MBS will (Continue to) Increase in the Future -

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Disclosures

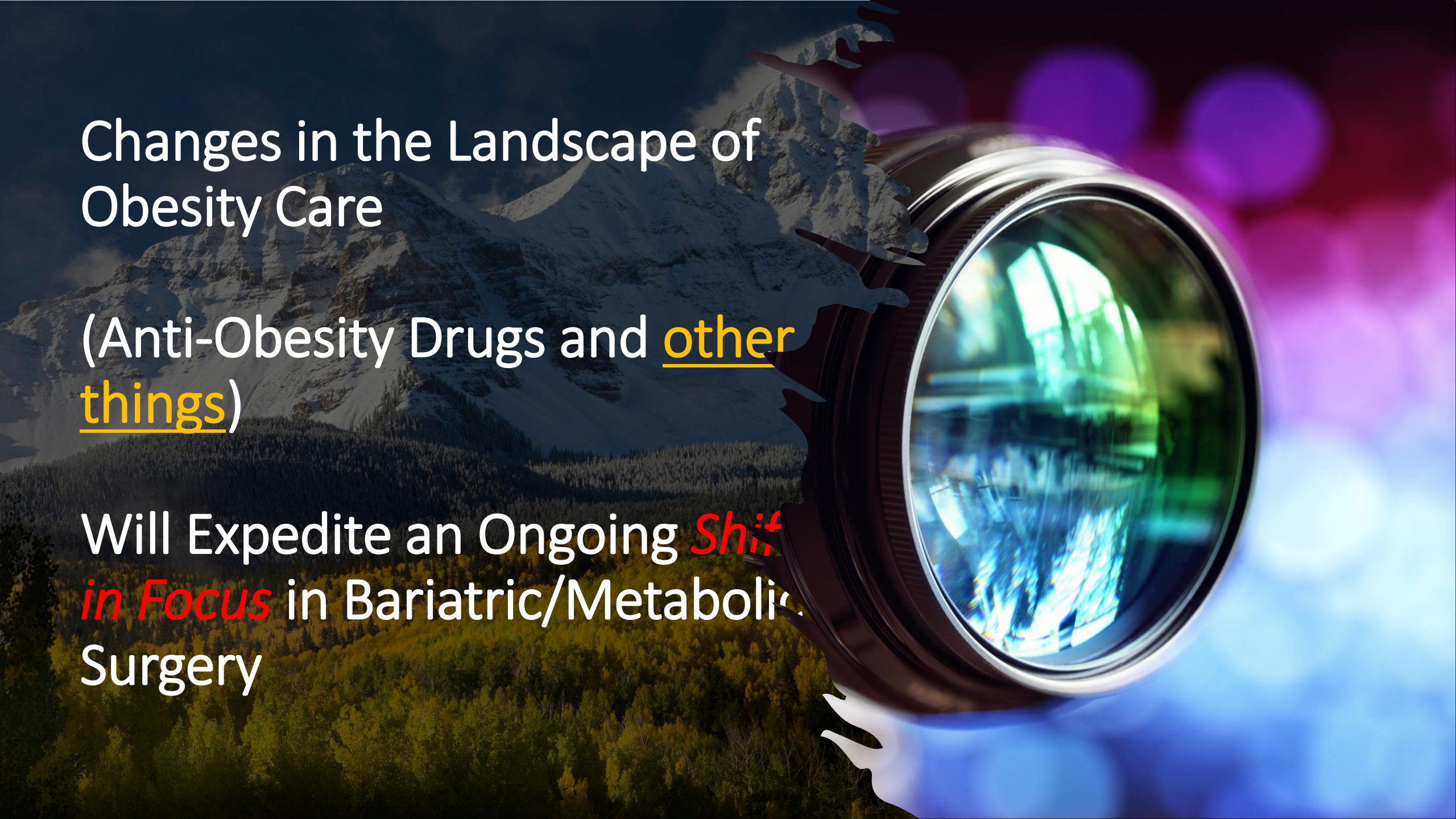
Research/Educational Grants: Novo Nordisk, Ethicon, Medtronic

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

Speaking Honoraria: Medtronic, Ethicon, Novo Nordisk, Eli Lilly

Others: President, Metabolic Health Institute (nonprofit)

The Future of Metabolic/Bariatric Surgery

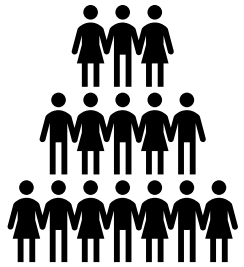

Changes in the Landscape of Obesity Care
(Anti-Obesity Drugs and other things)
Will Expedite an Ongoing *Shif*
in Focus in Bariatric/Metaboli
Surgery

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*”)

Revisional surgery if “excess weight loss” (EWL) < 50%



Young, relatively “healthy”, predominantly female patients

Current/Future Candidates for Metabolic Surgery

- Older
- Sicker
- More balanced M/F ratio
- Multi/complex morbidity
- Higher disease-related risk
- Higher anesthetic and surgical risk

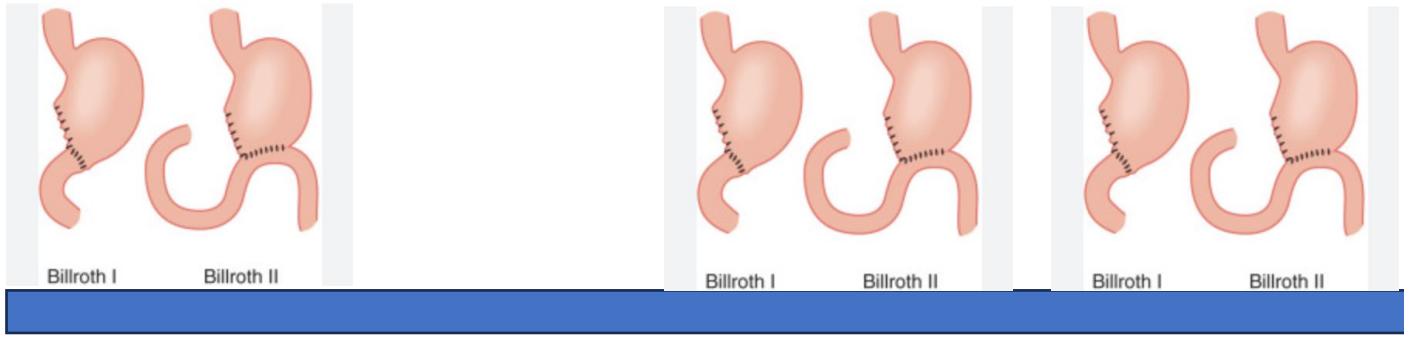
Anti-obesity drugs will not spell the demise of metabolic/ bariatric surgery

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

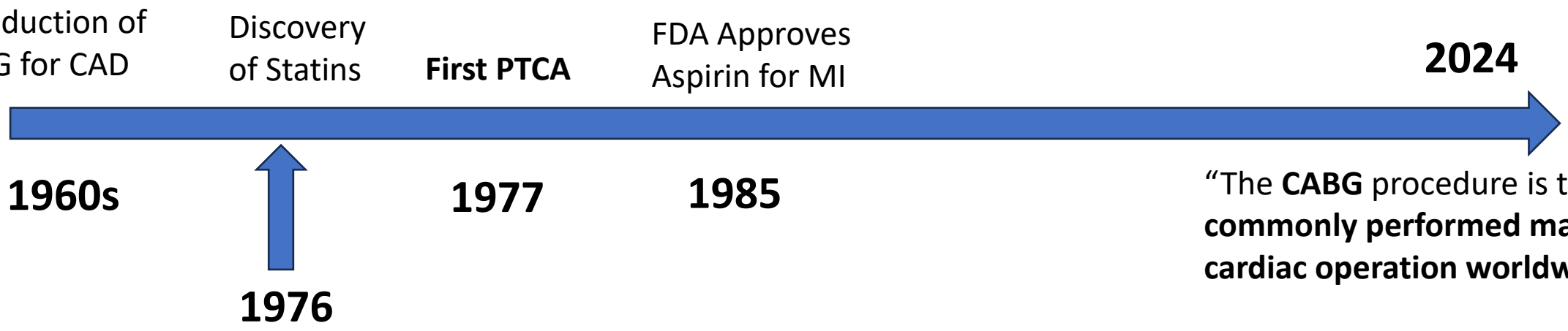
In the early years of this century Latarjet, a surgeon-anatomist from Lyons, proposed vagotomy for relieving the

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**".

