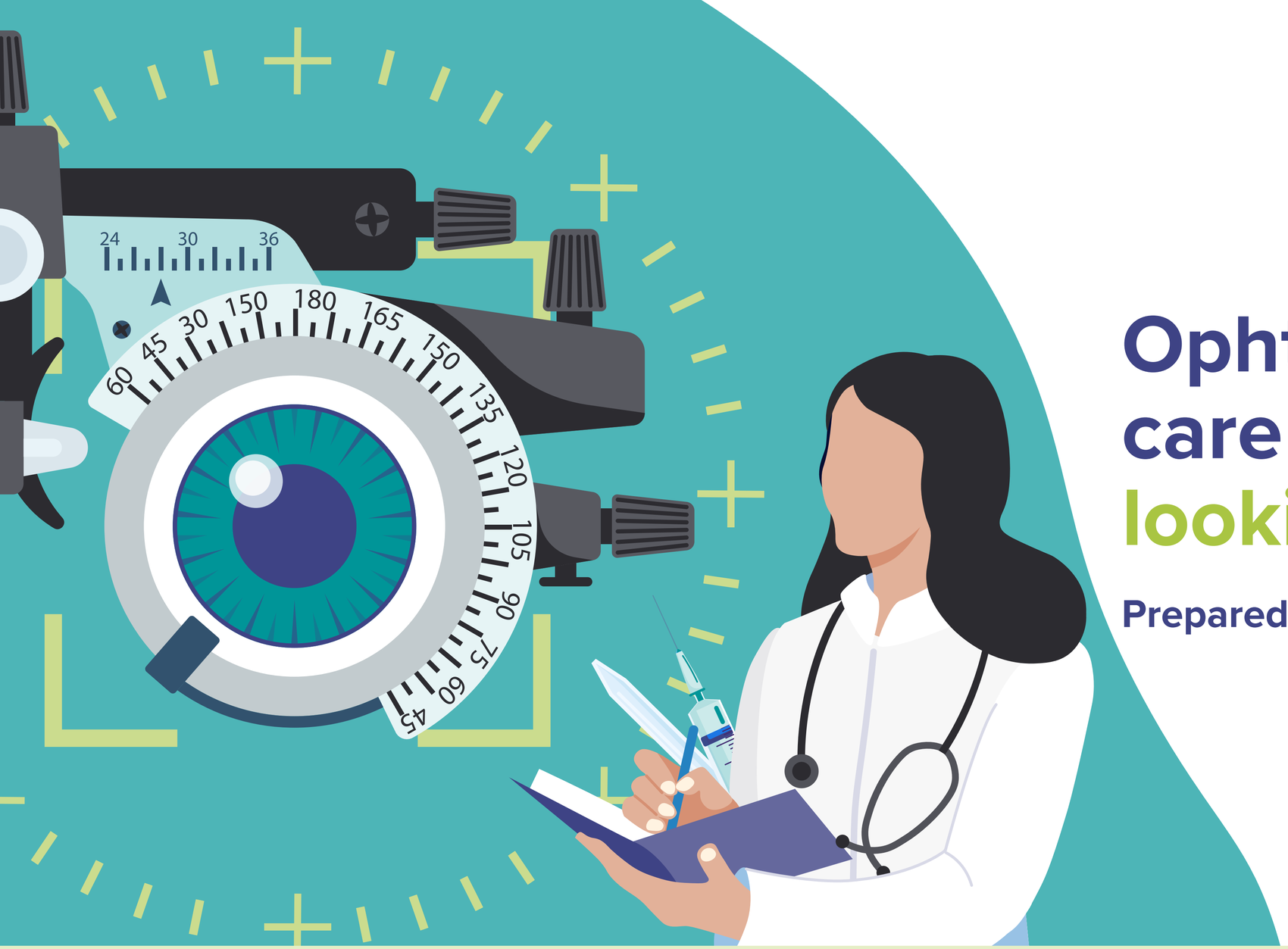


Ophthalmology care in England: looking to the future

Prepared for Bayer by HSJ Advisory

Enter

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Prescribing information and adverse event reporting information for EYLEA® (aflibercept) 2mg and EYLEA® (aflibercept) 8mg is available at the end of this report.

This State of the Nation report was produced by HSJ Information and was commissioned and fully funded by Bayer.

Foreword

About this report

Use this side menu to navigate between topics in a section

Foreword

Macular disease is the leading cause of sight loss in the UK and across the developed world. In the UK, nearly 1.5 million people are affected, with neovascular (wet) age-related macular degeneration (AMD) being the most common and severe form. Each year, approximately 26,000 new cases of wet AMD are diagnosed. For these patients, early diagnosis and timely access to appropriate treatment are essential to preserving vision – delays can result in rapid and irreversible sight loss.

This report offers a comprehensive view of the burden that ophthalmic conditions such as wet AMD place on both individuals and the wider NHS. It provides a deep dive into ophthalmology services across local systems, highlighting the pressures caused by increasing demand, workforce and capacity constraints, and significant variation in service delivery and patient access. Inequity in access to timely diagnosis and effective treatment remains a critical challenge, with patients in some areas facing unnecessary risk of vision deterioration due to systemic gaps.

Using Hospital Episode Statistics (HES) data, this analysis explores key trends and themes in service delivery. While variations in data coding and reporting across systems may affect precise figures, the overall findings are a meaningful representation of the current state of ophthalmology care. The report is intended as a tool for local systems to reflect on their service models and identify opportunities for improvement.

Looking ahead, addressing the burden on ophthalmology services requires a shift in how we deliver care. We must embrace scalable, sustainable solutions that include earlier diagnosis and treatment, improved access to more durable therapies, wider adoption of digital technologies, and models of care that bring treatment closer to home. These innovations will be critical in alleviating service pressures, reducing the risk of preventable sight loss, and ensuring patients receive equitable, high-quality care across the country.

I would like to thank all those who contributed to the development of this report. I hope it supports ongoing efforts to improve ophthalmology care, inform system planning, and drive forward practical, patient-centred solutions across the NHS.



Dr Elizabeth Wilkinson
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Clinical Director, Centre of Excellence for Eyes, Nightingale, Exeter

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Foreword

About this report

Use this side menu to navigate between topics in a section

About this report

This report describes the findings of a population-based study exploring the current status of delivery of ophthalmology care for patients at risk of vision loss in England.

We used Hospital Episode Statistics (HES)[1] data from inpatient, outpatient and emergency settings in the NHS in England nationally and across ICBs, alongside relevant data from the literature, to form a picture of good practice in ophthalmology care, inequalities, backlogs, and gaps in capacity and workforce, so that initiatives and resources can be directed to where they are needed most.

The report is divided into four sections, which can be accessed by the top menu:

- **Background** – introduction to vision loss and impairment in the UK, policies and our data analysis
- **Data Centre** – detailed analysis of the findings of our study
- **Reflections and Looking to the Future** – reflections on the data, good practice case studies and recommendations
- **Appendices** – study methods, HES disclaimer, data tables, abbreviations and references.

When you see a button like this, click to find out more

Detailed study methods

We hope that this report will provide evidence that encourages and supports integrated care boards (ICBs) and other relevant bodies to identify challenges in ophthalmology care nationally and locally, so they can take meaningful action to prevent eye disease, prevent vision loss and reduce health inequalities.

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HSJ Advisory

Background

Vision loss and impairment in the UK

Ophthalmology in the NHS

Analysis of ophthalmology care in the UK

Vision loss and impairment in the UK

As of 31 March 2023, 268,500 individuals were registered as blind or partially sighted with local authorities in England, equating to approximately five registrations per 1,000 people.[2]

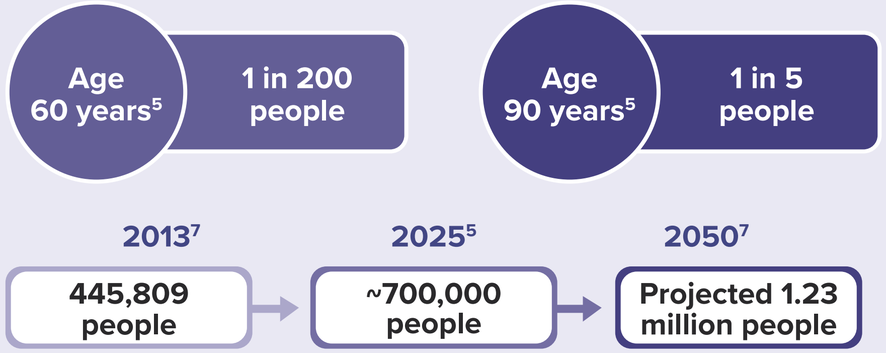
Each year, more than 24,000 people in England and Wales receive a Certificate of Vision Impairment (CVI), officially recognising their sight loss.[3]

Leading causes of vision loss and impairment[3,4]

- Uncorrected refractive errors
- Cataracts
- Macular degeneration
- Diabetic retinopathy/ maculopathy
- Hereditary retinal disorders
- Optic atrophy
- Glaucoma
- Visual cortex disorders
- Cerebrovascular disease
- Keratitis and corneal disorders
- Congenital abnormalities
- Retinitis
- Retinal vascular occlusion

Macular disease is the biggest cause of vision loss in the UK, with age-related macular degeneration (AMD) affecting an estimated 700,000 people and the primary cause of vision impairment certification[5,6]

Prevalence of AMD in UK[7]



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Estimated vision loss over the next 3–5 years

The number of people living with vision loss in the UK is projected to rise significantly in the coming years due to multiple reasons:[8,9]

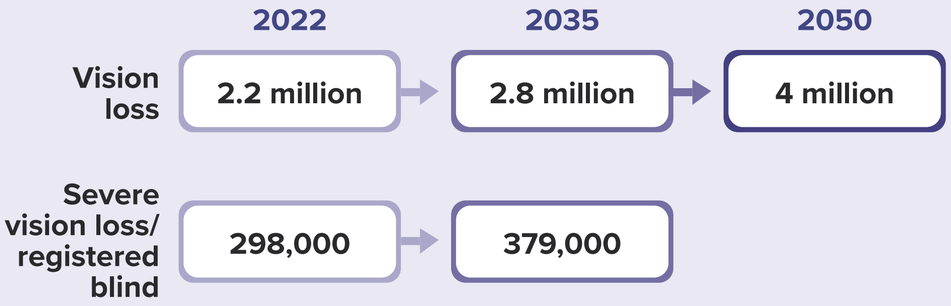
- increasing life expectancy
- the ageing population
- demographic changes
- longer waiting times for diagnosis and treatment
- increasing numbers of people living with diabetes.

In 2022, approximately 2.2 million individuals in the UK were living with vision loss.[10] This figure is expected to increase by 27% to around 2.8 million by 2035, equivalent to an additional 600,000 individuals living with vision loss,[8,9] and to about 4 million by 2050.[10]

Although specific annual projections are not available, the estimates for 2035 suggest an average increase of approximately 46,000 new cases per year.[9] Over the next 3–5 years, this would result in an estimated 138,000–230,000 additional cases of vision loss in the UK, with one in five people experiencing vision loss in their lifetime.

Furthermore, the number of people with severe sight loss or being registered blind is estimated to increase by 29%, increasing from 298,000 people in 2022 to approximately 379,000 people in 2035.[8,9]

Projected increases in vision loss[8,9,11]



Projections for vision loss in the future underscore the importance of prioritising eye health and preventive care to mitigate the anticipated increase in sight loss cases in the UK.

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Impact of vision loss for patients

The consequences of vision loss extend beyond the eye and visual system,[12] impacting every aspect of a patient's life every day.

Personal consequences of vision loss

Vision loss has a significant impact on the lives of those who experience it, as well their families, friends and society.[12]

Vision loss or impairment is frightening and overwhelming, impacting on affected people's ability to maintain their independence, retain employment, and provide for themselves and their families.[12]

Societal attitudes, stigma and discrimination can lead to feelings of exclusion, with blind and partially sighted people feeling they are not treated the same as everyone else and misconceptions about what they can do and achieve.[3]

Vision loss can affect quality of life, independence and mobility, as affected people, unable to drive, rely on public transport, taxis or lifts from friends or relatives and face challenges in navigating streets, public spaces and buildings.[3] Even everyday tasks such as shopping can be difficult.[3]

Health issues associated with vision loss

People with visual impairment have lower feelings of wellbeing compared with the average person, including unhappiness and depression, worthlessness, lack of confidence, isolation and loneliness.[12]

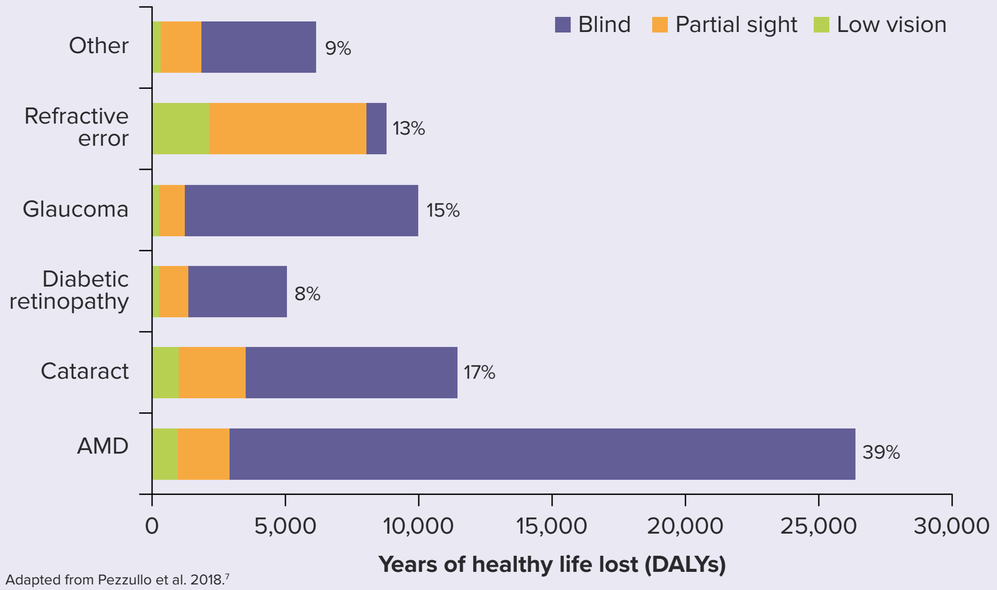
Vision impairment has been linked to falls, injuries such as fractures, and worsened status in mental health, cognition, social function, employment, and educational attainment.[12]

Lost disability-adjusted life-years (DALYs) related to vision and sight for the UK in 2013 were estimated at 219,106 DALYs, comprising:[7]

- 205,372 DALYs from years of healthy life lost due to vision loss/impairment
- 13,734 DALYs years of life lost due to premature mortality.

The proportion of lost DALYs attributable to each condition are shown in the chart.[7]

Burden of visual impairment/blindness across the UK by severity of life lost, 2013[7]



Adapted from Pezzullo et al. 2018.[7]

People with vision loss are more likely to report having depression, diabetes, hearing impairment, stroke, falls, and cognitive decline and are more likely to die prematurely.[13]

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Impact of vision loss for patients

Financial impact of vision loss

Blind and partially sighted people are significantly less likely to be in paid employment than the general population or other disabled people.[14]

- Registered blind and partially sighted people with a degree or higher only have the same chance of getting a job as someone with no qualifications in the general public.[14]
- Working-age people with no qualifications are more than six times as likely to be in employment as registered blind and partially sighted people with no qualifications.[14]

People in paid employment[14]



Individuals with vision loss often face additional personal expenses to maintain an acceptable standard of living, with costs such as assistive technology, domestic help, and specialised transport.[15]

Additional weekly costs[15]

Working-age adult	2016	2024
Sight impaired	£50.33	£65.20
Severely sight impaired	£120.43	£156.44
Pension-age adult		
Sight impaired	£77.82	£101.50
Severely sight impaired	£135.51	£174.40

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Economic burden for the UK: direct and indirect costs

Vision loss and impairment have a socioeconomic impact for the UK.[7]

A study that analysed socioeconomic costs of healthcare system expenditure associated with vision loss and impairment caused by AMD, cataracts, diabetic retinopathy, glaucoma and under-corrected refractive error in 2013 estimated:[7]

- total direct costs of £2.99 billion, including £277 million for residential care and community care services costs
- indirect costs of £5.65 billion.

Direct costs in 2013[7]		
Total: £2.99 billion		
Inpatient and day care costs	£735 million	(24.6%)
Outpatient costs	£771 million	(25.8%)
Prescribing costs	£381 million	(12.7%)
General ophthalmic services	£615 million	(20.6%)
Expenditure associated with injurious falls	£23.4 million	(0.8%)
Research and development	£17 million	(0.6%)
Residential care and community care services	£277 million	(9.3%)
Capital and administration	£171 million	(5.7%)

Indirect costs in 2013[7]	
Total: £5.65 billion	
Lower employment	£2,427 million
Absenteeism	£77.6 million
Premature mortality	£2.14 million
Informal care costs	£2,358 million
Devices and modifications	£410 million
Deadweight loss*	£379 million

*Deadweight loss includes cost of raising additional revenue to fund public healthcare system costs, residential and community care, aids and equipment, and direct payments to those with sight loss and blindness and their carers.[7]

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Economic burden for the UK: total healthcare system costs by visual condition

In 2013, AMD accounted for 34% of total healthcare system costs that could be attributed to the five conditions (AMD, under-corrected refractive error, cataracts, diabetic retinopathy, glaucoma) included in the socioeconomic study. This excluded residential care and community services, expenditure associated with injurious falls, and capital and administration costs.[7]

	Proportion of costs[7]	Share of visual impairment/blindness[7]	
	2013	2013	2050
AMD	34%	23.1% → 775,809 people	29.7% → 1.23 million people
Under-corrected refractive error	21%	38.9%	31.3%
Cataracts	20%	18.7%	21.4%
Diabetic retinopathy	10%	4.7%	3.1%
Glaucoma	7%	7.2%	7.0%
Other eye diseases	8%	No change in share	

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Economic burden for the UK: wider costs to the economy

The total cost of eye conditions in adults to the UK economy in 2016 was much broader than the direct costs and indirect socioeconomic costs.

A study that looked at the wider costs estimated a total cost of eye conditions to the UK of £25.2 billion a year – more than the combined annual expenditure of the Home Office and Ministry of Justice.[16]

Of this total economic cost, 84% is incurred outside the health and social care system.[16]

Cost to the UK economy[16]

Reliance on family and friends to fill the gaps that cannot be met by the NHS and social care system	**£8.5 billion** One-third of the total cost
Exclusion of working-age people from the workplace because of their eye condition	**£7.4 billion** Nearly one-third of the total cost
Impact of sight loss on quality of life and productivity	**£4.6 billion** Almost one-fifth of the total cost

Other costs include education costs, welfare costs and device costs

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Economic burden for the UK: increasing future costs of vision loss

With more than two million people living with sight loss in the UK and this number predicted to double to more than 4 million by 2050,[11] the economic impact of sight loss in the UK is expected to grow in the coming years.

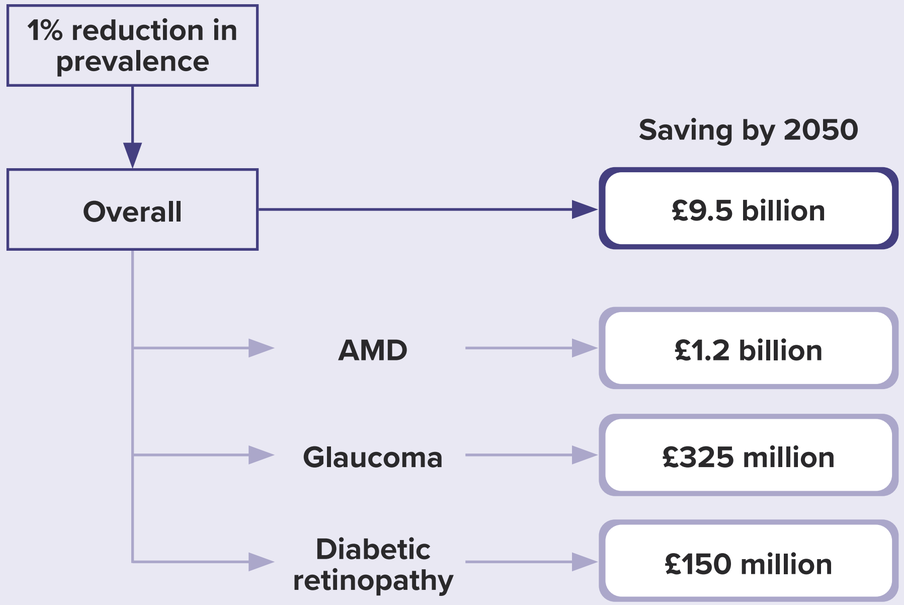
The £25.2 billion total cost in 2017 is estimated to rise to £29.9 billion a year by 2030 and £33.5 billion a year by 2050.[16]

While specific annual increases are not detailed, the 2030 projection[16] suggests an approximate increase of £4.7 billion over 10 years, averaging around £470 million per year. Over the next 3–5 years, this would equate to an additional £1.4 billion to £2.35 billion in costs.

If the prevalence of eye conditions is reduced by 1% each year, the cumulative saving to the UK economy would be up to £3 billion over the next decade and £9.5 billion by 2050 – a potential saving for the NHS and social care services of £1.5 billion by 2050.[16]

Projected total annual cost of sight loss in the UK[16]





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Vision loss and impairment in the UK

Ophthalmology in the NHS

Analysis of ophthalmology care in the UK

Preventing avoidable vision loss

Implementing effective prevention strategies and intervening early is essential to preserve vision, improve quality of life for individuals at risk of visual impairment, and mitigate costs.[16]

Approximately 50% of cases of sight loss in the UK are avoidable through early detection and intervention.[17] Implementing public health measures, such as promoting regular eye check-ups and managing chronic conditions like diabetes, is therefore essential to prevent avoidable vision loss.[25]

While many cases of vision loss can be prevented, early detection and timely intervention for conditions such as AMD and diabetic retinopathy are crucial to avoid irreversible vision loss.[18] Treatments to prevent vision loss depend on the cause and include corrective lenses in the form of glasses or contact lenses, surgery, medications and vision rehabilitation.[18]

Vascular endothelial growth factor (VEGF) is a pro-angiogenic growth factor that stimulates vascular permeability and has a major role in the onset and progression of conditions such as AMD, diabetes-associated ophthalmic complications, and retinal vein occlusion (RVO).[19–24]

Anti-VEGF drugs reduce new blood vessel growth and swelling and can be used to treat and stabilise abnormal blood vessel growth or swelling under the macula.[19–24] Anti-VEGF treatment should be started quickly before the new blood vessels or swelling cause too much damage to the macula.[24]

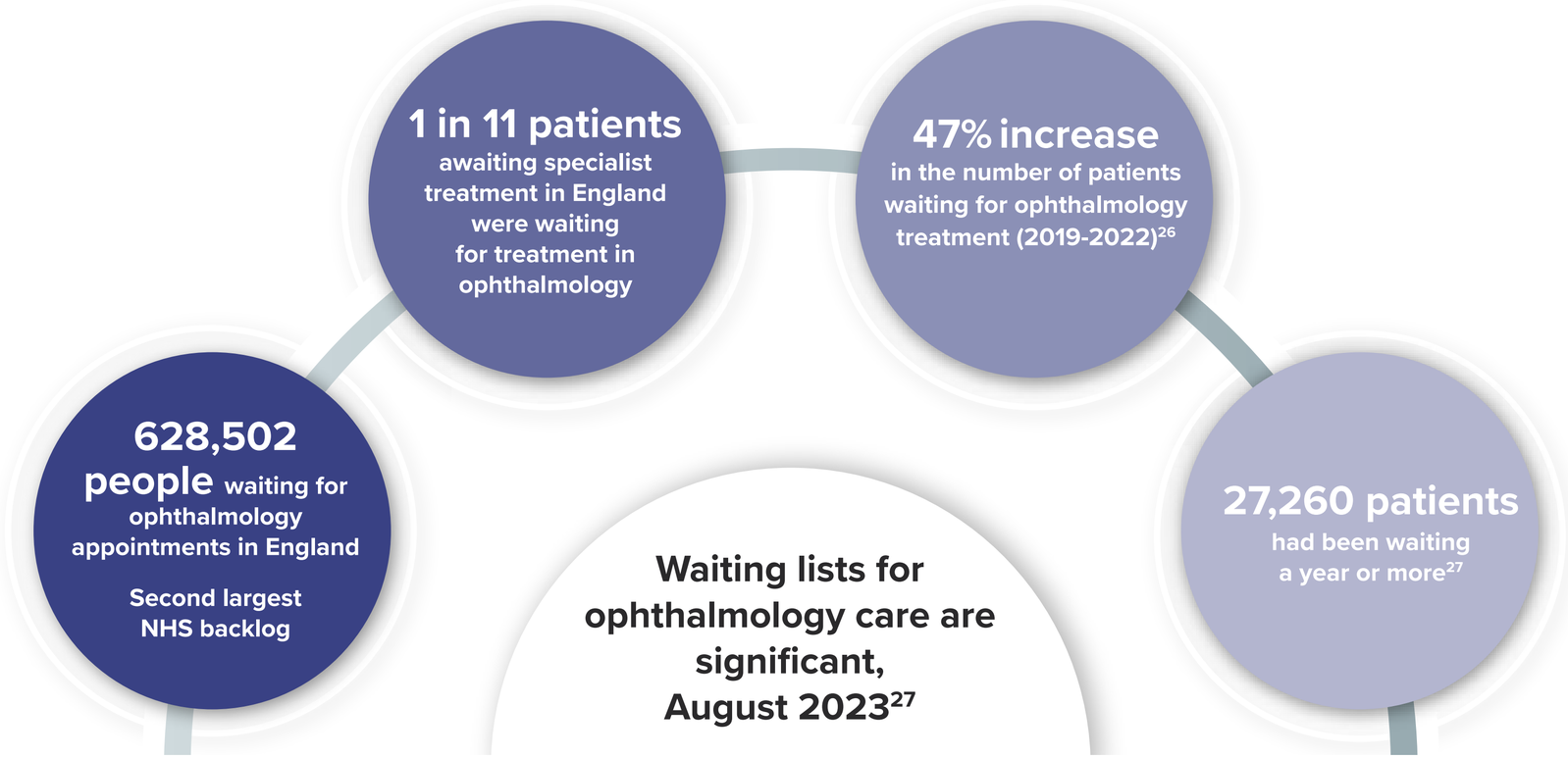
Anti-VEGF drugs are given by intravitreal injections, typically with an initial loading phase of monthly dosing followed by maintenance treatment according to disease activity through different models.[6] The Royal College of Ophthalmologists' National Ophthalmology Database Audit on AMD showed that ≥90% of eyes retained stable vision at the end of the first year of treatment and avoided a 'significant' further decrease in vision.[6]

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Challenges for early diagnosis and timely treatment in the NHS

Ophthalmology is one of the busiest specialties in the NHS.[25,26] Many patients attending hospitals for eye diseases are older, and as the UK population ages, demand for ophthalmology services increases.[25]

With very high and increasing patient numbers combined with expansion in diagnostic and treatment options, many providers struggle to meet demand.[25,26]



Ophthalmology is the highest volume outpatient specialty in England.[25]

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Challenges for early diagnosis and timely treatment in the NHS

Delays in appointments and treatment

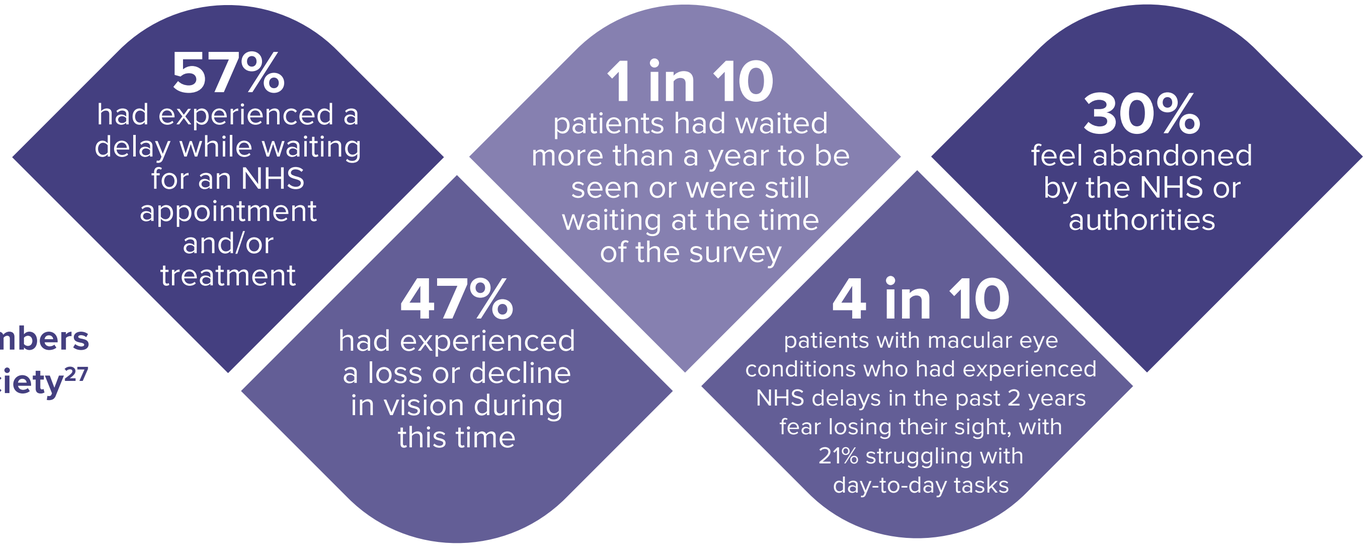
Between 2019 and 2023, clinicians had reported more than 200 cases of patients losing their vision due to treatment delays, with hundreds more unreported cases suspected.[27]

By 2023, the National Reporting and Learning System had received more than 550 reports in relation to sight loss due to delayed appointments:[27]

- 120 of these incidents caused 'moderate harm' to patients
- 99 involved 'severe harm'.

In a survey of members of the Association of Optometrists, 43% raised serious concerns over the number of patients they were seeing who could lose sight unnecessarily as a result of long NHS waiting lists and cancelled appointments.[27]

Survey of 498 members of the Macular Society[27]



Delays in diagnosis and treatment lead to patient harm.[27]

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Challenges for early diagnosis and timely treatment in the NHS

Inappropriate and poor quality referrals

The proportion of referrals from optometrist examinations in primary care has been increasing.[28]

72% of referrals to hospital eye services are by optometrists[28]

False-positive referrals – that could be managed in primary care – are a key reason for oversubscription of hospital eye services.[29]

- Increasing complexity of sight tests, including advanced imaging techniques such as optical coherence tomography (OCT), results in many patients referred for clinically insignificant abnormalities and unnecessary appointments.[30,31]
- Primary care optometrists may err on the side of caution due to legislation and recommendations to refer if abnormalities or conditions they feel unable to manage are found during sight tests.[29,30,32]

In one study, **26%** of patients referred from community optometry were diagnosed with wet AMD and required treatment[33]

In another study, **39.8%** of patients referred to a specialist macular treatment centre by a community optometrist had wet AMD, with dry AMD the most common misdiagnosis[34]

Quality of referrals is another issue.

A study in Australia found that most referrals were incomplete in content, leading to triage based on limited clinical information.[35] Some patients were referred multiple times, with their second referral containing a similar amount of content as the first.[35]

Despite guidance from the College of Optometrists on information that should be included in referrals,[36] poor quality referrals are not uncommon in the UK either.[29]

Ways to improve referral quality and reduce inappropriate referrals

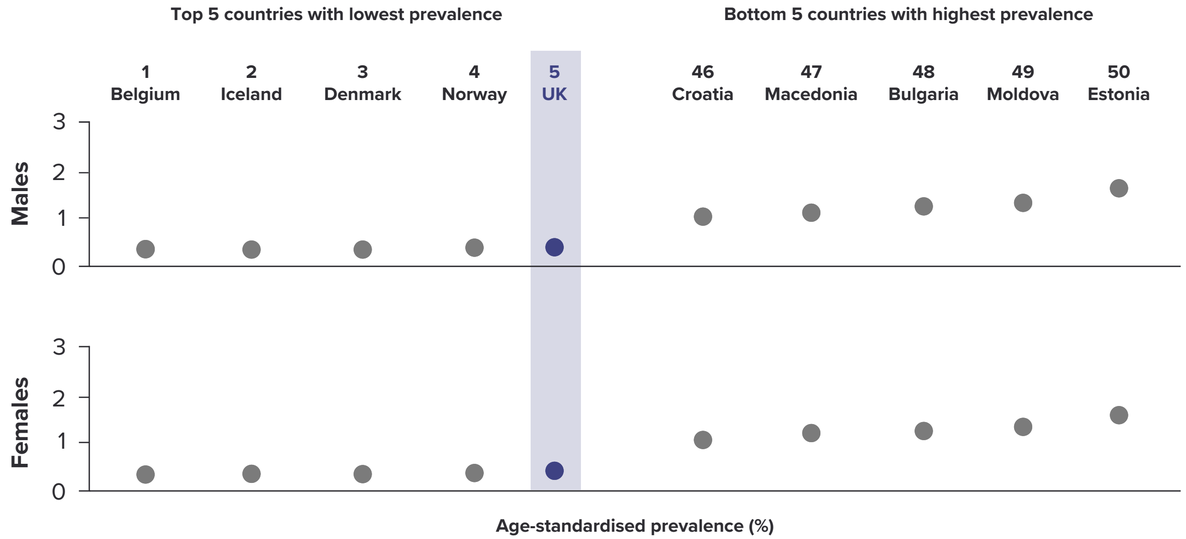
- Electronic referral to hospital eye services with images:
  - Safe, speedy, efficient and clinically accurate and reduce unnecessary consultations in 37% of cases compared with paper referrals[37]
- Referral refinement schemes such as virtual referral triaging and referral systems led by specifically-trained community optometrists:
  - Reduce false-positive referrals, increase rate of diagnosis of confirmed wet AMD, reduce unnecessary hospital face-to-face appointments, increase the number of patients able to access treatment for wet AMD within 2 weeks of initial referral, and promote communication between primary and secondary care[29,33]
- Improved administrative processes and communication between referral centre and referrers:[35]
  - Improve referral quality by giving optometrists feedback on referral quality and diagnoses outcomes,[35] as GPs often receive letters after consultations rather than the referring optometrists[38]

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How does the UK compare against other developed countries?

Preventing ophthalmic conditions that lead to vision loss is crucial, as the UK has historically maintained a relatively low prevalence of vision loss compared with other developed countries. In 2015, the UK had the fifth lowest prevalence of blindness among individuals aged >50 years at 0.52% in developed countries.[39]

Prevalence of blindness in men and women aged >50 years in 50 countries worldwide: top 5 countries with lowest prevalence and bottom 5 countries with highest prevalence[39]



Adapted from Bourne et al. 2018.[39]

While the UK has historically maintained a lower prevalence of vision loss compared to global averages, ongoing efforts in preventive care and treatment are essential to address all forms of visual impairment.[39]

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Vision loss and impairment in the UK

Ophthalmology in the NHS

Analysis of ophthalmology care in the UK

Challenges to providers delivering ophthalmology care in the UK

In December 2019, Getting It Right First Time (GIRFT) reported its findings of an analysis of the management of cataracts, glaucoma and retinal conditions in 120 ophthalmological services across England.[25]

- 77% of providers reported that some medical retina patients' appointments had been delayed during the past 12 months; 17% reported delays affecting >500 patients.
- Considerable variation in the number of intravitreal injections conducted in an average four-hour session.
- Wet AMD presents particular challenges for ophthalmology services.

Since 2016, the Royal College of Ophthalmologists (RCO) has run a workforce census across NHS ophthalmology services.[26] Key findings from the 2023 census include:[26]

- 76% of NHS eye units do not have enough consultants to meet demand
- 74% of eye units were more concerned about the impact of outpatient backlogs on patient care than 12 months earlier
- 80% of eye units had become more reliant on non-medical or allied health professionals working in extended roles over the previous 12 months
- 65% of units are using locums to cover consultant vacancies.

Key GIRFT recommendations for retinal conditions[25]

- Develop a national standardised referral pathway for suspected diabetic maculopathy that includes the use of optical coherence tomography (OCT) as a form of referral refinement to reduce unnecessary referrals from screening services
- Increase the capacity and productivity of wet AMD pathways, through more extensive use of virtual clinics for stable patient monitoring and clean rooms for intravitreal injections, while training more members of the non-medical ophthalmology healthcare professional (HCP) team to carry out injections
- Continue to engage with stakeholders in order to facilitate the use of available treatments for the management of all wet AMD patient groups as well as the use of new treatments as they are developed

RCO five-point plan to deliver sustainable ophthalmology services[26]

- Develop an eye care workforce plan
- Commit to a phased increase in ophthalmology training places
- Commission independent sector capacity in an intelligent planned way
- Explore simpler routes for progression for specialty and associate specialist doctors
- Ensure ophthalmology units are properly resourced

A consequence of lack of capacity in ophthalmology services is avoidable sight loss due to hospital-initiated delays.[40]

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Workforce challenges will persist and increase in the future

The RCO 2023 workforce census highlights findings that will impact on future staffing for NHS ophthalmology services:[26]

35%	of consultants intend to continue to work in the NHS
21%	intend to work a balance between the NHS and independent sector providers
19%	intend to retire within the next five years
7%	intend to work predominantly in the independent sector
3%	intend to leave ophthalmology for another role in medicine or healthcare
3%	intend to leave ophthalmology for a role outside of medicine or healthcare

Of the consultants who plan to leave the workforce:[26]

65%	30%	4%
intend to leave within the next 5 years	intend to leave within the next 5–10 years	intend to leave within the next 10+ years

The proportion of specialty and specialist (SAS) doctors indicating their intention to continue to work predominantly in the NHS over the next 5 years (52%) is higher than that of consultants and the proportion of those planning to work a balance between NHS and the independent sector is significantly smaller (8%).[26] However:

28% of SAS doctors intend to leave the ophthalmology workforce over the **next 5 years** – either through retirement or for another profession–roughly equal to the wider workforce of those intending to leave ophthalmology, of which **20%** plan to leave within the **next 2 years**.

In terms of trainees to fill these gaps:[26]

81%	intend to pursue a substantive consultant post
54%	plan to work in private practice

As more staff leave the workforce, the higher the likelihood of shortages that will hit job fulfilment and ultimately retention.[26]

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Policies, guidance and levers to improve ophthalmology care in the UK

The NHS has implemented several key policies, guidance and levers to enhance ophthalmology care and prevent vision loss.

These policies aim to improve service delivery, reduce waiting times, and ensure equitable access to eye care services.

Policies/guidance

NHS 2024/25 Priorities and Operational Planning Guidance[41]

- This directive outlines the strategic focus for the NHS, emphasising improvements in productivity, operational effectiveness, and infrastructure modernisation. It encourages systems to develop comprehensive plans addressing workforce requirements and service delivery enhancements.

GIRFT Programme[25]

- The GIRFT initiative focuses on improving clinical quality and efficiency in ophthalmology by reducing unwarranted variations in service delivery. It promotes best practices and evidence-based approaches to enhance patient care.

Deployment of OCT devices[42]

- The NHS has initiated a programme to roll out OCT devices outside hospitals, enhancing the early detection and monitoring of diabetic retinopathy. This initiative brings advanced diagnostic capabilities closer to patients, reducing the need for frequent hospital visits.

General Ophthalmic Services (GOS) Fee Adjustments[43]

- Effective from 1 April 2024, the NHS sight test fee was set at £23.53. Adjustments to optical voucher values and hospital eye service charges were also implemented to reflect current economic conditions and support service sustainability.

Levers

Collaboration with the Independent Sector[44]

- To address waiting lists and expand capacity, the NHS has established agreements with independent sector providers to use private sector capacity to increase resources for ophthalmic procedures, thereby reducing patient backlogs, improving access to care and patient outcomes.

Mandate for Electronic GOS Claims[45,46]

- As of 1 January 2024, all GOS claims are required to be submitted electronically through Primary Care Support England (PCSE) Online or compatible practice management systems. This transition aims to streamline administrative processes and improve data accuracy.

Expansion of Primary Care Optometry Services[47]

- Efforts are underway to shift a significant portion of hospital outpatient activity into primary care optometry settings. This strategy aims to alleviate pressure on hospital services and provide patients with more accessible and timely eye care.

These policies and initiatives are designed to enhance delivery of ophthalmology services within the NHS, aiming to reduce preventable vision loss and improve overall patient care.

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Vision loss and impairment in the UK

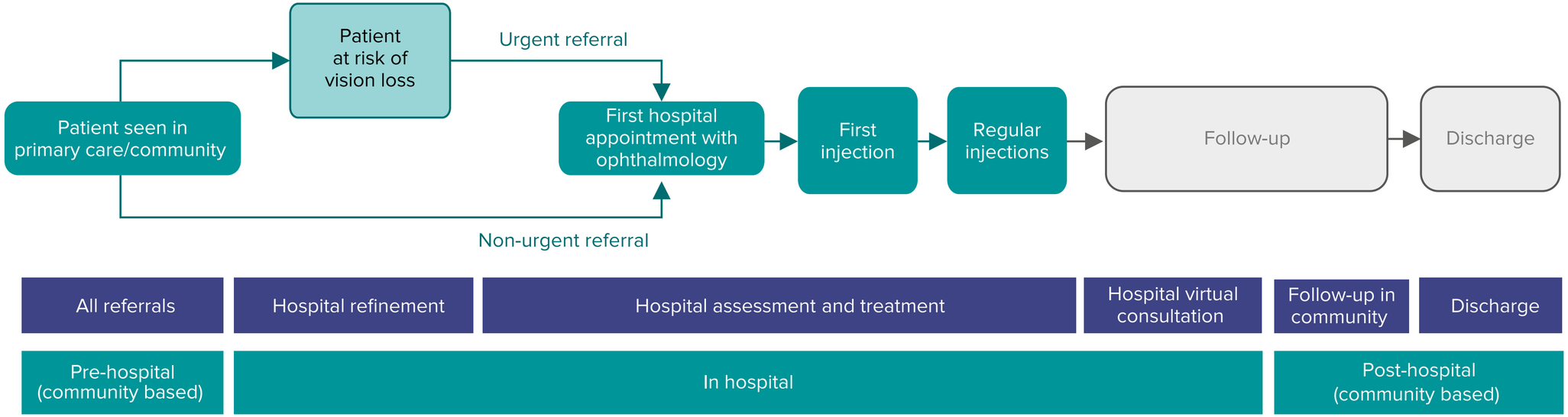
Ophthalmology in the NHS

Analysis of ophthalmology care in the UK

Analysis of current delivery of ophthalmology care in the UK

To provide a current view of the state of the nation in terms of delivery of ophthalmology care for patients at risk of vision loss in the UK, we used Hospital Episode Statistics (HES) data[1] from inpatient, outpatient and emergency settings in the NHS in England nationally and across ICBs, alongside relevant data from the literature.

As macular disease is the biggest cause of vision loss in the UK[6], we used current NHS pathways for AMD, diabetic macular oedema and emergency eye care (Appendix 1)[48–50] to map a pathway with the common steps to inform our data analysis, including referral, first hospital appointment and intravitreal injections, which are a key treatment to prevent vision loss caused by macular disease.



Detailed study methods are provided in Appendix 2, with overviews of methods at relevant points in the Data centre, which presents the findings of our analysis.

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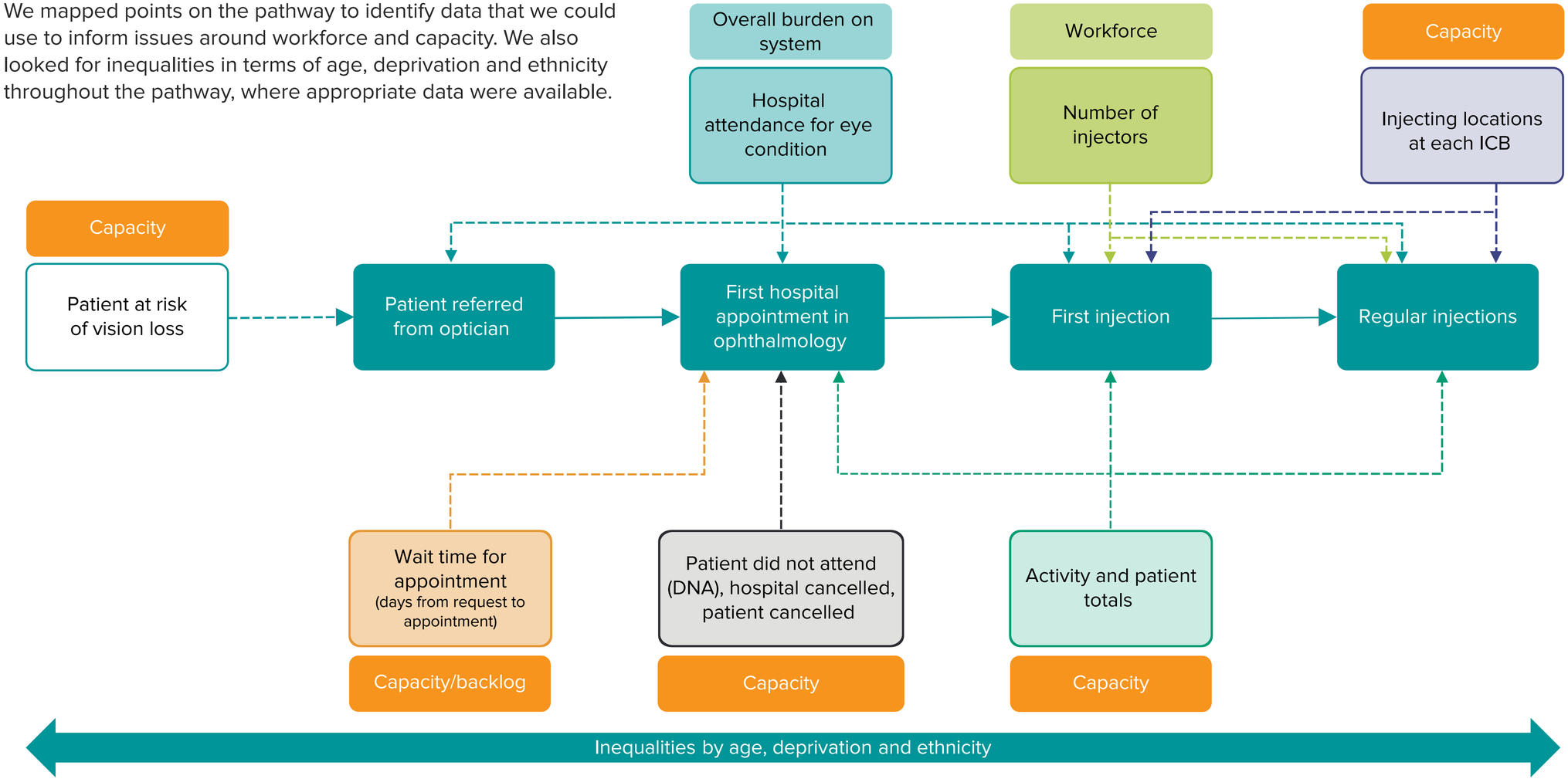
Vision loss and impairment in the UK

Ophthalmology in the NHS

Analysis of ophthalmology care in the UK

Analysis of current delivery of ophthalmology care in the UK

We mapped points on the pathway to identify data that we could use to inform issues around workforce and capacity. We also looked for inequalities in terms of age, deprivation and ethnicity throughout the pathway, where appropriate data were available.



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HSJ Advisory



Data Centre



Introduction to the Data Centre

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Welcome to the data centre, which contains all of the data analysis charts and information divided into three sections:

- National-level data – looking at data across England
- Integrated care board (ICB)-level data – comparing data for the 42 ICBs
- ICB deep dive – looking at key data for each ICB, identifying outliers and suggesting points for investigation.

Use the menu on the left to access the three sections.

A summary table of the data we reviewed is available in Appendix 4.

Data summary

While every effort has been made to ensure the accuracy of this database, the data is reliant on primary source accuracy from the HES publications by NHS England. While HSJ have reviewed this report for accuracy, HSJ Information Ltd and Bayer makes no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability or suitability of the data found in the HES database provided by the NHS. Any reliance you place on the data is therefore strictly at your own risk. Other company names, products, marks and logos mentioned in this document may be the trademark of their respective owners.

About this analysis

This study presents actual, non-adjusted figures taken from the English Hospital Episode Statistics (HES) database[1] produced by NHS England. It represents actual patients treated in NHS hospitals in England over the specified study period. All statistical analysis has been performed within specific, geographically defined areas: nationally or by ICB.

The study period was 1 April 2019 to 31 March 2024, as this was the most recent available finalised period in HES at the time of the study. For our analysis, we queried the 12-month periods April 2020 to March 2021, April 2021 to March 2022, April 2022 to March 2023, and April 2023 to March 2024.

HES data are suppressed to protect privacy. Where patient counts are between 1 and 7, data have been suppressed and values are not displayed in charts and maps. All other patient counts above 7 are rounded to the nearest 5. The HES disclaimer is available in Appendix 3. There are some limitations that should be considered when interpreting the HES data, a full list of which is available in Appendix 2: Limitations.

We also used data from the Emergency Care Dataset (ECDS)[51], which were only available for 2021/2022 to 2023/2024.

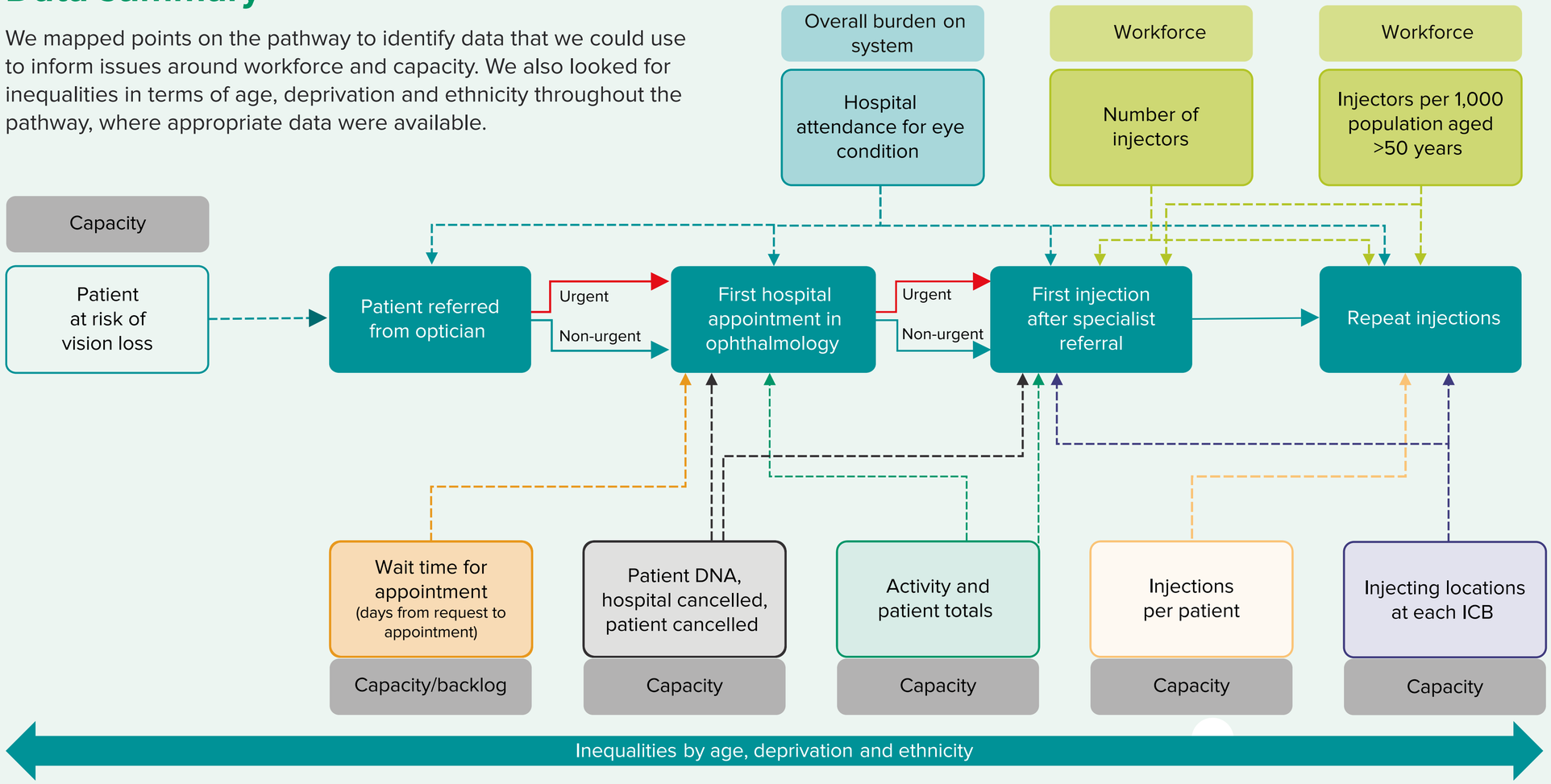
The cohort of patients included in the data was defined as patients aged ≥50 years. Details of the data and analyses included for the national and ICB datasets and ICB deep dive section are provided in their respective sections.

Detailed study methods are provided in Appendix 2.

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Data summary

We mapped points on the pathway to identify data that we could use to inform issues around workforce and capacity. We also looked for inequalities in terms of age, deprivation and ethnicity throughout the pathway, where appropriate data were available.



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Overall burden on system

Patients attending hospital by diagnosis

- Number of patients
- Rate per 1,000 population aged ≥50 years
- AMD, diabetes with ophthalmic complications, RVO and visual impairment/blindness

By age, deprivation (rate and number) and ethnicity (number only)

Capacity/backlog

Outpatient appointment after referral from an optician

- Number of patients
- Rate per 1,000 population aged ≥50 years
- Wait time from optician referral to attendance at appointment
- DNA, patient cancellation and hospital cancellation

By priority of referral, age, deprivation (rate and number) and ethnicity (number only)

First intravitreal injection after referral from a specialist

- Number of patients
- Rate per 1,000 population aged ≥50 years

By priority of referral, age, deprivation (rate and number) and ethnicity (number only)

Overall intravitreal injection activity (either first or repeat injection)

- Number of patients
- Rate per 1,000 population aged ≥50 years
- Average number of injections per patient

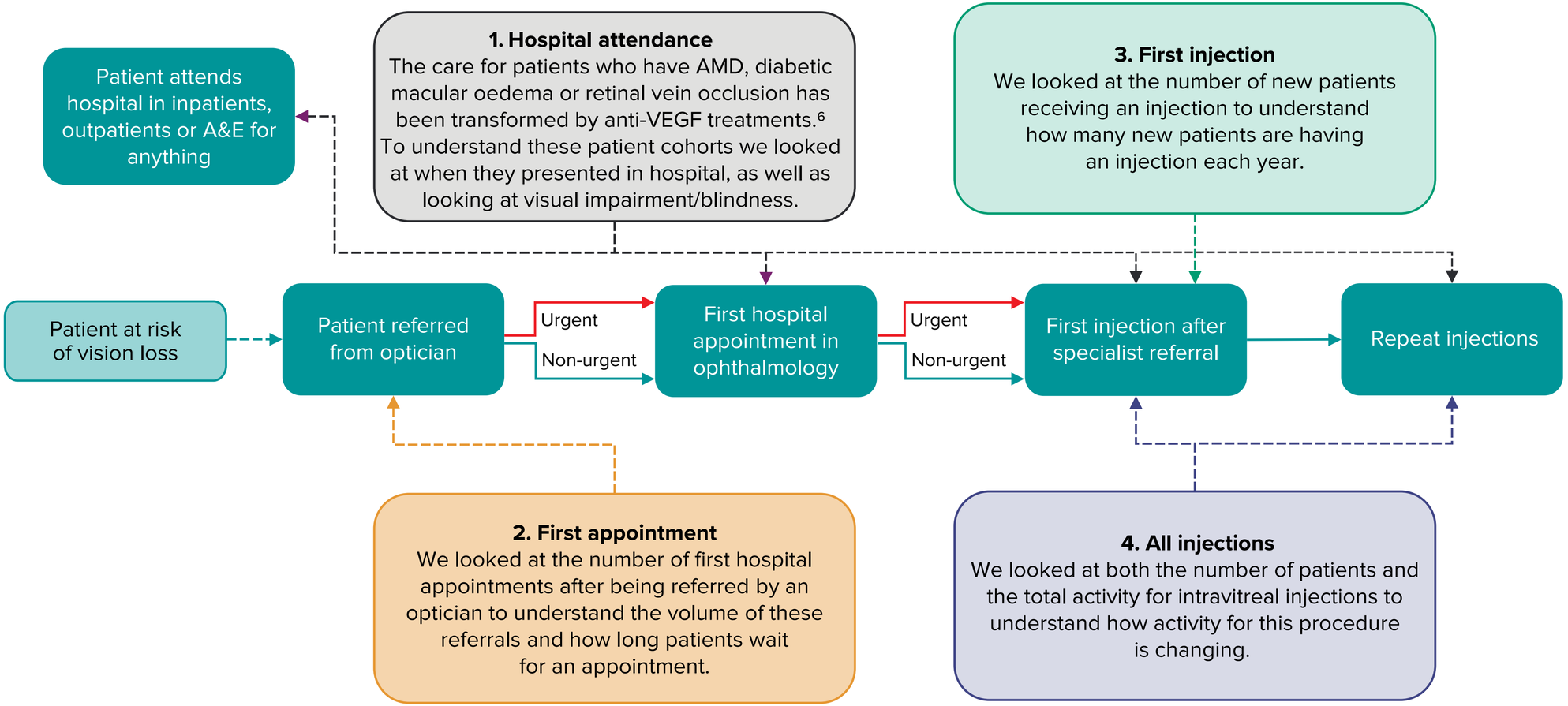
By age, deprivation (rate and number) and ethnicity (number only)

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National data analysis methods

This section provides analysis at a national level on four key areas:



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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers. Patient numbers analysed with national data from mid-2022 on the population of England to calculate rate per 1,000 aged ≥50 years.

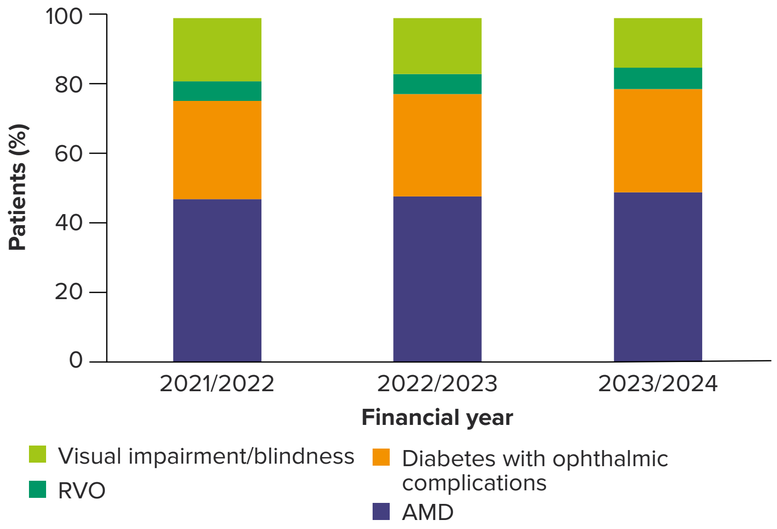
Detailed study methods

AMD was the most common visual condition for patients attending hospital

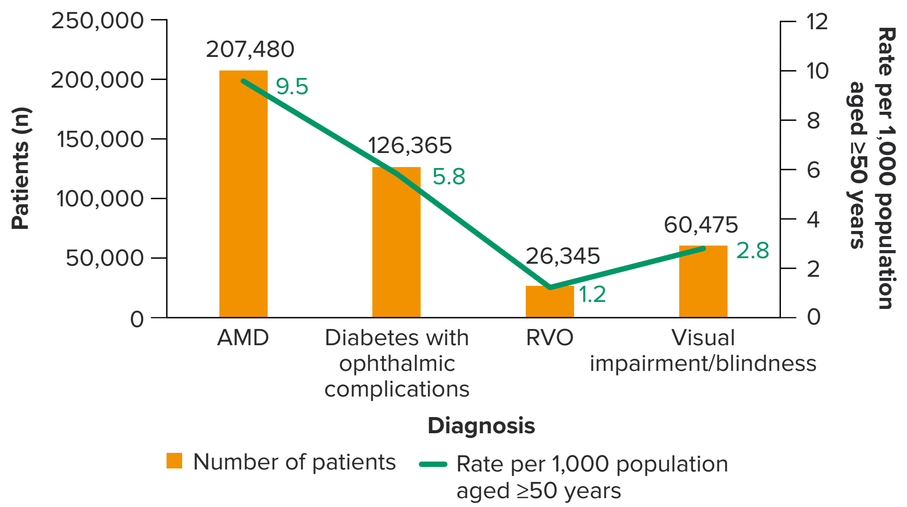
Of the four conditions requiring intravitreal injections that we analysed, AMD was the most common condition among patients attending hospital with these visual conditions in an inpatient, outpatient or emergency care setting, followed by diabetes with ophthalmic complications, visual impairment/blindness, and RVO.*

The number of patients attending hospital with AMD was the highest of all visual conditions analysed (AMD, diabetes with ophthalmic conditions, RVO and visual impairment/blindness).*

Split of patients attending hospital with AMD, diabetes with ophthalmic complications, RVO or visual impairment/blindness, England, 2021/2022–2023/2024*



Patients attending hospital by diagnosis, England, 2023/2024



Deep dive

- By condition/year
- AMD
- Diabetes with ophthalmic complications
- RVO
- Visual impairment/blindness

*As some patients may have more than one condition, there may be a small element of double counting.

