Metabolic Surgery in 2024: Role of Surgery in the Era of Obesity Drugs

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Chair Bariatric and Metabolic Surgery

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Disclosures

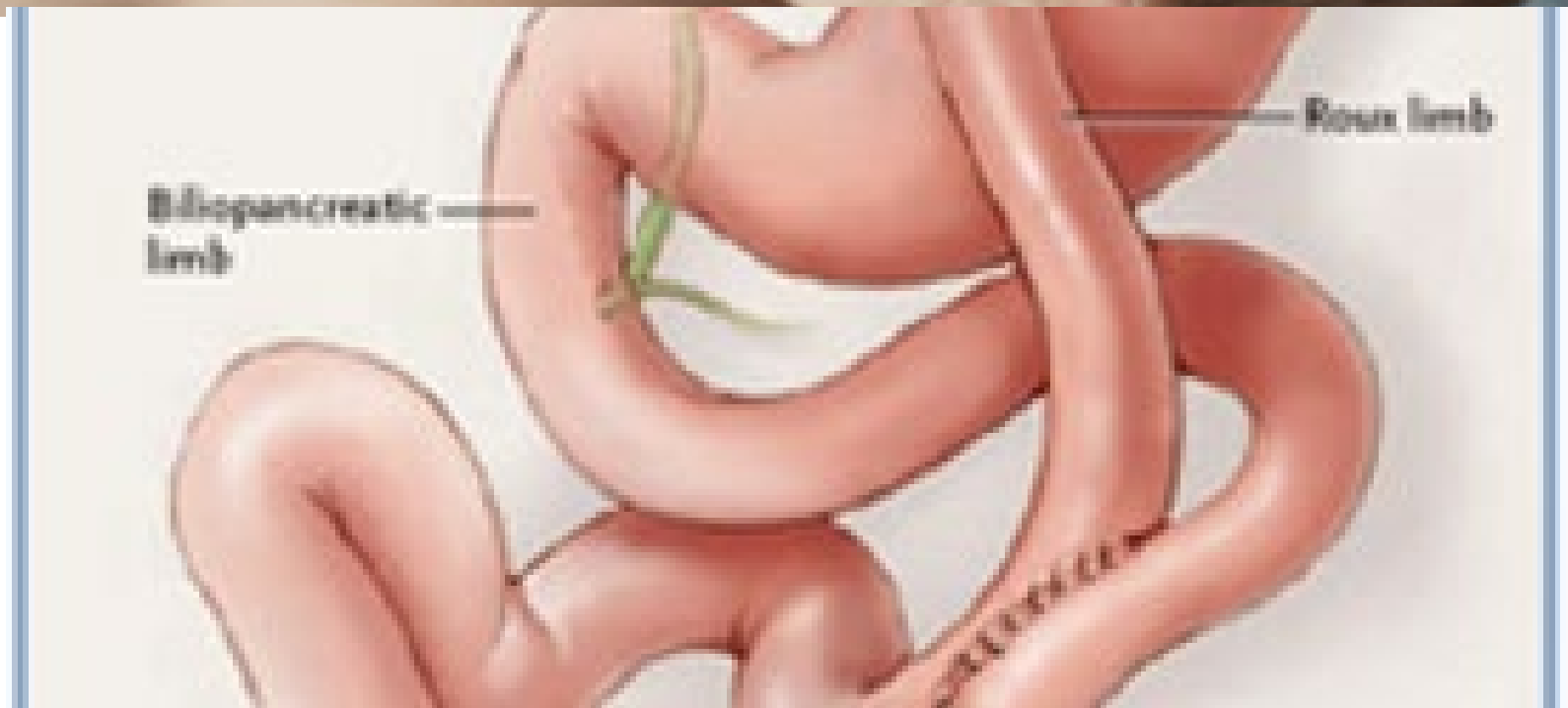
Research/Educational Grants: Novo Nordisk, Ethicon, Medtronic

Scientific Advisory Board/DSAB: Keyron, Morphic Medical, GT Metabolic Solutions,

Consuklting/Speaking Honoraria: Medtronic, Ethicon, Novo Nordisk, Eli Lilly, Astra Zeneca

Others: President, Metabolic Health Institute (nonprofit)

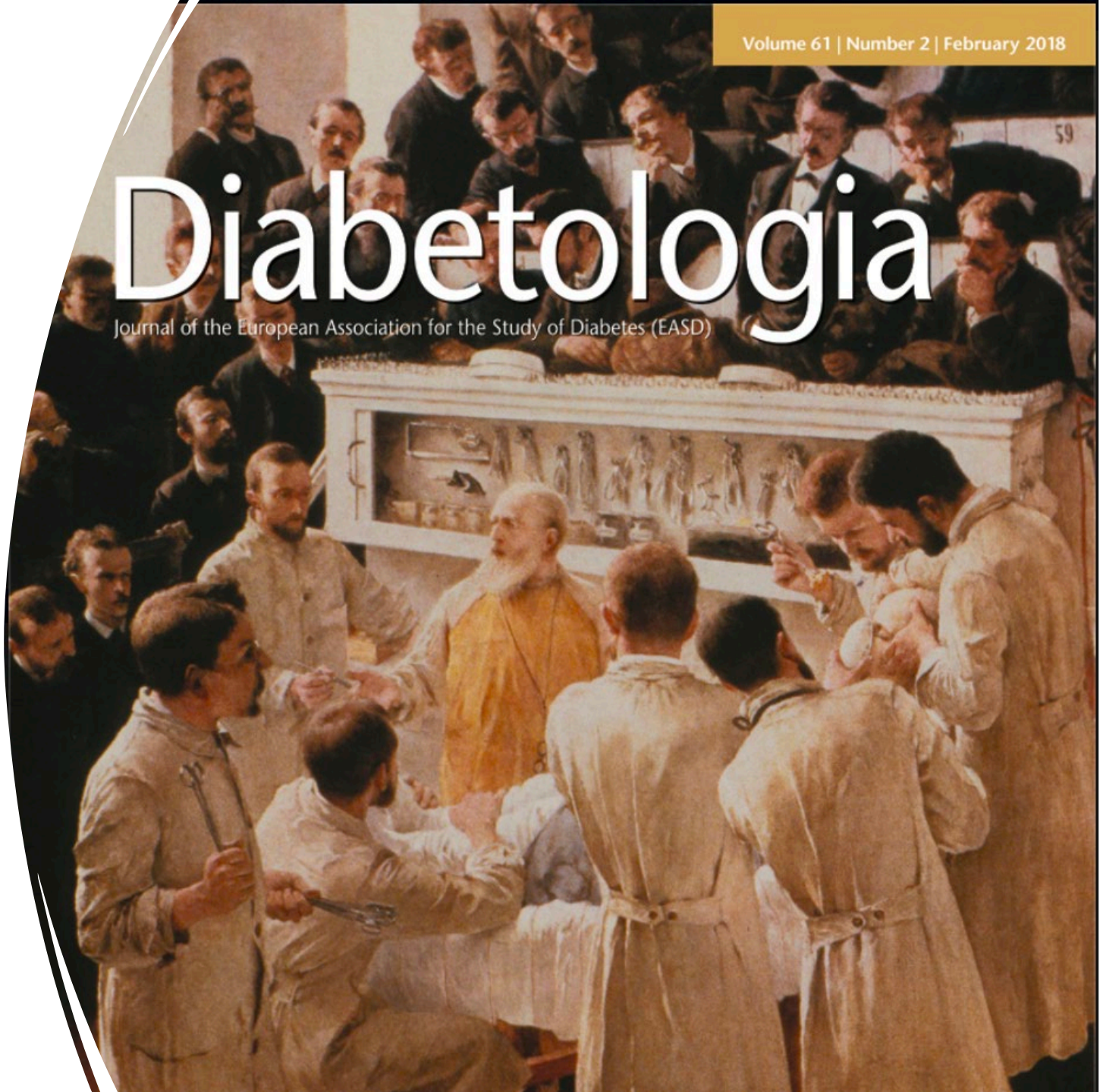
Will Anti-obesity drugs spell the demise, or the rise of metabolic surgery ?