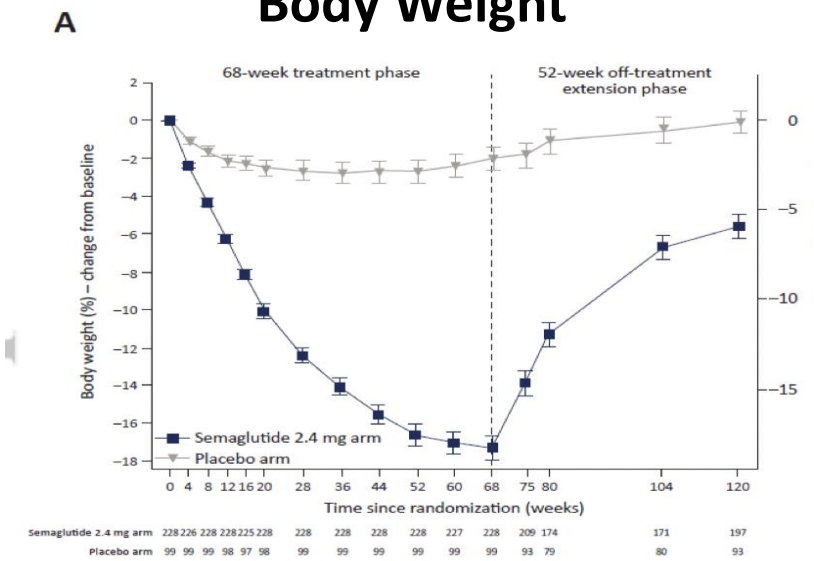
almost 400,000procedures performed each year in the USA alone

What is the Cause of Obesity??

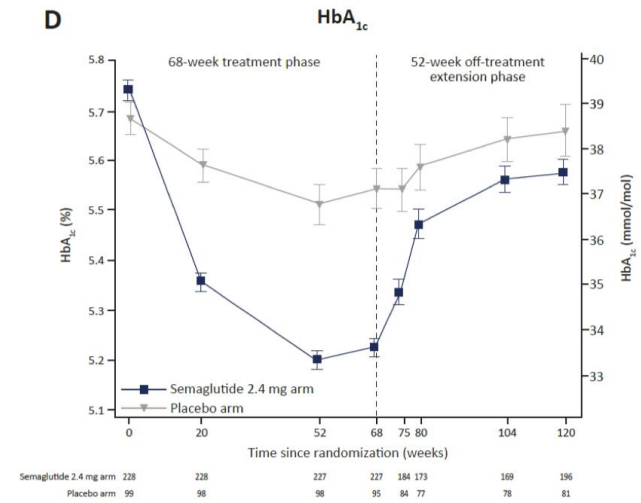
Drugs do not cure obesity

Life-long pharmacotherapy (not a short-cycle)

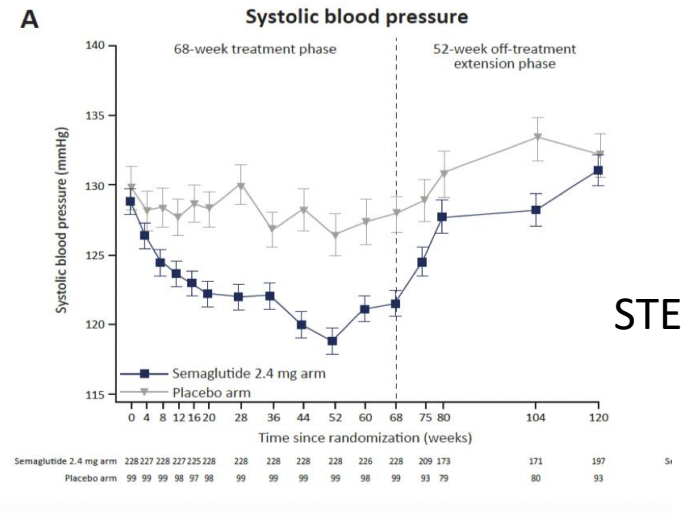
Body Weight



HbA1c



Blood Pressure



STEP 1 Trial Extension

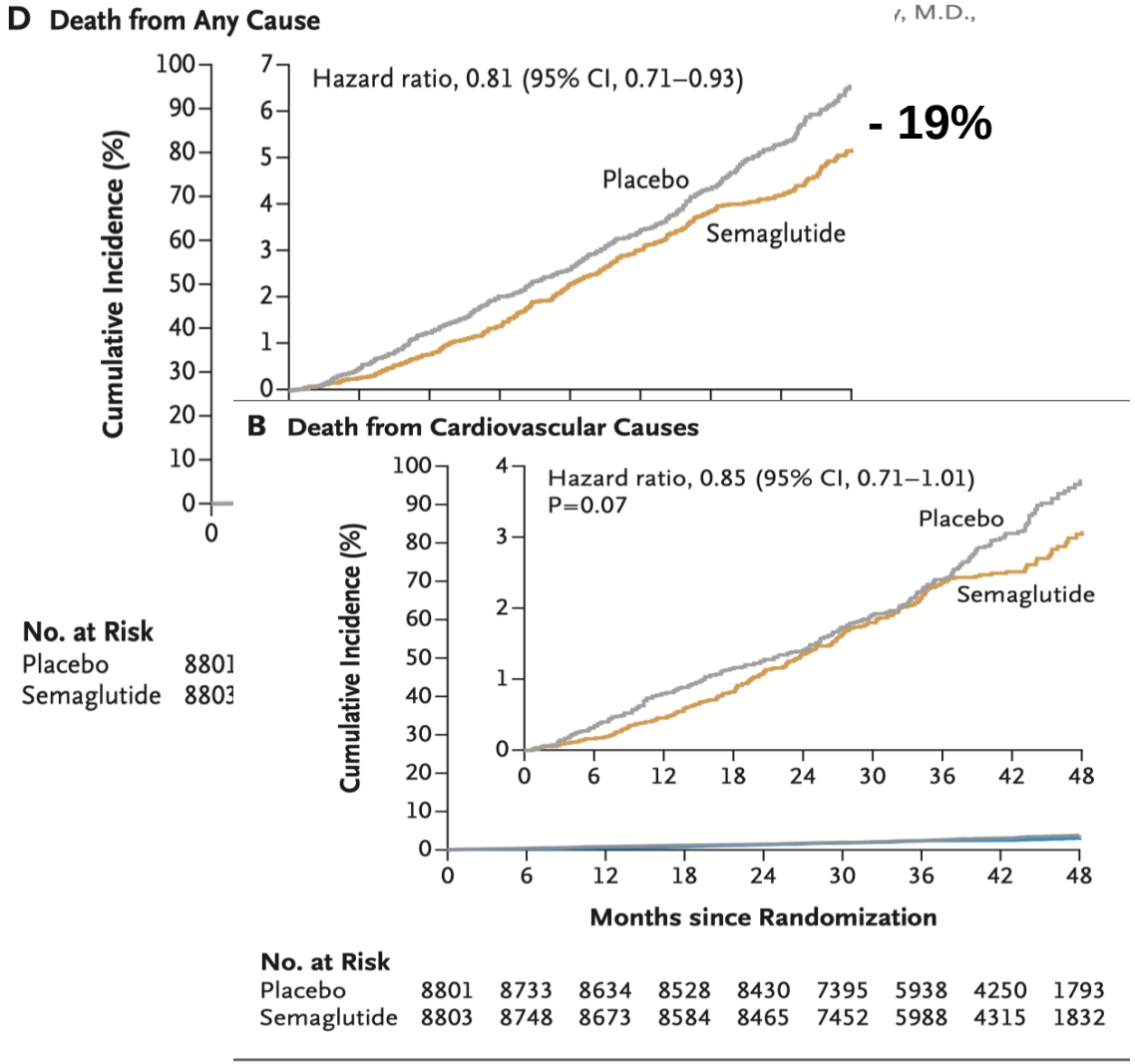
Statins, blood-pressure meds, chemotherapy, thyroid meds… **changed indications for surgery but did not make surgery obsolete**

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Semaglutide and Cardiovascular Outcomes in Obesity without Diabetes

A. Michael Lincoff, M.D., Kirstine Brown-Frandsen, M.D., Helen M. Colhoun, M.D., John Deanfield, M.D., Scott S. Emerson, M.D., Ph.D., Sille Esbjerg, M.Sc., Søren Hardt-Lindberg, M.D., Ph.D., G. Kees Hovingh, M.D., Ph.D., ..., M.D., M.P.H., ..., M.D.,



- 19%

Metabolic Surgery

Aminian A, et al. JAMA. 2019 Sep 2.

n =13,722 cases and controls

- 41% in death from any cause
- 62% in HF
- 31% incidence of Heart Disease
- 33% incidence of stroke
- 60% incidence of kidney failure
- 22% AF

