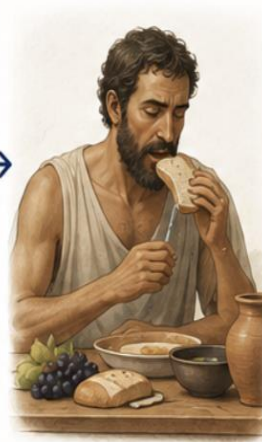
Unquenchable thirst despite drinking



Constant thirst
(dipsia)

Increasing hunger

Persistent appetite despite weight loss



Ravenous appetite
(polyphagia)

Weight loss and emaciation

Progressive loss of body weight and muscle



Wasting of the body
(emaciation)

Profound sickness

Weakness, fatigue and decline



Increasing debility and illness

Death

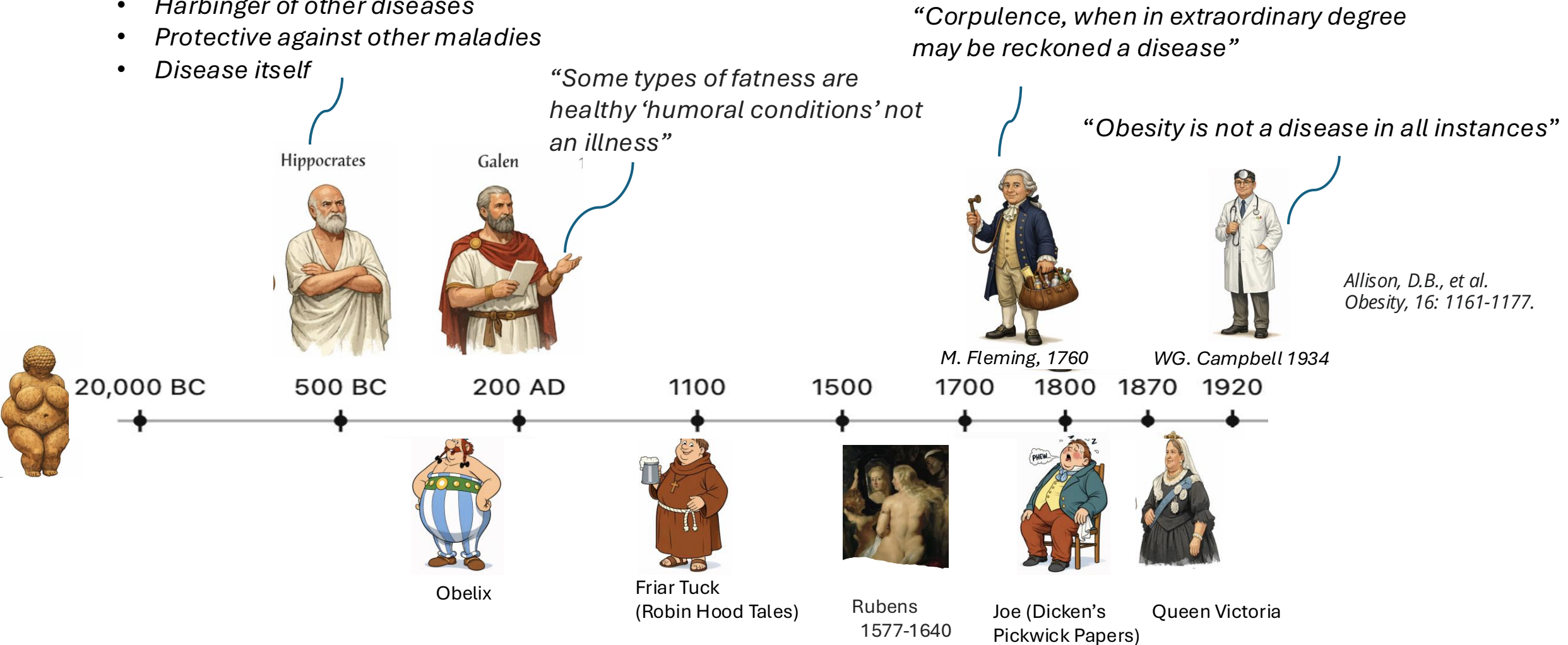
Often fatal in the absence of effective treatment



Ultimately life-threatening

The Heterogeneity (Spectrum) of Obesity Across Medicine, Art and Society

- Harbinger of other diseases
- Protective against other maladies
- Disease itself



Obesity in the early XX Century

Obesity



Life Insurance
(1920-1940)

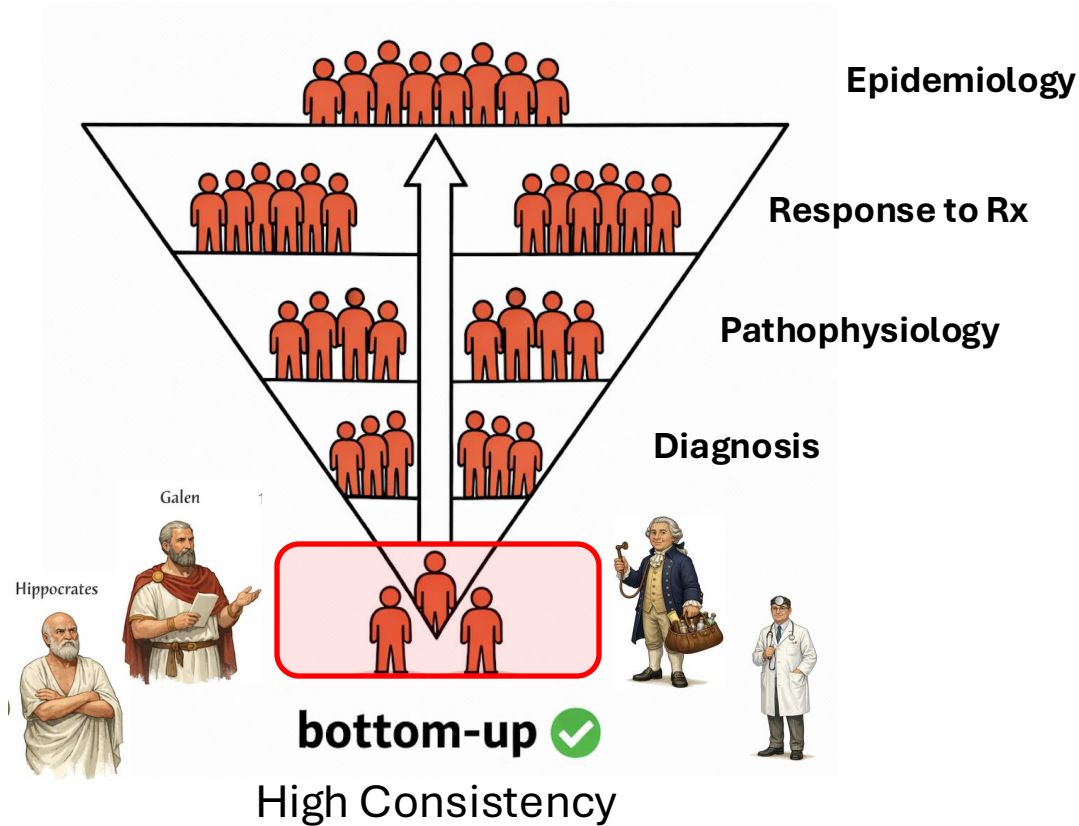


Epidemiology

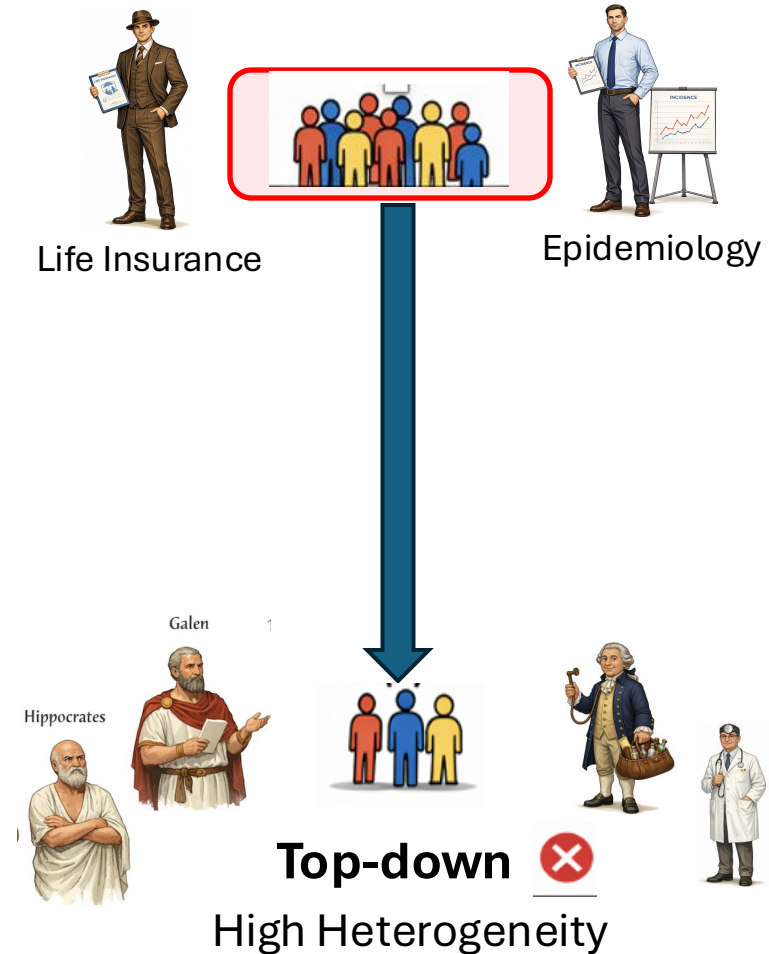
Practical Purpose of Disease Definition: Medicine vs Obesity