Anti-Obesity Drugs will not make surgery obsolete …

…but will expedite the ongoing *Shift in Focus* of surgery (Bariatric >> >>Metabolic Surgery)

History

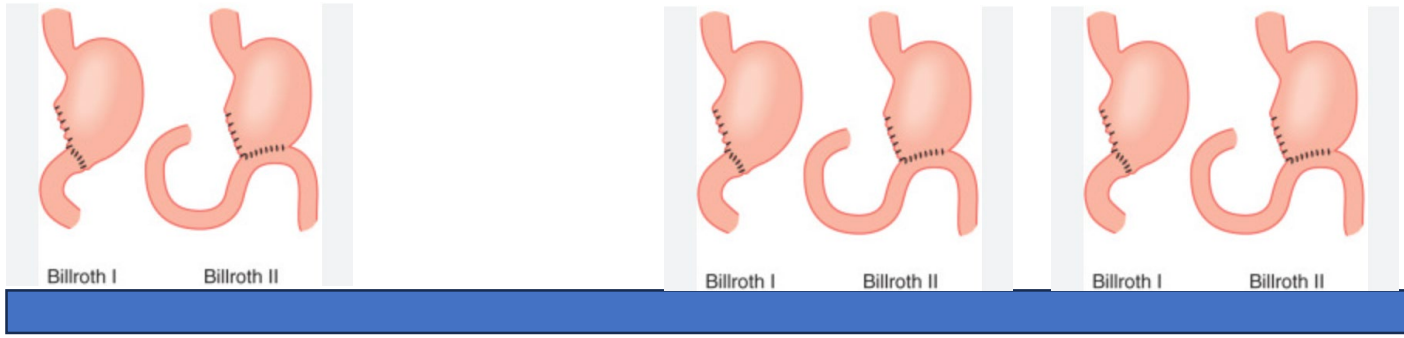

Volume 61 | Number 2 | February 2018
Diabetologia
Journal of the European Association for the Study of Diabetes (EASD)

The Rise and Fall of the Scalpel in Peptic Ulcer Surgery

George W Johnston OBE, MCh, FRCS

Consultant Surgeon (Retd), Royal Victoria Hospital

Ulster Med J. 1998



The discovery of *H. Pylori* opened up the possibility of **curing** the **underlying disease** through an eradication regime in 90% of patients

Mid-1970s
H2 receptor Antagonists (i.e. Cimetidine)

1981
H2-rec Antagonist Ranitidine commercialised

1982: Marshall's discovery of *H. Pylori*

1991

thebmj

A requiem for vagotomy

Despite the last ditch efforts of surgeons

In the early years of this century Latarjet, a surgeon-anatomist from Lyons, proposed vagotomy for relieving the

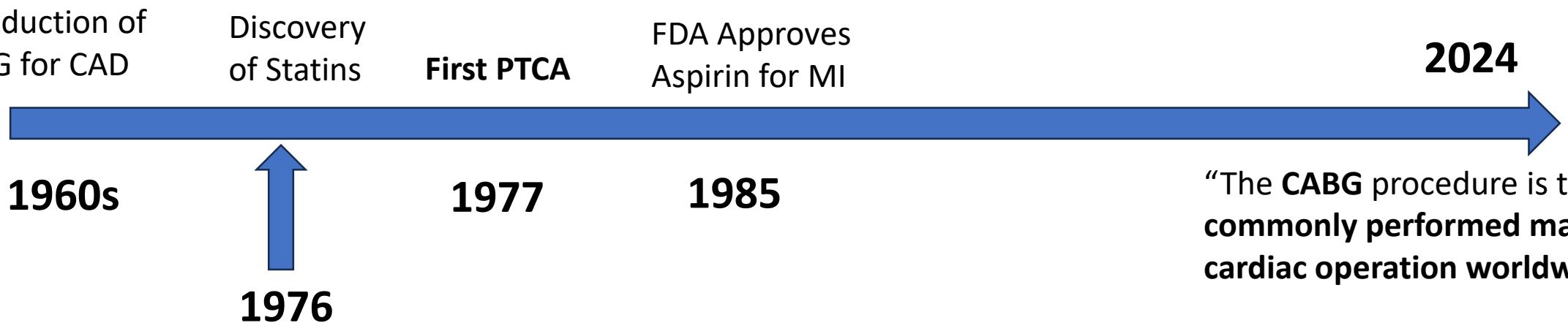
Current Anti-Obesity Drugs are not Curative

Coronary Artery Surgery: Past, Present, and Future

Elizabeth C. Ghandakly, M.D., J.D., Gabriele M. Iacona, M.D., and Faisal G. Bakaeen, M.D.*

Coronary Center, Department of Thoracic and Cardiovascular Surgery, Heart, Vascular & Thoracic Institute, Cleveland Clinic, Cleveland, Ohio, USA

Pharmacotherapy for CAD : Aspirin, Thienopyridines, Statins, Inhibitors of the renin-angiotensin system, and Beta-blockers