Research Survey August 2023

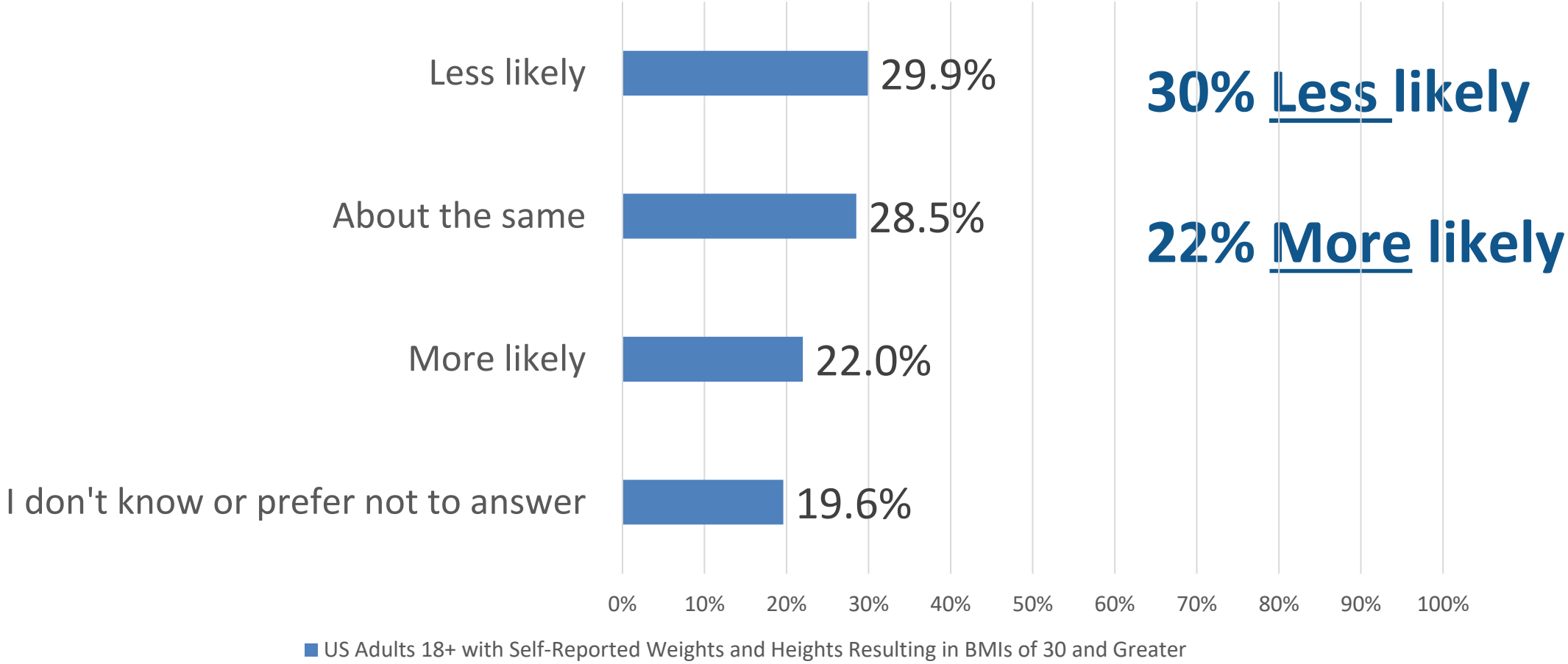
- 1,017 adults
- Self-reported BMI ≥ 30
- Convenience sample from Qualtrics
- Women over-represented

Metabolic Health Institute

qualtrics XM

Consideration of Surgery vs Five Years Ago

Compared to 5 years ago, how likely are you to consider weight loss surgery (also called bariatric or metabolic surgery)? (Select one.)