A patient presenting in hospital with visual conditions may be assigned more than one of the codes analysed over the course of the study period: AMD, diabetes with ophthalmic complications, RVO or visual impairment/blindness. This is particularly true for patients coded with visual impairment/blindness, who were often also coded with one of AMD, diabetes with ophthalmic complications or RVO.

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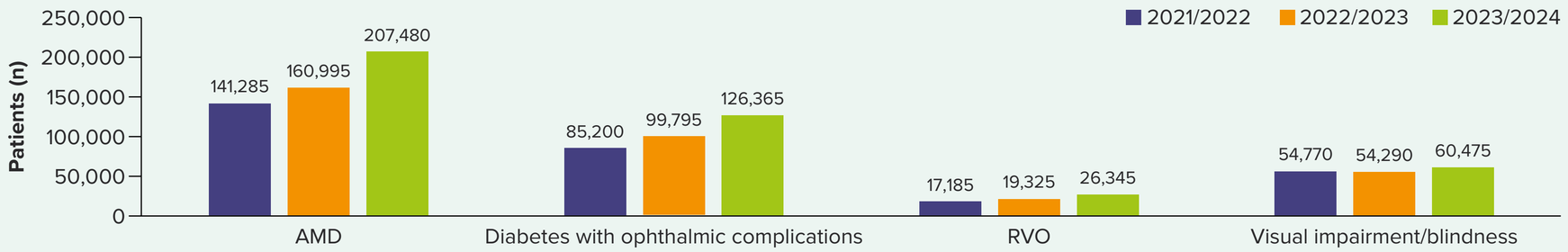
ICB deep dive

AMD was the most common visual condition for patients attending hospital by number and rate per 1,000 population

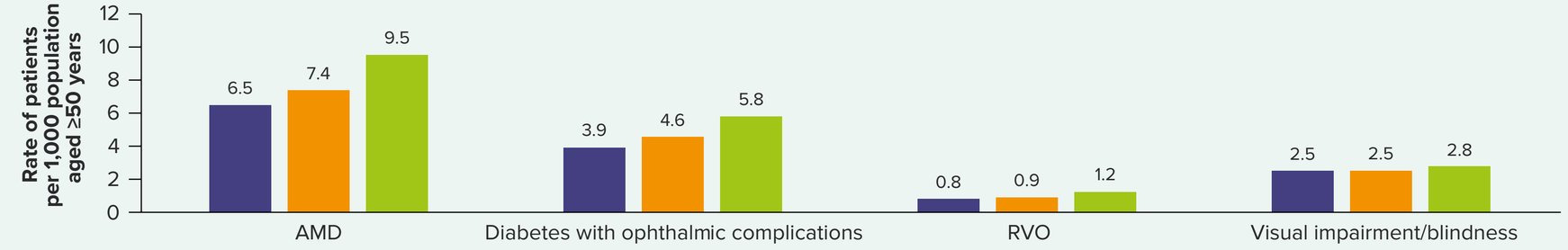
The number of patients increased year on year for all visual conditions analysed, except for a small decrease in visual impairment/blindness in 2022/2023.

AMD was the most common condition by rate per 1,000 population aged ≥50 years within each year. The rate per 1,000 population increased year on year for all visual conditions analysed, except for no change for visual impairment/blindness between 2021/2022 and 2022/2023.

Number of patients attending hospital with visual conditions by diagnosis, England, 2021/2022–2023/2024



Rate of patients attending hospital with visual conditions per 1,000 population aged ≥50 years within each diagnosis, England, 2021/2022–2023/2024



Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers. Patient numbers analysed with national data from mid-2022 on the population of England to calculate rate per 1,000 aged ≥50 years.

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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by age group. Patient numbers analysed with national data from mid-2022 on the population of England by age to calculate rate per 1,000 in each age group.

Detailed study methods

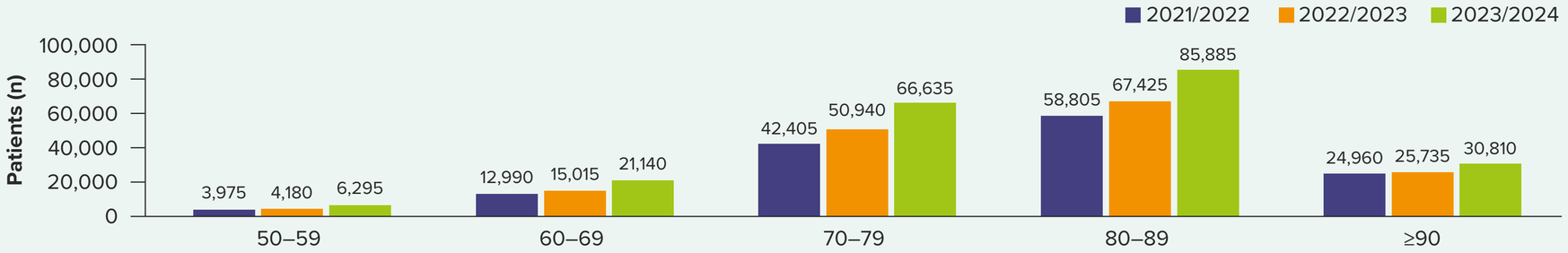
Patients attending hospital with AMD increased with age up to 80–89 years then decreased for age ≥90 years, with increases in all age groups over time

Among patients attending hospital with AMD in an inpatient, outpatient or emergency care setting, the number of patients increased with increasing age up to 80–89 years, when it decreased considerably for those aged ≥90 years.

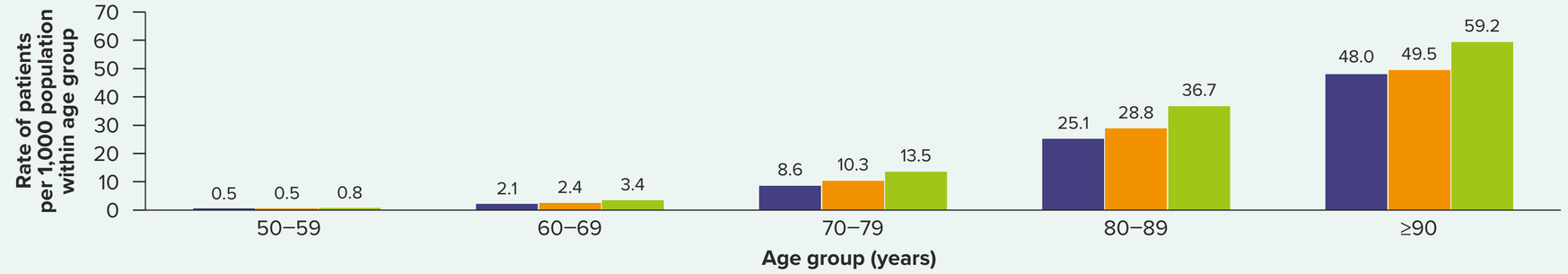
The number and rate increased over time in all age groups.

Between 2021/2022 and 2023/2024, the greatest increase in numbers of patients was seen in those aged 60–69 years (62.7%) and the smallest increase in those aged ≥90 years (23.4%).

Number of patients attending hospital with AMD by age group, England, 2021/2022–2023/2024



Rate of patients attending hospital with AMD per 1,000 population within each age group in England, 2021/2022–2023/2024



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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate number of patients who live in each quintile. National data from mid-2020 on the population of England aged ≥50 years in each quintile used to calculate rate of patients per 1,000.

Detailed study methods

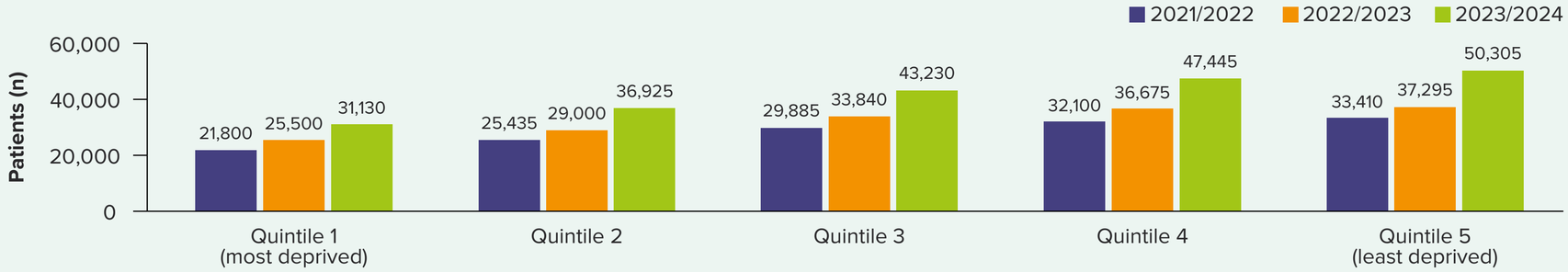
Patients attending hospital with AMD increased with decreasing level of deprivation and increased over time across the spectrum of deprivation

Among patients attending hospital with AMD in an inpatient, outpatient or emergency care setting, the number of patients in each IMD quintile (index of multiple deprivation) showed a trend to increase from Quintile 1 (most deprived) to Quintile 5 (least deprived). IMD is a widely used measure of relative deprivation in each geographical area of England. The number of patients increased over time in all quintiles.

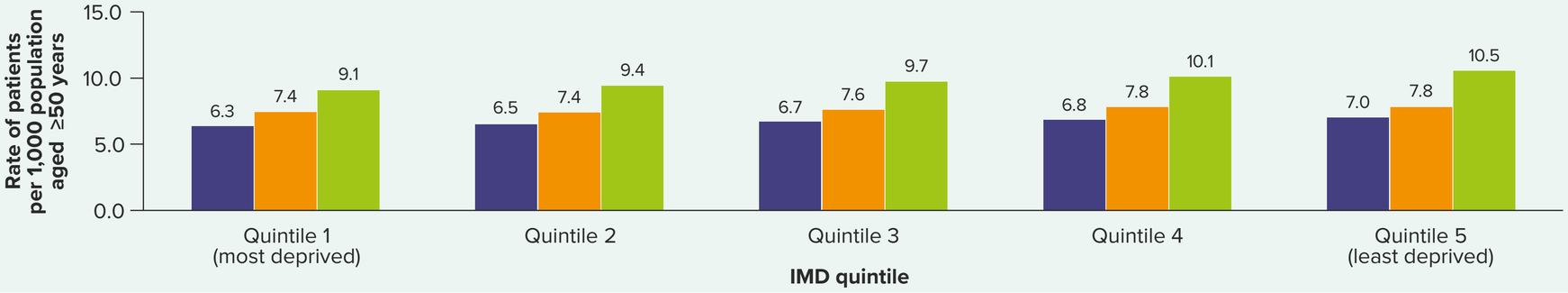
The largest increases were seen between 2022/2023 and 2023/2024 in all quintiles; however, the increase between these years also increased from Quintile 1 through Quintile 5.

The pattern in rate per 1,000 population aged ≥50 years within the quintile mirrored the trend in number of patients.

Number of patients attending hospital with AMD by IMD quintile, England, 2021/2022–2023/2024



Rate of patients attending hospital with AMD per population aged ≥50 years within each IMD quintile, England, 2021/2022–2023/2024



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Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by ethnicity.

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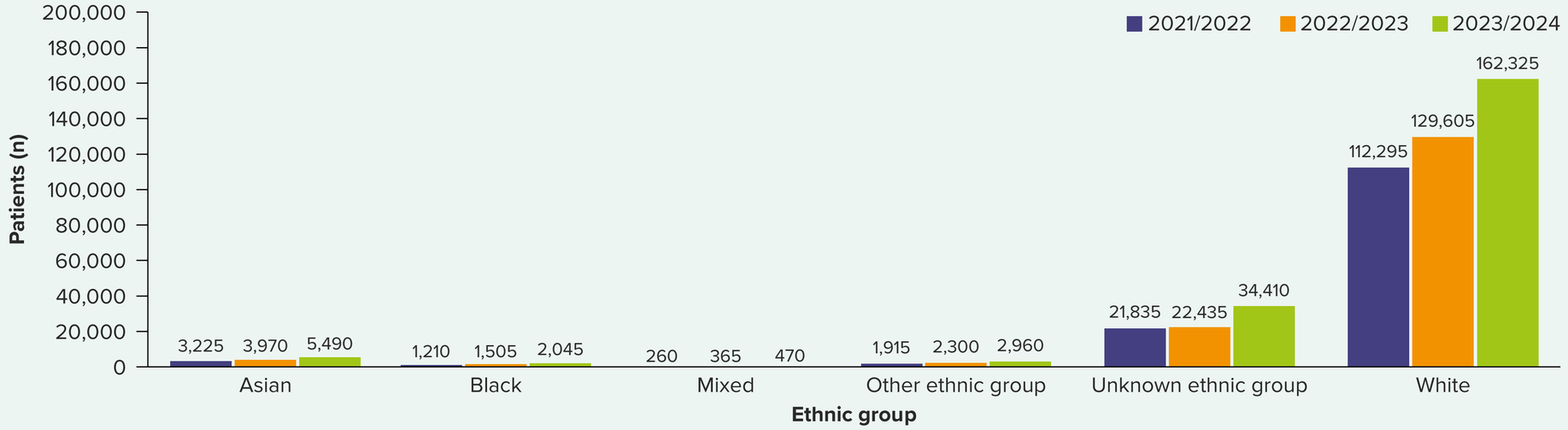
Patients attending hospital with AMD was highest among White patients and lowest for those of Mixed ethnicity and increased over time for all ethnicities

Among patients attending hospital with AMD in an inpatient, outpatient or emergency care setting, the number of patients was considerably higher among White patients and lower among all other ethnic groups, being highest in patients of unknown ethnicity and lowest among those of Mixed ethnicity.

The number of patients increased over time in all ethnic groups. From 2021/2022 to 2023/2024, the number of White patients grew by 44.6% whereas other ethnic groups saw greater increases (Asian, 70.2%; Black, 69.0%; Mixed, 80.8%).

Rate is not available for ethnicity.

Number of patients attending hospital with AMD by ethnicity, England, 2021/2022–2023/2024



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Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by age group. Patient numbers analysed with national data from mid-2022 on the population of England by age to calculate rate per 1,000 in each age group.

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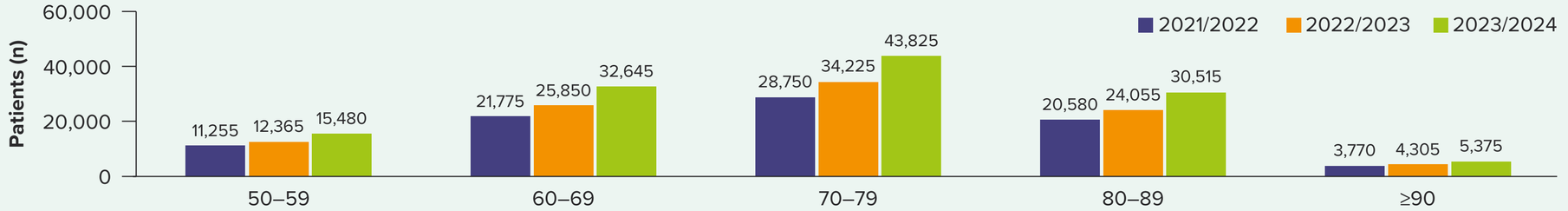
Patients attending hospital with diabetes with ophthalmic complications increased with increasing age up to 80–89 years and over time

Among patients attending hospital with diabetes with ophthalmic complications in an inpatient, outpatient or emergency care setting, the number of patients increased with increasing age up to 80–89 years, then decreased considerably for those aged ≥90 years.

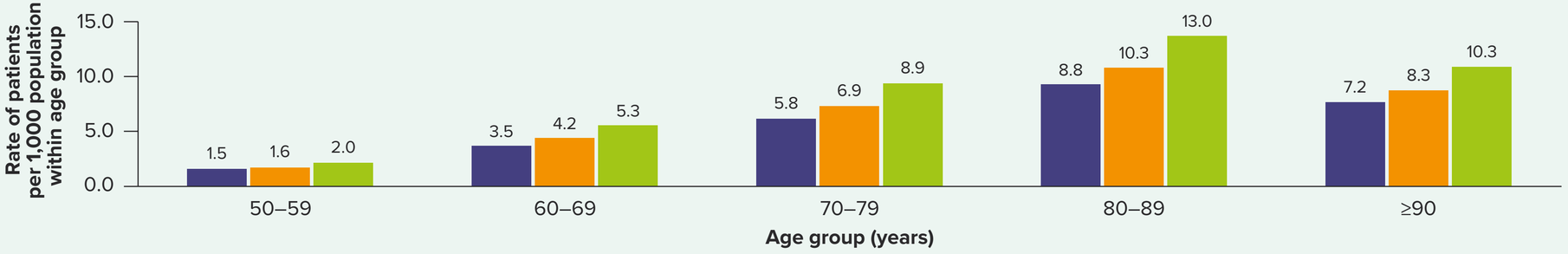
The number and rate of patients increased over time in all age groups.

Between 2021/2022 and 2023/2024, the greatest increase in number of patients was seen in those aged 70–79 years (52.4%) and the smallest increase in those aged 50–59 years (37.5%).

Number of patients attending hospital with diabetes with ophthalmic complications by age group, England, 2021/2022–2023/2024



Rate of patients attending hospital with diabetes with ophthalmic complications per 1,000 population within each age group, England, 2021/2022–2023/2024



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Inpatient, outpatient and emergency care attendance analysed to calculate number of patients who live in each quintile. National data from mid-2020 on the population of England aged ≥50 years in each quintile used to calculate rate of patients per 1,000.

Detailed study methods

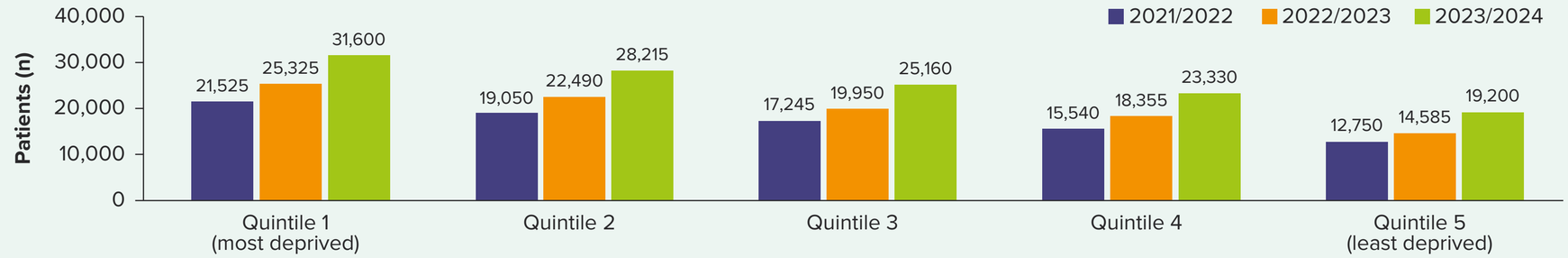
Patients attending hospital with diabetes with ophthalmic complications increased with increasing level of deprivation but increased over time across the spectrum of deprivation

Among patients attending hospital with diabetes with ophthalmic complications in an inpatient, outpatient or emergency care setting, the number of patients showed a trend to decrease from Quintile 1 (most deprived) to Quintile 5 (least deprived).

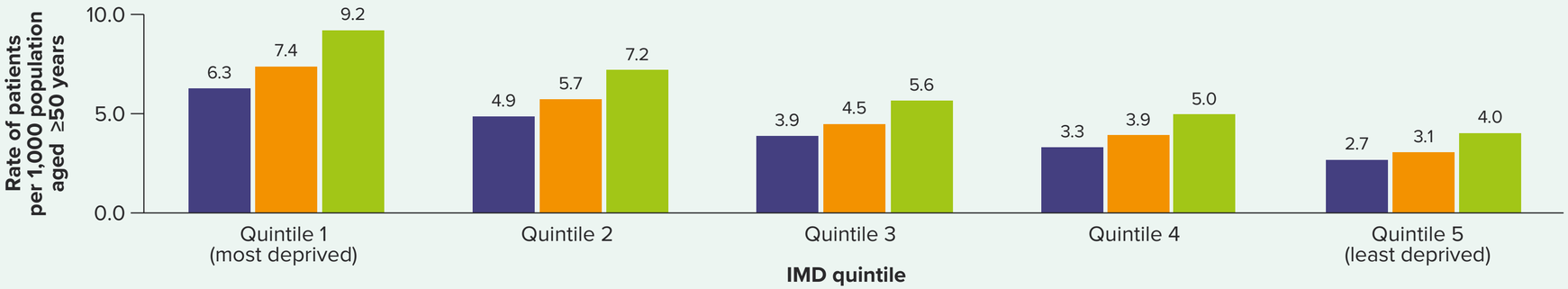
The number of patients increased year on year in all quintiles. The largest increases were seen between 2022/2023 and 2023/2024 in all quintiles.

The pattern in rate per 1,000 population aged ≥50 years within each quintile mirrored the trend in number of patients.

Number of patients attending hospital with diabetes with ophthalmic complications by IMD quintile, England, 2021/2022–2023/2024



Rate of patients attending hospital with diabetes with ophthalmic complications per 1,000 population aged ≥50 years within each IMD quintile, England, 2021/2022–2023/2024



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Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by ethnicity.

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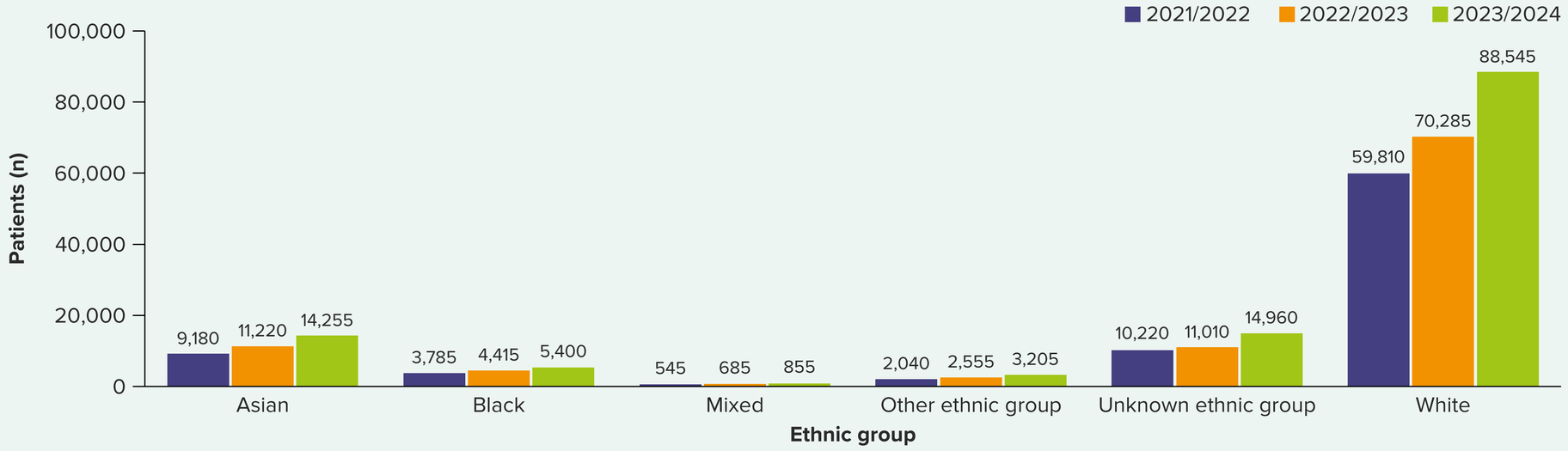
Patients attending hospital with diabetes with ophthalmic complications was highest among White patients and lowest for Mixed ethnicity and increased over time in all ethnic groups

Among patients attending hospital with diabetes with ophthalmic complications in an inpatient, outpatient or emergency care setting, the number of patients is considerably higher among White patients and lower among all other ethnic groups, being highest in Asian patients and patients of unknown ethnicity and lowest among those of Mixed ethnicity.

The number of patients increased over time in all ethnic groups. Increase in patient numbers from 2021/2022 to 2023/2024 was lowest for Black patients (42.7%) and highest for patients from Other ethnic group (57.1%).

Rate is not available for ethnicity.

Number of patients attending hospital with diabetes with ophthalmic complications by ethnicity, England, 2021/2022–2023/2024



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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by age group. Patient numbers analysed with national data from mid-2022 on the population of England by age to calculate rate per 1,000 in each age group.

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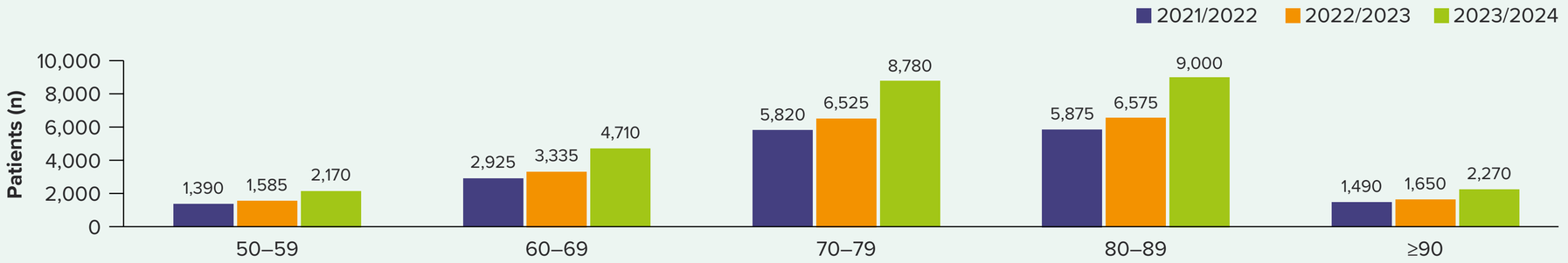
Patients attending hospital with RVO increased with age up to 80–89 years then decreased for those age ≥90 years and increased over time in all age groups

Among patients attending hospital with RVO in an inpatient, outpatient or emergency care setting, the number of patients increased with increasing age up to 80–89 years, when it decreased considerably for those aged ≥90 years.

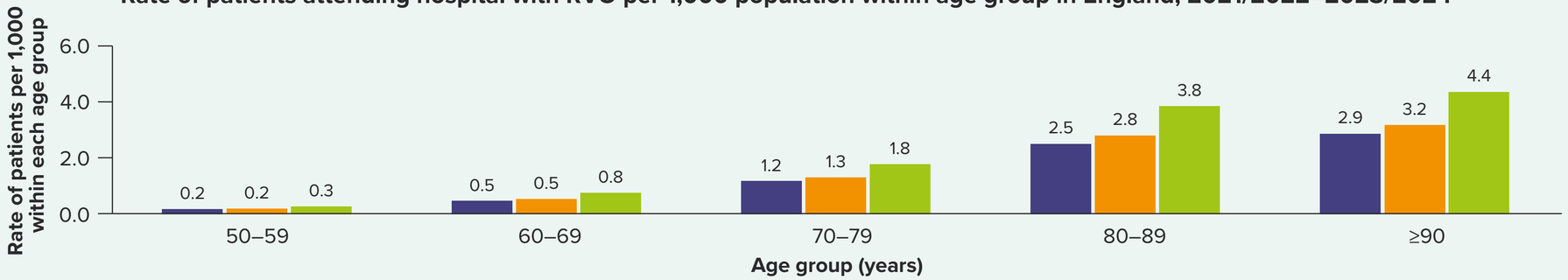
The number of patients increased over time in all age groups.

The greatest increase in patient numbers from 2021/2022 to 2023/2024 was seen in patients aged 60–69 years (61.0%), whilst the smallest increase was seen in those aged 70–79 years (50.9%).

Number of patients attending hospital with RVO by age group, England, 2021/2022–2023/2024



Rate of patients attending hospital with RVO per 1,000 population within age group in England, 2021/2022–2023/2024



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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate numbers of patient who live in each quintile. National data from mid-2020 on the population of England aged ≥50 years in each quintile used to calculate rate of patients per 1,000.

Detailed study methods

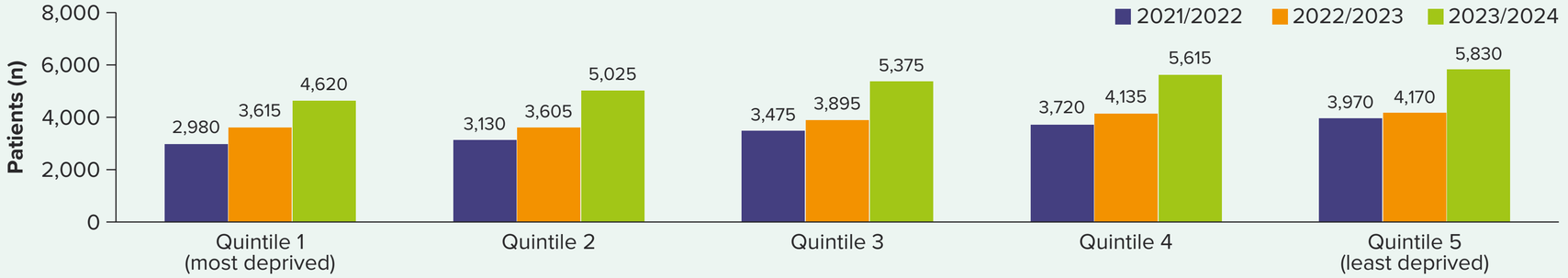
Patients attending hospital with RVO showed a slight trend to increase from most deprived to least deprived populations but increased over time across the spectrum of deprivation

Among patients attending hospital with RVO in an inpatient, outpatient or emergency care setting, the number of patients showed a slight trend to increase from Quintile 1 (most deprived) to Quintile 5 (least deprived).

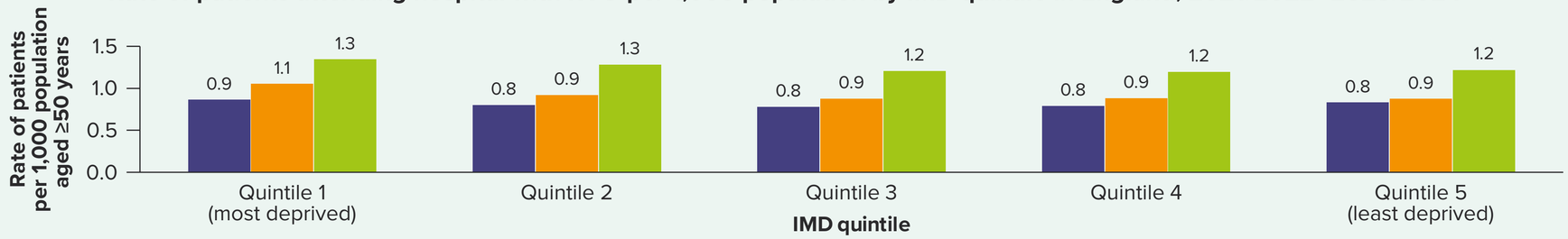
The number of patients increasing over time in all quintiles, with the largest increases between 2022/2023 and 2023/2024.

The rate of RVO per 1,000 population aged ≥50 years was roughly the same across all quintiles. The rate increased over time in all quintiles.

Number of patients attending hospital with RVO by IMD quintile, England, 2021/2022–2023/2024



Rate of patients attending hospital with RVO per 1,000 population by IMD quintile in England, 2021/2022–2023/2024



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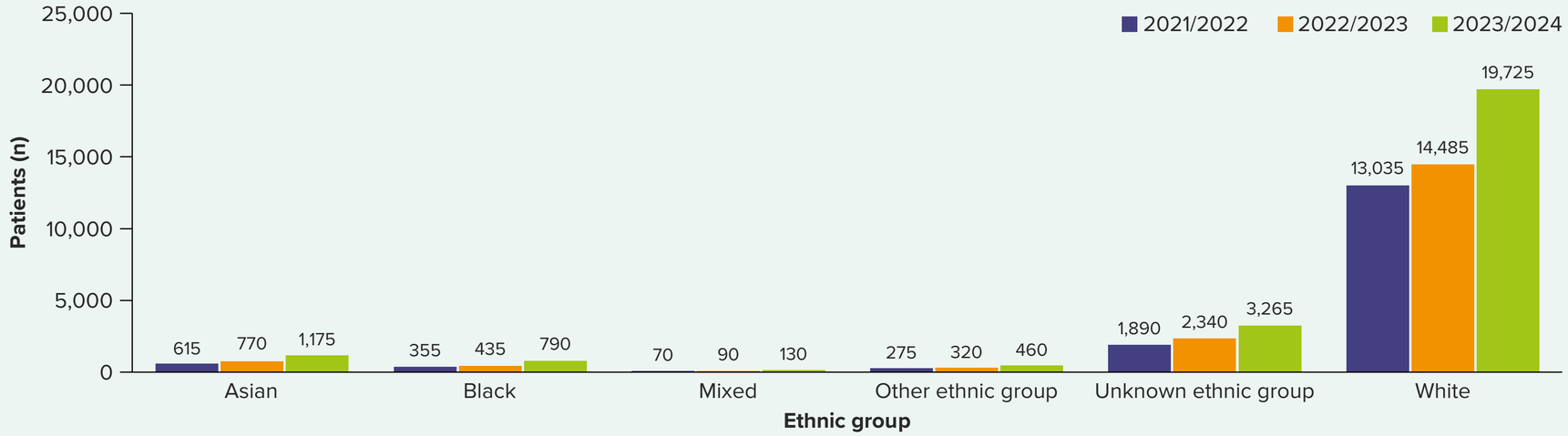
Patients attending hospital with RVO was highest among White patients and lowest for those of Mixed ethnicity and increased over time in all ethnic groups

Among patients attending hospital with RVO in an inpatient, outpatient or emergency care setting, the number of patients was considerably higher among White patients and lower among all other ethnic groups, being highest in patients of unknown ethnicity and lowest among those of Mixed ethnicity.

The number increased over time in all age groups. From 2021/2022 to 2023/2024, the greatest increase in patient numbers was seen in Black patients (122.5%) and the smallest increase in White patients (51.3%).

Rate is not available for ethnicity.

Number of patients attending hospital with RVO by ethnicity, England, 2021/2022–2023/2024



Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by ethnicity.

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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by age group. Patient numbers analysed with national data from mid-2022 on the population of England by age to calculate rate per 1,000 in each age group.

Detailed study methods

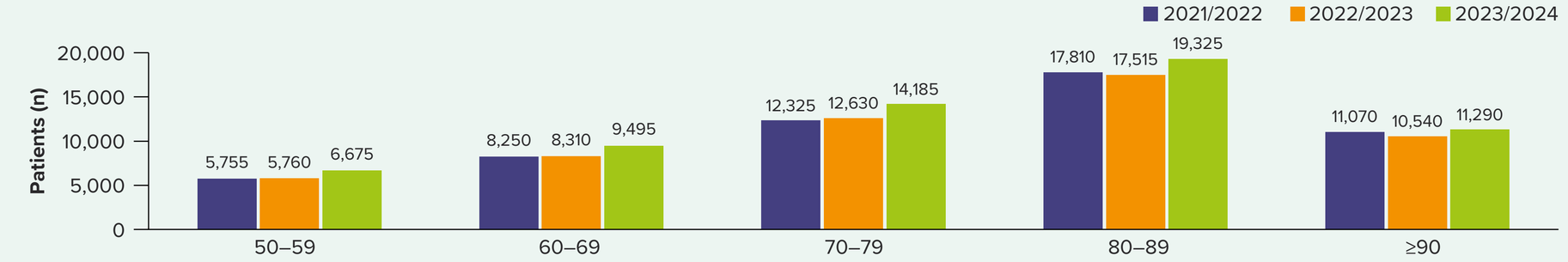
Patients attending hospital with visual impairment/blindness increased with age up to 80–89 years then decreased; numbers increased over time overall but decreased in patients aged ≥80 years in 2022/2023

Among patients attending hospital with visual impairment/blindness in an inpatient, outpatient or emergency care setting, the number of patients increased with increasing age up to 80–89 years, when it decreases for those aged ≥90 years, but remained higher than in patients aged 50–59 and 60–69 years.

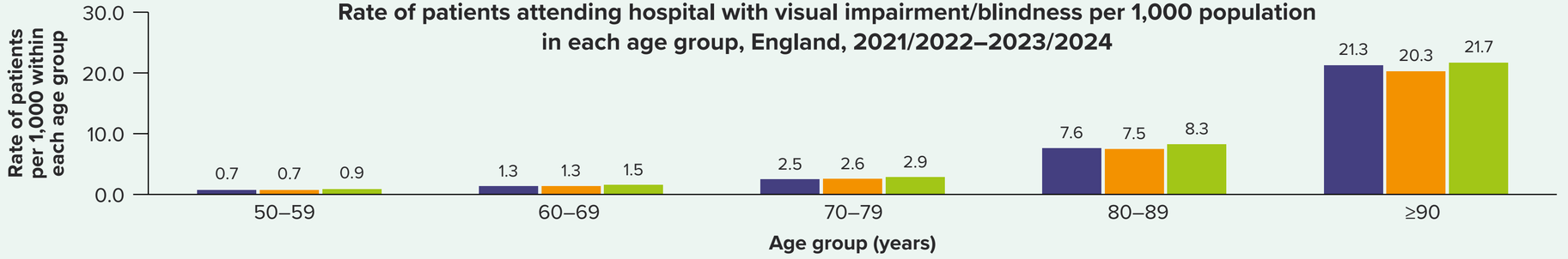
The number of patients increased over time overall, but decreased in patients aged 80–89 and ≥90 years in 2022/2023.

From 2021/2022 to 2023/2024, the biggest increase in patient numbers was seen in those aged 50–59 years (16.0%) and the smallest increase in patients aged ≥90 years (2.0%).

Number of patients attending hospital with visual impairment/blindness by age group, England, 2021/2022–2023/2024



Rate of patients attending hospital with visual impairment/blindness per 1,000 population in each age group, England, 2021/2022–2023/2024



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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate number of patients who live in each quintile. National data from mid-2020 on the population of England aged ≥50 years in each quintile used to calculate rate of patients per 1,000.

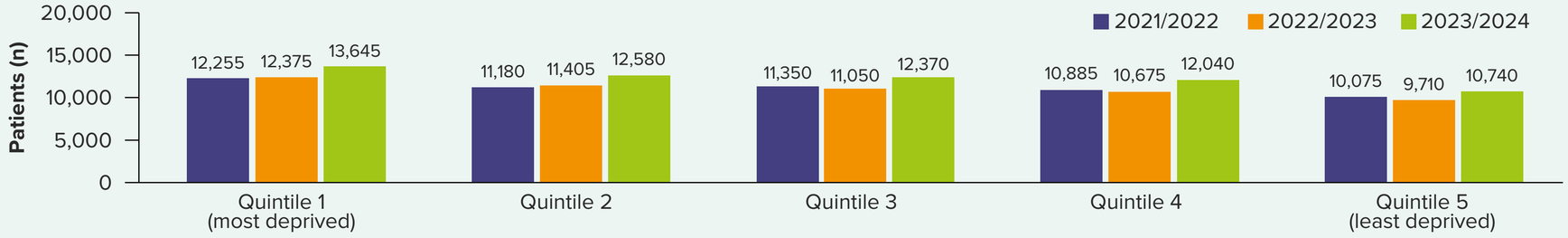
Detailed study methods

Patients attending hospital with visual impairment/blindness trends to a decrease with decreasing level of deprivation; numbers of patients increased over time overall but decreased in Quintiles 3–5 in 2022/2023

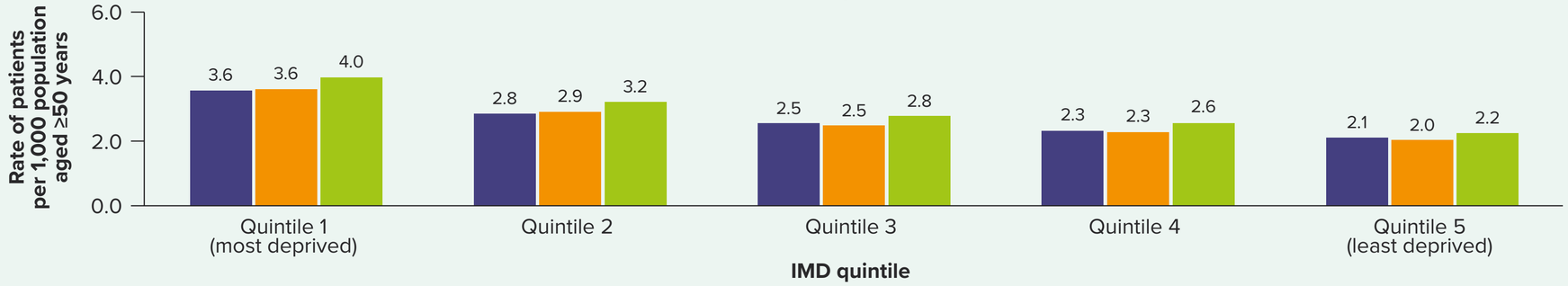
Among patients attending hospital with visual impairment/blindness in an inpatient, outpatient or emergency care setting, the number of patients overall showed a slight trend to decrease from Quintile 1 (most deprived) to Quintile 5 (least deprived).

There was an overall increase in all quintiles between 2021/2022 and 2023/2024, but numbers decreased in Quintiles 3, 4 and 5 in 2022/2023.

Number of patients attending hospital with visual impairment/blindness by IMD quintile, England, 2021/2022–2023/2024



Rate of patients attending hospital with visual impairment/blindness per population aged ≥50 years within each IMD quintile, England, 2021/2022–2023/2024



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Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by ethnicity.

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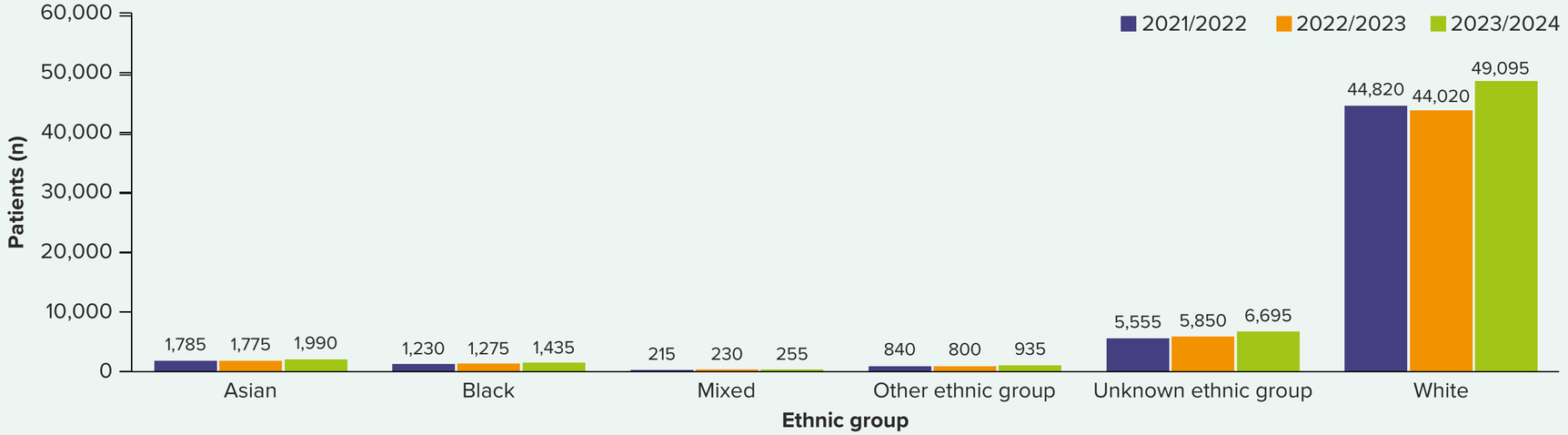
Patients attending hospital with visual impairment/blindness was highest among White patients and lowest for those of Mixed ethnicity; numbers of patients increased over time overall but decreased in patients of Asian, White or Other ethnicity in 2022/2023

Among patients attending hospital with visual impairment/blindness in an inpatient, outpatient or emergency care setting, the number of patients is considerably higher among White patients and lower among all other ethnic groups, being highest in patients of unknown ethnicity and lowest among those of Mixed ethnicity.

From 2021/2022 to 2023/2024, the number of White patients showed the smallest increase (9.5%), whereas increases for patients of Asian (11.5%), Black (16.7%), Mixed (18.6%) or unknown (20.5%) ethnicity were higher.

Rate is not available for ethnicity.

Number of patients attending hospital with visual impairment/blindness by ethnicity, England, 2021/2022–2023/2024



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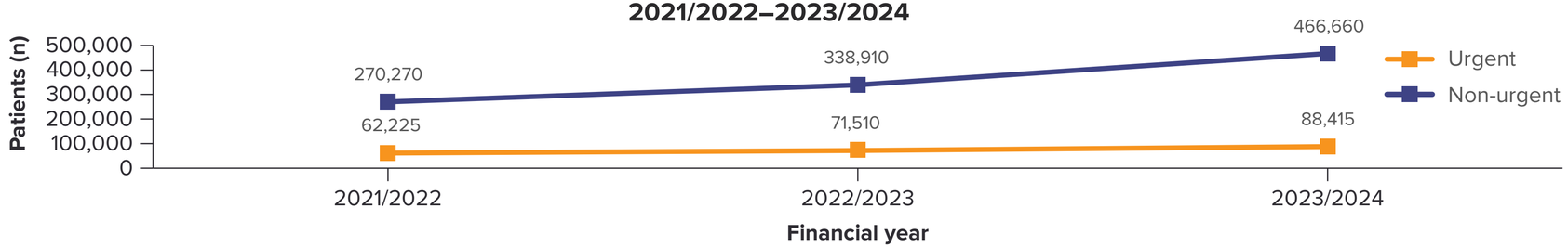
ICB deep dive

Number and rate of patients attending first hospital appointments after optician referrals increased over time, particularly for non-urgent referrals

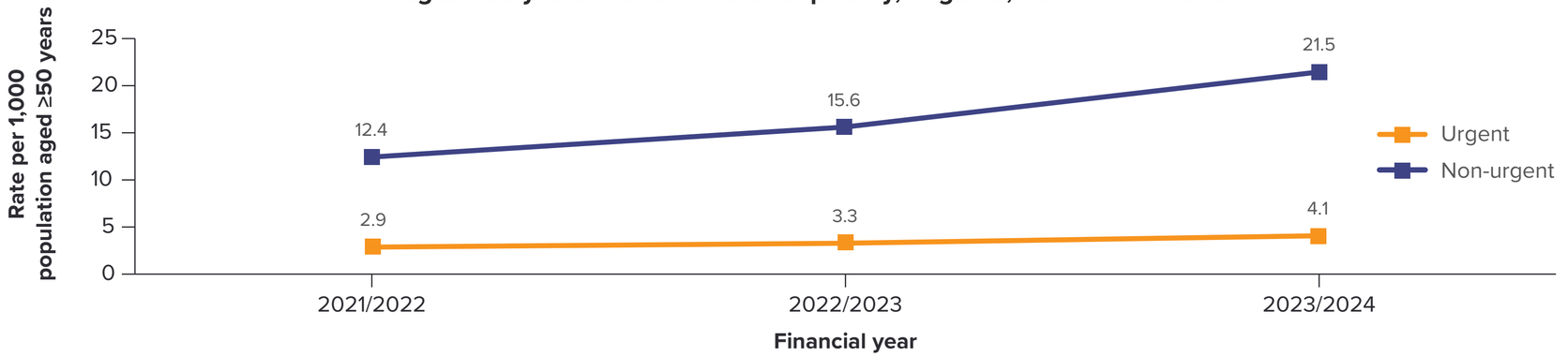
The number of patients attending first appointments after optician referral for any reason increased year on year, with the largest increases in non-urgent appointments.

The percentage increase in attended appointments between 2021/2022 and 2023/2024 was 72.7% for non-urgent appointments and 42.1% for urgent appointments.

Patients attending first hospital appointment after optician referral for any condition by referral priority, England, 2021/2022–2023/2024



Rate of patients attending first hospital appointment after optician referral for any condition per 1,000 population aged ≥50 years with each referral priority, England, 2021/2022–2023/2024



Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods. Patient numbers analysed with national data from mid-2022 on the population of England aged ≥50 years to calculate rate per 1,000.

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Age

Deprivation

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Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods, grouped by age of patient. Patient numbers analysed with national data from mid-2022 on the population of England in each age group to calculate rate per 1,000.

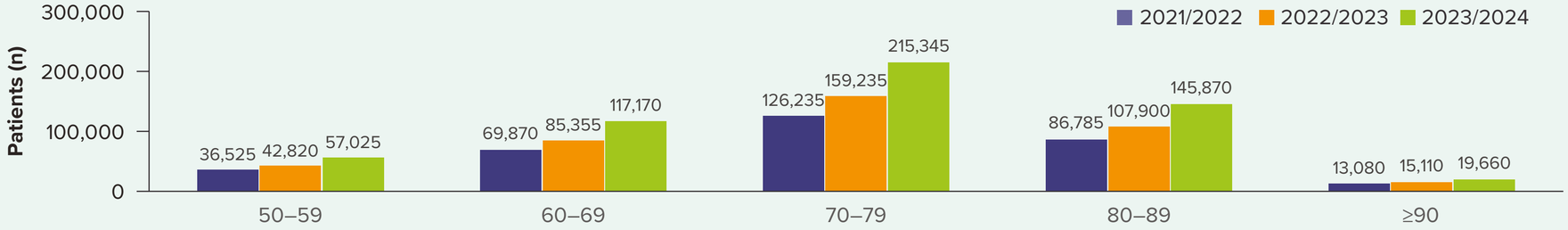
Detailed study methods

Number of patients attending first hospital appointments after optician referral increased with age to 70–79 years and rate to 80–89 years before decreasing

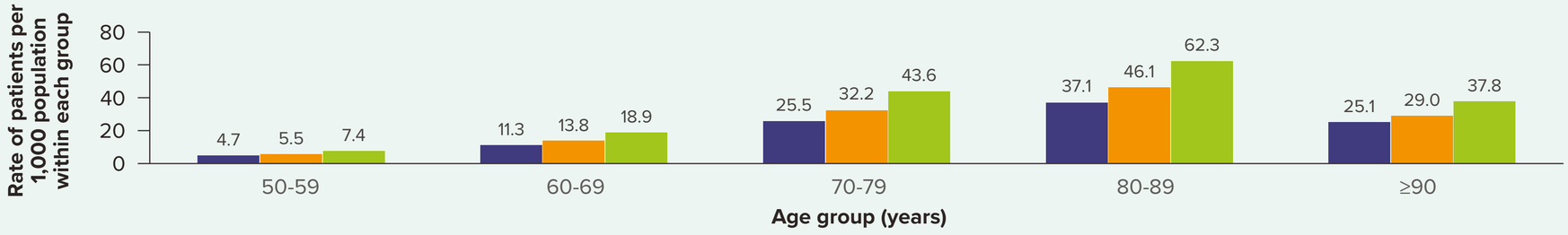
The number of patients attending first hospital appointments after optician referral for any reason increased with increasing age to 70–79 years and then decreased with increasing age. The lowest number was among people aged ≥90 years. The number increased year on year.

The rate of patients attending first hospital appointments per 1,000 population aged ≥50 years after optician referral for any reason increased with increasing age to 80–89 years and then decreased for people aged ≥90 years. The lowest rate was among people aged 50–59 years. The rate increased year on year in all age group, with the highest increase in those aged 70–79 years.

Patients attending first hospital appointment after optician referral by age group, England, 2021/2022–2023/2024



Rate of patients attending first hospital appointment after optician referral per 1,000 of the population aged ≥50 years within each age group, England, 2021/2022–2023/2024



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Patients counted if referral source was optician and consultant specialty as per the study methods, grouped by the quintile patient lives in. Patient numbers analysed with national data from mid-2020 on the population of England aged ≥50 years in each quintile to calculate rate of patients per 1,000 in each quintile.

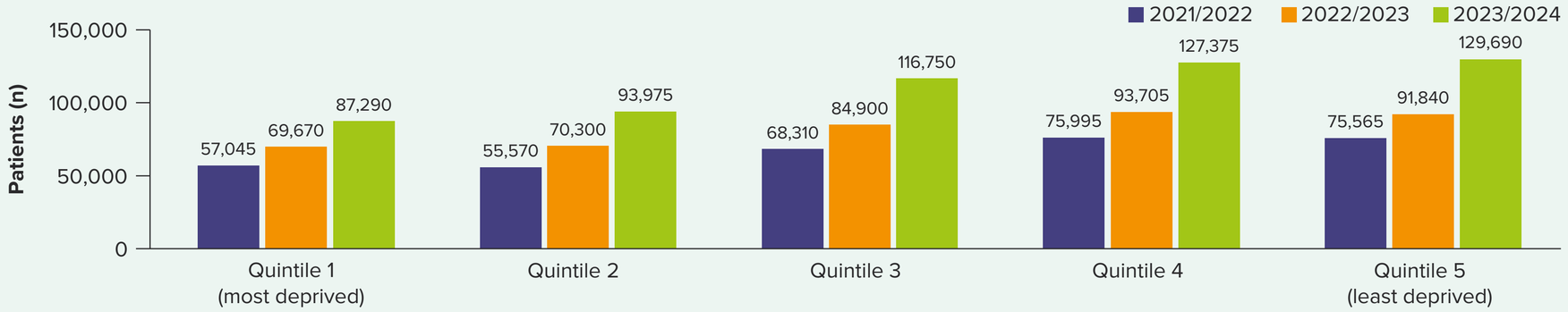
Detailed study methods

Number of patients attending first hospital appointments after optician referral increased with decreasing level of deprivation, while the rate was similar across the spectrum of deprivation

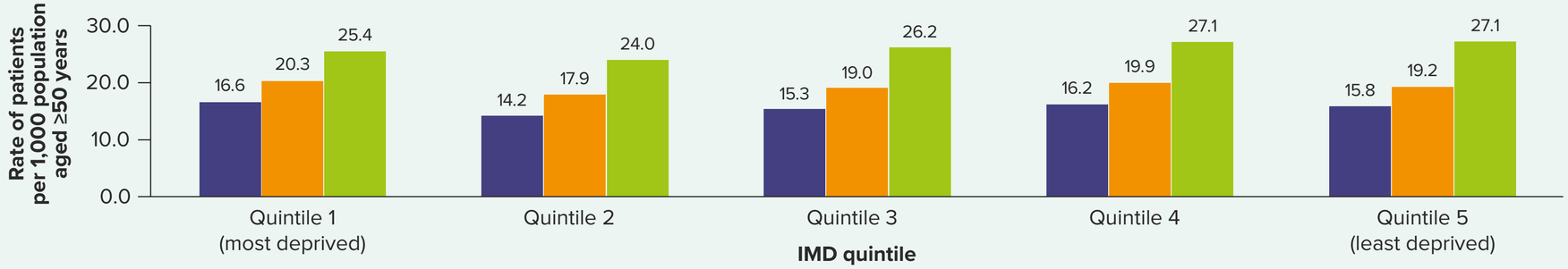
The number of patients attending first hospital appointments after optician referral for any reason increased from the most deprived population to the least deprived population. The number increased year on year in all quintiles.

By comparison, the rate per 1,000 population aged ≥50 years was similar across quintiles. All quintiles experienced a year-on-year increase.

Patients attending first hospital appointment after optician referral by IMD quintile, England, 2021/2022–2023/2024



Rate of patients attending first hospital appointment after optician referral per 1,000 of the population aged ≥50 years within each IMD quintile, England, 2021/2022–2023/2024



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Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods, grouped by patient ethnicity.

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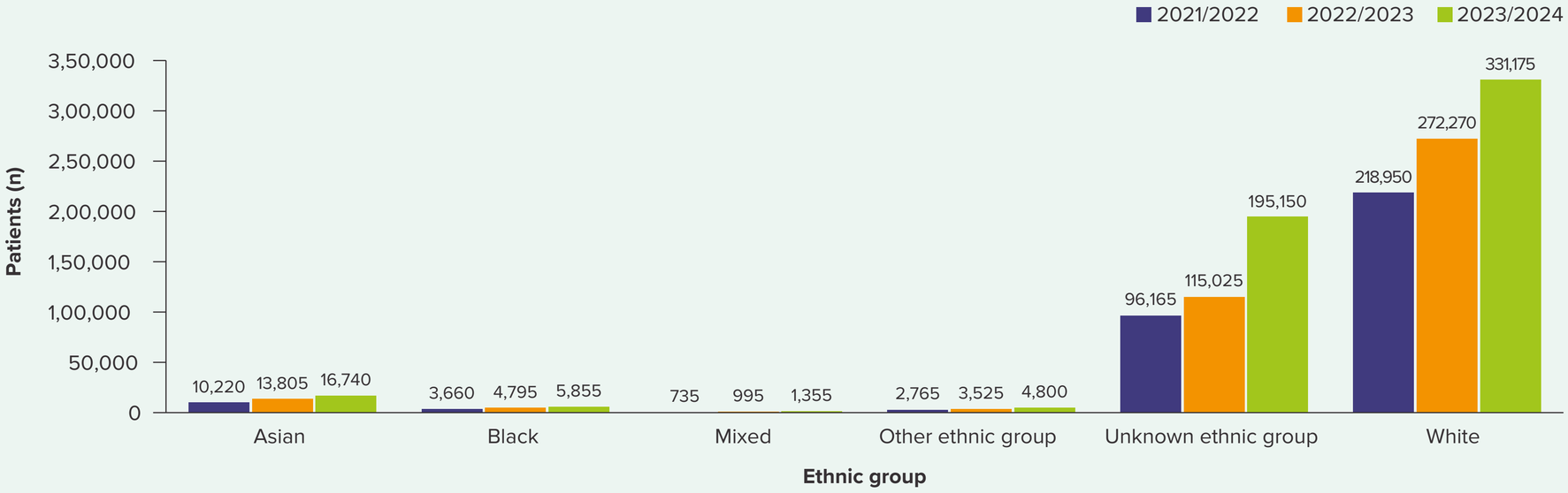
Number of patients attending first hospital appointments after optician referral was highest among White patients and lowest in those of Mixed ethnicity; numbers increased over time

The number of patients attending a first hospital appointment after optician referral was highest among White patients followed by patients of unknown ethnicity and lower among all other ethnic groups, particularly in those of Mixed ethnicity. Numbers increased over time in all ethnic groups.

From 2021/2022 to 2023/2024, patients of unknown ethnicity group who saw the largest increase in patient numbers (102.9%). The smallest increase in patient numbers was in White patients (51.3%).

Rate is not available for ethnicity.

Patients attending first hospital appointment after optician referral by ethnicity, England, 2021/2022–2023/2024



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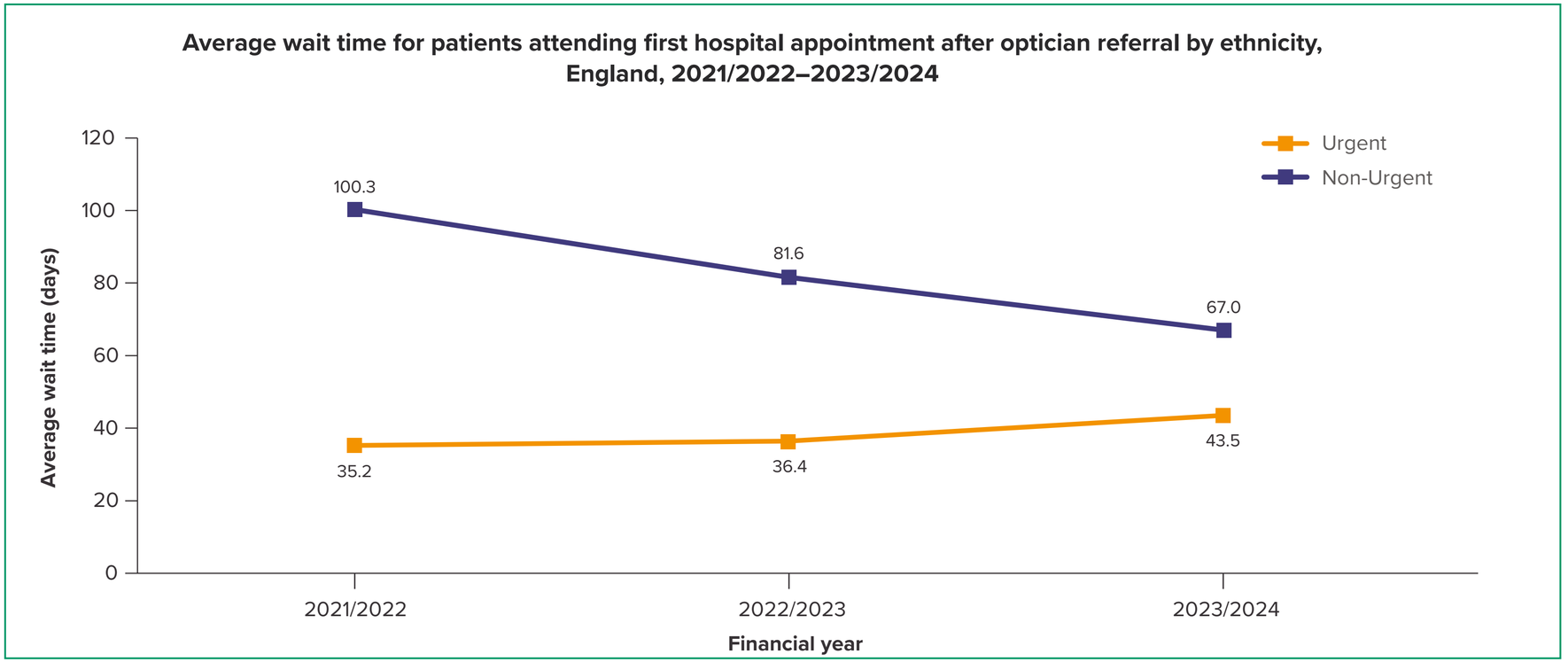
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ICB deep dive

Wait time for patients attending first hospital appointment after optician referral decreased over time for non-urgent appointments but increased for urgent appointments

The wait time for patients attending a first hospital appointment after optician referral has decreased over time for non-urgent appointment but increased for urgent appointments.



