Prostate cancer referrals during and after the pandemic
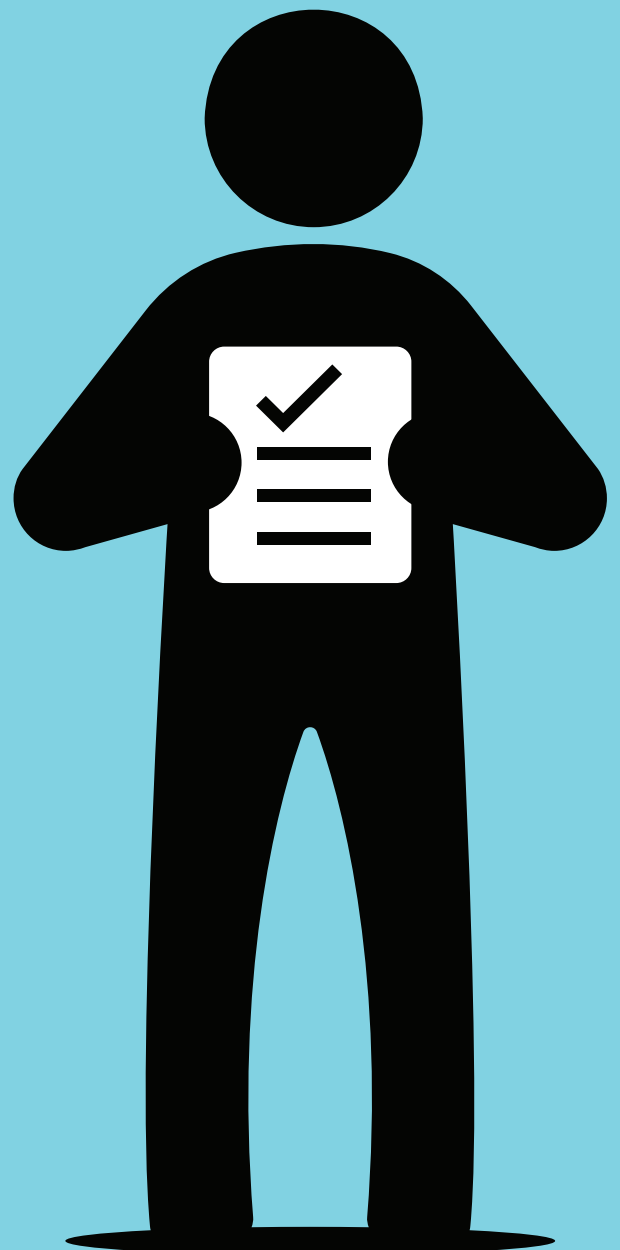
PROSTATE CANCER UK

Contents

Executive Summary

Introduction

- In the period during and after the pandemic, there have been significant changes in NHS referrals and prostate cancer awareness.

- Prostate cancer accounted for over a third of all cancer patients missing treatment as of February 2022, since the pandemic began[1]. In England alone, during the initial 12 months of the pandemic (April 2020–March 2021) there were 52,000 fewer urgent suspected cancer (USC) referrals for suspected urological malignancies compared to the same period last year. This translated to a drop in the number of men diagnosed and receiving their first treatment for prostate cancer, with around 14,000 fewer men starting treatment across the UK during that period.

- In February 2022, Prostate Cancer UK launched our first awareness-raising campaign in partnership with NHS England (NHSE), encouraging men to take Prostate Cancer UK's risk checker[2] to find out their risk of the disease. Endorsed by the health ministers from all four UK health systems, the campaign received £1.9M in funding for awareness-raising activities in England while Prostate Cancer UK contributed additional funds to support campaign activity in Scotland, Wales and Northern Ireland. Since then, we have continued our targeted awareness-raising activity, aimed at men at the highest risk.

- Here, we aimed to understand the changes in the number of prostate and urological USC referrals and first treatments during and after the pandemic, and to assess the impact of our awareness-raising activity. This report adds to existing analyses by compiling a comprehensive source of knowledge on the outlook of such numbers from April 2020 to September 2023.

Methods

- We analysed changes in the number of urological/prostate cancer USC referrals and referrals eligible for the 31-day standard ("first treatments") during and after the pandemic in England, Scotland and Wales by indexing them (of urological or prostate cancer and where data is available) to the pre-pandemic baseline (March 2019–February 2020). Regional breakdowns for treatments were made for England and Scotland. This report focused on the number of diagnoses and number of patients starting treatment ("first treatments") rather than performance against waiting times standards.

- We estimated how the cumulative treatment gap for urological cancer in England changed over the course of the pandemic. The cumulative total started in April 2020. First treatments in England excluded active surveillance[3].

Key Findings and Insights

In England, there was a substantial fall in USC referrals and first treatments for urological cancer in the initial stages of the pandemic. Treatments recovered at a significantly slower rate than other cancers, until November 2021 when USC referrals first returned to above pre-pandemic norms.

- USC referrals decreased by 25% in England in the first 12 months of the pandemic, before recovering in March 2021–February 2022 and continuing to increase to 17% above the pre-pandemic baseline in March 2022–February 2023.

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1 The data was analysed by NHSE for the "Find the 14,000" campaign.

2 Prostate Cancer UK launched an online tool – "The Risk Checker" in September 2020 to address some of the issues around informed choice and to support pandemic recovery in prostate cancer. Details on development and results can be found in: Norori, N. et al. 2024. Prostate Cancer UK's Risk Checker: help or hindrance to PSA testing policy? BJGP Open 2024.0040.
Available at: https://bjgpopen.org/content/early/2024/02/27/BJGP0.2024.0040.long

3 With exceptions detailed in Section 2.4

- Similarly, treatments decreased by 21% in the first 12 months, before showing continuous increase to 8.5% above the pre-pandemic baseline in March 2022–February 2023. Patients who receive active surveillance as their first treatment are not included in the data, and therefore treatment numbers can be used as a proxy for patients diagnosed with clinically significant prostate cancer who required treatment[4]. This suggests that our **awareness-raising activity has effectively reached men who needed their prostate cancer diagnosed and treated.**

- **Estimates of treatment gap cast doubt on a "full" recovery in first treatments for urological cancer in England, showing a gap of 7549 patients who had not yet initiated treatment as of September 2023.** However, this has been a **significant improvement** from February 2022, where the measure peaked at 17,304 and was almost double of that of breast cancer which ranked second (9,182). We estimate that around 70% of all urological cancers are prostate cancer.

In Scotland, the number of men eligible for treatment for prostate cancer decreased during the pandemic, and since then had increased steadily.

- Prostate cancer diagnoses that needed treatment decreased by 17% during the first 12 months of the pandemic. Since March 2022, there has been a sustained 20% increase in the number of men diagnosed who required treatment when compared to the pre-pandemic baseline, reaching an all-time high in 2023. This data is incomparable with England due to the difference in cancer types; England publishes urological cancer data, whereas Scotland publishes prostate cancer data.

Although urological/prostate cancer first treatments in most regions of Scotland and England are now above pre-pandemic levels, **the speed of recovery of urological/prostate cancer first treatments varied by region. In Scotland, variation has decreased with all cancer networks now showing similar levels in first treatments for prostate cancer, whereas in England, there is still marked regional variation in urological USC referrals and first treatments.** London is the region with the largest % increase in both USC referrals (+22%) and first treatments (+23%). Midlands and South East did not show a significant increase in first treatments, and Midlands and East of England showed the least increases in USC referrals (+10% and +13.1% respectively). These findings have and will continue to support the way we prioritise regions in awareness-raising activities.

In Wales, first treatments for urological cancer have remained above pre-pandemic levels. Between February 2022 and March 2023, there was a 15% increase in the number of patients treated for urological cancer.

Policy Implications and Recommendations

- Targeted awareness-raising campaigns can effectively help reach and activate men to check their prostate cancer risk, aiding health crisis recovery and helping diagnoses at an earlier stage.

- This analysis shows that first treatments (excluding active surveillance) have risen in line with USC referrals. This gives confidence that we are seeing an increase in men being diagnosed with clinically significant disease (requiring immediate treatment) and that the awareness activity has not created a surge in overdiagnosis.

- It is crucial to carefully consider the implications for our role in public health, including our responsibilities, potential dangers, and how we can fulfil these responsibilities with care.

