

The Lancet Commission on the Definition and Diagnosis of Clinical Obesity

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Disclosures

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

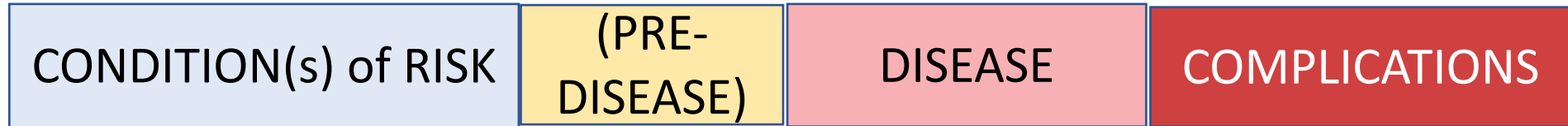
Scientific Advisory Board: GI Dynamics, Keyron

DSAB: GT Metabolic Solutions

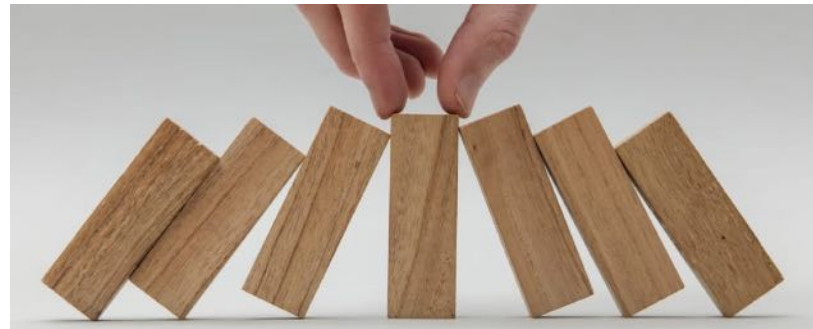
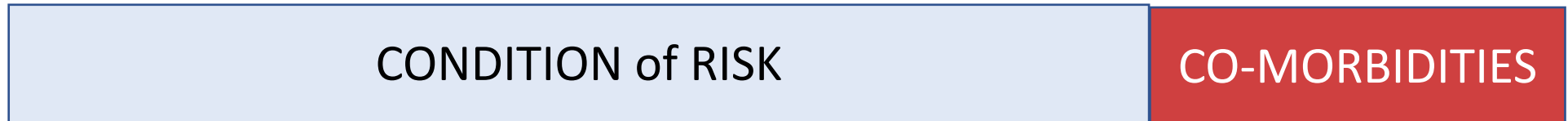
Speaker's Honoraria: Medtronic, Ethicon, Novo Nordisk