The health impact of obesity has been defined in reverse

Medicine



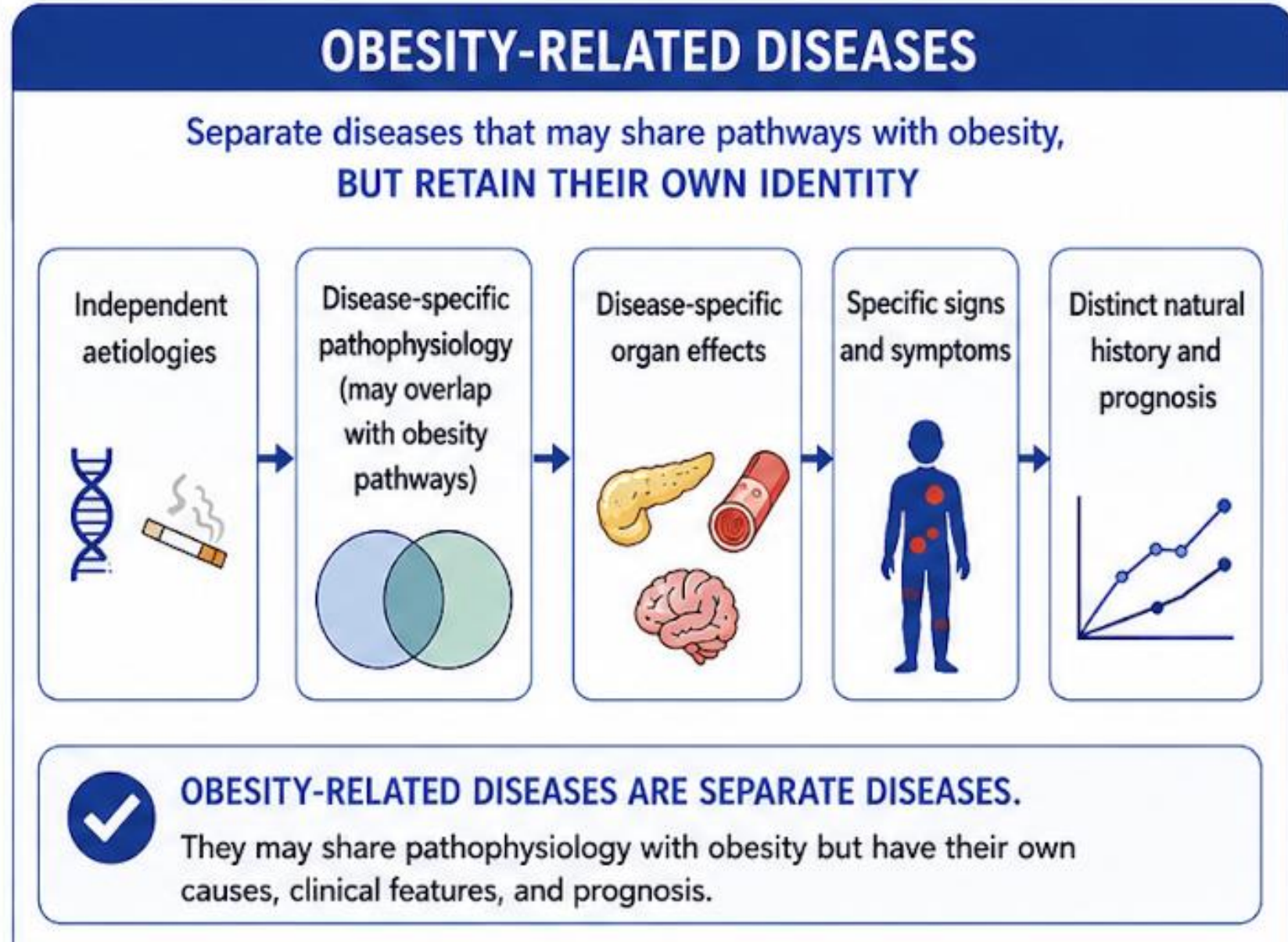
Obesity



Co-morbidities vs signs and symptoms



Co-morbidities
are not
disease's
signs/symptoms



Definition of the Disease of Obesity

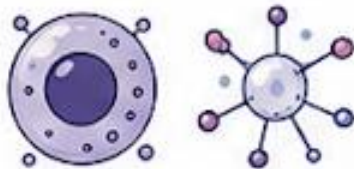
CLINICAL OBESITY

Defined by organ dysfunction directly caused by obesity,
INDEPENDENT OF OTHER DISEASES

Excess
adiposity



Pathophysiology
initiated by
adiposity
(independent
mechanisms)

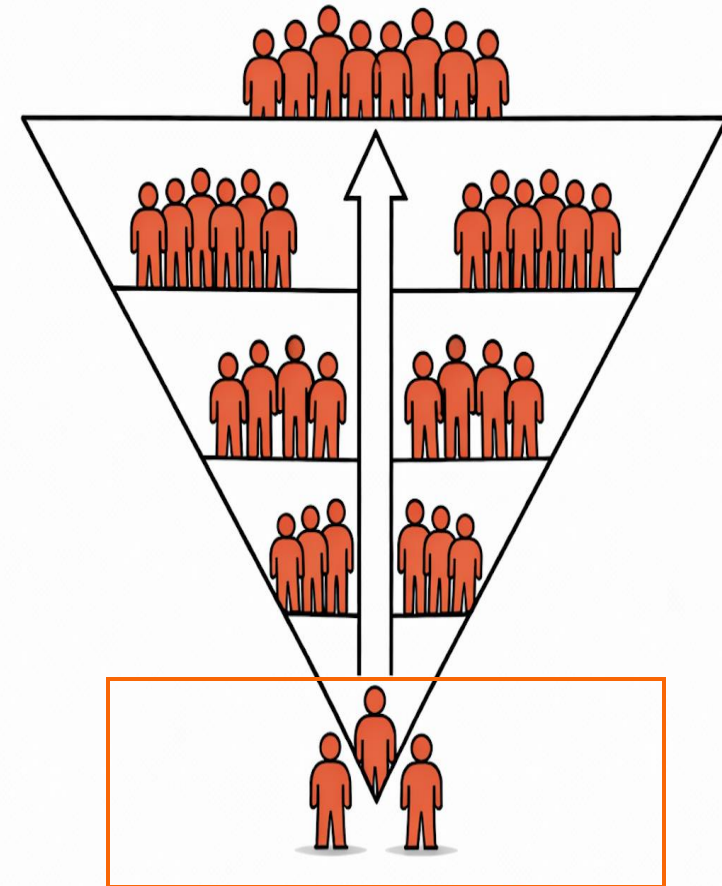


Organ dysfunction
directly caused
by obesity



CLINICAL OBESITY EXISTS EVEN IF NO OTHER DISEASE IS PRESENT.

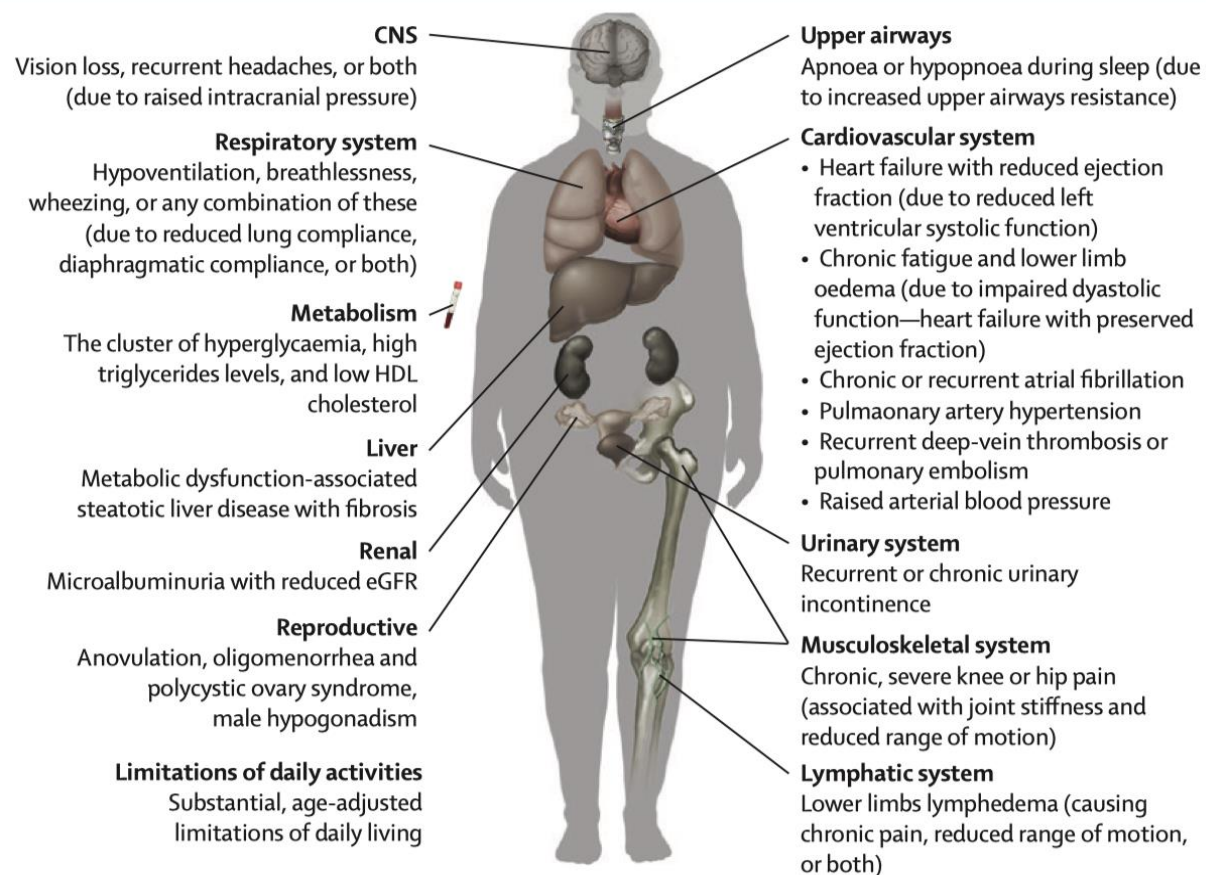
It is defined by organ dysfunction caused by obesity itself.



