



Worth the weight? An analysis of weight loss surgery in England 2016 - 2023

December 2024



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Foreword by Professor Omar Khan on behalf of the British Obesity & Metabolic Surgery Society

I am pleased to write the foreword for this report on weight loss surgery admissions in the private sector in the UK compiled by the Private Healthcare Information Network (PHIN). As a Consultant Surgeon in Gastrointestinal and Bariatric Surgery and Chair of the National Bariatric Surgery Registry Committee (NBSR) – the body responsible for publishing and monitoring outcomes in weight loss surgery in the UK – I have witnessed firsthand the transformative impact that weight loss surgery can have on patients' lives.

In England, 25.9% of adults in England are obese and a further 37.9% are overweight but not obese. Weight loss surgery is a significant step for many individuals, and it is essential that they have access to accurate and comprehensive information. While this report focuses on weight loss surgery, it also underscores the importance of a holistic approach to weight management including diet, exercise, and psychological support.

This report provides a valuable insight into the trends and regional variations in private bariatric surgery, offering analysis of over 31,500 admissions that will be beneficial to patients, healthcare providers and national bodies. It also mirrors some of the trends reported by the National Bariatric Surgery Registry (NBSR) with for example the increasing popularity of sleeve gastrectomy over gastric banding.

I would like to extend my thanks to PHIN for their work in compiling this report. Their commitment to transparency and data-driven analysis plays a crucial role in enhancing the quality of care in the private healthcare sector. It is important however to note that there is a lack of data collection and reporting of long-term patient outcomes by the independent sector - a gap which PHIN and NBSR are working together to address. Through this collaboration PHIN and NBSR are helping to ensure patients will be able to make informed decisions about their weight loss management options.



Professor Omar Khan

Consultant Surgeon and Chair of the National
Bariatric Surgery Registry Committee





Chapter 1

Introduction

In this report, the Private Healthcare Information Network (PHIN) provides an analysis of Bariatric surgery, also referred to as weight loss surgery and metabolic surgery, in the independent healthcare sector in the UK.

How weight loss surgery works

Weight loss surgery is a treatment option for people with severe obesity. Bariatric surgery should be seen as part of a comprehensive approach, which includes lifestyle management.

The most common bariatric surgery procedures performed in the UK are the gastric bypass and the sleeve gastrectomy¹. Other less common procedures include adjustable gastric band, one-anastomosis gastric bypass and biliopancreatic diversion with duodenal switch.

Bariatric procedures were initially designed to cause weight loss by restricting the amount of food that can be eaten and/or by causing malabsorption, which means that food passes through the gut without being absorbed properly.

¹ [Third Registry Report, National Bariatric Surgery Registry, The British Obesity & Metabolic Surgery Society, 2020.](#)



In this report

The report:

- shows the annual trend changes in admissions
- compares 2023 to 2019 (as the previous comparable year before the Covid-19 pandemic)

We examine annual trends of admission for weight loss surgery, the variation across sex and age groups, the setting of surgery (i.e. inpatient or daycase) and the regional distribution of private surgery across the UK.

'Weight Loss Surgery' procedures included in this report are:

- Bypass operation
- Gastrectomy
- Gastric banding
- Gastric stapling

Only patients with a primary diagnosis of obesity or cosmetic reason for the weight loss surgery have been used in this analysis.

We also report separately on the annual admissions rate for Gastric Balloon insertion, a non-surgical weight loss intervention.

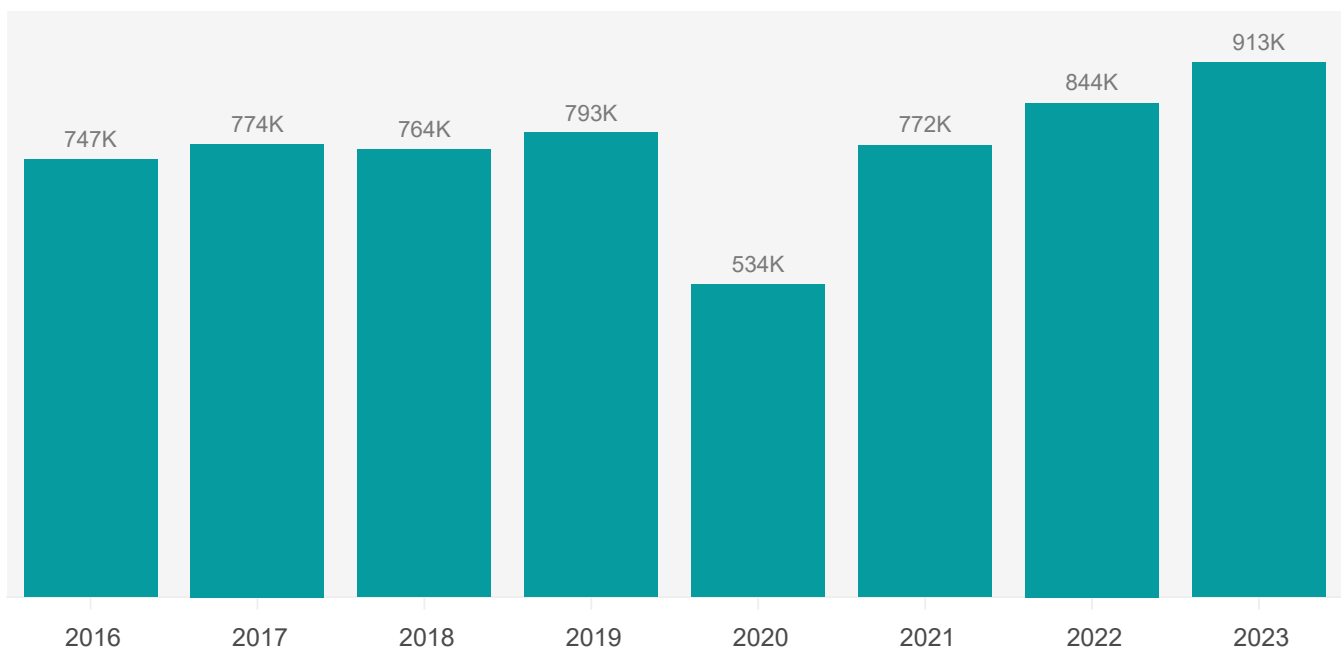
By exploring these areas, the report aims to uncover insights into the evolving landscape of the weight loss surgery in independent sector.

Chapter 2

Private Admissions Total & Weight Loss Surgery

Figure 1 shows that between 2016 and 2023, there were over six million private care admissions² recorded across all procedures. In total 31,500 (under 1%) of those admissions were for a weight loss procedure. For comparison, the largest procedure reported by PHIN was cataract surgery which had 491,705 (7.5%) admissions.