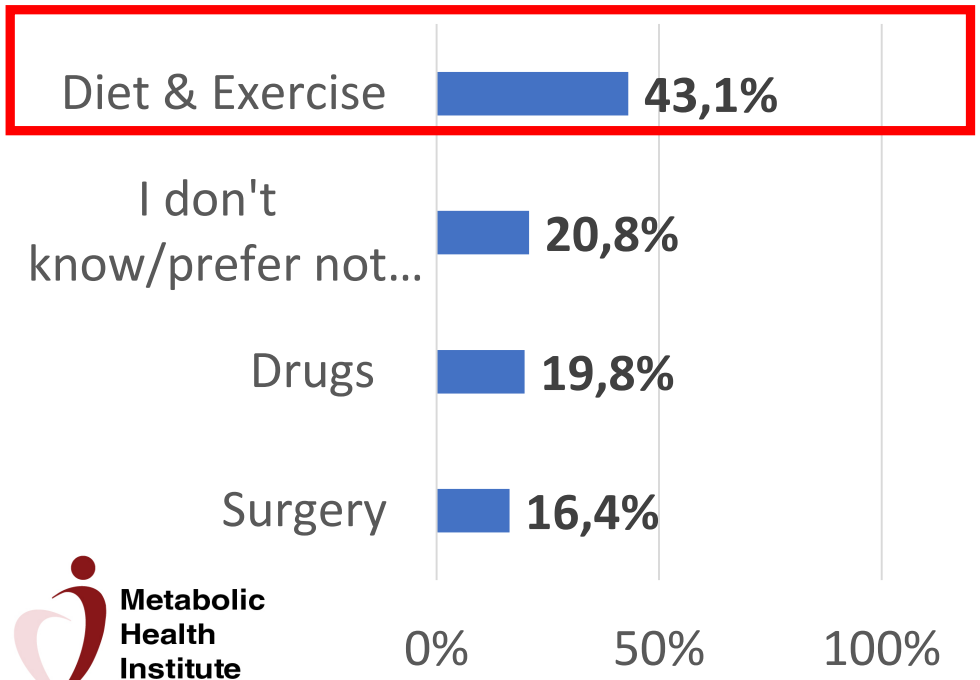


"The **CABG** procedure is the **most commonly performed major cardiac operation worldwide**".

almost 400,000procedures performed each year in the USA alone

Unrealistic expectations about efficacy of lifestyle interventions

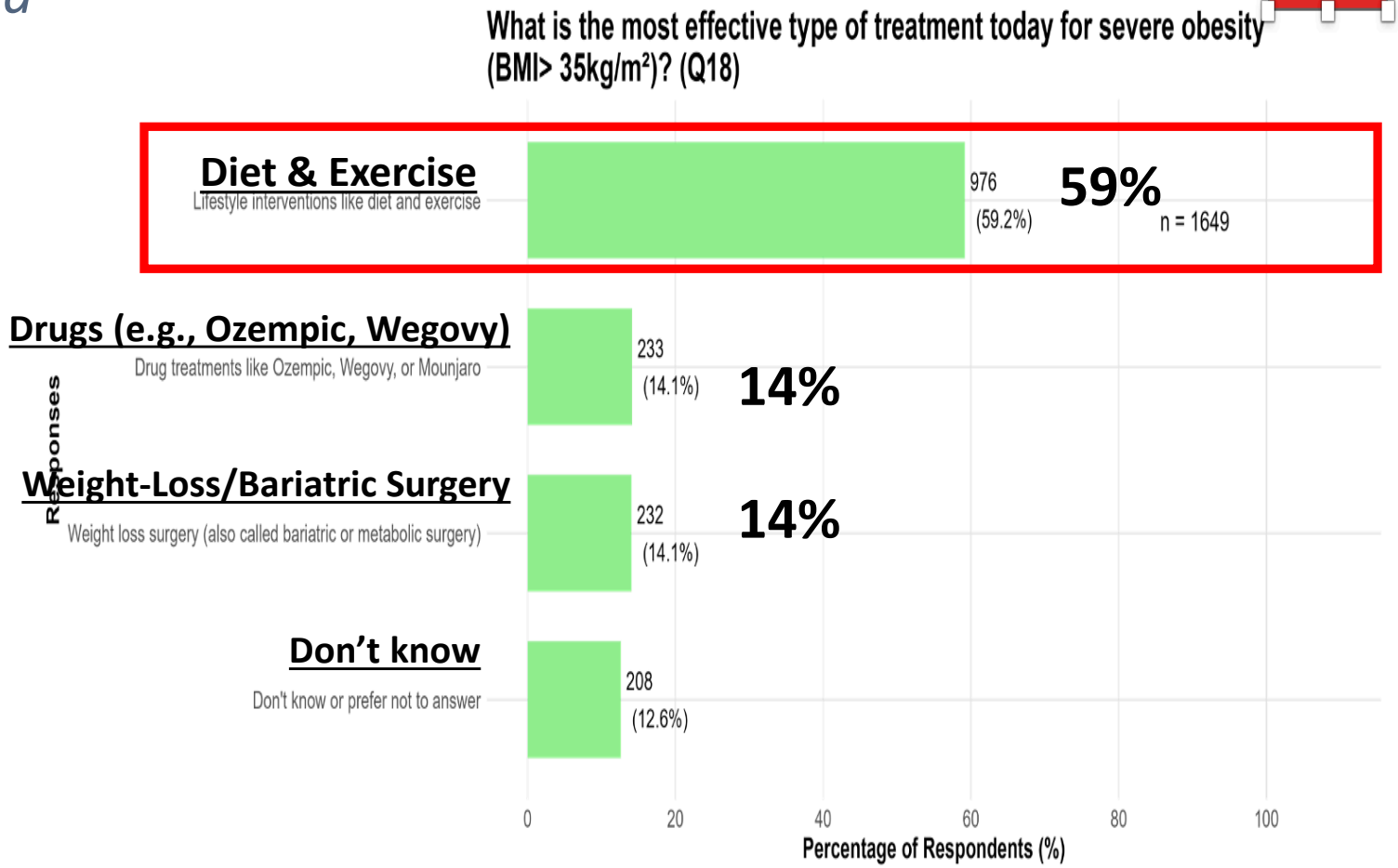
Which one of the following interventions would be best for someone like you as a treatment for severe obesity (BMI>35kg/m2)? (Select one.)