THE “MISSING PIECE” in OUR IDEA OF OBESITY

Chronic Diseases



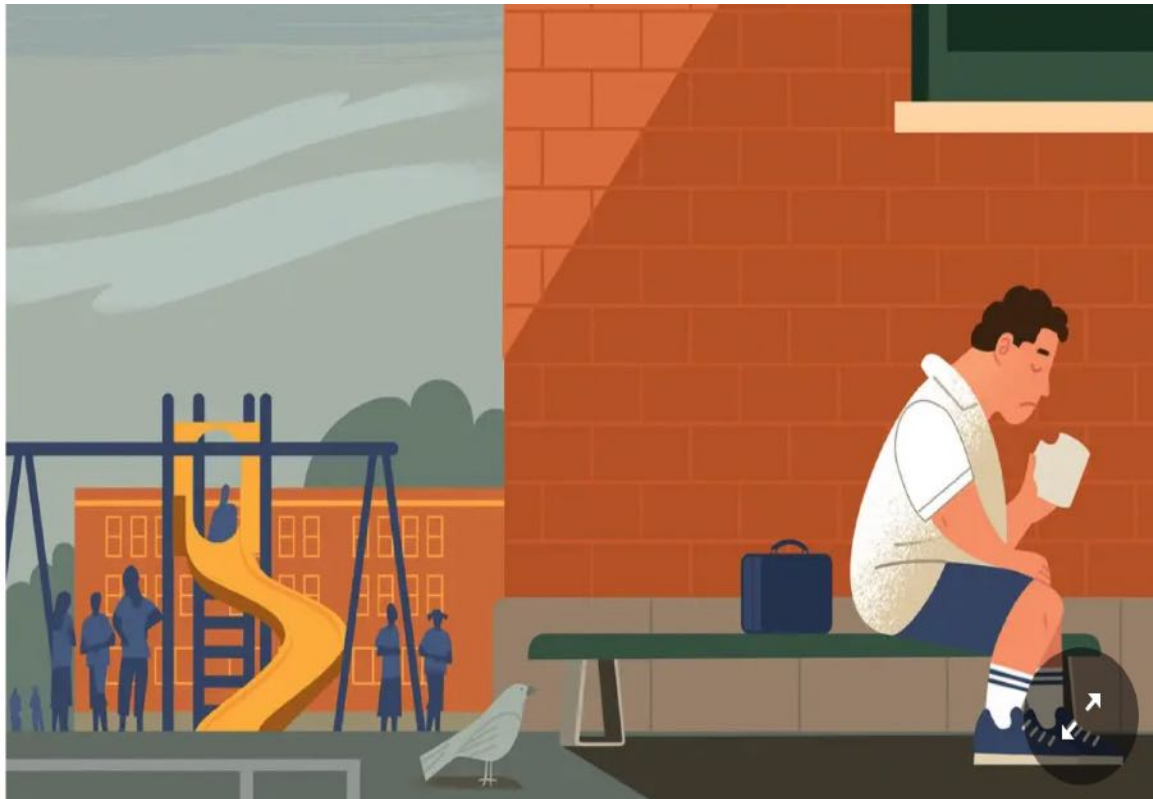
Overweight and Obesity



The New York Times

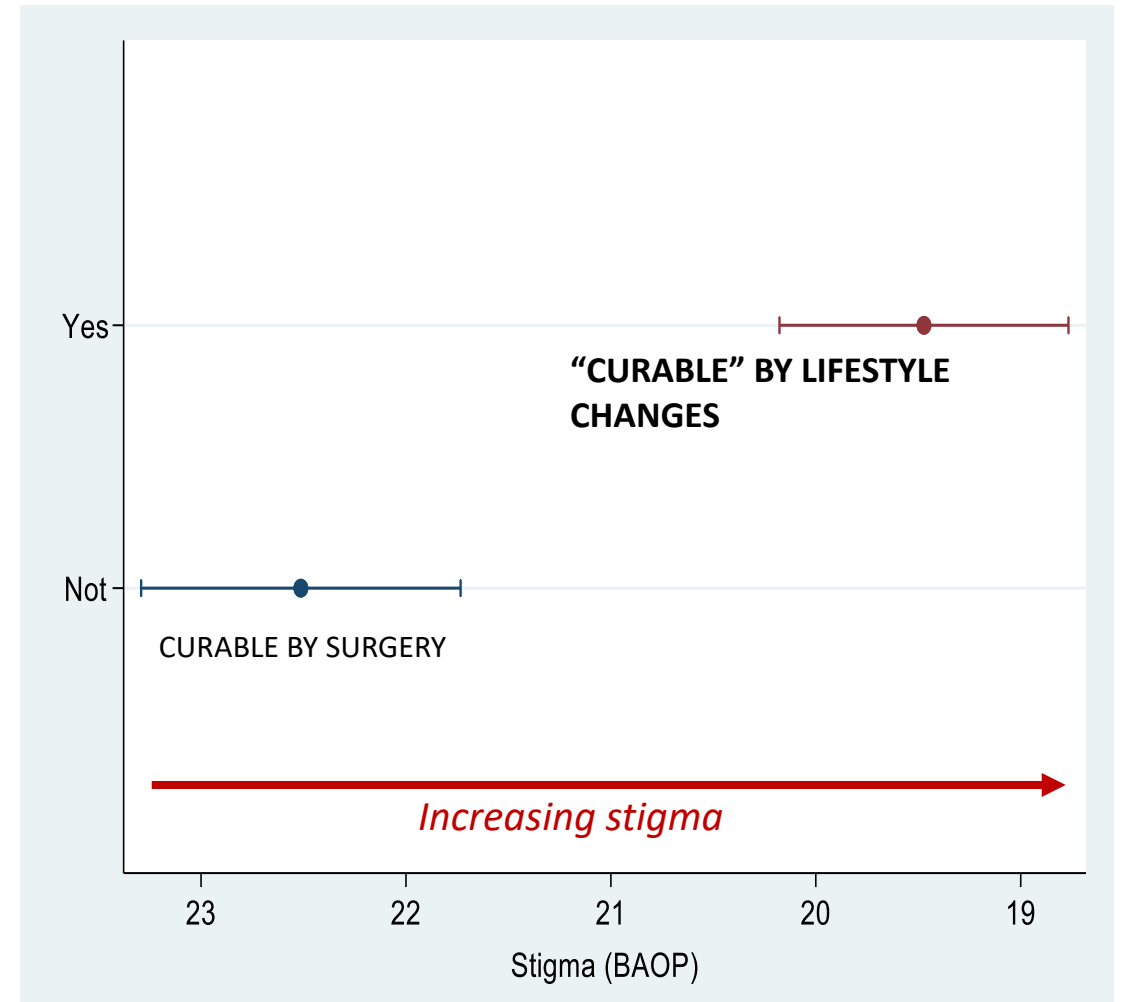
PERSONAL HEALTH

Fat Bias Starts Early and Takes a Serious Toll



ASK Study:

Responders that consider Obesity “curable” by lifestyle changes have more stigmatizing views (O’Keefe et al; *Lancet Diabetes & Endo* 2020)



Defining Obesity as a Disease

Clinical Practice



Society



Public Health

Bias Stigma

(Some) 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

Is Obesity a Disease?