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4 This assumes the proportion of prostate cancer patients among those initiating treatment for urological malignancies is stable over time.

1. Introduction

Changing factors around prostate cancer in the UK in the last few years have motivated the writing of this report. These factors include service disruptions in the NHS and changes in prostate cancer awareness. Firstly, the pandemic led to service disruptions, bringing adverse impacts to cancer waiting times and the stage at diagnosis of prostate cancer patients. Secondly, there have been several major factors associated with an increased awareness in prostate cancer in the last few years. Before the pandemic, the announcements by celebrities of their prostate cancer diagnoses led to elevated awareness and testing, otherwise known as the Fry-Turnbull effect. After the pandemic, Prostate Cancer UK and NHS England (NHSE) launched the "Find the 14,000" campaign in February 2022, with a focus to bring the missing men who have not started treatment for prostate cancer since the beginning of the pandemic.

There were existing analyses, but each had their respective limitations. NHSE completed an official evaluation of the "Find the 14,000" campaign in May 2023, but it was for internal use and focused on England only. Within Prostate Cancer UK, the Data and Evidence Team had conducted some ad hoc analyses, but they are mainly directed at facilitating internal discussions or at awareness-raising in communications.

We recognise that several factors could have influenced changes in the number of urological/prostate cancer USC referrals and first treatments, making challenging to isolate the "Find the 14,000" campaign, let alone causal effects. These factors include but are not limited to those around health service provision, workforce and public health measures during the pandemic. We also recognise our access to only publicly available data.

Here, we aimed to describe how the number of urological/prostate USC referrals and first treatments changed during and after the pandemic. We analysed publicly available real-world data from England, Scotland and Wales to assess if our awareness-raising activity had an impact on prostate and urological USC referrals and first treatments. Specifically, from routinely published data, first treatments serve as an indicator of men that needed to have their prostate cancer diagnosed and treated. We would be alarmed to see a situation where the number of USC referrals substantially increased but no increase was observed in first treatments.

This report adds to the existing analyses by compiling one singular, comprehensive source of knowledge for future organisational reference, that uses the most recent data as of time of writing. Furthermore, it aims to create a coherent and updated narrative of (i) the impact of the pandemic on prostate cancer (ii) what recovery in missing urological cancer patients looks like at the time of writing, and (iii) how the results may inform Prostate Cancer UK moving forward. This report, however, will not cover the NHS's performance in reaching cancer waiting times targets nor actual waiting times duration.

2. Data sources and definitions

2.1 Cancer waiting times standards evaluated

▼ **Table 1.** Cancer waiting times standard analysed in this report

Devolved nation	Standard	Cancer type	Clock start	Clock end	Description
England	31 day wait	Urological	Decision to treat	First definitive treatment	Patients first treated
England	Two week wait	Suspected urological malignancies	Urgent GP referral	First outpatient appointment	Urgently suspected cancer (USC) referrals, also referred as two-week wait referrals
Scotland	31 day wait	Prostate	Decision to treat	First definitive treatment	Patient first treated
Wales	31 day wait	Urological	Decision to treat	First definitive treatment	Patient first treated

This report analysed publicly available cancer waiting times data in England, Scotland and Wales. Differences in cancer types and reporting frequency across the three nations are summarised in Table 1.

For Wales, this report analysed referrals eligible for the 31-day standard for urological cancer, which refers to first definitive treatments administered for urological cancer after a decision to treat. Hereby they are referred to as " first treatments".

For England, in addition to 31-day treatments for urological cancer, this report also analysed referrals eligible for two-week wait standard for non-testicular urological cancer, hereafter referred to as urgent suspected cancer (USC) referrals. USC referrals includes individuals referred for further investigation for suspected urological cancer. Although prostate-specific data is not published, we have estimated that around 70% of all urological cancers are prostate. Note that this report analysed England data before the major update in October 2023, where cancer types will be stratified to a higher granularity which includes prostate-specific data.

For Scotland, this report analysed referrals eligible for the 31-day standard ("first treatments") for prostate cancer, which covers the time from decision to treat to first treatment, regardless of the roue of referrals. Data is published quarterly, in which the time granularities of the data at the levels of Scotland and regional cancer networks are monthly and quarterly respectively.

This report did not analyse data from Northern Ireland, as data was first published in April 2023.

2.2 USC referrals and first treatments

It is necessary to look at first treatments in addition to USC referrals, because USC referrals alone only cover part of the situation. While USC referrals provide insights on the number of men presenting into the NHS for urological cancer investigations, the number of first treatments is an indicator, based on routinely published data, of men that are presented into the system that needs to be diagnosed and treated, and help us understand whether our awareness activity is reaching the right men.

2.3 Treatment gap

The treatment gap was derived by the difference between the actual cumulative number of first treatments and the expected cumulative total (as estimated by the monthly average number of first treatments between March 2019–February 2020). The cumulative total started from April 2020.

A potential concern is how the temporal trend over the past decade affects this estimate in the size of the treatment gap. Urological USC referrals were increasing over the past decade. If this trend is also true in 31D treatments, this would lead to an underestimate of the expected baseline, an overestimate of the recovery and thus an underestimate of the treatment gap.

2.4 Exclusion of active surveillance from first treatments in England

In data published by NHS England, all patients newly diagnosed with low or low-intermediate risk prostate cancer are automatically coded as "initiating active surveillance" and thus excluded from 31-day treatments. However, they are included if they later decided to initiate treatment.[5]

A subset of CPG3 patients, albeit eligible for active surveillance, are not automatically coded this way, but it is reasonable to assume this subset constitutes a small proportion of patients. In detail, low risk prostate cancer is defined as T1-T2a, PSA <10ng/mL and Gleason score ≤6, whereas low-intermediate risk is defined as T2b, PSA between 10-20 ng/mL and Gleason score 7 (3+4 only). This classification poses a unique situation for patients falling under the CPG3 category who had Gleason Score 4+3 and T stages T1-T2. Despite being eligible for active surveillance, they are categorized as neither low or low-intermediate risk and therefore are not automatically coded as "initiating active surveillance" upon diagnosis.

2.5 Definition of time windows

Monthly data were aggregated by 12-month time windows to allow comparison with baseline. The duration of the windows was selected to be 12 months to adjust for potential effects of seasonality within the year. The start of the window was chosen to be March to align with the launch of the 'Find the 14,000' campaign in February 2022 and to assess the campaign's impact in the following 12 months.

The pre-pandemic baseline was defined to be March 2019–February 2020.

▼ **Figure 1.** Timeline of key events around prostate cancer awareness and time periods of data aggregation, with reference to the waves of the pandemic.[6]
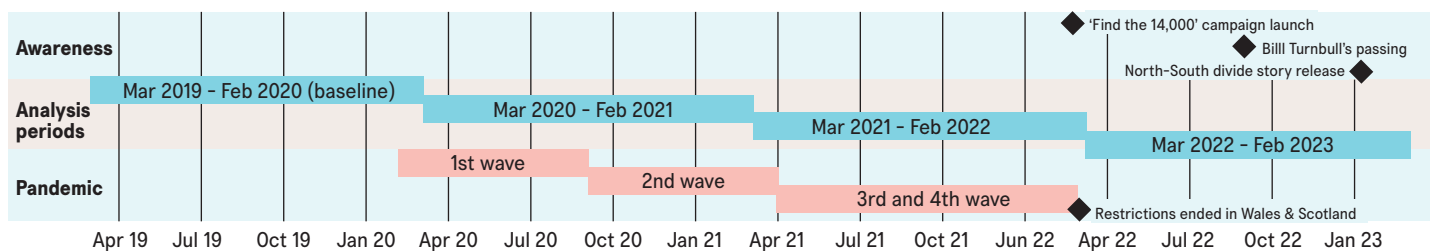
5 NHS England, August 2023. National Cancer Waiting Times Monitoring Dataset Guidance (version 12.0). Accessed 26 January 2024. Available from https://www.england.nhs.uk/wp-content/uploads/2023/08/PRN00654-national-cancer-waiting-times-monitoring-dataset-guidance-v12.pdf (Section 3.10.6)

6 There is no single definition of the waves of the pandemic. In this report, we have adapted definitions from the British Medical Association's review on healthcare delivery during COVID-19. British Medical Association, 26 June 2022. Delivery of healthcare during the pandemic. Accessed 1 February 2024. Available online from https://www.bma.org.uk/advice-and-support/covid-19/what-the-bma-is-doing/covid-19-impact-of-the-pandemic-on-healthcare-delivery

3. England

3.1 Urological USC and first treatments in England

Urological USC referrals and first treatments showed upwards trends in general since October 2009, when the earliest available data was published. The pandemic led to service disruptions starting April 2020 of an unprecedented scale, as shown in Figure 2.