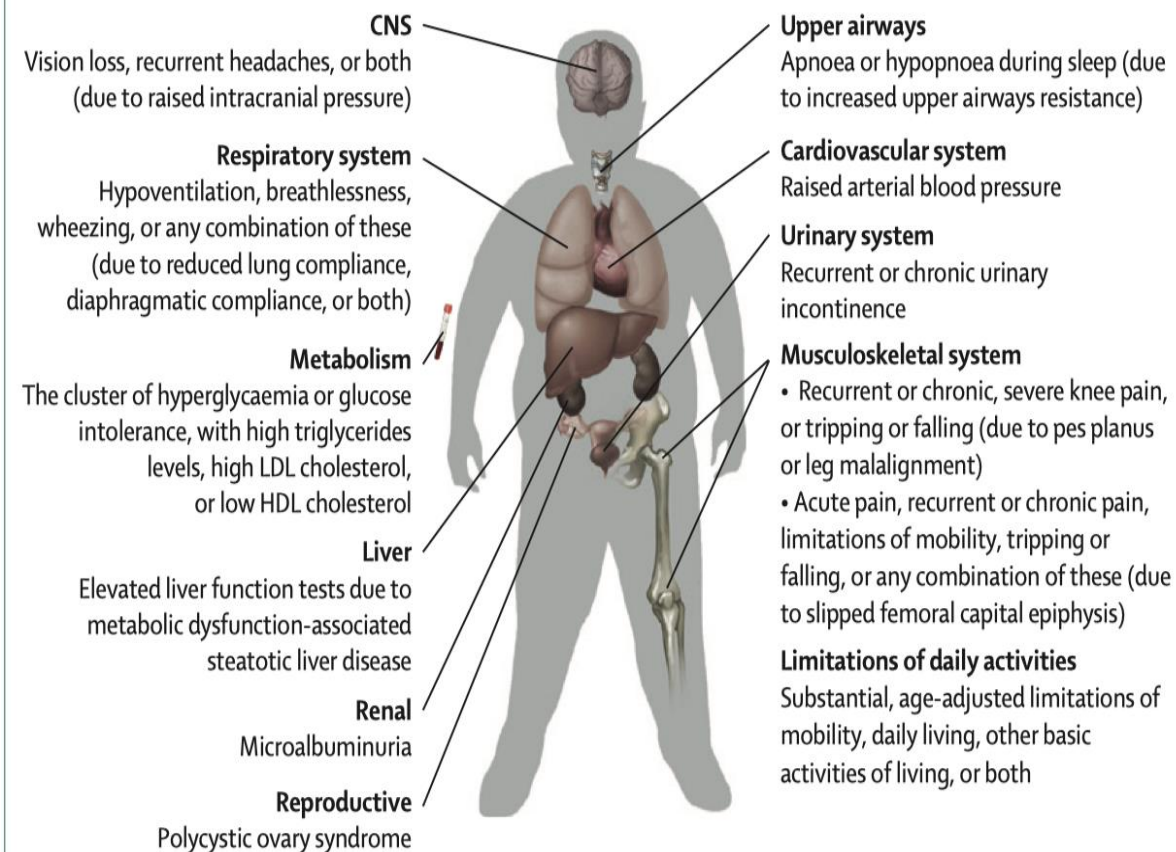
bottom-up ✓

Criteria for Diagnosis in Adults and in Children & Adolescents

ADULTS



CHILDREN & ADOLESCENTS



The Lancet Commission redefinition of obesity

Clinical obesity

Ongoing organ dysfunction, or limitation of daily activities, directly attributable to excess adiposity.

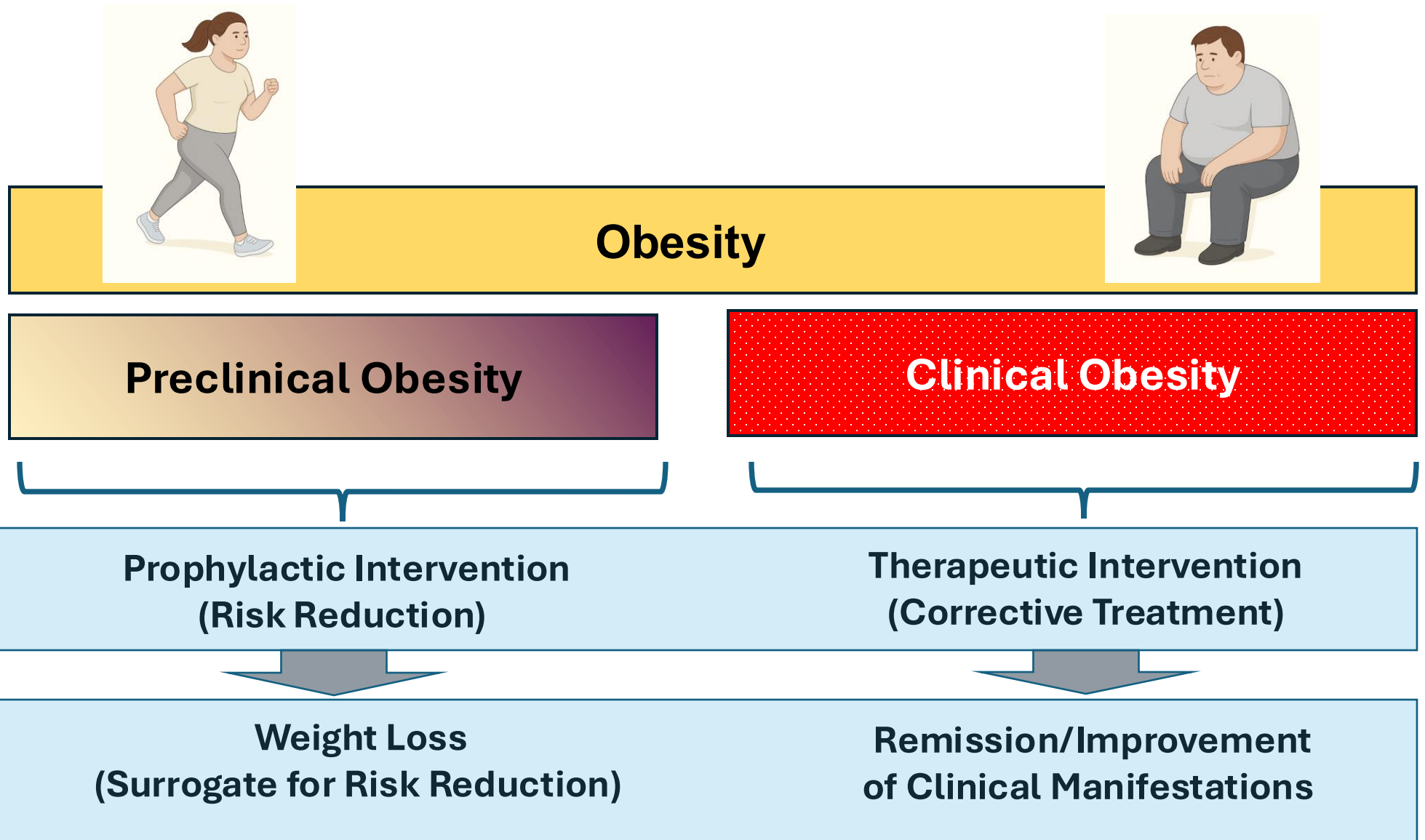
Diagnosed on objective evidence of dysfunction — not on BMI alone.

Pre-clinical obesity

Excess adiposity with preserved organ function and preserved daily activity — carrying elevated future risk.

A risk state, not a present illness.

Implications: Care, Policy, Research



Challenges for Implementation



OBESITY CARE CHANGES LIVES

Evidence
Compassion
Better Health
For All

OBESITY SPECIALIST

Patients
Evidence
Better Care

THE LANCET

The Lancet Commission on Clinical Obesity

A new framework for the diagnosis, management and prevention of obesity



Key questions:

- Diagnosis vs risk?
- Missed opportunity?
- Consequences for care?
- What comes next?