YES!



NO!



Is Obesity a Disease?



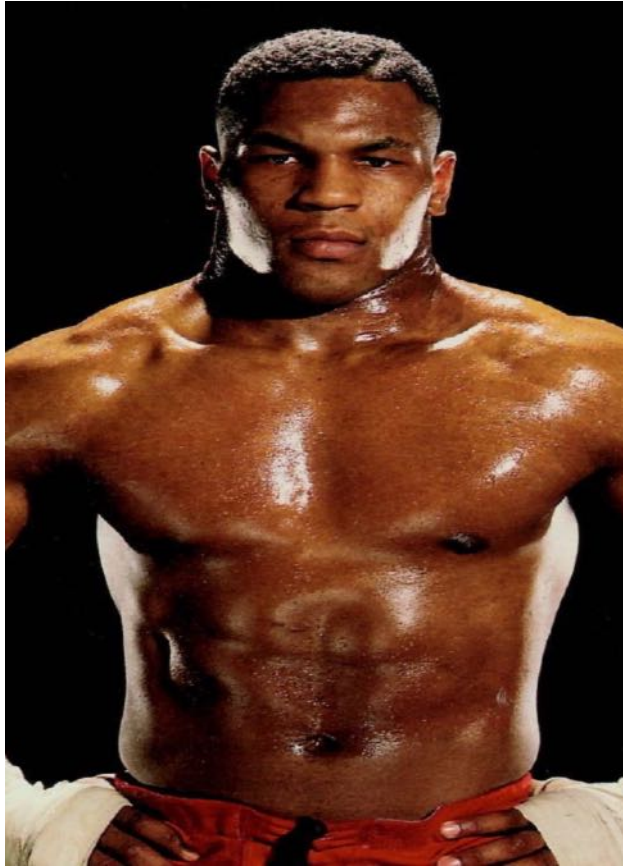
NO!

A risk factor is not a disease

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



**Mike Tyson –
BMI > 35Kg/m²**

BMI - Weight (Kg) / Height (m²)



BMI does not necessarily indicate excess adiposity



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



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?

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

1. BMI can under-diagnose obesity status
2. BMI can over-diagnose obesity status
3. BMI does not reflect ongoing illness ?