Metabolic Health Institute

qualtrics XM

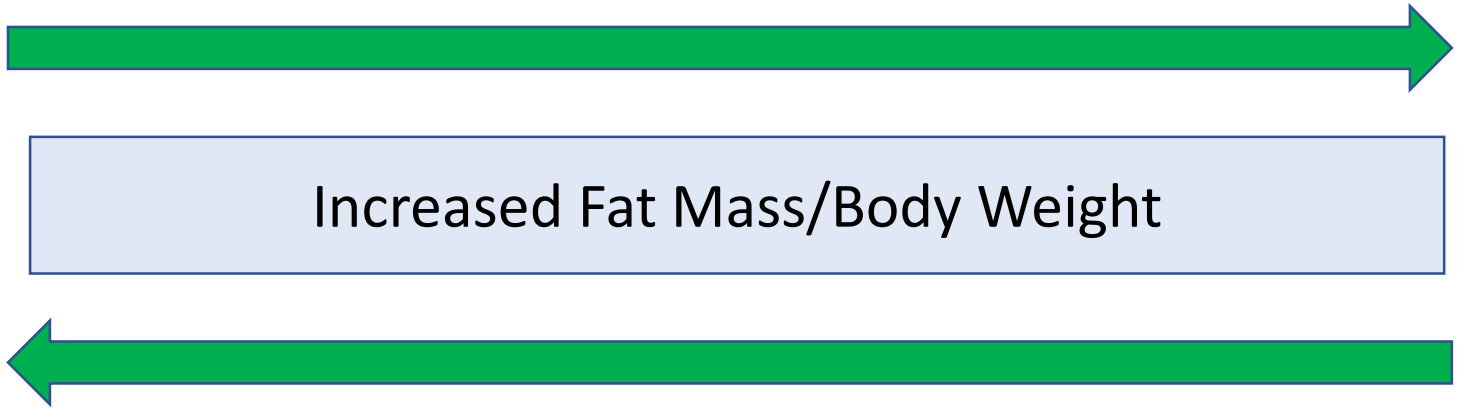
Presented at IFSO 2023



The "Emma Study"- manuscript in preparation

Widespread Assumption that Volitional Control of Weight is Bidirectional, No Matter the Severity of Obesity

Obesity is a condition of excess adiposity that poses a "risk" to health



Risk vs Illness

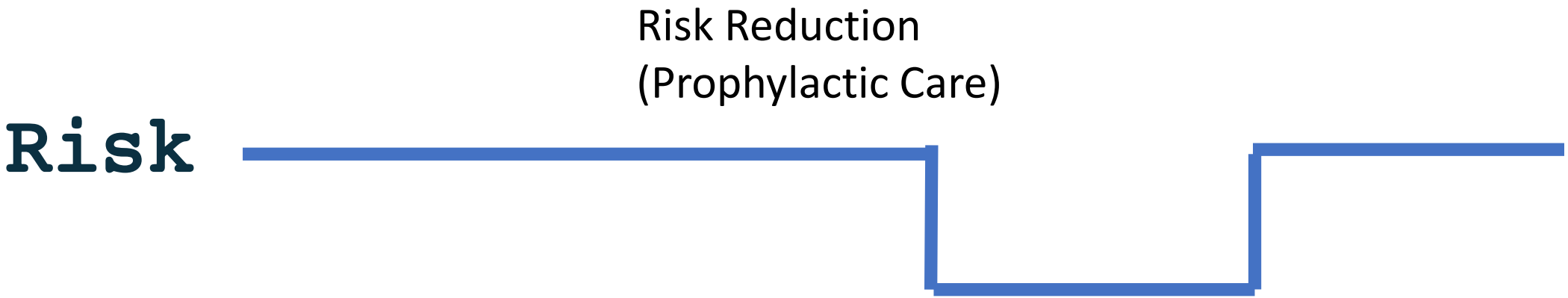
Risk Reduction
(Prophylactic Care)

Risk

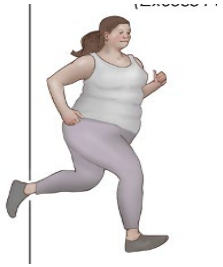
Disease treatment
(Therapeutic Intent)

Illness

Risk vs Illness: Patient's perspective



"Let me think about it, I don't feel ready…"



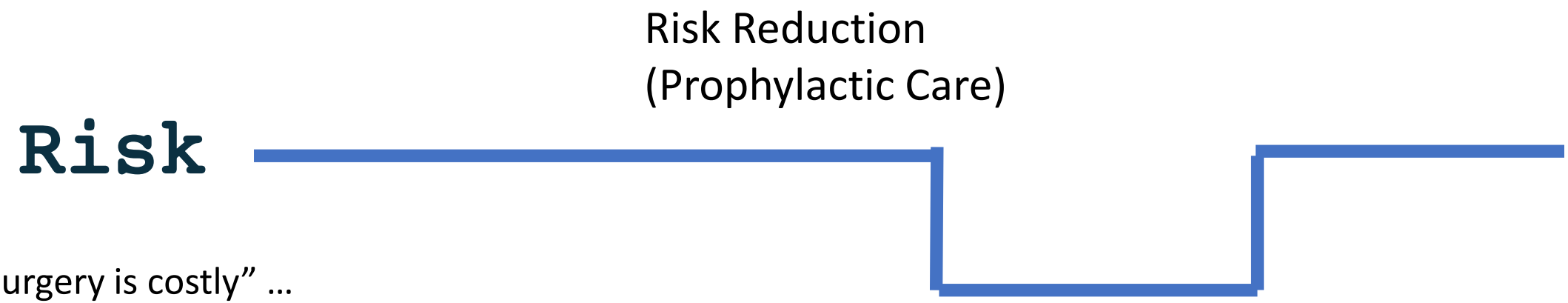
"Want to try diet one more time"

"Surgery is risky……"

"Have other priorities right now…"

"Will try medications first…"

Risk vs Illness: Policymakers



“Surgery is costly” …

“Return of investmenr”….

“Surgery is dangerous…complications costs…….”

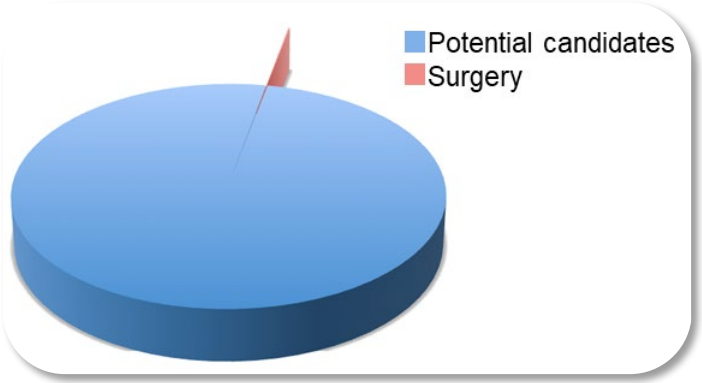
“Have other priorities right now…”

“We will commission more procedures year…”

Mandatory pre-operative weight management…. multi-disciplinary preop assessment…”elective surgery”…

THE IDEA OF OBESITY AS A MODIFIABLE RISK FACTOR SHAPES PERCEPTIONS OF "BARIATRIC" (WEIGHT-LOSS) SURGERY AMONG PATIENTS, REFERRING PHYSICIANS AND PAYORS