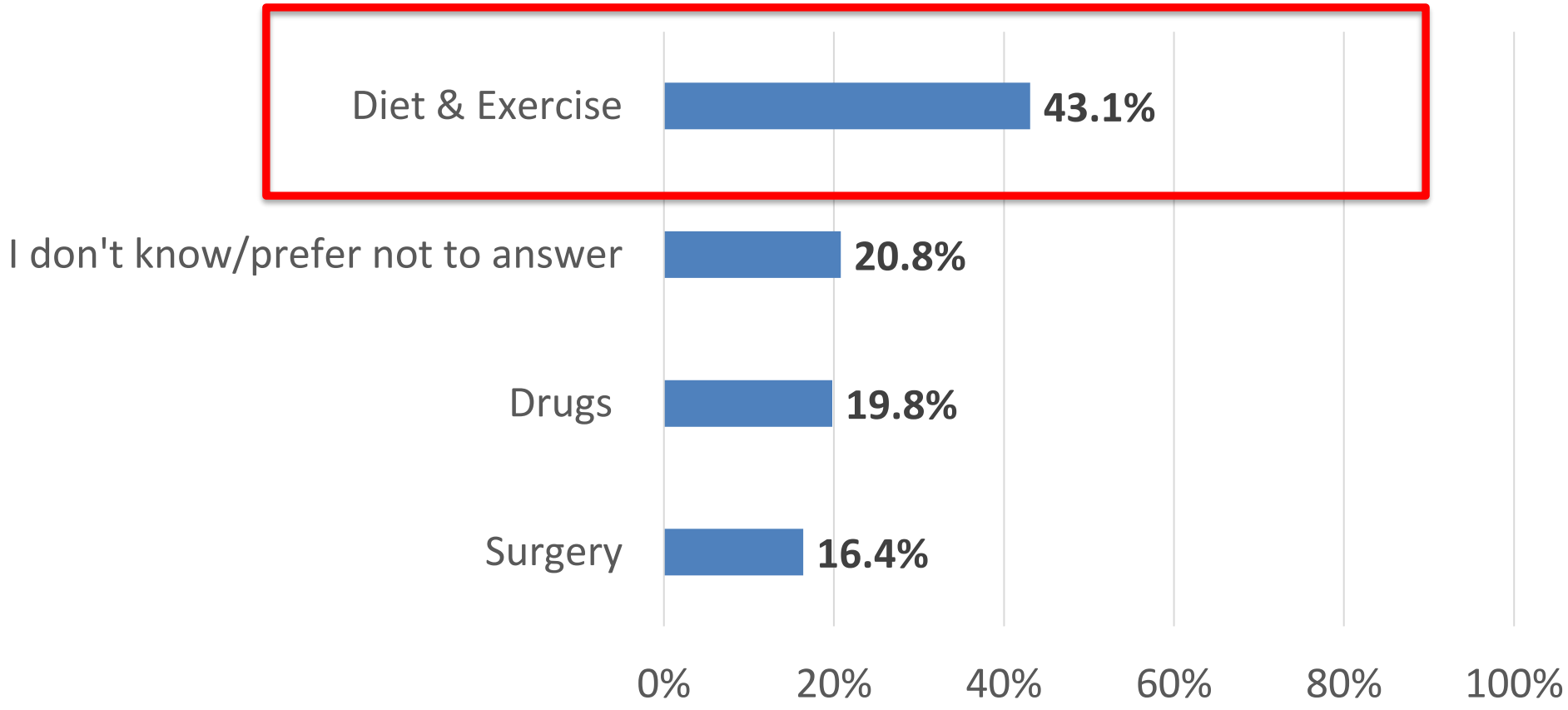


30% Less likely

22% More likely

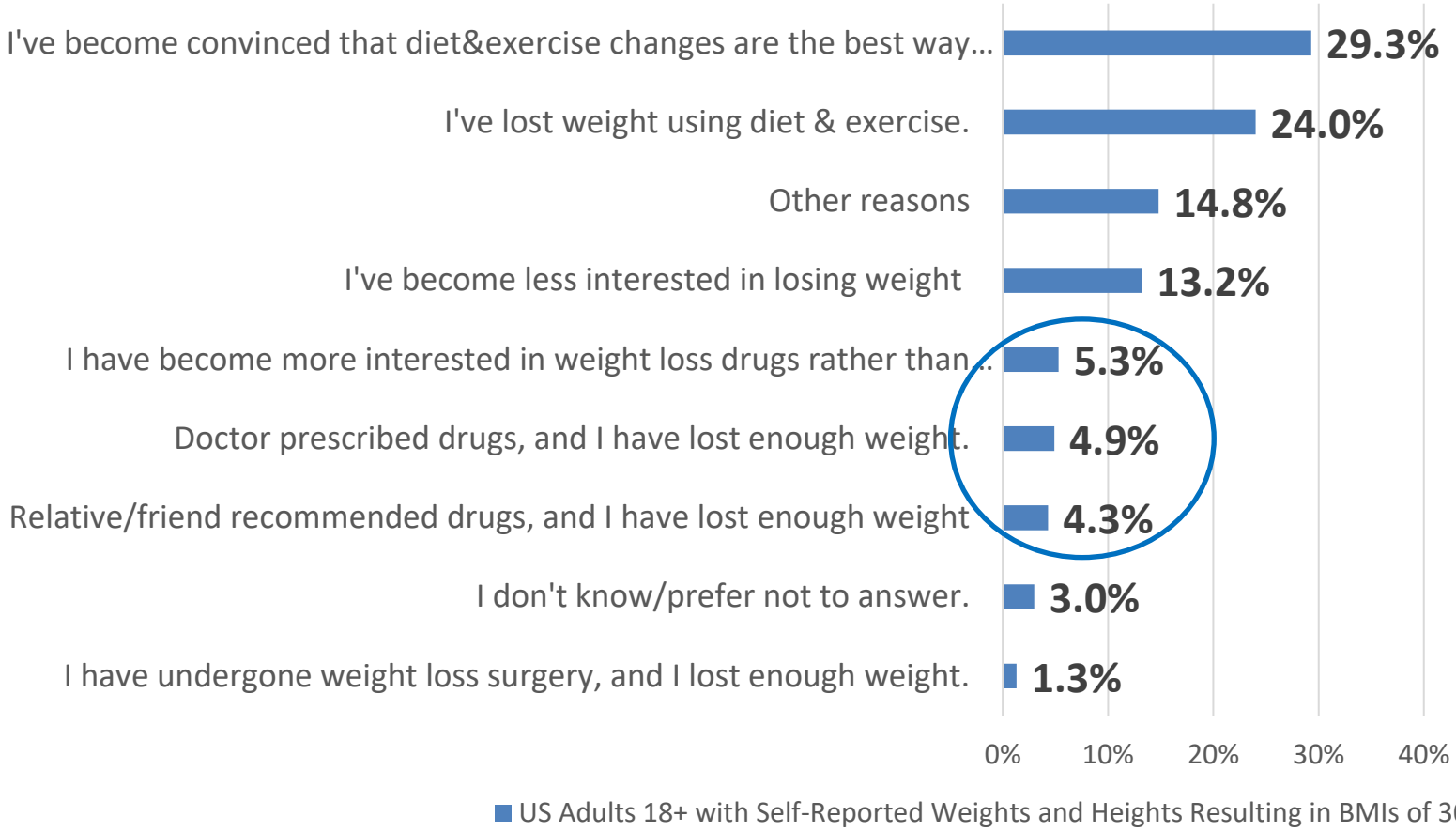
Most People Prefer Diet & Exercise as a Treatment of Severe Obesity

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



Question Asked to the responders who said they were <u>less likely</u> to consider surgery compared to 5 years ago]:

What is the most important reason you are less likely now versus five years ago to consider bariatric/metabolic surgery? (Select one.)

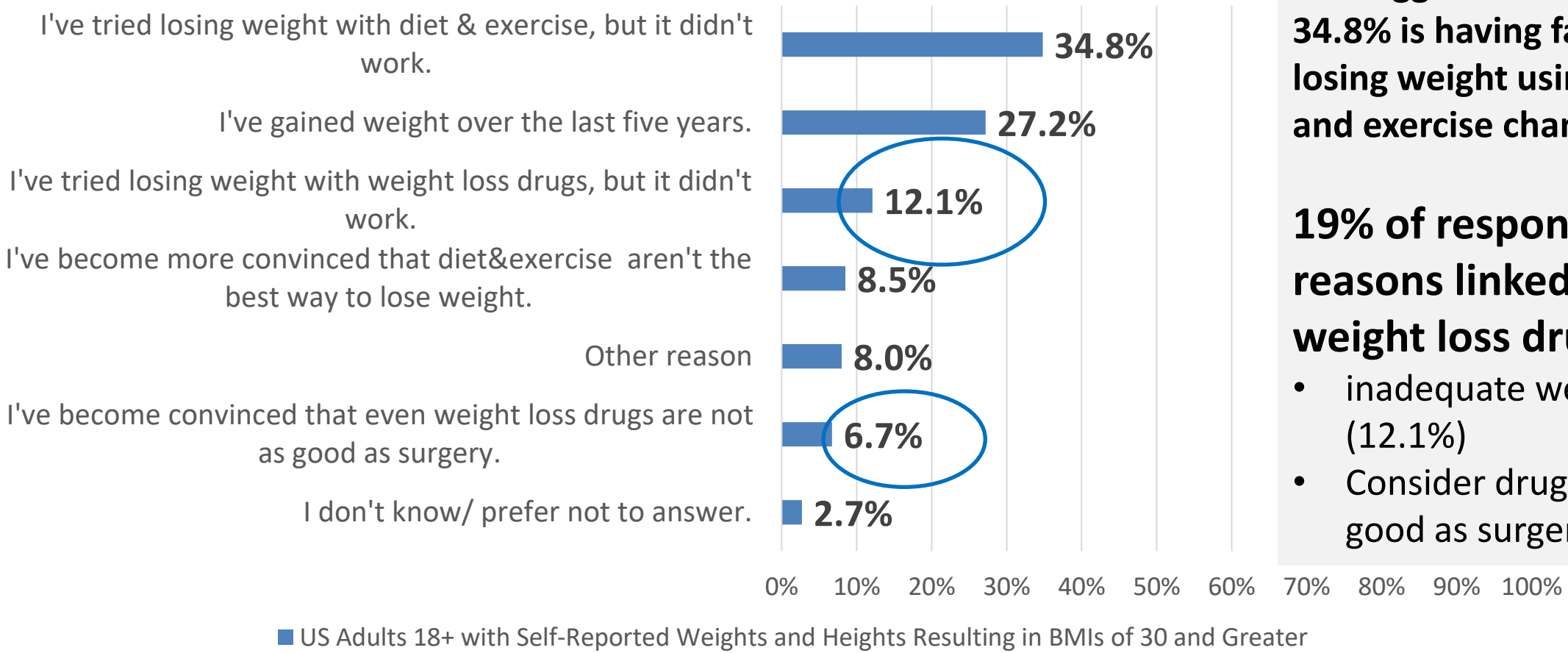


A total of 14.5% of responders cite drugs-related reasons
(9.2% have lost weight with weight loss drugs and another 5.3% had growing interest in weight loss drugs)

However, **use and/or interest in <u>diet/exercise</u> is <u>the most common reason</u> (53%)**

Question asked to responders who said they were more likely to consider surgery compared to 5 years ago]:

What is the most important reason you are more likely now versus five years ago to consider bariatric/metabolic surgery)? (Select one.)



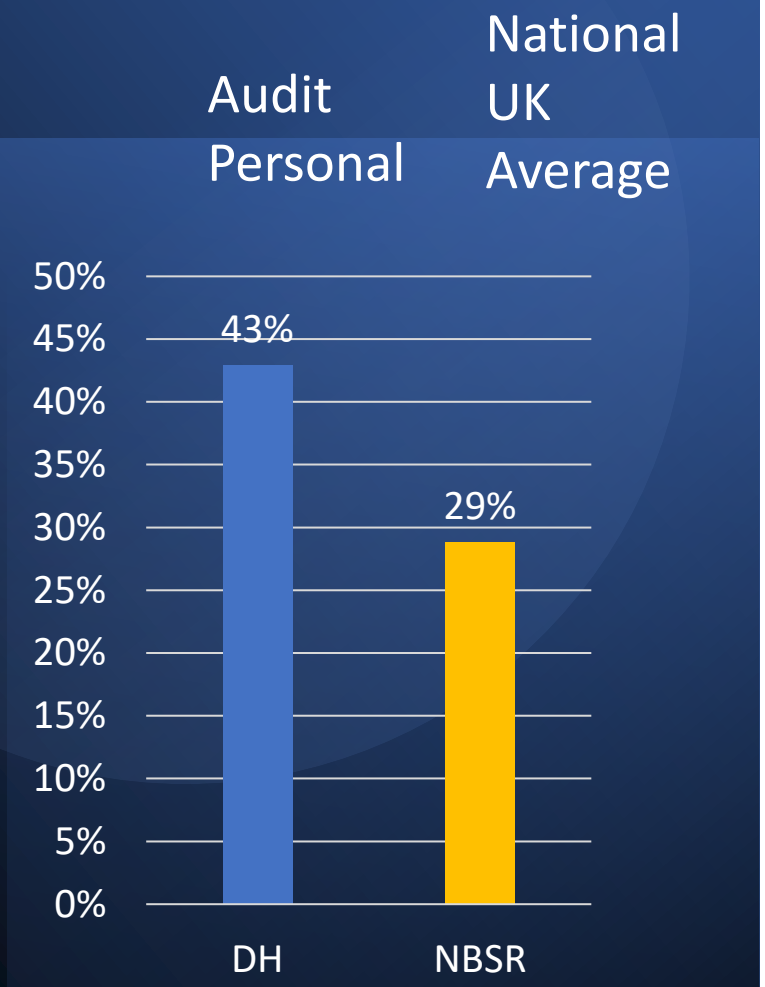
The biggest reason cited by 34.8% is having failed at losing weight using lifestyle and exercise changes.