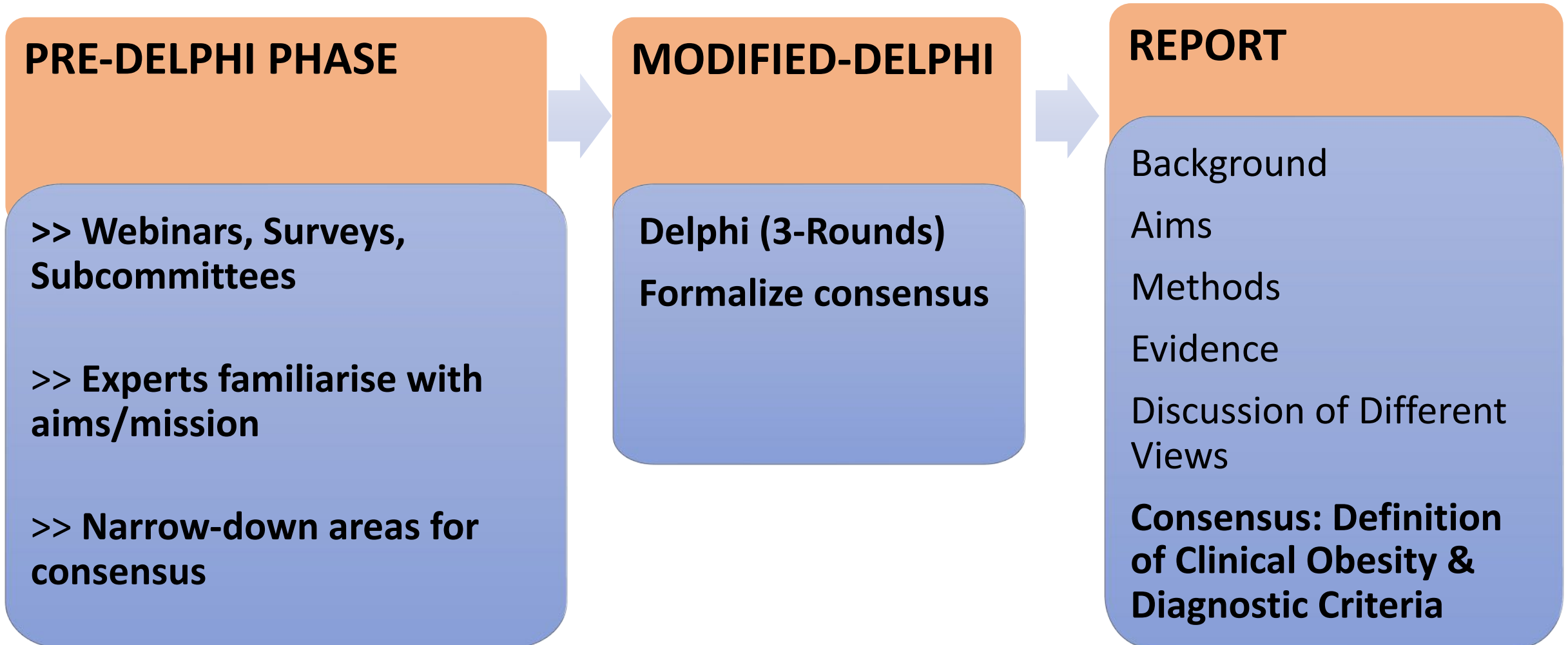
A blanket definition of obesity as a disease effectively makes obesity an intractable problem for policymakers

Lancet Commission on Clinical Obesity

“Commissioners Group”: Globally representative, multidisciplinary group of approx. 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

- Lancet Commission on Clinical Obesity -



Is Obesity a Disease?

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



March 4, 2023

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



Richard Drury Creativity/Getty Images

Lancet Diabetes Endocrinol 2023

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The proposal of obesity as a disease one of the most controversial and polarizing topics in modern medicine.