Mean worldwide uptake: 0.82%

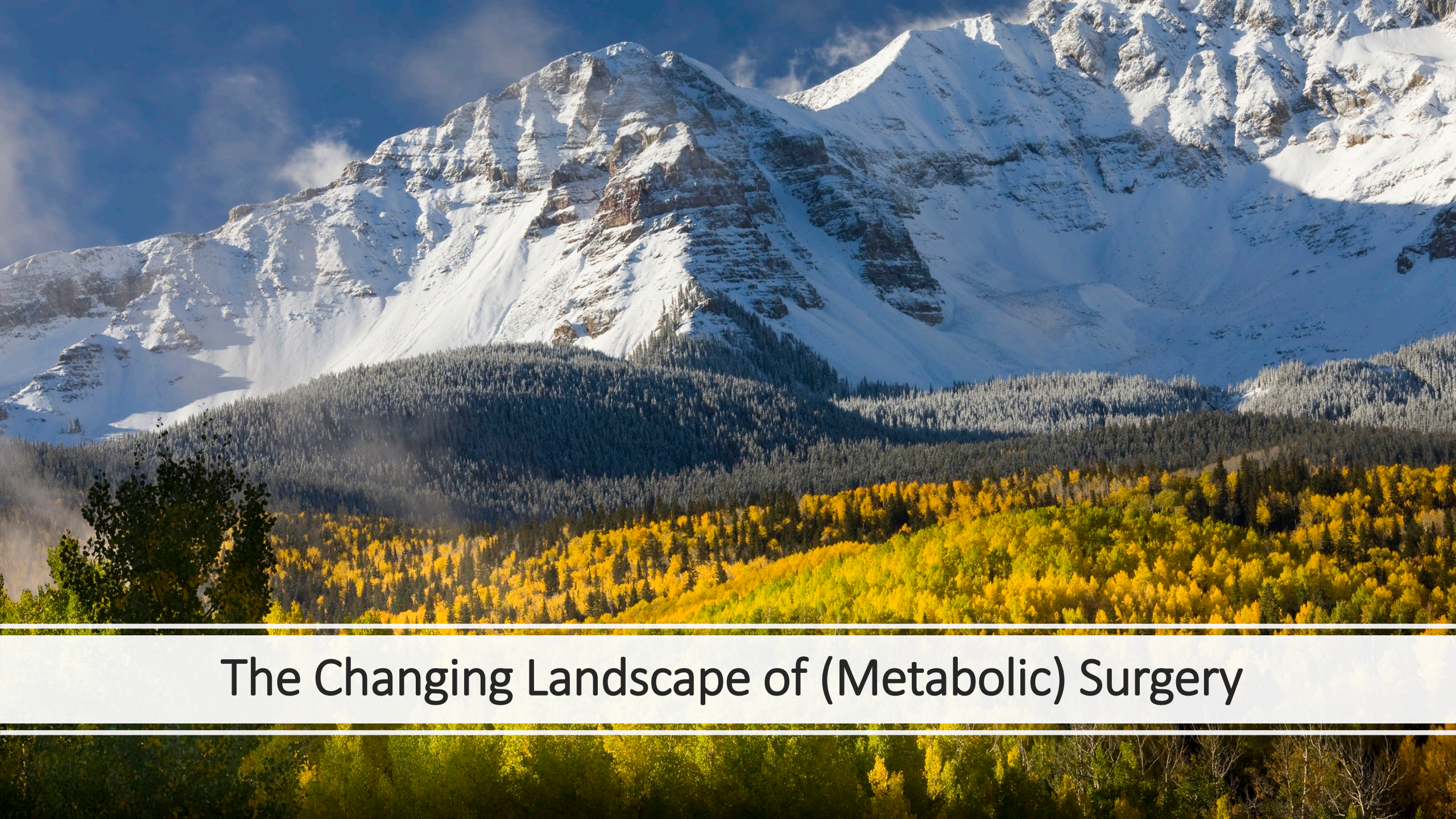


RISK

ILLNESS

Cost-effectiveness/saving

YEARS/DECADES

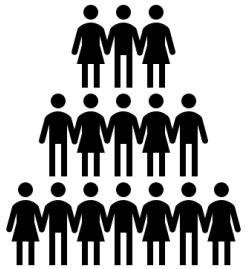


The Changing Landscape of (Metabolic) Surgery

Candidates for Traditional ”Weight Loss Surgery” (Primary and Revisional)

Severe Obesity ± ”Co-morbidities”

“Low-Risk” candidates (“*must be able to climb at least 2 flights of stairs*”)



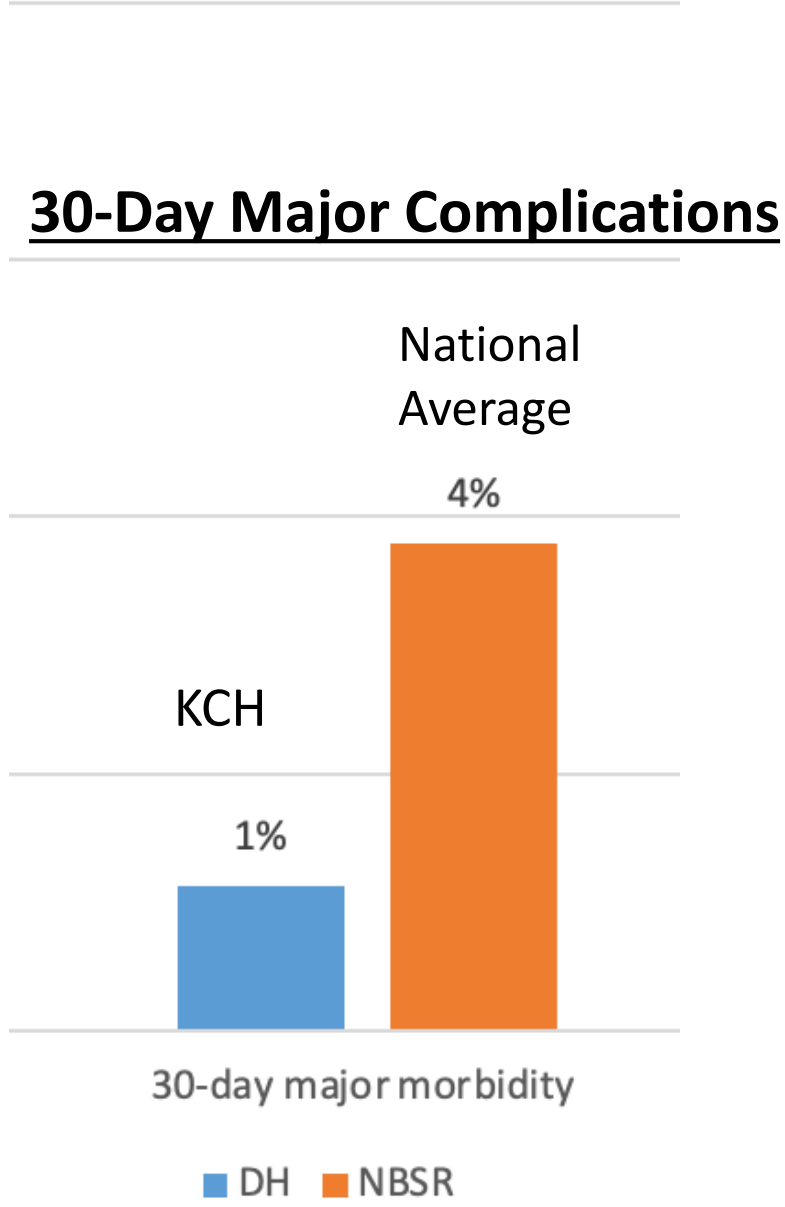
Young, relatively “healthy”, predominantly female patients