USC referrals

Monthly USC referrals since January 2019 are shown in Figure 3 and compared with the pre-pandemic baseline in Table 2.

During the peak of the pandemic, there was a big drop in urological USC referrals. There were only 168,812 USC referrals in March 2020–February 2021, translating to 56,000 fewer people referred each month, a 24.8% decrease when compared to the pre-pandemic baseline.

USC referrals recovered to around pre-pandemic baseline in the following 12-month period. In March 2021–February 2022, the number of USC referrals increased by 56,800 to 225,612, which was 100.5% of the pre-pandemic baseline.

From March 2022 to February 2023, USC referrals further increased to 262,044, a 16.7% increase when compared to the pre-pandemic baseline. This resulted in an additional 37,526 patients being referred during this timeframe when compared to the pre-pandemic baseline. On average, around 21,800 were referred each month for suspected urological cancer during the year of the "Find the 14,000" campaign. Notably, USC referrals reached an all-time high in November 2022, with over 25,000 patients referred for suspected urological cancer that month.

First treatments

Monthly first treatments for urological cancer are shown in Figure 4. Similar to USC referrals, monthly first treatments for urological cancers dipped during the pandemic but continued to recover to a level above pre-pandemic monthly average since May 2021.

Table 2 compares monthly first treatments to the pre-pandemic baseline. In the initial stages of the pandemic (April 2020), monthly treatments halved. During the first 12 months of the pandemic (March 2019–February 2020), 48,952 patients started treatment, which was 12,947 (20.9%) less than the pre-pandemic baseline. Treatments showed some recovery in the following 12-month period. Treatments increased by 9,518 to 58,470, which is 94.5% of the pre-pandemic baseline.

Treatments then further recovered to above the pre-pandemic baseline. Between March 2022 and February 2023, 67,142 patients were treated for urological cancer, an increase by 8,672 when compared to the period before, and an increase by 5,243 (+8.5%) when compared to the pre-pandemic baseline. These measures did not include patients starting active surveillance, with minor exceptions as noted in Section 2.1.

The sustained increase in treatments for urological cancer suggests our awareness-raising activity reached the right men – not only more men were referred for investigation, this also effectively translated to more men initiating treatment.

▼ **Figure 2.** Monthly urological USC referrals and first treatments in England. October 2009– September 2023.
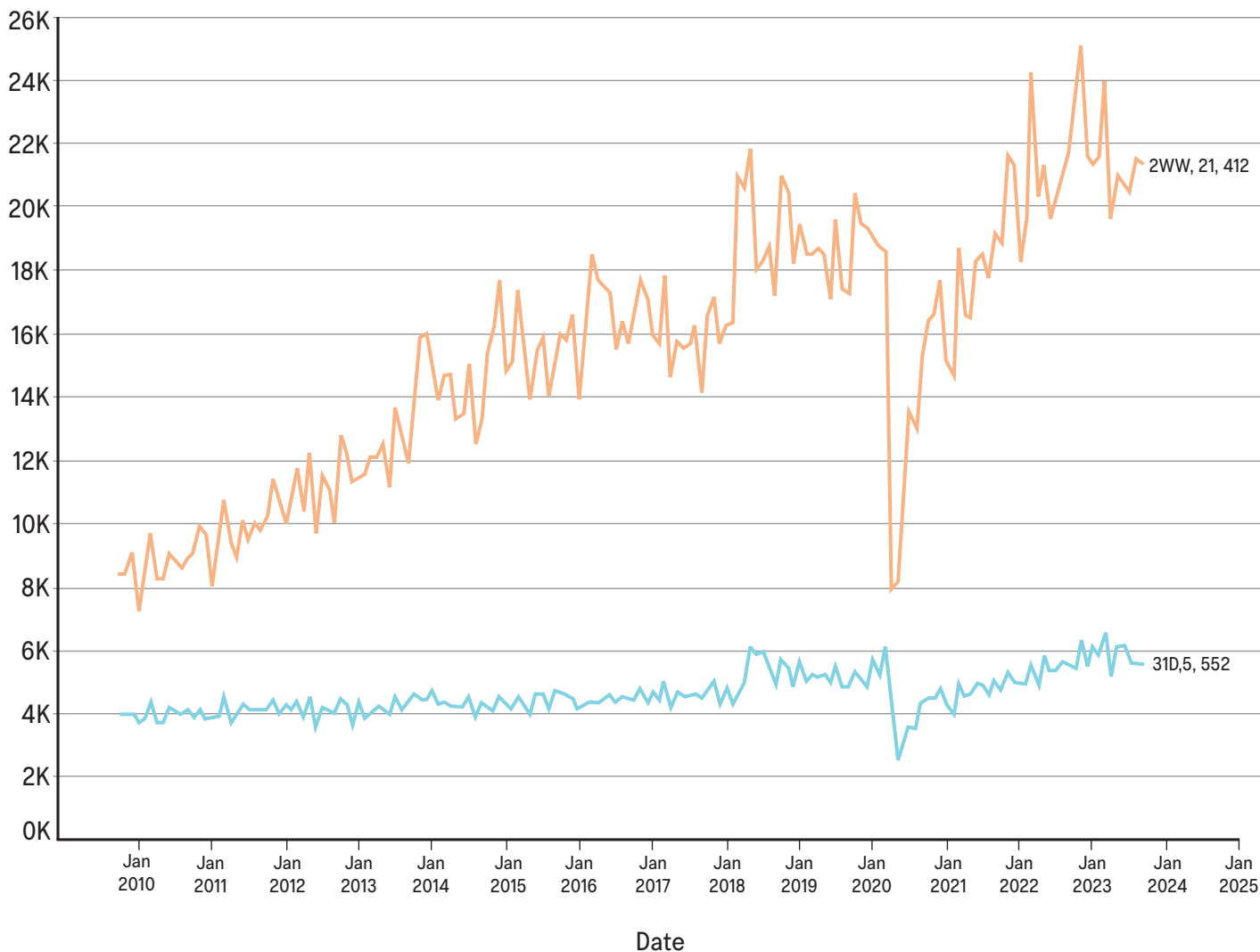
▼ **Figure 3.** Urological USC referrals in England. January 2019–September 2023, compared to pre-pandemic baseline monthly average.
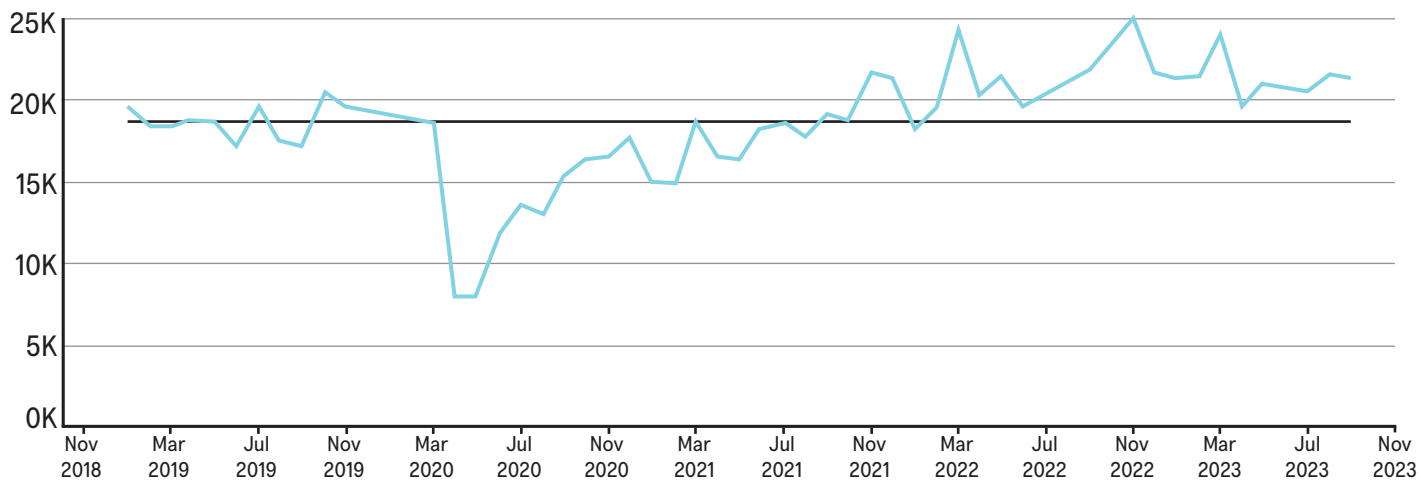
▼ **Figure 4.** Urological treatments in England, January 2019–September 2023, compared to the pre-pandemic baseline monthly average.
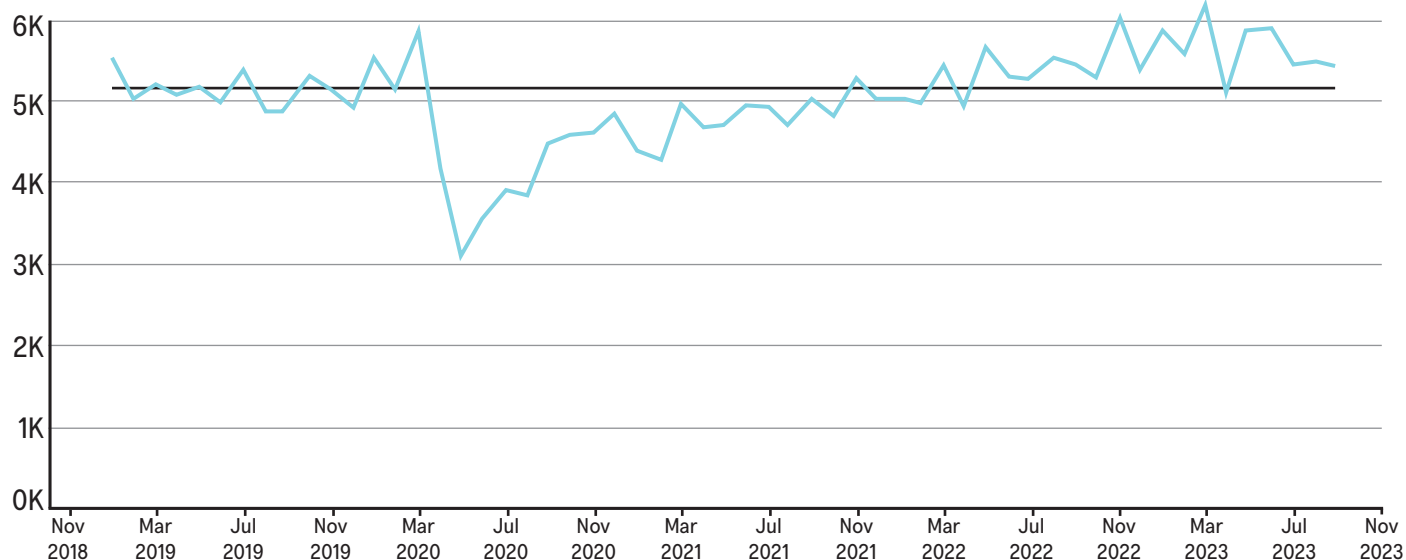
▼ **Table 2.** USC referrals and treatments for urological cancer in England by 12-month period, March 2019–February 2023.