Deep dive

Age

Deprivation

Ethnicity

Analysis details
Wait time calculated as the number of days between referral and attended appointment when referral source was optician and consultant specialty as per study methods.

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Analysis details
Wait time calculated as the number of days between referral and attended appointment when referral source was optician and consultant specialty as per study methods, grouped by age of patient.

Detailed study methods

Wait time for patients attending a first hospital appointment decreased over time for all age groups, with wait times in patients aged ≥90 years showing the biggest decrease

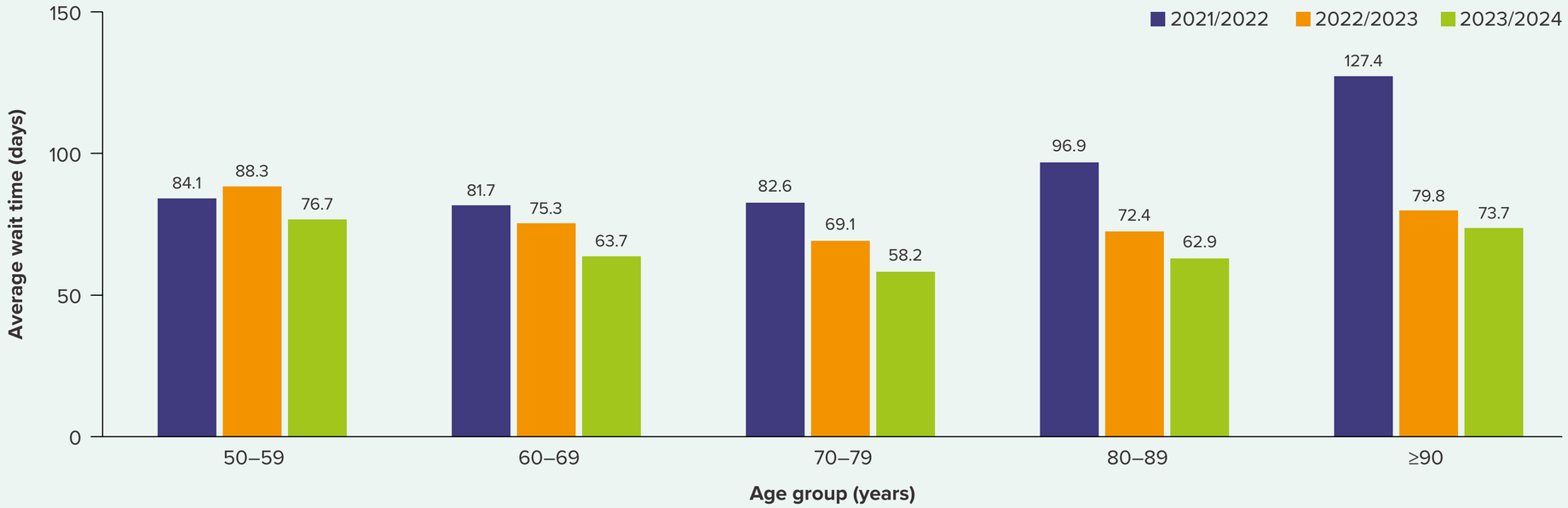
Average wait time for patients attending a first hospital appointment decreased over time for all age groups.

Wait time for patients aged ≥90 years was notably longer in 2021/2022 (approximately 46 days versus the shortest wait in 2021/2022).

Wait times were relatively similar across age groups in 2022/2023 and 2023/2024 (18.5 days difference between the shortest and longest waits in 2023/2024).

From 2021/2022 to 2023/2024, patients aged ≥90 years saw the largest reduction in wait time (42.2%), with those aged 50–59 years seeing the smallest reduction (8.8%).

Average wait time for patients attending first hospital appointment after optician referral by age group, England, 2021/2022–2023/2024



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Analysis details
Wait time calculated as the number of days between referral and attended appointment when patient aged ≥50 years and referral source was optician and consultant specialty as per study methods, grouped by quintile patient lives in.

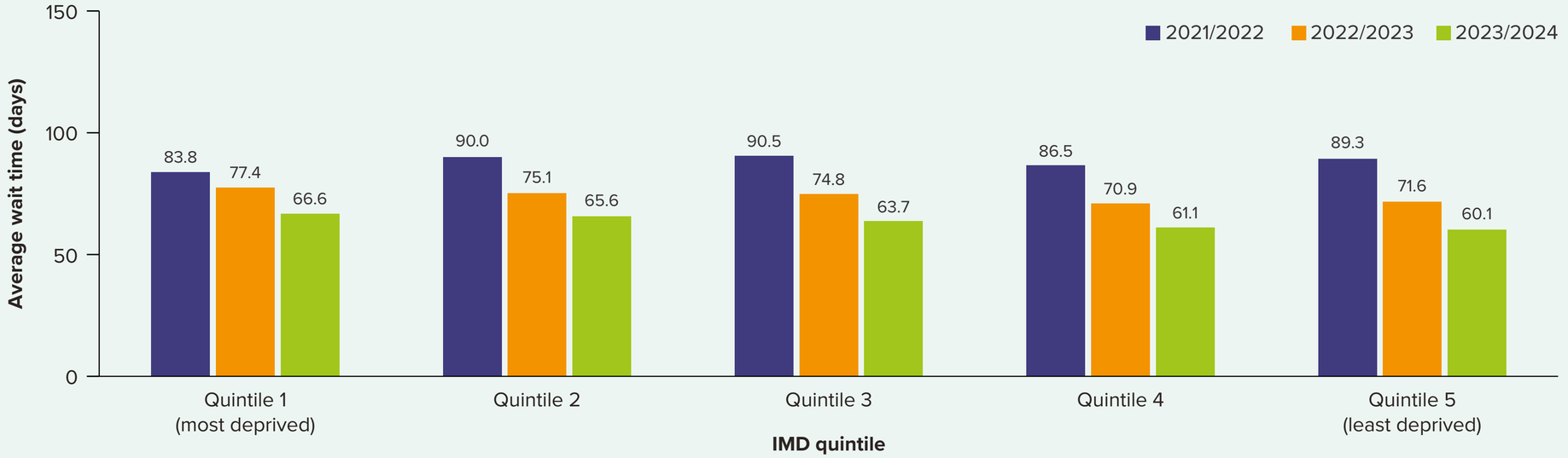
Detailed study methods

Wait time for patients attending a first hospital appointment decreased over time for all IMD quintiles, with no obvious difference across the spectrum of deprivation

Average wait time for patients attending a first hospital appointment decreased over time for all IMD quintiles.

Across all years, there was about 6.5 days' difference between the longest and shortest wait times for different IMD quintiles, with no obvious trend between least and most deprived populations.

Average wait time for patients attending first hospital appointment after optician referral by IMD quintile, England, 2021/2022–2023/2024



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Analysis details
Wait time calculated as the number of days between referral and attended appointment when referral source was optician and consultant specialty as per study methods, grouped by patient ethnicity.

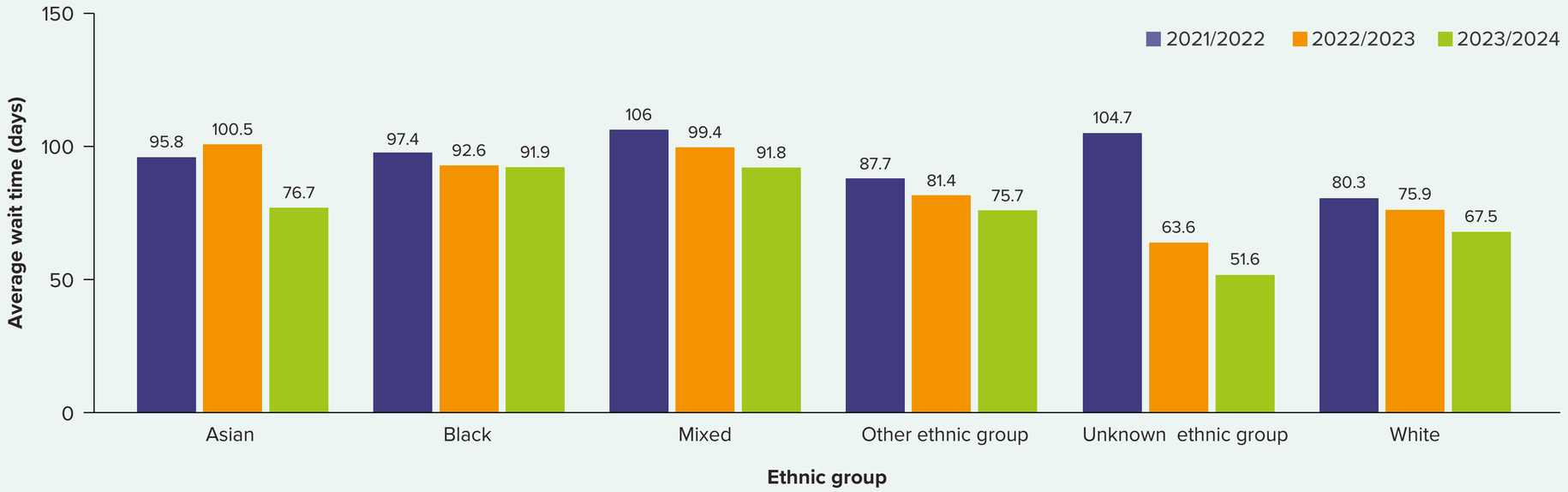
Detailed study methods

Wait time for patients attending a first hospital appointment decreased over time for all ethnicities, although the reduction was less pronounced for Black people

Average wait time decreased over time for all ethnicities.

The rate of decrease was less pronounced for Black people and most pronounced for patients of unknown ethnic group, with Black people and people of Mixed ethnicity having the longest wait times in 2023/2024 and patients of unknown ethnic group having the shortest wait times.

Average wait time for patients attending first hospital appointment after optician referral by ethnicity, England, 2021/2022–2023/2024



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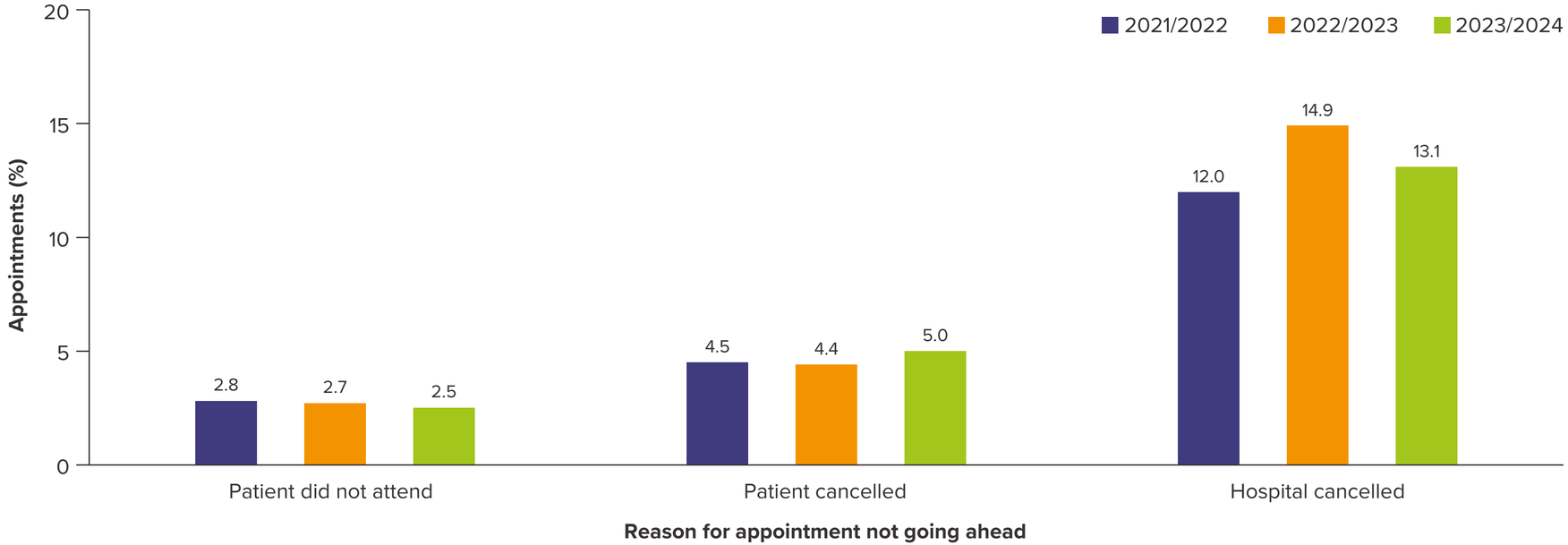
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Hospital cancellations were by far the most common reason that first hospital appointments after optician referral did not go ahead

Hospital cancellations were the most common reason that first hospital appointments after optician referral did not go ahead. Proportions of DNA and patient-cancelled appointments remained similar throughout the study period, while the proportion of hospital cancellations spiked in 2022/2023.

Percentage of first hospital appointments after optician referral where patient did not attend, patient cancelled or hospital cancelled, England, 2021/2022–2023/2024



Deep dive

DNA

Patient cancellation

Hospital cancellation

Analysis details
Appointments cancelled where patient referred by optician and consultant specialty as per study methods. % calculation reason calculated as a % of all appointments.

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Analysis details
Appointments where patient referred by optician and consultant specialty as per study methods, and patient did not attend. % calculation reason calculated as a % of all appointments, grouped by age of patient.

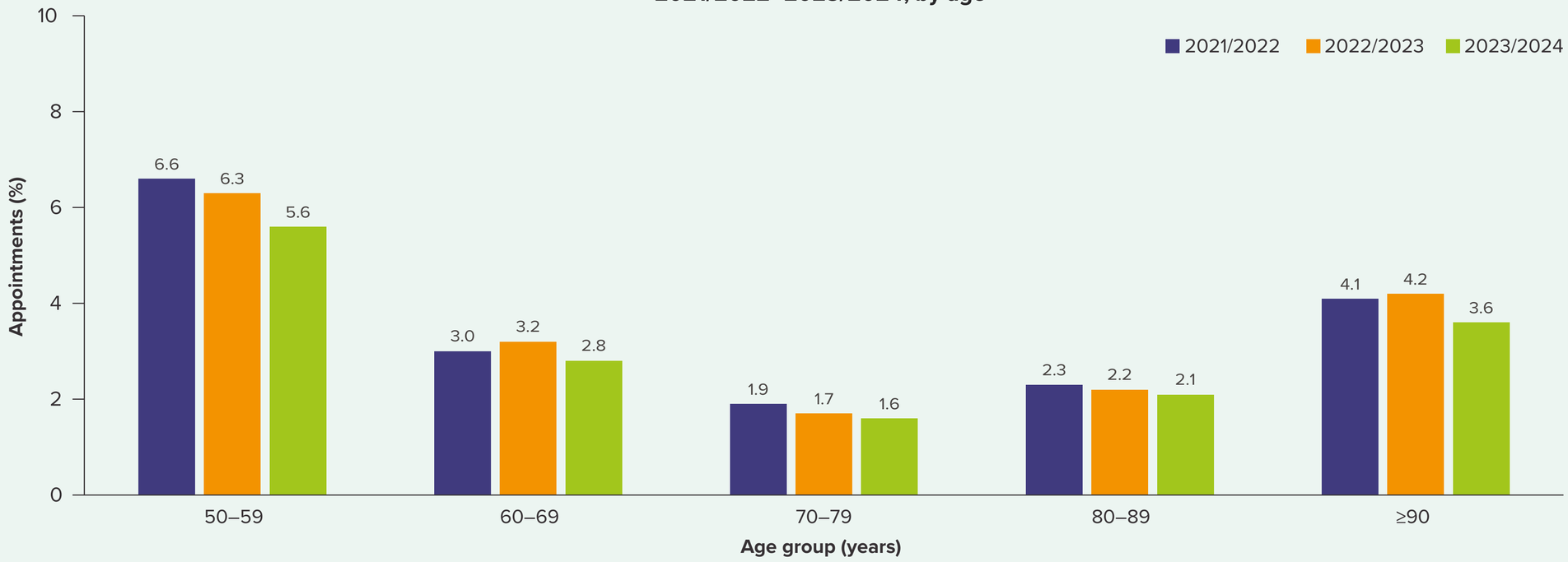
Detailed study methods

Patients aged 50–59 years and ≥90 years were most likely not to attend their first hospital appointment, with a slight decrease over time in all age groups

The proportion of patients who did not attend their first hospital appointment after optician referral was highest in the youngest and oldest age groups, particularly those aged 50–59 years.

The proportion decreased over time in patients aged 50–59, 70–79 and 80–89 years, with small increases in 2022/2023 in patients aged 60–69 years and ≥90 years before decreasing again.

Percentage of first hospital appointments after optician referral where patient did not attend, England, 2021/2022–2023/2024, by age



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Analysis details
Appointments where patient referred by optician and consultant specialty as per study methods, and patient did not attend. % calculation reason calculated as a % of all appointments, grouped by quintile patient lives in.

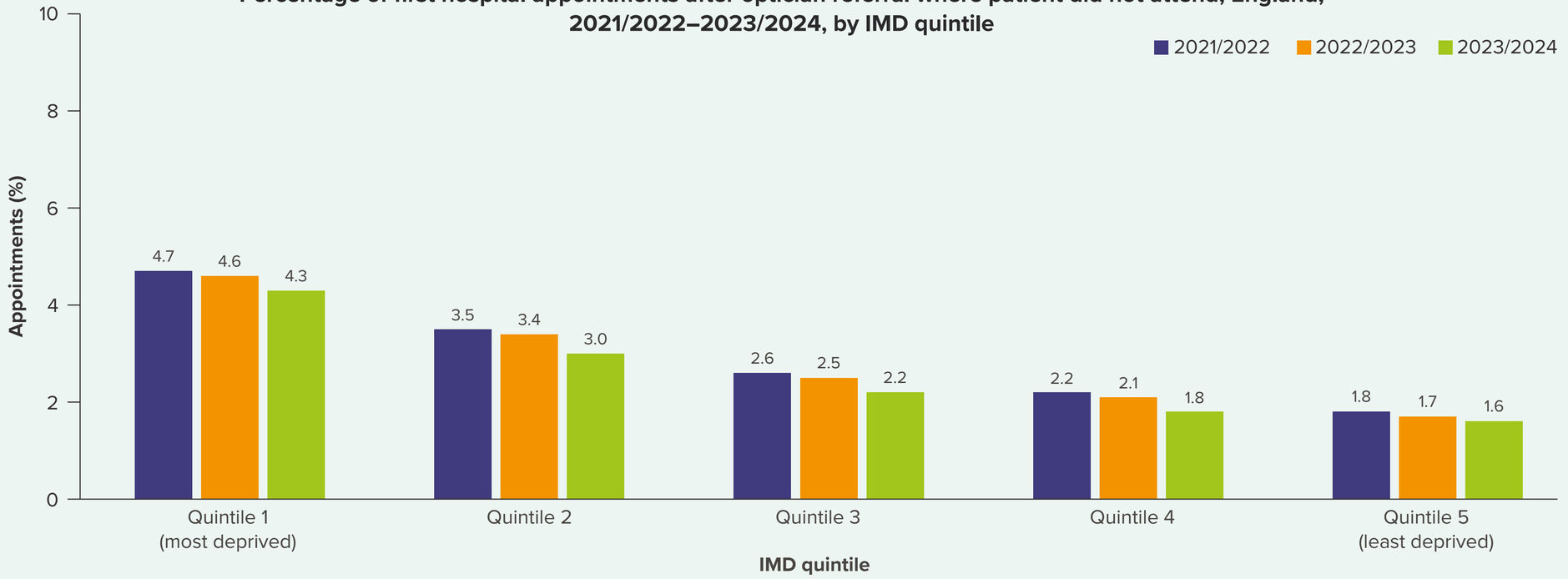
Detailed study methods

Proportion of patients who did not attend their first hospital appointment decreased with decreasing level of deprivation and over time

The proportion of patients who did not attend their first hospital appointment was inversely related to deprivation quintile. Patients from most deprived populations (Quintile 1) were most likely not to attend first appointments and those from least deprived populations (Quintile 5) were least likely not to attend their first appointment.

Patient DNAs showed a trend to decrease over time in all quintiles.

Percentage of first hospital appointments after optician referral where patient did not attend, England, 2021/2022–2023/2024, by IMD quintile



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Analysis details
Appointments where patient referred by optician and consultant specialty as per study methods, and patient did not attend. % calculation reason calculated as a % of all appointments, grouped by ethnicity of patient.

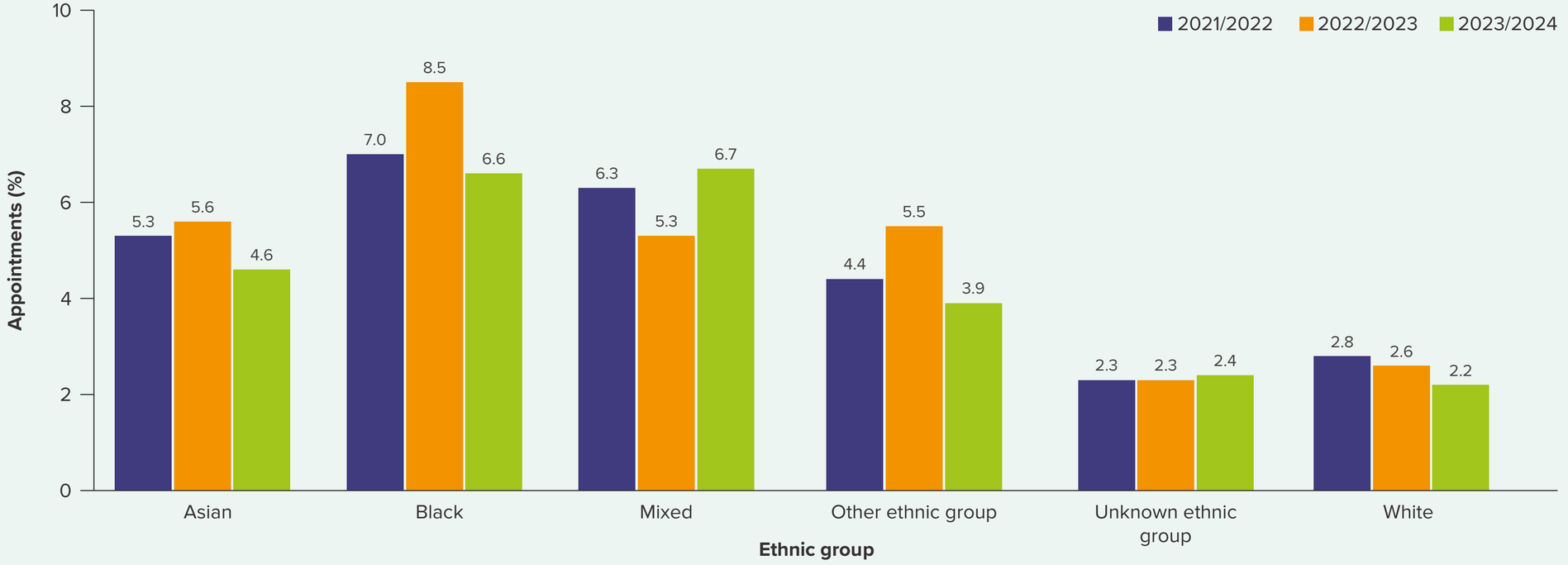
Detailed study methods

Proportion of patients who did not attend their first appointment was highest for people of Black, Asian and Mixed ethnicity, with no obvious time trend in any ethnic group

The proportion of patients who did not attend their first hospital appointment was highest in people of a Black, Mixed or Asian ethnicity and lowest in White people and people for whom ethnicity was not recorded.

The proportions of patients who did not attend showed no consistent time trend across the ethnic groups.

Percentage of first hospital appointments after optician referral where patient did not attend, England, 2021/2022–2023/2024, by ethnicity



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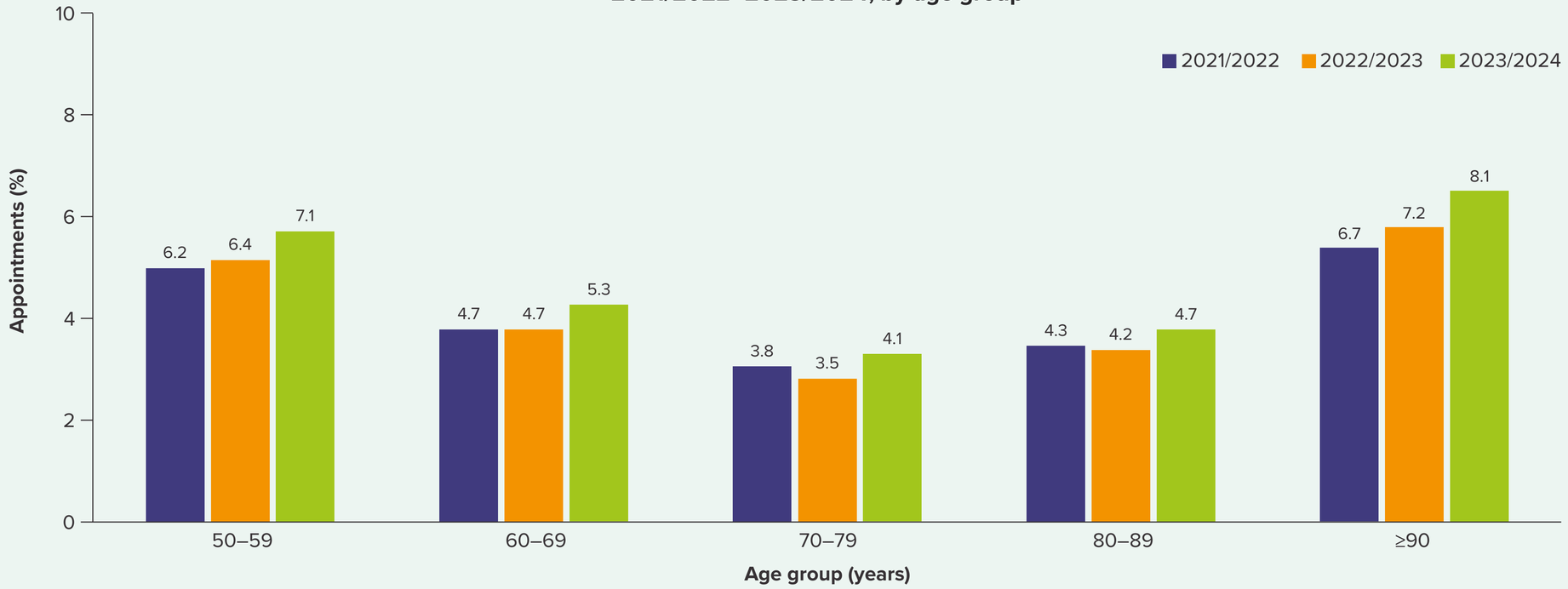
Analysis details
Appointments where patient referred by optician and consultant specialty as per study methods, and patient cancelled. % calculation reason calculated as a % of all appointments, grouped by age of patient.

Detailed study methods

The proportion of patients who cancelled their first hospital appointment after optician referral showed an increase between 2021/2022 to 2023/2024

The proportion of patients who cancelled their first hospital appointment after optician referral showed a small trend to increase overall from 2021/2022 to 2023/2024. A decrease in the percentage of patients was seen in 2022/2023 however for patients aged 70-79 and 80-89 years.

Percentage of first hospital appointments after optician referral cancelled by patient, England, 2021/2022–2023/2024, by age group



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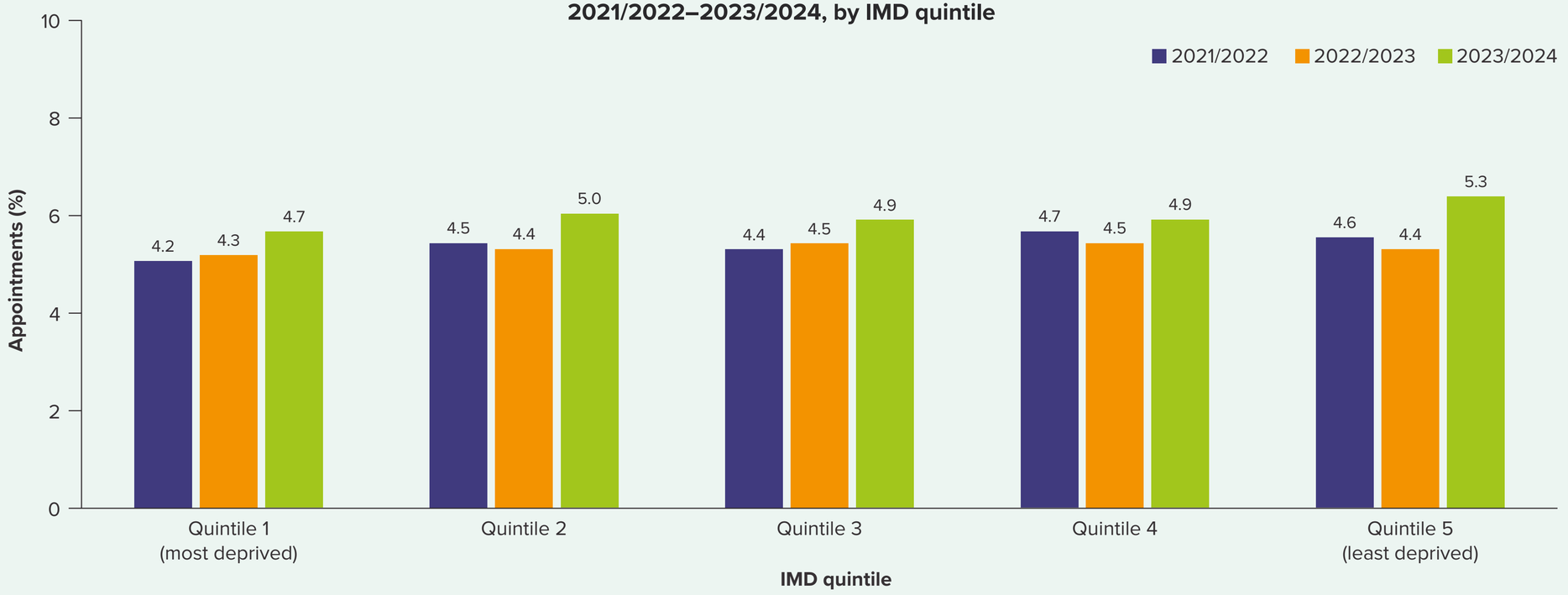
Analysis details
Appointments where patient aged ≥50 years and referred by optician and consultant specialty as per study methods, and patient cancelled. % calculation reason calculated as a % of all appointments, grouped by quintile patient lives in.

Detailed study methods

Proportion of patients who cancelled their first hospital appointment was broadly similar across quintiles and over time

The proportion of patients who cancelled their first hospital appointment was broadly similar across quintiles with a trend to an increase between 2021/2022 to 2023/2024.

Percentage of first appointments after optician referral where patient cancelled, England, 2021/2022–2023/2024, by IMD quintile



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Analysis details
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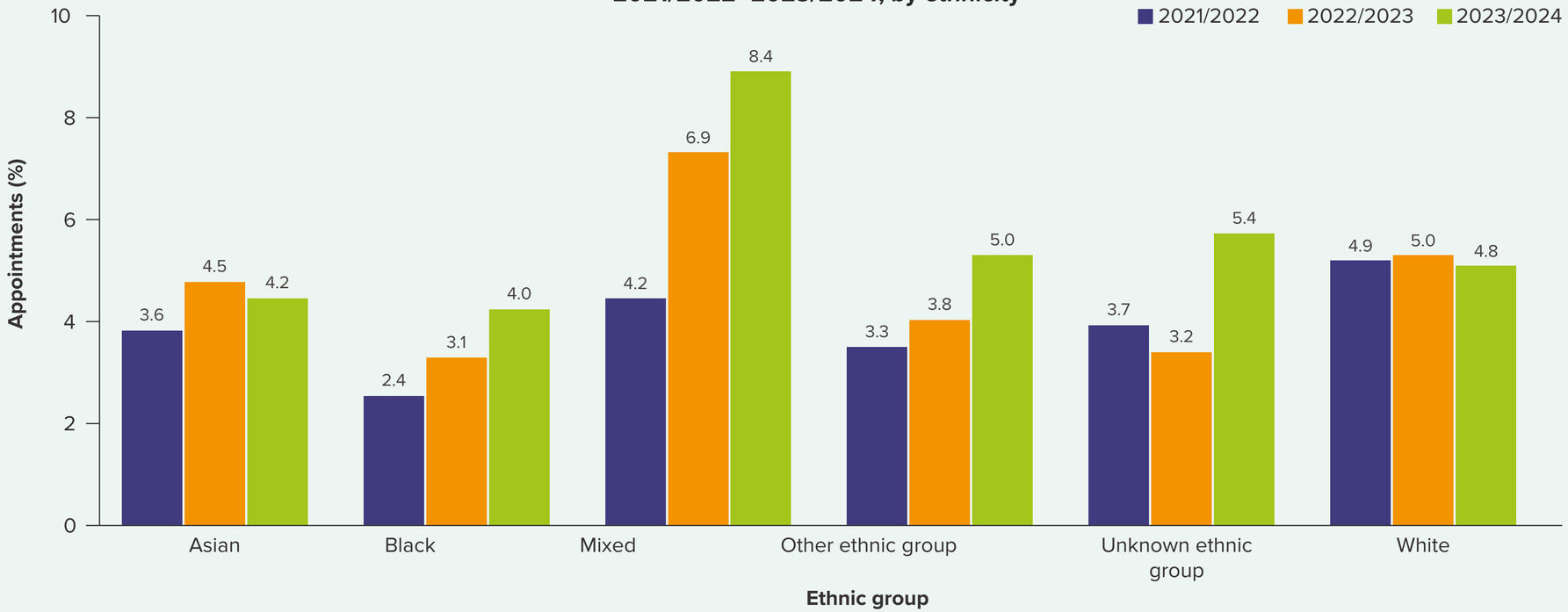
Detailed study methods

Proportion of patients who cancelled their first appointment was highest for people of Mixed ethnicity and lowest for Black people, with no consistent time trend across ethnic groups

The proportion of patients who cancelled their first hospital appointment was highest in people from Mixed ethnic groups and lowest in Black people.

Patient cancellations showed no consistent time trend across the ethnic groups.

Percentage of first appointments after optician referral cancelled by patient, England, 2021/2022–2023/2024, by ethnicity



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Analysis details
Appointments where patient aged ≥50 years and referred by optician and consultant specialty as per study methods, and hospital cancelled. % calculation reason calculated as a % of attended appointments, grouped by age of patient.

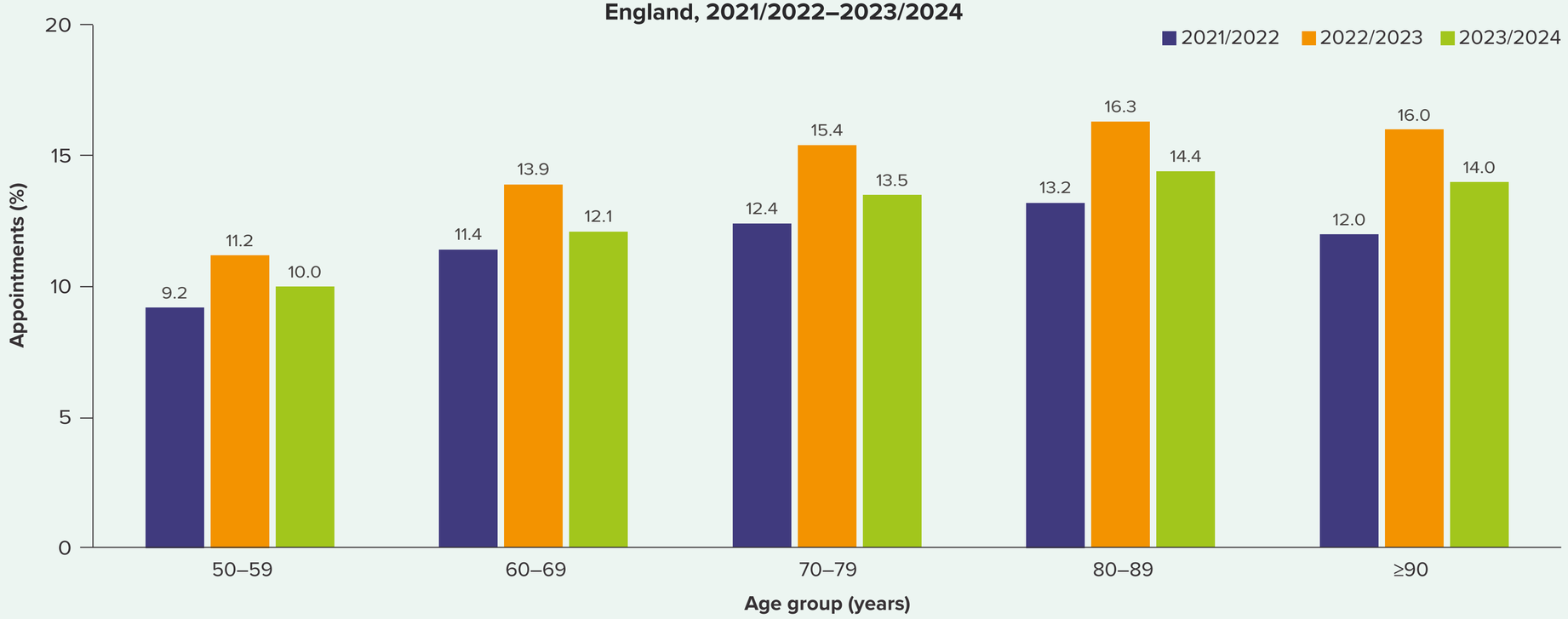
Detailed study methods

Proportion of first appointments cancelled by the hospital increased with increasing age up to 80–89 years overall, with a spike in rates for all ages in 2022/2023

The proportion of first hospital appointments after optician referral cancelled by the hospital showed a small trend to increase with increasing age up to 80–89 years and then decreased slightly for those aged ≥90 years.

Hospital cancellations for all quintiles spiked in 2022/2023.

Percentage of first hospital appointments after optician referral where hospital cancelled by age, England, 2021/2022–2023/2024



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Analysis details
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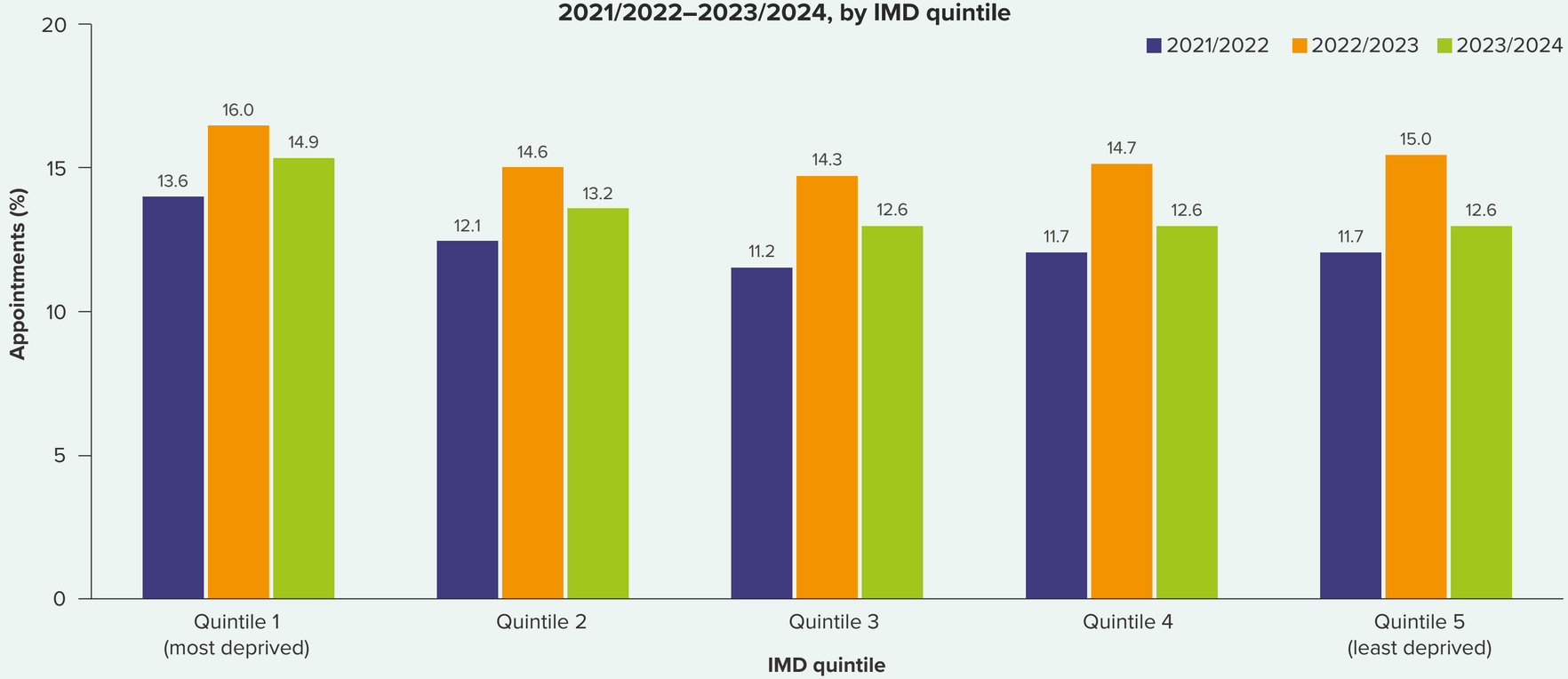
Detailed study methods

Proportion of first appointments cancelled by the hospital was broadly similar across quintiles and increased over time overall, with spikes in 2022/2023 in all quintiles

The proportion of hospital cancellations of first hospital appointment was broadly similar across quintiles, but is highest in Quintile 1 (most deprived) each year.

In all quintiles, there was an overall increase in hospital cancellations across the time period, with spikes in 2022/2023.

Percentage of first hospital appointments after optician referral cancelled by hospital, England, 2021/2022–2023/2024, by IMD quintile



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Appointments where patient referred by optician and consultant specialty as per study methods, and hospital cancelled. % calculation reason calculated as a % of all appointments, grouped by ethnicity of patient.

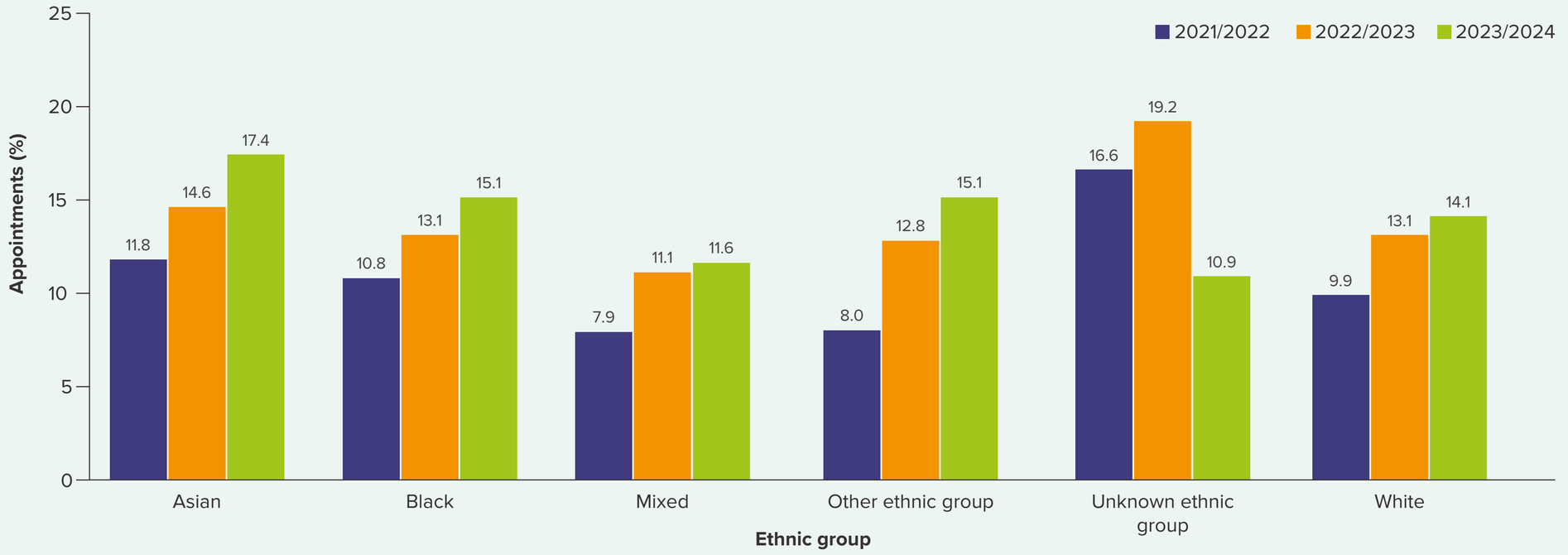
Detailed study methods

Proportion of first appointments cancelled by the hospital was broadly similar across ethnic groups and increased over time, except in patients of unknown ethnicity

The proportion of hospital cancellations of first hospital appointment was broadly similar across ethnic groups.

Cancellations increased year on year throughout the study for all ethnic groups, except in patients of unknown ethnicity in 2023/2024, when the proportion almost halved.

Percentage of first hospital appointments after optician referral cancelled by hospital, England, 2021/2022–2023/2024, by ethnicity



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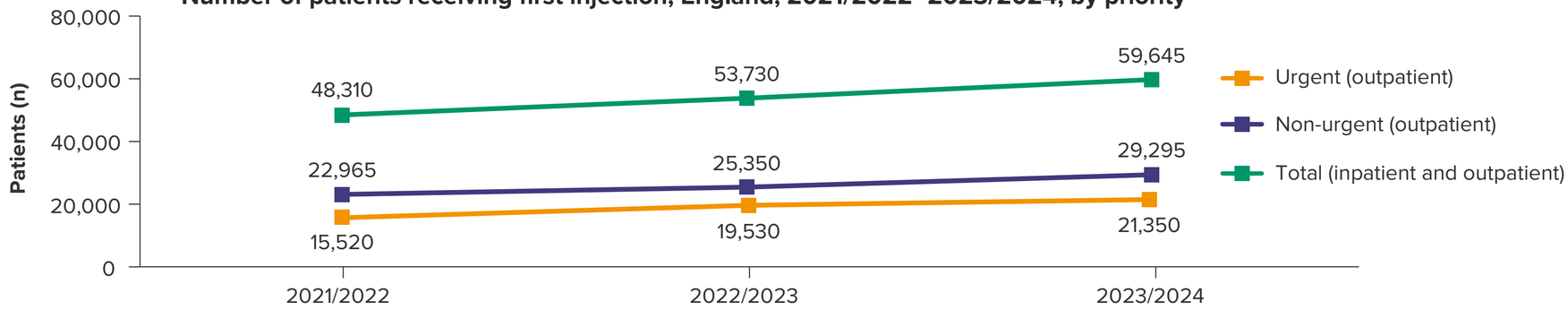
ICB deep dive

Number and rate of first injections increased over time

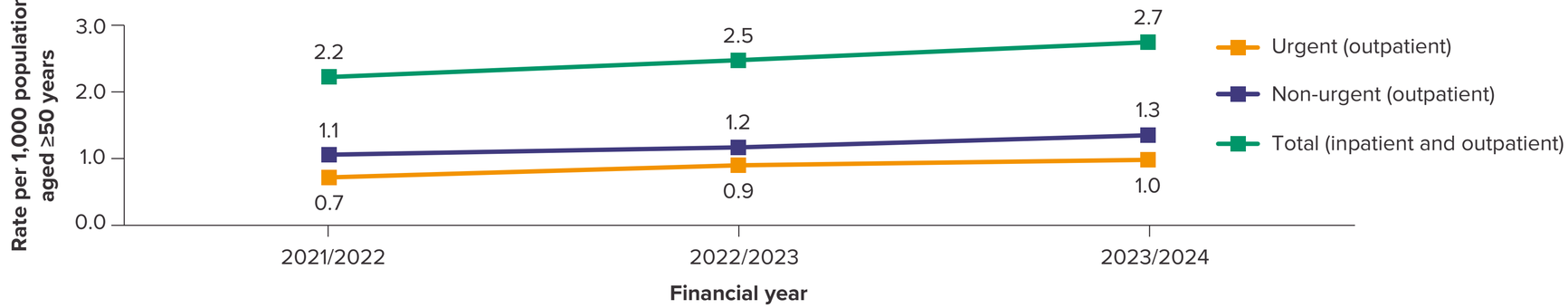
The number and rate of urgent and non-urgent first intravitreal injections increased over time.

From 2021/2022 to 2023/2024 the percentage change in the number of urgent first injections (37.6%) was higher than that of non-urgent first injections (27.6%)

Number of patients receiving first injection, England, 2021/2022–2023/2024, by priority



Rate of first injections per 1,000 population aged ≥50 years, England, 2021/2022–2023/2024, by priority



Deep dive

- Age
- Deprivation
- Ethnicity

Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous years analysed (earliest financial year looked at was 2019/2020). Rate per 1,000 calculated using national data from mid-2022 on population aged ≥50 years in England.

Detailed study methods

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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous years analysed (earliest financial year looked at was 2019/2020) and grouped by age of patient. Rate per 1,000 calculated using national data from mid-2022 on population of England in each age group.

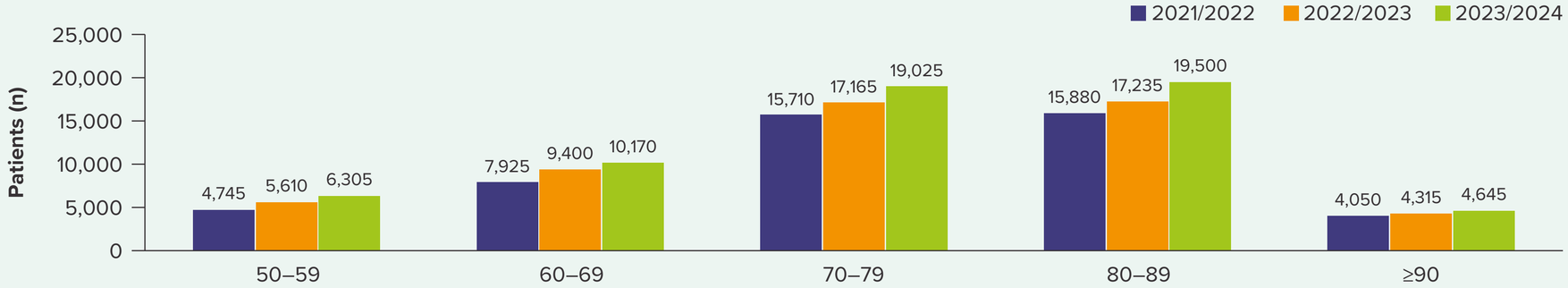
Detailed study methods

Number of first injections increased with age to 80–89 years before decreasing, while the rate continued to increase to age ≥90 years

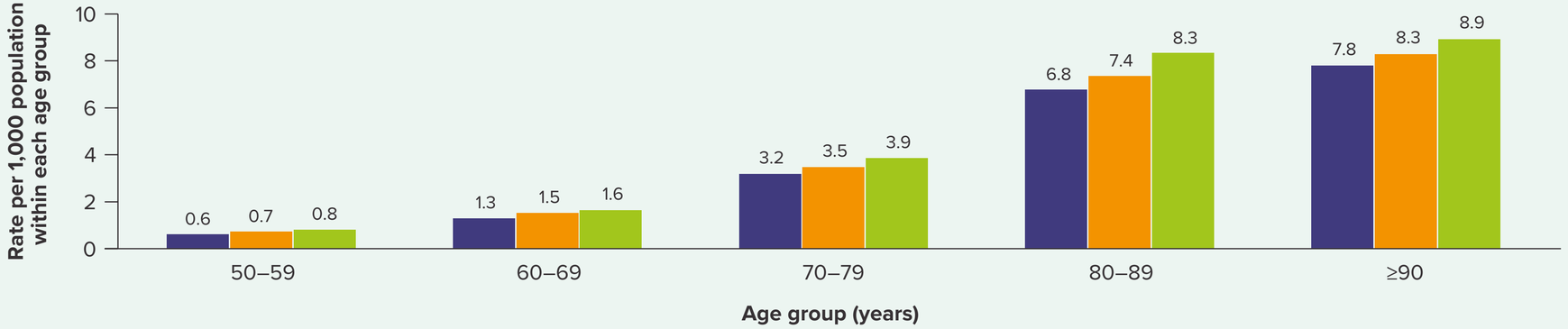
The number of first injections increased with increasing age to 80–89 years and then decreased for those aged ≥90 years. The number increased year on year.

The rate of first injections per 1,000 population aged ≥50 years within each age group increased consistently with increasing age and over time.

Number of patients having first injection, England, 2021/2022–2023/2024, by age



Rate of first injection per 1,000 population within each age group, England, 2021/2022–2023/2024, by age



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Counted as first patients' injection if they had not had an injection in any of the previous years analysed (earliest financial year looked at was 2019/2020) and grouped by quintile patient lives in. Rate per 1,000 calculated using national data from mid-2020 on population of England in each quintile.

Detailed study methods

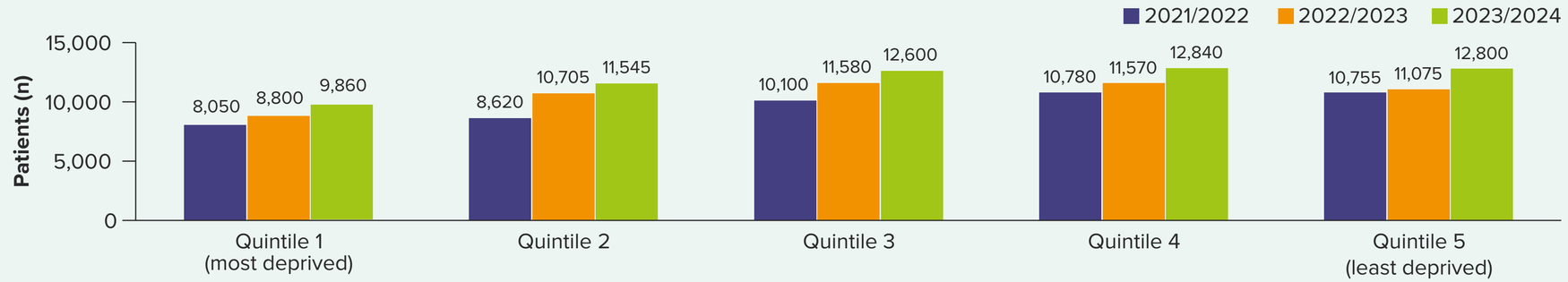
Number of first injections increased with decreasing deprivation, while the rate was similar across the spectrum of deprivation

The number of first injections increased from the most deprived population to the least deprived population.

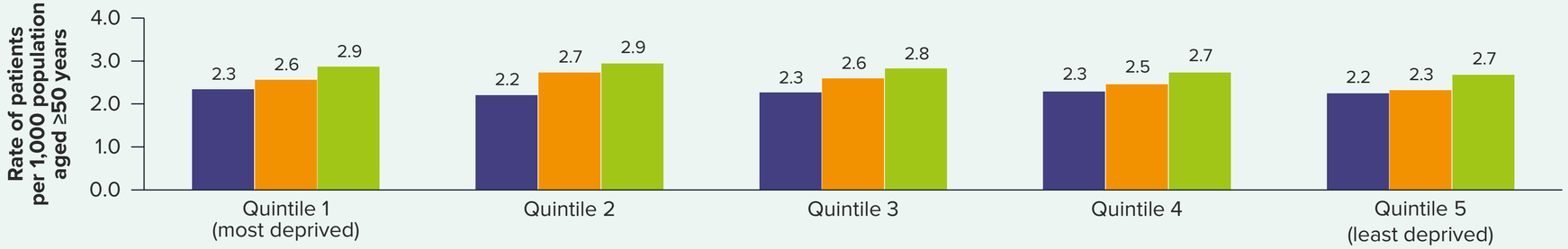
The number increased year on year in all quintiles.

By comparison, the rate per 1,000 population aged ≥50 years was similar across quintiles. All quintiles experienced a small year-on-year increase in rate.

Number of patients receiving first injection by IMD quintile, England, 2021/2022–2023/2024



Rate of first injection per 1,000 population within each quintile, England, 2021/2022–2023/2024



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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous years analysed (earliest financial year looked at was 2019/2020) and grouped by patient's ethnicity.

Detailed study methods

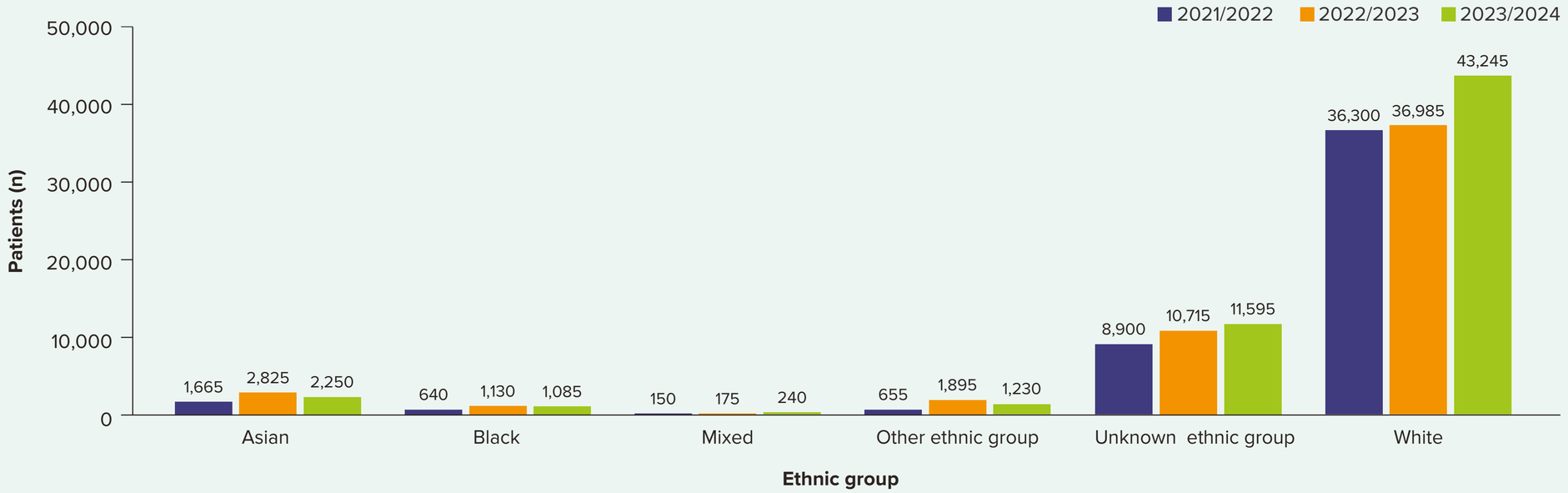
Number of first injections was highest among White patients and lowest in those of Mixed ethnicity

The number of patients with a first injection was highest among White patients followed by patients of unknown ethnicity and lower among all other ethnic groups, particularly in those of Mixed ethnicity.

From 2021/2022 to 2023/2024, the percentage growth in patient numbers was highest for patients from Other ethnic group (87.8%) and lowest for White patients (19.1%).

Rate is not available for ethnicity.

Number of patients having first injection by ethnicity, England, 2021/2022–2023/2024



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Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year) and total activity. Both patient numbers and total activity counted if injection occurred as an inpatient or outpatient episode.