Metabolic Surgery at King's

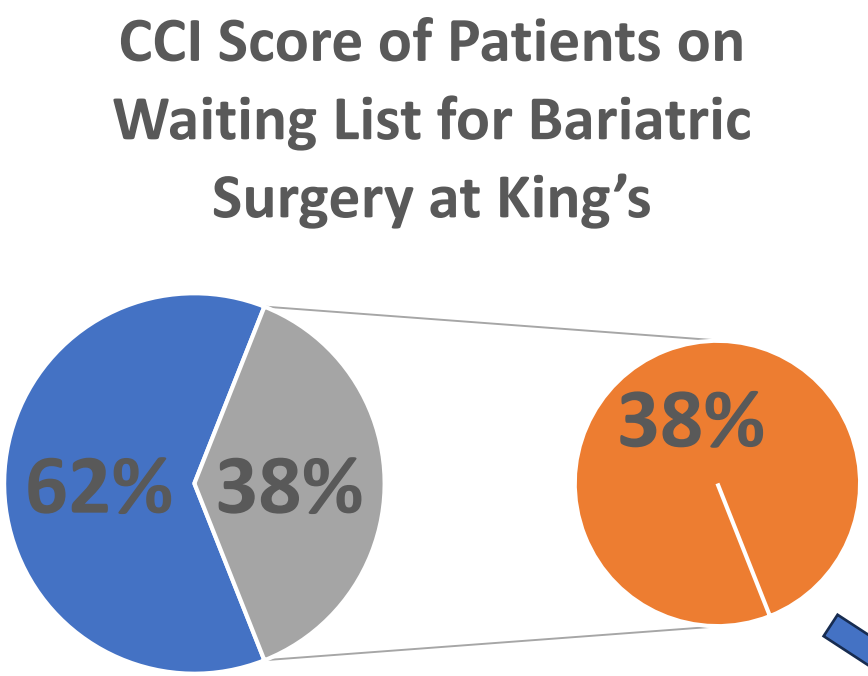
Diseases and Conditions in Pts Undergoing Bariatric/Metabolic Surgery at KCH

- **Type 2 Diabetes**
- Coronary Heart Disease
- Heart Failure
- NASH
- Chronic Kidney Disease
- Respiratory disease (Hypoventilation Syndrome)
- Patients awaiting other time-sensitive surgery (i.e. transplants, CABG, orthopedic surgery)
- Pre- or Post-Liver Transplant

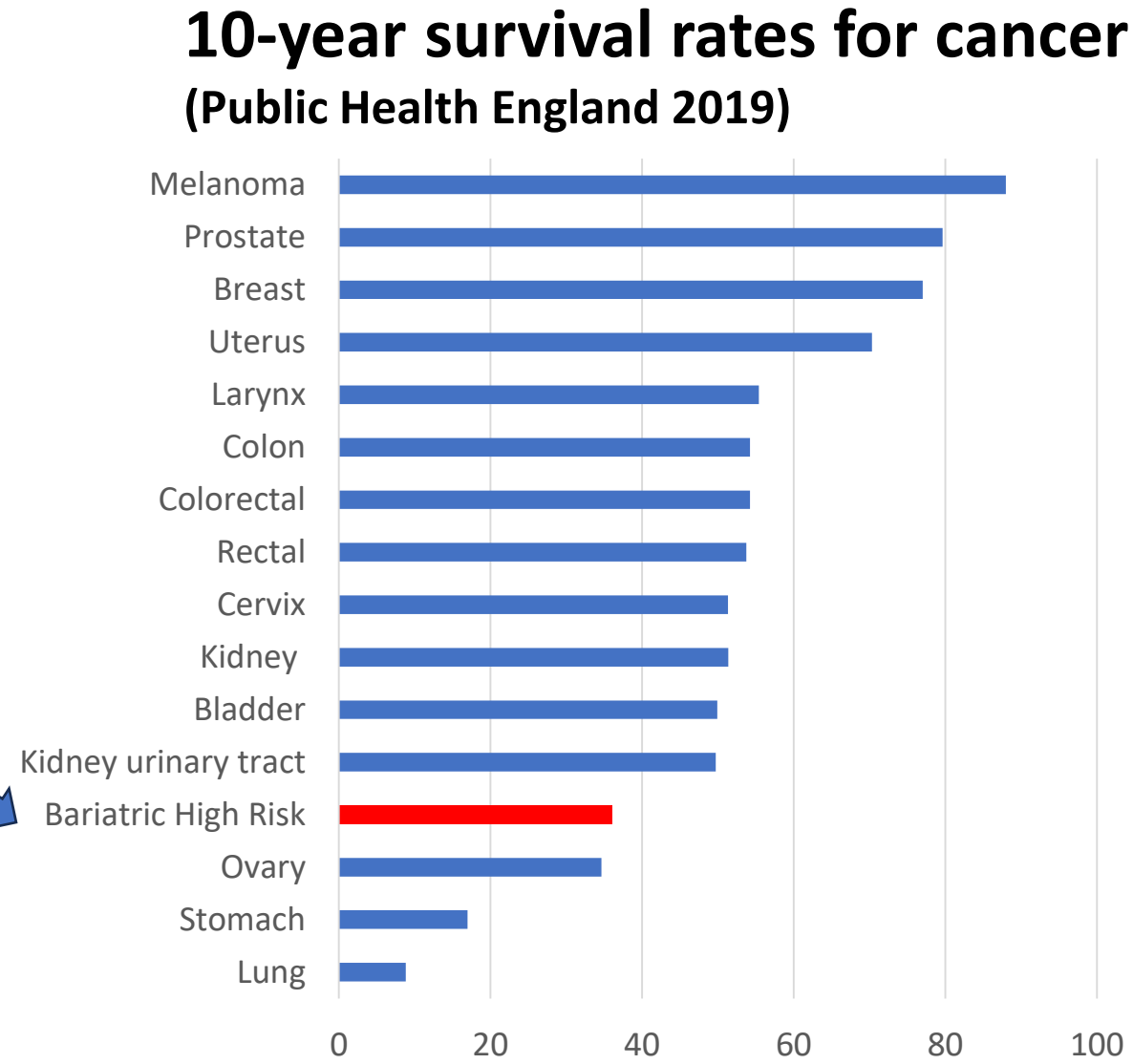
30-Day Major Complications



Prognosis (estimated 10-year survival based on CCI-Score)