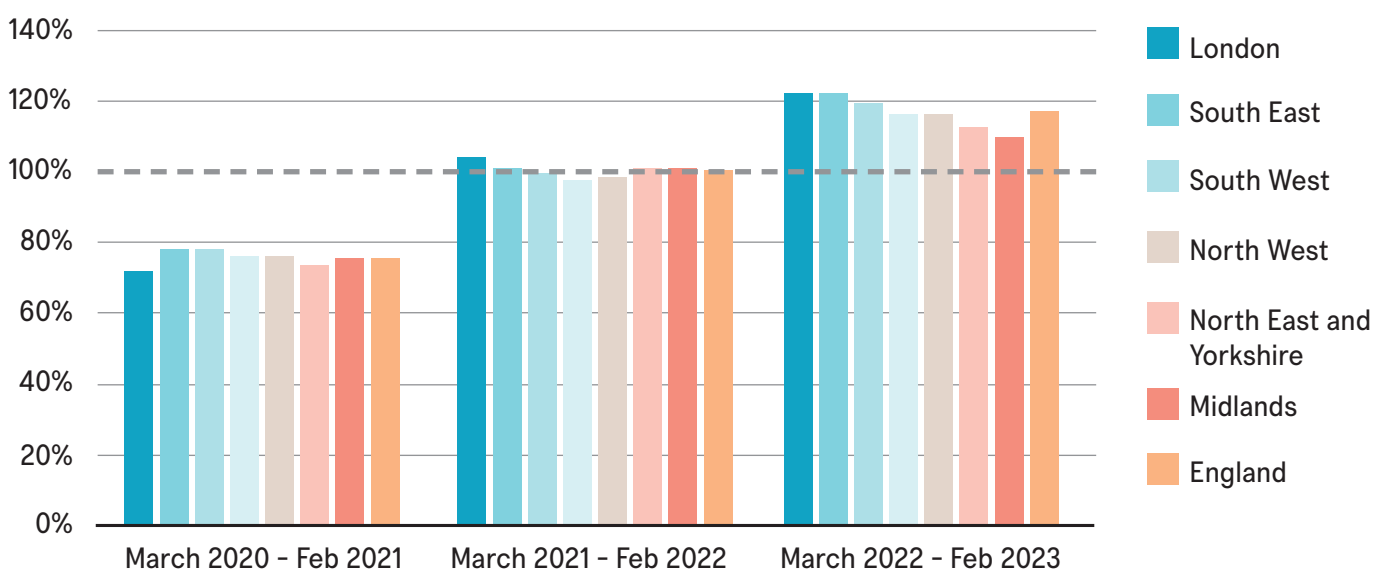|	USC referrals				Patients first treated			
Period	USC referrals	Monthly USC referrals	% of baseline	Change in USC referrals compared to period before	Patients treated	Monthly patients treated	% of baseline	Change in patients first treated compared to period before
March 2019 - Feb 2020 (baseline)	224,518	18,709.8	100%		61,899	5,158.3	100%	
March 2020 - Feb 2021	168,812	14,067.7	75.2%	–55,706	48,952	4,079.3	79.1%	–12,947
March 2021 - Feb 2022	225,612	18,801.0	100.5%	+56,800	58,470	4,872.5	94.5%	+9,518
March 2022 - Feb 2023	262,044	21,837.0	116.7%	+36,432	67,142	5,595.2	108.5%	+8,672

3.2 Regional variation in urological USC referrals and first treatments

USC referrals

Figure 5 showed USC referrals indexed to the pre-pandemic baseline across NHSE regions (complete data in Table 5). Since the launch of the "Find the 14,000" campaign, the number of USC referrals continued to increase and all seven NHSE regions showed a recovery above the pre-pandemic baseline.

When indexed in proportion to pre-pandemic baseline, the increase in USC referrals in March 2022–February 2023 ranged from +22.1% in London to +10.1% in Midlands. Following London, South East and South West were above the England average (+16.7%) at +21.5% and +19.1% respectively, while North West, North East and Yorkshire, East of England and Midlands were below the England average at +16.5%, +15.8%, +13.1% and +10.1% respectively. Notably, London experienced the largest drop in USC referrals (–29% in March 2020–February 2021) during the pandemic, but also the largest recovery (+22.1% in March 2022–February 2023).