19% of responders cite reasons linked to weight loss drugs

- inadequate weight loss (12.1%)
- Consider drugs not as good as surgery (6.7%)

How is T2D Changing the Landscape of Surgery?

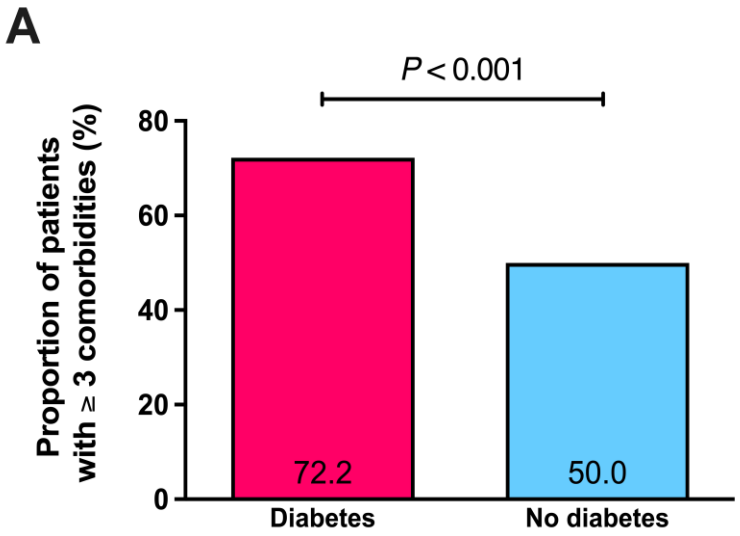
Prevalence of T2D in Surgical Practice



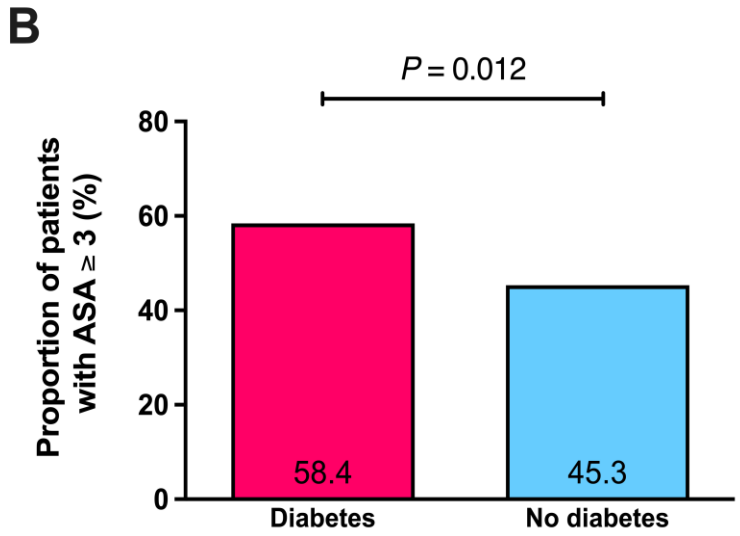
Surgical Candidates With vs Without T2D

Audit Personal Practice @King's

Pts with > 3 Co-morbidities



Pts with ASA score ≥ 3



Diabetes Status

Table 1. Summary of baseline characteristics in patients with diabetes vs no diabetes.

Clinical Characteristics	All patients *n* = 723	Diabetes *n* = 301 (41.6%)	No Diabetes *n* = 422 (58.4%)	*p* -value
Age (years)	47 ± 12	51 ± 11	45 ± 12	***p* <0.001**
Gender, female (%)	518 (71.6%)	192 (63.8)	326 (77.3)	***p* <0.001**
BMI (kg/m^2)	48 ± 8	47 ± 8	49 ± 8	***p* <0.001**
CCI score	1.6 ± 1.6	2.5 ± 1.7	0.8 ± 1.1	***p* <0.001**
Estimated 10-year survival (%)	93.0	85.0	96.5	**p <0.001**
ASA score	2.6 ± 0.5	2.7 ± 0.5	2.5 ± 0.6	**p <0.001**
Number of comorbidities	3.8 ± 2.3	4.9 ± 2.1	3.0 ± 2.1	***p* <0.001**
Number of medications	1.7 ± 2.1	3.3 ± 2.1	0.6 ± 1.0	***p* <0.001**
BMI ≥ 50 (%)	270 (37.3%)	102 (33.9)	167 (39.8)	*p* =0.105
CVD (%)	117 (16.2%)	68 (22.6)	49 (11.6)	***p* <0.001**

Continuous data are presented as mean ± SD and anlaysed by two-sided T-test. Categorical data are presented as count (%) and analysed by Pearson's Chi-Square test. CVD, Cardiovascular Disease; CCI, Charlson Comorbidity Index; ASA, American Society of Anaesthesiologists.

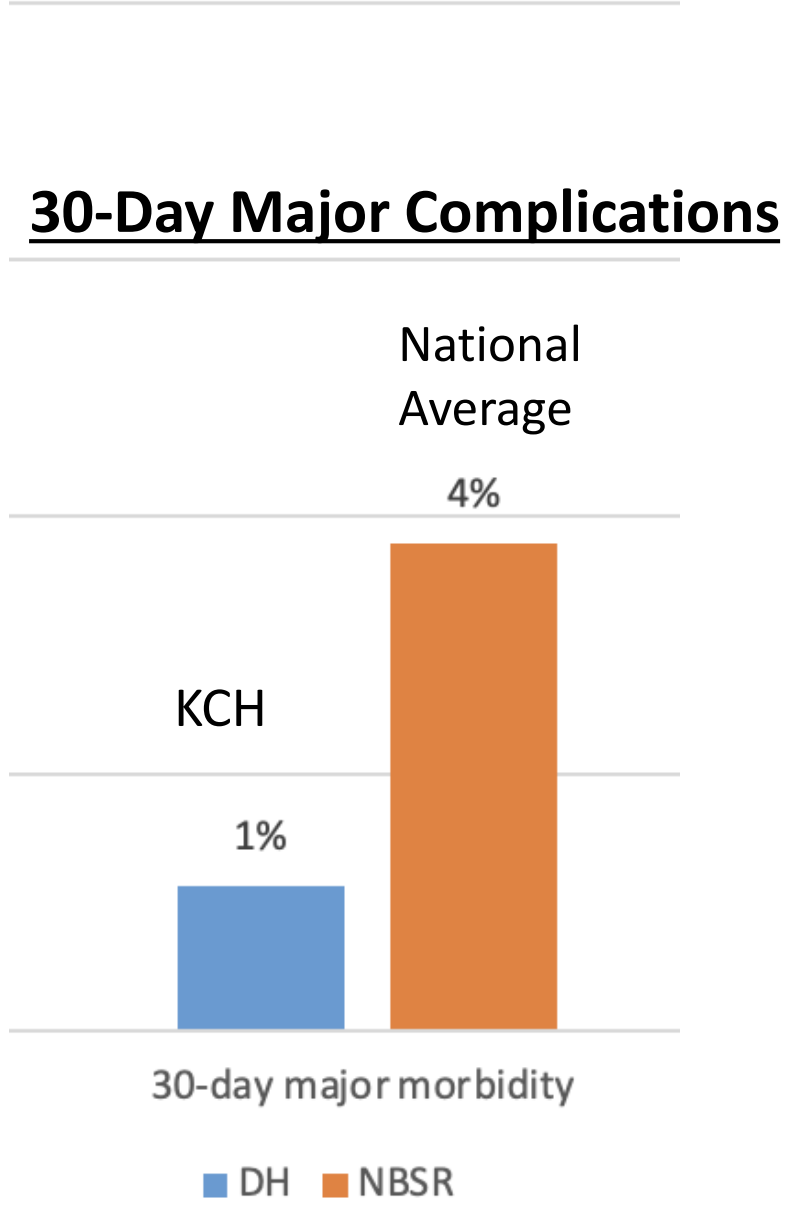
Audit Personal Practice (unpublished)