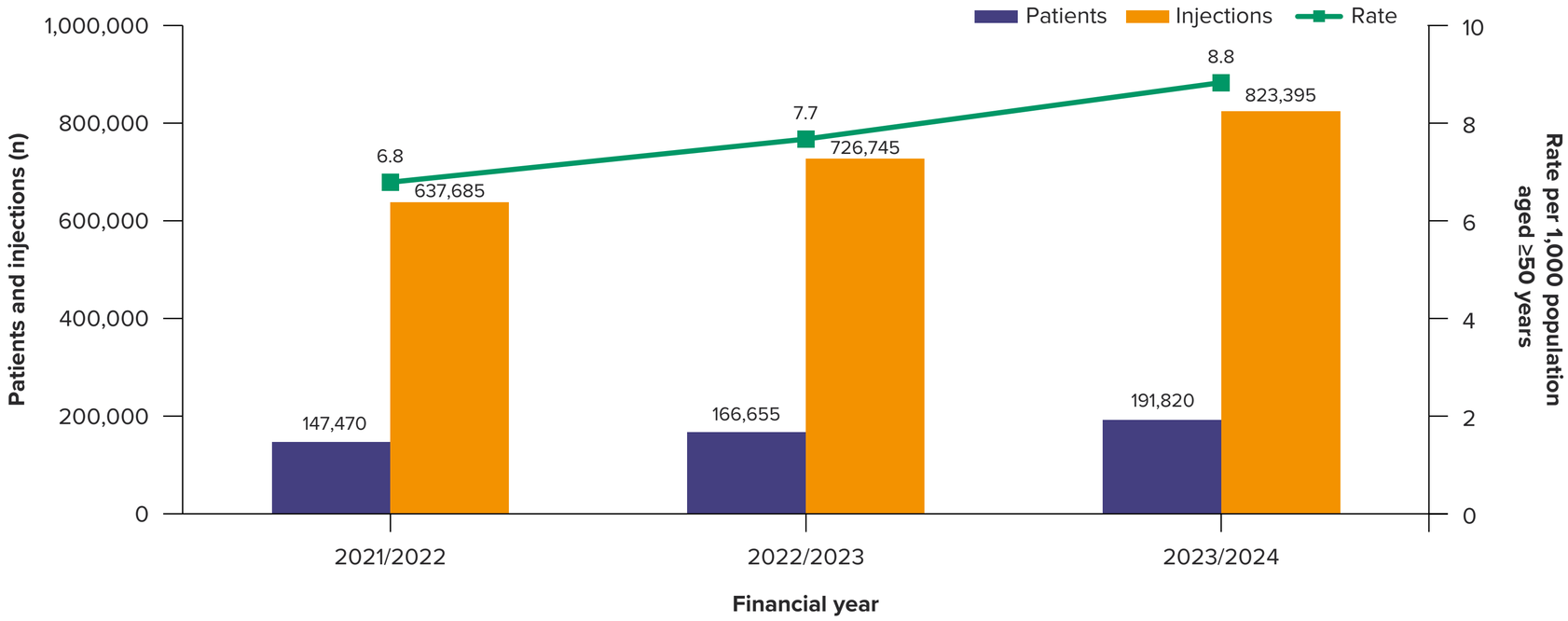
Detailed study methods

Total number of injections and patients receiving injections increased year on year

The total number of injection (either first or repeat) increased year on year during the analysis period.

The increase in number of patients receiving an injection from 2021/2022 to 2023/2024 (30.1%) grew in line with the total number of injections (29.1%).

Number of patients, total injection activity and rate of patients per 1,000 population aged ≥50 years, England, 2021/2022–2023/2024



Deep dive

Age

Deprivation

Ethnicity

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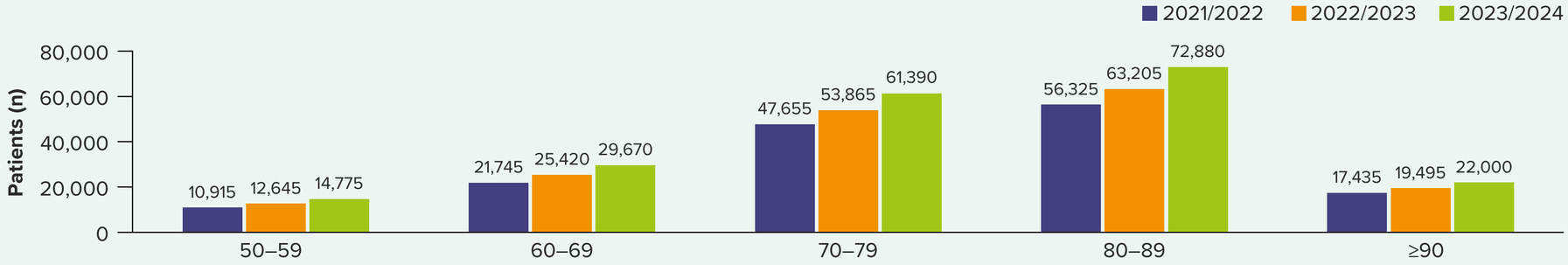
ICB deep dive

Total number of patients receiving an injection (either first or repeat) increased with increasing age to 80–89 years then decreased, while the rate increased with increasing age across all age groups

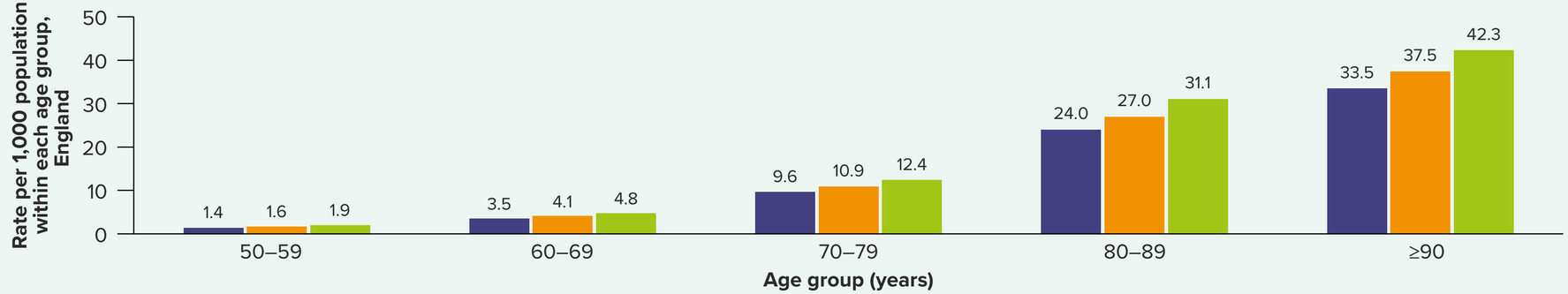
The total number of patients receiving all injections either first or repeat increased with increasing age to 80–89 years then decreased. The number increased over time in all age groups.

In contrast, the rate increased with increasing age across all age groups. The rate also increased over time in every age group.

Total number of patients receiving an injection (either first or repeat), England, 2021/2022–2023/2024, by age group



Rate of patients receiving an injection (either first or repeat) per 1,000 population, England, 2021/2022–2023/2024, by age group



Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year). Rate per 1,000 calculated using national data from mid-2022 on population of England in each age group.

Detailed study methods

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Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year). Rate per 1,000 calculated using national data from mid-2020 on population of England in each quintile.

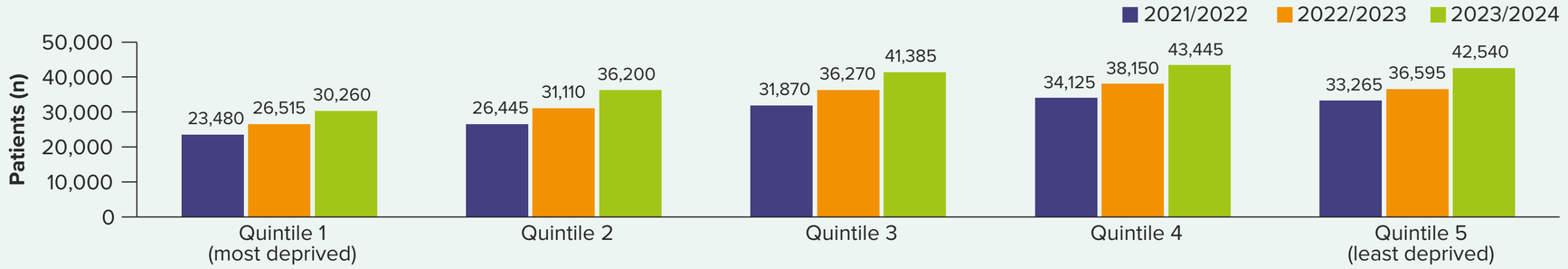
Detailed study methods

Total number of patients receiving an injection (either first or repeat) increased with decreasing level of deprivation while the rate was consistent across the spectrum of deprivation

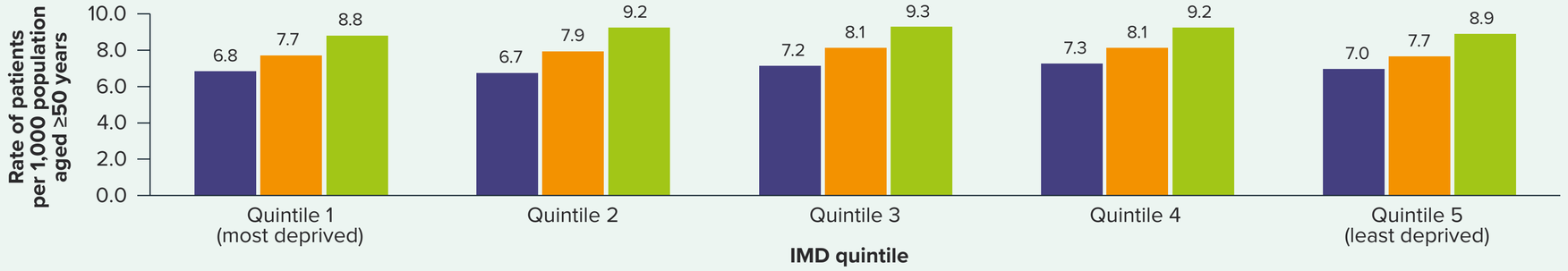
Trends in number of patients receiving an injection (either first or repeat) increased with decreasing deprivation throughout the study period. The rate of patients was relatively consistent across the spectrum of deprivation.

From 2021/2022 to 2023/2024 the great growth in patient numbers was seen in patients living in Quintile 2 (36.9%), whereas the smallest increase was seen in patients living in Quintile 4 (27.3%).

Total number of patients receiving an injection, England, 2021/2022–2023/2024, by IMD quintile



Rate of patients receiving injections per 1,000 of the population in England, 2021/2022 - 2023/2024 by Quintile



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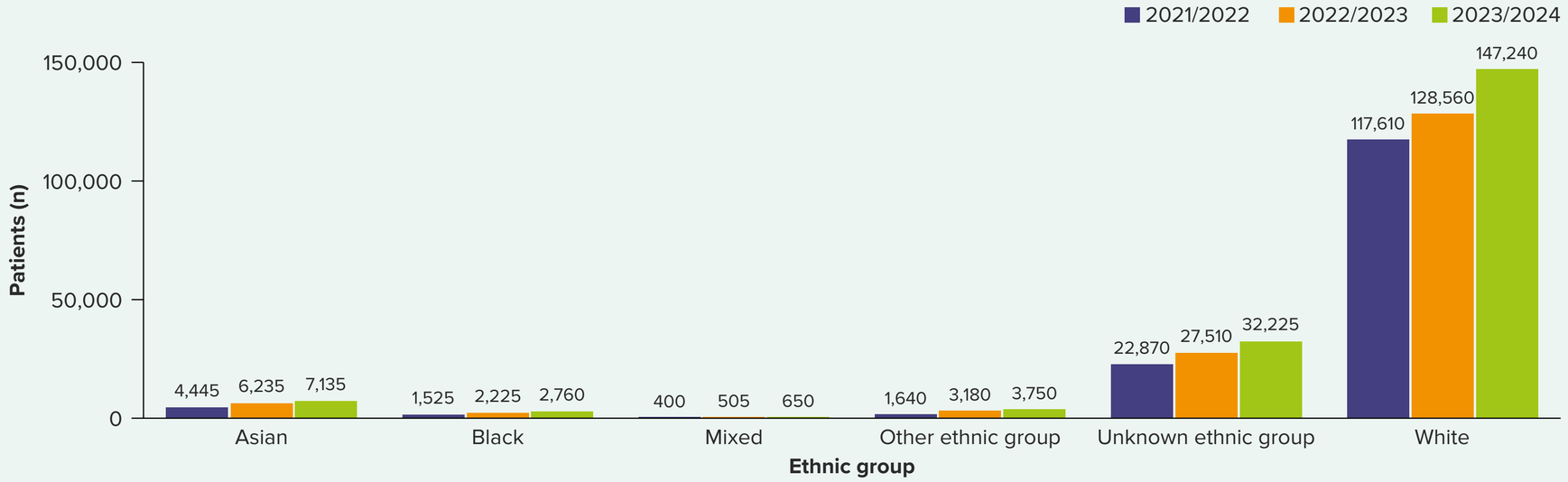
Total number of patients receiving an injection (either first or repeat) was highest by far in White people and lowest in people of Mixed ethnicity but increased over time in all ethnic groups

The total number of patients receiving an injection (either first or repeat) was 4–5 times higher in White people than in people of unknown ethnicity – the next highest group – during the study period. Numbers were lowest in people of Mixed ethnicity. In all ethnic groups, numbers increased over time.

From 2021/2022 to 2023/2024 the ethnicities that saw the greatest increase in patients receiving an injection was patients from Other ethnic group (128.7%) and Black patients (81.0%), whereas the smallest increase in patient numbers was seen in White patients (25.2%).

Rate is not available for ethnicity.

Total number of patients receiving an injection (either first or repeat), England, 2021/2022–2023/2024, by ethnicity



Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year), grouped by ethnicity of patient.

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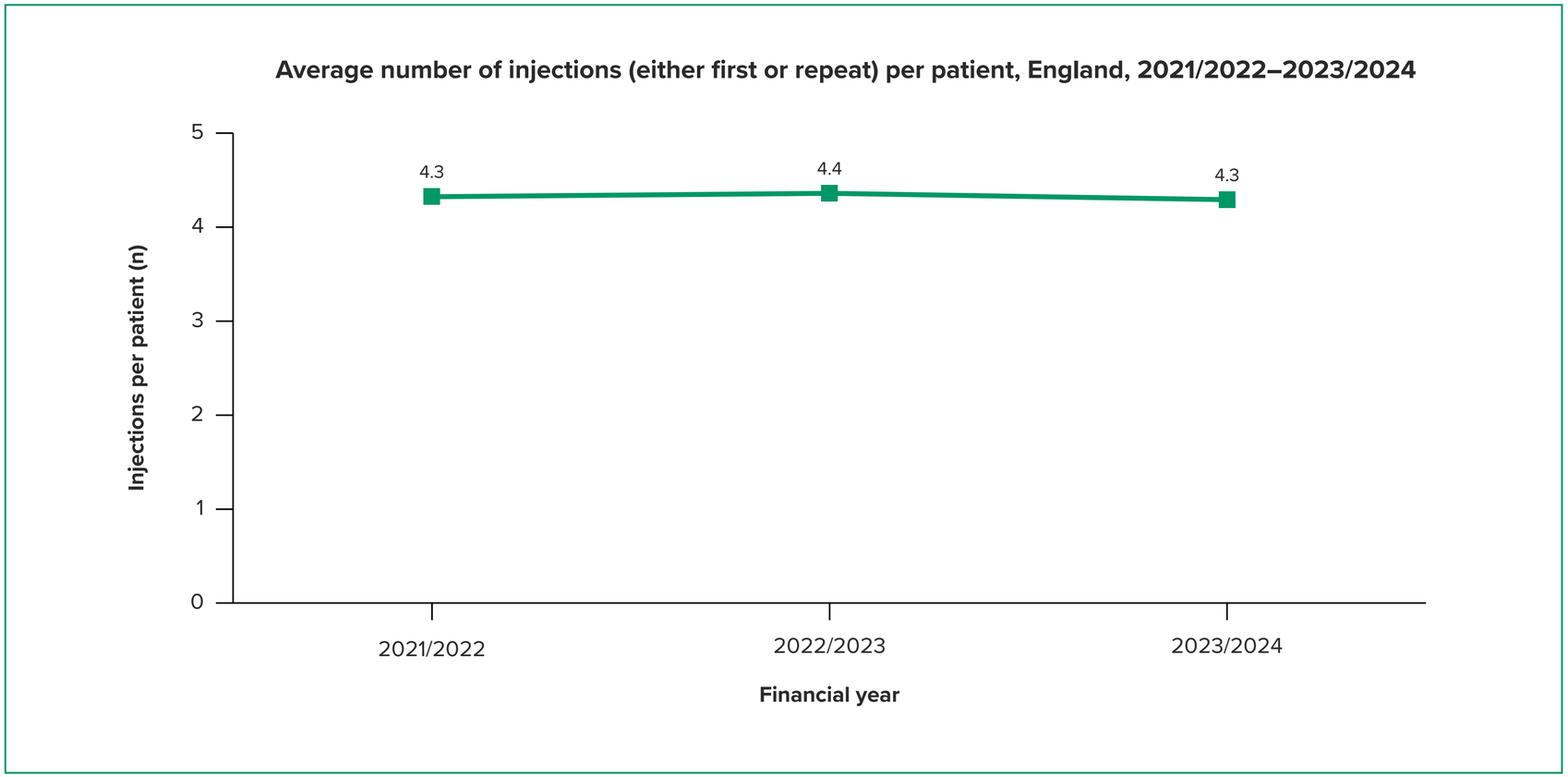
All injections

ICB data

ICB deep dive

Average number of all injections per patient was relatively constant over the study period

The average annual number of injections (either first or repeat) per patient has remained fairly constant – about 4.3 – throughout the study period.



Deep dive

Age

Deprivation

Ethnicity

Analysis details
Calculated by dividing total annual injection activity by total annual number of patients receiving injection for patients aged ≥50 years.

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Analysis details
Calculated by dividing total injection activity by total number of patients receiving injection for patients, grouped by age group.

Detailed study methods

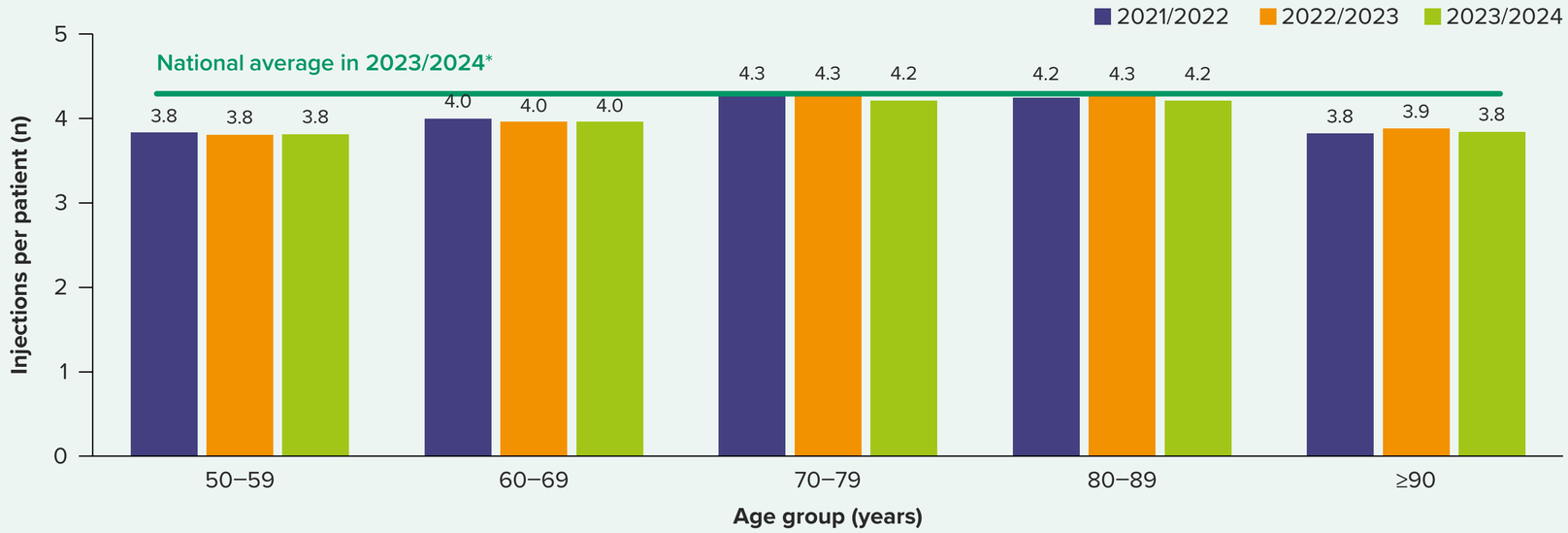
Average annual number of injections (either first or repeat) was broadly similar for all age groups, with slightly lower rates in patients aged 50–59 years and ≥90 years.

The average annual number of injections (either first or repeat) was broadly similar for all age groups and similar or identical over the study period.

Rates were lowest in patients aged 50–59 years and ≥90 years and highest in patients aged 70–79 years and 80–89 years.

However, the maximum difference between the highest and lowest rates in any group and between any years was only 0.1 injection.

Average number of injections (either first or repeat) per patient in each age group, England, 2021/2022–2023/2024



*Due to potential double counting of patients who crossed over from one age band into another during the course of a financial year, the average number of injections in each age group appears lower than national average in all age groups.

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Analysis details
Calculated by dividing total injection activity by total number of patients receiving injection for patients aged ≥50 years, grouped by the quintile they live in.

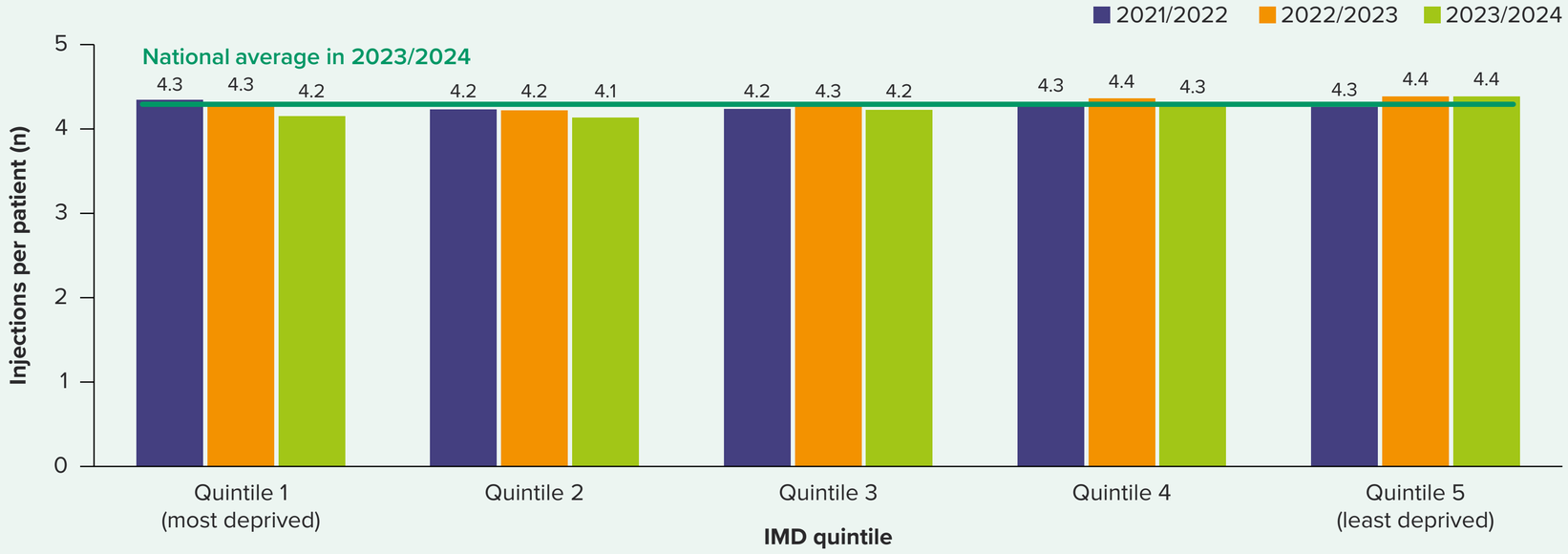
Detailed study methods

Average annual number of injections (either first or repeat) was broadly similar for all levels of deprivation and over time

The average annual number of injections (either first or repeat) was broadly similar for all levels of deprivation and similar or identical over the study period. Rates overall were lowest in Quintile 2 and highest in Quintile 5 (least deprived).

However, the maximum difference between the highest and lowest rates in any group and between any years was only 0.2 injection.

Average number of injections (either first or repeat) per patient by IMD quintile, England, 2021/2022–2023/2024



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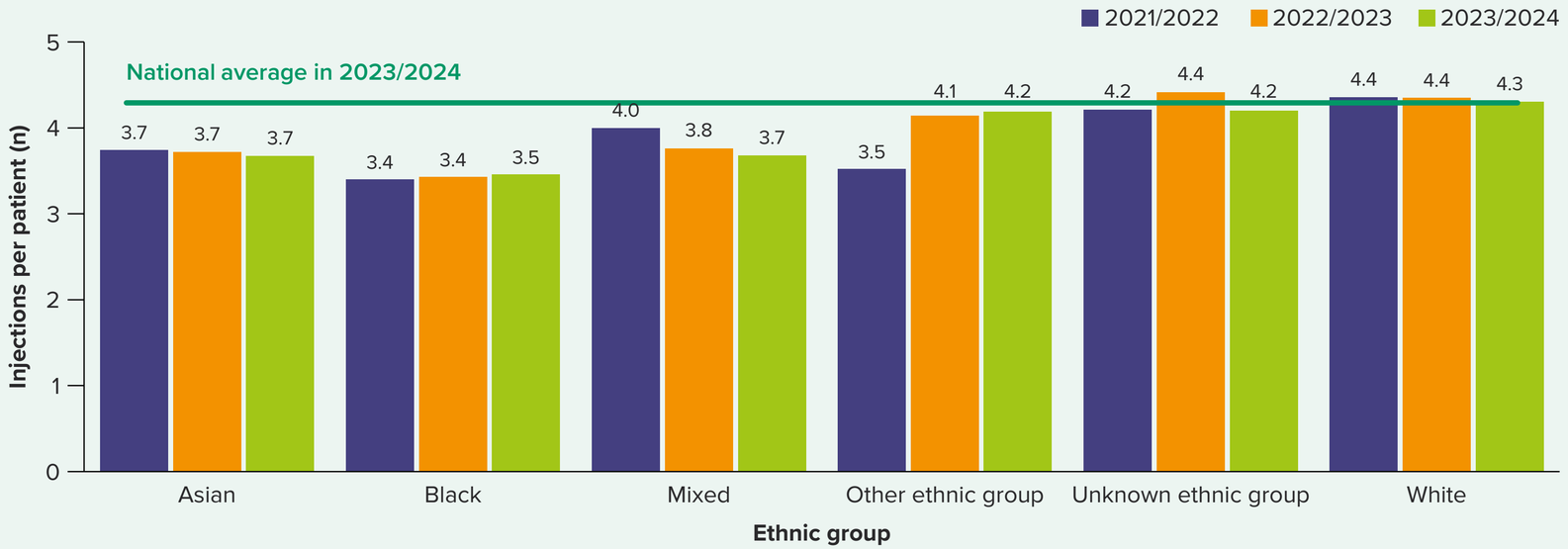
ICB deep dive

Average annual number of injections (either first or repeat) was lower overall in Asian and Black people and highest overall in White people with no clear time trends across ethnic groups

The average annual number of injections (either first or repeat) overall was lowest in Black and Asian people and highest overall in White people and people of unknown ethnicity.

Average numbers over time were most consistent in Asian, Black and White people, while numbers in the other groups fluctuated between years, with no clear time trend.

Average number of injections (either first or repeat) per patient by ethnicity, England, 2021/2022–2023/2024



Analysis details
Calculated by dividing total injection activity by total number of patients receiving injection for patients aged ≥50 years, grouped by the ethnicity of patient.

Detailed study methods

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Introduction to ICB data analysis

We analysed the following data at an ICB level.

Overall burden on system

Patients attending hospital by diagnosis

- Number of patients
- Rate per 1,000 population aged ≥50 years
- AMD, diabetes with ophthalmic complications, RVO and visual impairment/ blindness

By age, deprivation (rate and number) and ethnicity (number only)

Capacity/backlog

Outpatient appointment after referral from an optician

- Number of patients
- Rate per 1,000 population aged ≥50 years
- Wait time from optician referral to attendance at appointment
- DNA, patient cancellation and hospital cancellation

By priority of referral, age, deprivation (rate and number) and ethnicity (number only)

First intravitreal injection after referral

- Number of patients
- Rate per 1,000 population aged ≥50 years
- DNA, patient cancellation and hospital cancellation

By priority of referral, age, deprivation (rate and number) and ethnicity (number only)

Overall intravitreal injection activity (first and repeat injections)

- Number of patients
- Rate per 1,000 population aged ≥50 years
- Average number of injections per patient

By age, deprivation (rate and number) and ethnicity (number only)

Number of sites that inject

- Number of hospital sites where at least 1,000 injections were performed in a financial year

Workforce

Injectors

- Number of injectors who performed at least 20 injections in a financial year
- Rate of injectors per 100,000 population aged ≥50 years

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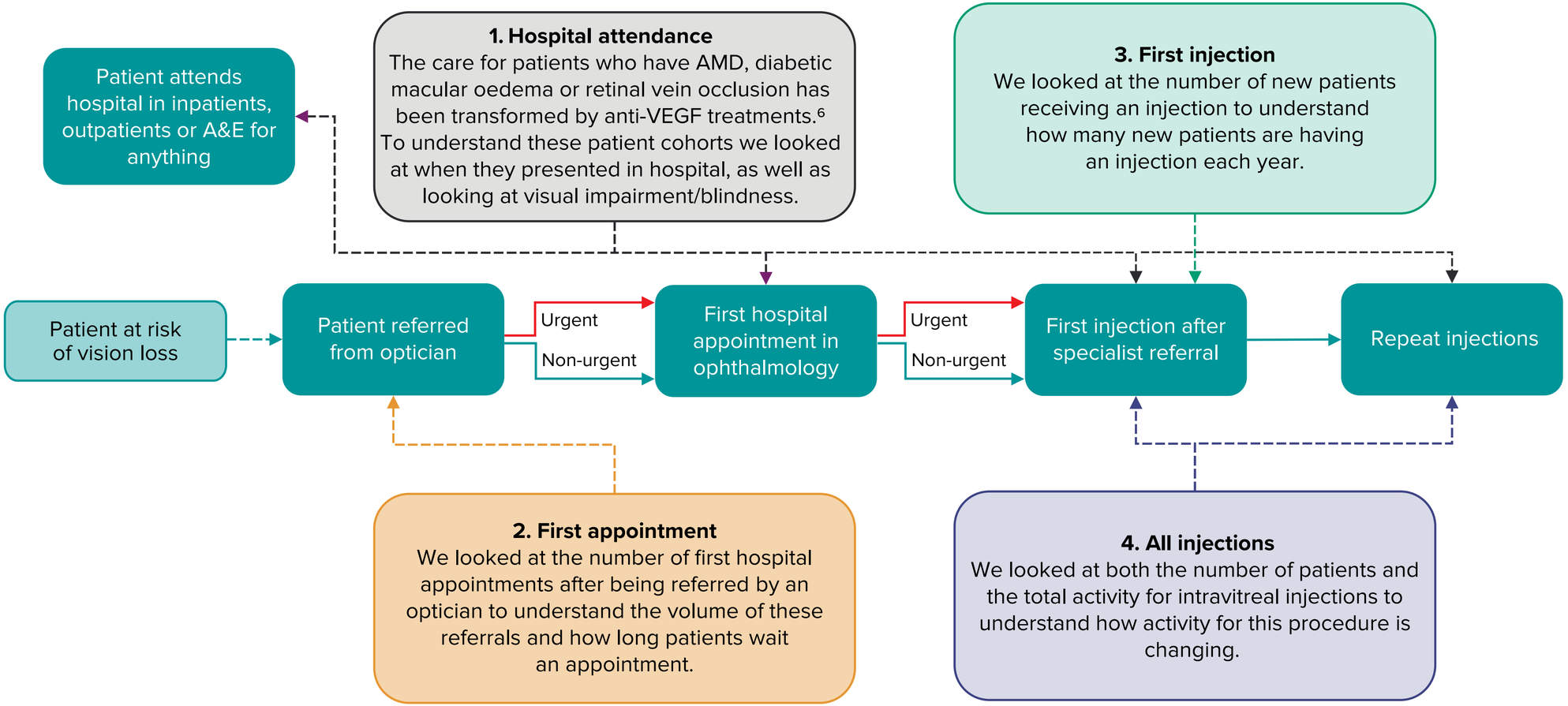
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ICB data analysis methods

This section provides analysis at a national level on 4 key areas:



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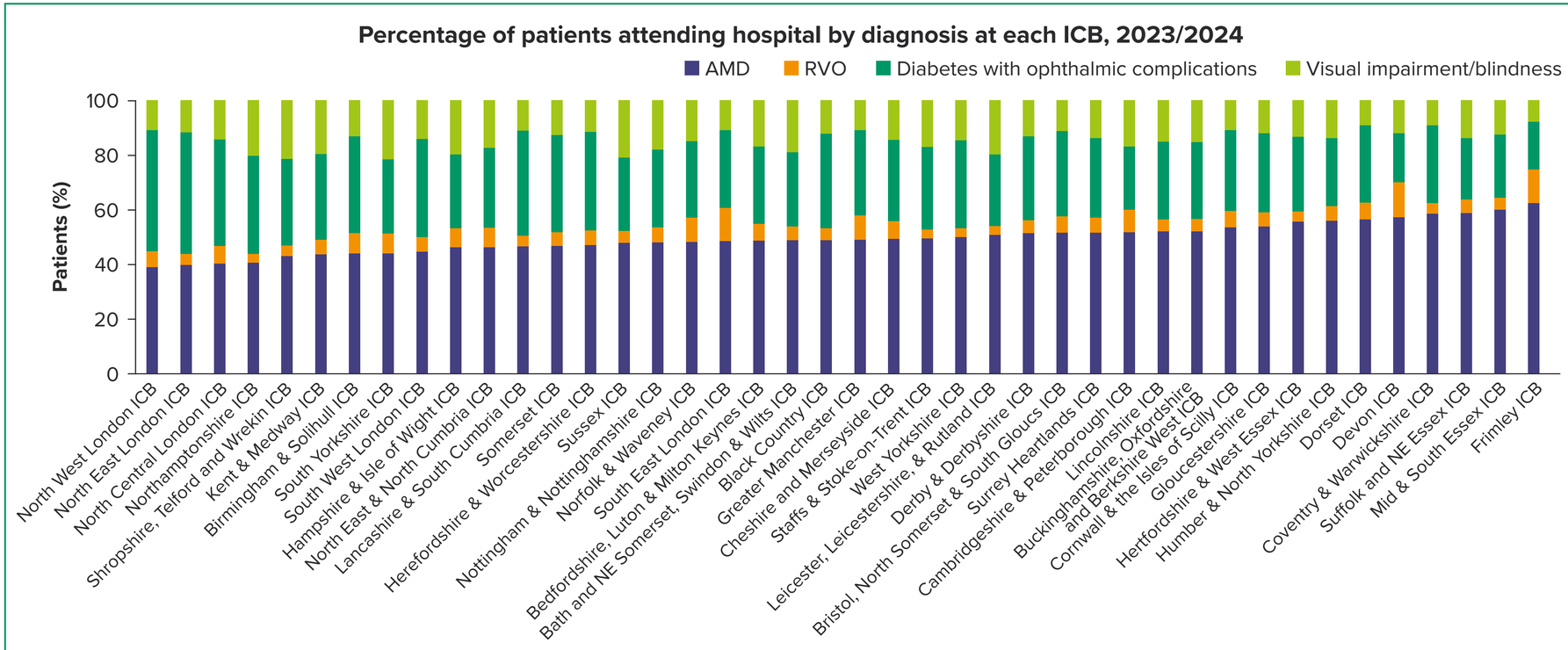
Injectors

ICB deep dive

AMD was the most common visual condition in the majority of ICBs, but diabetes with ophthalmic complications was most common in two ICBs*

The proportion of patients with AMD, diabetes with ophthalmic complications, RVO and visual impairment/blindness varied across ICBs.

- AMD was the most common in the majority of ICBs, with the highest percentage in Frimley (62.6%).
- Diabetes with ophthalmic complications contributed the biggest proportion in two ICBs, with the highest percentages in North West London (44.4%) and North East London (44.3%).*



*As some patients may have more than one condition, there may be instances of double counting.

Deep dive

AMD

Diabetes with ophthalmic complications

RVO

Visual impairment/loss

Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by diagnosis for patients aged ≥50 years.

Detailed study methods

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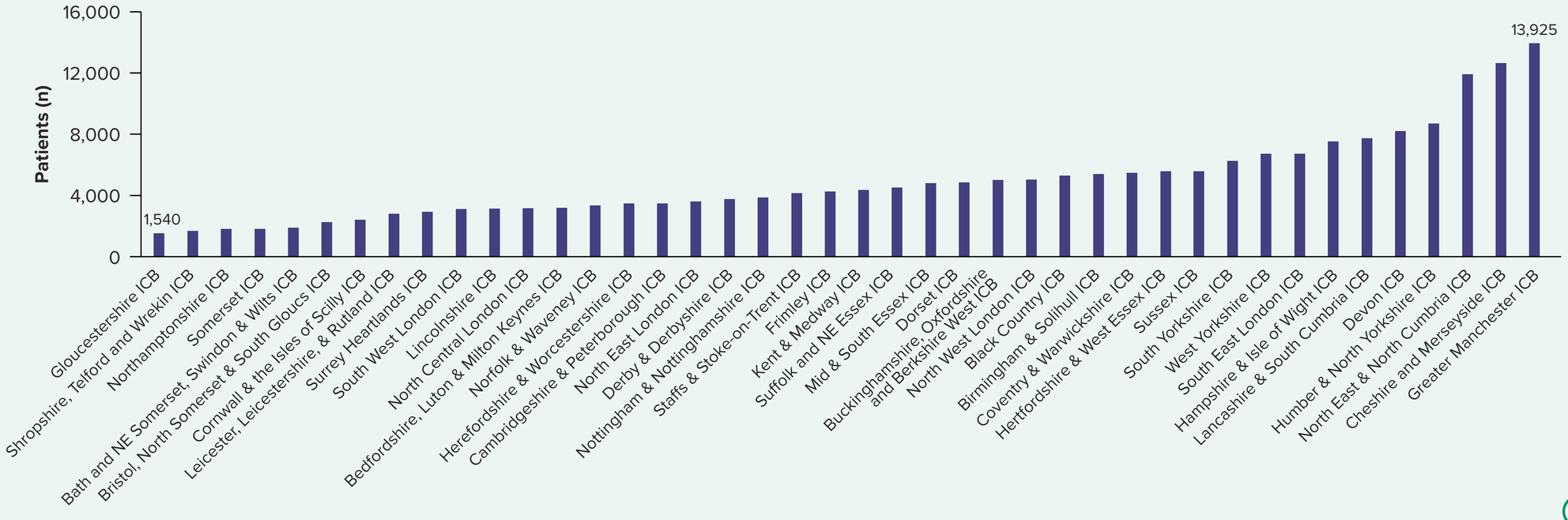
Detailed study methods

Greater Manchester ICB saw the most patients with AMD, while Gloucestershire ICB saw the fewest patients with AMD

Greater Manchester ICB had the highest number of patients attending with AMD at 13,925.

Gloucestershire ICB had the lowest number at 1,540.

Number of patients attending hospital with AMD at each ICB, 2023/2024



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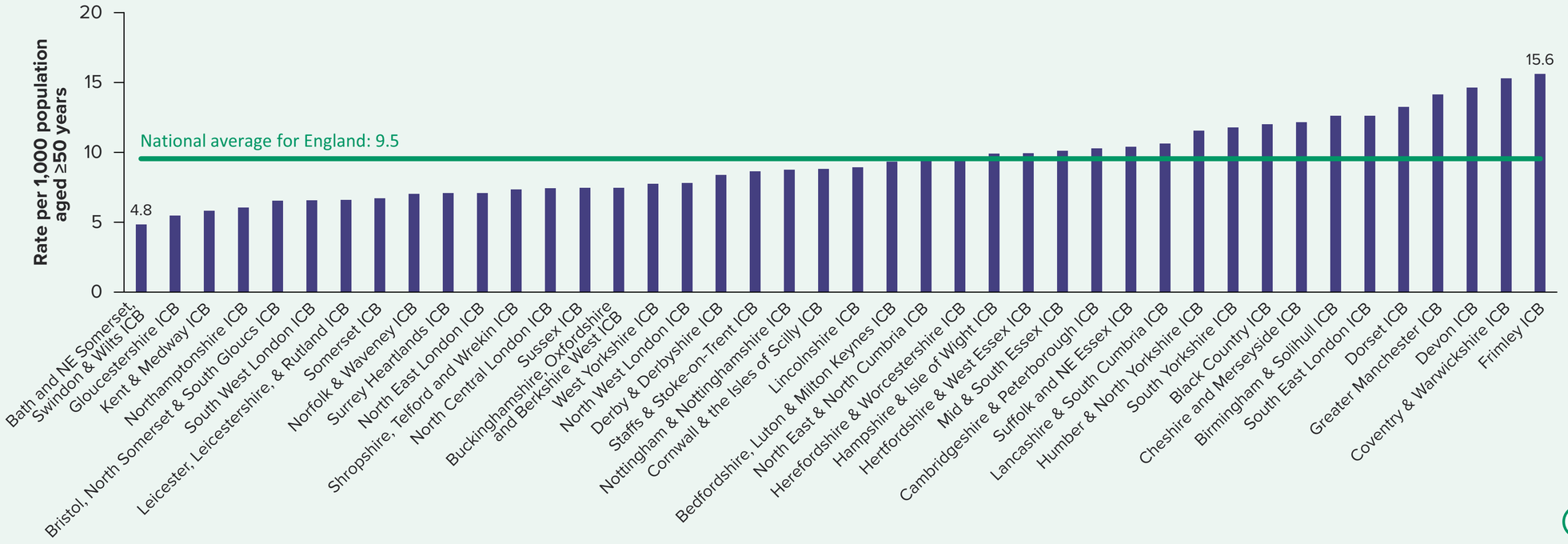
Detailed study methods

Rate of patients attending hospital with AMD per 1,000 populated aged ≥50 years

- Frimley ICB had the highest rate of patients attending with AMD per 1,000 population within the ICB at 15.6.
- Bath and North East Somerset, Swindon & Wiltshire ICB had the lowest rate at 4.8.

18 (42.9%) ICBs had AMD rates higher than the national average of 9.5.

Rate of patients attending hospital with AMD per 1,000 population aged ≥50 years within the ICB, 2023/2024



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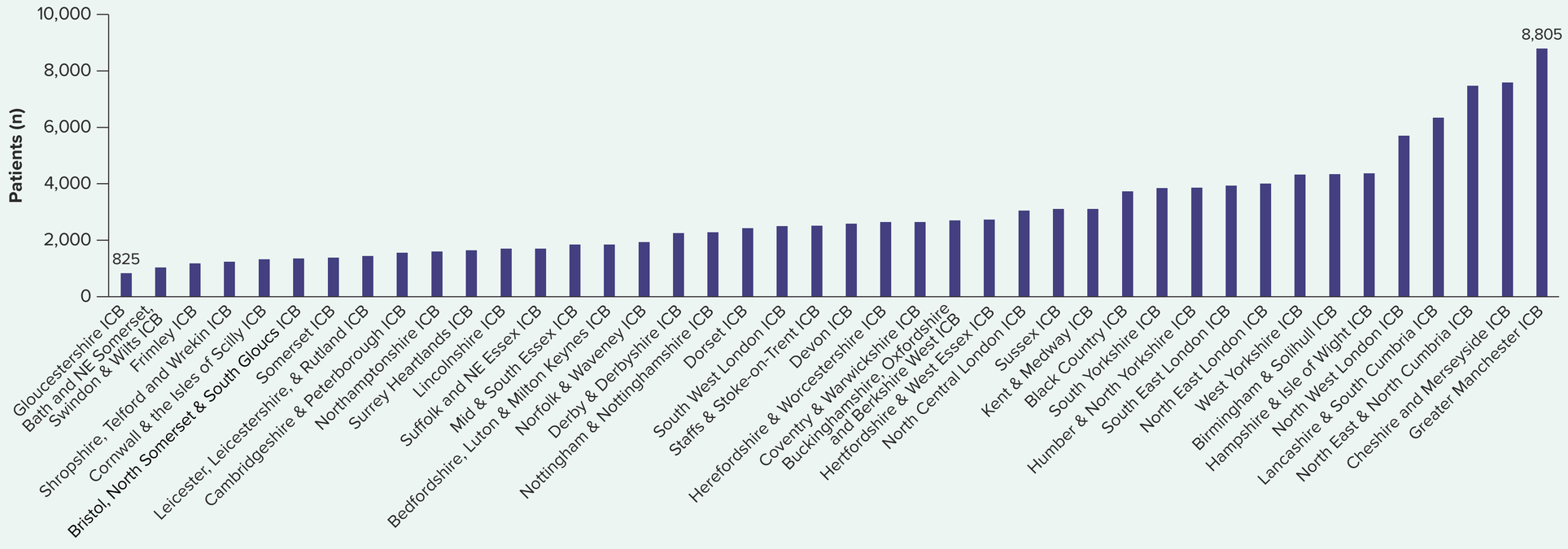
Detailed study methods

Greater Manchester ICB saw the most patients with diabetes with ophthalmic complications, while Gloucestershire ICB saw the fewest patients with diabetes with ophthalmic complications

Greater Manchester ICB had the highest number of patients attending with diabetes with ophthalmic complication at 8,805.

Gloucestershire ICB had the lowest number at 825.

Number of patients attending hospital with diabetes with ophthalmic complications at each ICB, 2023/2024



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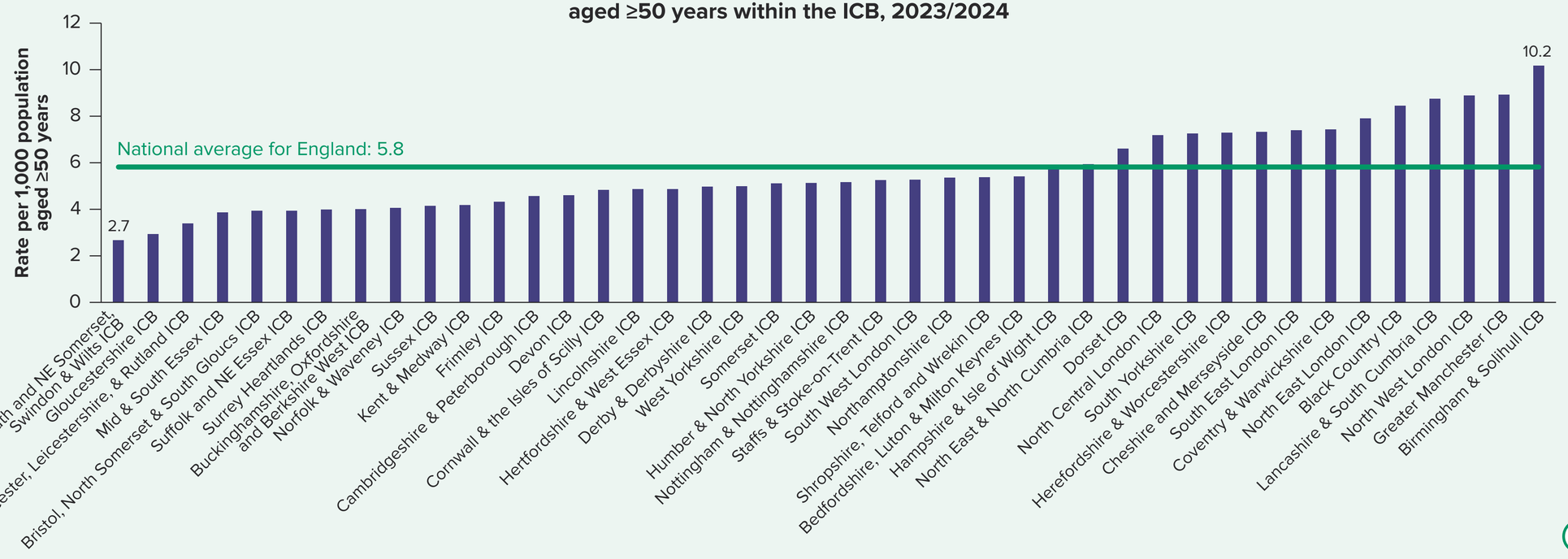
Detailed study methods

Rate of patients attending hospital with diabetes with ophthalmic complications per 1,000 population aged ≥50 years

- Birmingham and Solihull ICB had the highest rate of patients attending with diabetes with ophthalmic complications per 1,000 population within the ICB at 10.2.
- Bath and North East Somerset, Swindon & Wiltshire ICB had the lowest rate at 2.7.

14 (33.3%) ICBs had rates of diabetes with ophthalmic complications higher than the national average of 5.8.

Rate of patients attending hospital with diabetes with ophthalmic complications per 1,000 population aged ≥50 years within the ICB, 2023/2024



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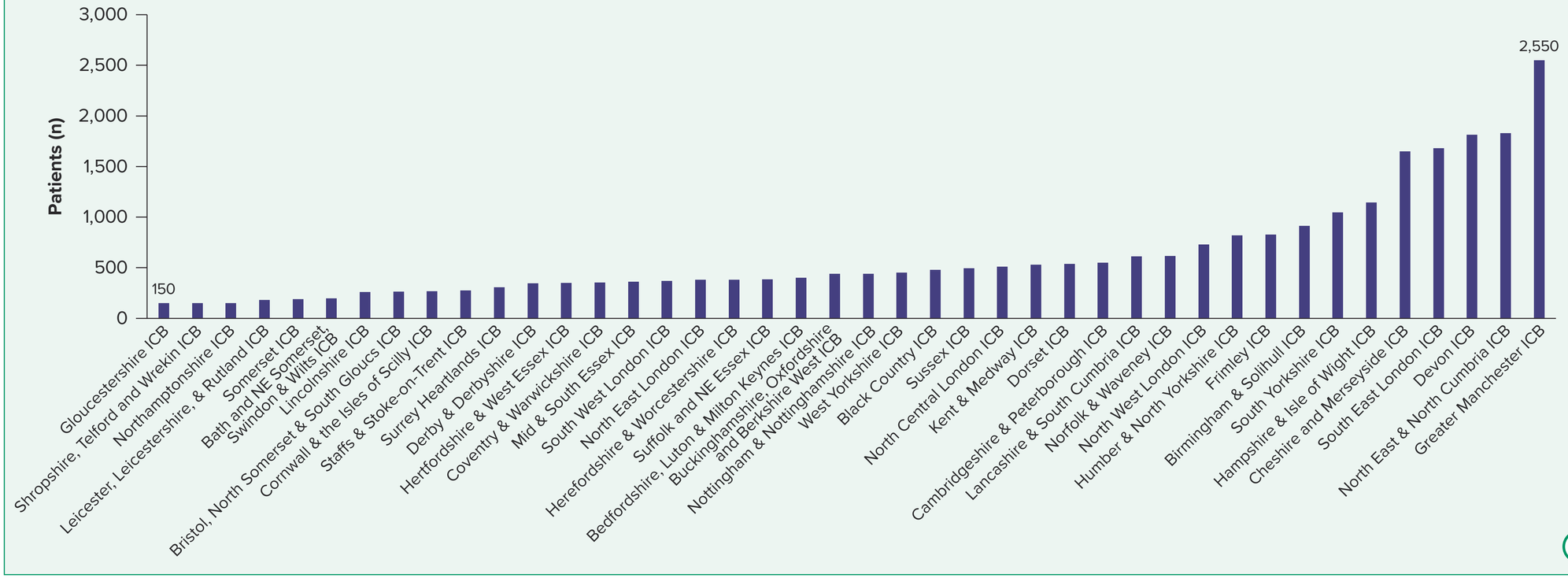
Detailed study methods

Greater Manchester ICB saw the most patients with RVO, while Gloucestershire ICB saw the fewest patients with RVO

Greater Manchester ICB had the highest number of patients attending with RVO at 2,550.

Gloucestershire ICB, Shropshire, Telford and Wrekin ICB and Northamptonshire ICB had the lowest number at 150.

Number of patients attending hospital with RVO at each ICB, 2023/2024



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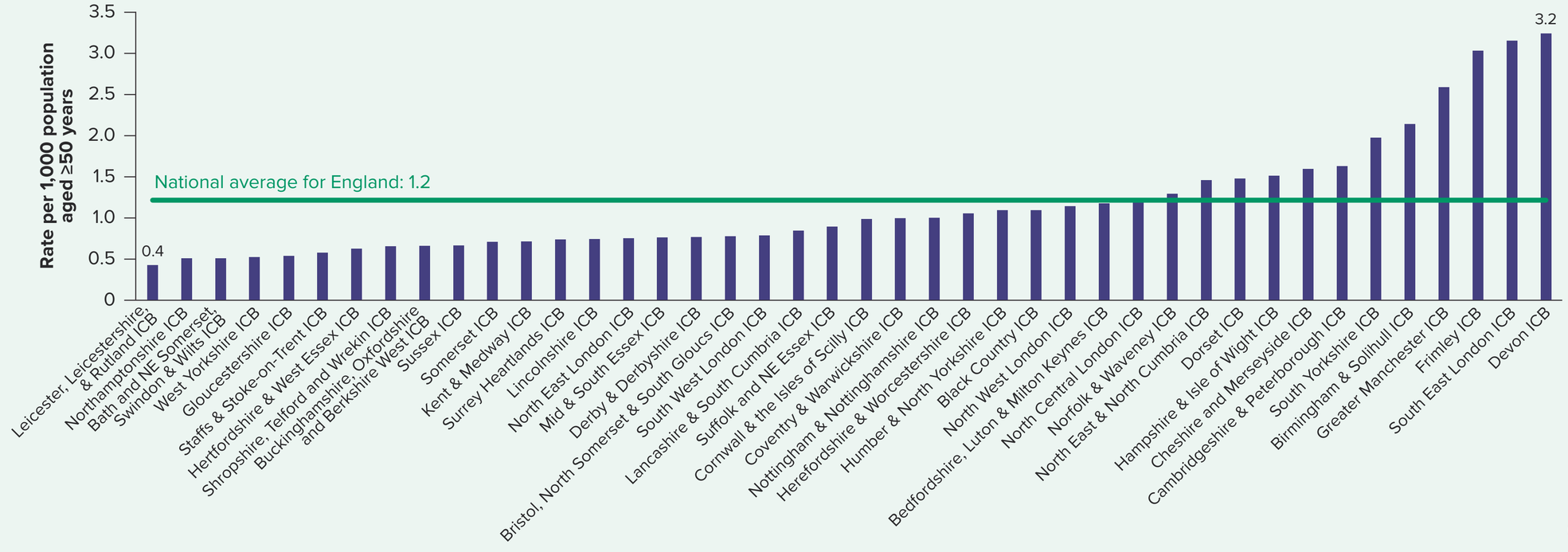
Detailed study methods

Rate of patients attending hospital with RVO per 1,000 population aged ≥50 years within the ICB

- Devon ICB had the highest rate of patients attending with RVO per 1,000 population within the ICB at 3.2.
- Leicester, Leicestershire & Rutland ICB had the lowest rate at 0.4.

12 (28.6%) ICBs had RVO rates higher than the national average of 1.2.

Rate of patients attending hospital with RVO per 1,000 population aged ≥50 years within the ICB, 2023/2024



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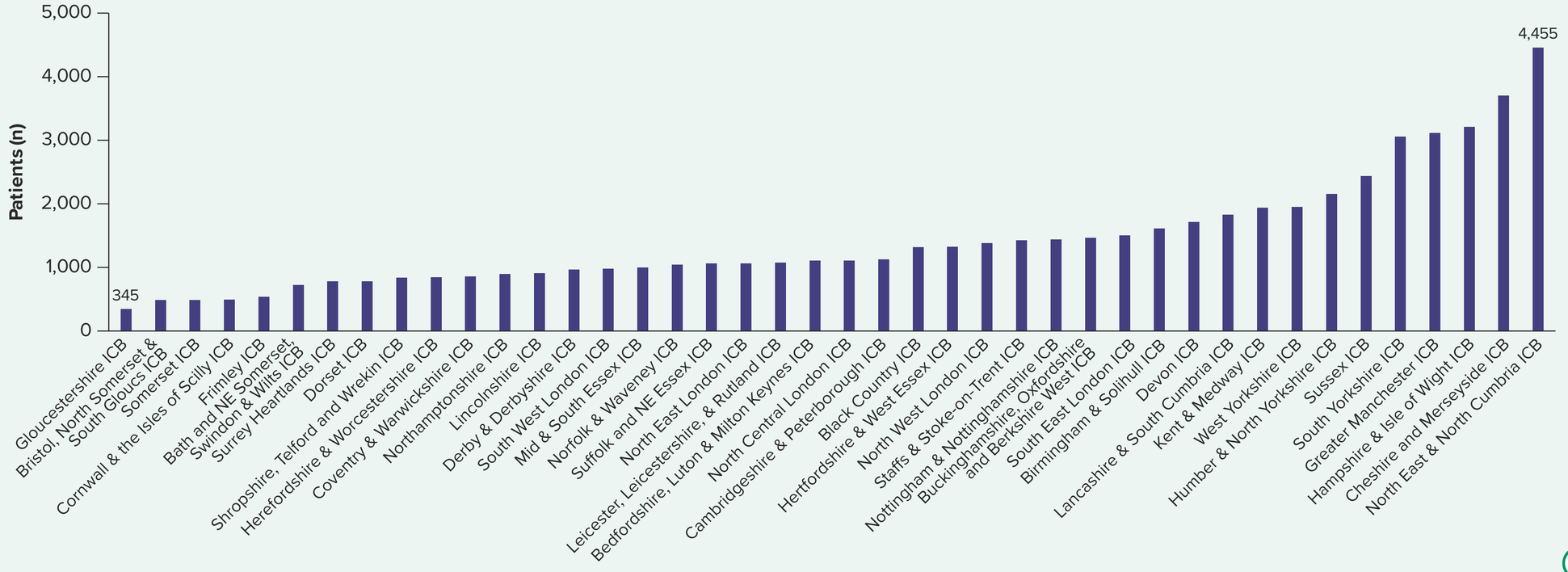
Detailed study methods

North East & North Cumbria ICB saw the most patients with visual impairment/ blindness while Gloucestershire ICB saw the fewest patients with visual impairment/ blindness

North East & North Cumbria ICB had the highest number of patients attending with visual impairment/blindness at 4,455.

Gloucestershire ICB had the lowest number at 345.

Patients attending hospital with visual impairment/blindness at each ICB, 2023/2024



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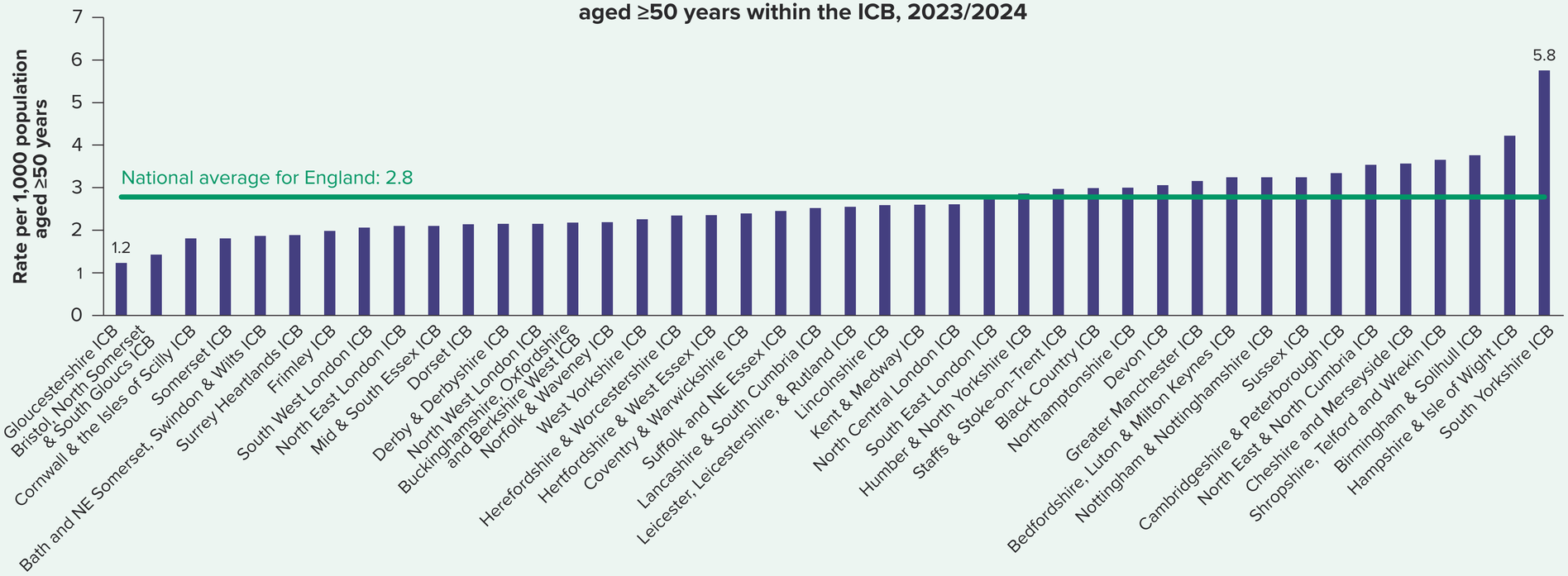
Detailed study methods

Rate of patients attending hospital with visual impairment/blindness per 1,000 population aged ≥50 years

- South Yorkshire ICB had the highest rate of patients attending with visual impairment/blindness per 1,000 population within the ICB at 5.8.
- Gloucestershire ICB had the lowest rate at 1.2.

17 (40.5%) ICBs had rates of visual impairment/blindness higher than the national average of 2.8.