▼ Figure 5. Urological USC referrals in England by 12-month period and NHSE regions, in proportion to pre-pandemic baseline, March 2020-February 2023.
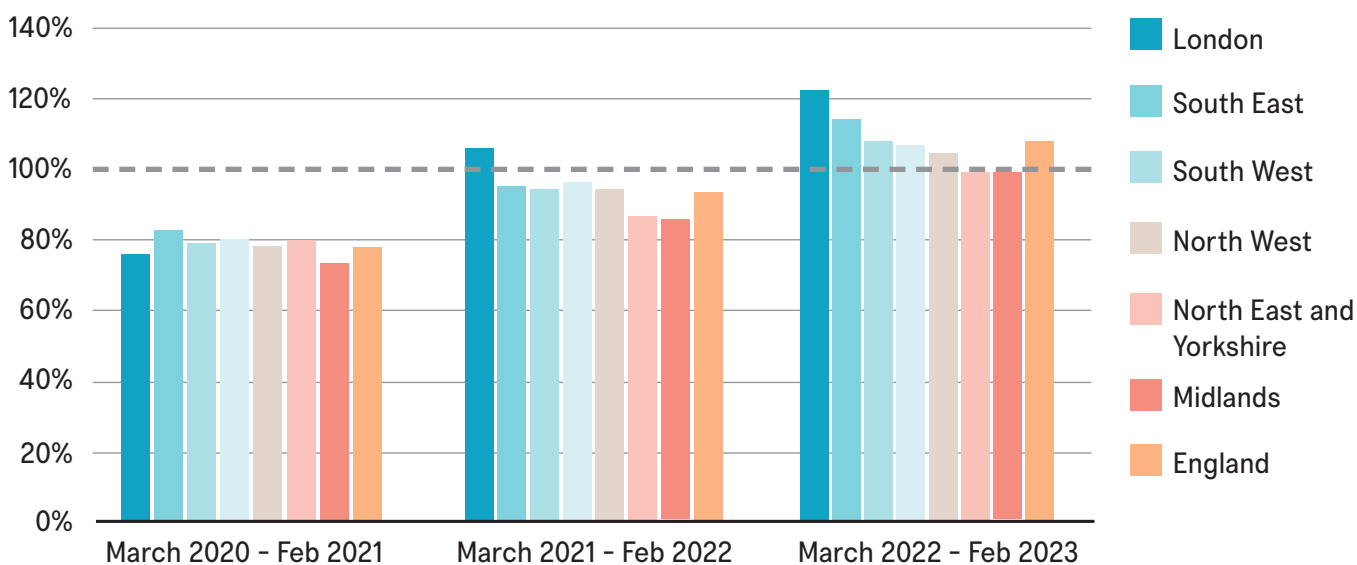
First treatments

Figure 6 showed treatments indexed to the pre-pandemic baseline across NHSE regions. Since the launch of the "Find the 14,000" campaign in February 2022, the number of USC referrals continued to increase and all seven NHSE regions showed a recovery above the pre-pandemic baseline.

However, there was a larger regional variation in treatments than in USC referrals. When indexed to pre-pandemic baseline, treatments in March 2022–February 2023 ranged from largely comparable to baseline (−0.1% in Midlands) to a marked increase (+23.4% in London).

Following London, South East and North East and Yorkshire were above the England average of +8.5% at +15.4% and +8.9%, while North West, East of England, South West and Midlands were below the England average at +7.6%, +5.3%, +0.2% and −0.1% respectively.

Unlike USC referrals, a large number of treatments missed during the pandemic would create a treatment gap. This is investigated in the following section (2.3.3).

▼ Figure 6. Treatments for urological cancer in England by 12-month period and NHS England regions, in proportion to pre-pandemic baseline, March 2020–February 2023.

## 3.3 Comparing the treatment gap in urological cancer to other cancers

Rationale: A cumulative treatment gap is needed to assess the extent of recovery.

Unlike USC referrals, a large number of first treatments missed during the pandemic would create a treatment gap, under the assumption that patients not initiating treatments are still likely to start treatment but only in later months. Therefore, to compensate for the gap created during the pandemic, first treatments at a comparable level to the pre-pandemic baseline are unlikely to be sufficient, but a level higher than baseline would be needed for a full recovery of the effects of the pandemic.

Monthly first treatments in six cancer types

In England, monthly first treatments across all six reported types of malignancies showed various degrees of decrease during the pandemic. The trends over time were displayed along the pre-pandemic monthly average in Figure 7.

▼ **Figure 7.** Monthly first treatments by cancer type in England. April 2018–September 2023. Highlighted period: March 2020–September 2023. Dotted line: pre-pandemic baseline monthly average.
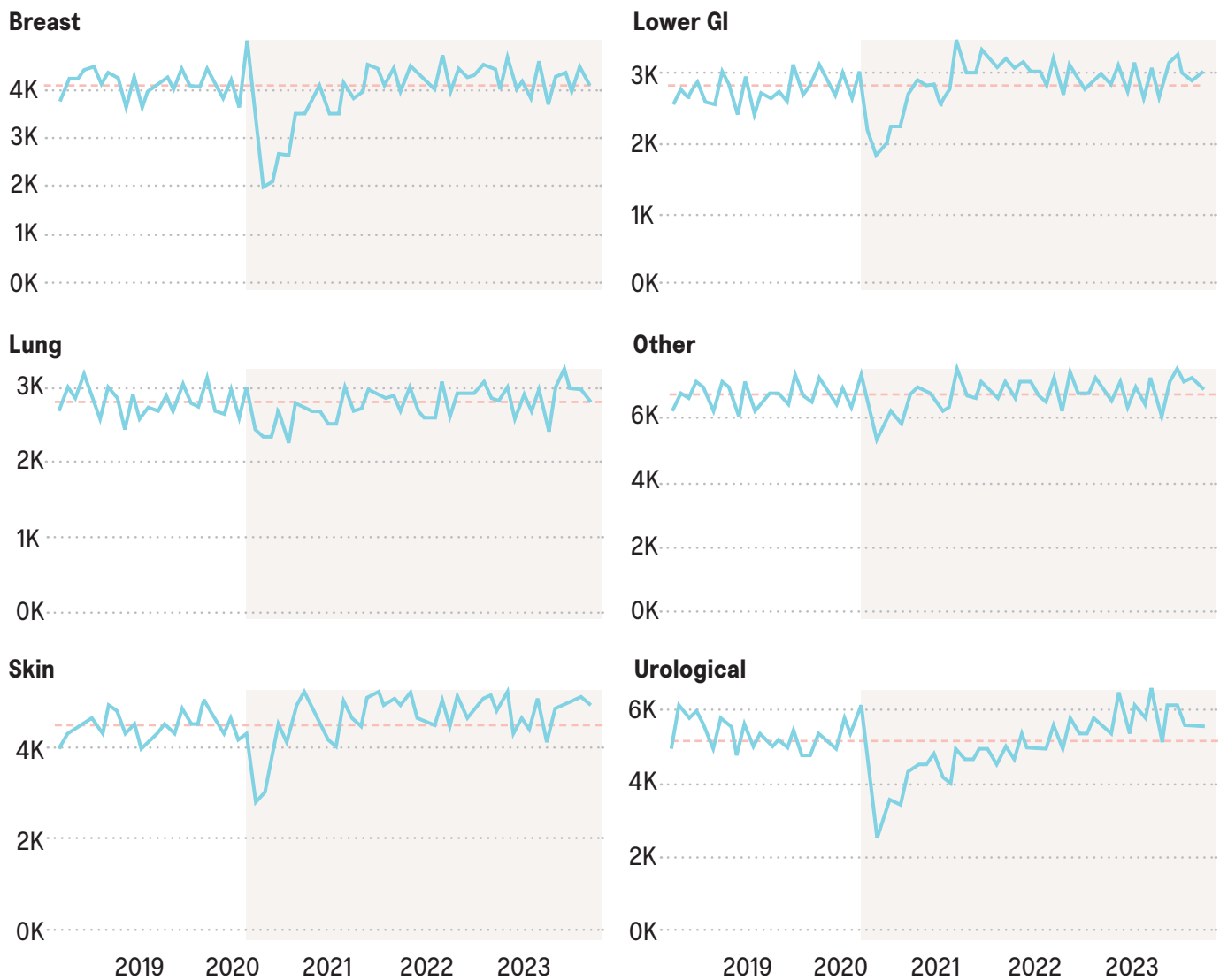
In the six cancer types, first treatments reached their lowest point in April or May 2020. In May 2020, treatments for urological and breast cancer decreased to 2,501 and 1,951 respectively, which were 47.8% and 46.9% of the pre-pandemic monthly baseline respectively.

Meanwhile, some other cancer types showed a less marked decrease, including lower GI cancer, lung cancer and other cancers. Since May 2022, urological treatments have been consistently above the pre-pandemic monthly average for a period of over 15 months except April 2023.