Addressing this issue however is a timely and highly consequential effort, with profound ramifications for **public health, clinical practice, and society.**

Conceptual and practical issues, however, pose major **stumbling blocks to the resolution of this controversy.”**



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

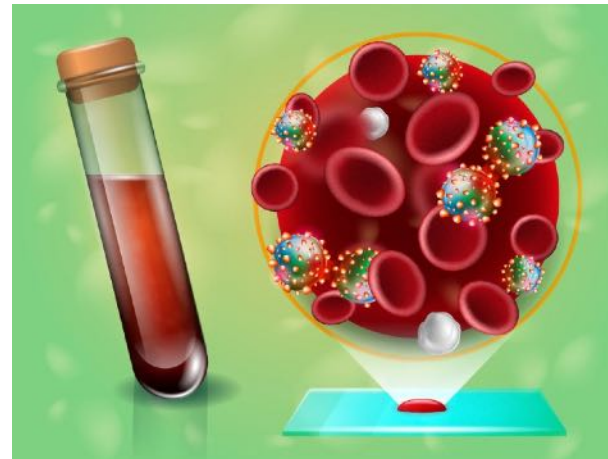
Disease not defined by risk of future illness



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.

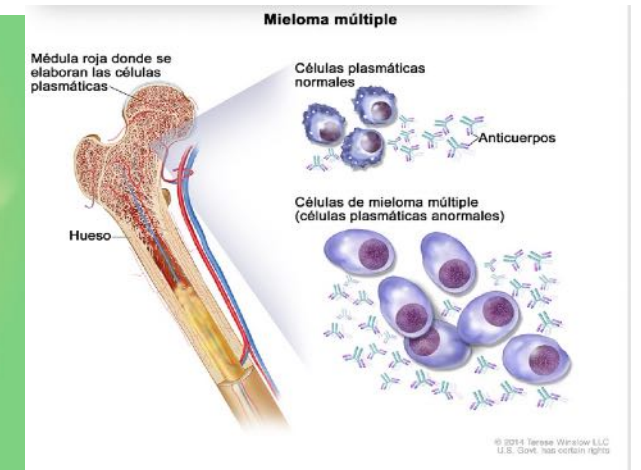
SOURCE: The Fitzpatrick scale

MGUS



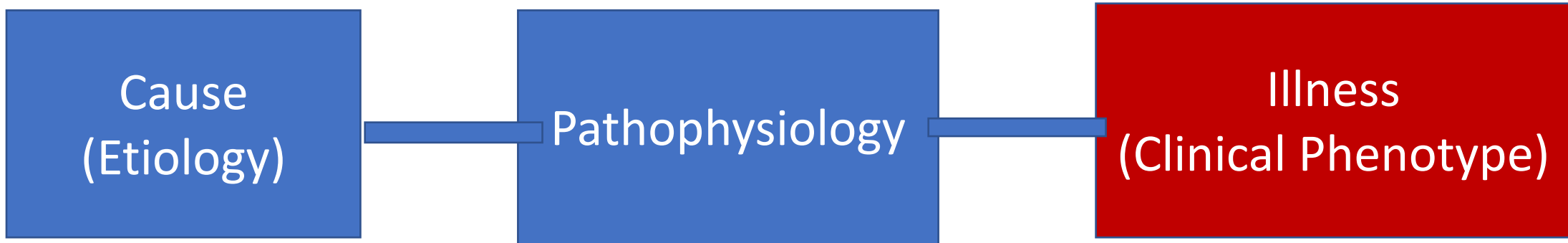
CONDITION

MIELOMA