Rate of patients attending hospital with visual impairment/blindness per 1,000 population aged ≥50 years within the ICB, 2023/2024



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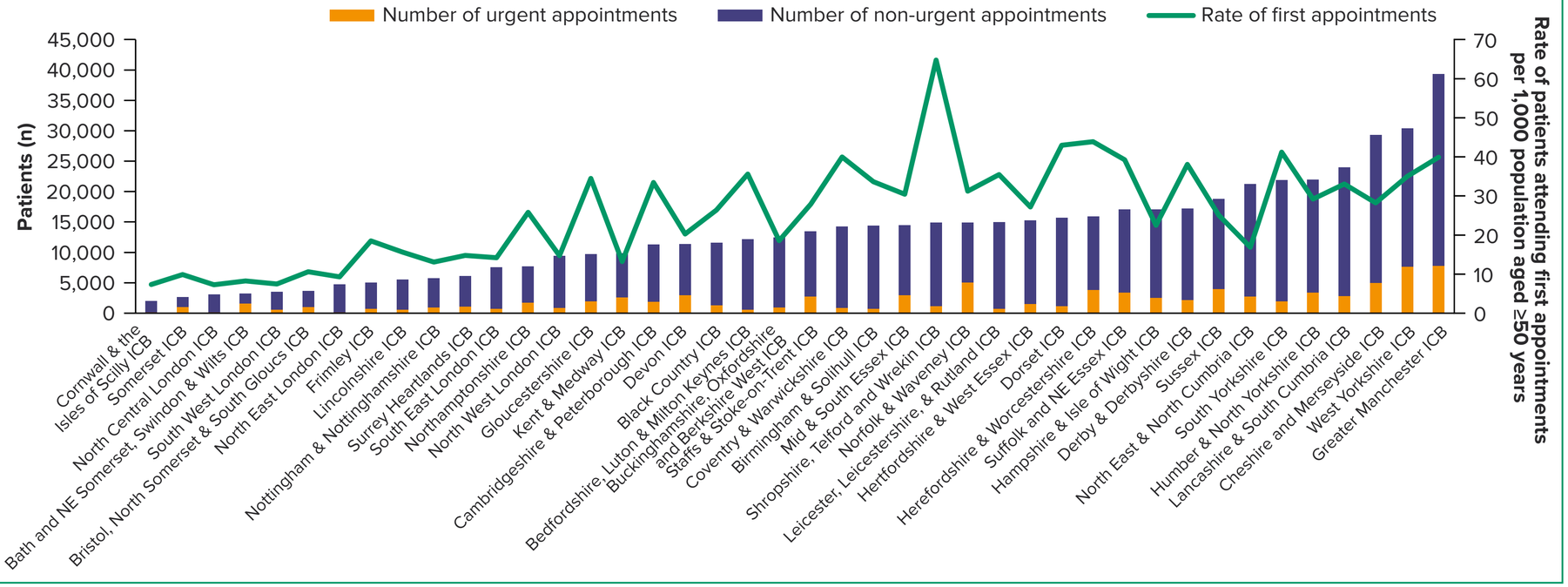
Detailed study methods

Shropshire, Telford and Wrekin ICB had the highest rate of patients attending first hospital appointments per 1,000 population aged ≥50 years, while the lowest rate was in North Central London ICB

Greater Manchester ICB had the highest number of patients attending first hospital appointments following optician referrals, while Cornwall & the Isles of Scilly ICB had the fewest.

The highest rate of patients attending first hospital appointments per 1,000 population was in Shropshire, Telford and Wrekin ICB and the lowest rate in North Central London ICB.

Number of patients attending first outpatient appointments after urgent or non-urgent optician referrals compared with the rate of patients attending first appointment per 1,000 population aged ≥50 years within the ICB, 2023/2024



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All referrals

Non-urgent referrals

Urgent referrals

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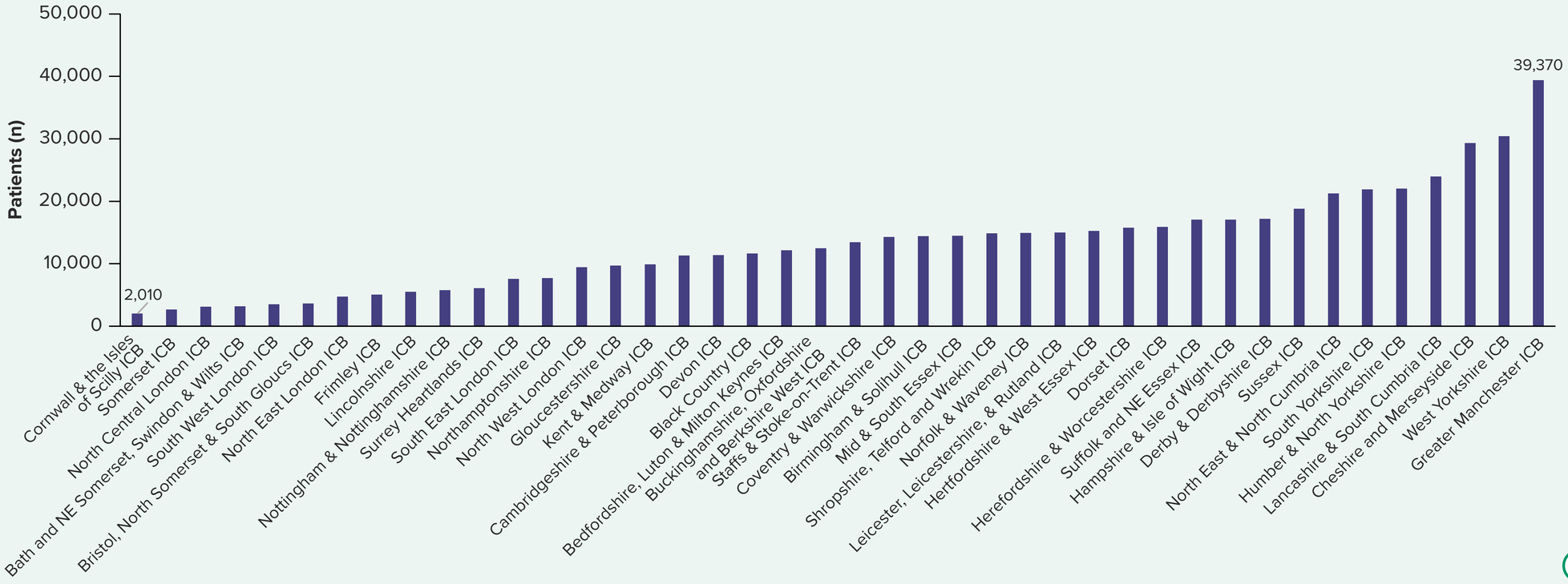
ICB deep dive

Number of patients attending first hospital appointments after all optician referrals was highest for Greater Manchester ICB and lowest for Cornwall & the Isles of Scilly ICB

Greater Manchester ICB had the highest number of patients attending first appointments for all optician referrals at 39,370.

Cornwall & the Isles of Scilly ICB had the lowest number at 2,010.

Number of patients attending first appointment after all optician referrals at each ICB, 2023/2024



Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods.

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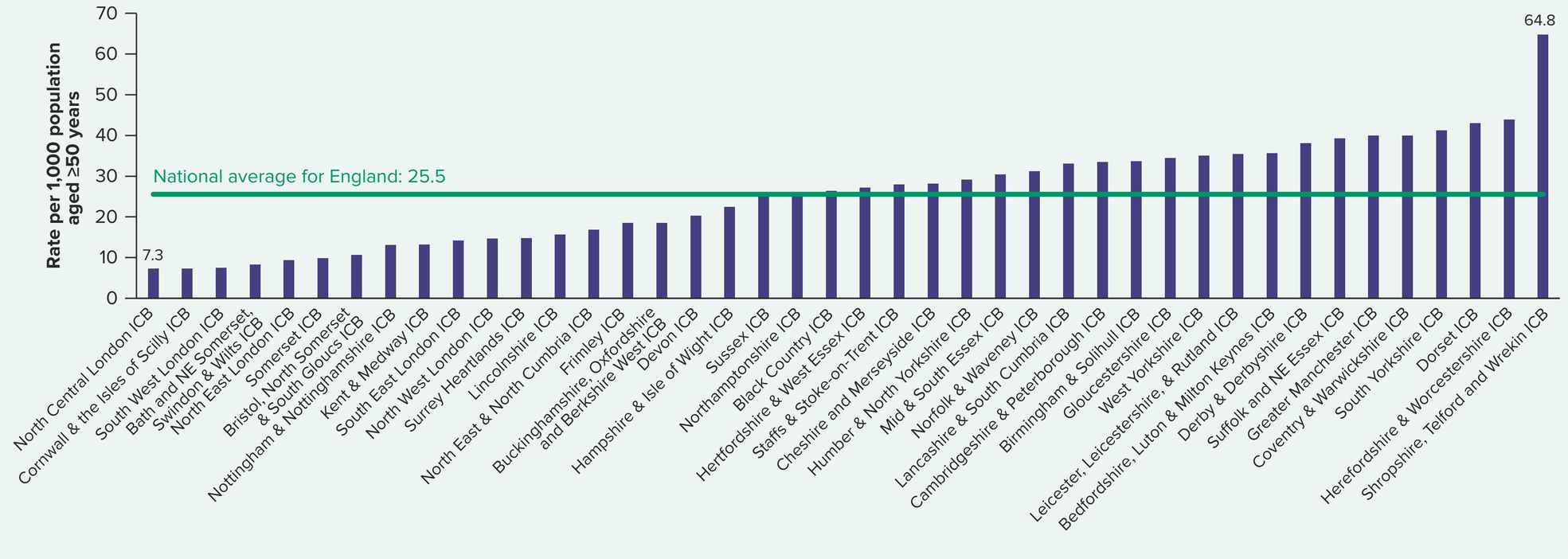
Rate of patients attending first appointment after all optician referrals per 1,000 population aged ≥50 years

Shropshire, Telford & Wrekin ICB had the highest rate of patients attending first hospital appointments per 1,000 population aged ≥50 years within the ICB after all optician referrals at 64.8.

North Central London ICB had the lowest rate at 7.3.

19 (45.2%) ICBs were below the national average rate for England of 25.5.

Rate of patients attending first appointment after all optician referrals per 1,000 population aged ≥50 years within the ICB, 2023/2024



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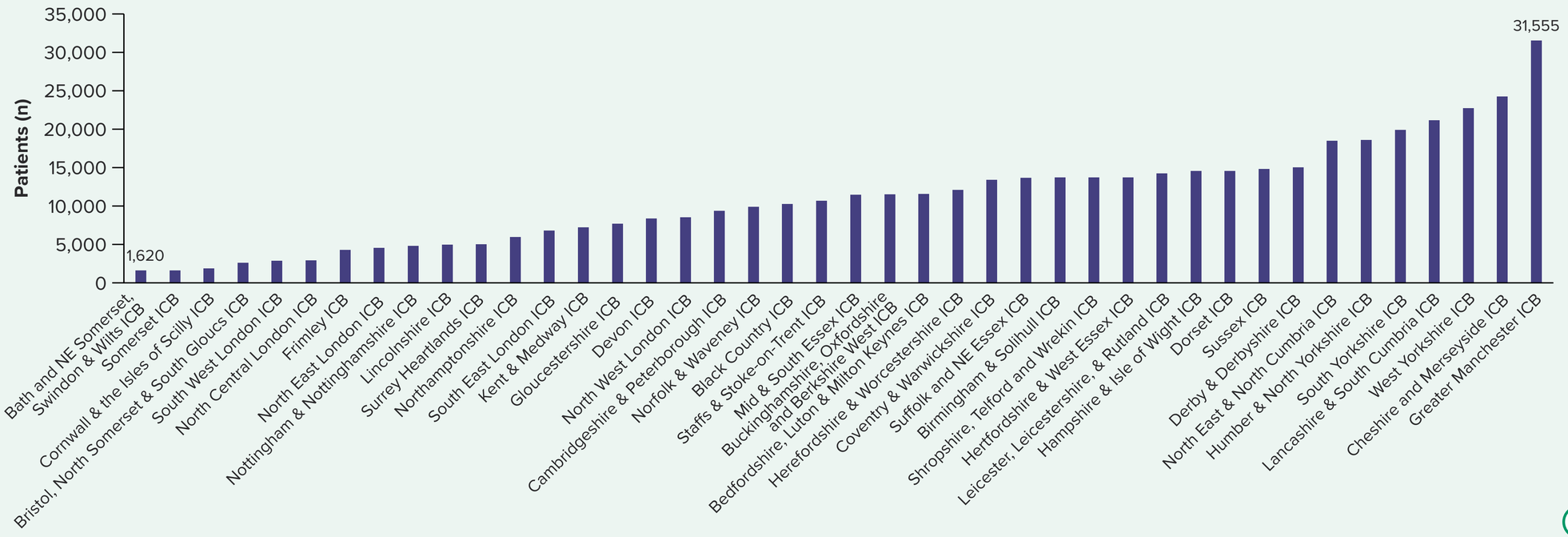
ICB deep dive

Number of patients attending first hospital appointments after non-urgent optician referrals was highest for Greater Manchester ICB and lowest for Bath and North East Somerset, Swindon & Wiltshire ICB

Greater Manchester ICB had the highest number of patients attending first appointments after non-urgent optician referrals at 31,555.

Bath and North East Somerset, Swindon & Wiltshire ICB had the lowest number at 1,620.

Number of patients attending first appointment after non-urgent optician referrals at each ICB, 2023/2024



Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods.

Detailed study methods

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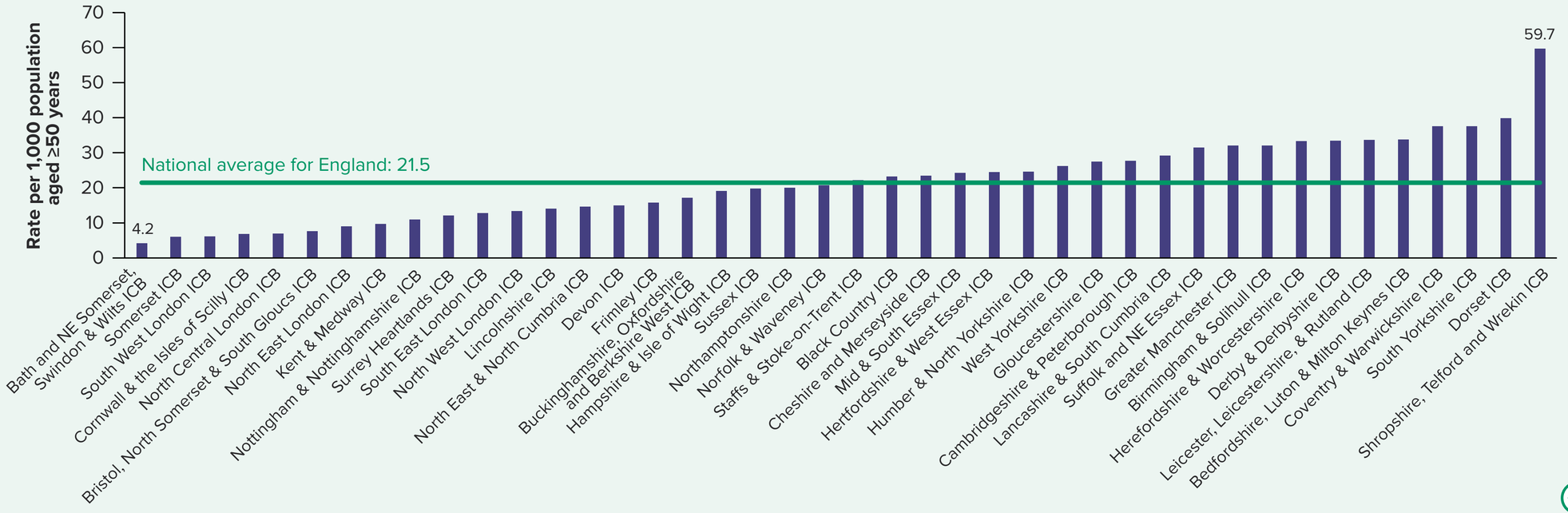
Rate of patients attending first appointments after urgent optician referrals per 1,000 population aged ≥50 years

Shropshire, Telford & Wrekin ICB had the highest rate of patients attending first hospital appointments per 1,000 population aged ≥50 years within the ICB after non-urgent optician referrals at 59.7.

Bath and North East Somerset, Swindon & Wiltshire ICB had the lowest rate at 4.2.

21 (50.0%) ICBs were below the national average for England of 21.5.

Rate of patients attending first appointments after non-urgent optician referrals per 1,000 population aged ≥50 years within the ICB, 2023/2024



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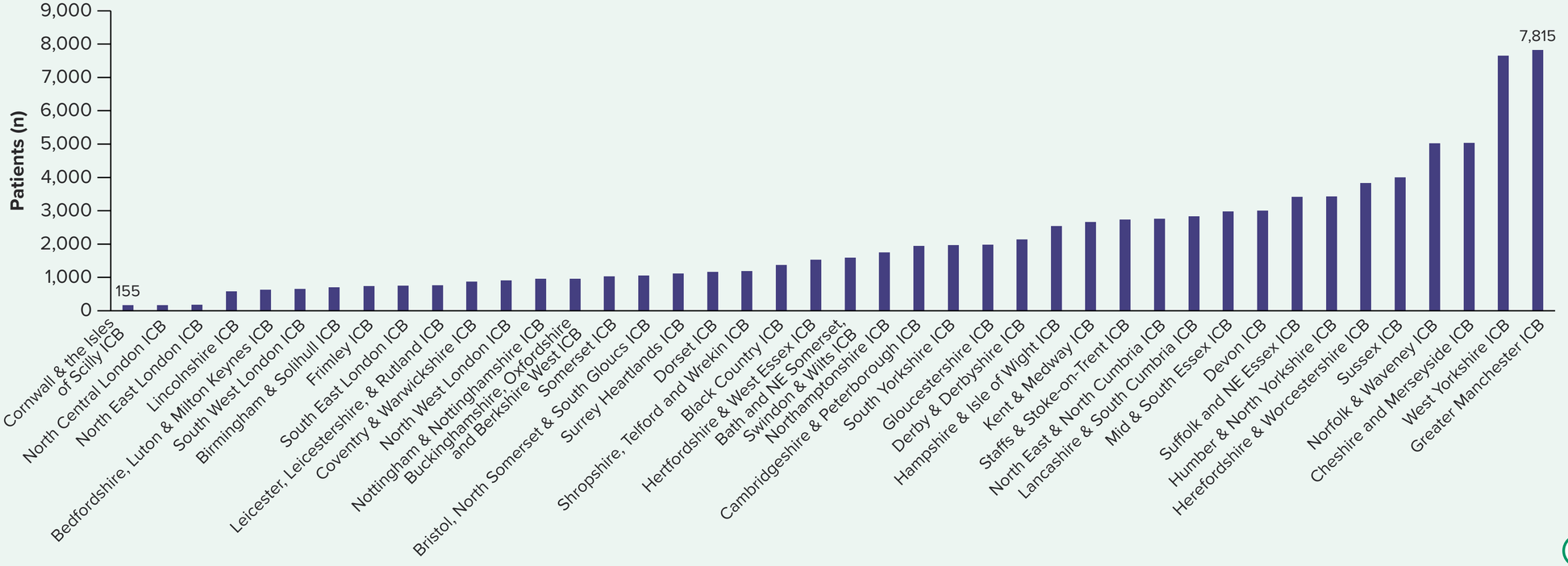
ICB deep dive

Number of patients attending hospital appointments after urgent optician referrals per 1,000 population aged ≥50 years was highest for Greater Manchester ICB and lowest for Cornwall & the Isles of Scilly ICB

Greater Manchester ICB had the highest number of patients attending first appointments following urgent optician referrals at 7,815.

Cornwall & the Isles of Scilly ICB had the lowest number at 155.

Number of patients attending first hospital appointment after urgent optician referrals at each ICB, 2023/2024



Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods.

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Patients counted if referral source was optician and consultant specialty as per the study methods. Rate calculated using ICB level data from mid-2022 for population aged ≥50 years.

Detailed study methods

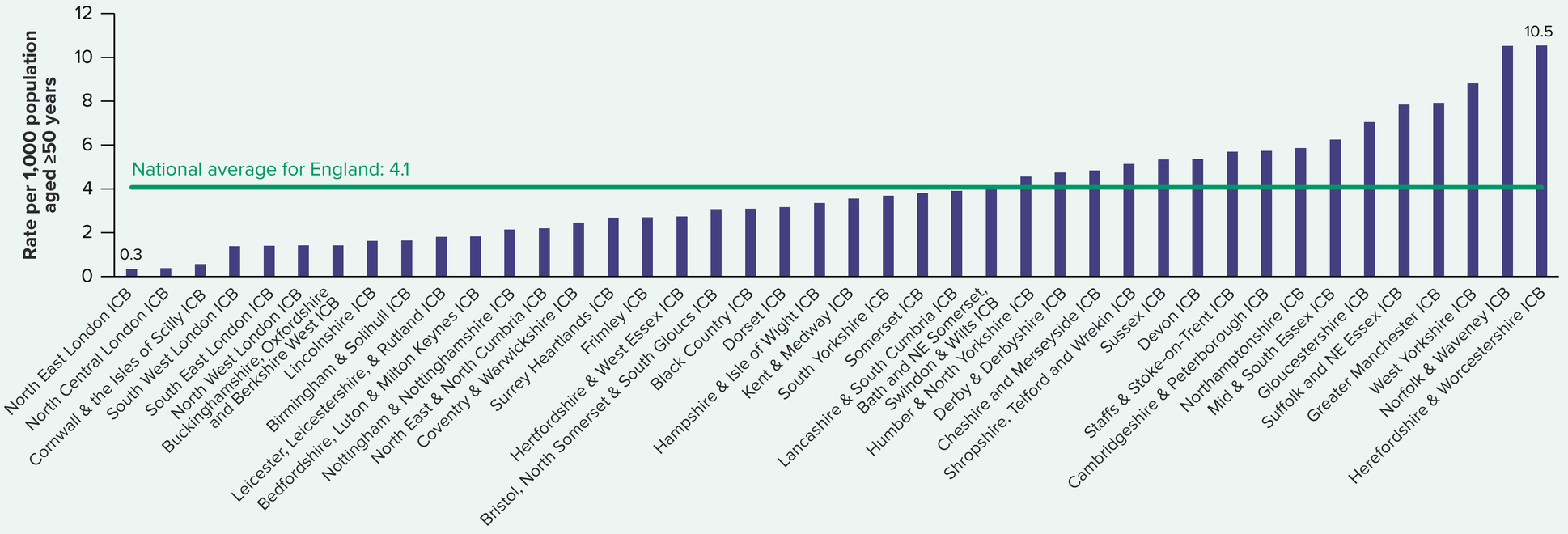
Rate of patients attending first hospital appointments after urgent optician referrals per 1,000 population aged ≥50 years

Herefordshire & Worcestershire ICB had the highest rate of patients attending first hospital appointments per 1,000 population aged ≥50 years within the ICB after urgent optician referrals at 10.5.

North East London ICB had the lowest rate at 0.3.

25 (59.5%) ICBs were below the national average for England of 4.1.

Rate of patients attending first hospital appointments after urgent optician referrals per 1,000 population aged ≥50 years within the ICB, 2023/2024



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Wait time calculated as the number of days between referral and attended appointment when referral source was optician and consultant specialty as per study methods.

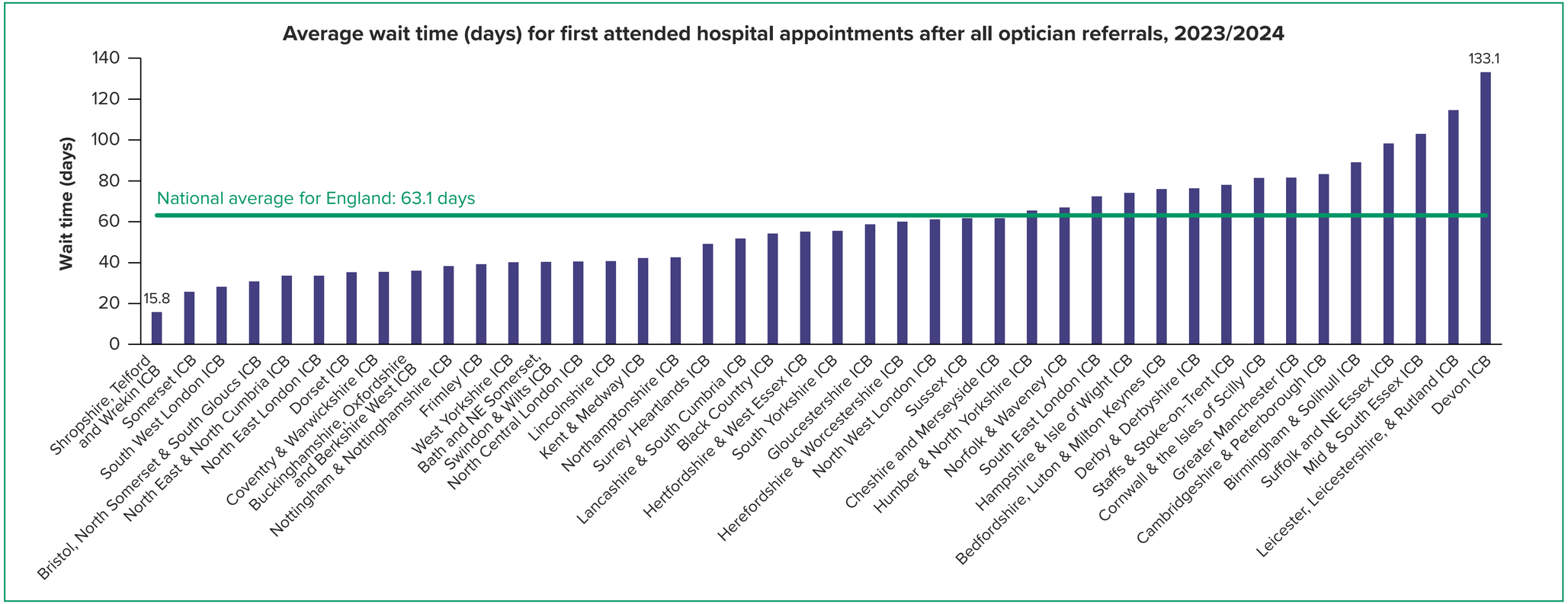
Detailed study methods

Average wait time (days) for first attended hospital appointments after all optician referrals

Shropshire, Telford and Wrekin ICB had the shortest average wait time for patients to attend first hospital appointments after all optician referrals at 15.8 days.

Devon ICB had the longest wait time at 133.1 days.

15 (35.7%) ICBs had average waits longer than the national average of 63.1 days.



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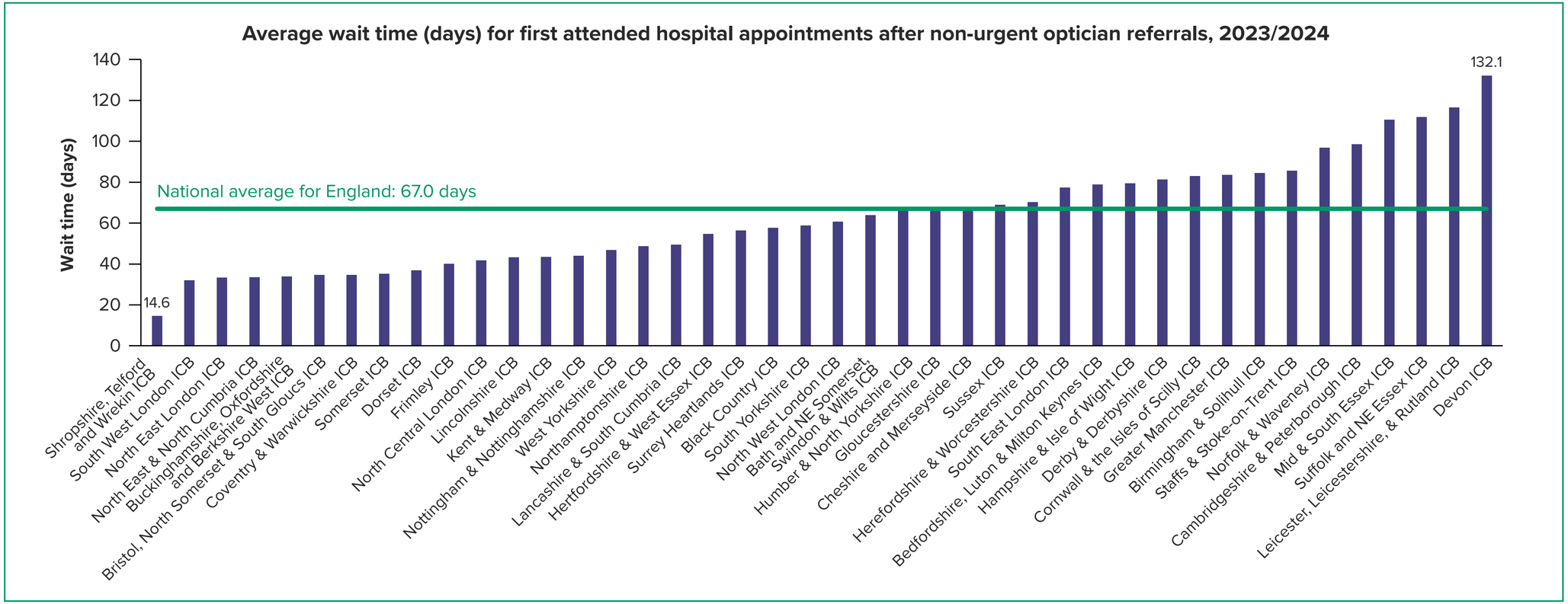
Detailed study methods

Average wait time (days) for first attended hospital appointments after non-urgent optician referrals

Shropshire, Telford and Wrekin ICB had the shortest average wait time for patients to attend first hospital appointments after non-urgent optician referrals at 14.6 days.

Devon ICB had the longest wait time at 132.1 days.

18 (42.9%) ICBs had average waits longer than the national average of 67 days.



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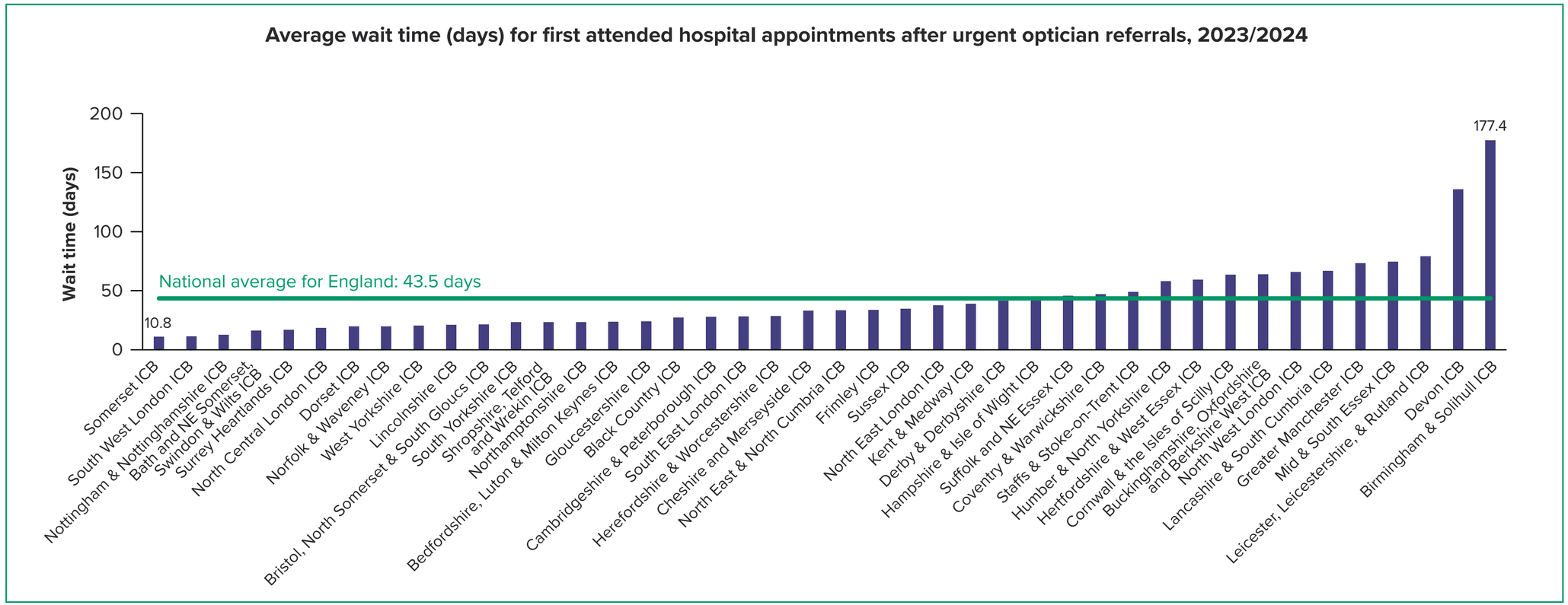
Detailed study methods

Average wait time (days) for first attended hospital appointments after urgent optician referrals

Somerset ICB had the shortest average wait time for patients to attend first hospital appointments after urgent optician referrals at 10.8 days.

Birmingham and Solihull ICB had the longest wait time at 177.4 days

14 (33.3%) ICBs had average waits longer than the national average of 43.5 days.



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Appointments cancelled where patient referral source was optician and consultant specialty as per study methods. % calculation reason calculated as a % of attended appointments.

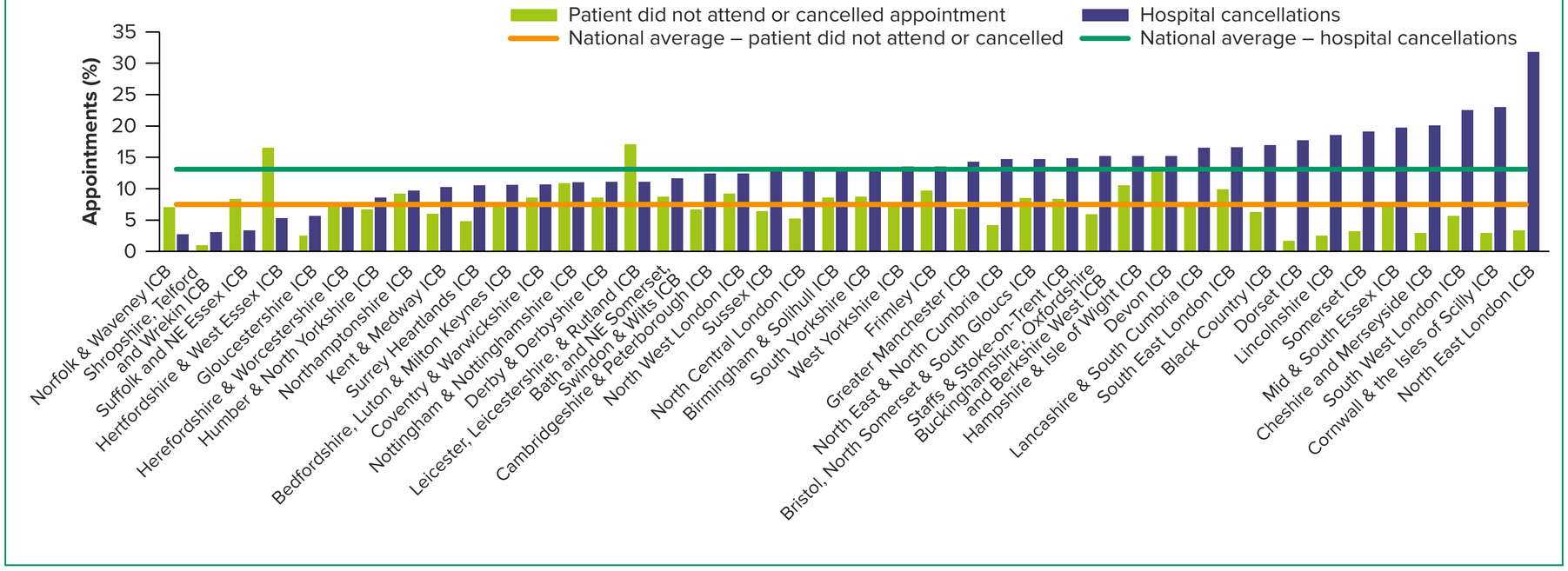
Detailed study methods

Percentage of first appointments that did not go ahead for any reason varied widely between ICBs

North East London ICB had the largest percentage of first hospital appointments that did not go ahead, with hospital cancellation by far the most common reason for this (31.8% vs 3.4% for patient DNA or cancellation).

Shropshire, Telford and Wrekin ICB had the smallest percentage of appointments that did not proceed as scheduled, with hospital cancellations again the most common reason but on a much smaller scale (3.1% vs 1.0% for patient DNA or cancellation).

Percentage of first appointments cancelled by patient compared with appointments cancelled by the hospital in 2023/2024



Deep dive

DNA

Patient cancellation

Hospital cancellation

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Appointments where patient referral source was optician and consultant specialty as per study methods. % patient did not attend calculated as a % of attended appointments.

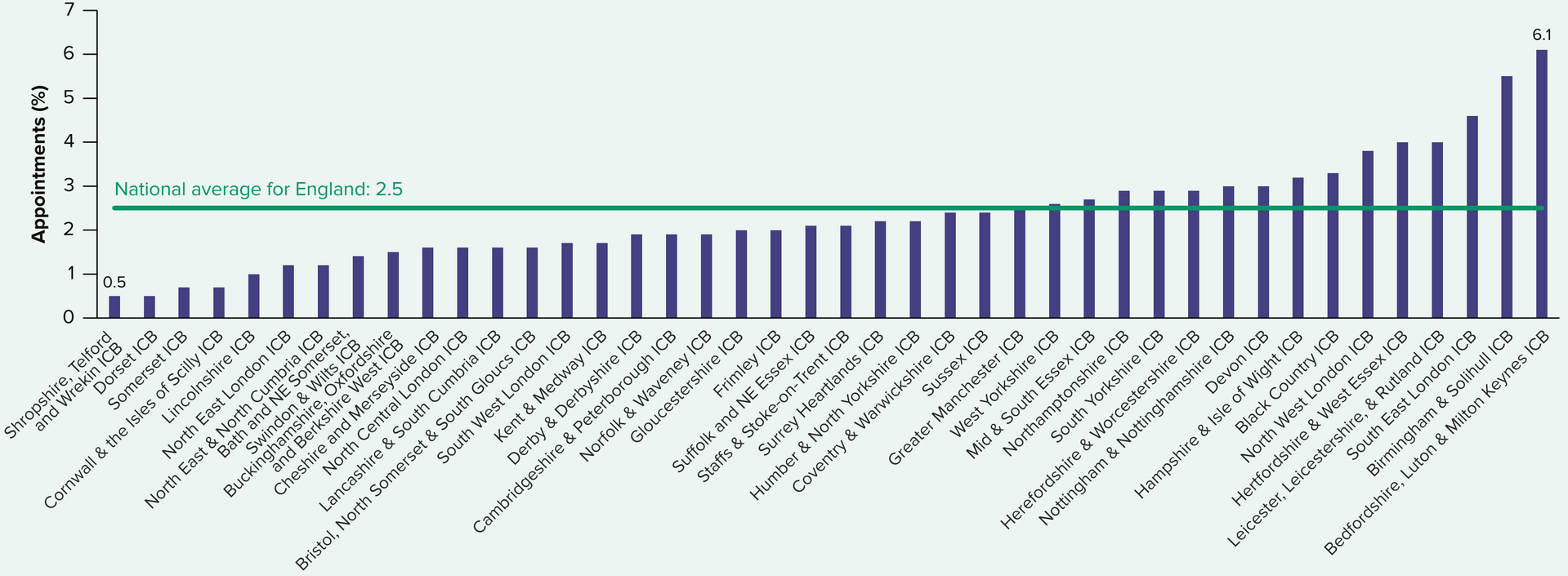
Detailed study methods

First hospital appointments after optician referrals where the patient did not attend

Shropshire, Telford and Wrekin ICB had the smallest percentage of appointments where patients did not attend their first hospital appointment following an optician referral at 0.5%. Bedfordshire, Luton & Milton Keynes had the highest percentage of patient DNAs at 6.1%.

15 (35.7%) ICBs had DNA rates higher than the national average of 2.5%.

Percentage of first ophthalmology appointments after optician referrals where the patient did not attend, 2023/2024



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Appointments where patient referral source was optician and consultant specialty as per study methods. % patient cancelled appointments calculated as a % of attended appointments.

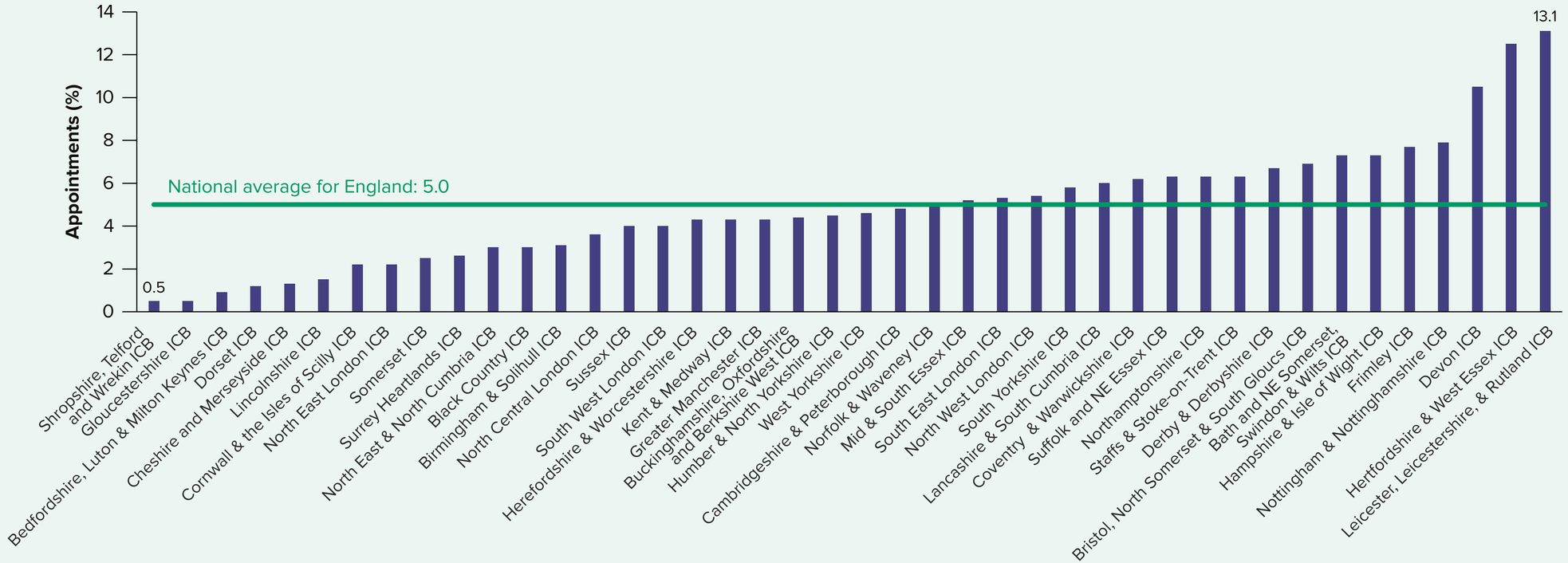
Detailed study methods

First ophthalmology appointments after optician referrals where the patient cancelled

Shropshire, Telford and Wrekin ICB had the smallest percentage of appointments where patients cancelled their first hospital appointment following an optician referral at 0.5%. Leicester, Leicestershire & Rutland ICB had the highest percentage of patient cancellations at 13.1%.

19 (45.2%) ICBs had patient cancellation rates higher than the national average of 5.0%.

Percentage of first ophthalmology appointments after optician referrals where the patient cancelled, 2023/2024



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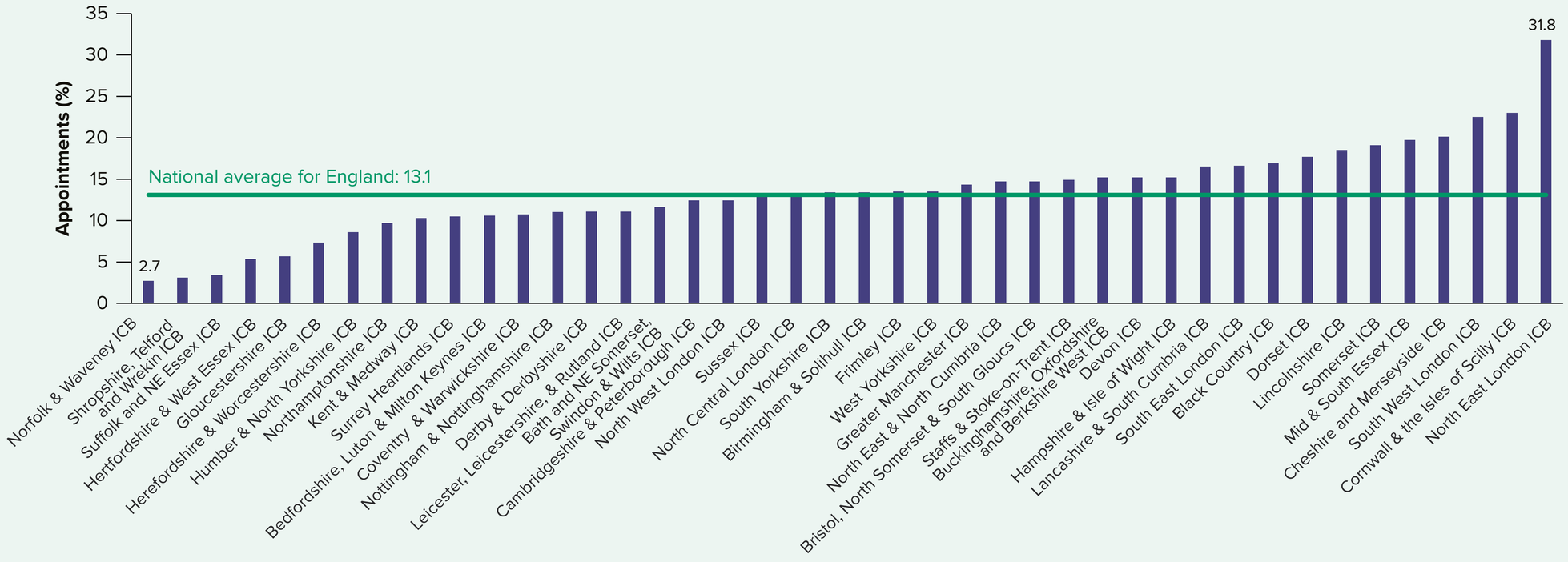
Detailed study methods

First ophthalmology appointments after optician referrals where the hospital cancelled

Norfolk & Waveney ICB had the smallest percentage of appointments where the hospital cancelled their first hospital appointment following an optician referral at 2.7%. North East London had the highest percentage of hospital cancellations at 31.8%.

23 (54.8%) ICBs had hospital cancellation rates higher than the national average of 13.1%.

Percentage of first ophthalmology appointments after optician referrals where the hospital cancelled, 2023/2024



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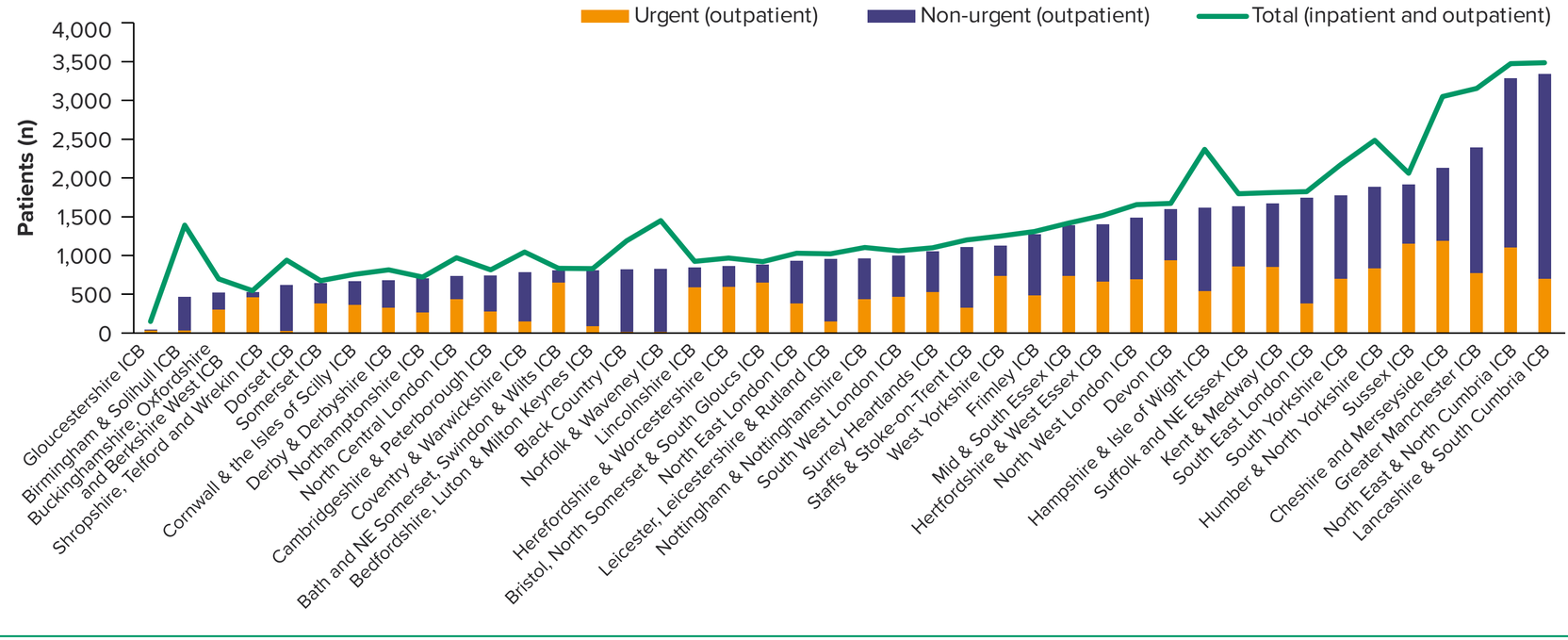
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Number of patients receiving first injections after all referrals was highest in Lancashire & South Cumbria ICB and lowest in Gloucestershire ICB

The total number of patients receiving first injections as inpatients and outpatients was highest in Lancashire & South Cumbria ICB and lowest in Gloucestershire ICB.

Number of patients receiving first injection as an outpatient after urgent or non-urgent referral, and total number receiving first injection as an inpatient or outpatient at each ICB, 2023/2024



Deep dive

- All referrals
- Non-urgent referrals
- Urgent referrals
- Age
- Deprivation

Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years.

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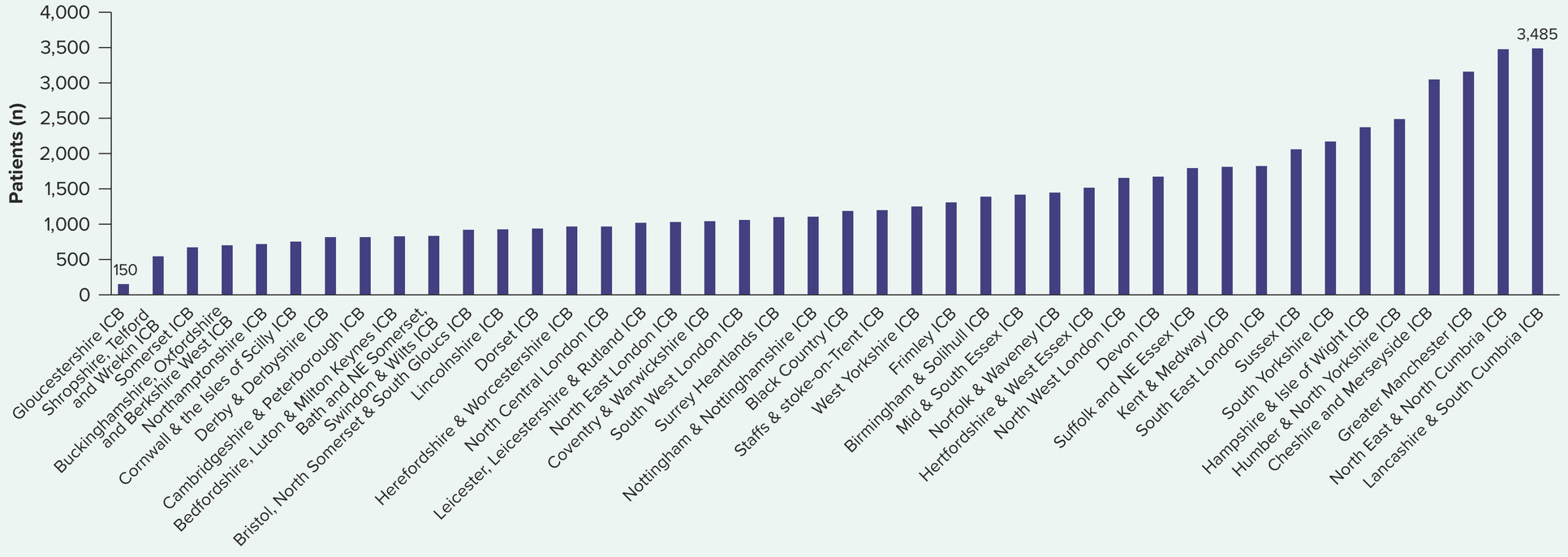
Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years.

Detailed study methods

Number of patients receiving first injections after all referrals was highest in Lancashire & South Cumbria ICB and lowest in Gloucestershire ICB

The number of patients receiving first injections after all referrals was highest in Lancashire and South Cumbria ICB at 3,485 and lowest in Gloucestershire ICB at 150.

Patients receiving first injection as an inpatient or outpatient at each ICB, 2023/2024



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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years. Rate calculated using ICB level data from mid-2022 on population aged ≥50 years.

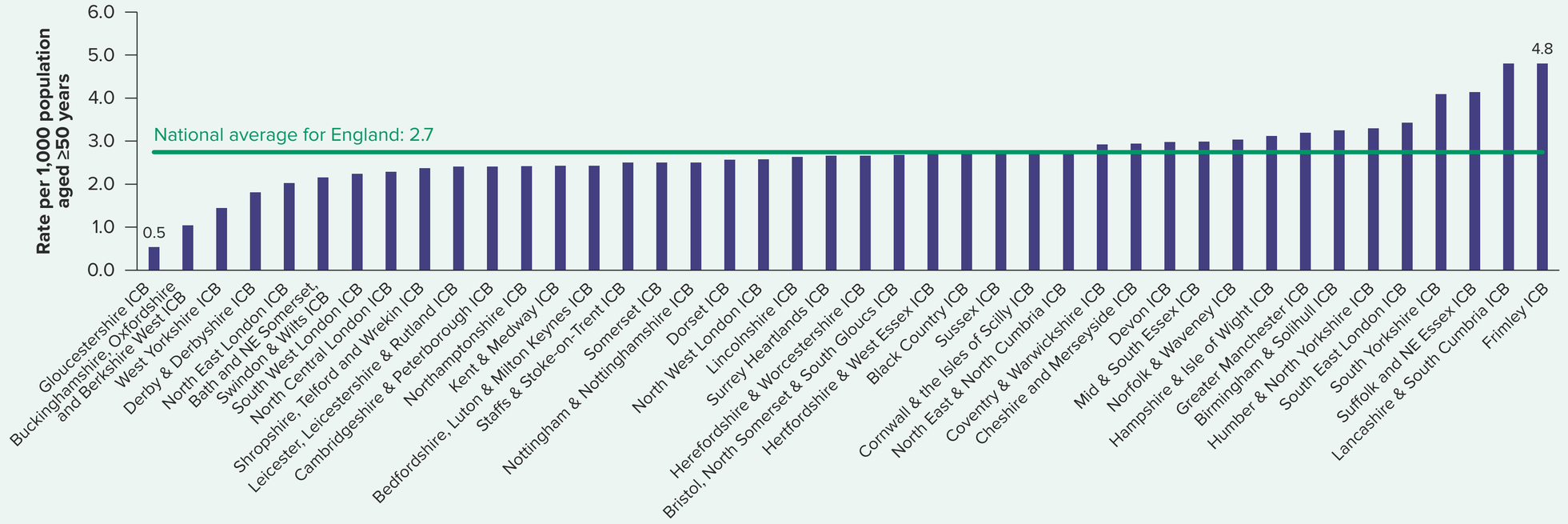
Detailed study methods

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged ≥50 years

The rate of patients having first injections after all referrals per 1,000 population aged ≥50 years within the ICB was highest in Frimley ICB at 4.8 and lowest in Gloucestershire ICB at 0.5.

25 (59.5%) ICBs had rates lower than the national average of 2.7.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged ≥50 years at each ICB, 2023/2024



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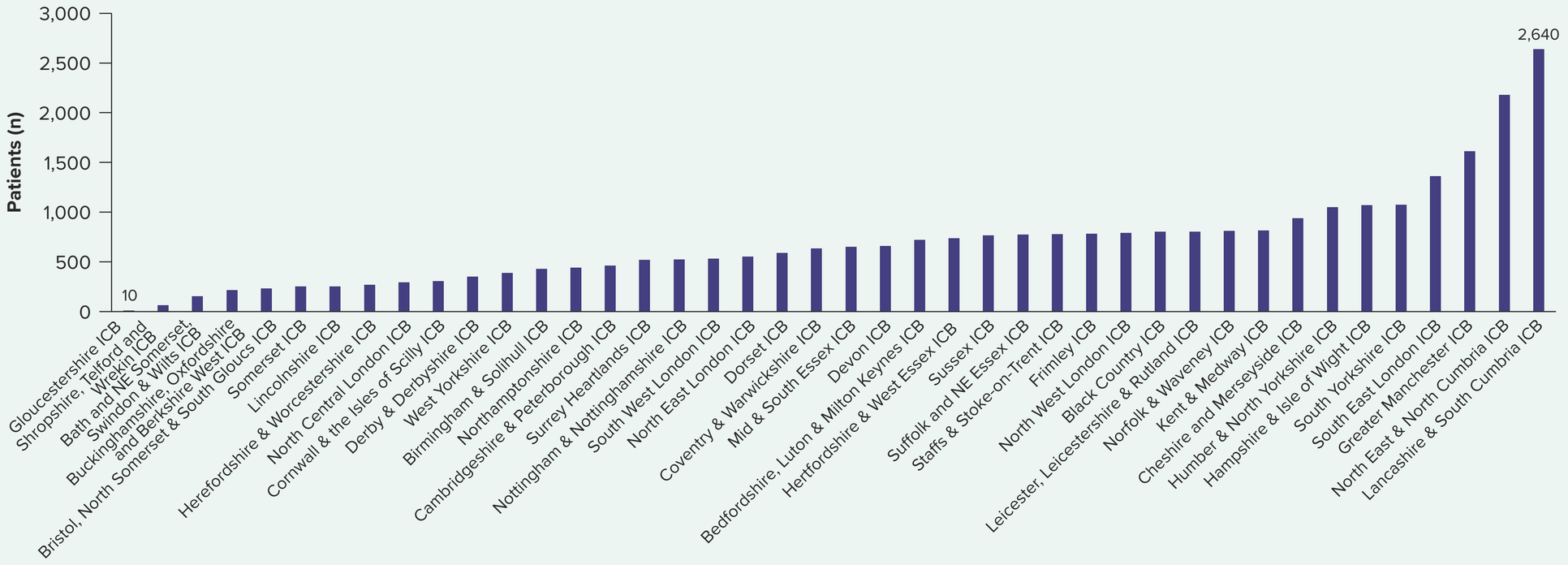
Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years.

Detailed study methods

Number of patients receiving first injections after non-urgent referrals was highest in Lancashire and South Cumbria ICB and lowest in Gloucestershire ICB

The number of patients receiving first injections after non-urgent referrals was highest in Lancashire and South Cumbria ICB at 2,640 and lowest in Gloucestershire ICB at 10.

Patients receiving first injection as an outpatient after non-urgent referral, 2023/2024



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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years. Rate calculated using ICB level data from mid-2022 on population aged ≥50 years.

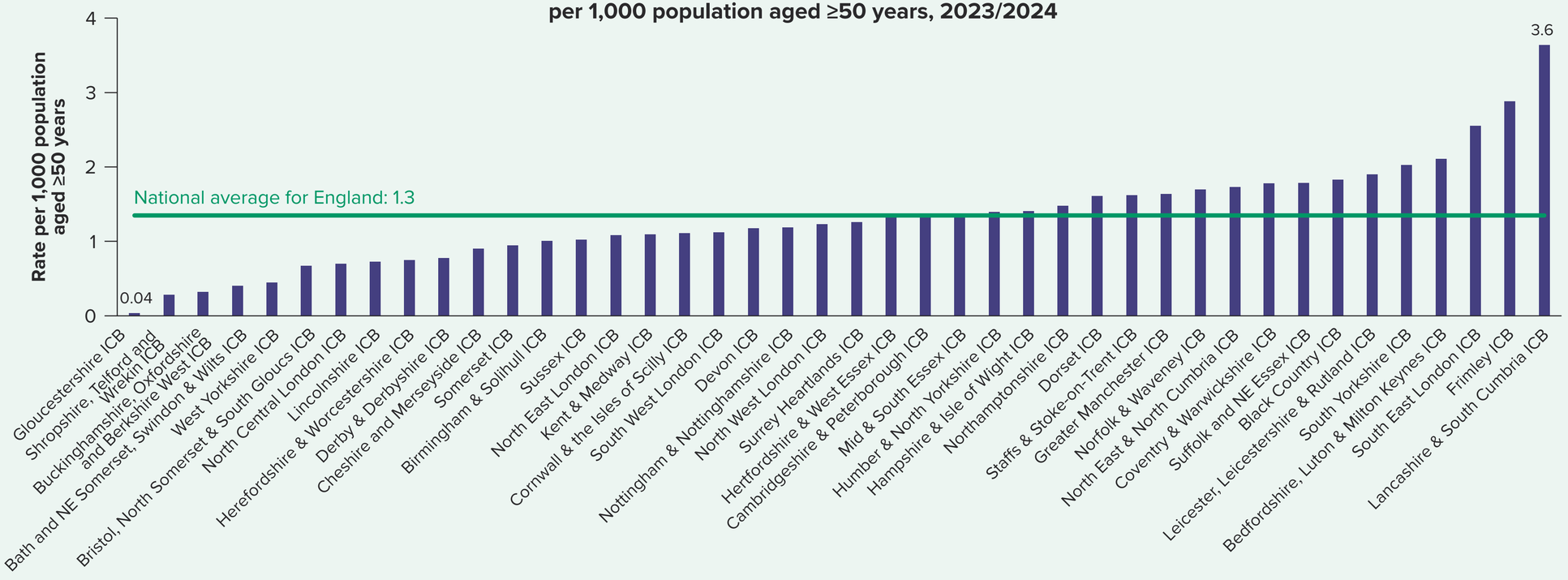
Detailed study methods

Rate of patients receiving first injection as an outpatient after non-urgent referrals per 1,000 population aged ≥50 years

The rate of patients having first injections after non-urgent referrals was highest in Lancashire and South Cumbria ICB at 3.6 and lowest in Gloucestershire ICB at 0.04.