Figure 1: Total Private Admissions by Published Year (2016 – 2023)

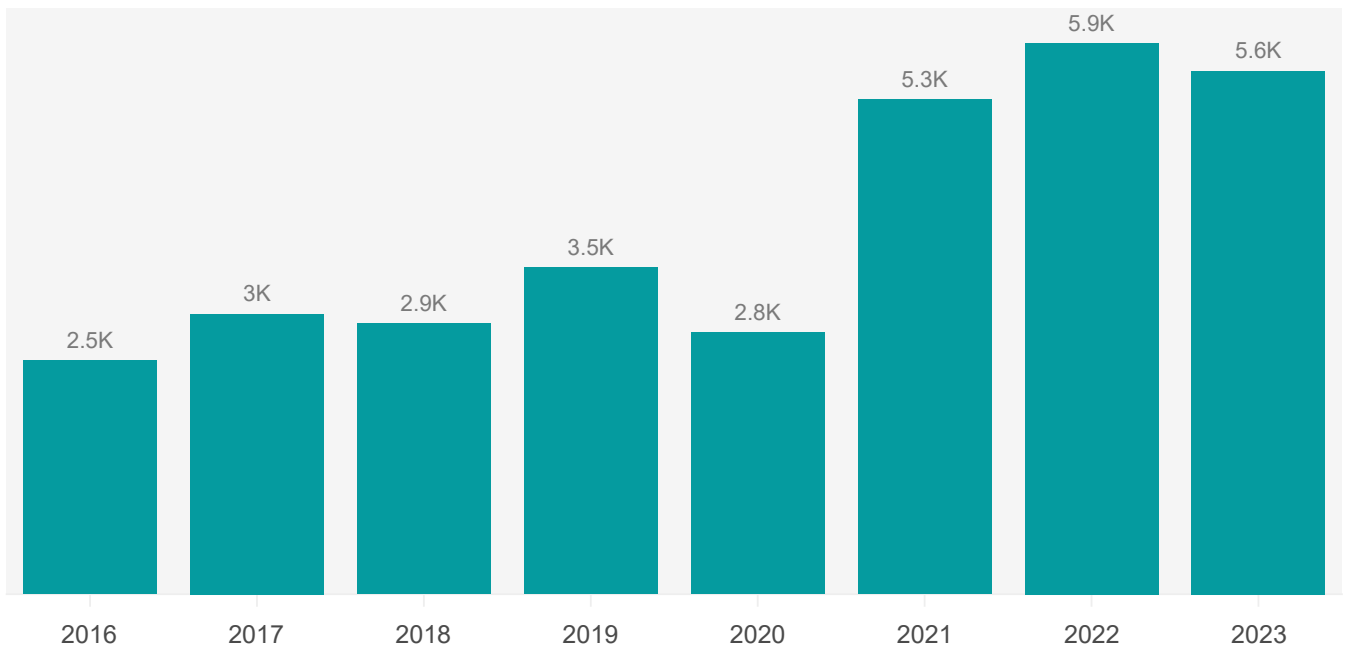
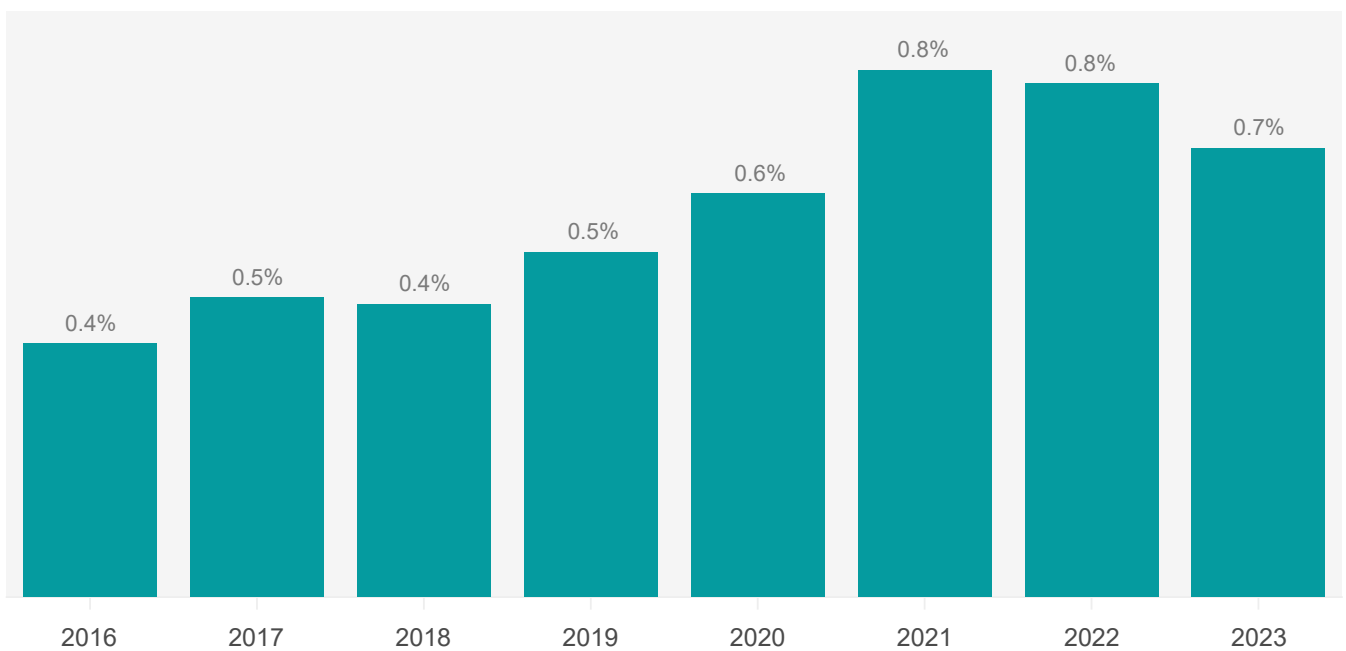


Before the pandemic, weight loss surgery activity peaked in 2019 with 3,500 admissions (see Fig. 2). In 2022, there were 5,900 admissions, marking the highest peak before a decline. Admissions increased from 2,800 to 5,300 between 2020 and 2021 due to the backlog of elective procedures caused by pandemic lockdowns. The higher level of activity continued into 2022 with 5,900 admissions, exceeding any pre-pandemic year.

For comparison, the UK National Bariatric Surgery Registry reported an average of 4,744 cases per year undertaken in the NHS between 2010 and 2019³.

In 2020 weight loss surgery increased as a proportion of all admissions despite the total number of admissions decreasing (see Fig. 3).

² A patient may be admitted more than once in a year, so admissions do not equal the number of patients treated.
³ [Third Registry Report, National Bariatric Surgery Registry, The British Obesity & Metabolic Surgery Society, 2020.](#)

Figure 2: Weight Loss Surgery Admissions by Published Year (2016 – 2023)**Figure 3: Weight Loss Surgery as % of all Private Admissions (2016 – 2023)**

Comparing 2019 and 2023, two years that were less impacted by the pandemic, the total number of weight loss surgery admissions increased by 40% from 3,500 in 2019 to 5,600 in 2023 (see Fig. 4).