Metabolic Surgery at King's

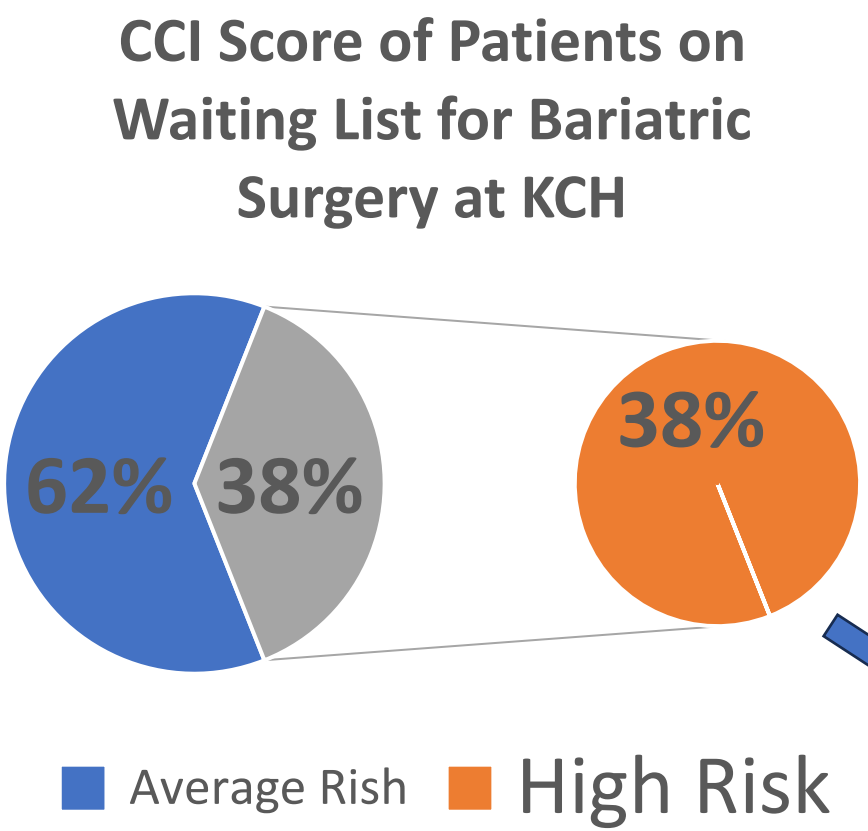
Diseases and Conditions in Pts Undergoing Bariatric/Metabolic Surgery at KCH

- 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

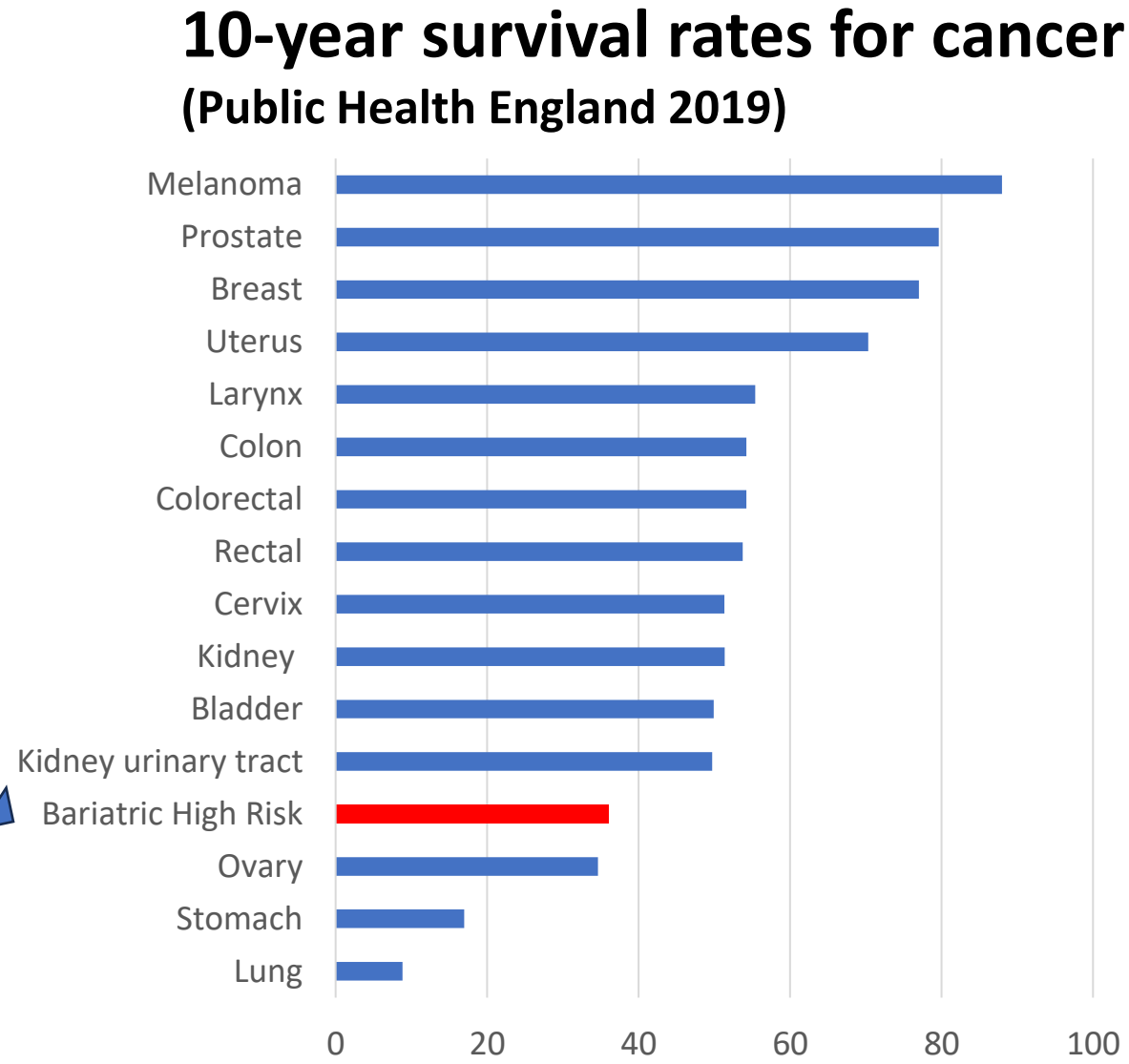
30-Day Major Complications



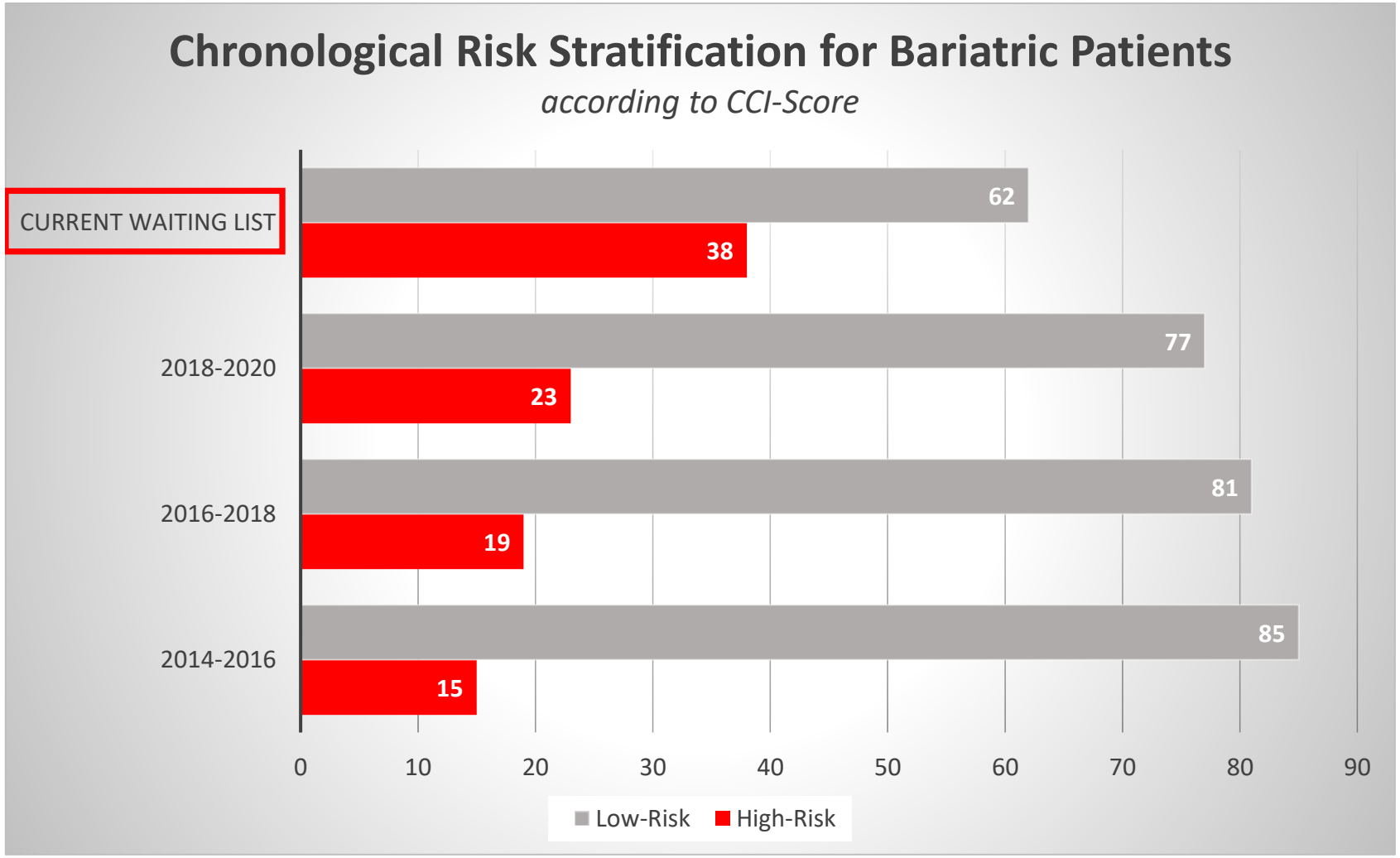
Prognosis (estimated 10-year survival based on CCI-Score)