Treatment gap in February 2022

The treatment gap in urological cancer reached its peak in February 2022, when a cumulative total of 17,304 patients diagnosed with urological cancer did not initiate treatment, as displayed in Figure 8A. The treatment gaps in the six reported types of malignancies in descending order were 9,182 (breast cancer), 3,057 (other cancer), 2,876 (lung cancer), 199 (lower GI cancer) respectively. Skin cancer had a negative treatment gap, meaning that the actual number of patients initiating treatment exceeded the expected number.

The treatment gap in urological cancer is the largest in terms of absolute number among the six reported types of malignancies and is 8,122 patients (88.5%) larger than the second-highest treatment gap in breast cancer.

We also indexed the treatment gap in proportion to the monthly number of treatments to facilitate comparison, as shown in Figure 8B. In relative terms, the treatment gap in urological malignancies also ranked the highest among cancer types, where the gap is equivalent to 3.35 times of the monthly average number of patients treated.

Accumulation and recovery of treatment gap over time

Figure 9 contrasted the trajectories of how the cumulative treatment gap changes over time in different cancer types, where zero represents no deviation of the cumulative observed total from the cumulative expected total (based on pre-pandemic monthly average). The treatment gaps were the biggest in the first half of 2021 for most cancer types, and continued to decrease until September 2023, which was the month the latest data was available.

Urological cancer was the slowest to end the widening in the treatment gap, as shown in Figure 9A. In urological cancer, the gap continued to accumulate since the start of the pandemic, and peaked in February 2022 at 17,304, before the cumulative difference starts to decrease.

Other cancer types reached the point of reversal earlier than urological cancer, namely skin cancer and lower GI cancer in the second half of 2020, and breast cancer in the first half of 2021. Lung cancer and other cancer does not seem to show a trend to reverse this cumulative difference.

Section summary

We derived the treatment gap in first cancer treatments in England by estimating the difference between the actual cumulative total number of treatments and the expected cumulative total, starting from April 2020. The actual total number is the recorded number of treatments each month, and the estimated treatments are the monthly average of the first treatments between March 2019–February 2020.

Although the treatment gap for urological cancer is still the largest among the six reported types of cancers (including breast cancer, where 6,000 fewer patients have initiated treatment than expected), it is encouraging to see it has been significantly reduced since February 2022.

Back in February 2022, over 17,000 patients had not initiated treatment for urological cancer (this is different from the 14,000 men for prostate). The treatment gap for urological cancer was the largest across all cancer types and was 50% larger than that for breast cancer. This gap was reduced to 12,061 patients in February 2023. and further reduced to 7,529 patients in September 2023, which was a 56.4% decrease (9,775) from February 2022.

We are confident that this decrease in the treatment gap can be attributed to a strong continuous recovery, amongst other factors. This shows the impact of our external partnerships with the NHS but also of our internal investment into our awareness-raising activity. Our continuous awareness-raising activity is helping find the men who need treatment for urological cancer, but there is still a long way ahead before a full pandemic recovery is reached.

▼ **Figure 8.** Cumulative post-pandemic treatment gap in cancer treatments by cancer type in England, starting April 2020. February 2022, February 2023 and September 2023. (A) number of patients. (B) number of patients in proportion to pre-pandemic baseline monthly average.

Figure 9. Monthly treatment gap by cancer type in England (cumulative total starting April 2020), April 2020–September 2023. (A) Number of patients. (B) In proportion to the pre-pandemic baseline monthly average.
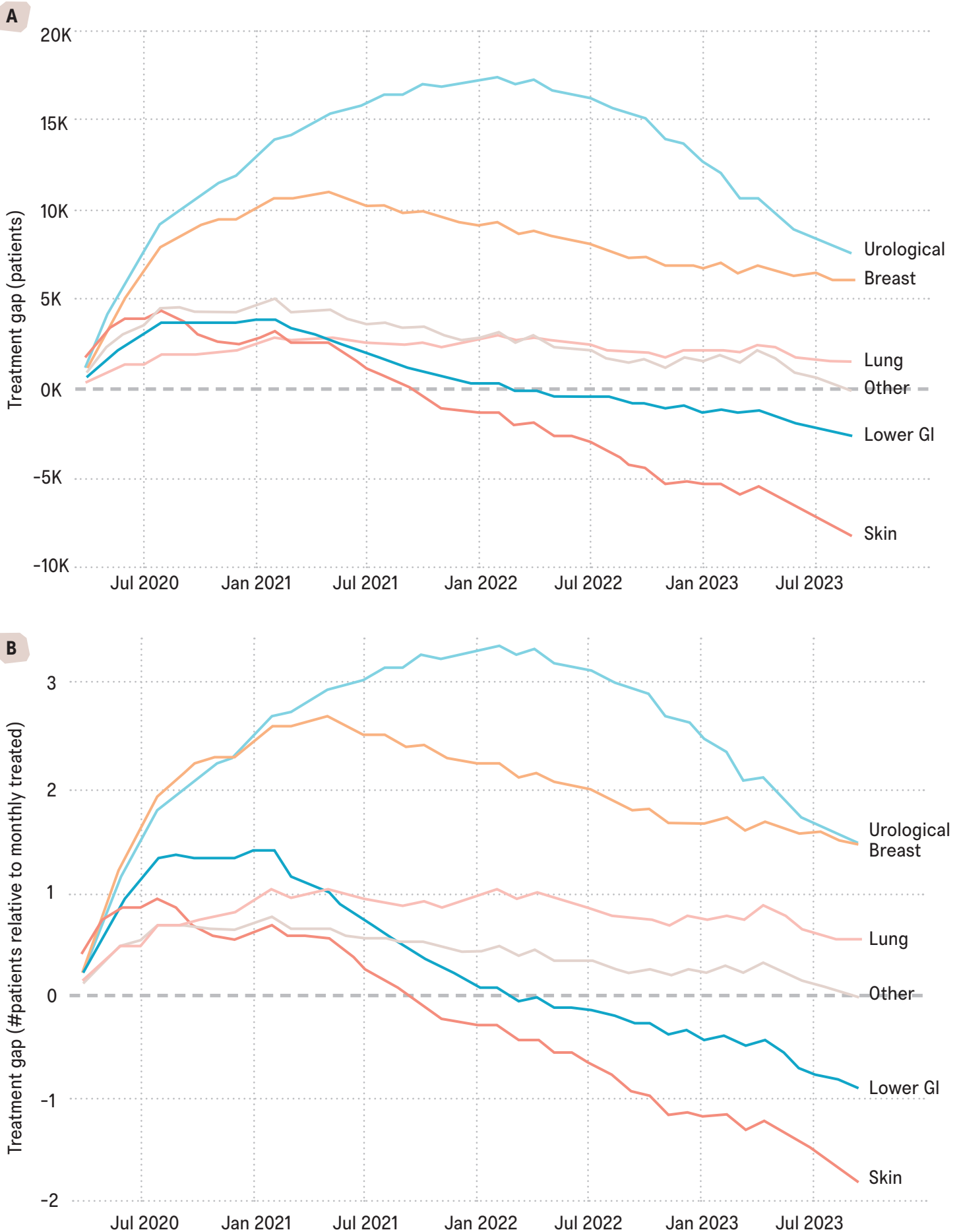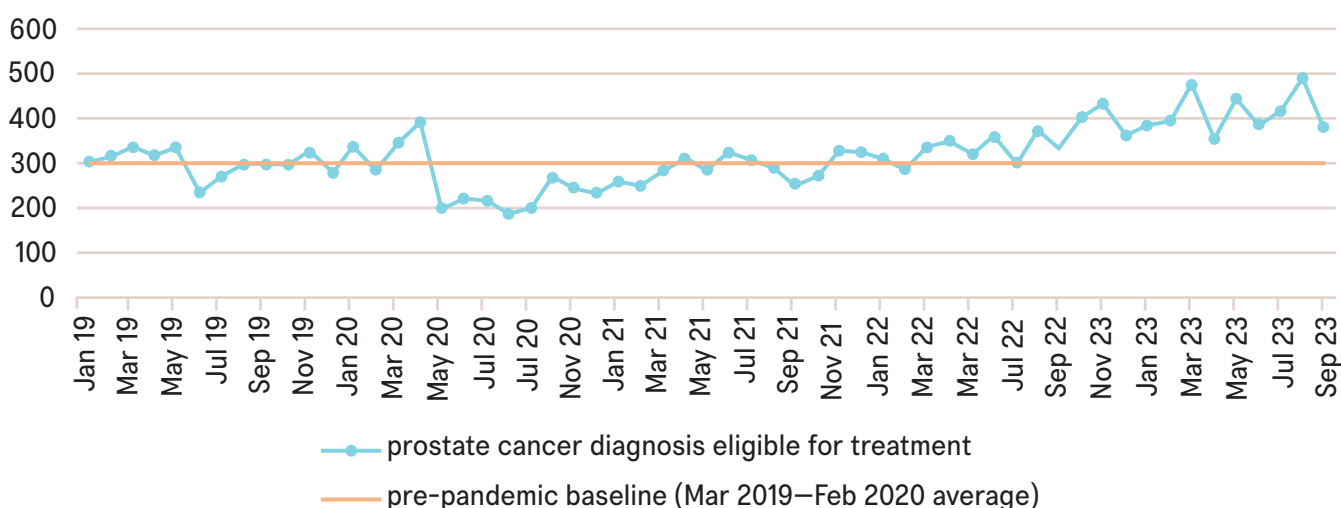
4. Scotland