Obesity Management

Metabolic Health

Clinical Guidelines

Public Health

Equity in Care

nature



People with the same body mass index can have radically different health statuses.

Why obesity shouldn't always be considered a disease

Francesco Rubino

Relative risk (population level)
Vs Absolute Risk

“Likelihood” vs Certainty

A DIVERSE LANDSCAPE

The risk of developing one or more of 21 common ‘obesity related diseases’ over 12 years is higher in people with obesity than in those with a healthy body mass index (BMI). But these population-level statistics obscure a varied clinical picture.

Incidence of obesity-related disease in UK Biobank data

Healthy weight (BMI 18.5–24.9)

17%

83

Obesity (BMI ≥ 30.0)

32

68

17% of people would be expected to develop the same diseases irrespective of obesity

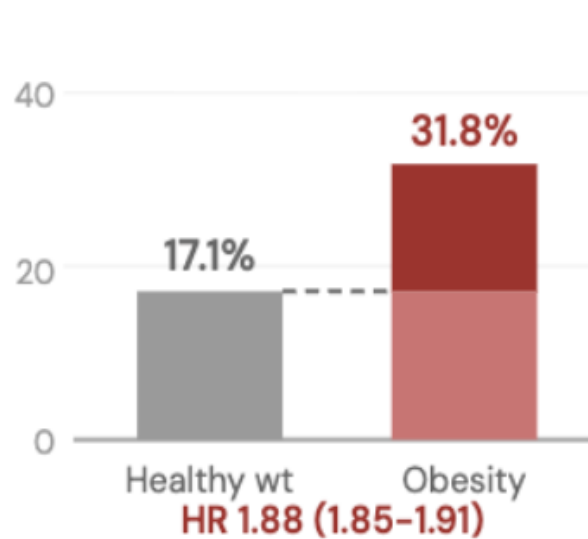
Only 15% of people develop diseases that can be plausibly directly attributed to obesity

Most have no obesity-related diseases

Individual-level perspective: 12-year incidence of 21 obesity-related conditions:

Kivimaki et al. *12-year incidence of ≥ 1 of 21 obesity-related diseases · Obesity vs Healthy Weight*

UK Biobank
n=499,357



15/100 events attributable to obesity



17/100 events not attributable to obesity



68/100 no event

85/100 no obesity-attributable event

Individual-level perspective: 20-year incidence of CVD:

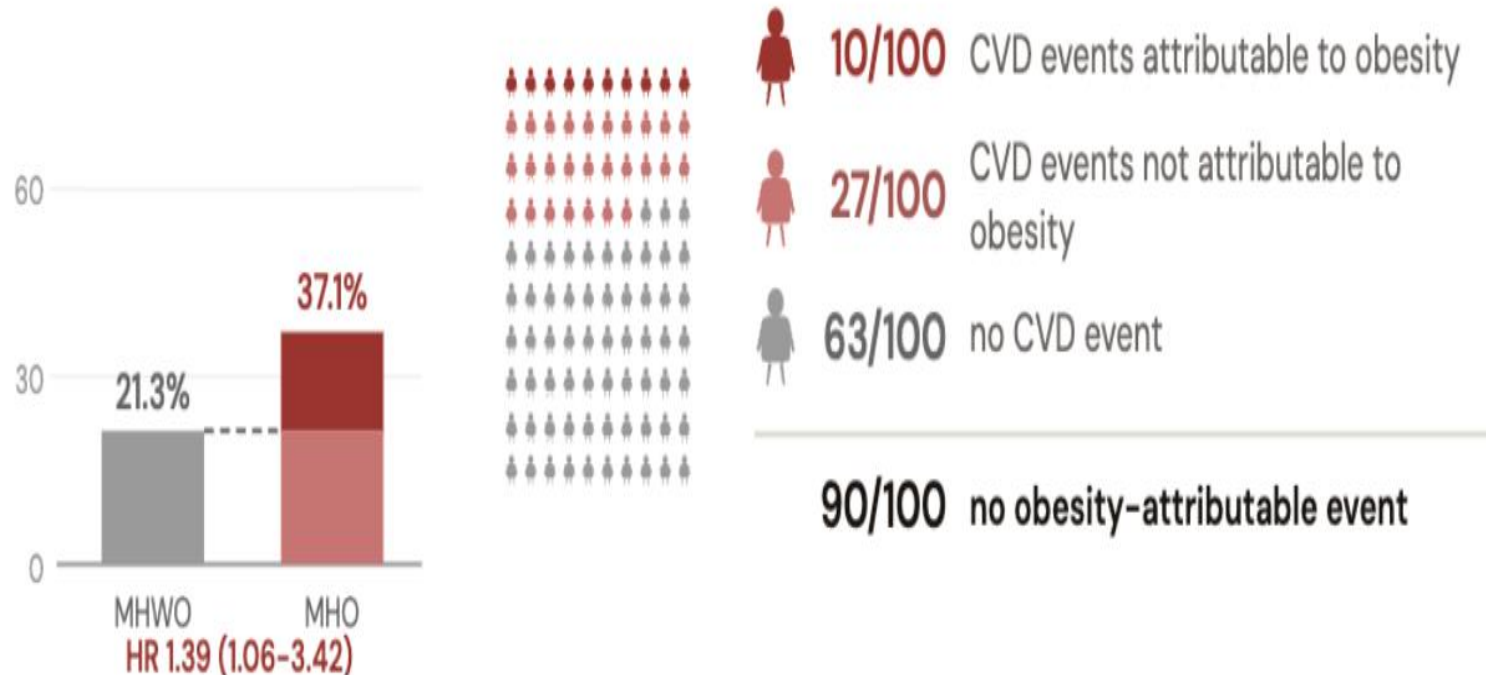
ATTICA Study

20-year CVD incidence · Greece (2002-2022) ·
 $n=1,988$

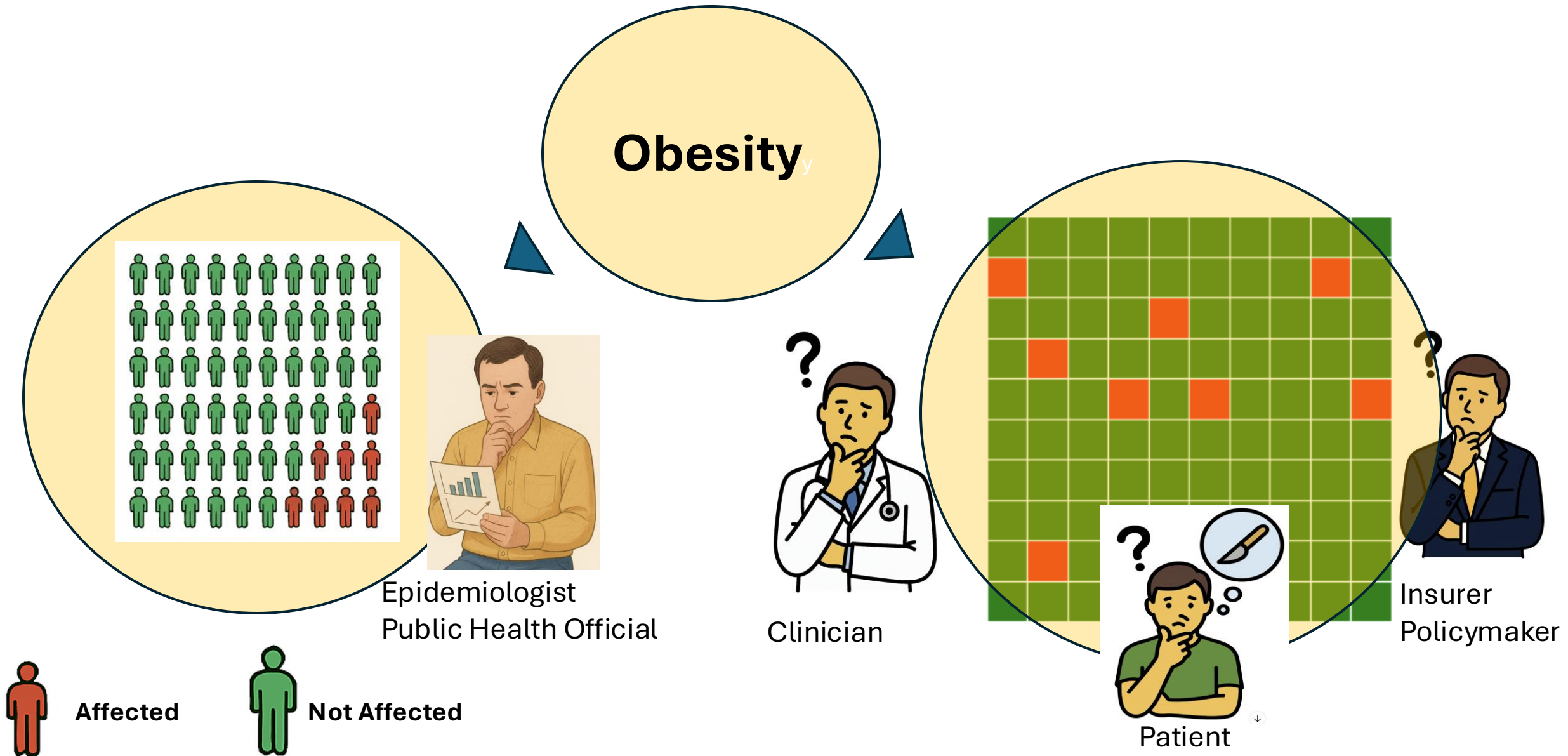
Outcome: CVD events

MHO vs MHWO

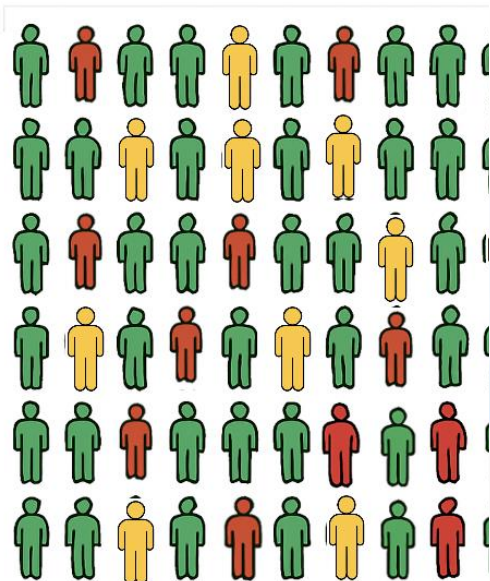
Metabolically healthy



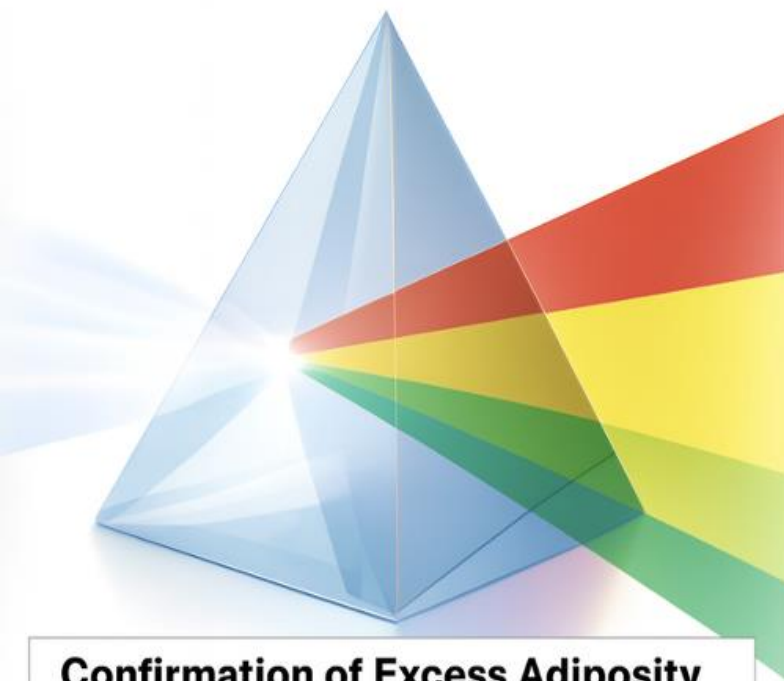
OBESITY: PUBLIC HEALTH vs CLINICAL APPROACH



Obesity



Diagnosis

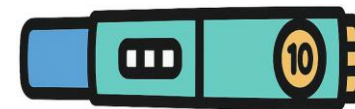


Confirmation of Excess Adiposity
Organ Impairment (Signs & Symptoms)

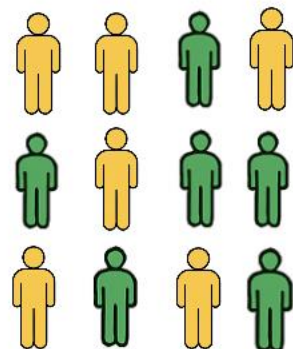
Clinical Obesity



Disease
Staging



Pre-Clinical Obesity

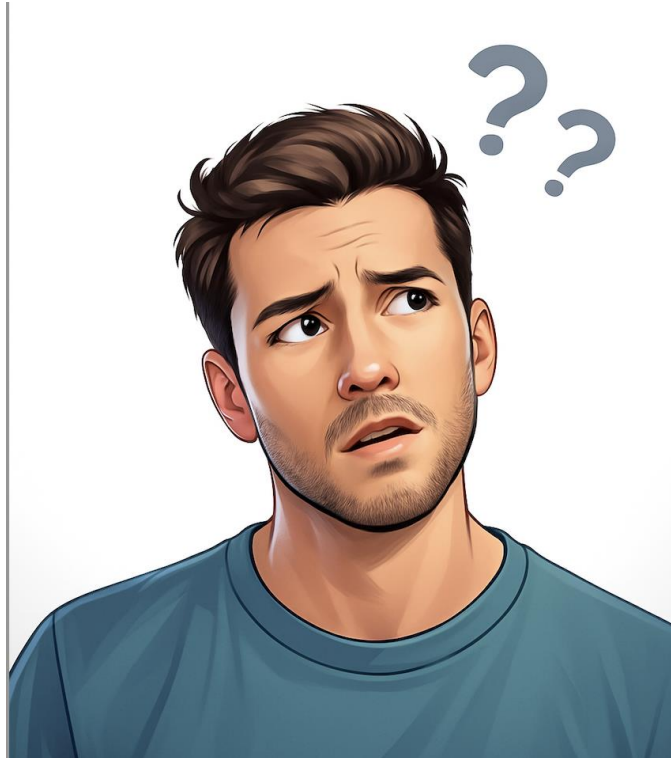


Risk-
Scoring



Misinterpretations

Risk Scoring Management Frameworks



Disease Diagnosis



Where is
Type 2 diabetes???

OBESITY COMMISSION

PROPOSED DIAGNOSTIC CRITERIA FOR CLINICAL OBESITY

- ✓ Adipose dysfunction
- ✓ Organ dysfunction
- ✓ Clinical severity
- ✓ Functional impairment

Type 2 diabetes
NOT INCLUDED

I don't think
there is a **more causally
related disorder** than this,
and they left it out!

it makes
zero sense,
particularly for
the patients.

Why is Type 2 Diabetes
Not a Diagnostic Criterion for Clinical Obesity ?