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

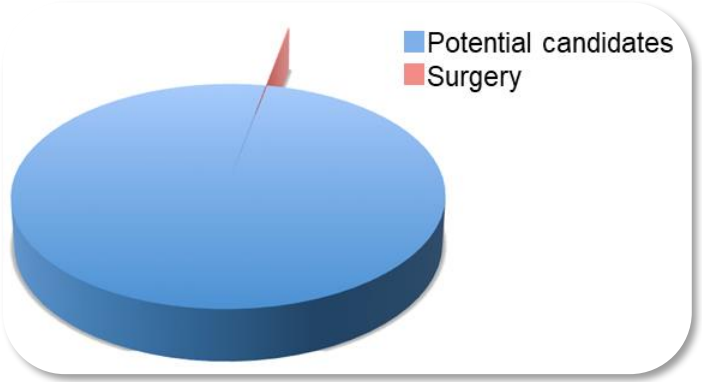


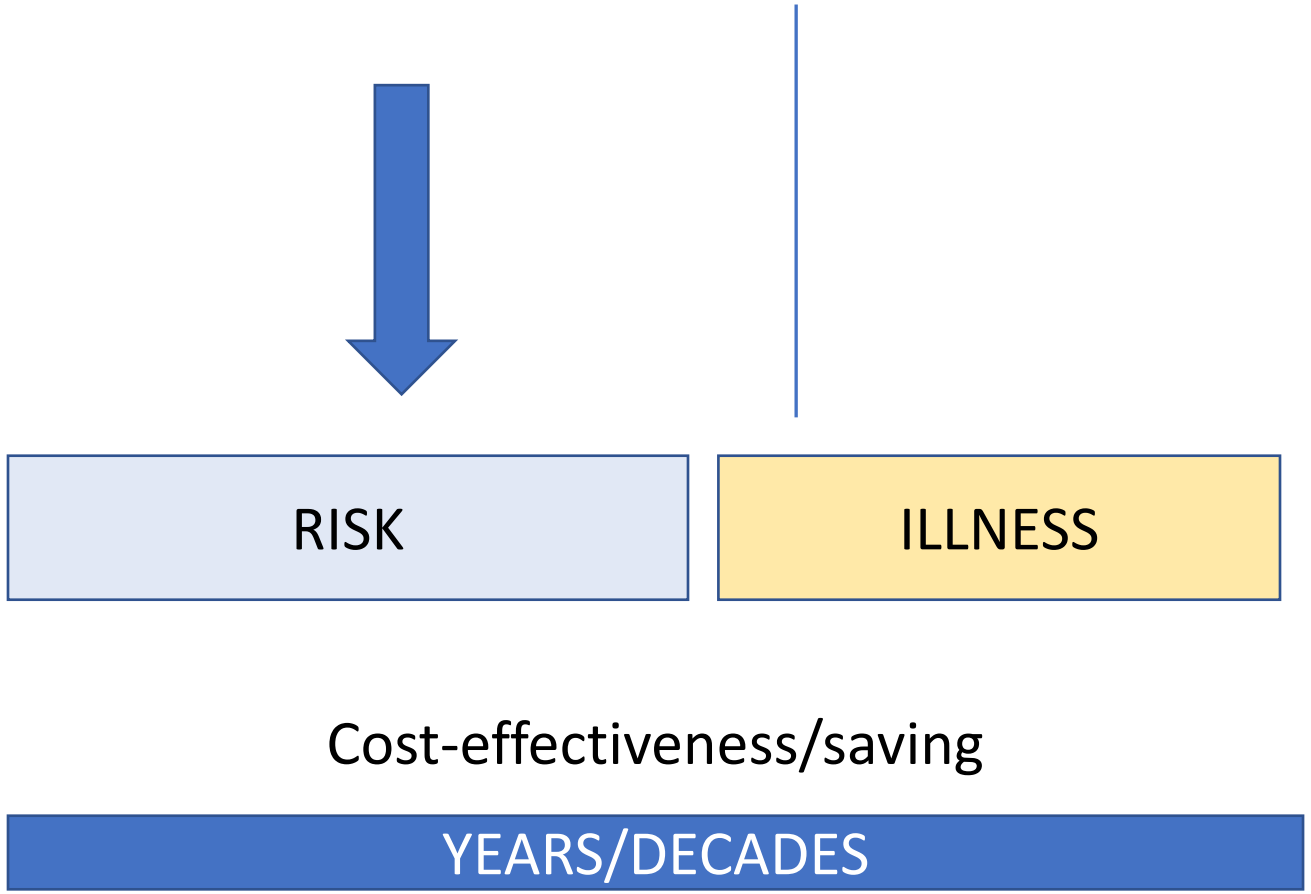
Number of High-Risk Patients at King's College Hospital has Increased over the last decade



TRADITIONAL “BARIATRIC” (WEIGHT-LOSS) SURGERY

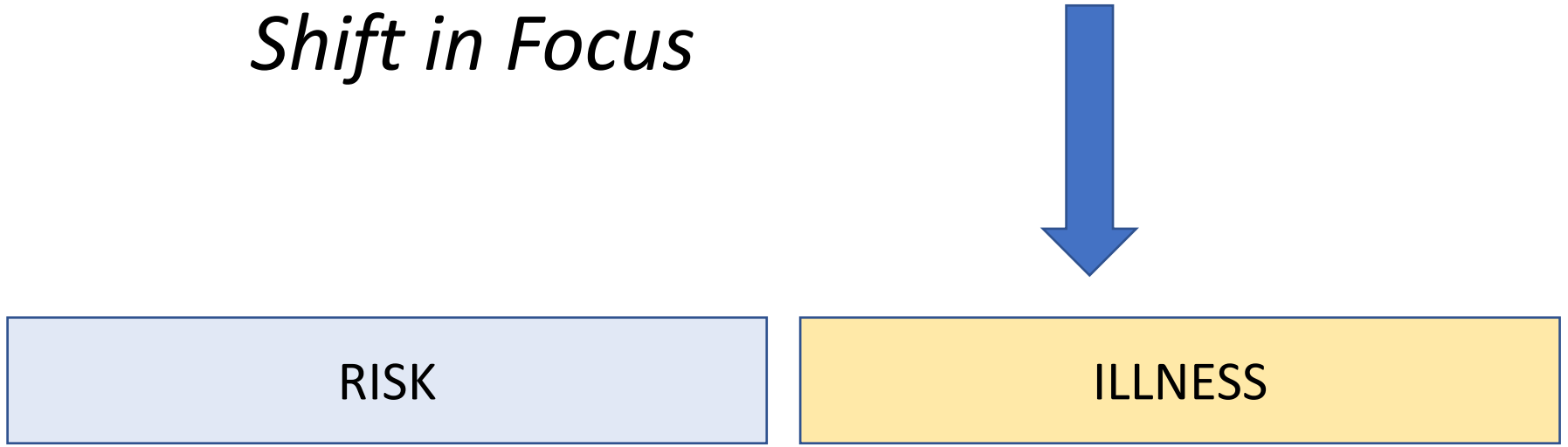
Mean worldwide uptake: 0.82%





METABOLIC SURGERY

Shift in Focus



Cost-effectiveness/saving

MONTHS/YEARS

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

No ongoing illness **Ongoing illness**

Report expected in Fall 2024

Lancet Commission on Clinical Obesity (coming up soon)
Reframing Obesity to Improve Care and Policy