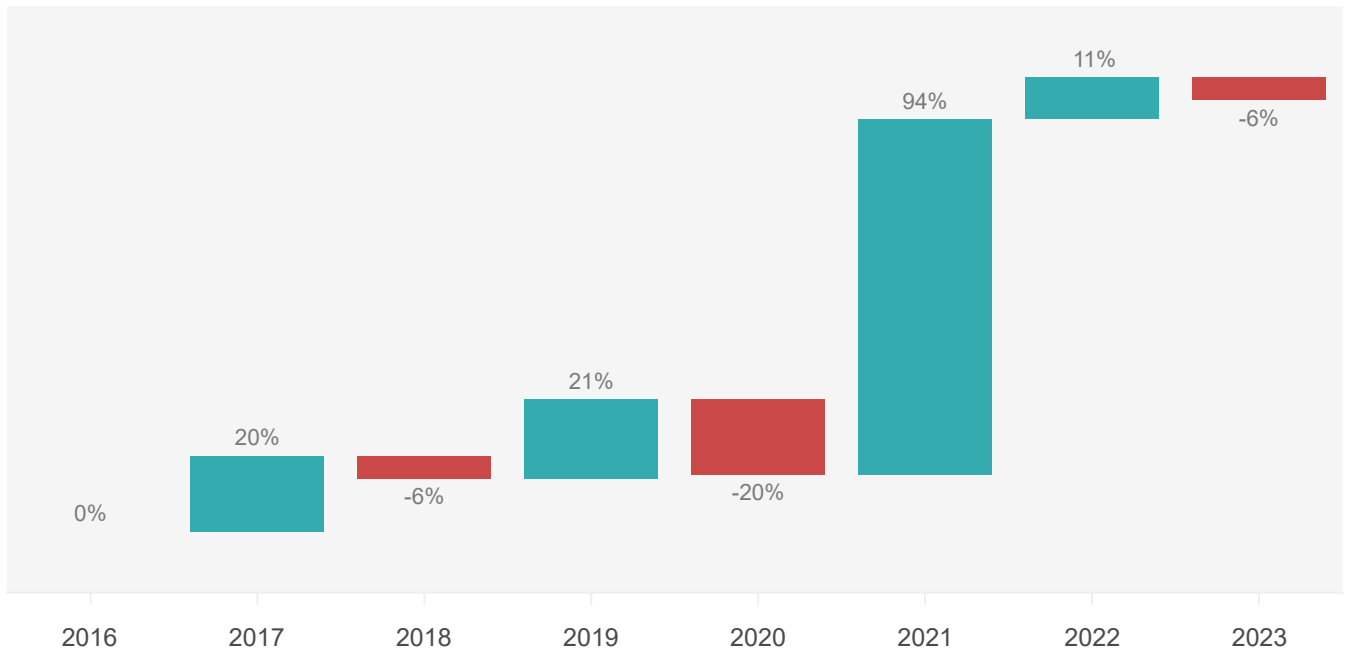
Although there was a peak in Q3 2021 (1,615 admissions), our data indicates a 21% decrease in weight loss surgery admissions from then to Q4 2023 (1,260).

Figure 4: Weight Loss Surgery Private Admissions by Quarter (2016 - 2023)



The decline is also noticeable when comparing 2023 with previous years (See Fig. 5). In 2023, there was a decrease of 6% for the first time since 2020. In contrast, the increase in 2022 was 11%, which was significantly smaller than the 94% increase observed in 2021 following the post-COVID period.

Figure 5: Weight Loss Admissions Volumes – Comparison by Year







Chapter 3

How are weight loss procedures paid for?

Surgery undertaken in the independent sector can be funded either by the patient (self-pay) or private medical insurers (insured).

Nearly all private medical insurers do not cover bariatric surgery⁴. When researching this report, only two private medical insurers⁵ offered partial coverage weight loss surgery in their policies and had multiple eligibility criteria for a patient to obtain approval.

A typical patient will use self-pay to fund their private weight loss surgery.

⁴ As of August 2024, Aviva and BUPA confirmed to the report's authors they do not provide coverage for bariatric surgery.
⁵ [Vitality Health, Better Health](#)



HEALTH INSURANCE

Recipient's name	Recipient's address	Recipient's ZIP or postal code	Recipient's city or town
Recipient's phone number	Recipient's email address	Recipient's SSN	Recipient's county
Program identifier	Policy number	Plan name	