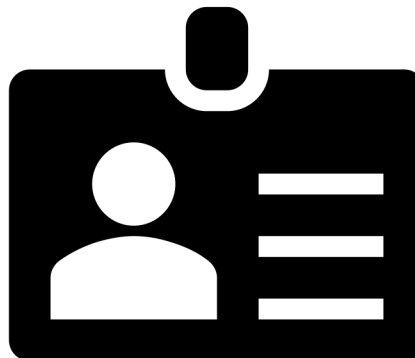


DISEASE

“Anatomy” of a Disease

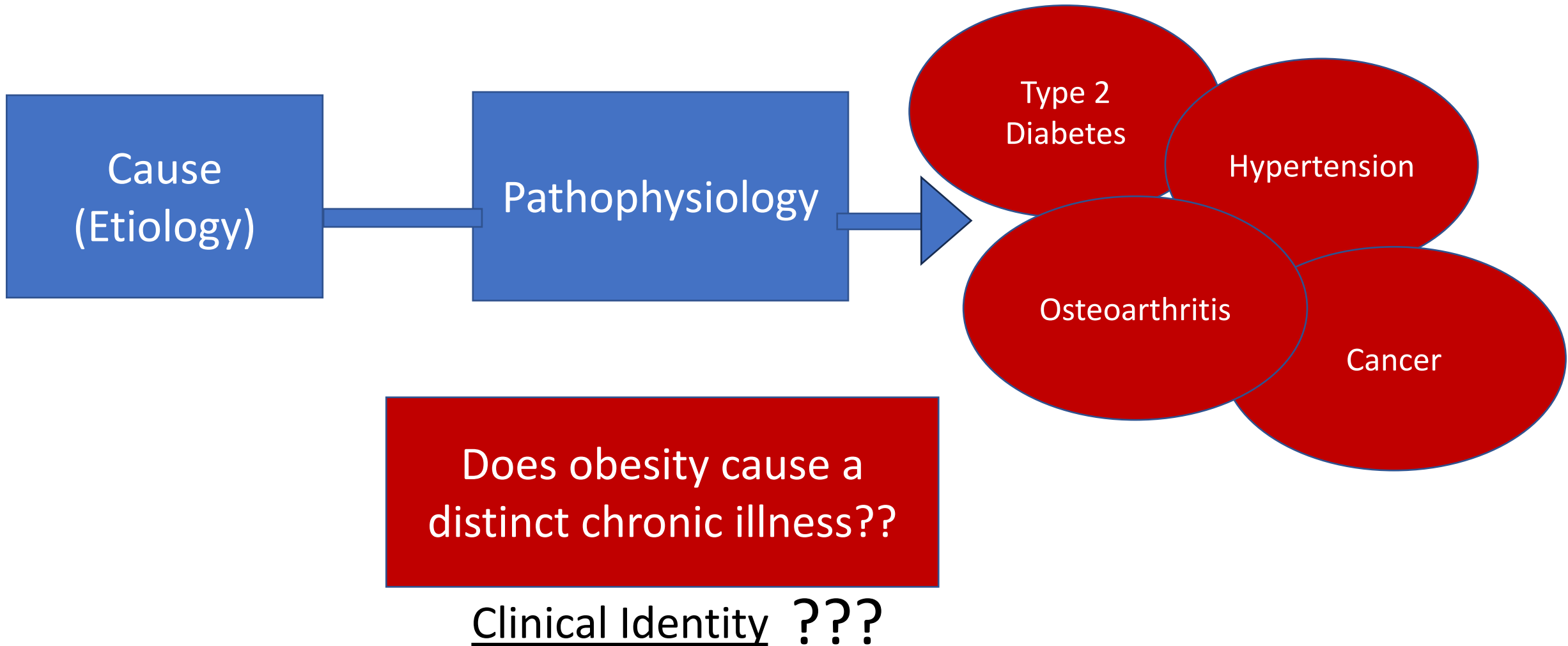


Clinical Identity



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

Obesity: A Case of Missing Clinical Identity



If Obesity is a Disease in
its own right...

What does it look like?

Does it have its own
clinical identity?



Definitions of Chronic Diseases

"Disease": (*Encyclopaedia Britannica*)

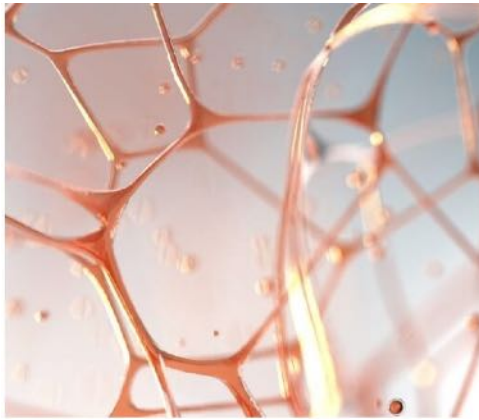
*A **harmful deviation from the normal** structural or functional state of an organism, associated with certain **signs and symptoms***

"Chronic Diseases": (CDC)