Causes of Adipose Tissue Expansion

- Genetic
- Environmental
- Psychological
- Other (Unknown)

CONFIDENTIAL

Obesity

Clinical Obesity

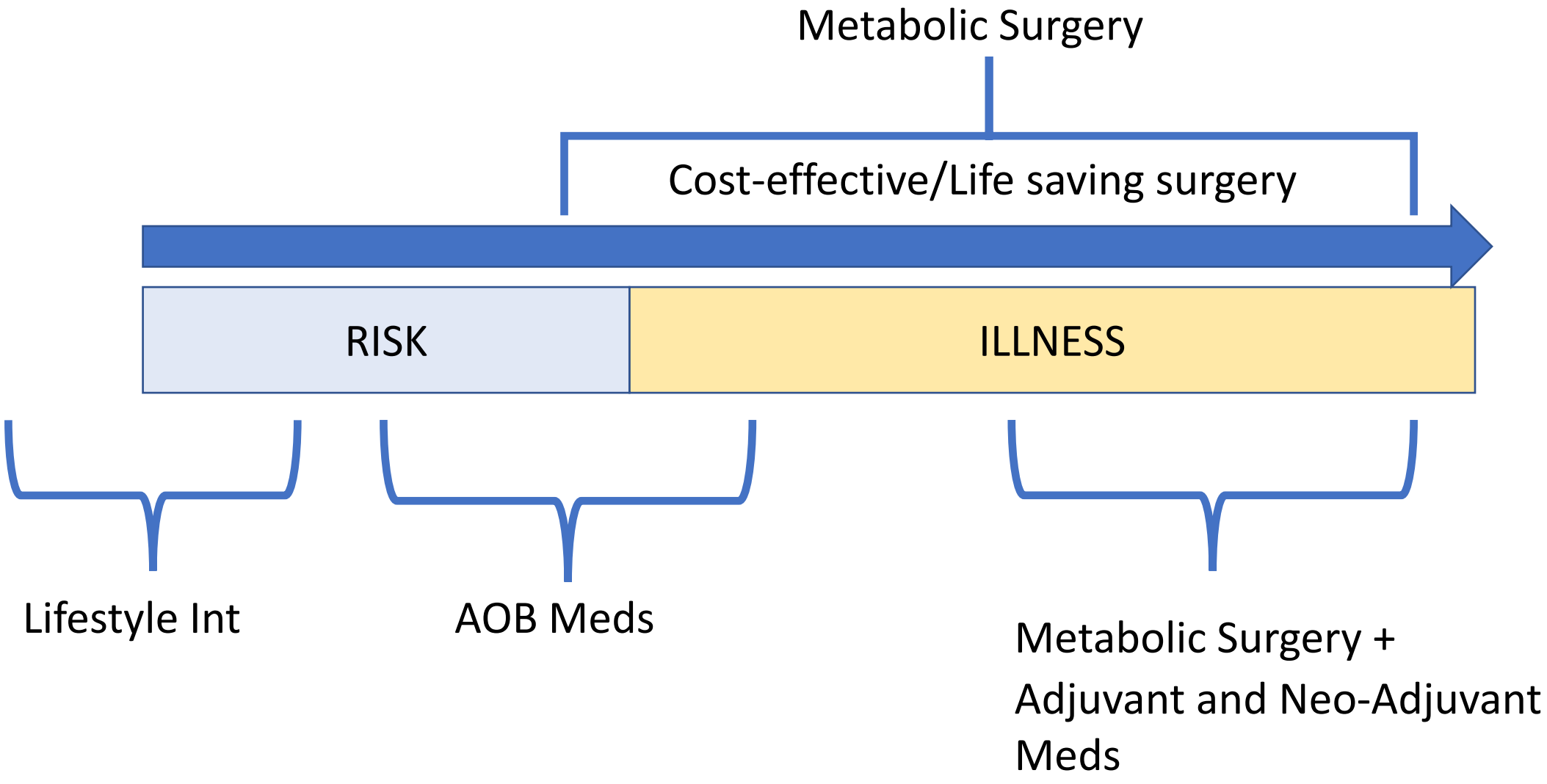
Risk Factor >>>> Illness

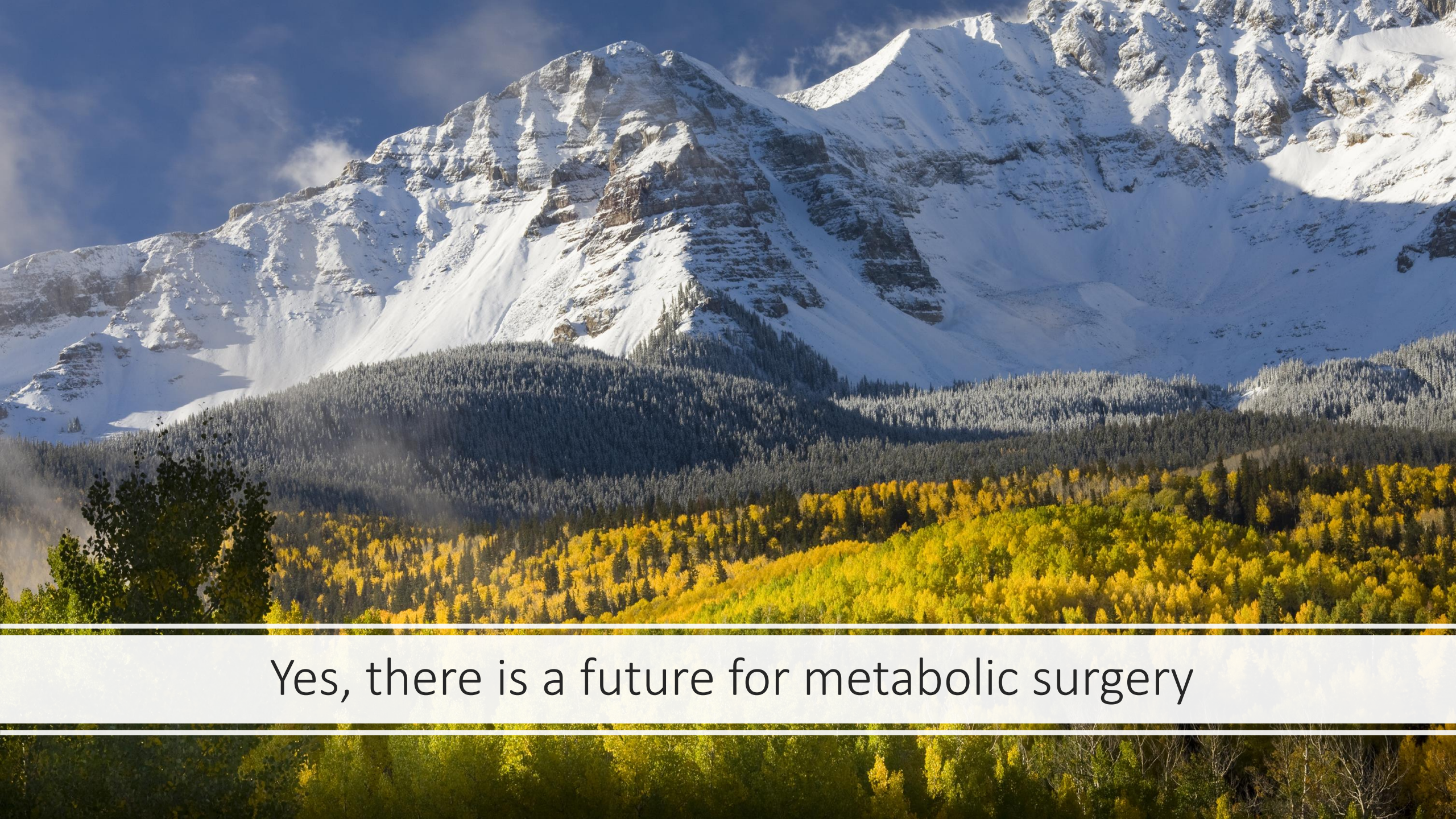
Primary Prevention

Prophylactic Intervention

Disease Treatment (Therapeutic Intervention)

THE FUTURE OF METABOLIC SURGERY





Yes, there is a future for metabolic surgery