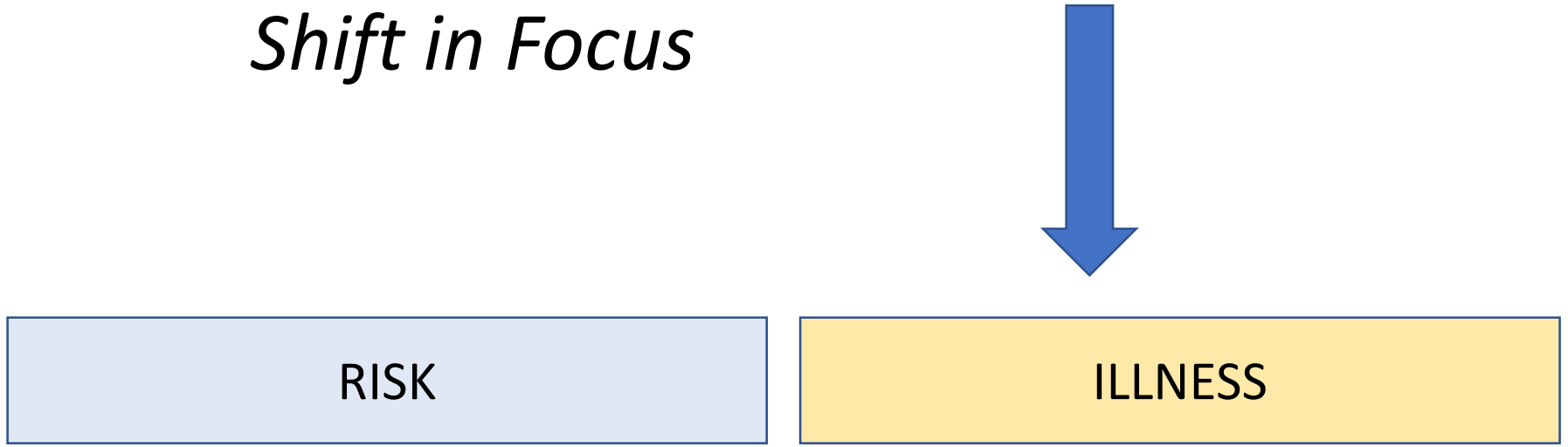


About 4 in 10 patients on WL have high mortality risk from their disease status (average 10-year survival 36%)



METABOLIC SURGERY

Shift in Focus



Cost-effectiveness/saving

MONTHS/YEARS

KING'S HEALTH PARTNERS

THE LANCET Diabetes & Endocrinology

Lancet Commission on Clinical Obesity

Prof. Francesco Rubino, MD
Commission Chair

View the full report at
https://www.thelancet.com/commissions/clinical-obesity

Rubino et al. *The Lancet Diabetes & Endocrinology.*
DOI: 10.1016/S2213-8587(24)00316-4.

Early impact

79 Endorsing Organizations from worldwide

Launch: 16/01/2025
In-person: London, USA, Kuwait
Online attendees: 92 Countries

The Definition of Clinical Obesity is a sharp "before and after moment"
(R. Horton; Editor-in-Chief, The Lancet)

THE LANCET

> News/Editorials in many scientific journals

JAMA Network

New Scientist

nature

Science AAAS

thebmj

Rubino et al. The Lancet Diabetes & Endocrinology.
DOI: 10.1016/S2213-8587(24)00316-4.

Early impact – In the media

TIME

The Economist

BBC NEWS

CNN

FORTUNE

Reports in > 2000 media outlets globally

FT FINANCIAL TIMES

CBS NEWS

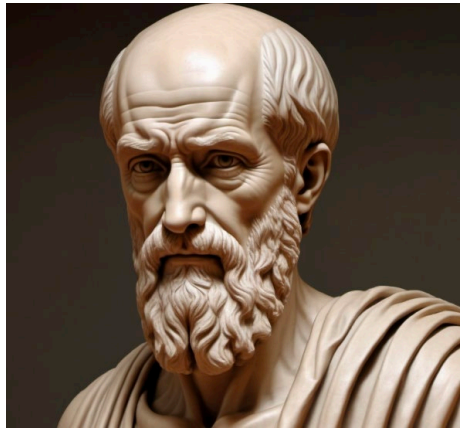
The New York Times

ALJAZEERA

itv

Rubino et al. The Lancet Diabetes & Endocrinology.
DOI: 10.1016/S2213-8587(24)00316-4.

The spectrum of Obesity in medical history



Hippocrates

(c. 460 BC – c. 370 BC)

"Corpulence is not only a disease itself, but the harbinger of others"

Corpulence, when in an extraordinary degree may be reckoned a disease (M. Flemyng, 1760)

WHO 1948 (Obesity as a disease)

AMA definition of obesity as a disease 2013

Obesity is not itself a disease in all instances (WG. Campbell 1934)

Allison, D.B., et al. Obesity, 16: 1161-1177.

Obesity is a Spectrum (Risk and/or Illness)

Risk Reduction
(Prophylactic Care)

Risk

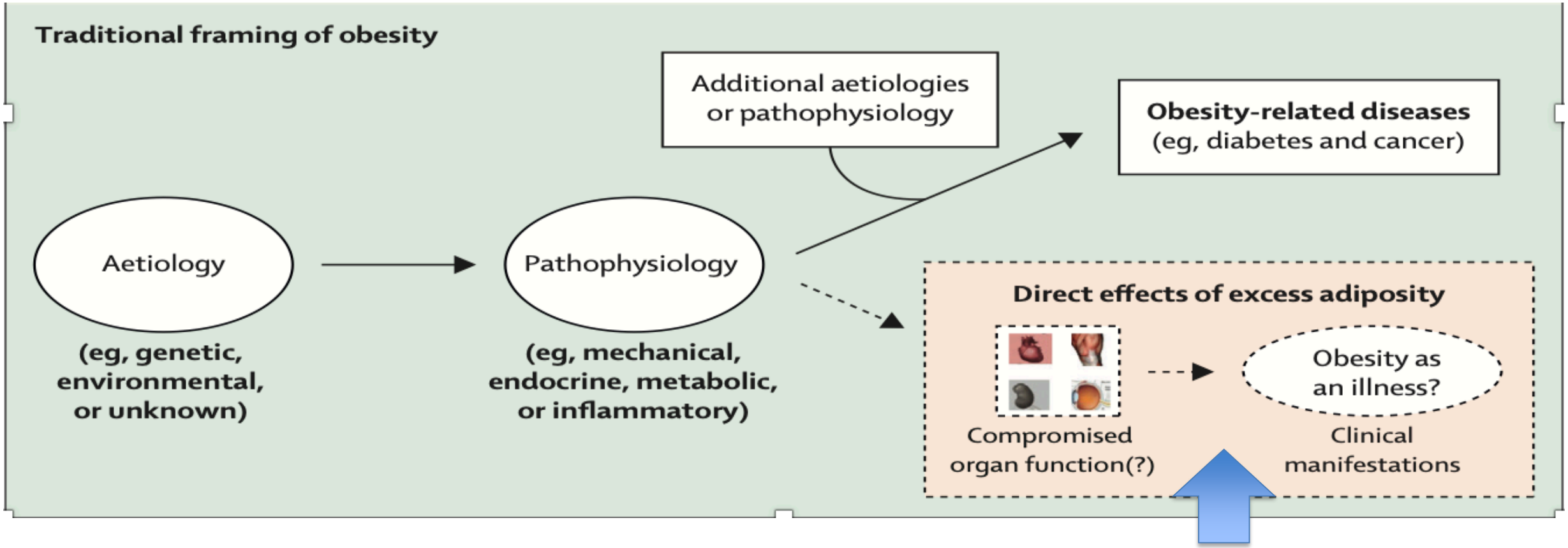
Blanket definitions
of obesity are not helpful