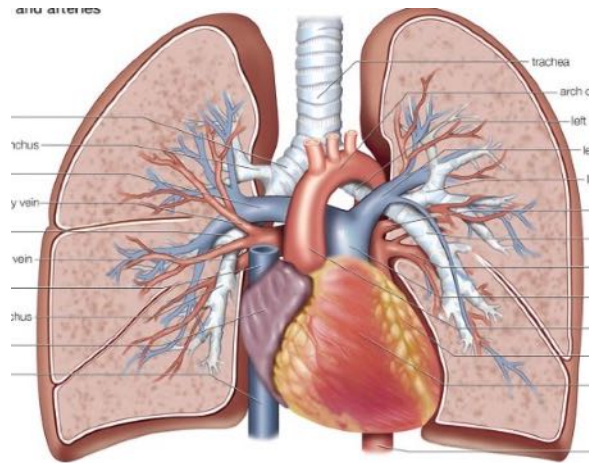
Conditions that last 1 year or more and require ongoing medical attention or **limit activities of daily living** or both.

What is Clinical Obesity ?

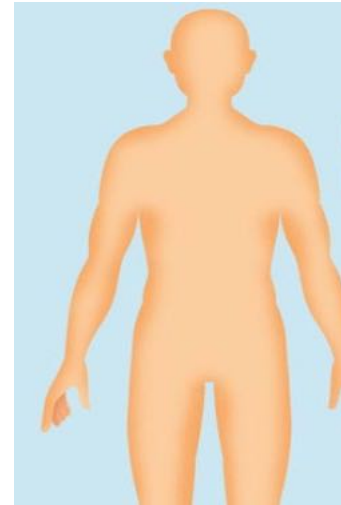
*a condition in which **the risk to health** associated with excess adiposity **has already materialised** and can be objectively documented by specific signs and symptoms reflecting **functional alterations of tissues and organs**, consistent with extant illness.*



Tissue



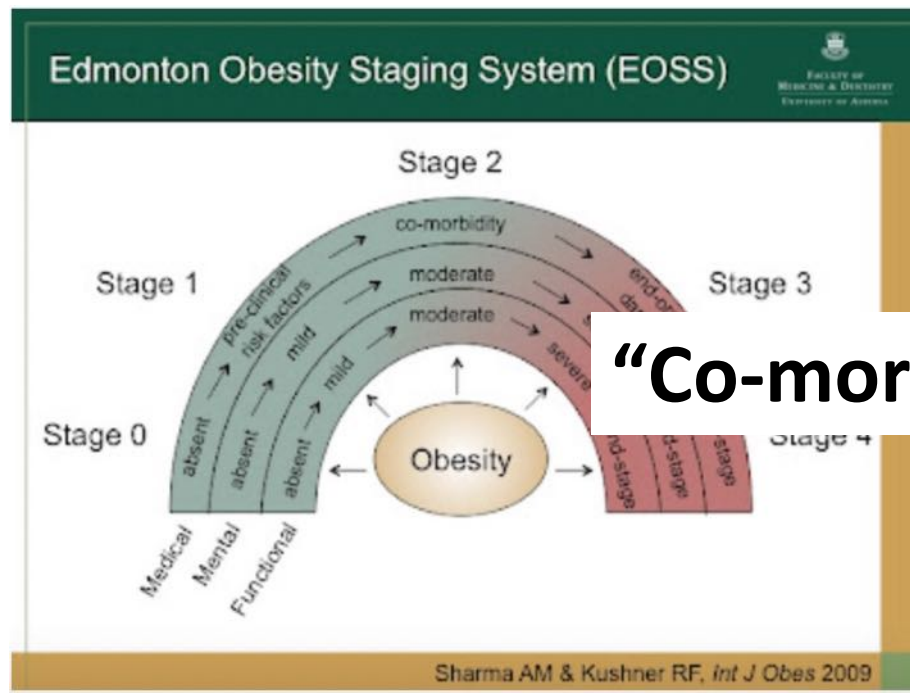
Organ



Organism

Obesity Scoring & Staging Systems not suitable for “clinical obesity”

Edmonton Score (EOSS)



King's Staging Criteria (KOSC)