4.1 Prostate cancer treatments in Scotland

Figure 10 and Table 3 summarise the treatments for prostate cancer in Scotland. In the first 12 months since April 2020, treatments decreased to 3,016 (16.3% decrease compared to pre-pandemic baseline). In the following 12-month period, treatments recovered to levels in line with the pre-pandemic baseline (0.8% decrease).

In the first year after our 'Find the 14,000' campaign (March 2022–February 2023), 4,338 men were diagnosed with prostate cancer and eligible for treatment, which was 733 (+20.3%) additional men diagnosed when compared to the pre-pandemic baseline. Monthly treatments increased and reached an all-time high in March 2023 with 475 men diagnosed for prostate cancer eligible for treatment that month, and again in August 2023 with 489 men, which were 58.1% and 62.8% higher than the pre-pandemic baseline respectively.

Monthly treatments continued to increase between March and September 2023, with over 420 men treated per month on average, representing a 39.9% increase from the pre-pandemic baseline.

▼ **Figure 10.** Prostate cancer treatments in Scotland. January 2019–September 2023

prostate cancer diagnosis eligible for treatment

pre-pandemic baseline (Mar 2019—Feb 2020 average)

▼ **Table 3.** Treatments for prostate cancer in Scotland by 12-month period, March 2019–February 2023

Period	Treatments	Monthly treatments	% of baseline	Change in treatments compared to period before
March 2019—Feb 2020	3,605	300.4	100%	N/A [1]
March 2020—Feb 2021	3,016	251.3	83.7%	–589
March 2021—Feb 2022	3,575	297.9	99.2%	+559
March 2022—Feb 2023	4,338	361.5	120.3%	+763
March 2023—Sep 2023	2,943	420.4	139.9%	N/A [2]

[1] Data is published up to January 2019 and data between March 2018 and December 2018 are not publicly available. [2] The total is incomparable with the period before due to differences in duration and other potential factors, including but not limited to seasonality.

4.2 Regional variation in prostate treatments

Figure 11 shows the number of men diagnosed and eligible for treatment by financial year (FY). We can see how all regions started to recover at different paces in FY 2021/22. It is encouraging to see that in FY 2022/23, all regions have recovered consistently with the national average, showing that all regions are diagnosing and treating at least 20% more men than the pre-pandemic baseline.

▼ **Figure 11.** Treatments for prostate cancer in Scotland indexed to pre-pandemic baseline, by financial year and regional cancer networks, FY 2020/21–FY 2022/23. WoSCAN, West of Scotland Cancer Network. NCA, The North Cancer Alliance. SCAN, South East Scotland Cancer Network.
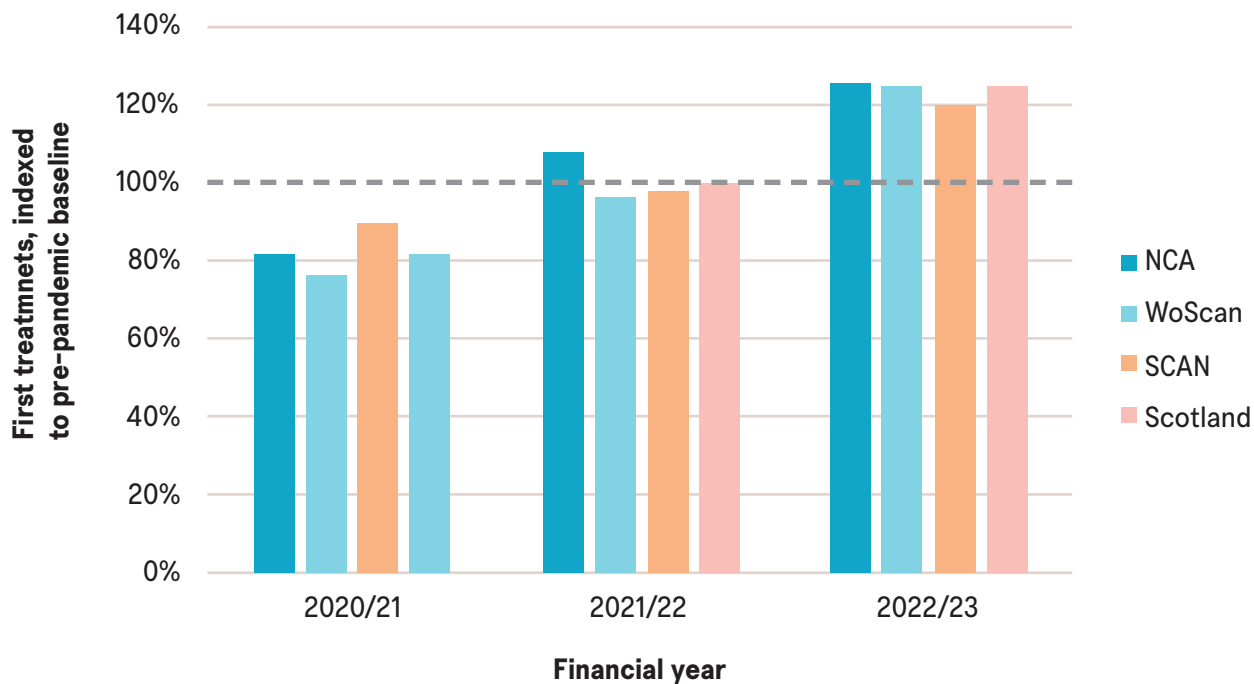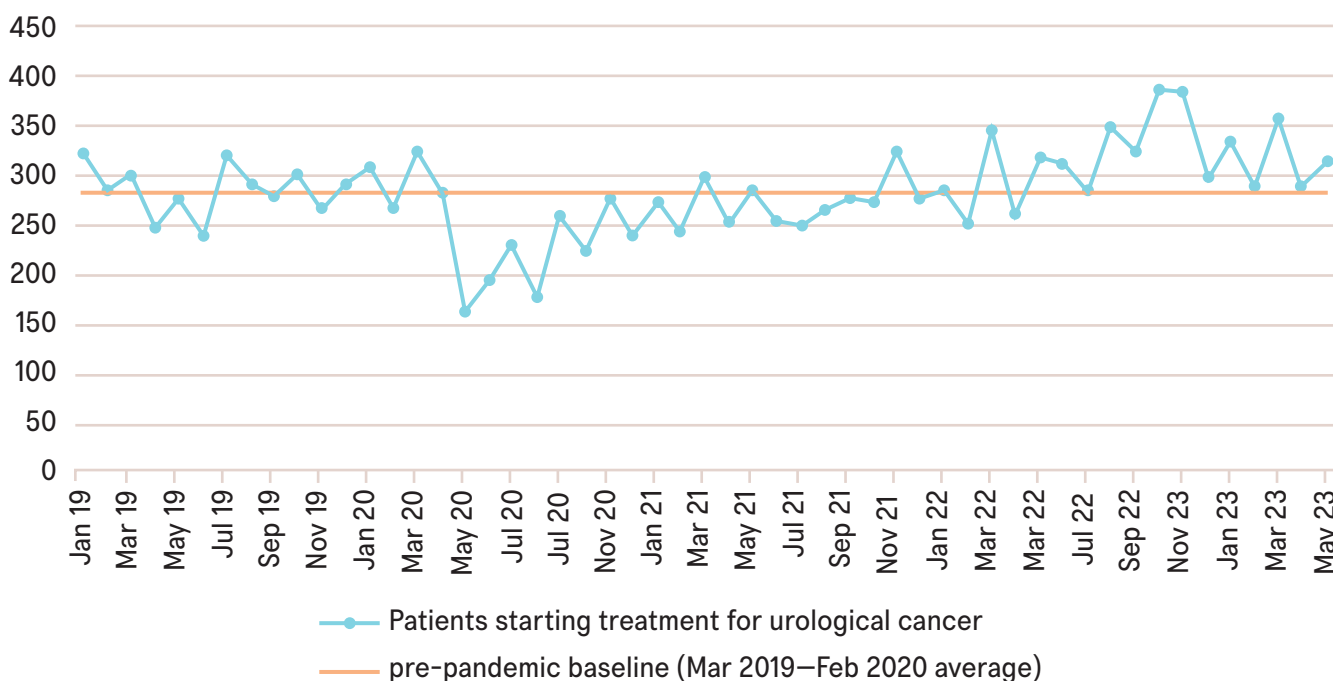
5.Wales