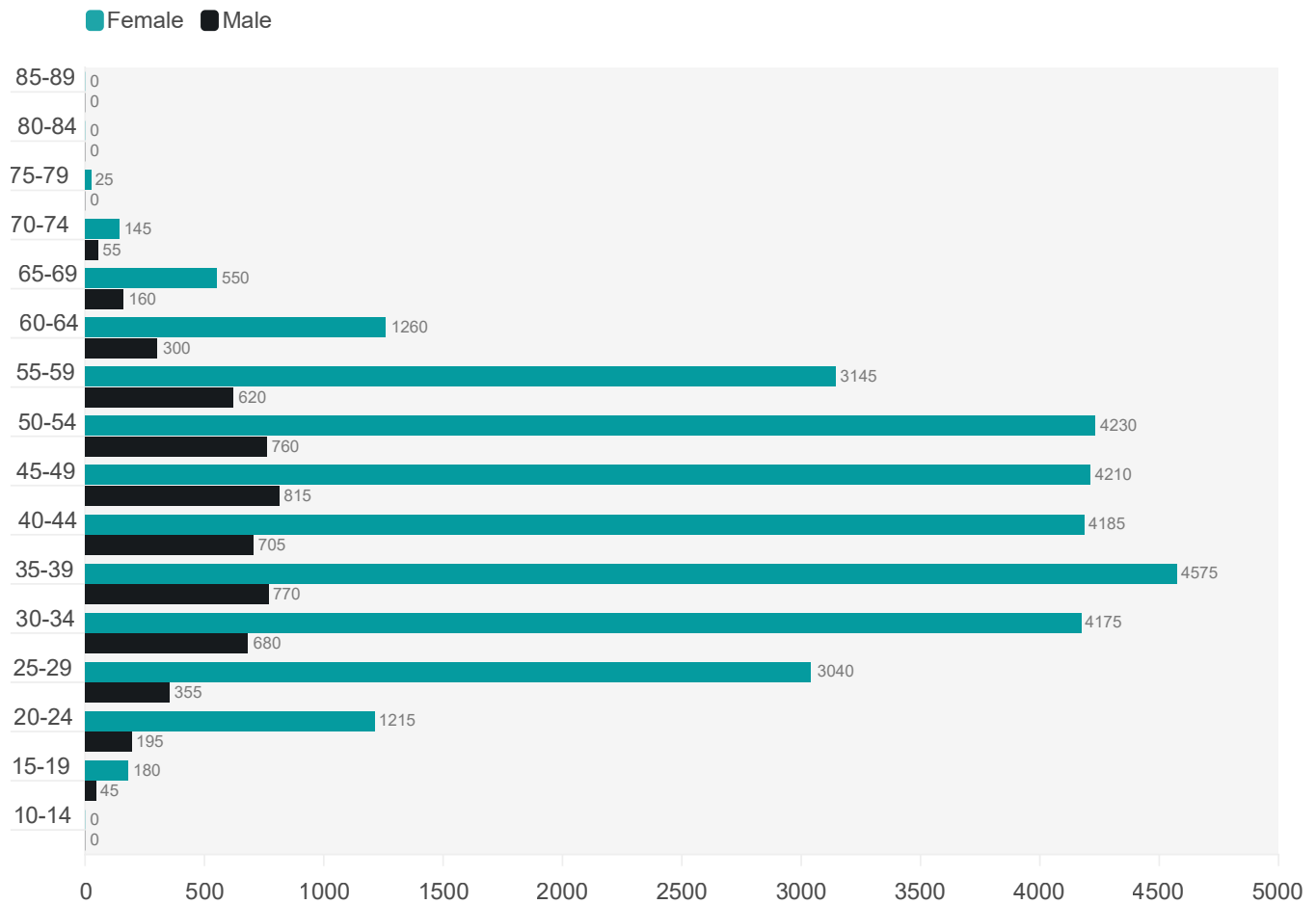
Chapter 4

Age and sex

4.1 Age

Following the national trend for all private hospital admission, the number of admissions for weight loss surgery is higher in middle age and for females. The age group with the highest activity is aged 35-39 (see Fig. 6).

Figure 6: Admission by Age and Sex (2016 to 2023)



4.2 Sex

Bariatric surgery is a female dominated procedure, between 2016 and 2023 the split was an average 84.5% female to 14.5% male (see Fig. 7). The procedure was female dominated in every year, ranging from 80.4% to 88.0% female.

Figure 7: Admissions by Year and Sex



Chapter 5

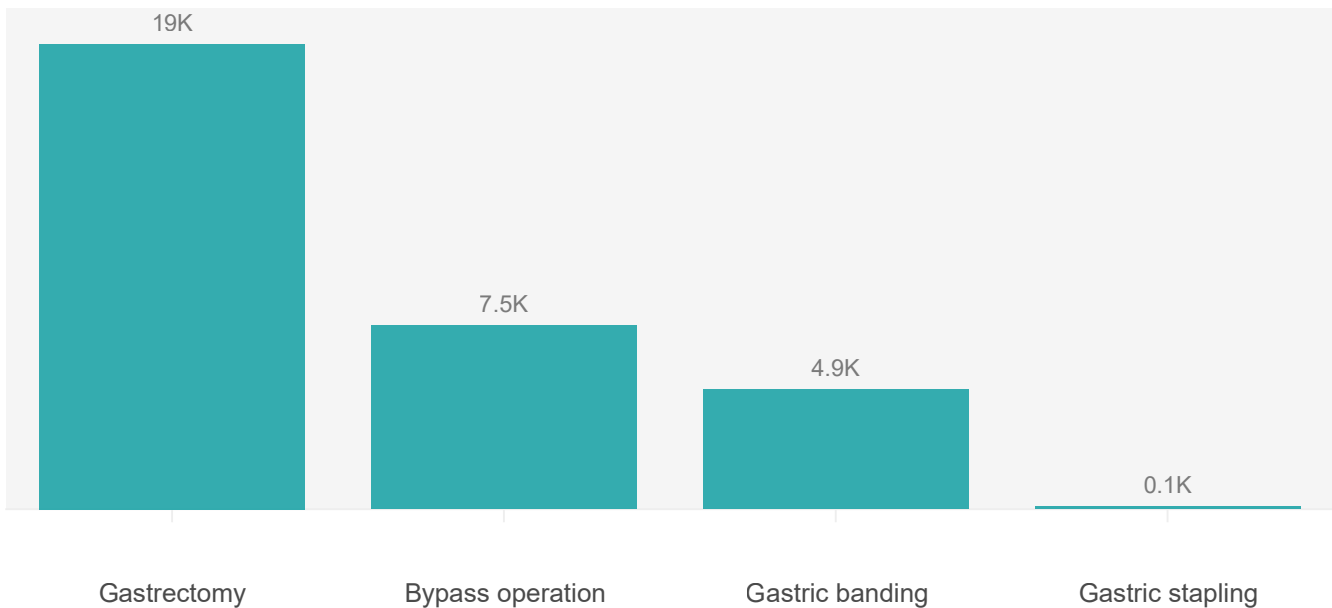
Procedure Type

Our analysis of the different types of bariatric procedures undertaken in the independent sector, by procedure, shows that gastrectomy is the most common bariatric procedure since 2016, by a significant margin (153% higher than the second highest procedure) (see Table 1 and Fig. 8).

Table 1 – Bariatric procedure by volume and % of all bariatric admissions (2016 to 2023)