23 (54.8%) ICBs had rates lower than the national average of 1.3.

Rate of patients receiving first injection as an outpatient after non-urgent referrals per 1,000 population aged ≥50 years, 2023/2024



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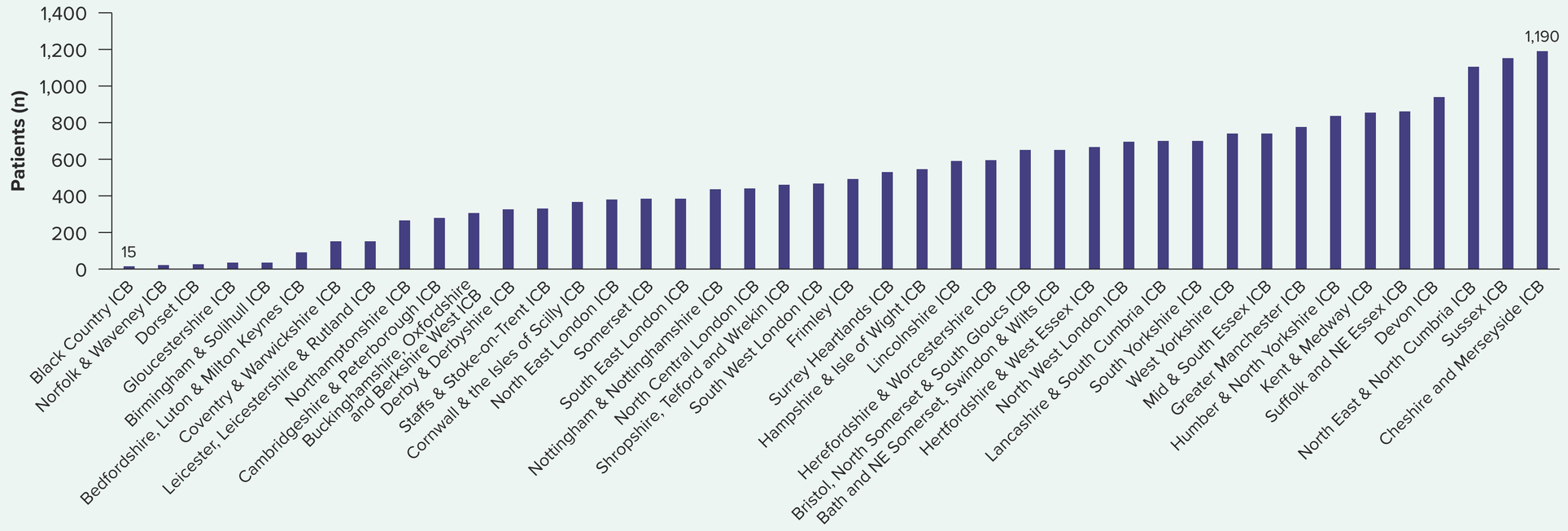
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Number of patients receiving first injections after urgent referrals was highest in Cheshire & Merseyside ICB and lowest in Black Country ICB

The number of patients receiving first injections after urgent referrals was highest in Cheshire & Merseyside ICB at 1,190 and lowest in Black Country ICB at 15.



Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years.

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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population aged ≥50 years.

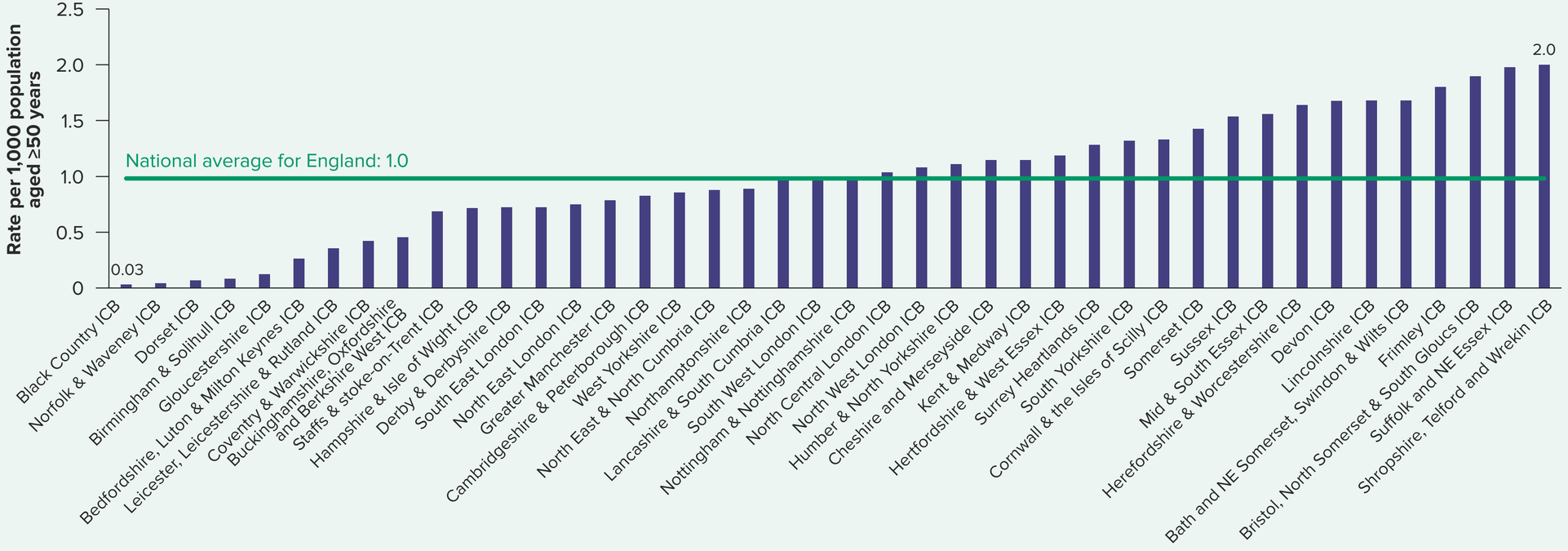
Detailed study methods

Rate of patients receiving first injection as an outpatient after urgent referral per 1,000 population aged ≥50 years

The rate of patients having first injections after non-urgent referrals was highest in Lancashire and Shropshire, Telford and Wrekin ICB at 2.0 and lowest in Black Country ICB at 0.03.

21 (50.0%) ICBs had rates lower than the national average of 1.0.

Rate of patients receiving first injection as an outpatient after urgent referral per 1,000 population aged ≥50 years, 2023/2024



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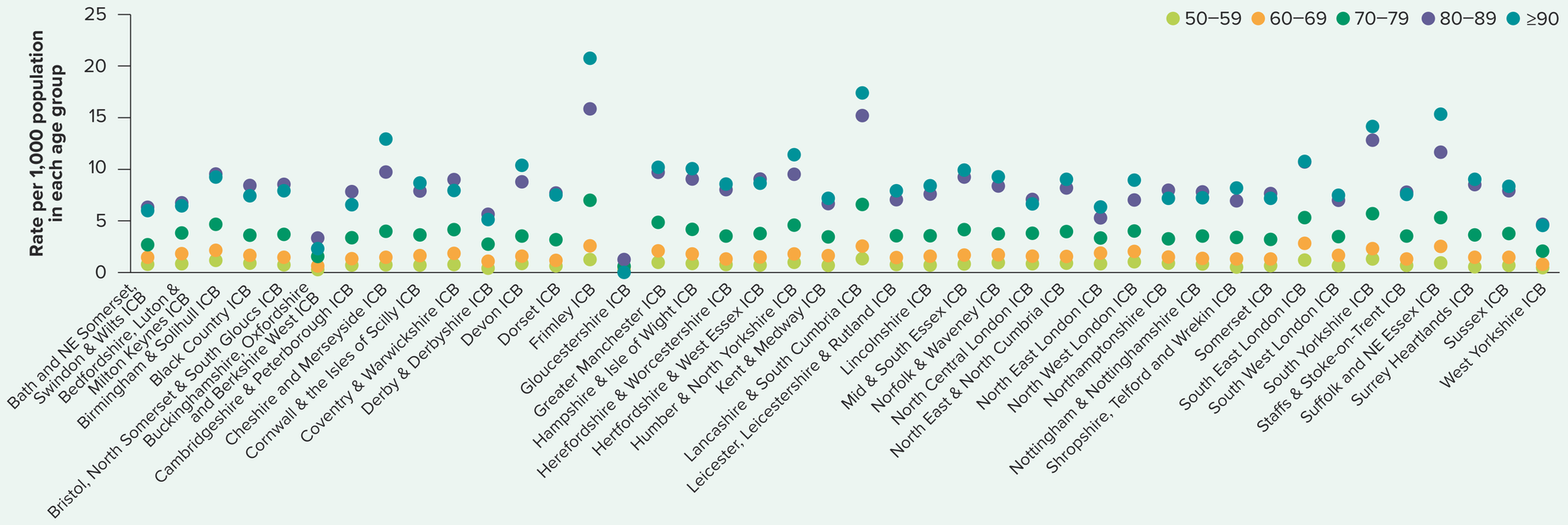
Analysis details
Counted as patients first injection if they had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population by age band.

Detailed study methods

ICBs in England vary in the rate of patients receiving first injection by age band

Across all age bands, the rate of patients having first injections after all referrals varied across ICBs. Frimley ICB displayed the highest range – from 20.8 patients per 1,000 population for patients aged ≥90 years to 1.2 in patients aged 50–59 years.

Rate of patients receiving first injection as an inpatient or outpatient at each ICB, split by age band, 2023/2024



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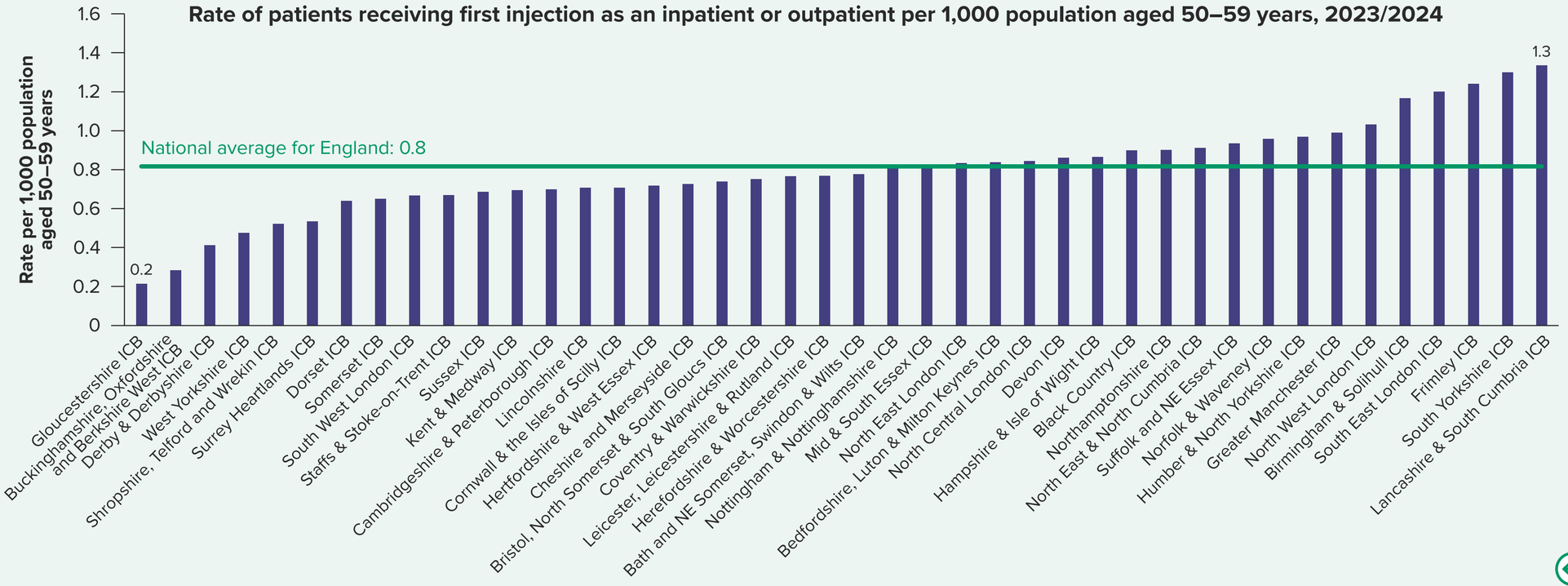
Analysis details
Counted as patients first injection if they were aged 50–59 years and had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population aged 50–59 years.

Detailed study methods

The rate of patients aged 50-59 per 1,000 of the population receiving a first injection ranged from 0.2 to 1.3 in 2023/2024

In patients aged 50–59 years, the rate of patients having first injections after all referrals was highest in Lancashire & South Cumbria ICB at 1.3 and lowest in Gloucestershire ICB at 0.2.

24 (57.1%) ICBs had rates lower than the national average of 0.8.



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Analysis details
Counted as patient's first injection if they were aged 60–69 years and had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population aged 60–69 years.

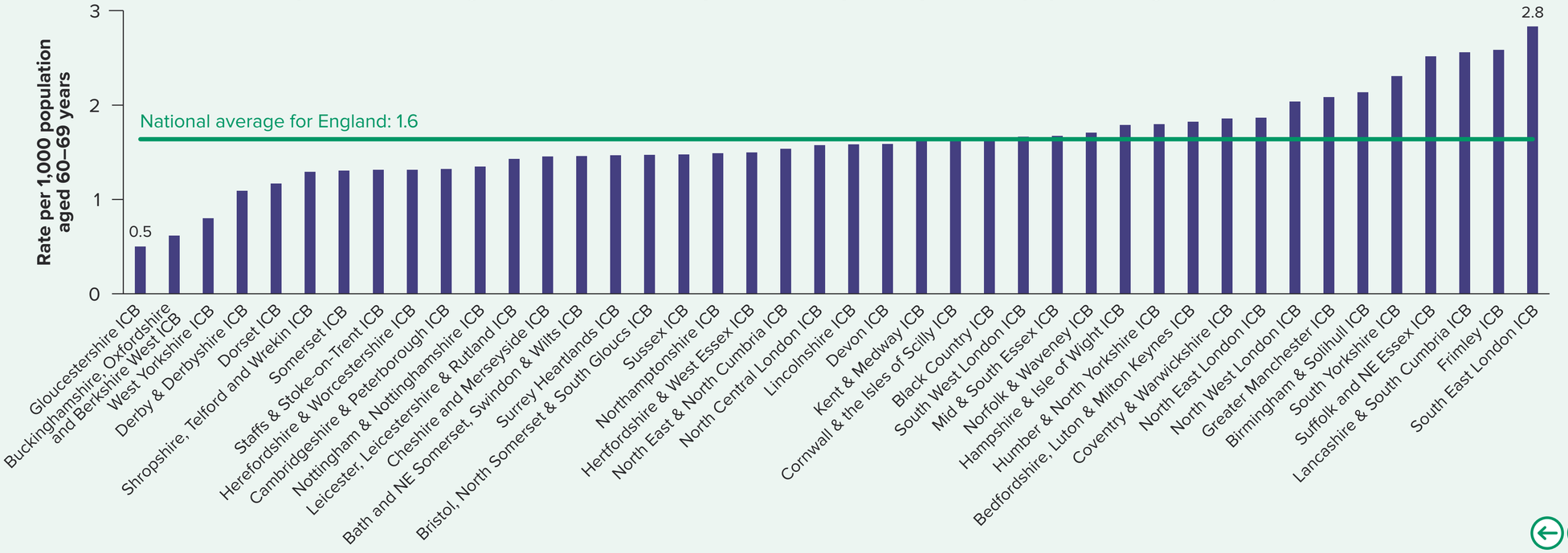
Detailed study methods

In patients aged 60–69 years, the rate of patients ranged from 0.5 to 2.8 in 2023/2024

In patients aged 60–69 years, the rate of patients having first injections after all referrals was highest in South East London at 2.8 and lowest in Gloucestershire ICB at 0.5.

25 (59.5%) ICBs had rates lower than the national average of 1.6.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged 60–69 years, 2023/2024



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Analysis details
Counted as patient's first injection if they were aged 70–79 years and had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population aged 70–79 years.

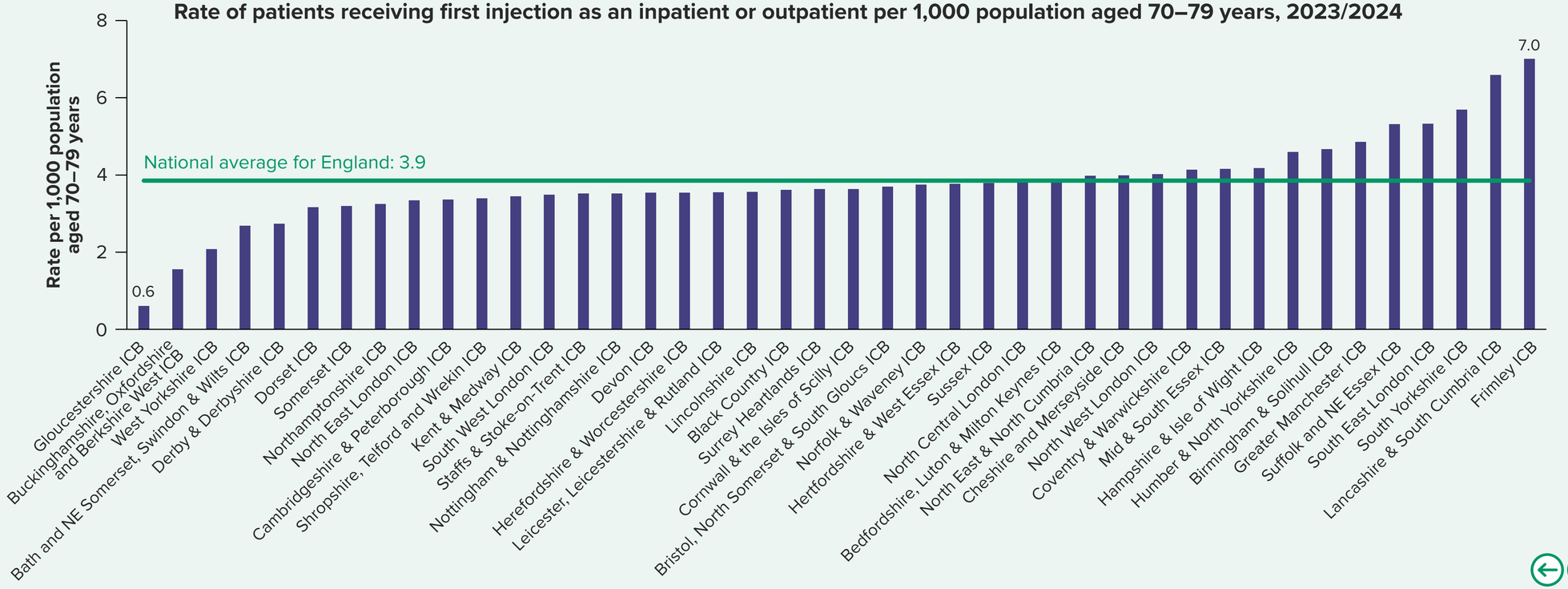
Detailed study methods

In patients aged 70–79 years, the rate of patients ranged from 0.6 to 7.0 in 2023/2024

In patients aged 70–79 years, the rate of patients having first injections after all referrals was highest in Frimley ICB at 7.0 and lowest in Gloucestershire ICB at 0.6.

28 (66.7%) ICBs had rates lower than the national average of 3.9.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged 70–79 years, 2023/2024



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Analysis details
Counted as patient's first injection if they were aged 80–89 years and had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population aged 80–89 years.

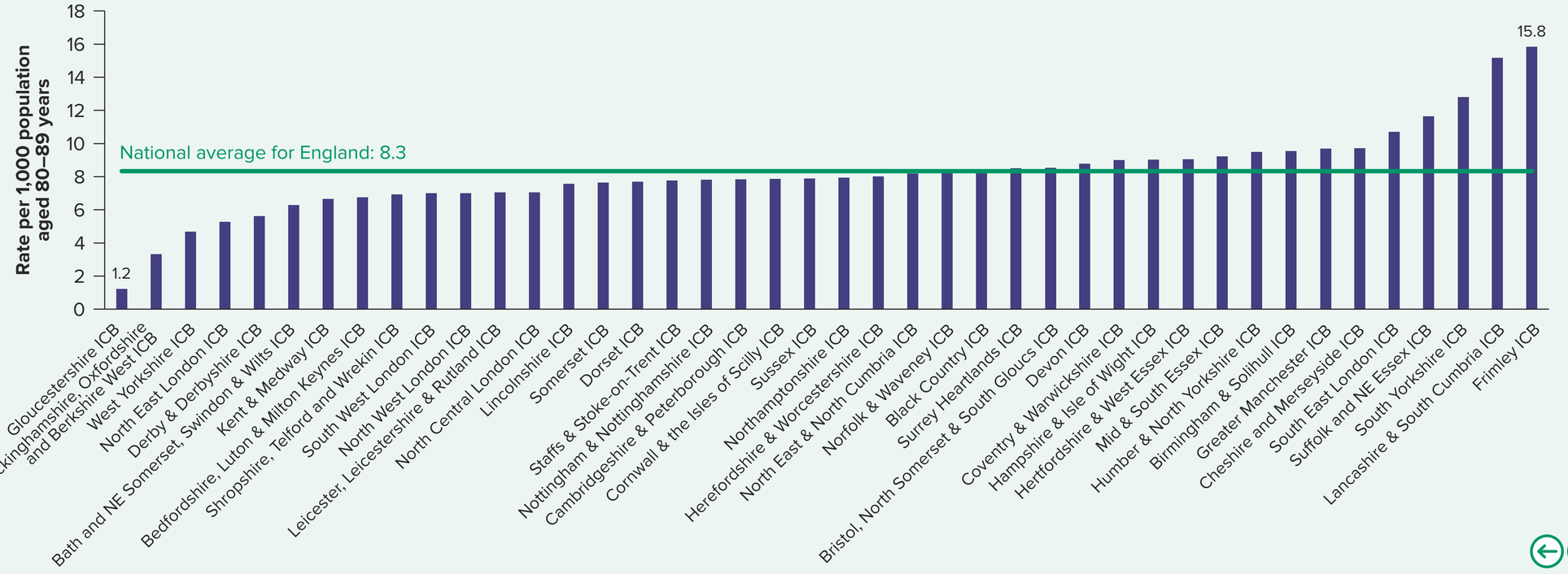
Detailed study methods

In patients aged 80–89 years, the rate of patients ranged from 1.2 to 15.8 in 2023/2024

In patients aged 80–89 years, the rate of patients having first injections after all referrals was highest in Frimley ICB at 15.8 and lowest in Gloucestershire ICB at 1.2.

24 (57.1%) ICBs had rates lower than the national average of 8.3.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged 80–89 years, 2023/2024



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Analysis details
Counted as patient's first injection if they were aged ≥90 years and had not had an injection in any of the previous 4 years. Rate calculated using ICB-level data from mid-2022 on population aged ≥90 years.

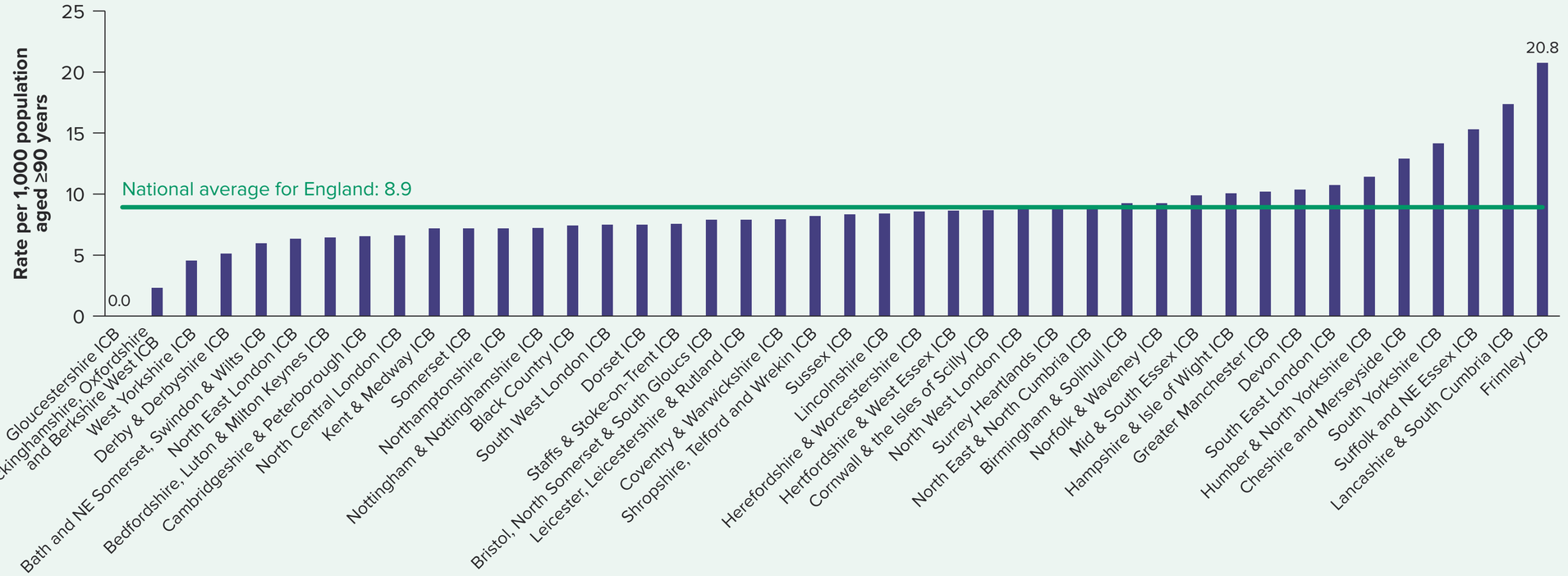
Detailed study methods

In patients aged ≥90 years, the rate of patients ranged from 0.0 to 20.8 in 2023/2024

In patients aged ≥90 years, the rate of patients having first injections after all referrals was highest in Frimley ICB at 20.8 and lowest in Gloucestershire ICB at 0.0.

26 (61.9%) ICBs had rates lower than the national average of 8.9.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged ≥90 years, 2023/2024



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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years & they were in Quintile. Rate calculated using ICB-level data from mid-2020 on Quintile 1 population aged ≥50 years.

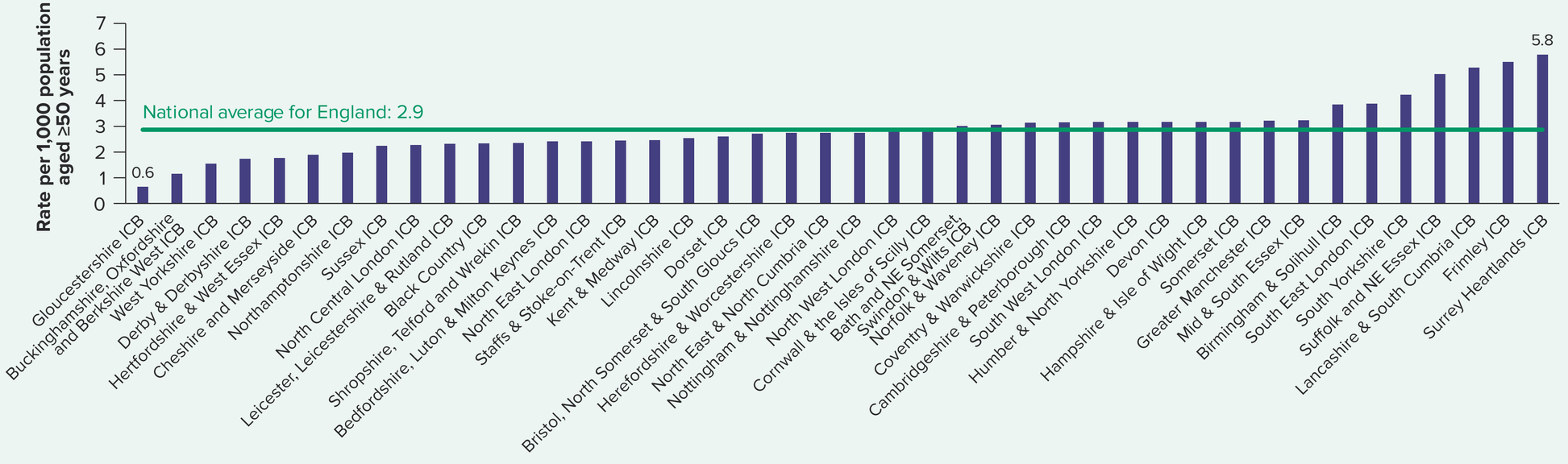
Detailed study methods

In Quintile 1 (most deprived), the rate of patients ranged from 0.6 to 5.8 in 2023/2024

In Quintile 1 (the most deprived population), the rate of patients having first injections after all referrals was highest in Surrey Healthlands ICB at 5.8 and lowest in Gloucestershire ICB at 0.6.

24 (57.1%) ICBs had rates lower than the national average of 2.9.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged ≥50 years, 2023/2024: Quintile 1 (most deprived)



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Analysis details
Counted as patient's first injection if they had not had an injection in any of the previous 4 years & they were in Quintile. Rate calculated using ICB-level data from mid-2020 on Quintile 5 population aged ≥50 years.

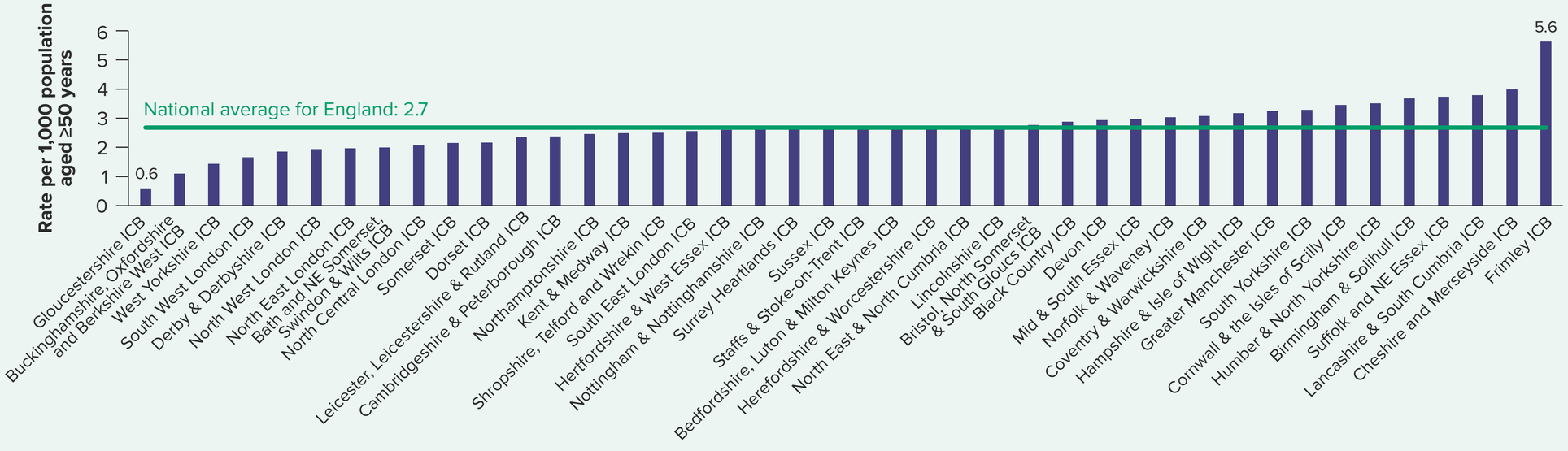
Detailed study methods

In Quintile 5 (least deprived), the rate of patients ranged from 0.6 to 5.6 in 2023/2024

In Quintile 5 (the least deprived population), the rate of patients having first injections after all referrals was highest in Frimley ICB at 5.6 and lowest in Gloucestershire ICB at 0.6.

21 (50.0%) ICBs had rates lower than the national average of 2.7.

Rate of patients receiving first injection as an inpatient or outpatient per 1,000 population aged ≥50 years, 2023/2024: Quintile 5 (least deprived)



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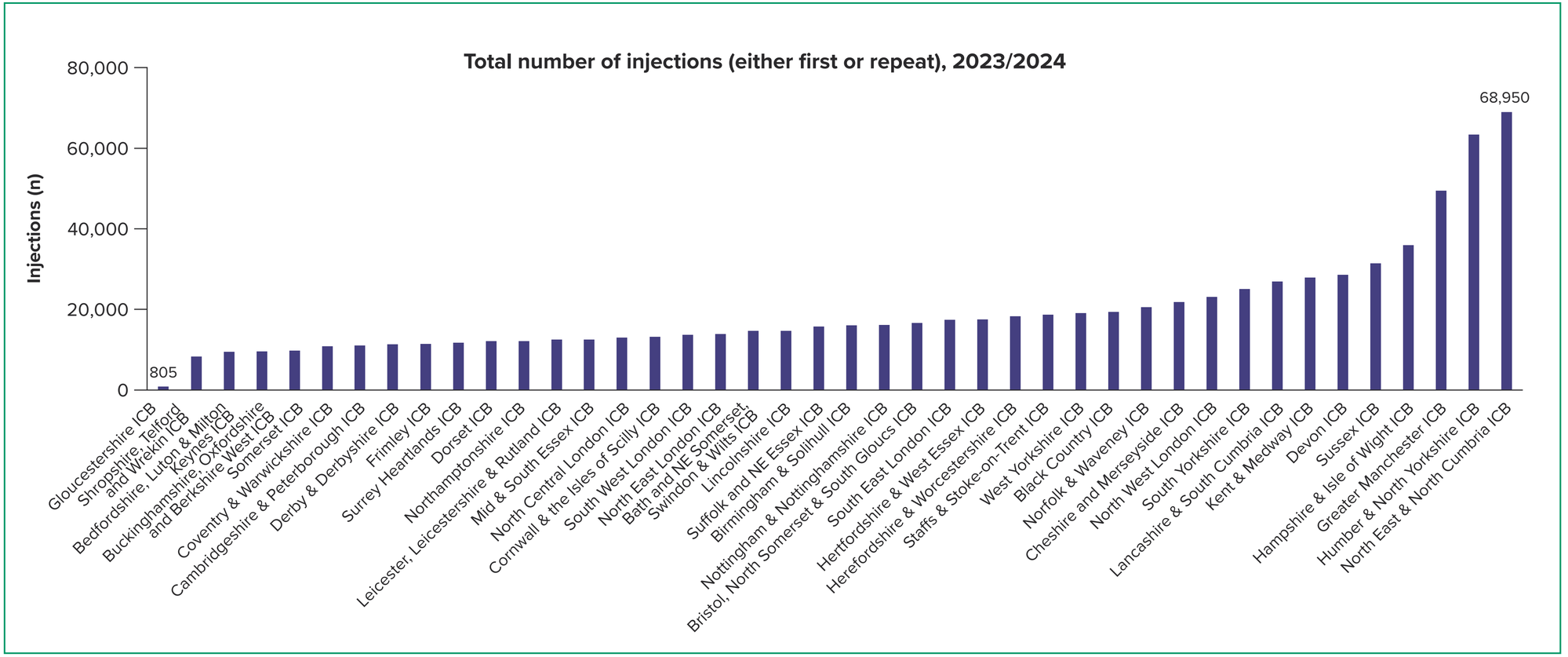
ICB deep dive

Analysis details
Count of total injection activity. Activity counted if “injection into vitreous body NEC” was coded in either inpatient or outpatient episode.

Detailed study methods

Total number of injections was highest in North East & North Cumbria ICB and lowest in Gloucestershire ICB

The total number of injections (either first or repeat) was highest in North East & North Cumbria ICB at 68,950 and lowest in Gloucestershire ICB at 805.



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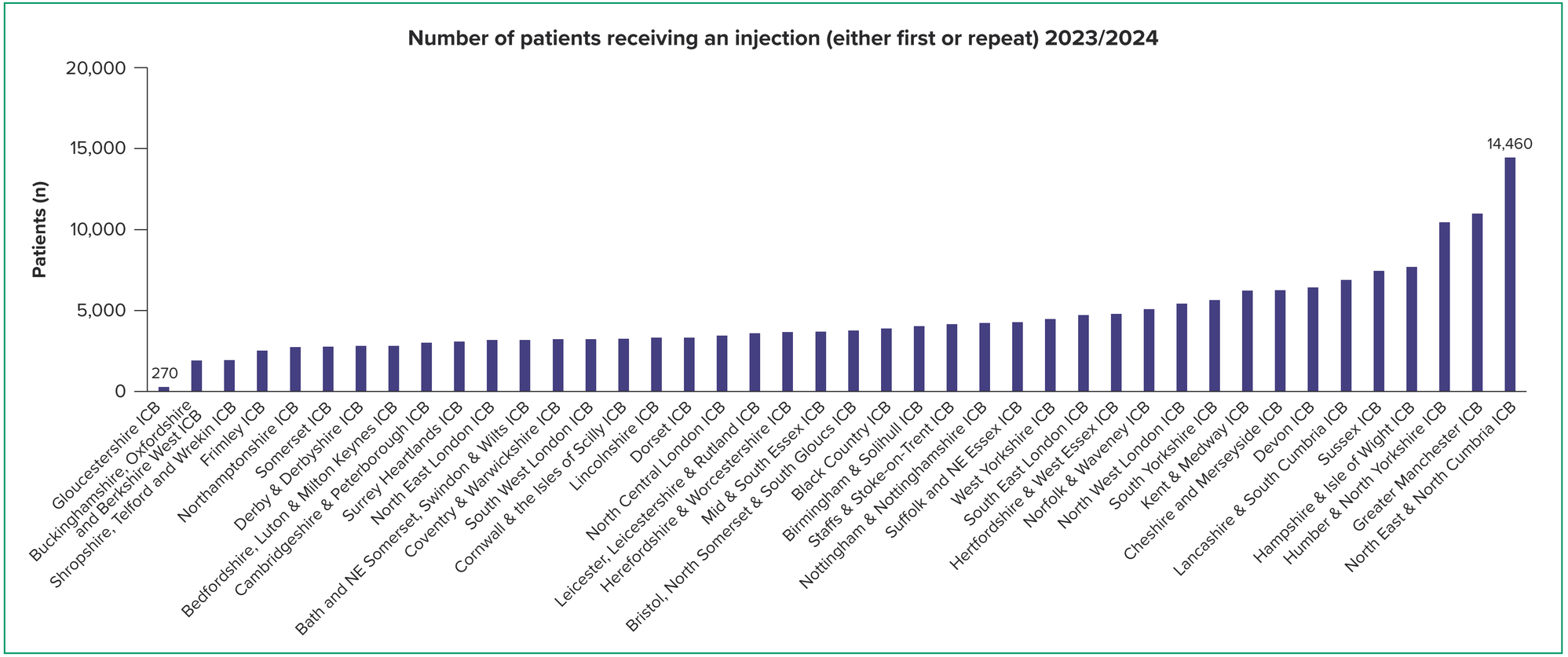
ICB deep dive

Analysis details
Count of total patients receiving injection. Patient counted if they had at least one “injection into vitreous body NEC” was coded in either inpatient or outpatient episode.

Detailed study methods

Number of patients receiving an injection was highest in North East & North Cumbria ICB and lowest in Gloucestershire ICB

The number of patients receiving an injection (either first or repeat) was highest in North East & North Cumbria ICB at 14,460 and lowest in Gloucestershire ICB at 270.



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Analysis details
Patient counted if they had at least one injection in either inpatient or outpatient episode. Rate calculated using ICB level data from mid-2022 on population aged ≥50 years.

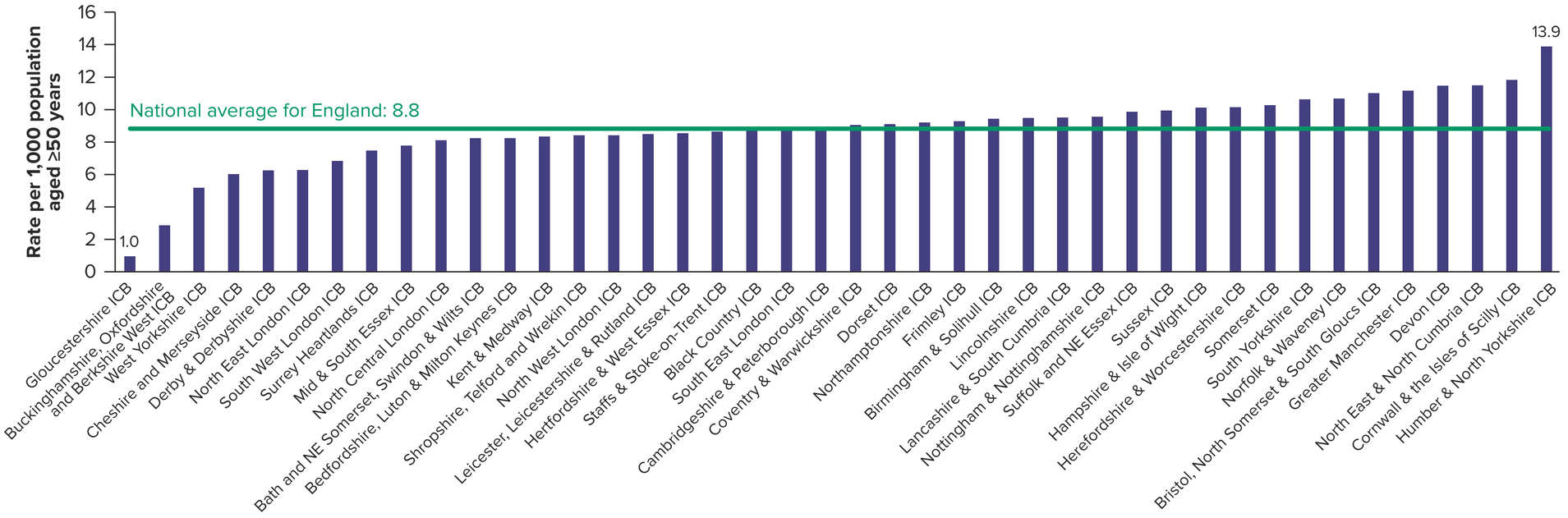
Detailed study methods

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each ICB

The rate of patients having an injection (either first or repeat) was highest in Humber & North Yorkshire ICB at 13.9 and lowest in Gloucestershire ICB at 1.0.

18 (42.9%) ICBs had rates lower than the national average of 8.8.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each ICB, 2023/2024



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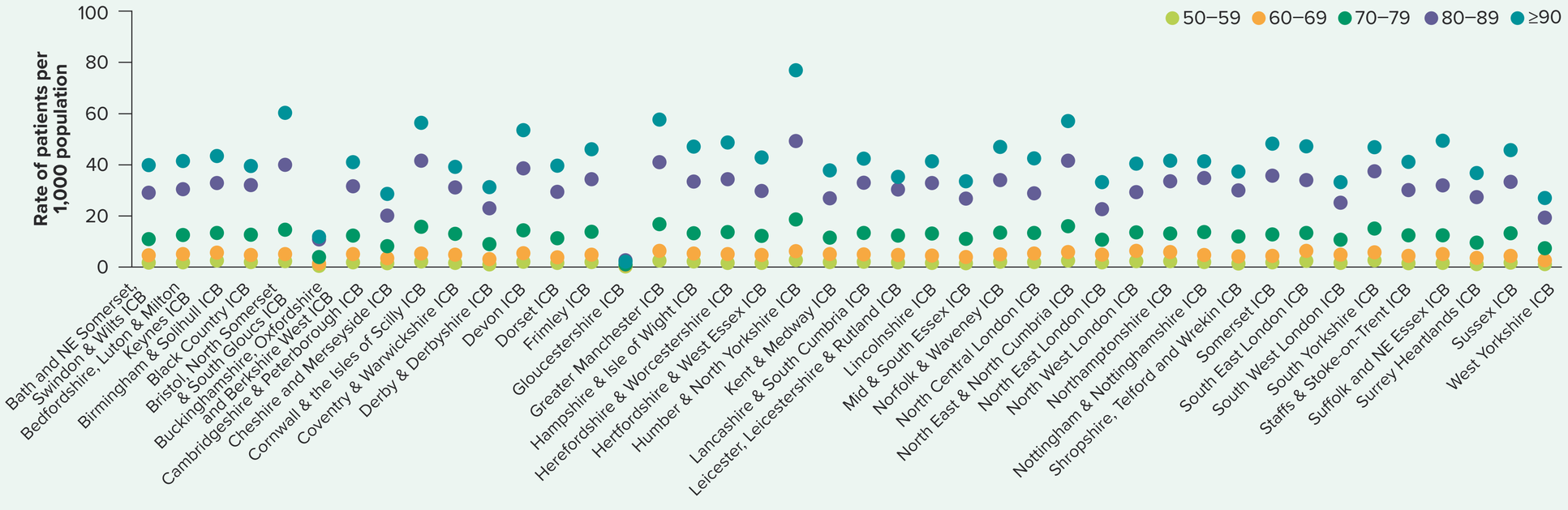
Analysis details
Patient counted if they had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB-level data from mid-2022 on population for each age group.

Detailed study methods

ICBs in England vary in the rate of patients receiving an injection per 1,000 population by age band

Across all age bands, the rate of patients having first injections after all referrals varied across ICBs. Humber & North Yorkshire ICB had the highest range – from 77.0 patients per 1,000 aged ≥90 years to 2.8 in patients aged 50–59 years.

Rate of patients receiving an injection (either first or repeat) per 1,000 population 2023/2024, by age



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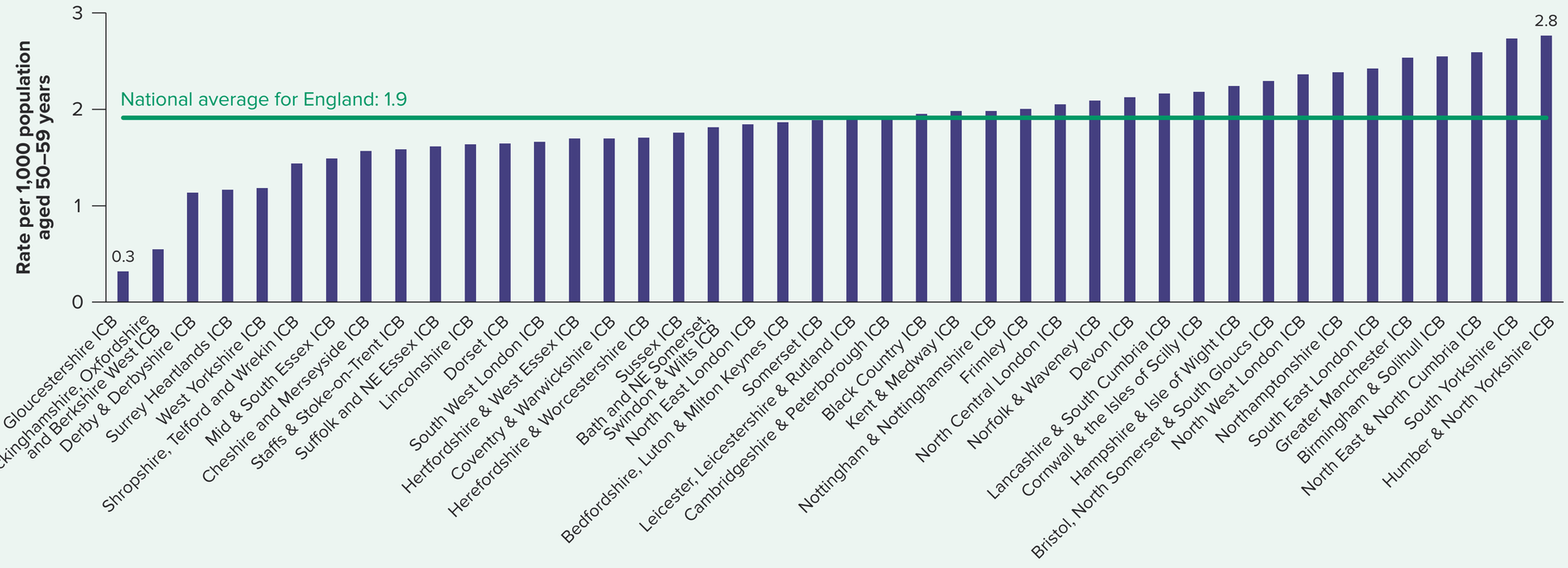
Detailed study methods

In patients aged 50–59 years, the rate of patients receiving an injection (either first or repeat) ranged from 0.3 to 2.8 in 2023/2024

In patients aged 50–59 years, the rate of patients having an injection (either first or repeat) was highest in Humber & North Yorkshire ICB at 2.8 and lowest in Gloucestershire ICB at 0.3.

22 (52.4%) ICBs had rates lower than the national average of 1.9.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged 50–59 years, 2023–2024



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Patient counted if they were aged 60–69 years and had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB-level data from mid-2022 on population aged 60–69 years.

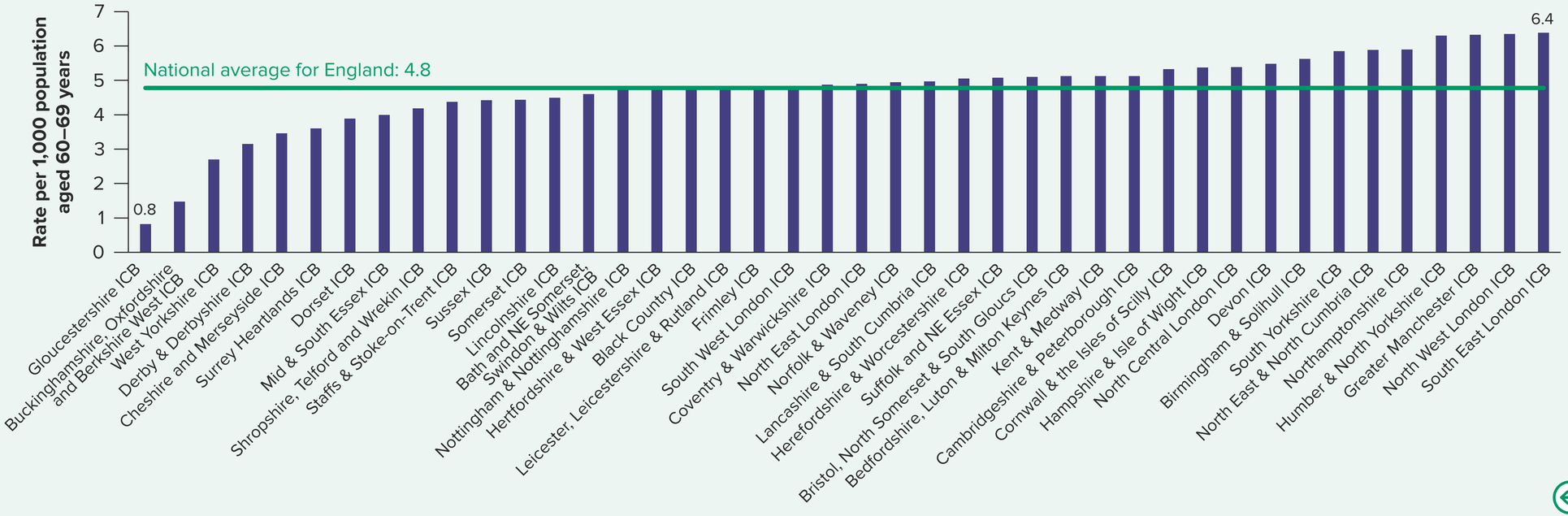
Detailed study methods

In patients aged 60–69 years, the rate of patients receiving an injection (either first or repeat) ranged between 0.8 and 6.4

In patients aged 60–69 years, the rate of patients having an injection (either first or repeat) was highest in South East London ICB at 6.4 and lowest in Gloucestershire ICB at 0.8.

18 (42.9%) ICBs had rates lower than the national average of 4.8.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged 60–69 years, 2023–2024



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Analysis details
Patient counted if they were aged 70–79 years and had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB-level data from mid-2022 on population aged 70–79 years.

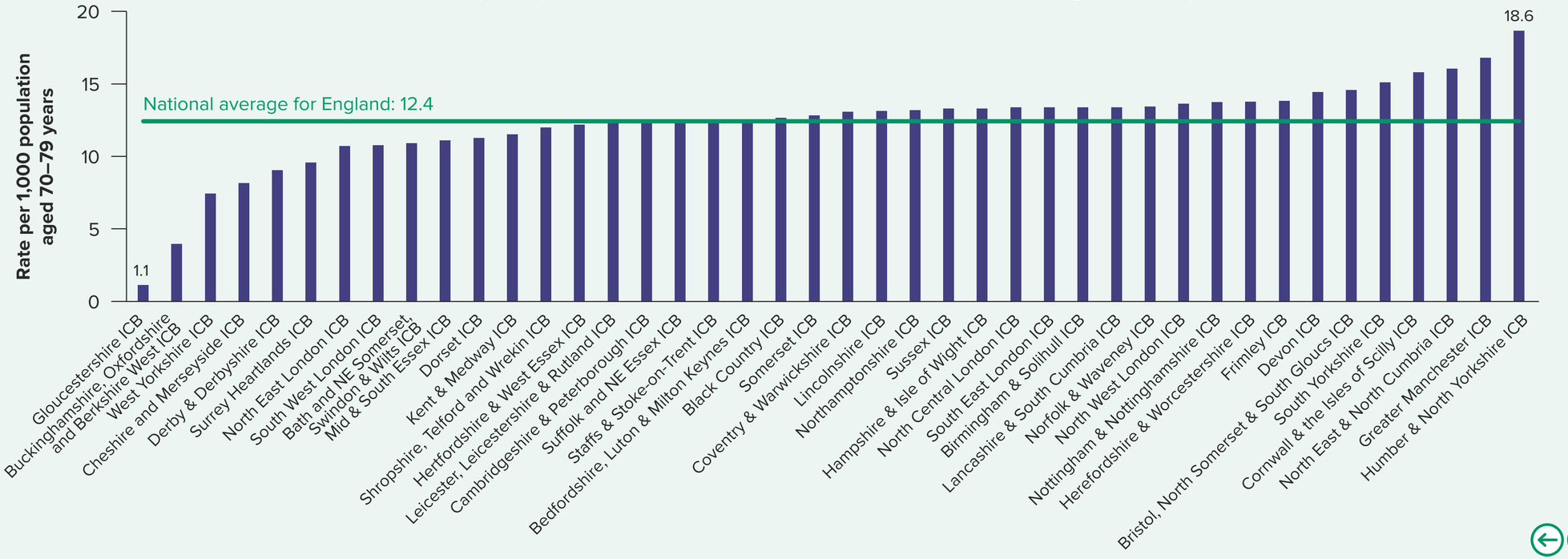
Detailed study methods

In patients aged 70–79 years, the rate of patients receiving an injection (either first or repeat) ranged from 1.1 to 18.6 in 2023/2024

In patients aged 70–79 years, the rate of patients having an injection (either first or repeat) was highest in Humber & North Yorkshire ICB at 18.6 and lowest in Gloucestershire ICB at 1.1.

18 (42.9%) ICBs had rates lower than the national average of 12.4.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged 70–79 years, 2023–2024



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Patient counted if they were aged 80–89 years and had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB-level data from mid-2022 on population aged 80–89 years.

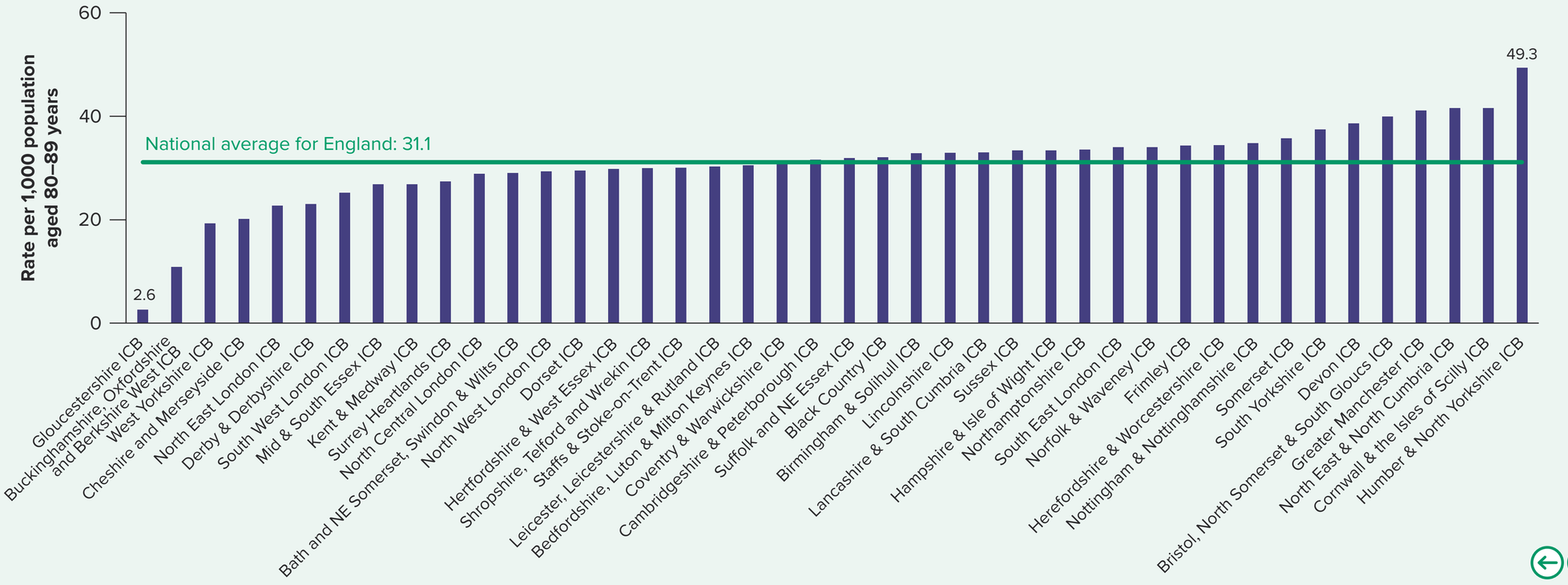
Detailed study methods

In patients aged 80–89 years, the rate of patients receiving an injection (either first or repeat) ranged from 2.6 to 49.3 in 2023/2024

In patients aged 80–89 years, the rate of patients having an injection (either first or repeat) was highest in Humber & North Yorkshire ICB at 49.3 and lowest in Gloucestershire ICB at 2.6.

19 (45.2%) ICBs had rates lower than the national average of 31.1.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged 80–89 years, 2023–2024



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Analysis details
Patient counted if they were aged ≥90 years and had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB-level data from mid-2022 on population aged ≥90 years.

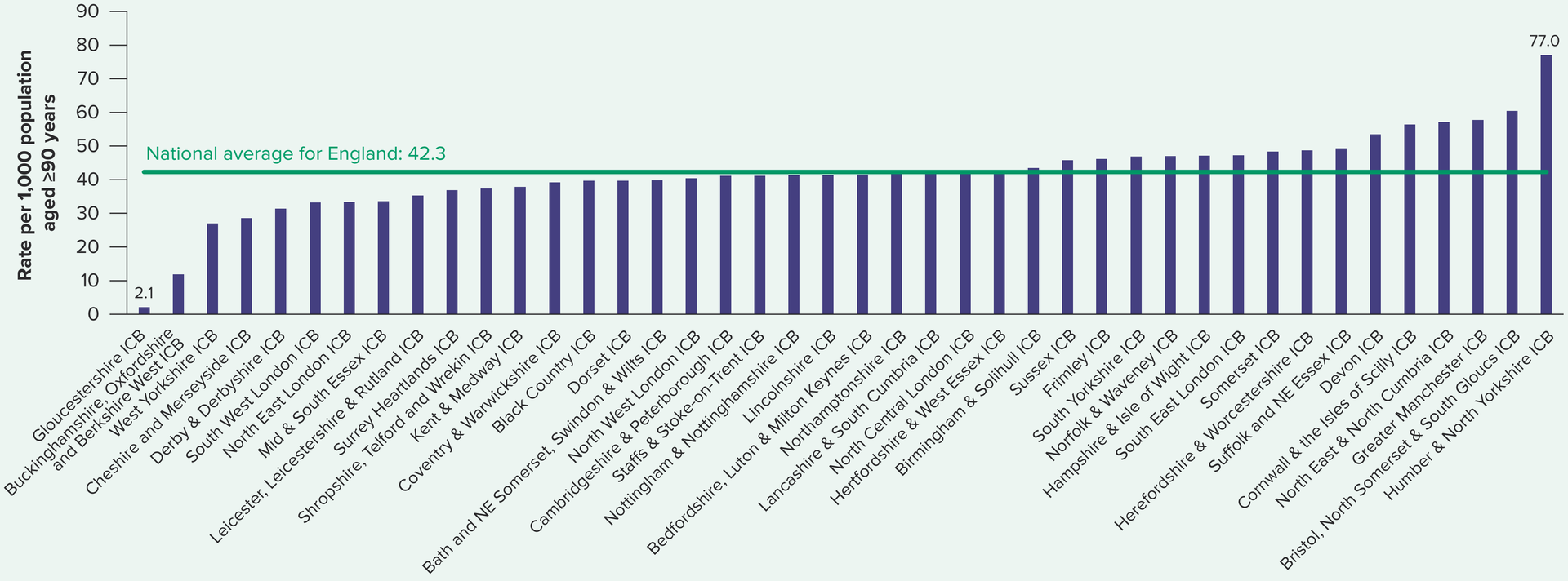
Detailed study methods

In patients aged ≥90 years, the rate of patients receiving an injection (either first or repeat) ranged from 2.1 to 77.0 in 2023/2024

In patients aged ≥90 years, the rate of patients having an injection (either first or repeat) was highest in Humber & North Yorkshire ICB at 77.0 and lowest in Gloucestershire ICB at 2.1.