5.1 Urological treatments in Wales

512 (−15.1%) fewer patients received their first definite treatment for urological cancer in March 2020–February 2021 when compared to the pre-pandemic baseline. In March 2021–February 2022, the number of patients receiving their first treatment almost returned to pre-pandemic levels, with only 2.9% fewer patients treated when compared to the pre-pandemic period. In comparison, between March 2022 and February 2023, 3,903 patients started treatment for urological cancer, an additional 599 when compared to baseline, representing a 14.8% increase in treatments.

▼ **Figure 12.** Treatments for urological cancer in Wales, January 2019–May 2023

Patients starting treatment for urological cancer

pre-pandemic baseline (Mar 2019—Feb 2020 average)

▼ **Table 4.** Treatments for urological cancer administered by year in Wales, March 2019–February 2023

Period	Treatments	Monthly treatments	% of baseline	Change in treatments compared to period before
March 2019—Feb 2020	3,401	283.4	100%	N/A
March 2020—Feb 2021	2,889	240.8	84.9%	−512
March 2021—Feb 2022	3,304	275.3	97.1%	+415
March 2022—Feb 2023	3,903	325.3	114.8%	+599

6. Regional summary

▼ **Table 5.** Regional summary for key statistics. EoE, East of England. LDN, London. MID, Midlands. NEY, North East & Yorkshire. NW, North West. SE, South East. SW, South West. ENG, England. SC, Scotland. WA, Wales.

Statistic		Period	Region									
			EoE	LDN	MID	NEY	NW	SE	SW	ENG	SC	WA
USC referrals	% indexed to baseline	Mar 2020–Feb 2021	73.8%	71.0%	75.3%	75.8%	75.9%	77.5%	77.7%	75.2%	N/A [2]	N/A [2]
		Mar 2021–Feb 2022	100.7%	103.8%	101.2%	98.4%	97.9%	100.0%	100.3%	100.5%	N/A [2]	N/A [2]
		Mar 2022–Feb 2023	113.1%	122.1%	110.1%	115.8%	116.5%	119.1%	121.5%	116.7%	N/A [2]	N/A [2]
First treatments [1]	% indexed to baseline	Mar 2020–Feb 2021	78.4%	76.6%	74.1%	80.0%	81.0%	80.9%	83.3%	79.1%	83.7%	84.9%
		Mar 2021–Feb 2022	94.8%	106.7%	86.2%	95.4%	97.3%	87.7%	96.2%	94.5%	99.2%	97.1%
		Mar 2022–Feb 2023	105.3%	123.4%	99.9%	108.9%	107.6%	100.2%	115.4%	108.5%	120.3%	114.8%
Cumulative treatment gap since April 2020 [1]	indexed to baseline's monthly average	Feb 2021	2.84	2.88	3.19	2.57	2.47	2.31	2.48	2.69	2.11	1.96
		Feb 2022	3.46	2.08	4.85	3.12	2.8	2.77	3.96	3.35	2.21	2.30
		Feb 2023	2.83	-0.73	4.86	2.06	1.89	0.92	3.94	2.34	-0.23	0.70
		Sep 2023	2.29	-2.41	4.59	1.3	0.83	-0.57	3.46	1.46	-3.02	-0.41

[1] Treatments for urological cancer eligible for the 31-day standard in Wales, England and regions of England. Treatments for prostate cancer eligible for the 31-day standard in Scotland. It is not recommended to make direct comparisons between regions with different reported cancer types.

[2] This data is not available because the raw data is not published.

7. Policy implications and Recommendations

Given the impact outlined in this report that risk-awareness campaigns can make on the referral, diagnosis, and treatment rates for prostate cancer, we have to consider the implications for the role of our charity in public health, including our responsibilities, dangers and ways to execute these responsibilities with the necessary care.

Prostate Cancer UK is a nationally regarded brand, and as a trusted organisation whose stated mission entails working to eradicate the impact of prostate cancer on men:

- How should we define our responsibilities when it comes to improving outcomes for men when the best method of doing so is by getting them diagnosed earlier?
- And, how do we reckon with the risks of over-diagnosis and over-treatment, that men are put at by doing so?

To answer the above questions, our strategic objectives are defined against the Government's Prostate Cancer Risk Management Programme (PCRMP), i.e.

"Reach and activate more men to make an informed choice about their prostate cancer risk."

There are pros and cons to any medical intervention, it is up to the individual to make their own choices when it comes to their healthcare. But, in making that choice they should be fully informed.

This is the basis for the Prostate Cancer UK Risk checker which mirrors the guidance within the PCRMP. Men that engage with the Risk checker can understand their risk and make an informed choice about whether the PSA blood test is right for them.

Men can make a choice only if they are aware that there is one to make. In the wake of the pandemic, it became increasingly important to raise that awareness as the data made clear that men were at risk of being diagnosed late and suffering worse outcomes.

Post-pandemic, the considerations above have developed into questions about how this activity fits into the new-normal of UK healthcare.

Thanks to the analysis that led to this report we can deliver risk-awareness activity that is defined by more than just recovering national rates. We can target areas where the data suggests men are being diagnosed late; or where, based on risk factors, we know there is a greater number of men at higher risk of prostate cancer or higher risk of worse outcomes from prostate cancer.

As for the risks of this activity, mentioned above, if treatments do not increase correspondingly with diagnoses, it is an indication that men are being over-diagnosed. Thanks to this analysis we know this is not the case.

We are, arguably, in the privileged position of having at our disposal the tools, resources and understanding to deliver public health interventions which will mitigate the impact of prostate cancer for men, the healthcare system, and for the UK.

8. Limitations

In this section the limitations of this report are discussed. Firstly, we are limited by the scope of the published open data. England, Wales and Northern Ireland did not publish data specific to prostate cancer, and this report does not cover Northern Ireland which first reported data in April 2023. Although we estimated that 70% of urological USC referrals were for prostate cancer based on information shared by NHSE, we are unsure how this proportion changed over the course of the pandemic. This would affect the accuracy of our estimation of treatment gap and post-pandemic recovery.

Moreover, the results presented are sensitive to the choice of the baseline period. We did not perform sensitivity analysis, so for example the treatment gaps were estimates, but the general conclusions remain in that USC referrals and first treatments continued to increase from pre-pandemic levels, and we also presented evidence to question whether a full recovery.

This report covered a period under the strong influence of many one-time if not unprecedented events. The nature of these events, including the Fry & Turnbull effect and the Covid-19 pandemic, contributes to the difficulty in establishing a reliable baseline, that is a "what if" scenario where such event(s) did not occur. We did not incorporate historical data before 2019 in our main analysis, but it is reasonable to estimate that the general upwards trends would likely underestimate the cumulative treatment gap, rather than an overestimate.

9. Conclusions

This report provides evidence of the impact of the COVID-19 pandemic on the number of men getting referred and treated for urological/prostate cancer. Our findings suggest that targeted awareness-raising campaigns can effectively help reach and activate men to check their prostate cancer risk, aiding health crisis recovery and averting late-stage diagnoses. These results can assist in shaping policy and health advocacy efforts in prostate cancer to guarantee that men receive necessary information for making informed decisions about their prostate cancer risk and the PSA blood test, ultimately improving outcomes for men.