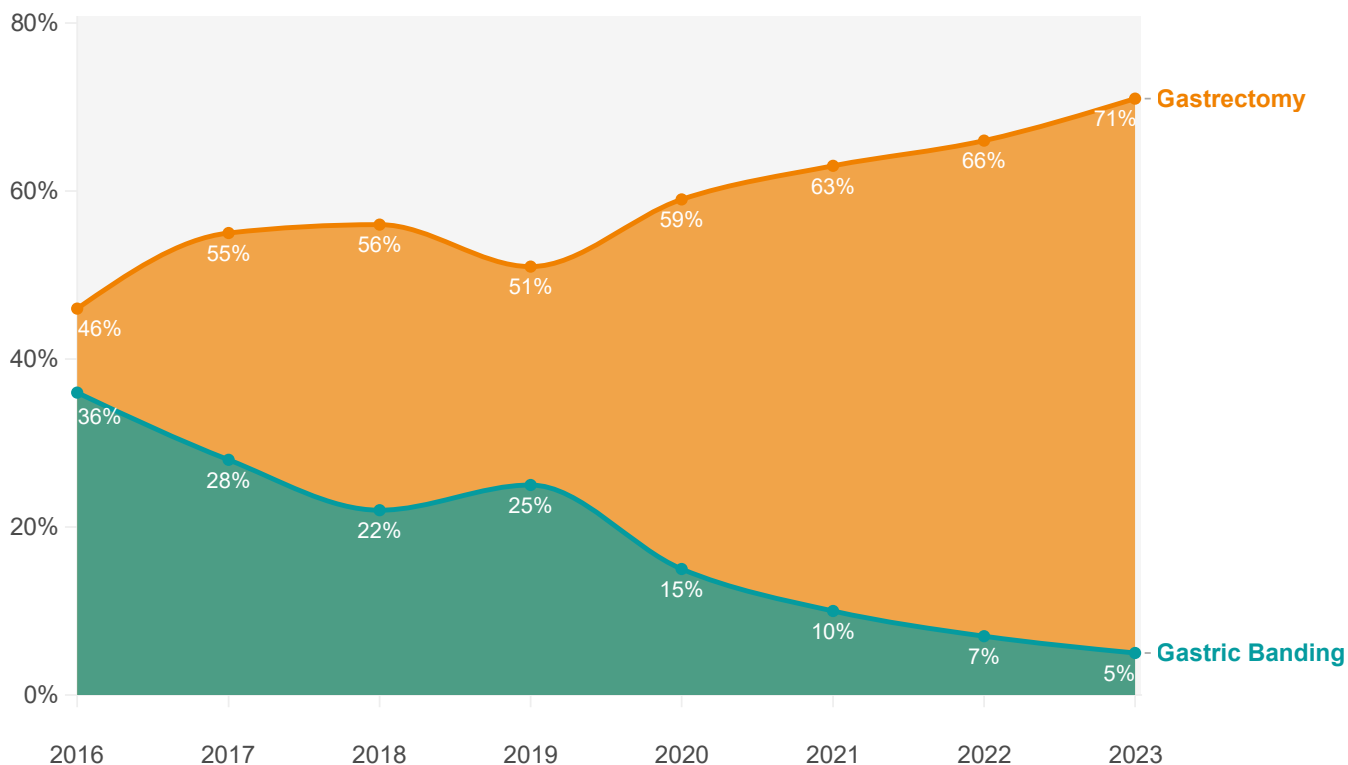
Procedure	Admissions	% of all admissions
Sleeve gastrectomy	19,000	60.3%
Bypass operation	7,505	23.8%
Gastric banding	4,890	15.5%
Gastric stapling	105	0.3%
Total	31,500	100%

Figure 8: Weight Loss Surgery Admissions (2016 to 2023)



The most popular procedure has changed over time. Figure 12 provides a comparison of the procedure with the largest increase and largest decrease in volume – Gastrectomy and Gastric Banding respectively – as a proportion of total weight loss surgery for full years 2016 to 2023.

Figure 9: Gastrectomy and Gastric Banding % of Weight Loss Admissions (2016 to 2023)

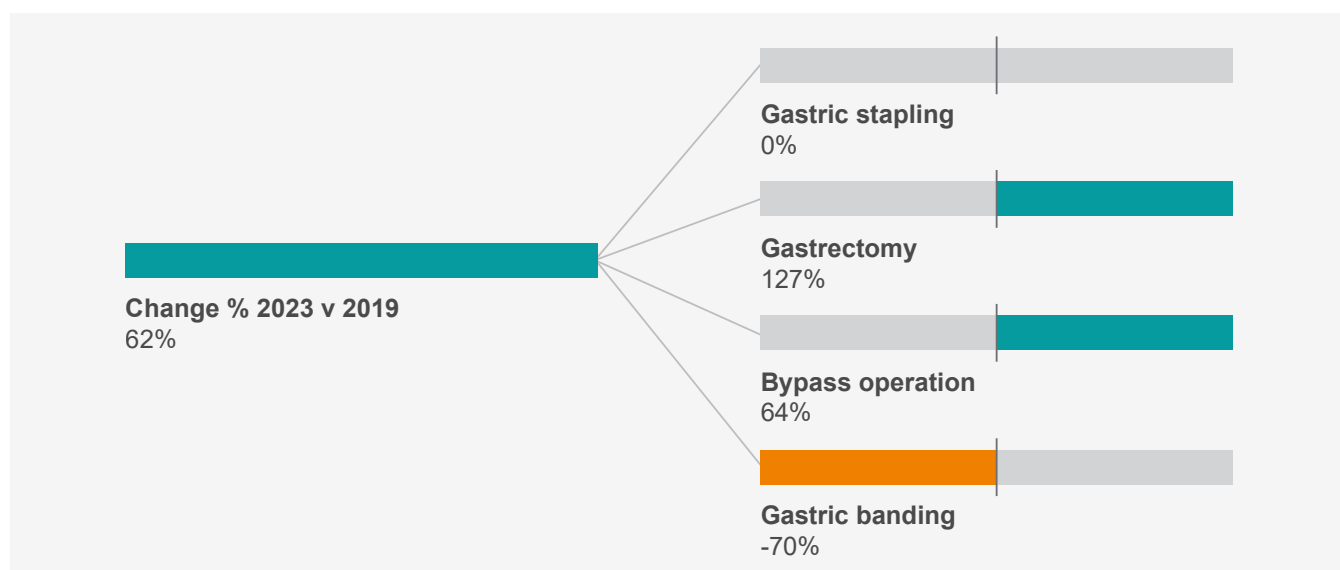


Between 2016 and 2023, Gastrectomy has grown as the dominant procedure of weight loss surgery, rising from 46% to 71%. Gastric banding has reduced from 36% in 2016 to only 5% in 2023. Sleeve gastrectomy is also becoming the most dominant procedure in NHS practice as reported by the National Obesity Audit⁶.

Figure 13 shows how weight loss surgery has changed between pre- and post-COVID activity. Gastrectomy saw the largest increase in volume and Gastric Banding saw the largest decrease.

Comparing 2023 against 2019, Gastrectomy was up 127% and bypass operations were up 64%. Gastric banding decreased by 70%.

Figure 10: Change in weight loss surgery procedures between (2019 – 2022)



6 [National Obesity Audit – Bariatric Surgical Procedures Dashboard](#)

Chapter 6

Delivery of Bariatric Surgery – Daycase vs Inpatient

PHIN collects data on elective care that can be delivered in an inpatient or daycase setting⁷. Bariatric surgery is delivered predominantly in the inpatient setting. Table 2 shows the breakdown by procedure and setting.

- 81.4% of bariatric surgery are delivered as inpatient
- 99.4% of gastrectomy surgery are delivered as inpatient
- 99.5% of bypass operations are delivered as inpatient
- 42.2% of gastric banding admissions are daycase.