PHYSICIAN

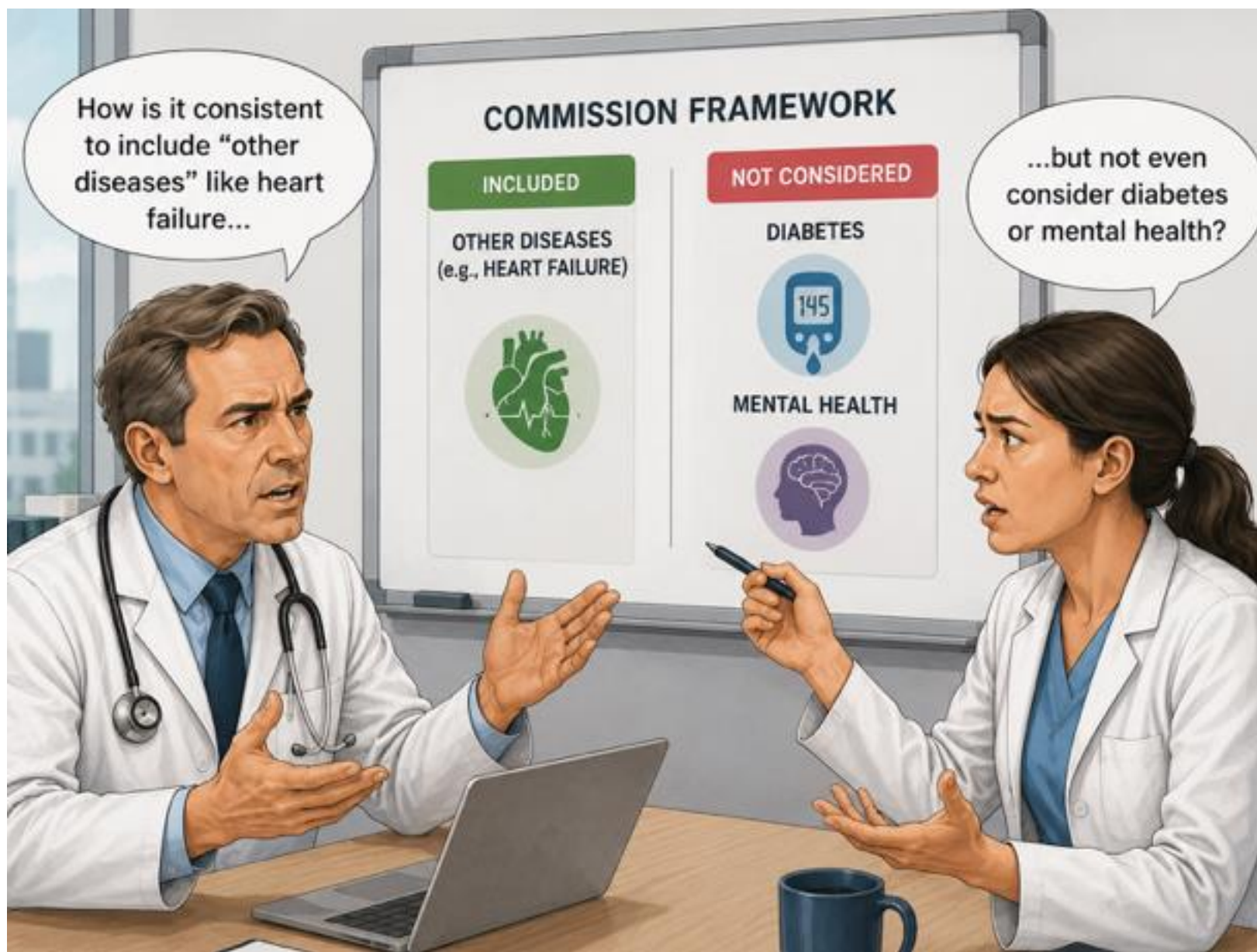
ENDOCRINOLOGIST

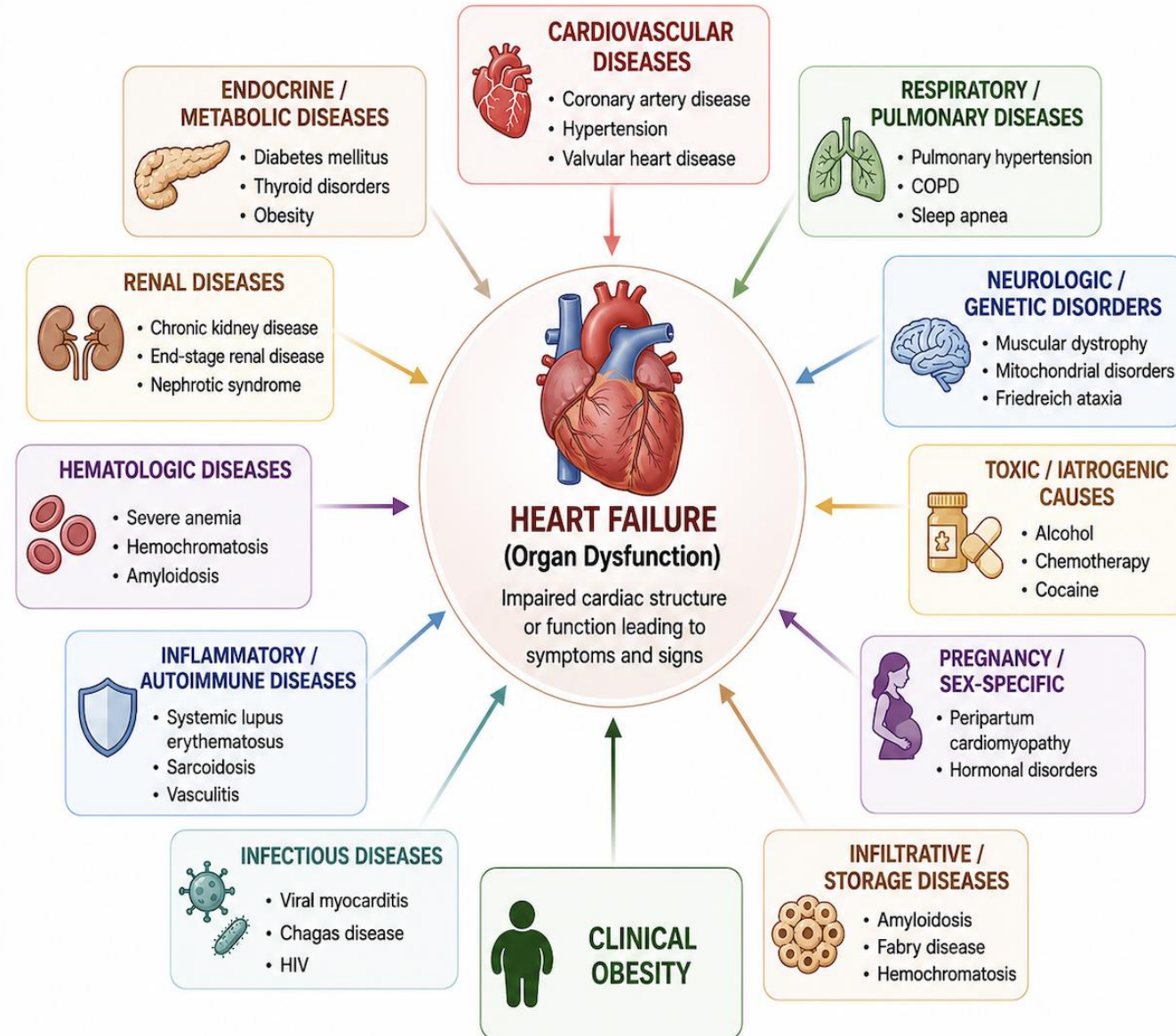
A Disease is not a Diagnostic Criterion for Another



Disease Definition/Diagnosis vs Management

	Parkinson's Disease	Obesity
Associated Disease	Depression (est. 30%)	Type 2 Diabetes / Metabolic Syndrome
Biological Link	Strong mechanistic connection	Strong mechanistic connection
Clinical Impact	Worsens prognosis & outcomes	Worsens prognosis & outcomes
Management Impact	Influences management decisions (trigger adjunctive therapies)	Influences management and insurance criteria
Diagnostic Role	NOT a diagnostic criterion	Currently conflated with diagnosis





OBESITY
SPECIALISTS

PRECLINICAL
OBESITY IMPLIES
WATCHFUL WAIT

THE COMMISSION
IS DANGEROUS
BECAUSE IT
ADVOCATES FOR
"SICK CARE"

DEFINING
PRE-CLINICAL
OBESITY WILL
REDUCE INSURANCE
COVERAGE OF
OBESITY!!



A diagnosis is a snapshot — not a direction

No “Watchful Wait”
recommended by
the Commission



HERE & NOW

← *no past
implied*

*no future
implied* →

●
the
diagnosis

Naming a risk state describes **what is** — it does **not** prescribe “watchful waiting.” What to do next is a separate, management decision.

Distinguishing adenomatous polyp from cancer **does not mean**
“**wait until cancer develops**”

Risk vs Disease Boundaries in Medicine

RISK STATE	<i>may progress</i>	DISEASE STATE
Adenoma	→	Adenocarcinoma
Prediabetes	→	Type 2 Diabetes
MGUS	→	Multiple Myeloma
HIV infection	→	AIDS
Dyslipidaemia	→	Cardiovascular Disease
Hypertension	→	Cardiovascular Disease
Pre-clinical Obesity <i>no organ impairment</i>	→	Clinical Obesity <i>organ impairment, symptoms</i>

Pre-clinical Obesity is a Real Entity

Risk, not
Illness

Substantial Portion
of All Obesity

Significantly lower mortality than
Clinical Obesity (*JAMA Int Med Oct 2025*)



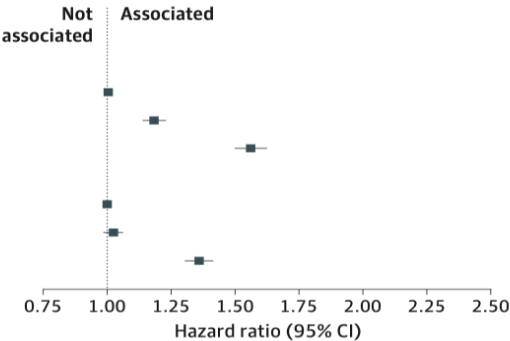
Prevalence estimates:
30-70% of obesity

No Impairment of
Organ function

Figure. Lancet Classification and Body Mass Index (BMI)-Based Classification of Obesity Associated With All-Cause and Cause-Specific Mortality

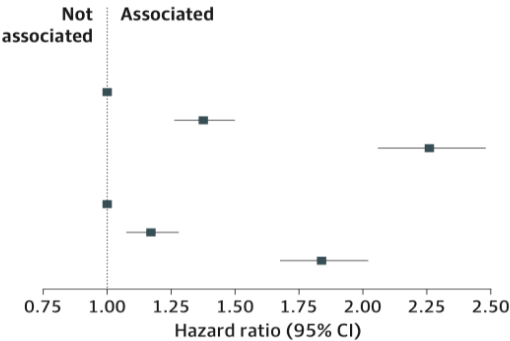
A All-cause mortality

Classification	Person-years/ cases, No.	Hazard ratio (95% CI)
Lancet classification		
No obesity	1 919 836/5818	1 [Reference]
Preclinical obesity	1 429 956/7054	1.18 (1.14-1.23)
Clinical obesity	573 710/4045	1.56 (1.50-1.63)
Traditional classification		
Normal weight	1 396 702/4885	1 [Reference]
Overweight	1 681 663/7345	1.02 (0.98-1.06)
Obesity	845 136/4687	1.36 (1.31-1.42)



B CVD mortality

Classification	Person-years/ cases, No.	Hazard ratio (95% CI)
Lancet classification		
No obesity	1 919 836/910	1 [Reference]
Preclinical obesity	1 429 956/1448	1.38 (1.26-1.50)
Clinical obesity	573 710/1006	2.26 (2.06-2.48)
Traditional classification		
Normal weight	1 396 702/799	1 [Reference]
Overweight	1 681 663/1478	1.17 (1.07-1.28)
Obesity	845 136/1087	1.84 (1.68-2.02)



Uniform labels for a non-uniform condition serve no one

Calling **all** obesity a disease helps none of its stakeholders



People with obesity

Blanket labelling precludes personalised care



Clinicians

They need diagnostic precision, not a single label



Health systems

Sustainability depends on proportionate resource allocation



Scientists

Assumed uniformity that doesn't exist distorts hypotheses



Industry

Diagnostic overreach undermines the clinical and economic rationale for their treatments

*Rubino F. Obesity doesn't equate to ill health: why the 'disease' label doesn't always fit. **Nature**; June 2026*



Original Investigation | Nutrition, Obesity, and Exercise

New Obesity Definition and Clinical Obesity Prevalence for Global Metabolic Bariatric Surgery

Simone Cremona, MD; Ricardo V. Cohen, MD; Francois Pattou, MD; Anna Casajoana, MD, PhD; Guilherme Sampaio Souza, RN; Violeta Raverdy, MD; Helene Verkindt, MD; Beatriz T. L. Blasio, MD; Pia Roser, MD; Robert Caiazzo, MD, PhD; David Benaiges, MD, PhD; Tarissa B. Zanata Petry, MD; Francesco Rubino, MD

Study Population

Multi-Center International Audit

An audit of routine practice at 4 high-volume tertiary centers located in the UK, Spain, France, and Brazil.