23 (54.8%) ICBs had rates lower than the national average of 42.3.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥90 years, 2023–2024



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Analysis details
Patient counted if they had at least one injection in either an inpatient or outpatient episode, & grouped by quintile they quintile in. Rate calculated using ICB population data from mid-2020 by IMD quintile.

Detailed study methods

ICBs showed some variation in the rate of patients receiving an injection per 1,000 population between deprivation quintiles

Across different quintiles of deprivation, only a few ICB showed a difference in rate greater than 2, where in most instances the lowest rate was in Quintile 1 (most deprived) and the highest was in Quintile 5 (least deprived). The biggest differences were seen in Cornwall and Isles of Scilly (Quintile 1 rate 12.1, Quintile 5 rate 16.1) and Black Country ICB (Quintile 1 rate 7.1, Quintile 5 rate 10.6).

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years, 2023/2024, by IMD quintile



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Analysis details
Patient counted if they live in Quintile 1 and had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB level data from mid-2020 on Quintile 1 population aged ≥50 years.

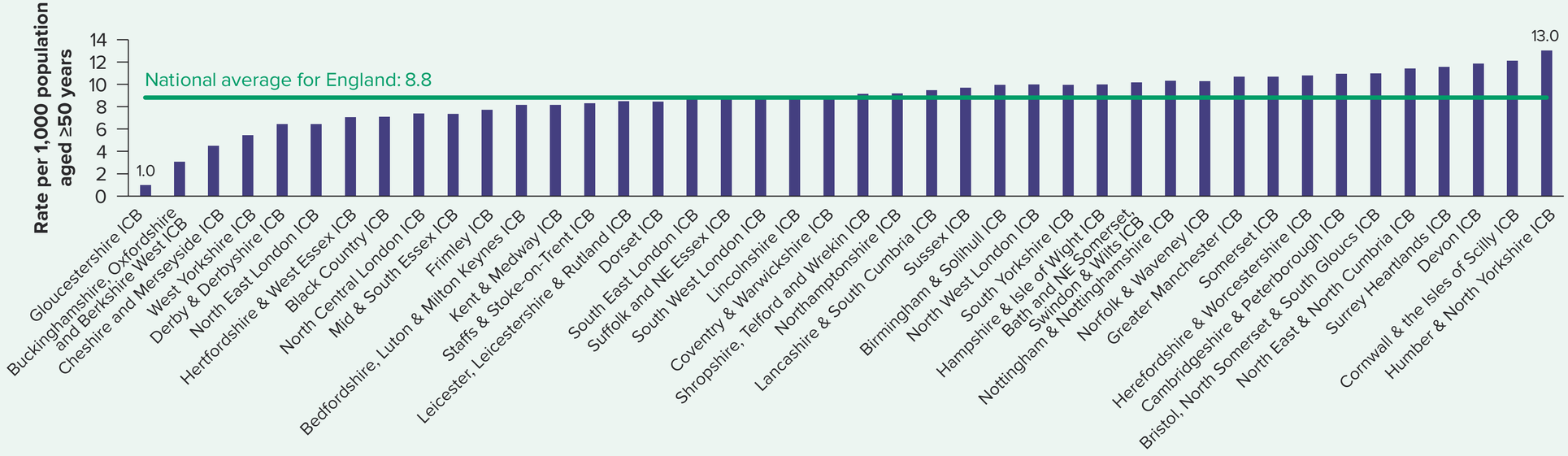
Detailed study methods

In Quintile 1 (most deprived), the rate of patients receiving an injection (either first or repeat) ranged from 1.0 to 13.0 in 2023/2024

In Quintile 1 (the most deprived population), the rate of patients having an injection (either first or repeat) was highest in Humber & North Yorkshire ICB at 13.0 and lowest in Gloucestershire ICB at 1.0.

18 (42.9%) ICBs had rates lower than the national average of 8.8.

Rate of patients receiving an injection (as inpatient or outpatient) per 1,000 population aged ≥50 years, 2023/2024: Quintile 1 (most deprived)



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Analysis details
Patient counted if they live in Quintile 5 and had at least one injection in either an inpatient or outpatient episode. Rate calculated using ICB level data from mid-2020 on Quintile 5 population aged ≥50 years.

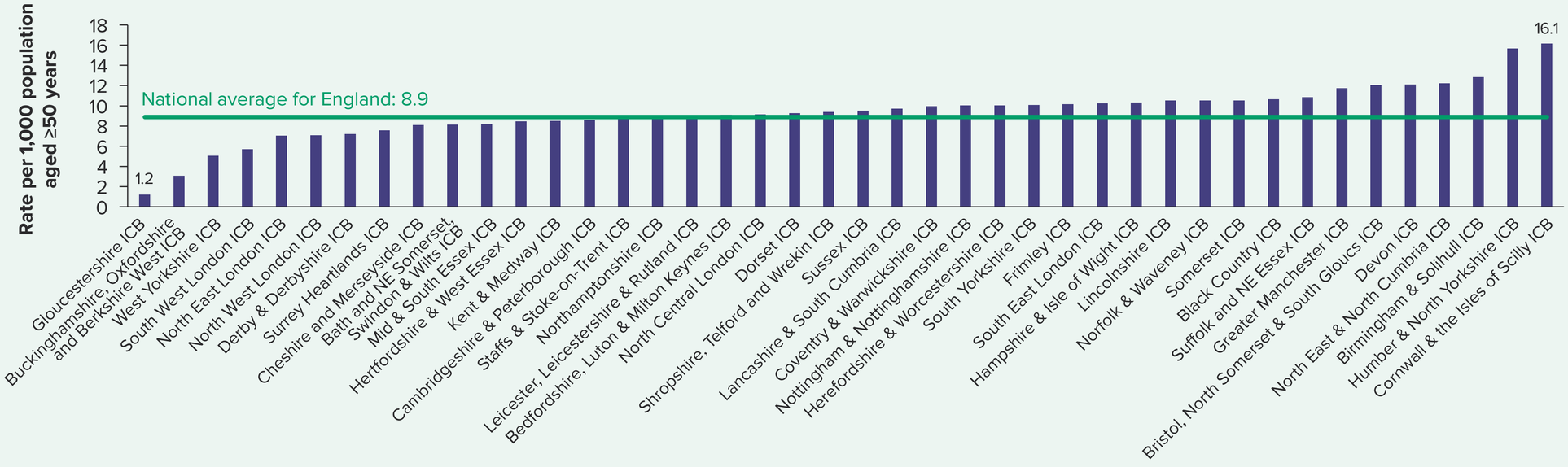
Detailed study methods

In Quintile 5 (least deprived), the rate of patients receiving an injection (either first or repeat) ranged from 1.2 to 16.1 in 2023/2024

In Quintile 5 (the least deprived population), the rate of patients having an injection (either first or repeat) was highest in Cornwall & the Isles of Scilly ICB at 16.1 and lowest in Gloucestershire ICB at 1.2.

17 (40.5%) ICBs had rates lower than the national average of 8.9.

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years, 2023/2024: Quintile 5 (least deprived)



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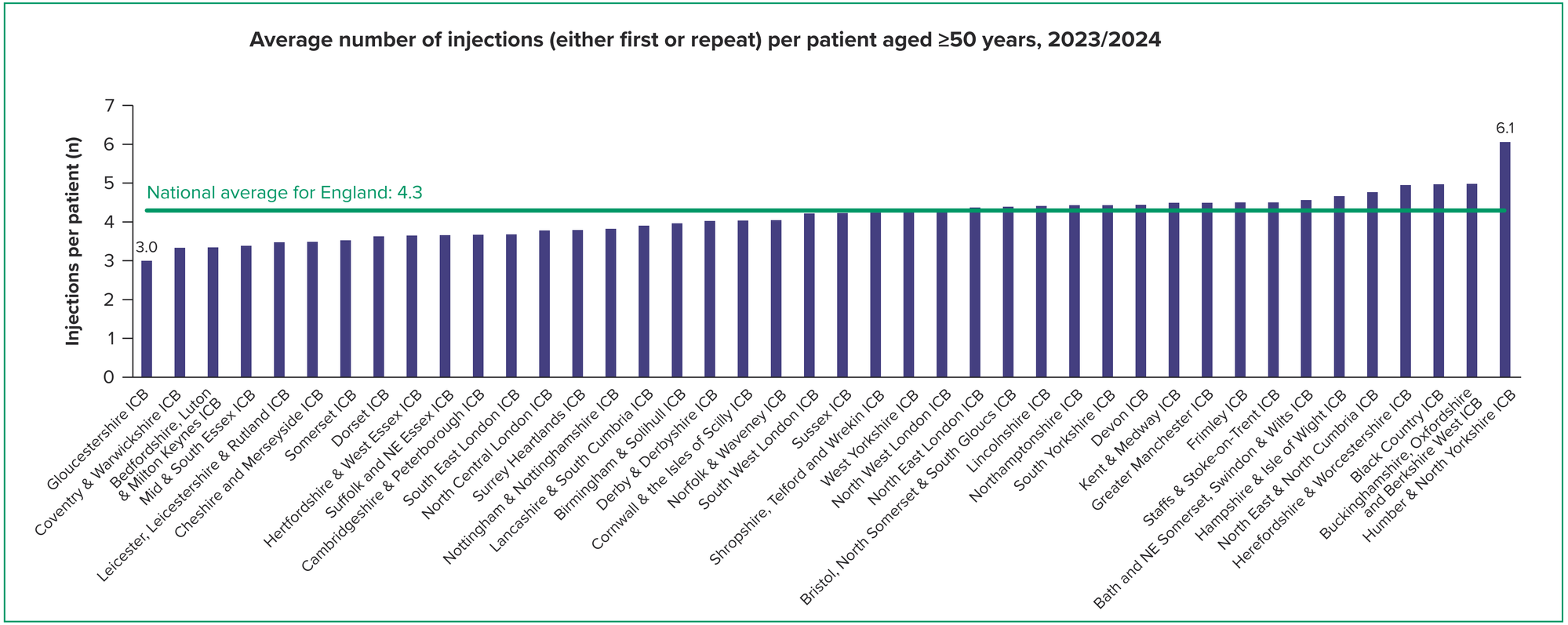
Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection.

Detailed study methods

Annual average number of injections (either first or repeat) per patient aged ≥50 years

The average number of injections (either first or repeat) per patient was highest in Humber & North Yorkshire ICB at 6.1 and lowest in Gloucestershire ICB at 3.0.

25 (59.5%) ICBs had rates lower than the national average of 4.3.



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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients aged 50–59 years

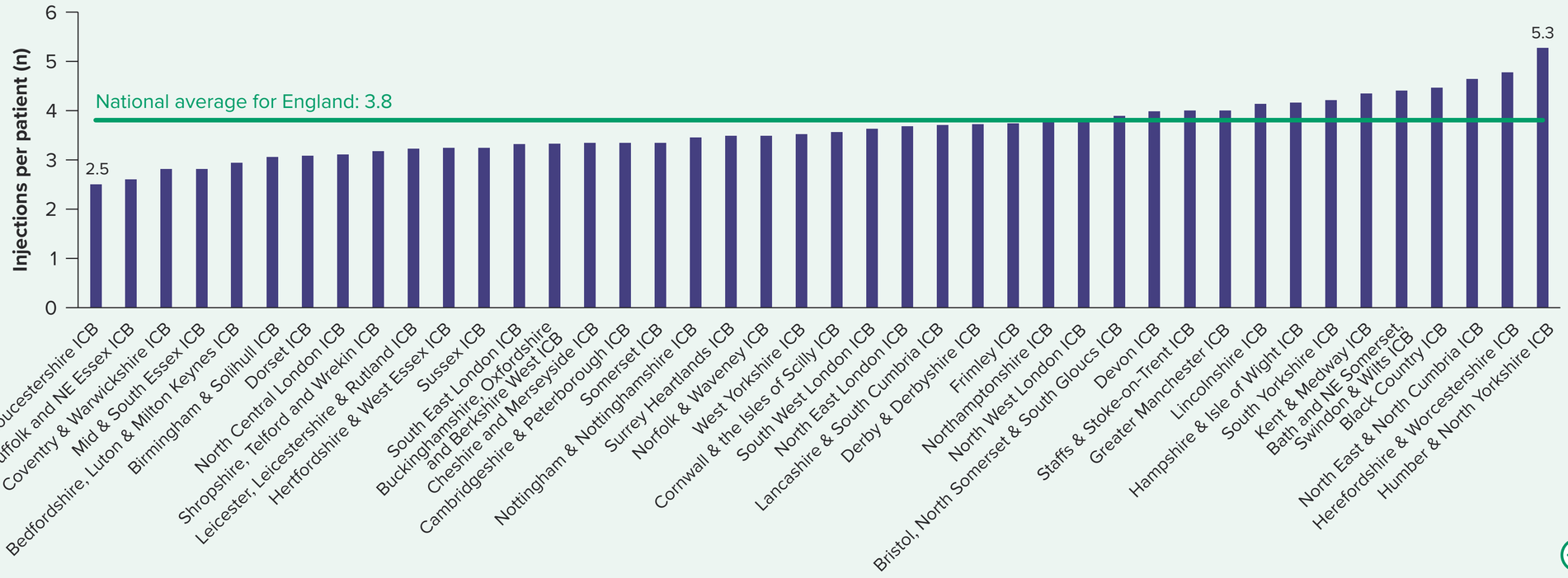
Detailed study methods

In patients aged 50–59 years, the average number of injections per patient ranged from 2.5 to 5.3 in 2023/2024

In patients aged 50–59 years, the average number of injections (either first or repeat) per patient was highest in Humber & North Yorkshire ICB at 5.3 and lowest in Gloucestershire ICB at 2.5.

27 (64.3%) ICBs had an average number of injections per patient lower than the national average of 3.8.

Average number of injections (either first or repeat) per patient aged 50–59 years, 2023/2024



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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients aged 60–69 years.

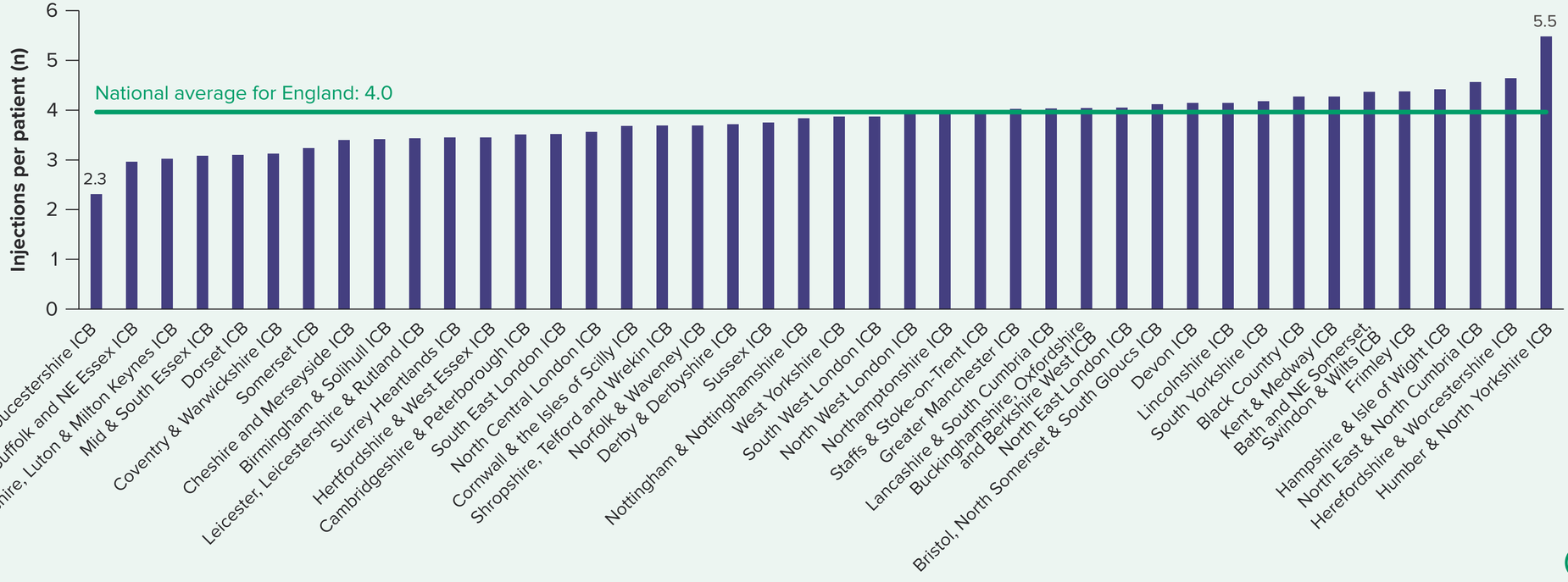
Detailed study methods

In patients aged 60–69 years, the average number of injections per patient ranged from 2.3 to 5.5 in 2023/2024

In patients aged 60–69 years, the average number of injections (either first or repeat) per patient was highest in Humber & North Yorkshire ICB at 5.5 and lowest in Gloucestershire ICB at 2.3.

25 (59.5%) ICBs had an average number of injections per patient lower than the national average of 4.0.

Average number of injections (either first or repeat) per patient aged 60–69 years, 2023/2024



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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients aged 70–79 years.

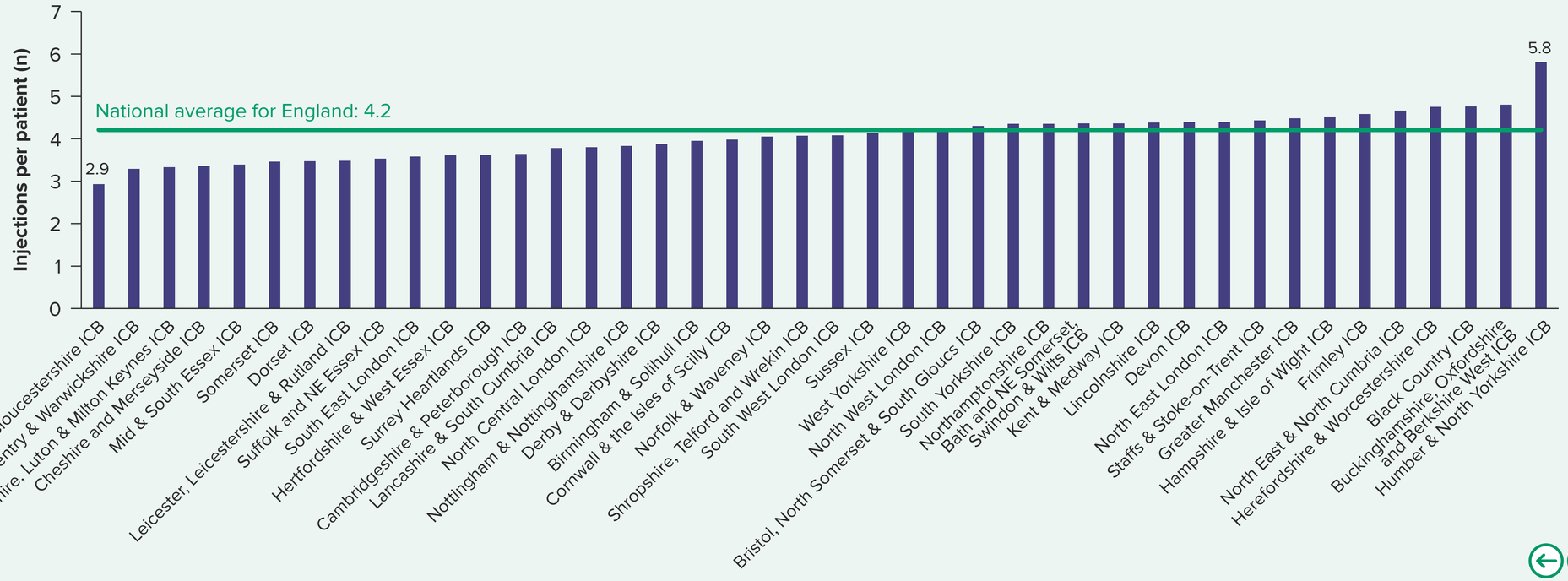
Detailed study methods

In patients aged 70–79 years, the average number of injections per patient ranged from 2.9 to 5.8 in 2023/2024

In patients aged 70–79 years, the average number of injections (either first or repeat) per patient was highest in Humber & North Yorkshire ICB at 5.8 and lowest in Gloucestershire ICB at 2.9.

24 (57.1%) ICBs had an average number of injections per patient lower than the national average of 4.2.

Average number of injections (either first or repeat) per patient aged 70–79 years, 2023/2024



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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients aged 80–89 years.

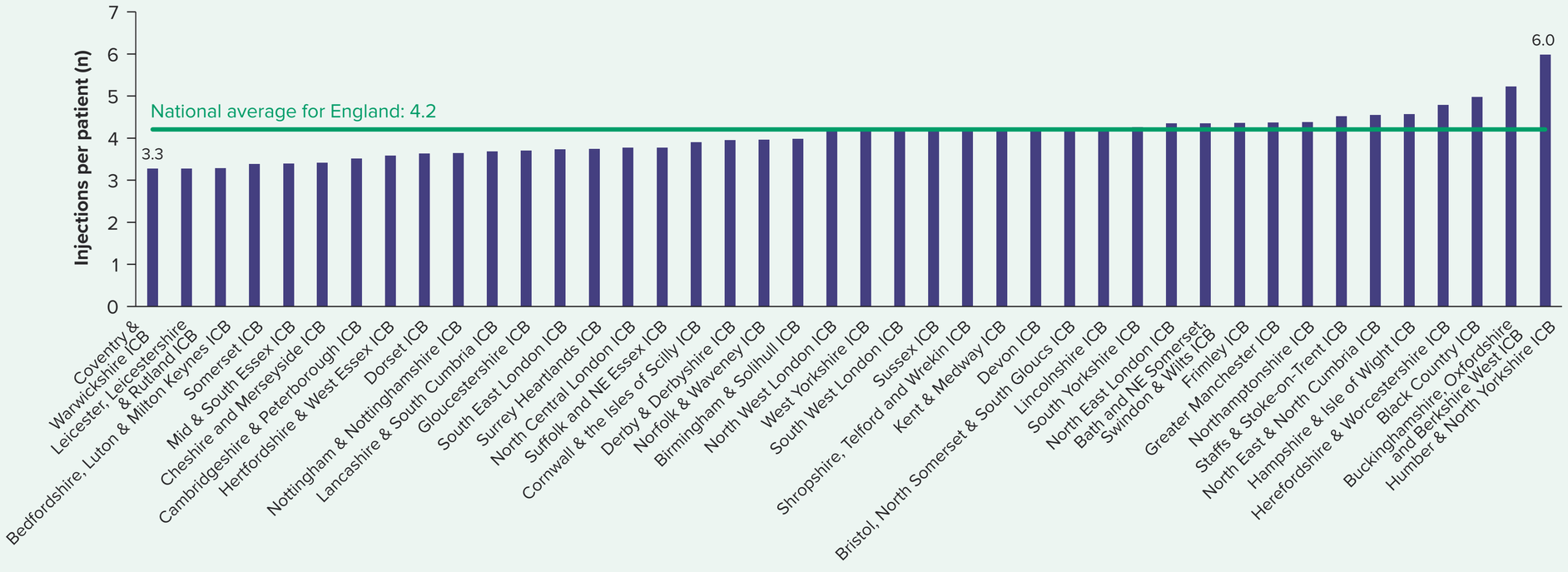
Detailed study methods

In patients aged 80–89 years, the average number of injections per patient ranged from 3.3 to 6.0 in 2023/2024

In patients aged 80–89 years, the average number of injections (either first or repeat) per patient was highest in Humber & North Yorkshire ICB at 6.0 and lowest in Coventry & Warwickshire ICB at 3.3.

22 (52.4%) ICBs had an average number of injections per patient lower than the national average of 4.2.

Average number of injections (either first or repeat) per patient aged 80–89 years, 2023/2024



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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients aged ≥90 years.

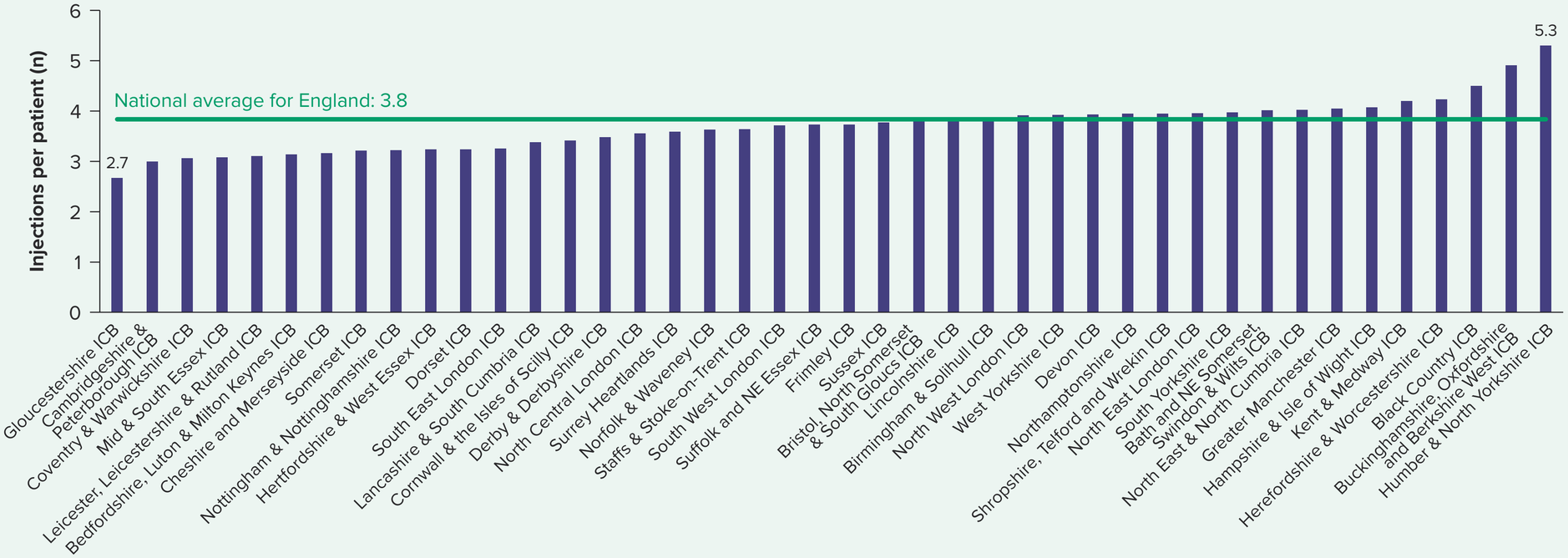
Detailed study methods

In patients aged ≥90 years, the average number of injections per patient ranged from 2.7 to 5.3 in 2023/2024

In patients aged ≥90 years, the average number of injections (either first or repeat) per patient aged ≥50 years was highest in Humber & North Yorkshire ICB at 5.3 and lowest in Gloucestershire ICB at 2.7.

24 (57.1%) ICBs had an average number of injections per patient lower than the national average of 3.8.

Average number of injections (either first or repeat) per patient aged ≥90 years, 2023/2024



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ICBs in England vary in the average number of injections per patient, with differences seen across IMD quintiles in some ICBs

Across all IMD quintiles, the average number of injections per patient aged ≥50 years at each ICB was broadly similar. There were five ICB where there was at least one extra injection per year difference between the quintiles. The greatest difference was seen in Gloucester (2.2) and Surrey Heartlands (1.7) where in both instances the least number of injections was seen in Quintile 1 (most deprived) and the greatest number of injections was seen in Quintile 5 (least deprived).

Average number of injections (either first or repeat) per patient aged ≥50 years by IMD quintile, 2023/2024



Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients living in each IMD quintile.

Detailed study methods

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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients living in Quintile 1.

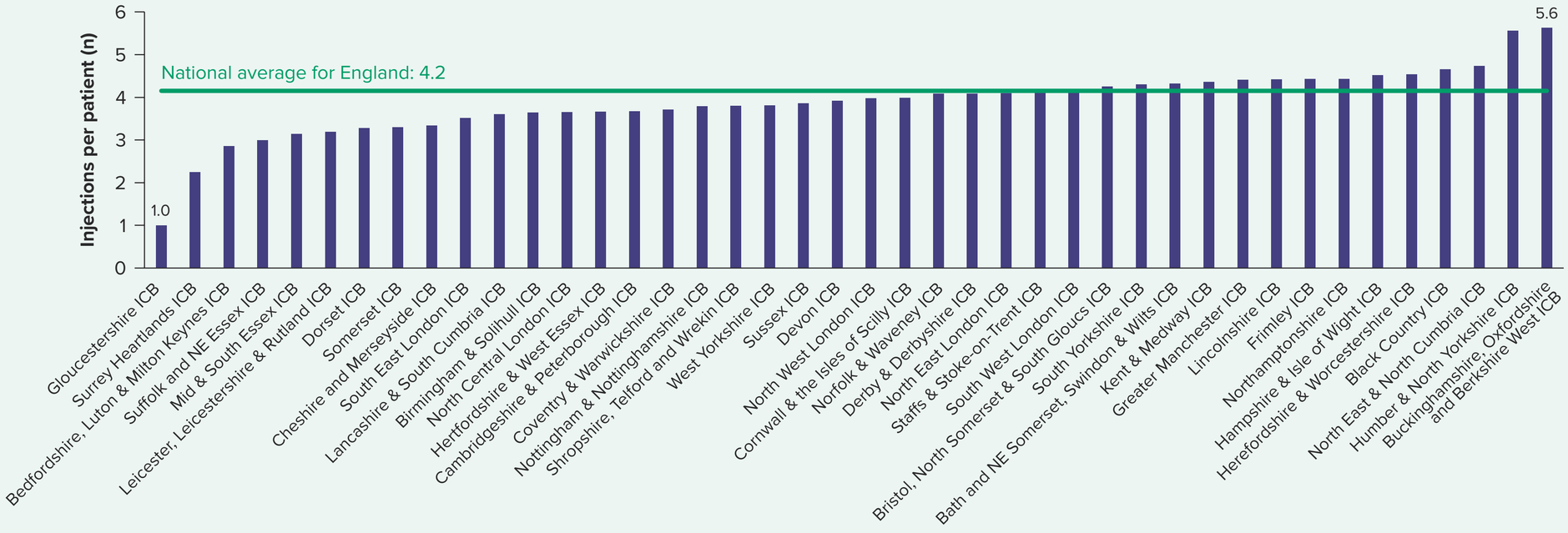
Detailed study methods

In Quintile 1 (most deprived), the average number of injections per patient ranged from 1.0 to 5.6 in 2023/2024

In Quintile 1 (the most deprived population), the average number of injections (either first or repeat) per patient aged ≥50 years was highest in Buckingham, Oxfordshire and Berkshire West ICB at 5.6 and lowest in Gloucestershire ICB at 1.0.

27 (64.3%) ICBs had an average number of injections per patient lower than the national average of 4.2.

Average number of injections (either first or repeat) per patient aged ≥50 years, 2023/2024: Quintile 1 (most deprived)



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Analysis details
Calculated by dividing total injection activity at each ICB by total number of patients receiving injection for patients living in Quintile 5.

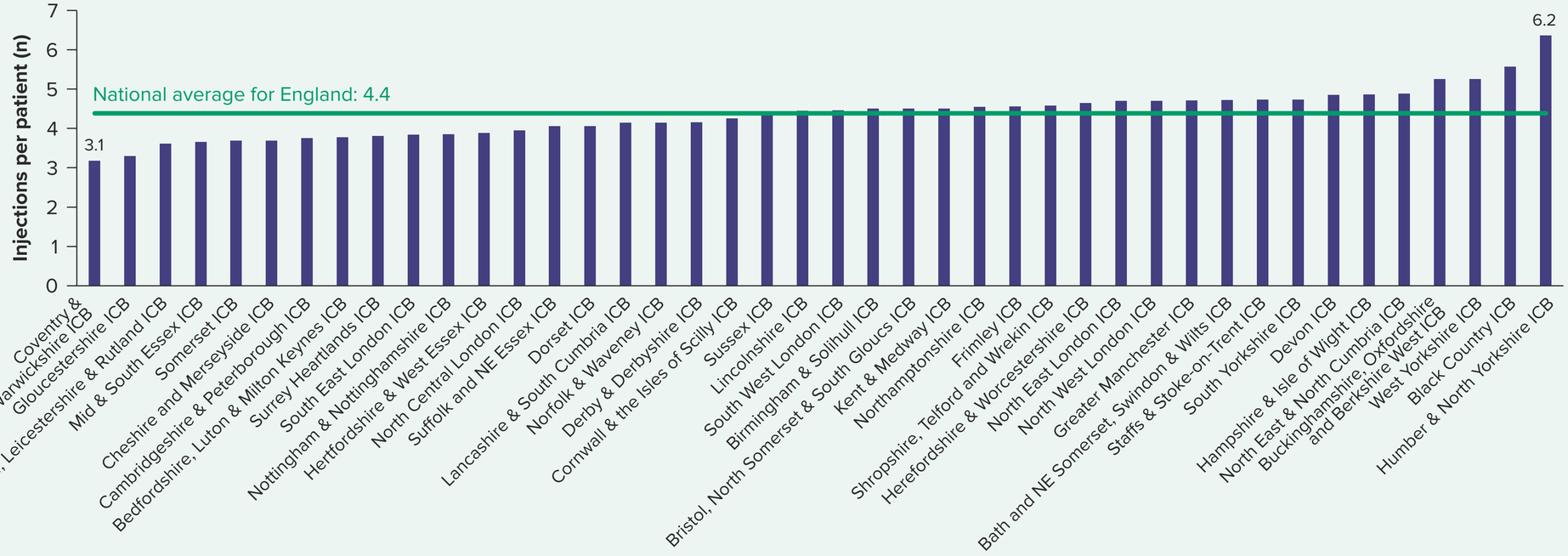
Detailed study methods

In Quintile 5 (least deprived), the average number of injections per patient ranged from 3.1 to 6.2 in 2023/2024

In Quintile 5 (the least deprived population), the average number of injections (either first or repeat) per patient aged ≥50 years was highest in Humber & North Yorkshire ICB at 6.2 and lowest in Coventry & Warwickshire ICB at 3.1.

23 (54.8%) ICBs had an average number of injections per patient lower than the national average of 4.4.

Average number of injections (either first or repeat) per patient aged ≥50 years, 2023/2024: Quintile 5 (least deprived)



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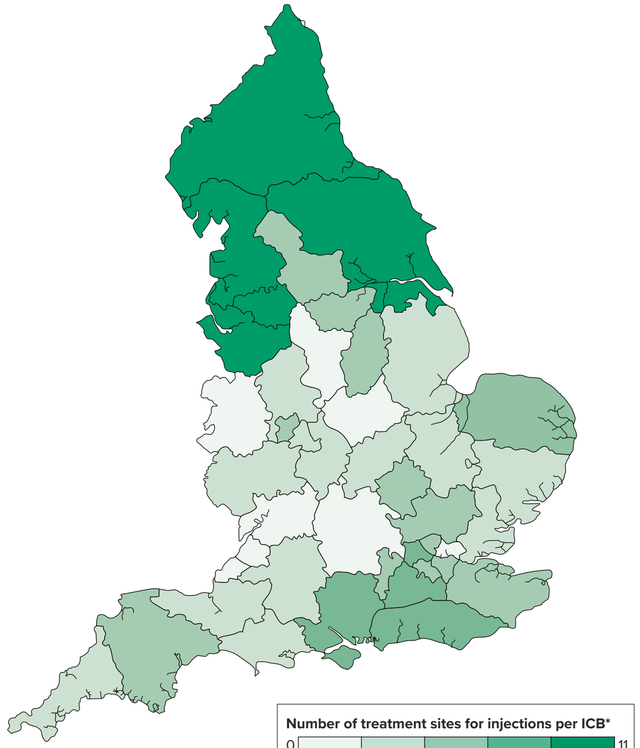
Analysis details
Treatment site counted if there had been at least 1,000 injections within a financial year during the 5-year study period. Rate per 100,000 calculated using national data from mid-2022 on population aged ≥50 years in England.

Detailed study methods

Rate of sites per 100,000 population aged ≥50 years

The rate of sites (the number of injecting sites per 100,000 population aged ≥50 years) that provide injections was highest in Surrey Heartlands ICB (1.9) and lowest in Gloucestershire ICB (0.0).

54.8% (23) ICBs had at least one site per 100,000 population aged ≥50 years.



© 2025 Mapbox © OpenStreetMap

Number of treatment sites for injections per ICB*
0 — 11

Defined as any hospital site where at least 1,000 "Injection Into Vitreous Body Nec" procedures were performed in a fiscal year (from 2019/2020 to 2023/2024) for patients registered at a GP practice in that ICB.

Rate of sites per 100,000 population aged ≥50 years			
ICB	Rate	ICB	Rate
NHS Surrey Heartlands ICB	1.9	NHS Hampshire & Isle of Wight ICB	1.1
NHS Somerset ICB	1.5	NHS Norfolk & Waveney ICB	1.0
NHS Bedfordshire, Luton & Milton Keynes ICB	1.5	NHS Birmingham & Solihull ICB	0.9
NHS Cornwall & the Isles of Scilly ICB	1.5	NHS Cambridgeshire & Peterborough ICB	0.9
NHS Northamptonshire ICB	1.3	NHS Shropshire, Telford and Wrekin ICB	0.9
NHS Humber & North Yorkshire ICB	1.3	NHS Lincolnshire ICB	0.9
NHS North West London ICB	1.2	NHS South West London ICB	0.8
NHS Lancashire & South Cumbria ICB	1.2	NHS Mid & South Essex ICB	0.8
NHS North Central London ICB	1.2	NHS Staffs & Stoke-on-Trent ICB	0.8
NHS Black Country ICB	1.1	NHS Herefordshire & Worcestershire ICB	0.8
NHS South Yorkshire ICB	1.1	NHS Kent & Medway ICB	0.8
NHS Nottingham & Nottinghamshire ICB	1.1	NHS Bath and NE Somerset, Swindon & Wilts ICB	0.8
NHS South East London ICB	1.1	NHS North East & North Cumbria ICB	0.7
NHS Coventry & Warwickshire ICB	1.1	NHS West Yorkshire ICB	0.7
NHS Greater Manchester ICB	1.1	NHS Suffolk and NE Essex ICB	0.7
NHS Frimley ICB	1.1	NHS Leicester, Leicestershire & Rutland ICB	0.5
NHS Dorset ICB	1.1	NHS Derby & Derbyshire ICB	0.4
NHS Devon ICB	1.1	NHS North East London ICB	0.4
NHS Hertfordshire & West Essex ICB	1.1	NHS Buckinghamshire, Oxfordshire and Berkshire West ICB	0.3
NHS Sussex ICB	1.1	NHS Bristol, North Somerset & South Gloucs ICB	0.3
NHS Cheshire & Merseyside ICB	1.1	NHS Gloucestershire ICB	0.0

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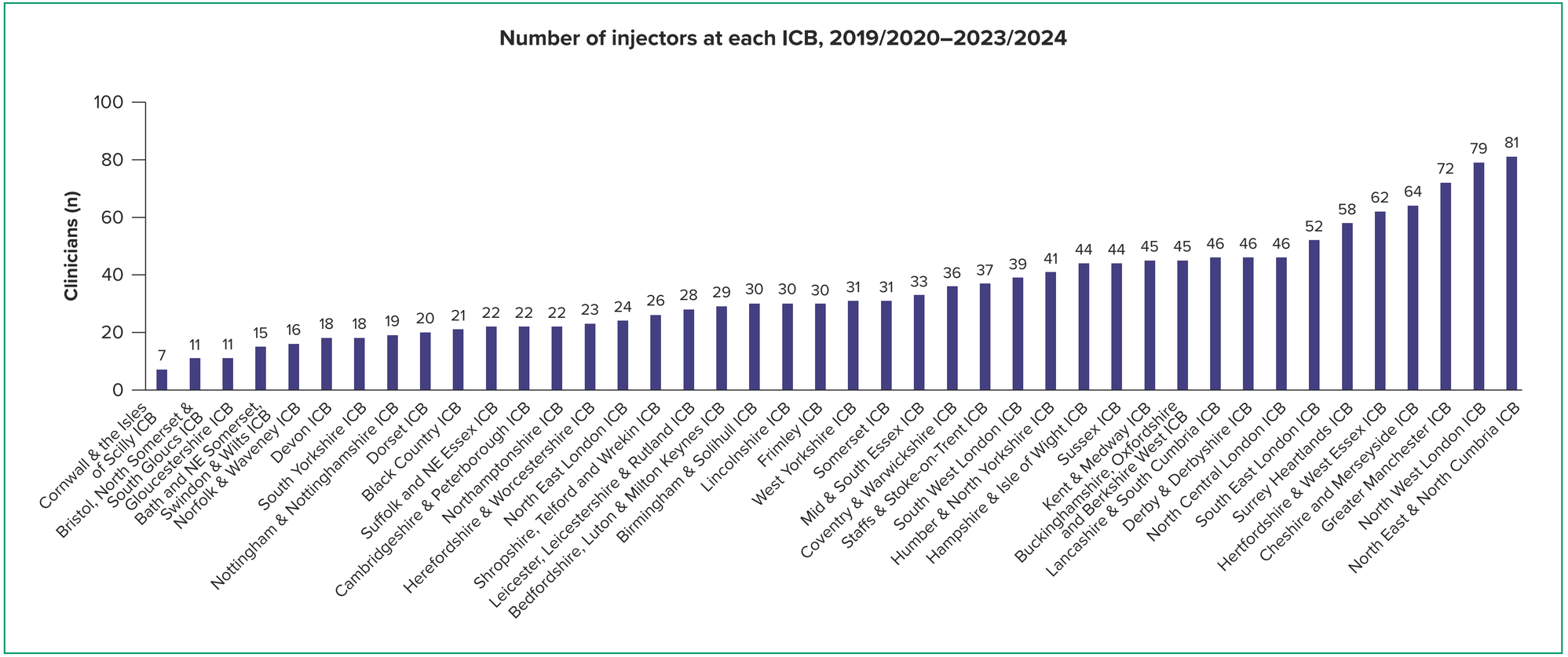
ICB deep dive

Analysis details
Number of clinicians counted by looking at the number of instances where a unique clinician was coded alongside at least 20 injections within a financial year.

Detailed study methods

Number of injectors at each ICB was highest for North East & North Cumbria ICB and lowest for Cornwall & the Isles of Scilly ICB

The number of injectors at each ICB was highest for North East & North Cumbria ICB at 81 and lowest at Cornwall & the Isles of Scilly ICB at 7.



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Analysis details
Injector counted if they were coded alongside at least 20 injections within a financial year during the 5-year study period. Rate calculated using ICB-level data from mid-2022 on population aged aged ≥50 years.

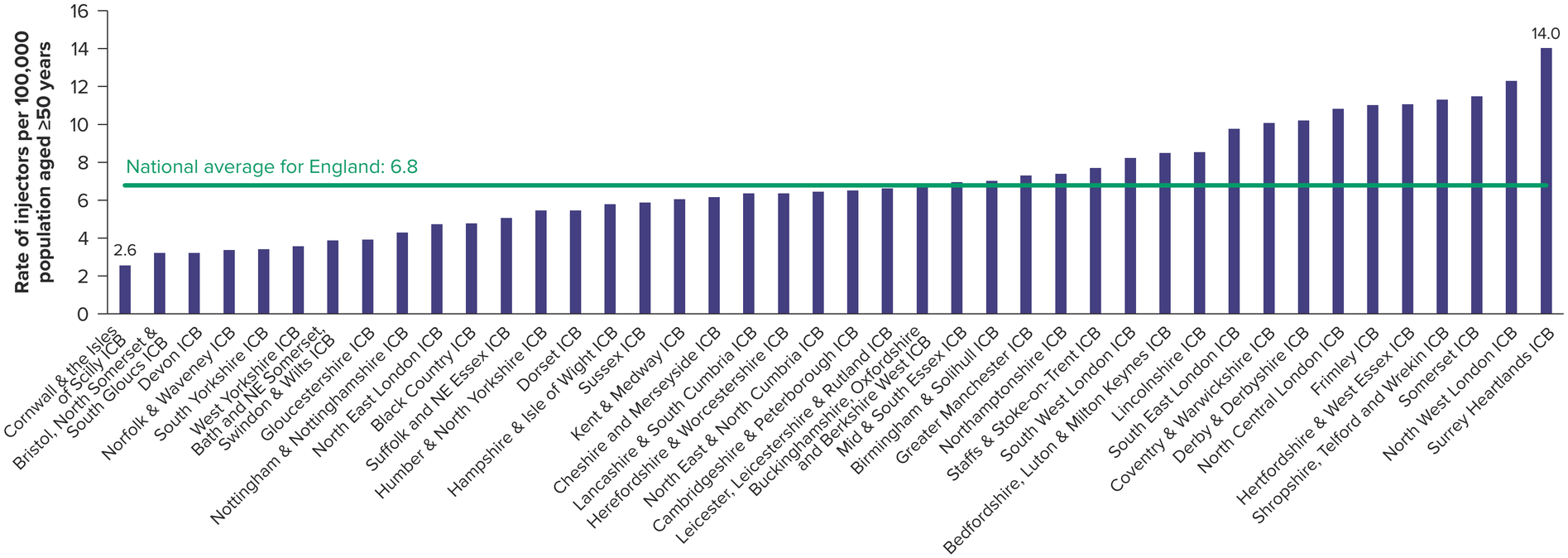
Detailed study methods

Rate of injectors per 100,000 population aged ≥50 years within an ICB

The rate of injectors per 100,000 population aged ≥50 years at each ICB was highest in Surrey Heartlands ICB at 14.0 and lowest at Cornwall & the Isles of Scilly ICB at 2.6.

24 (57.1%) ICBs had rates lower than the national average of 6.8.

Rate of injectors per 100,000 population aged ≥50 years within an ICB, 2019/2020–2023/2024



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ICB deep dive

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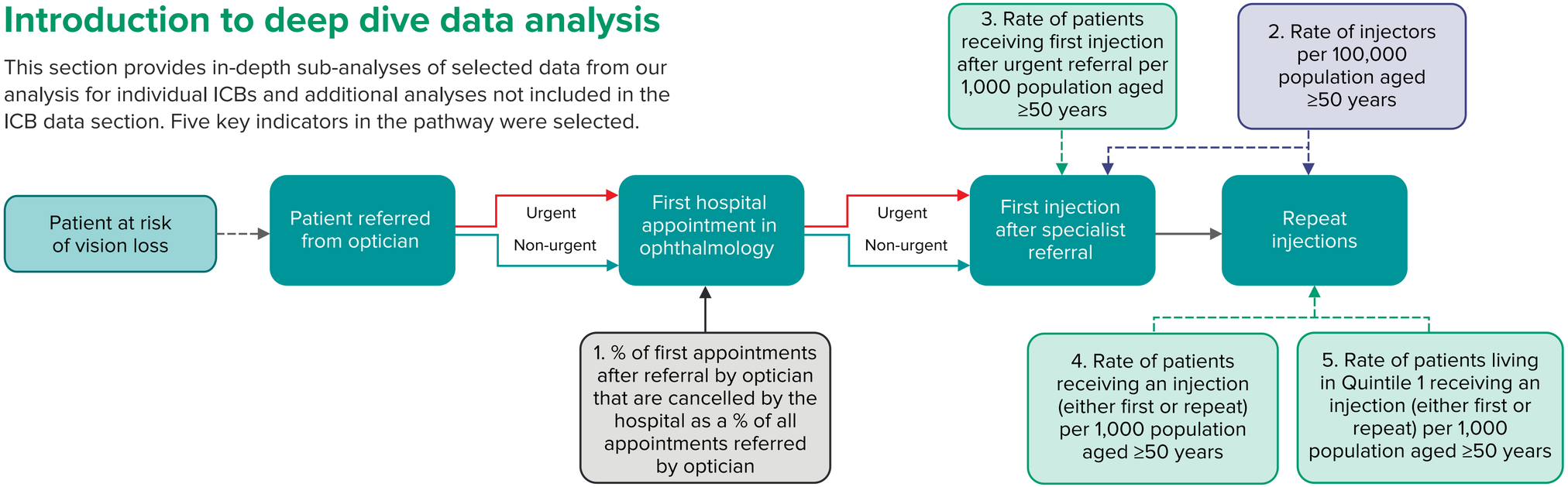
ICB deep dive

Deep dive methods

ICB selector

Introduction to deep dive data analysis

This section provides in-depth sub-analyses of selected data from our analysis for individual ICBs and additional analyses not included in the ICB data section. Five key indicators in the pathway were selected.



Current and future injection activity

All intravitreal injection activity (either first or repeat injection)

- Number of patients receiving an injection (either first or repeat)
- Number of injections (either first or repeat)
- Forecast number of injections (either first or repeat)
- Estimated number of injection sessions needed to deliver forecast number of injections (either first or repeat)
- Rate of patients receiving an injection (either first or repeat) per 1,000 population for the cohorts in the list to the right

Patient cohorts

Age ≥50 years
Age 50–59 years
Age 60–69 years
Age 70–79 years
Age 80–89 years
Age ≥90 years

Living in Quintile 1 (most deprived)
Living in Quintile 2
Living in Quintile 3
Living in Quintile 4
Living in Quintile 5 (least deprived)

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Deep dive analysis methods

Estimated future sessions

We estimated the number of additional injections sessions that may be needed based on our growth in injections forecast. We used data from the GIRFT report[25] showing that the average number of injections delivered in a 4-hour session is 15.9. We divided the projected total number of injections at a national level and at each ICB by 15.9 to estimate the number of sessions needed to deliver forecast injections.

By age and quintile

Differences in rate of all injections per 1,000 population aged ≥50 years were tested for statistically significant differences from the national average for each age group and for each IMD quintile. Findings are presented as:

- Statistically lower than the national average
- No statistical difference from the national average
- Statistically higher than the national average.

Selected key indicators

Five key indicators were also analysed to compare individual ICB values to the national average. If the ICB value was within the threshold percentage of the national average as detailed in the table below, it was considered within the national average. The percentage range was chosen to ensure at least two thirds of ICBs fall within the national average for each indicator. The remainder are classified as “above national average” or “below national average”.

For example, if the national average for “Rate of injectors per 100,000 population aged ≥ 50 years” equals 4 and the ICB value is 5, the ICB value is therefore 25% higher than the national average – this is within the 50% threshold detailed in the table so for this indicator the ICB is deemed to be “within national average”.

Thresholds for selected indicators

Indicator	Percentage (+/-) that ICB value can be within national average
Percentage of first appointments for optician referrals where the hospital cancelled	40%
Rate of injectors per 100,000 population aged ≥50 years	50%
Rate of patients receiving first injection in outpatients after urgent referral per 1,000 population aged ≥50 years	70%
Rate of patients receiving all injections per 1,000 population ≥50 years	25%
Rate of patients receiving all injections per 1,000 population ≥50 years: Quintile 1	25%

Detailed study methods

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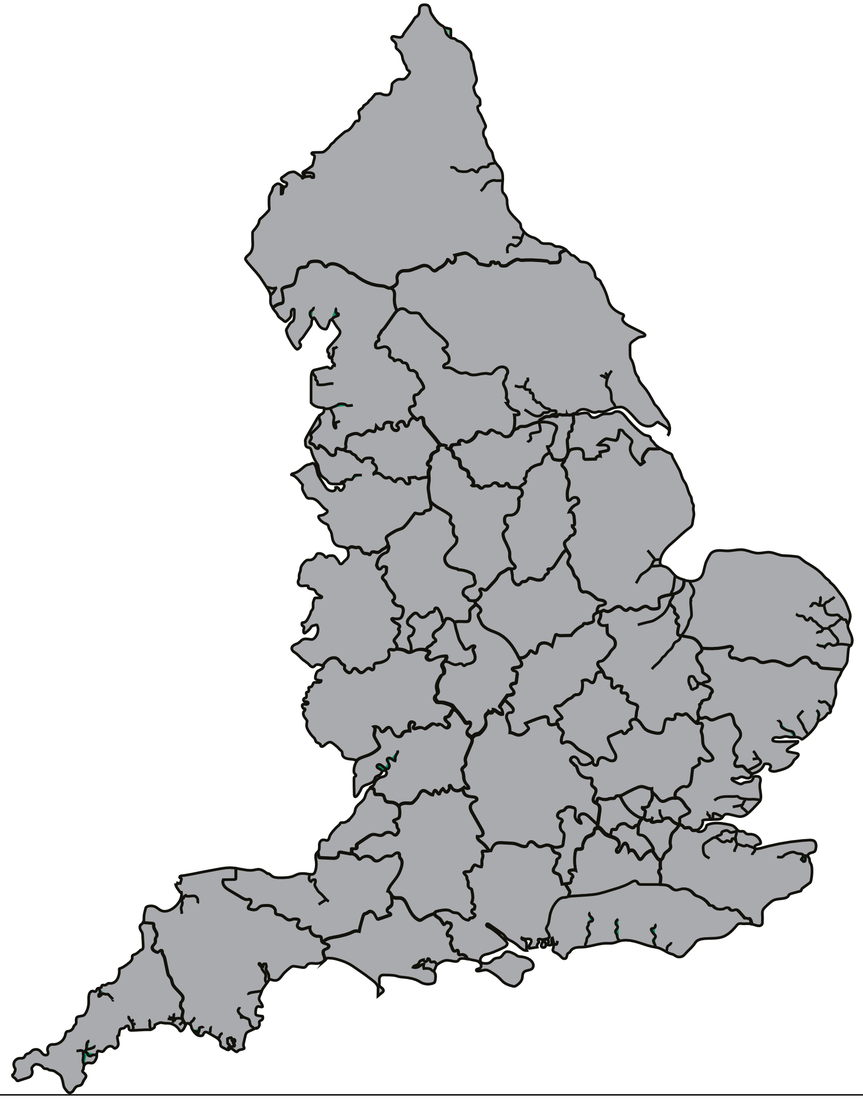
Deep dive methods

ICB selector

ICB selector

This section provides in-depth sub-analyses of some of our data for individual ICBs.

ICB



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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

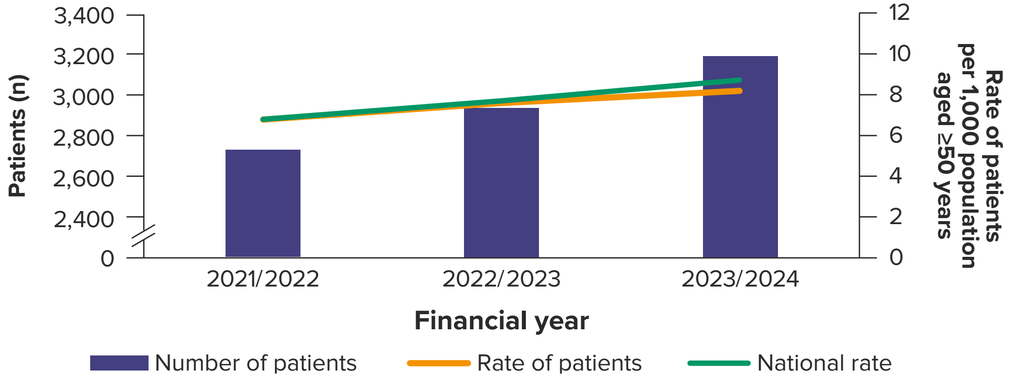
Detailed study methods

Bath and NE Somerset, Swindon & Wilts ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

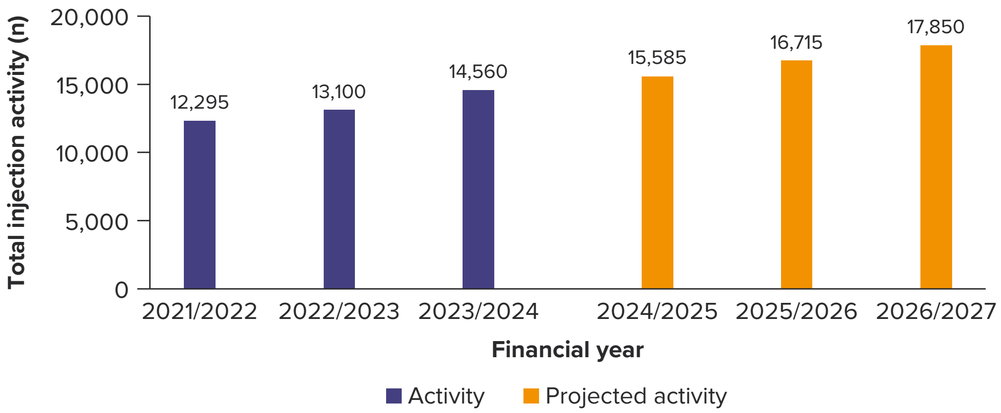
- overall
- aged 70–79 and 80–89 years
- in IMD Quintiles 3 and 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,730	2,935	3,190
Rate of patients	7.1	7.6	8.2
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
17.2	**34.9**

As the rate of patients receiving an injection for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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*Even though the rate of patients receiving a injection is higher than the national average for this ICB it is not statistically significant due to small patient numbers.