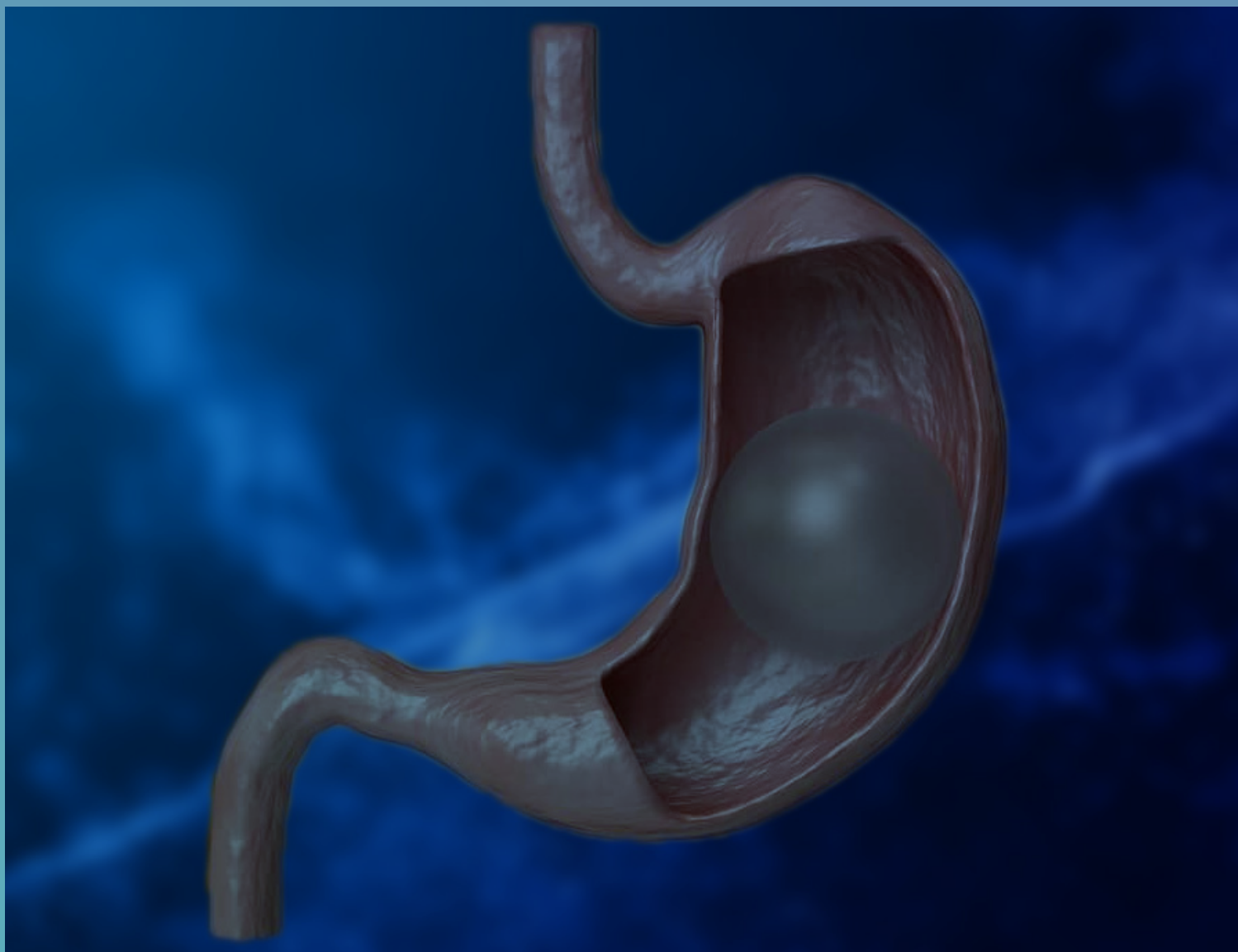
Table 2 – Proportion of Daycase and Inpatient by Procedure (2016 - 2023)

Column totals may not add up to grand totals due to rounding

Procedure	Inpatient		Daycase		Total
	Admissions	% of Procedure	Admissions	% of Procedure	Admissions
Sleeve gastrectomy	18,880	99.4%	125	0.6%	19,000
Bypass operation	7,470	99.5%	35	0.5%	7,505
Gastric banding	2,820	57.8%	2,070	42.2%	4,890
Gastric stapling	100	95.3%	5	4.7%	105
Total	29,270	92.9%	2,230	7.1%	31,500

⁷ Inpatient is defined as a hospital admission with one or more overnight stays in hospital. Daycase is defined as admitted to hospital but returns home the same day.





Chapter 7

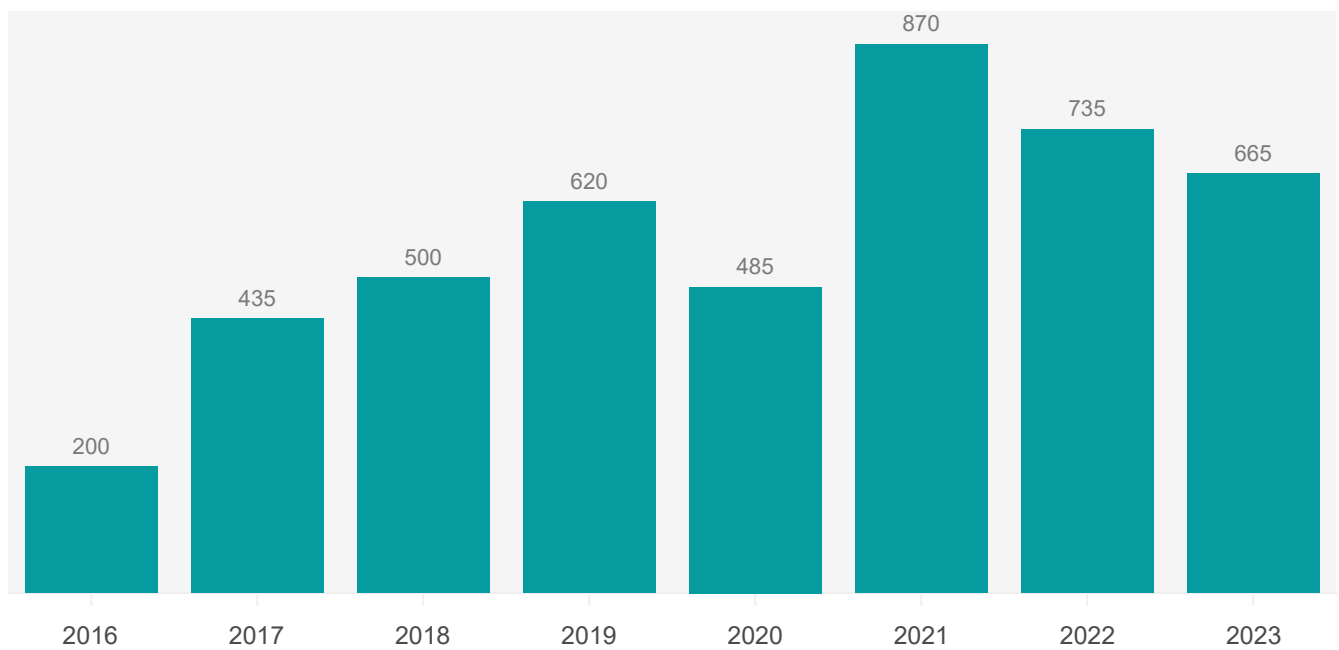
Gastric balloons

Gastric balloons are non-surgical, non-pharmaceutical devices used in the management of obesity. The gastric balloon is inserted via the mouth and expanded with sterile water, once placed in your stomach. When full, the balloon is too big to pass into your bowel and makes you feel fuller with less food in your stomach.