Illness

Disease treatment
(Therapeutic Intent)

The (crucial) missing piece in the current framing of obesity

- The Illness directly caused by obesity has not been characterized -



Commission on Clinical Obesity

Clinical and Preclinical Obesity

Clinical obesity

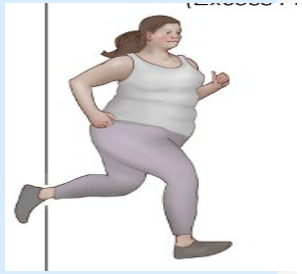
A chronic disease due to obesity alone, and characterised by signs and symptoms of ongoing organ dysfunction and/or reduced ability to conduct daily activities

People living with clinical obesity have reduced tissue or organ function due to obesity, such as:

- Breathlessness caused by effects of obesity on the heart or lungs
- Knee or hip pain with joint stifness and reduced range of motion
- A cluster of metabolic abnormalities
- Dysfunction of other organs including kidneys, upper airways, nervous, urinary, and reproductive systems

Preclinical obesity

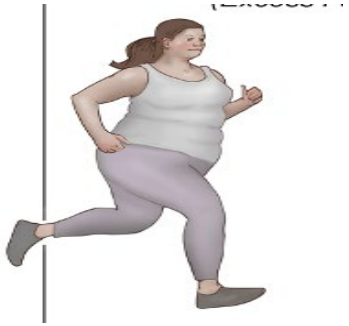
A condition of excess body fat associated with variable level of health risk, but no ongoing illness



People living with preclinical obesity:

- Have no evidence of reduced organ or tissue function due to obesity
- Can complete day-to-day activities unhindered
- Are generally at a higher risk of developing diseases, such as:
  - Clinical obesity
  - Cardiovascular disease
  - Some cancers
  - Type 2 diabetes

Implications for Care and Policy



Causes of Adipose Tissue Expansion

- Genetic
- Environmental
- Psychological
- Other (Unknown)

Obesity

Preclinical Obesity

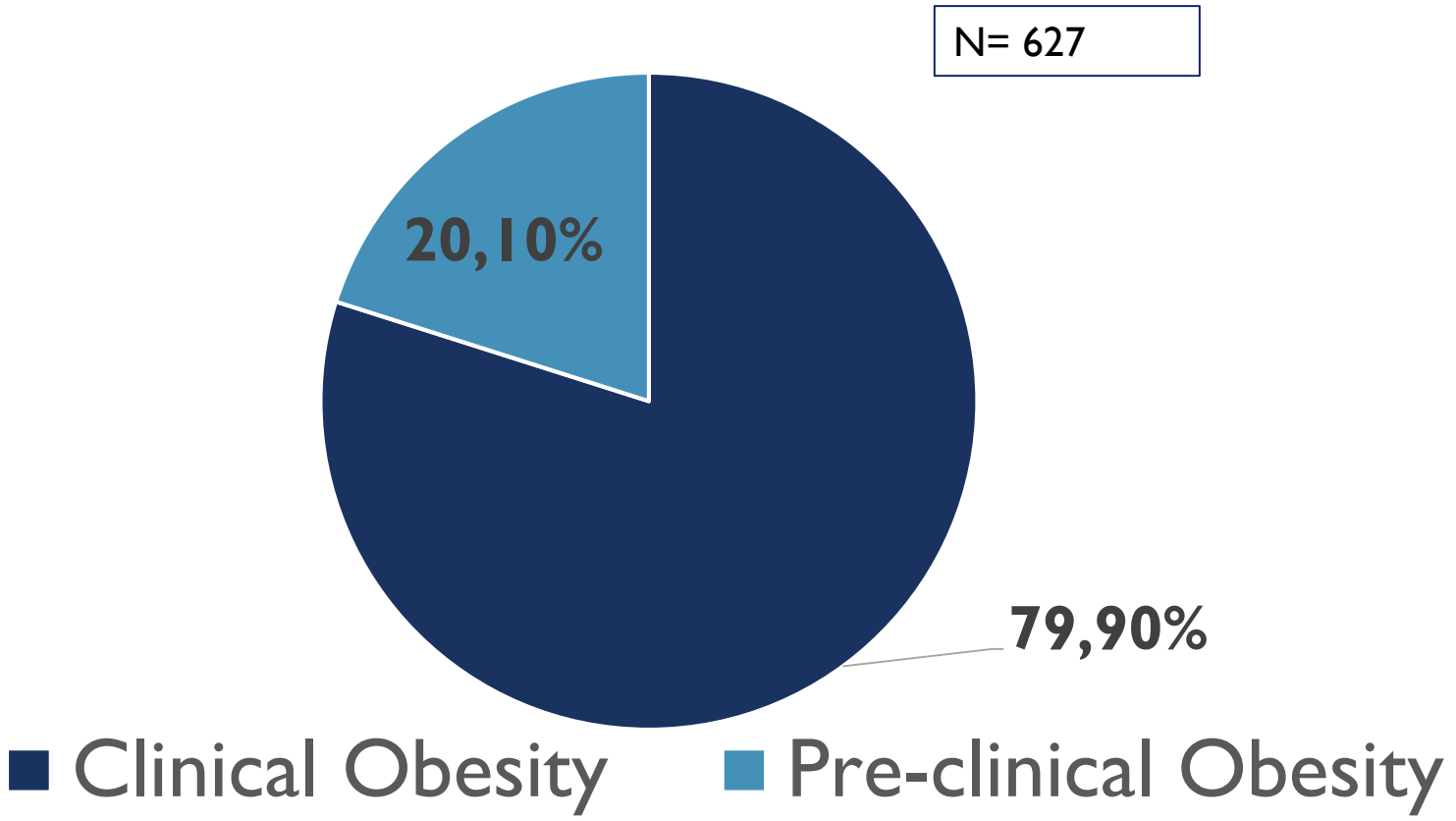
Clinical Obesity

Primary Prevention

Monitoring ± Prophylactic Intervention (Risk Reduction)

Therapeutic Intervention (Corrective Treatment)

New Classification of Clinical Obesity - King's College London (Audit of personal Practice)



THE FUTURE OF OBESITY CARE