UK



Spain



France



Brazil

n = 2,316 Patients

adult candidates undergoing primary metabolic bariatric surgery (gastric bypass or sleeve gastrectomy)

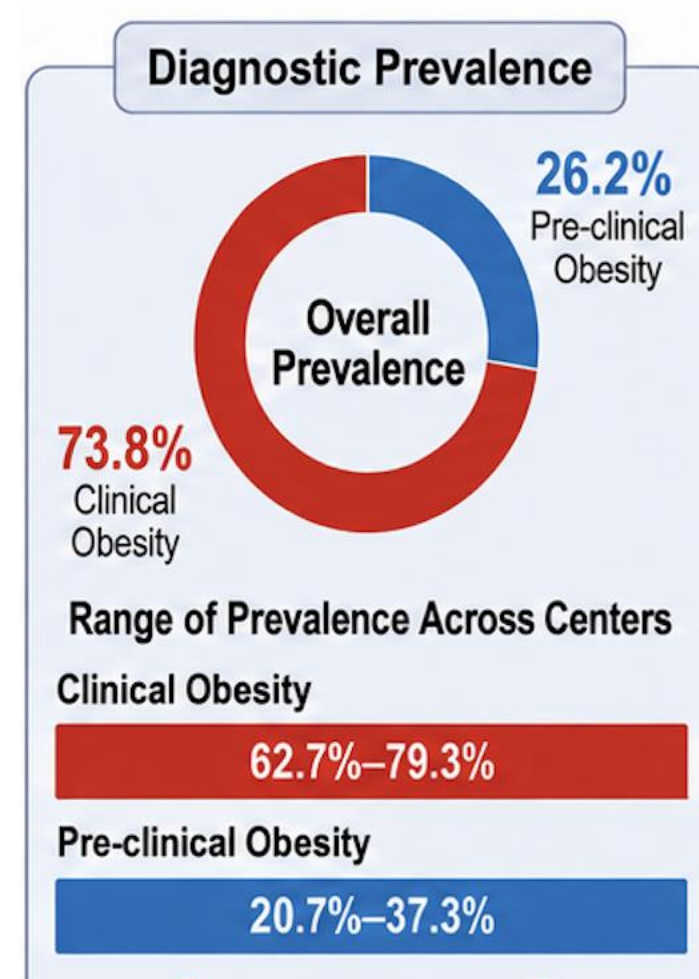
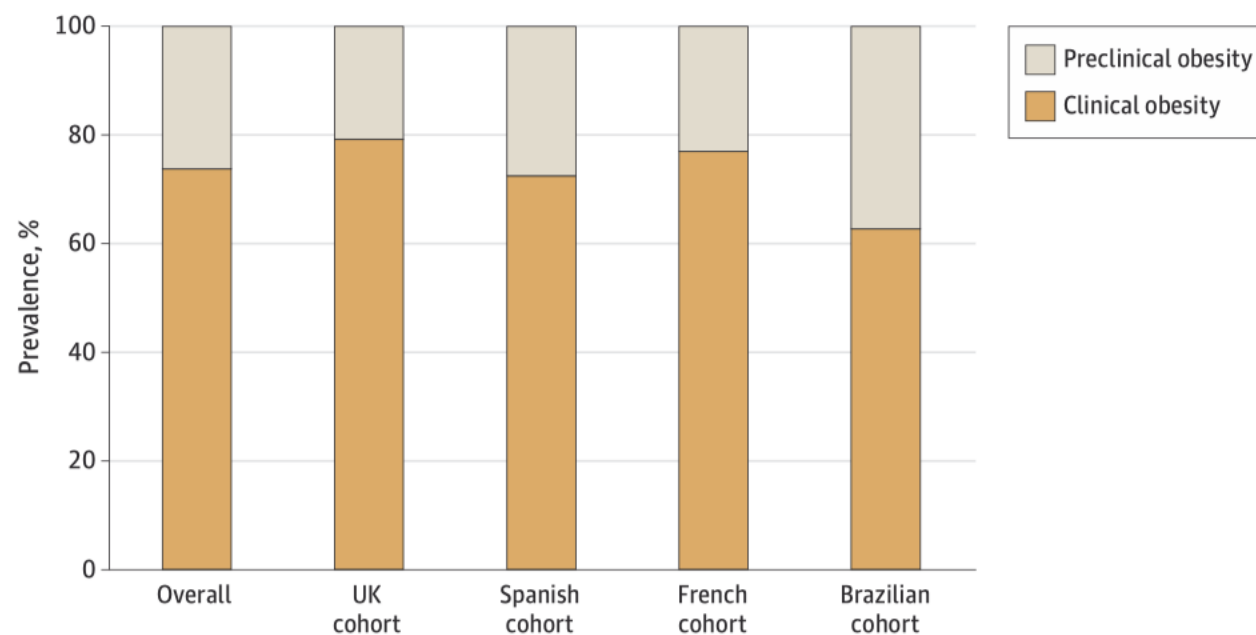


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Figure 1. Bar Graph of Prevalence of Clinical and Preclinical Obesity Among Metabolic Bariatric Surgery Candidates Across International Metabolic Bariatric Surgery Centers



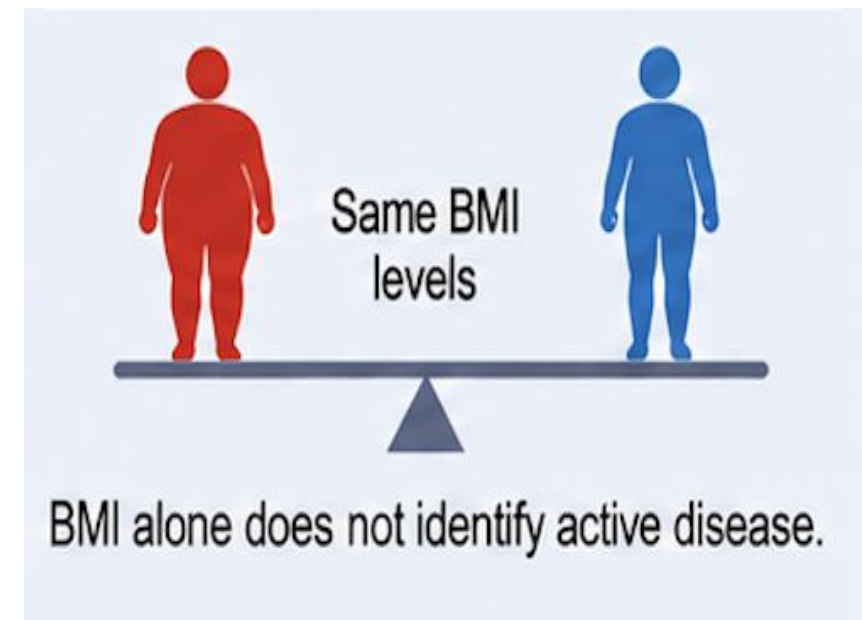
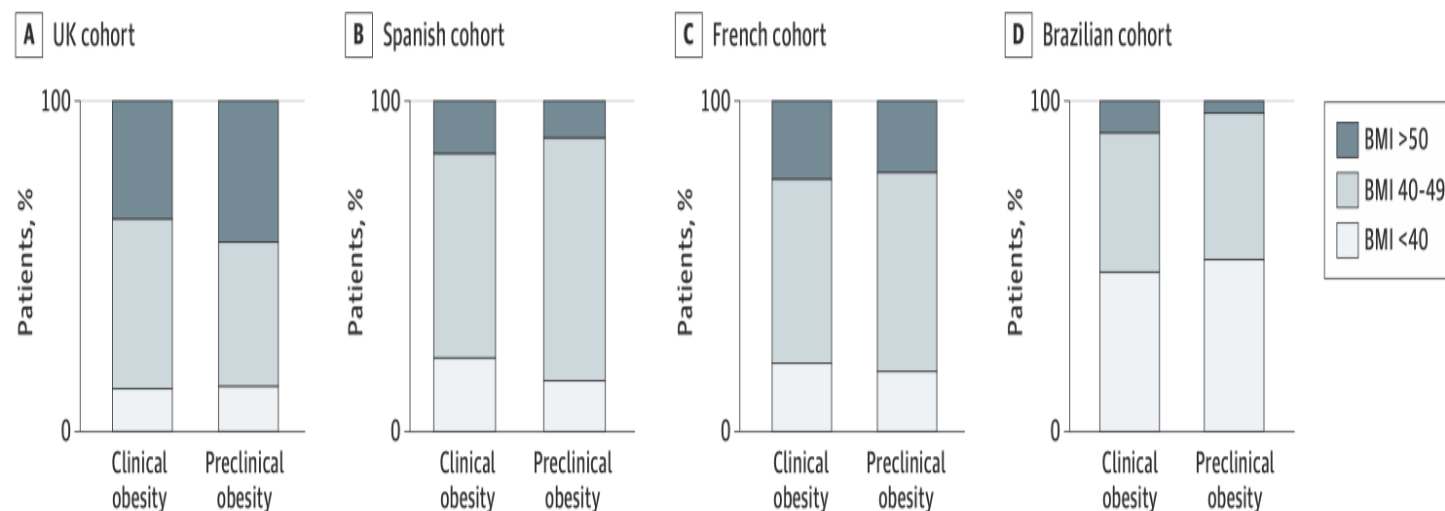