Sleep apnea

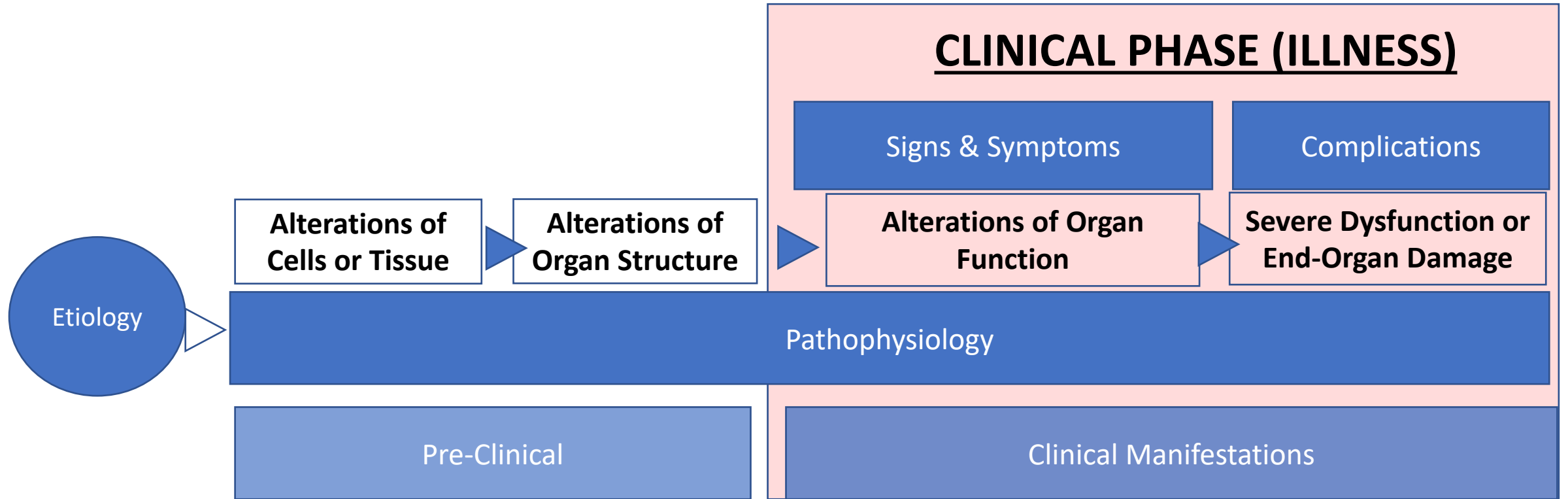
	Stage 0	Stage 1	Stage 2	Stage 3
		Snoring	Sleep apnea require CPAP	Cor pulmonale
		30-35	35-50	>50
		>25% risk	Heart disease	Heart failure
Diabetes	Normal	Impaired fasting glycemia	Type 2 diabetes	Uncontrolled type 2 diabetes
Economic	Normal	Suff		ancial support
ional	Can manage 3	Mai		id
	flights of stairs	of s		
dal	Normal	Irregular periods	PCOS/impotence	Infertility
Health status	Normal	Low mood or QoL	Moderate depression or poor QoL	Severe depression
Imag		: like looking	Avoids mirrors/body image dysphoria	Severe eating disorder
Junc		rn	Esophagitis	Barrett esophagus
Kidney	Normal	Proteinuria	GFR < 60 mL/min	GFR < 30 mL/min
Liver	Normal	Raised LFT/NAFLD	NASH	Liver failure

Heart Disease

Diabetes

“Co-morbidities”

DIAGNOSIS OF CLINICAL OBESITY



Principles for the selection of diagnostic criteria:

Organ/tissue dysfunctions and/or related signs/symptoms that:

A. Frequently occur in obesity –although they do not need to be exclusive to obesity (clinical rationale)

B. Are clearly linked to obesity-related mechanisms, including metabolic, hormonal, inflammatory or psychological mechanisms (pathophysiology rationale)

C. Substantially contribute to the impact of obesity on the physical and/or mental health of the individual (health impact rationale)

Defining Obesity Clinically

Clinical Practice



Society



Public Health

Bias Stigma