The balloon is usually placed temporarily (up to six months) before being removed or replaced. We have not included it in the main report as it is not surgical. Since 2021, PHIN has reported a decrease in admissions for gastric balloon insertion from 900 to 700 (see Figure 14).



Figure 11: Gastric Balloon Insertion Admissions by Published Year (2016 – 2023)



Chapter 8

Regional analysis

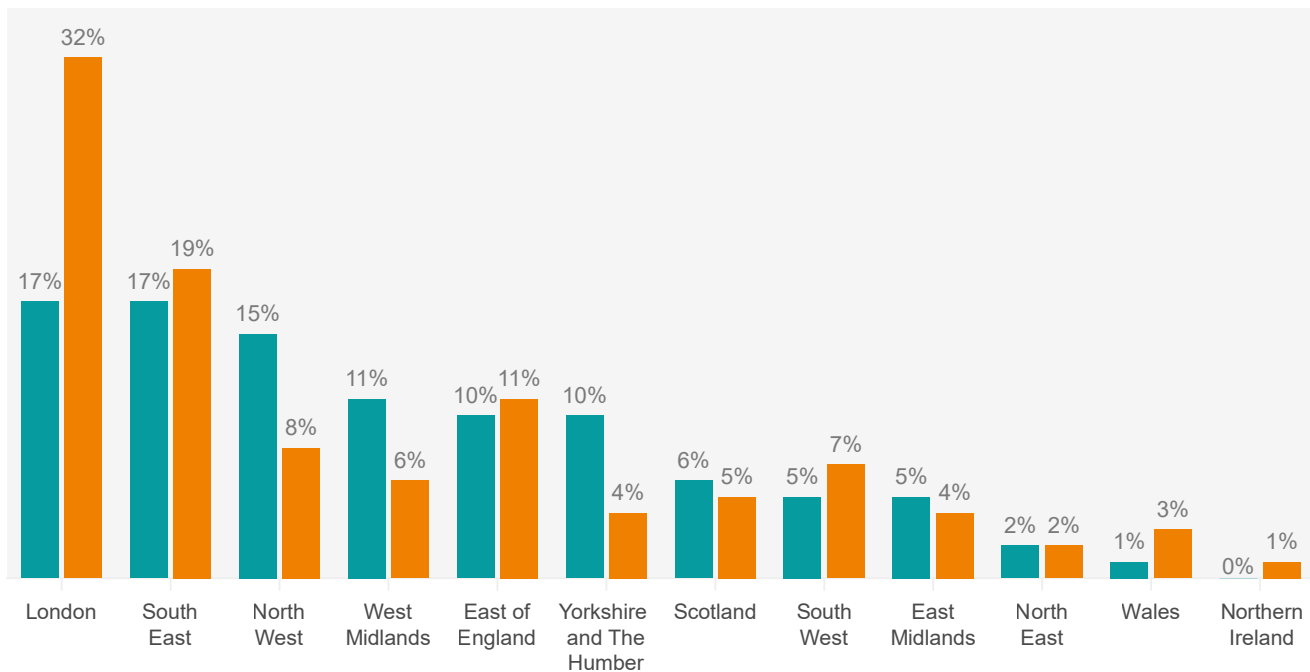
To investigate the regional variations in weight loss surgery, we looked at where patients who have weight loss surgery live⁸. London (17%) and the South East (17%) are the leading regions for the delivery of weight loss surgery, corresponding to the broader distribution of all private hospital admissions.

The percentage of weight loss surgery admissions is higher in the West Midlands (11%) and North West (15%) compared to their market share of all hospital admissions (see Fig. 14).

In contrast London had 17% of weight loss admissions, but 32% of the total private activity.

Figure 12: Comparison of Proportion of Weight Loss Surgery vs All Admissions by Region (2016 – 2023)

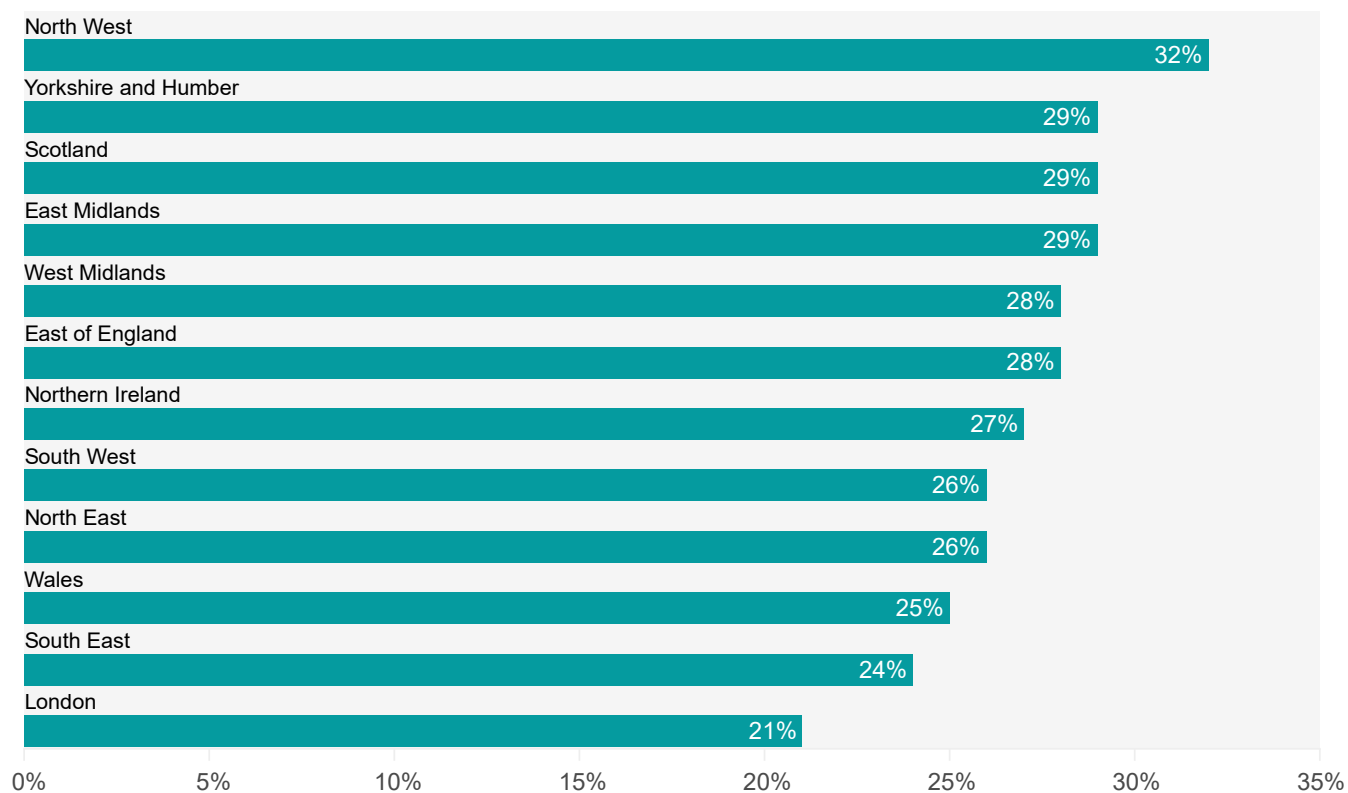
■ % share of Weight Loss Admissions ■ % share of all private admissions



The North West, West Midlands, Yorkshire and Humber, East Midlands, and North West have higher rates of weight loss surgery compared to their share of total private admissions. This does not reflect obesity prevalence in England but rather the delivery of private bariatric services. The East of England, South West, and North East also show high obesity rates (see Fig. 13) higher than London, not reflected in independent sector activity.