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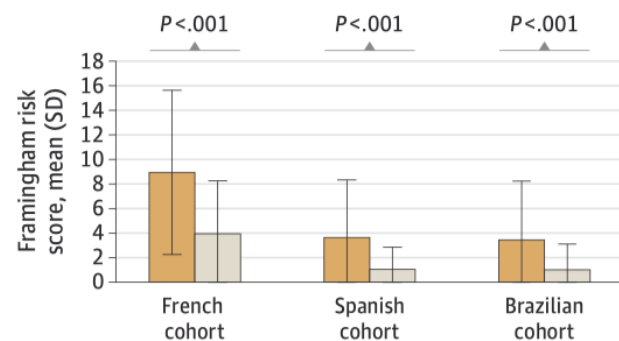
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Figure 2. Bar Graphs of the Distribution of Body Mass Index (BMI) Categories Among Patients With Clinical and Preclinical Obesity Across International Metabolic Bariatric Centers

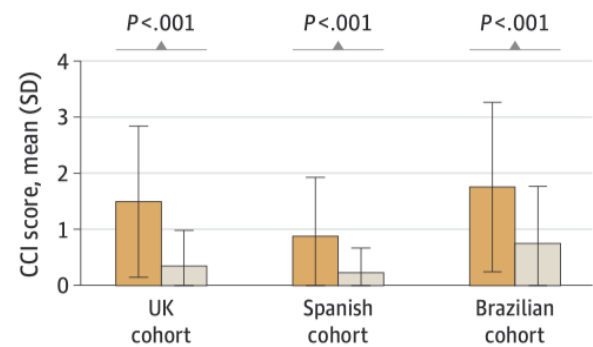


Proportion of patients within each BMI (calculated as weight in kilograms divided by height in meters squared) category.

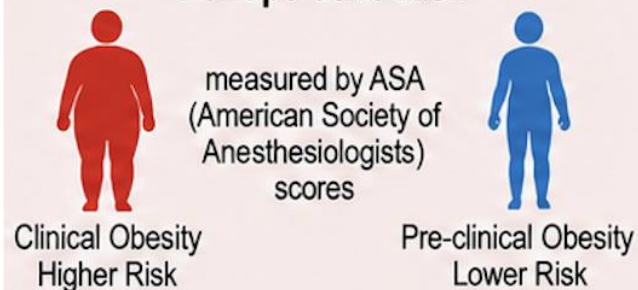
B Framingham risk score



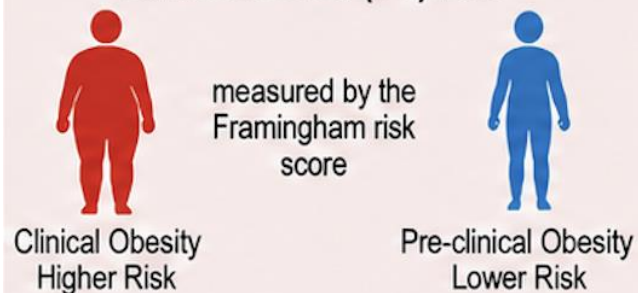
A CCI score



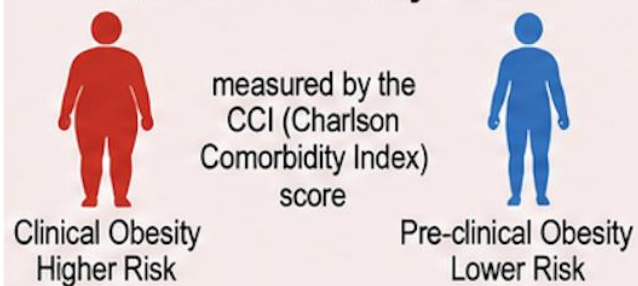
Perioperative Risk



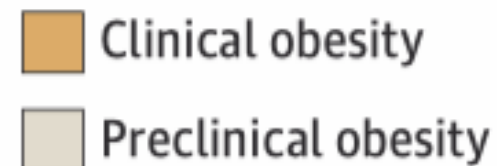
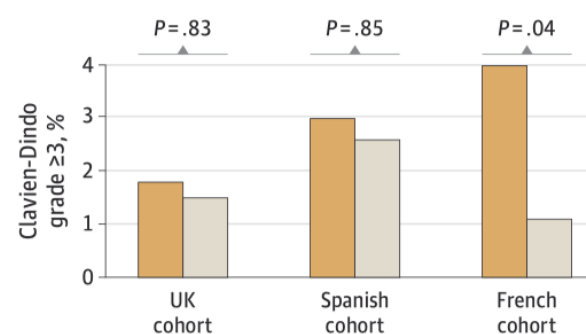
Cardiovascular (CV) Risk



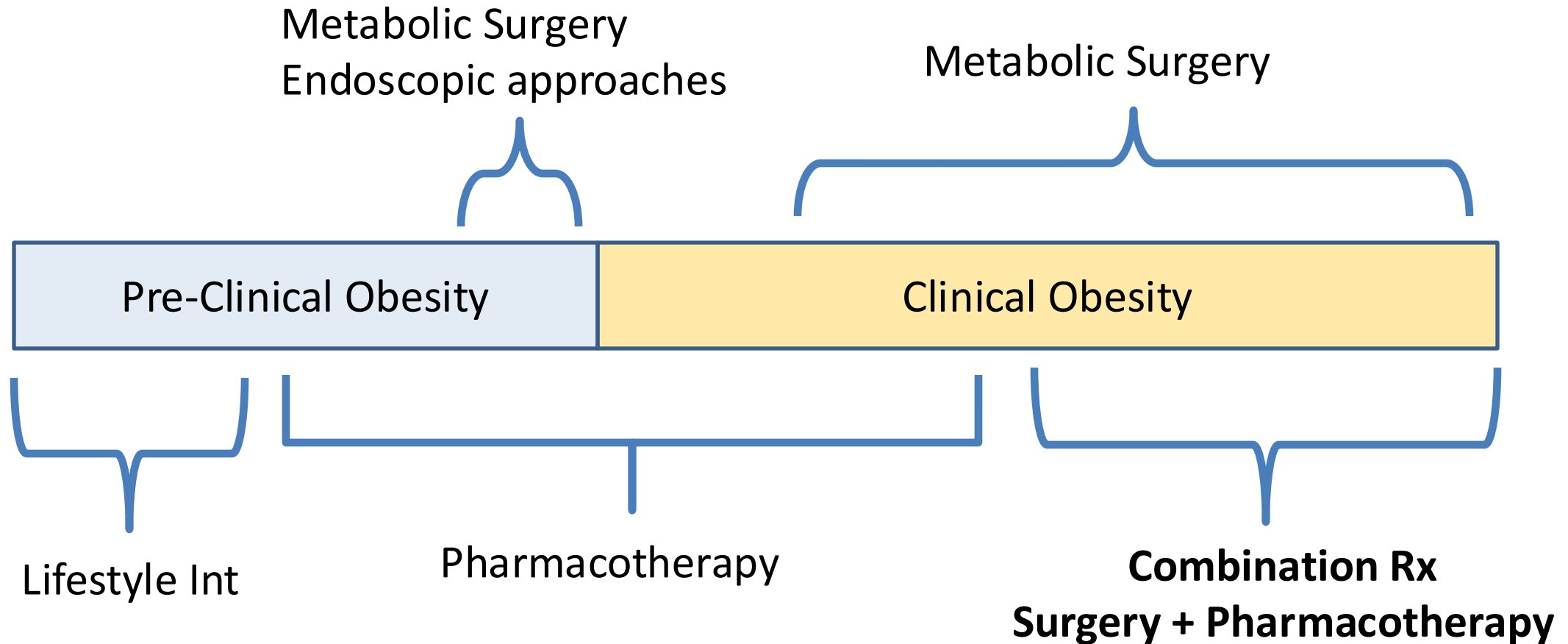
All-cause Mortality Risk



C Clavien-Dindo grade ≥ 3



The Future of Obesity Care



*The difficulty lies not so much in developing new ideas as
in escaping from the old ones.*

JOHN MAYNARD KEYNES *The General Theory of Employment, Interest and Money* (1936)