For the devolved nations, over a quarter of the adult population are classified as obese in Wales (25%), Northern Ireland (27%) and Scotland (29%). This is not represented in the proportion of patients accessing weight loss surgery in the independent sector in these nations either.

⁸ Patient region is based on supplied patient postcode. Note that this excludes data where patient region/nation is unavailable due to missing data or where patients are overseas patients. This equates to 1.4m records of 5.2m records (approx. 27% of admissions) for all admissions and 9.3k (approx. 25%) of weight loss surgery admissions.

Figure 13: Obesity prevalence in adults (18+) in the UK (2003-2015⁹, 2019/20¹⁰, 2022/23¹¹, 2023¹²)

The difference between obesity rates and patient locations indicates that private bariatric surgery services may not correspond with their local populations.

9 [Overweight and Obesity, Public Health Wales, 2003-2015](#)

10 [Health Survey \(NI\): First Result 2019/20, Department of Health NI](#)

11 [Obesity prevalence in adults in England, PHE Fingertips, 2022/23](#)

12 [Obesity Prevalence Factsheet, Obesity Action Scotland, 2023](#)



Chapter 9

Patient outcomes

It is important to note that PHIN does not collect and short-term or long-term weight data for patients who undergo weight loss surgery in the independent sector. This gap in data collection makes it challenging for us to comprehensively assess the effectiveness and long-term benefits of these procedures by private surgeons.

The National Bariatric Surgery Registry (NBSR) hopes to obtain more comprehensive long-term weight data through linking of NBSR with other NHS databases such as HES and GP databases.

Without such data, patients and healthcare providers lack critical information needed to make fully informed decisions regarding bariatric surgery.





Chapter 10

Key findings

- Obesity and being overweight are significant national health concerns in UK. Although the latest annual trend in 2023 shows a reduction in weight loss surgeries, there are still significantly more of these procedures being conducted than before the pandemic, showing patients consider access to private surgery an important part of their weight loss management.
- Across healthcare there is an increasing trend to deliver procedures in a day case or outpatient setting, but weight loss surgery remains predominantly delivered in an inpatient setting.
- Weight loss surgery is used across the age ranges from 15 to 80 but is predominantly used by people aged 30 to 59.
- 84.5% of weight loss surgery patients were female between 2016 and 2023.
- Private admissions for gastric balloon insertion have declined since 2021.
- Self-pay remains the primary method of funding, as no private medical insurers currently offer full coverage.
- London exhibits the lowest prevalence of obesity; however, it has a higher proportion of private admissions for weight loss surgery. This suggests that private bariatric surgery services are not adequately aligned with the needs of the local population across the UK.



Chapter 11

Recommendations for patients

1. Before considering surgery, explore comprehensive weight management programs that focus on diet, exercise, and behaviour change.
2. Weight loss medications may seem an easy option but have side effects and could cause you harm, so make sure you know what you're letting yourself in for.
3. Behaviour change and psychological support are key to any plan to lose weight and sustain that weight loss. Without making lifestyle changes, any weight you lose via surgery or medication may be regained, undoing all your hard work. For example, treatment with semaglutide, also called Wegovy, on the NHS is currently limited to two years¹³ so you must change your lifestyle as well.
4. Be very careful about any weight loss surgery outside the UK. While the attraction of cost savings is undeniable, the hidden risks can be substantial, and several patients have died from poor care¹⁴. Make sure you look carefully at what is being offered, what safety measures there are and how any issues would be dealt with.

¹³ Semaglutide for managing overweight and obesity. NICE. 2023

¹⁴ BBC News, Warnings against 'reckless' weight loss surgery abroad, 2023



Appendix A

PHIN Procedure Groups, OPCS and ICD coding used in this report

Table 3 – PHIN Procedure Groups and OPCS coding used in this report

Procedure Group Name	OPCS Code	OPCS Description
Weight loss surgery (bypass operation)	G311	Bypass of stomach by anastomosis of oesophagus to duodenum
Weight loss surgery (bypass operation)	G312	Bypass of stomach by anastomosis of stomach to duodenum
Weight loss surgery (bypass operation)	G321	Bypass of stomach by anastomosis of stomach to transposed jejunum
Weight loss surgery (bypass operation)	G322	Revision of anastomosis of stomach to transposed jejunum
Weight loss surgery (bypass operation)	G329	Unspecified connection of stomach to transposed jejunum
Weight loss surgery (bypass operation)	G331	Bypass of stomach by anastomosis of stomach to jejunum NEC
Weight loss surgery (bypass operation)	G332	Revision of anastomosis of stomach to jejunum NEC
Weight loss surgery (bypass operation)	G335	Closure of connection of stomach to jejunum NEC
Weight loss surgery (bypass operation)	G338	Other specified other connection of stomach to jejunum
Weight loss surgery (bypass operation)	G339	Unspecified other connection of stomach to jejunum
Weight loss surgery (gastrectomy)	G281	Partial gastrectomy and anastomosis of stomach to duodenum
Weight loss surgery (gastrectomy)	G282	Partial gastrectomy and anastomosis of stomach to transposed jejunum
Weight loss surgery (gastrectomy)	G283	Partial gastrectomy and anastomosis of stomach to jejunum NEC
Weight loss surgery (gastrectomy)	G284	Sleeve gastrectomy and duodenal switch
Weight loss surgery (gastrectomy)	G285	Sleeve gastrectomy NEC
Weight loss surgery (gastrectomy)	G288	Other specified partial excision of stomach

Procedure Group Name	OPCS Code	OPCS Description
Weight loss surgery (gastrectomy)	G289	Unspecified partial excision of stomach
Weight loss surgery (gastric balloon)	G485	Insertion of gastric balloon
Weight loss surgery (gastric banding)	G303	Partitioning of stomach using band
Weight loss surgery (gastric stapling)	G304	Partitioning of stomach using staples

Table 4 – Diagnostic Inclusion Criteria used in this report

ICD Code	ICD Description
E66.n	Obesity

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