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Bath and NE Somerset, Swindon & Wilts ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.8	1.9
60–69	4.6	4.8
70–79	10.9	12.4
80–89	29.0	31.1
≥90	39.9	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.2*	8.8
2	8.9	9.2
3	8.1	9.3
4	9.3	9.2
5	8.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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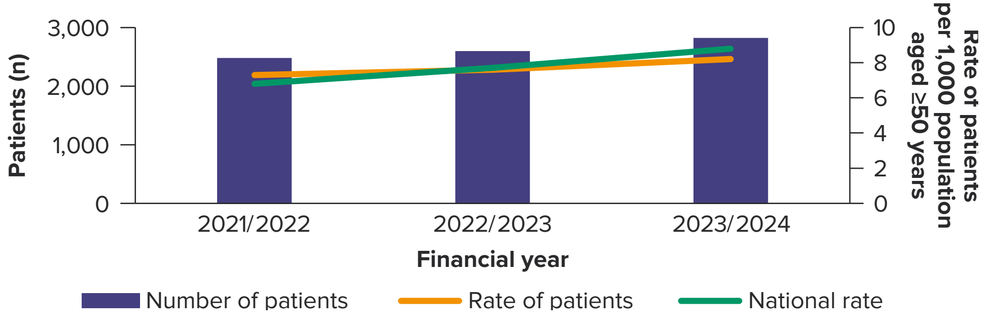
Individual ICB deep dive data

Bedfordshire, Luton & Milton Keynes ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

- overall
- in IMD Quintile 4

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

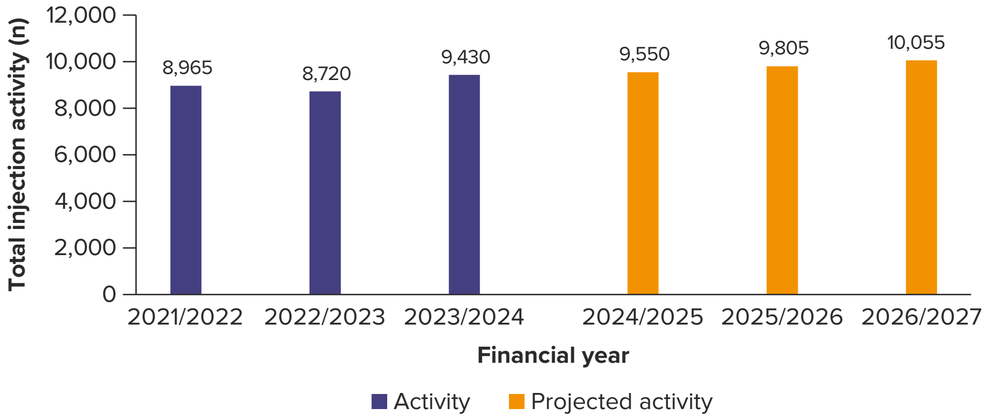


	2021/2022	2022/2023	2023/2024
Number of patients	2,480	2,600	2,820
Rate of patients	7.3	7.6	8.2
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
3.3	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Bedfordshire, Luton & Milton Keynes ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.9	1.9
60–69	5.1	4.8
70–79	12.6	12.4
80–89	30.5	31.1
≥90	41.5	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.2	8.8
2	8.6	9.2
3	8.5	9.3
4	8.5	9.2
5	9.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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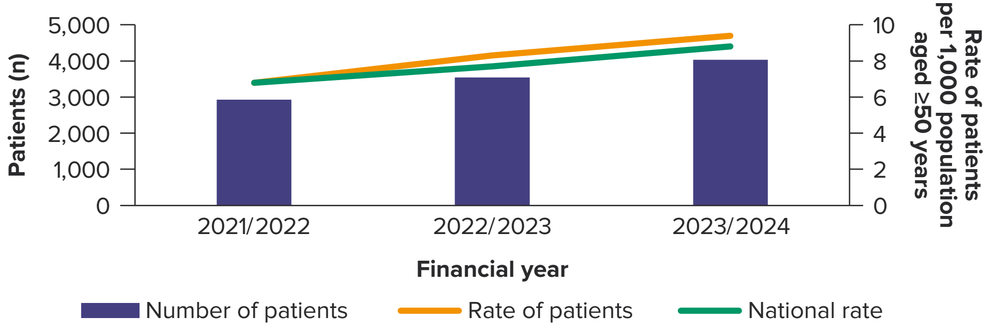
Individual ICB deep dive data

Birmingham & Solihull ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) than the national average:

- overall
- aged 50–59, 60–69, 70–79 and 80–89 years
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

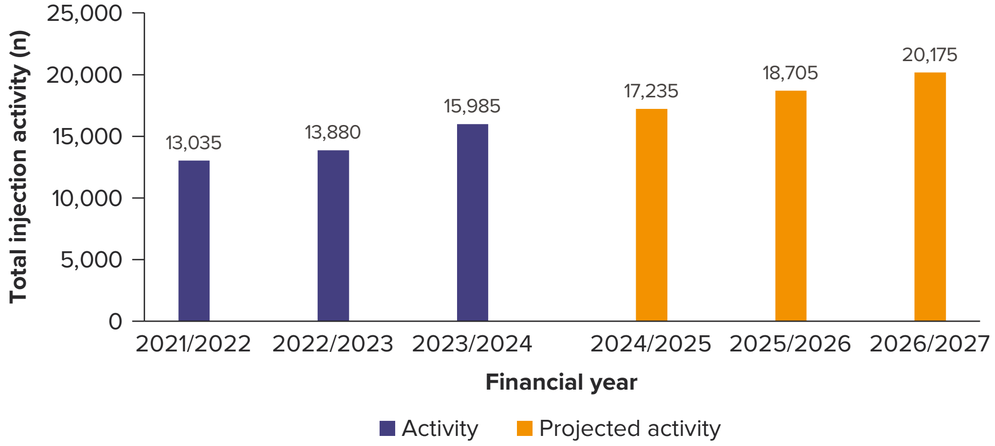


	2021/2022	2022/2023	2023/2024
Number of patients	2,930	3,545	4,035
Rate of patients	6.8	8.3	9.4
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
22.0	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Birmingham & Solihull ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.6	1.9
60–69	5.6	4.8
70–79	13.4	12.4
80–89	32.8	31.1
≥90	43.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.0	8.8
2	10.1	9.2
3	11.5	9.3
4	12.7	9.2
5	12.8	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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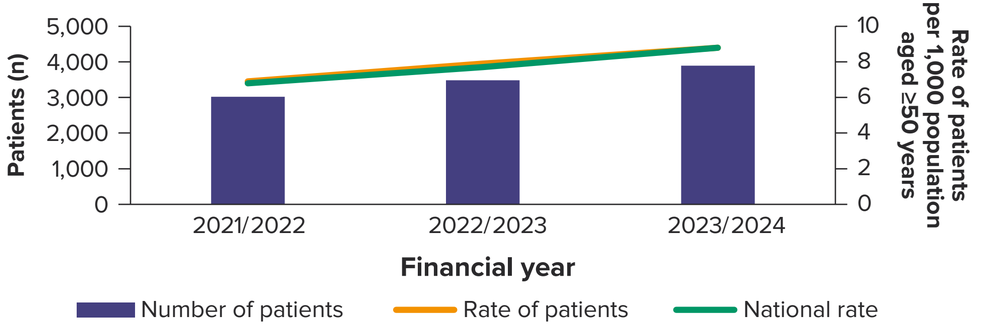
Black Country ICB: current and projected injection activity

In 2023/2024, there was no statistical difference in the number of patients receiving an injection (either first or repeat) overall compared to the national average at this ICB.

This ICB injected significantly more patients in IMD Quintiles 4 and 5 than the national average.

However, it injected significantly fewer patients in IMD Quintiles 1, 2 and 3 than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

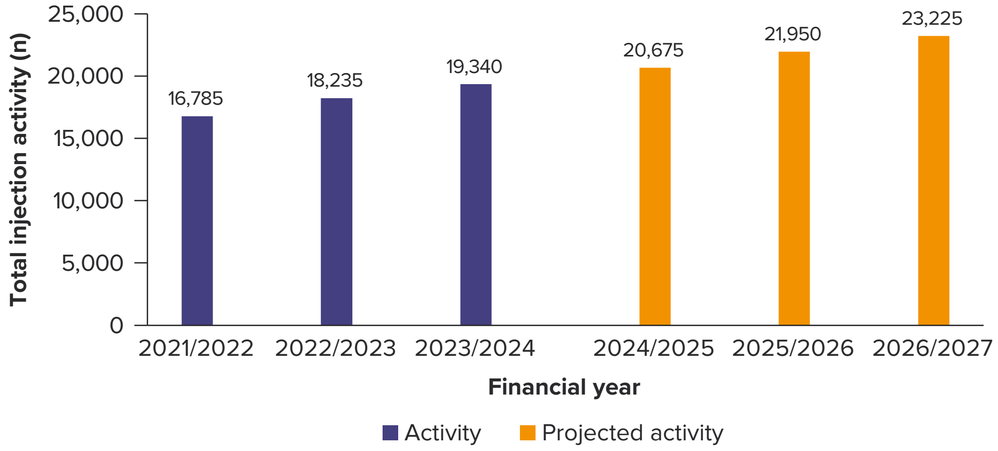


	2021/2022	2022/2023	2023/2024
Number of patients	3,020	3,480	3,895
Rate of patients	6.9	7.9	8.8
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
20.4	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was in line with the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Black Country ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.0	1.9
60–69	4.7	4.8
70–79	12.7	12.4
80–89	32.1	31.1
≥90	39.6	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	7.1	8.8
2	8.3	9.2
3	8.4	9.3
4	10.8	9.2
5	10.6	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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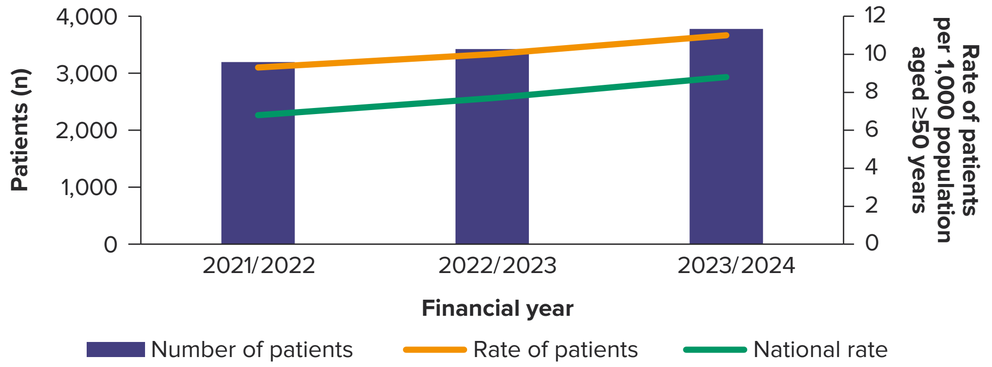
Individual ICB deep dive data

Bristol, North Somerset & South Gloucestershire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) than the national average:

- overall
- aged 50–59, 70–79, 80–89 and ≥90 years
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

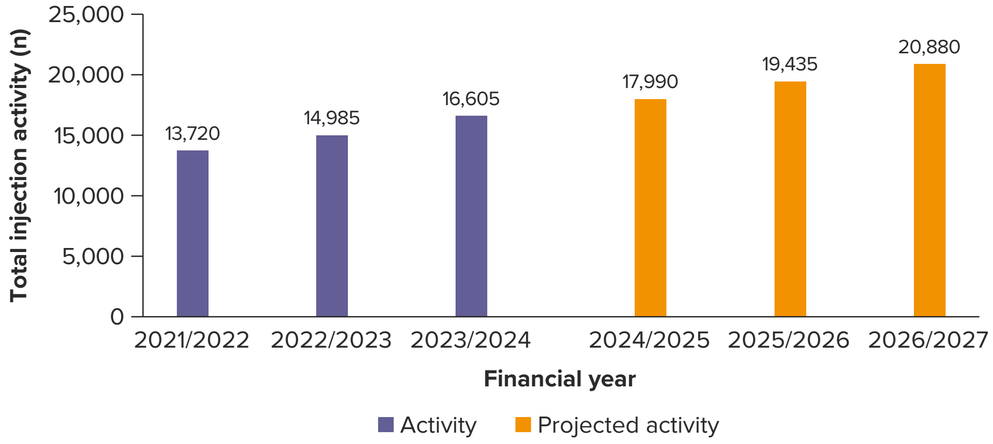


	2021/2022	2022/2023	2023/2024
Number of patients	3,200	3,425	3,780
Rate of patients	9.3	10.0	11
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
22.4	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Bristol, North Somerset & South Gloucestershire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.3	1.9
60–69	5.1	4.8
70–79	14.6	12.4
80–89	40.0	31.1
≥90	60.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	11.0	8.8
2	11.6	9.2
3	12.1	9.3
4	11.0	9.2
5	12.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Lower than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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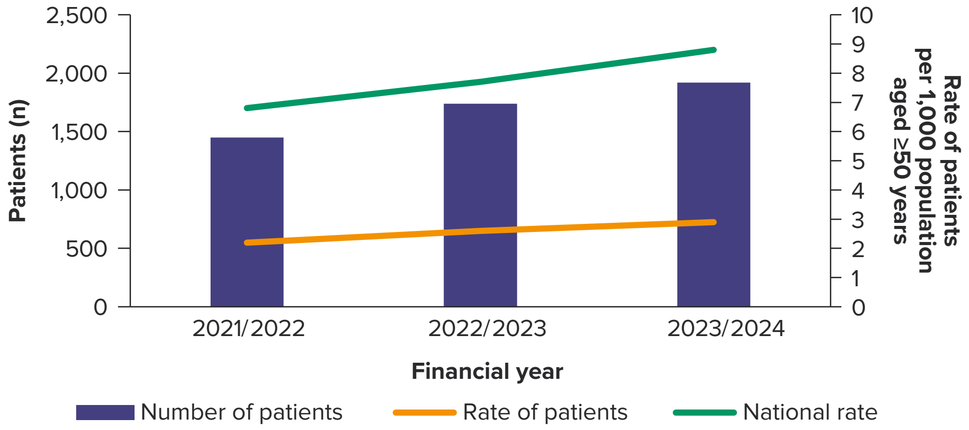
Individual ICB deep dive data

Buckinghamshire, Oxfordshire and Berkshire West ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

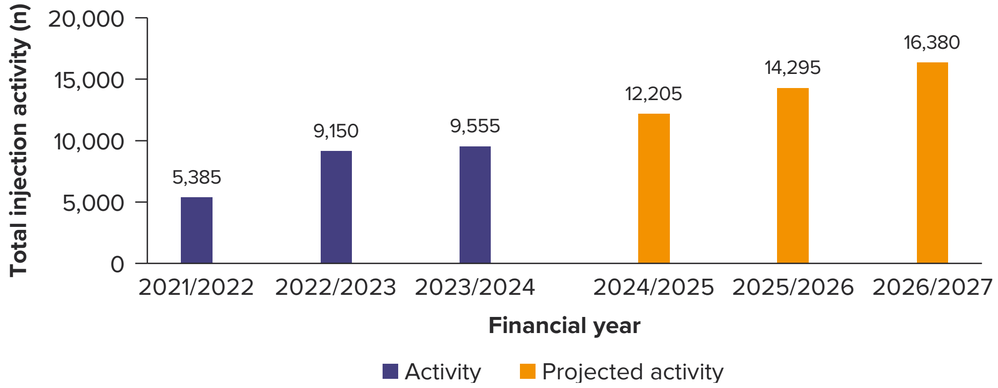
- overall
- in all five age groups
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	1,450	1,740	1,920
Rate of patients	2.2	2.6	2.9
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
35.8	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

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Buckinghamshire, Oxfordshire and Berkshire West ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	0.5	1.9
60–69	1.5	4.8
70–79	4.0	12.4
80–89	10.9	31.1
≥90	11.9	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	3.1	8.8
2	3.5	9.2
3	3.0	9.3
4	2.7	9.2
5	3.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Lower than national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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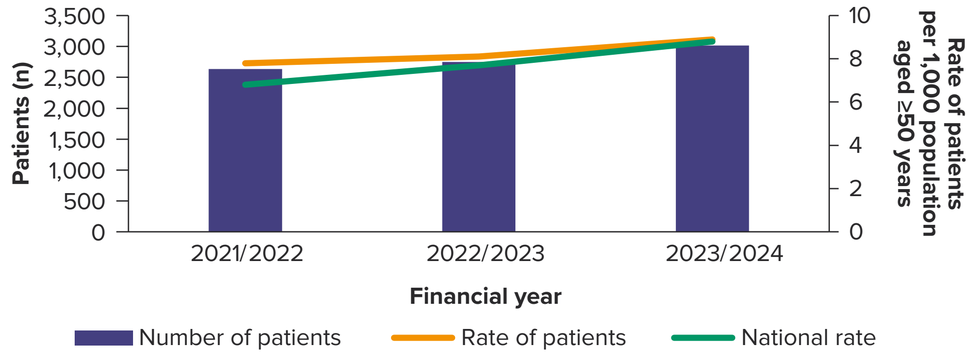
Cambridgeshire & Peterborough ICB: current and projected injection activity

In 2023/2024, there was no statistical difference in the number of patients receiving either first or repeat injection overall compared to the national average at this ICB.

This ICB injected significantly more patients in IMD Quintiles 1 and 2 than the national average.

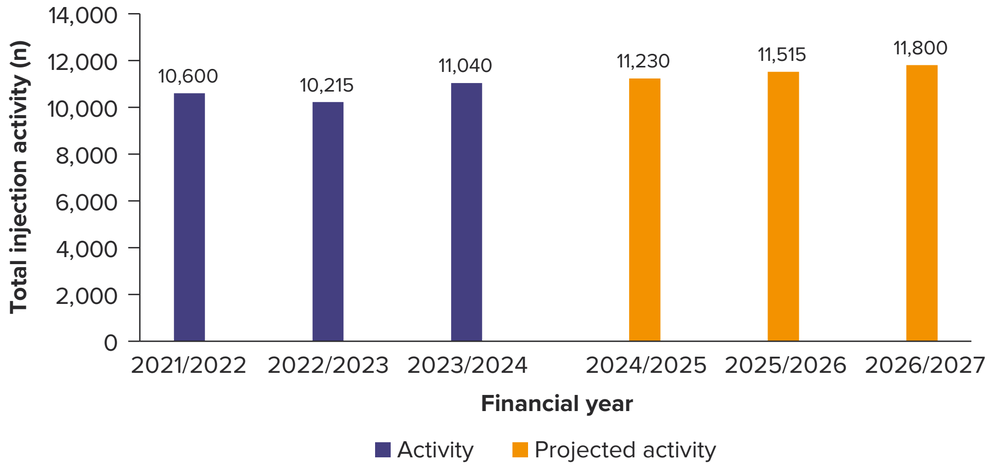
However, it injected significantly fewer patients in IMD Quintile 4 than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,635	2,750	3,015
Rate of patients	7.8	8.1	8.9
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
4.0	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was in line with the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Cambridgeshire & Peterborough ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.9	1.9
60–69	5.1	4.8
70–79	12.3	12.4
80–89	31.6	31.1
≥90	41.1	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.9	8.8
2	10.6	9.2
3	9.0	9.3
4	8.2	9.2
5	8.6	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

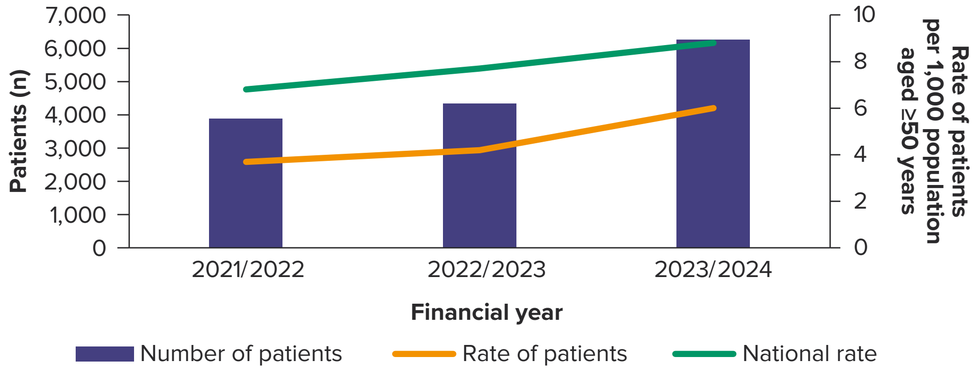
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Cheshire & Merseyside ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

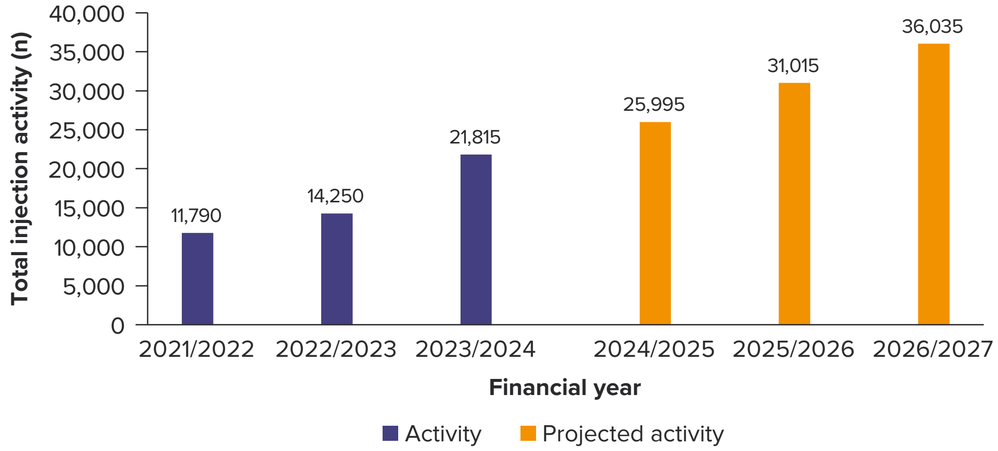
- overall
- in all five age groups
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,880	4,335	6,260
Rate of patients	3.7	4.2	6.0
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
74.5	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Cheshire & Merseyside ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.6	1.9
60–69	3.5	4.8
70–79	8.1	12.4
80–89	20.1	31.1
≥90	28.6	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	4.5	8.8
2	6.3	9.2
3	6.4	9.3
4	6.6	9.2
5	8.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Lower than national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

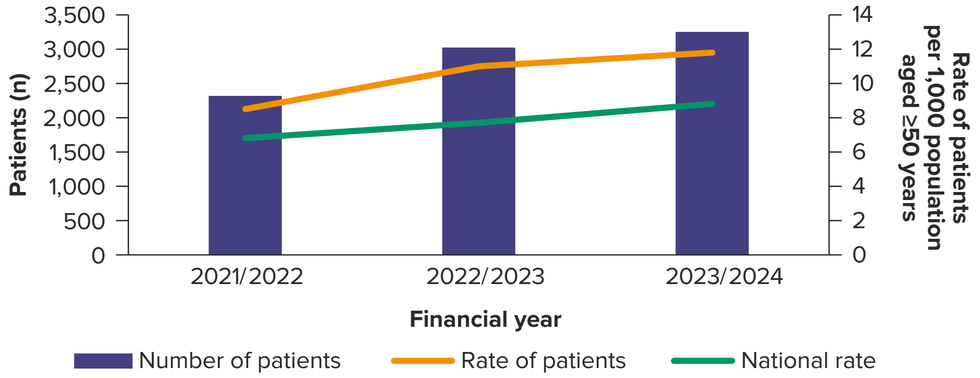
Detailed study methods

Cornwall & the Isles of Scilly ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

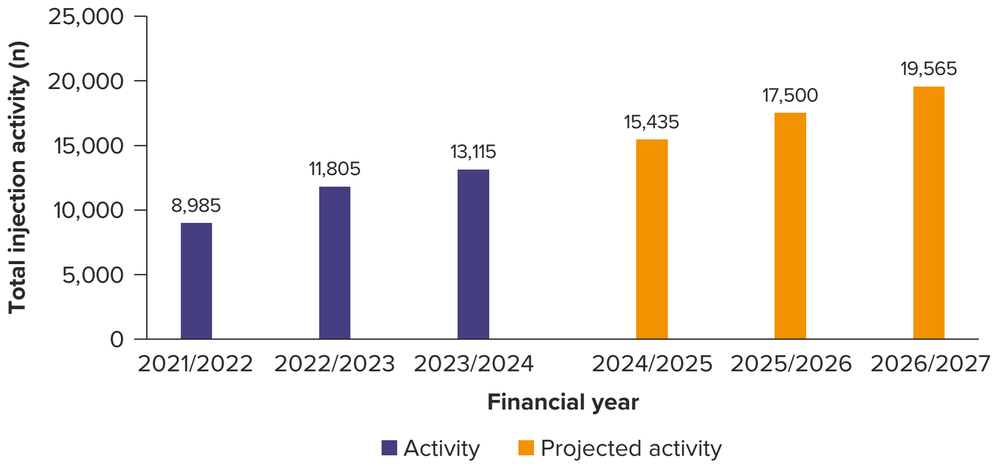
- overall
- in all age groups except 50–59 years
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,320	3,020	3,250
Rate of patients	8.5	11.0	11.8
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
33.8	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Cornwall & the Isles of Scilly ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.2	1.9
60–69	5.3	4.8
70–79	15.8	12.4
80–89	41.6	31.1
≥90	56.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	12.1	8.8
2	11.3	9.2
3	12.8	9.3
4	12.4	9.2
5	16.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	Lower than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Higher than national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

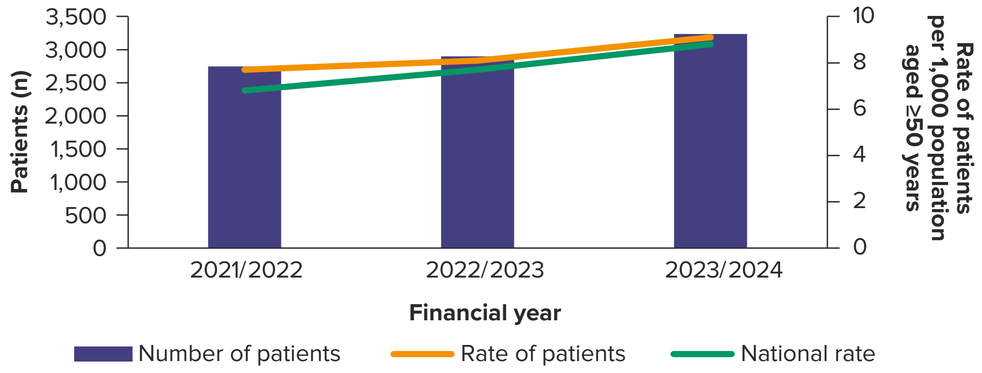
Detailed study methods

Coventry & Warwickshire ICB: current and projected injection activity

In 2023/2024, there was no statistical difference in the number of patients receiving either first or repeat injection overall compared to the national average at this ICB.

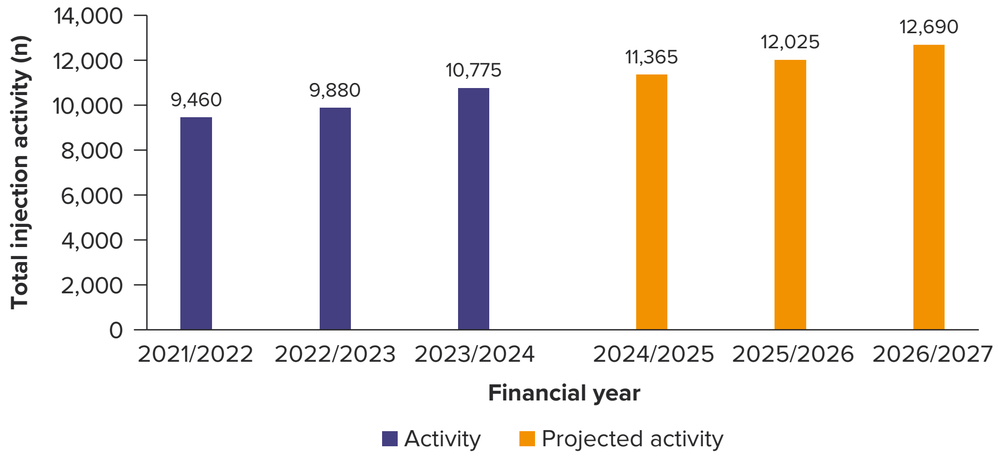
This ICB injected significantly more patients in IMD Quintile 5 than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,745	2,900	3,235
Rate of patients	7.7	8.1	9.1
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
10.0	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was in line with the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Coventry & Warwickshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.7	1.9
60–69	4.9	4.8
70–79	13.1	12.4
80–89	31.1	31.1
≥90	39.2	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	9.0	8.8
2	9.4	9.2
3	9.5	9.3
4	9.3	9.2
5	9.9	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

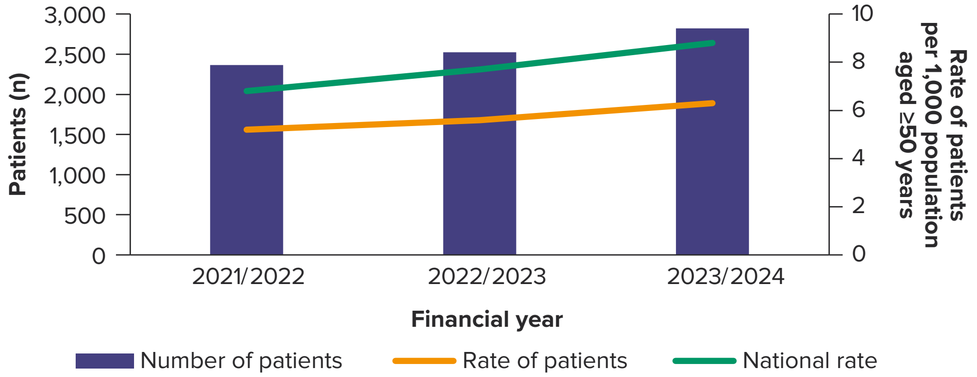
Detailed study methods

Derby & Derbyshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

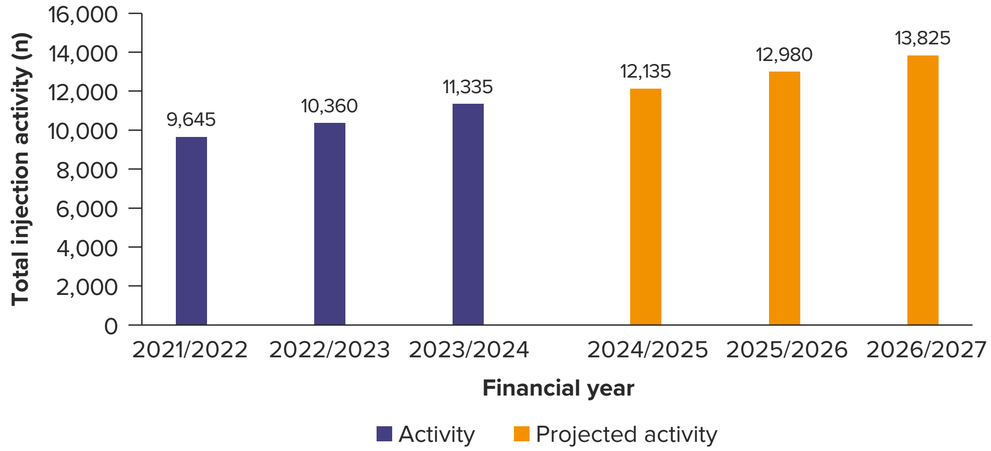
- overall
- in all five age groups
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,365	2,525	2,820
Rate of patients	5.2	5.6	6.3
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
13.1	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Derby & Derbyshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.1	1.9
60–69	3.2	4.8
70–79	9.0	12.4
80–89	23.0	31.1
≥90	31.3	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	6.4	8.8
2	6.4	9.2
3	6.5	9.3
4	6.4	9.2
5	7.2	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Lower than national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

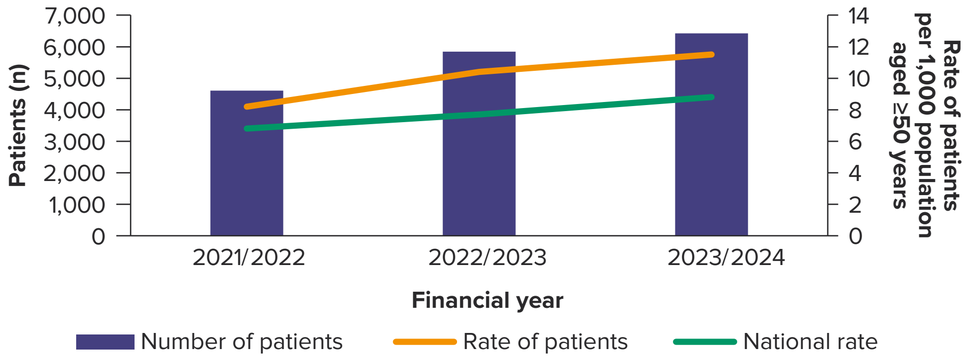
Detailed study methods

Devon ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

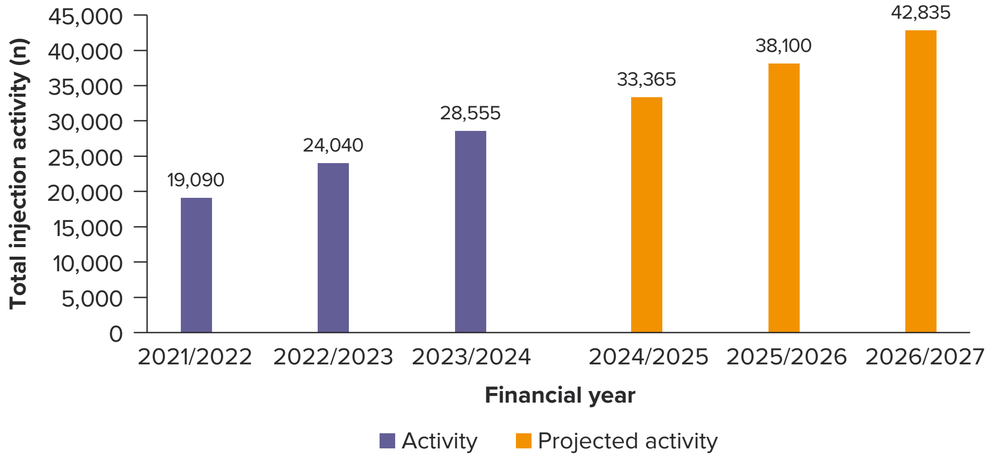
- overall
- in all age groups
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	4,610	5,840	6,425
Rate of patients	8.2	10.4	11.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
74.8	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Devon ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.1	1.9
60–69	5.5	4.8
70–79	14.4	12.4
80–89	38.7	31.1
≥90	53.5	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	11.8	8.8
2	11.8	9.2
3	11.3	9.3
4	12.4	9.2
5	12.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Lower than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Higher than national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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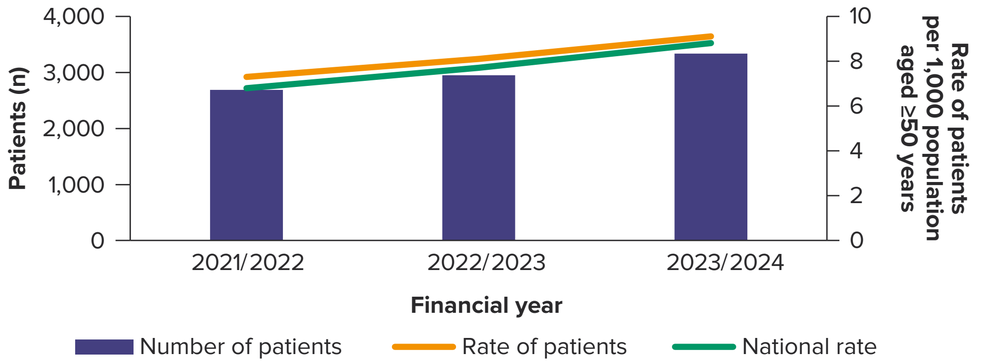
Dorset ICB: current and projected injection activity

In 2023/2024, there was no statistical difference in the number of patients receiving either first or repeat injection overall compared to the national average at this ICB.

This ICB injected significantly more patients in IMD Quintile 4 than the national average.

However, it injected significantly fewer patients aged 50–59, 60–69, 70–79 and 80–89 years than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

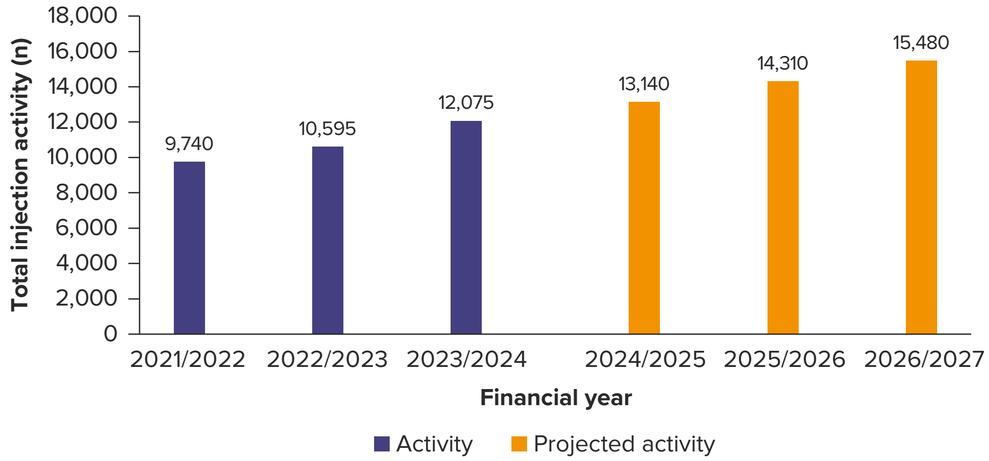


	2021/2022	2022/2023	2023/2024
Number of patients	2,690	2,950	3,335
Rate of patients	7.3	8.1	9.1
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
17.8	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was in line with the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Dorset ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.6	1.9
60–69	3.9	4.8
70–79	11.3	12.4
80–89	29.5	31.1
≥90	39.6	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.5	8.8
2	8.7	9.2
3	9.4	9.3
4	10.0	9.2
5	9.3	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

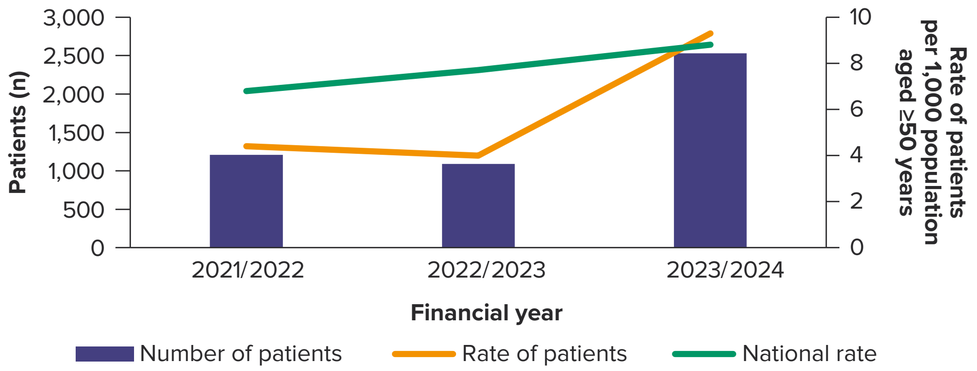
Detailed study methods

Frimley ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

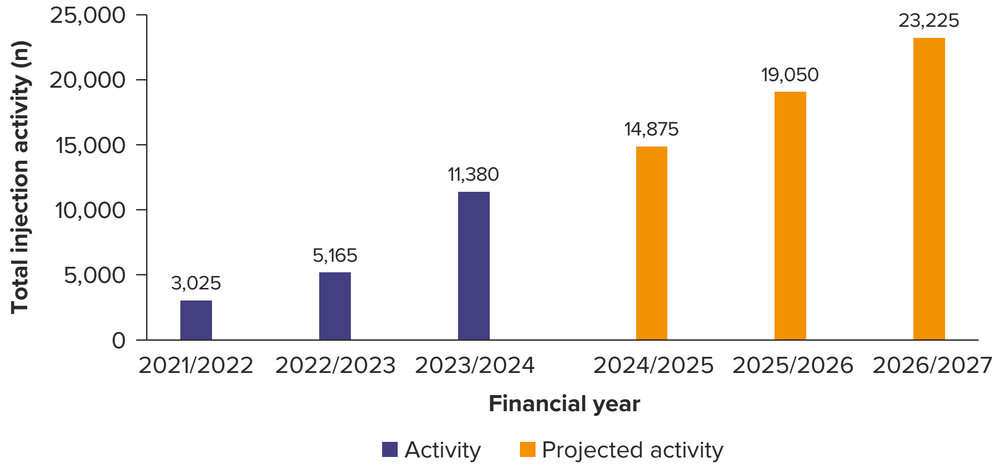
- overall
- aged 70–79 and 80–89 years
- in IMD Quintile 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	1,210	1,090	2,530
Rate of patients	4.4	4.0	9.3
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
62.1	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Frimley ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.0	1.9
60–69	4.8	4.8
70–79	13.8	12.4
80–89	34.3	31.1
≥90	46.1	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	7.7	8.8
2	9.4	9.2
3	9.3	9.3
4	9.1	9.2
5	10.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

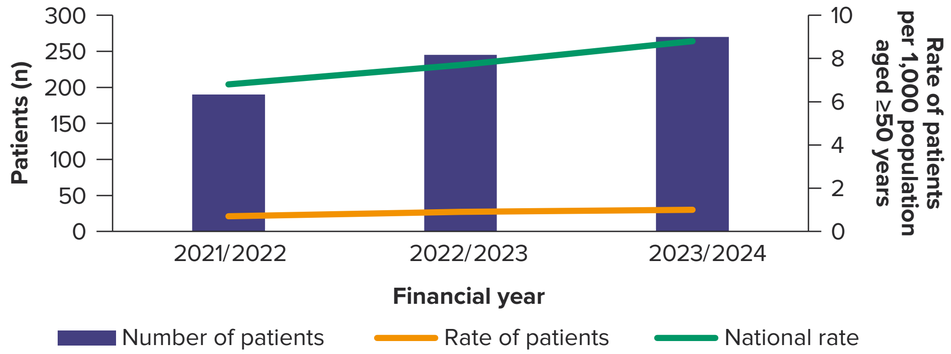
Detailed study methods

Gloucestershire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

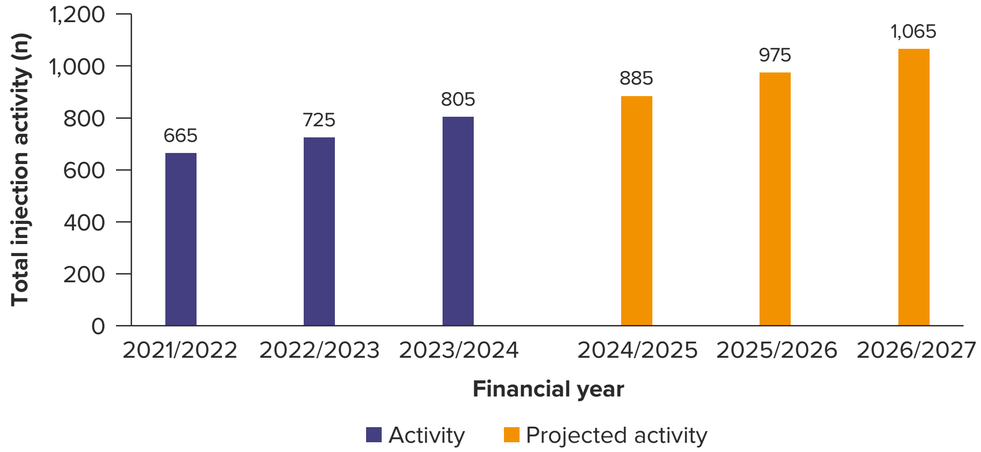
- overall
- in all five age groups
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	190	245	270
Rate of patients	0.7	0.9	1.0
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
1.4	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Gloucestershire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	0.3	1.9
60–69	0.8	4.8
70–79	1.1	12.4
80–89	2.6	31.1
≥90	2.1	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	1.0	8.8
2	0.4	9.2
3	1.0	9.3
4	1.0	9.2
5	1.2	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Lower than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Lower than national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

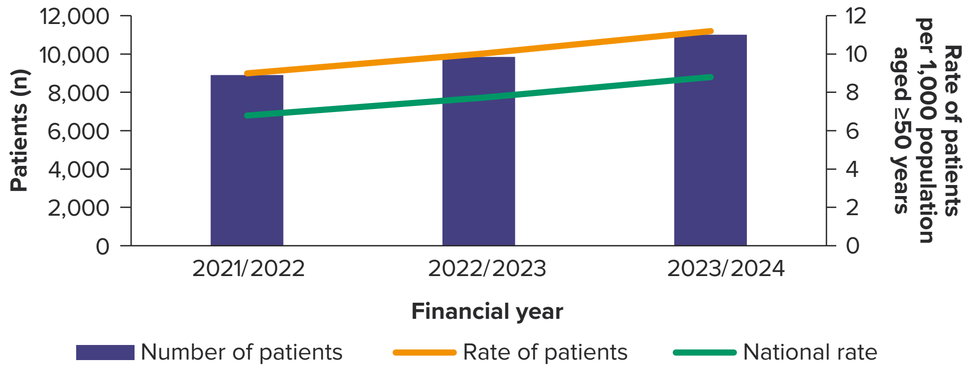
Detailed study methods

Greater Manchester ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

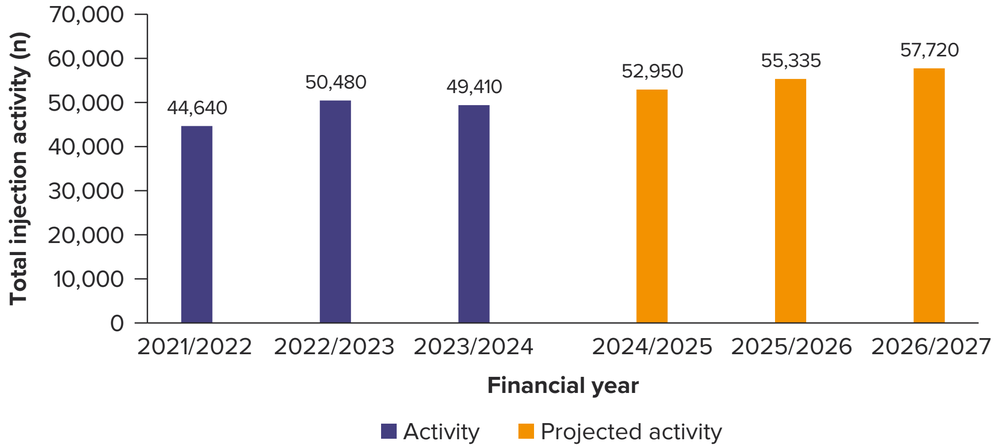
- overall
- in all age groups
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	8,905	9,845	11,005
Rate of patients	9.0	10.0	11.2
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
43.6	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Greater Manchester ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.5	1.9
60–69	6.3	4.8
70–79	16.8	12.4
80–89	41.1	31.1
≥90	57.7	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.7	8.8
2	11.3	9.2
3	11.2	9.3
4	12.2	9.2
5	11.7	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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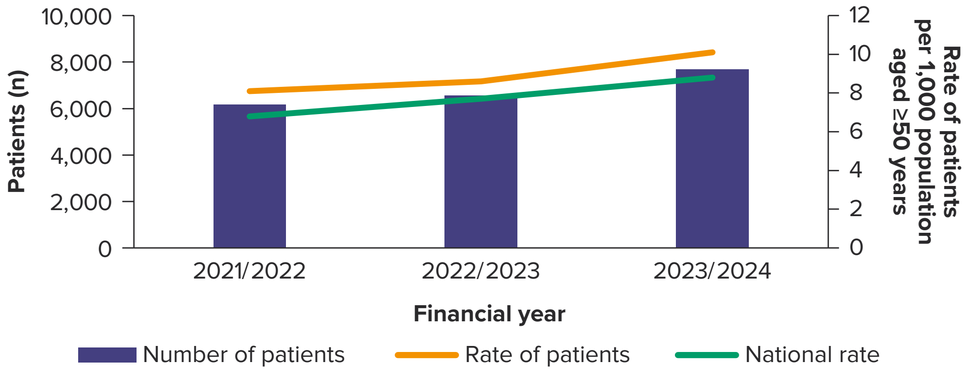
Individual ICB deep dive data

Hampshire & Isle of Wight ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

- overall
- in all age groups
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

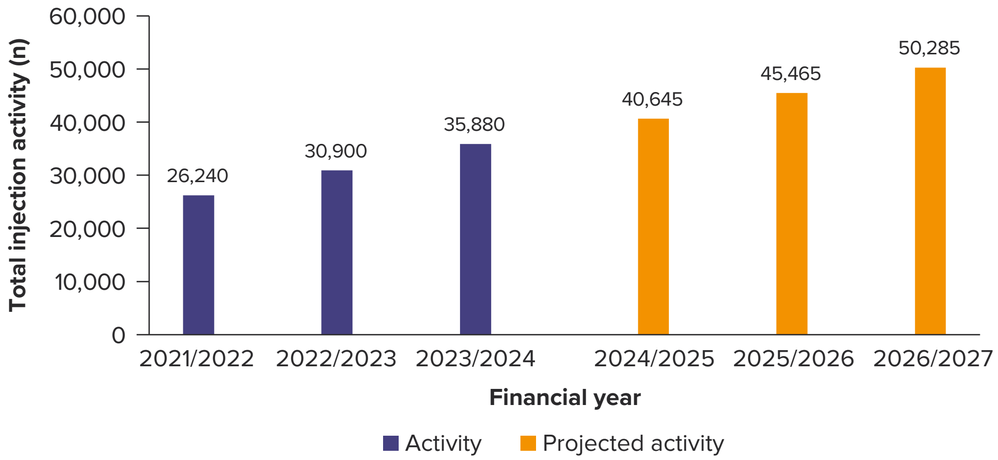


	2021/2022	2022/2023	2023/2024
Number of patients	6,155	6,550	7,695
Rate of patients	8.1	8.6	10.1
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
75.5	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Hampshire & Isle of Wight ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.2	1.9
60–69	5.4	4.8
70–79	13.3	12.4
80–89	33.4	31.1
≥90	47.2	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.0	8.8
2	10.7	9.2
3	10.5	9.3
4	10.3	9.2
5	10.3	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

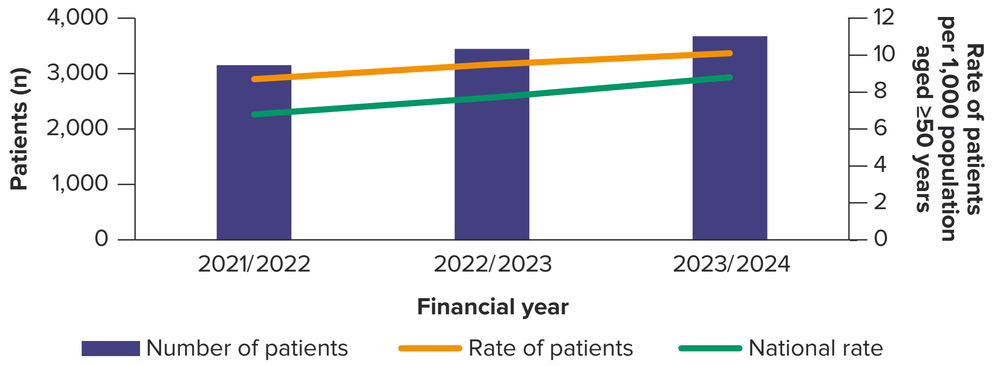
Detailed study methods

Herefordshire & Worcestershire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) than the national average:

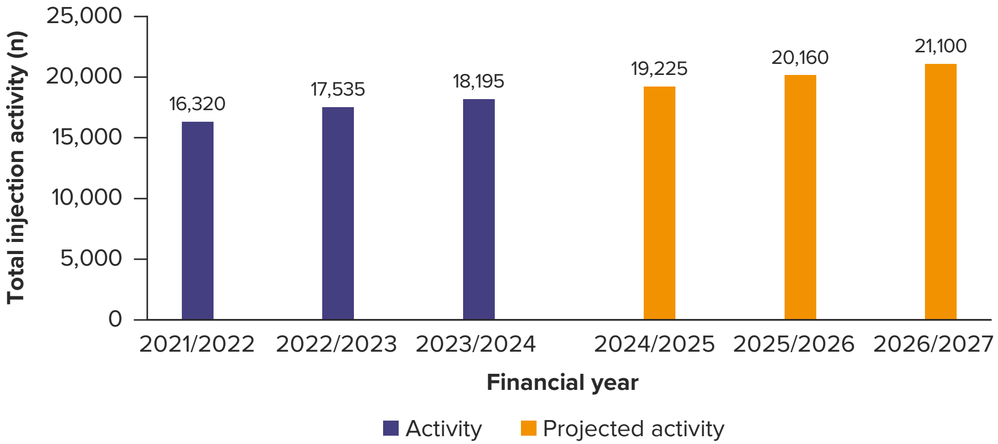
- overall
- aged 70–79, 80–89 and ≥90 years
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,155	3,445	3,675
Rate of patients	8.7	9.5	10.1
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
15.2	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Herefordshire & Worcestershire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.7	1.9
60–69	5.1	4.8
70–79	13.8	12.4
80–89	34.4	31.1
≥90	48.7	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.8	8.8
2	11.3	9.2
3	9.9	9.3
4	11.0	9.2
5	10.0	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Lower than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

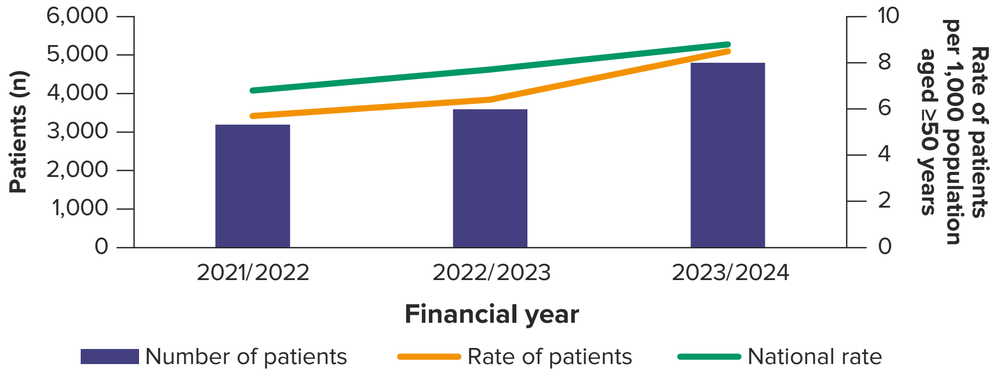
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Hertfordshire & West Essex ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

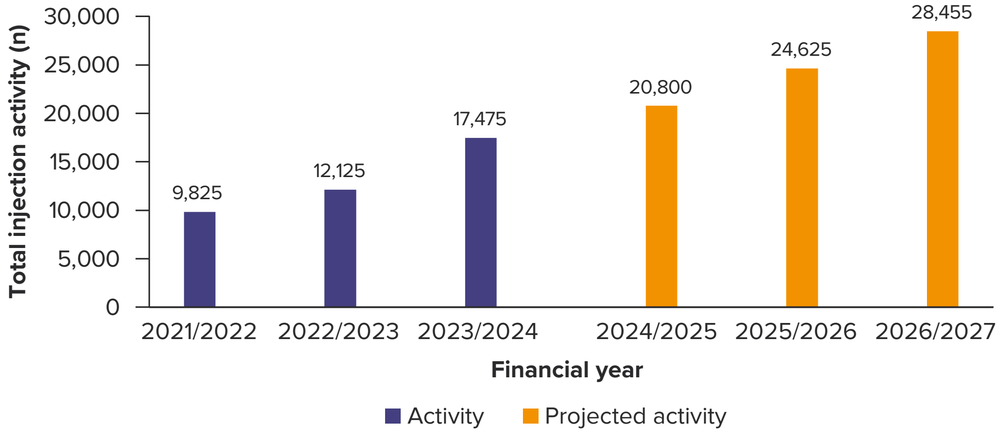
- overall
- aged 50–59 years
- in Quintile 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,195	3,590	4,795
Rate of patients	5.7	6.4	8.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
57.5	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Hertfordshire & West Essex ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.7	1.9
60–69	4.7	4.8
70–79	12.2	12.4
80–89	29.8	31.1
≥90	42.8	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	7.1	8.8
2	9.4	9.2
3	9.1	9.3
4	8.8	9.2
5	8.4	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Lower than national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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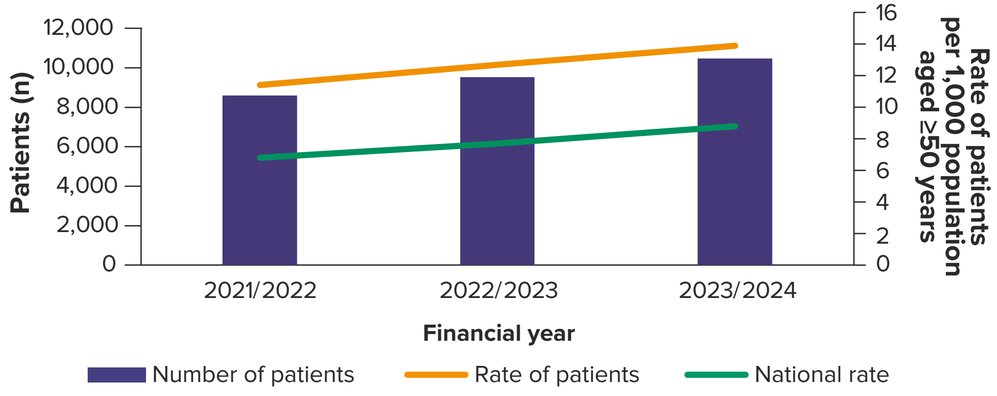
Individual ICB deep dive data

Humber & North Yorkshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

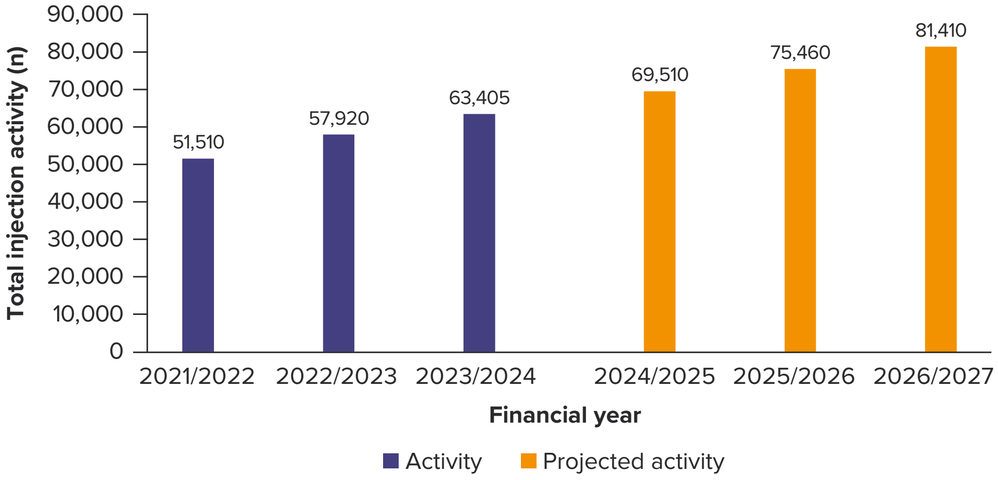
- overall
- in all age groups
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	8,590	9,535	10,465
Rate of patients	11.4	12.7	13.9
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
94.4	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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Humber & North Yorkshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.8	1.9
60–69	6.3	4.8
70–79	18.6	12.4
80–89	49.3	31.1
≥90	77.0	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	13.0	8.8
2	14.0	9.2
3	14.2	9.3
4	14.2	9.2
5	15.6	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Higher than national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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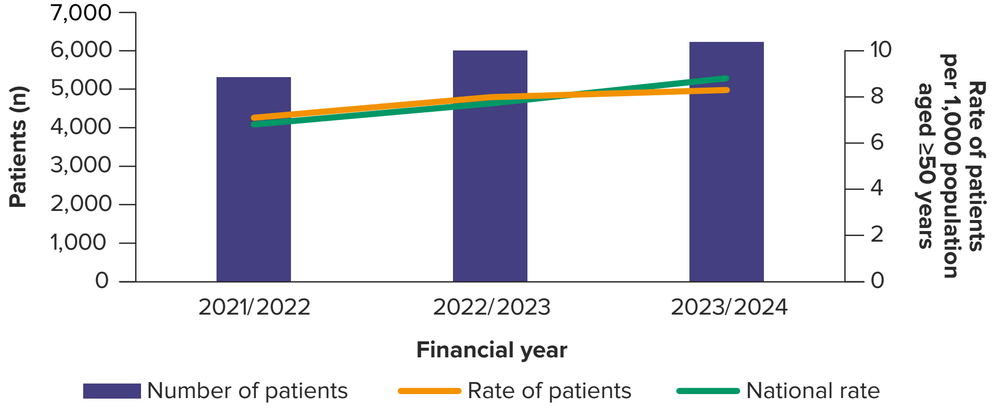
Kent & Medway ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients overall compared to the national average.

This ICB injected significantly more patients aged 60–69 years than the national average.

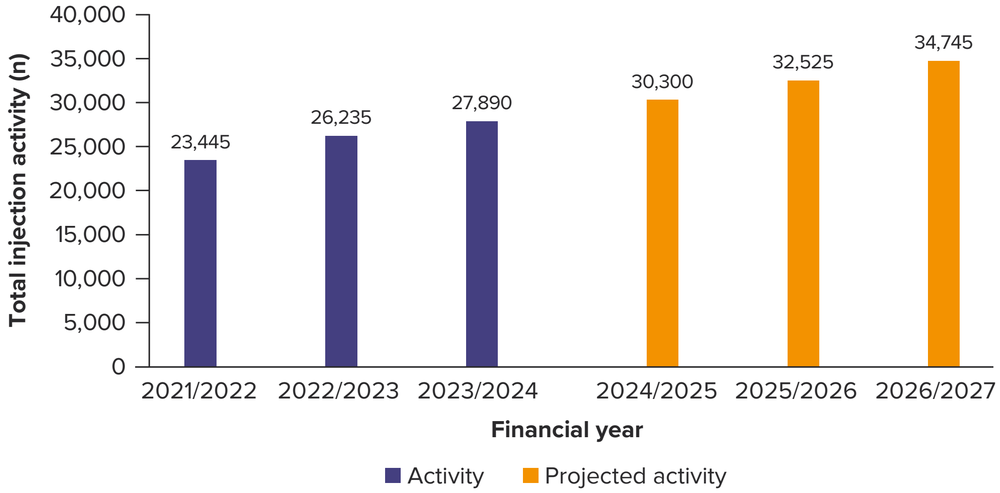
However, it injected significantly fewer patients aged 70–79, 80–89 and ≥90 years and in IMD Quintiles 1, 3 and 4 than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	5,315	6,000	6,220
Rate of patients	7.1	8.0	8.3
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
35.9	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Kent & Medway ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.0	1.9
60–69	5.1	4.8
70–79	11.5	12.4
80–89	26.9	31.1
≥90	37.8	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.2	8.8
2	8.7	9.2
3	8.4	9.3
4	8.6	9.2
5	8.5	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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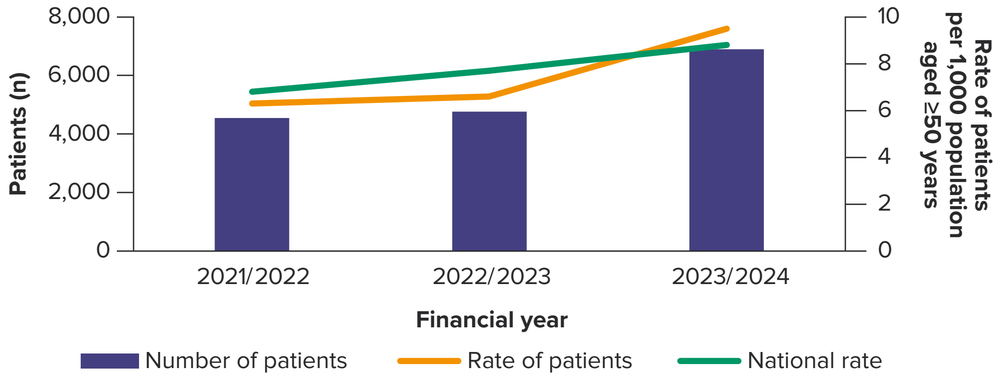
Individual ICB deep dive data

Lancashire & South Cumbria ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

- overall
- aged 50–59, 70–79 and 80–89 years
- in IMD Quintiles 1, 2, 4 and 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

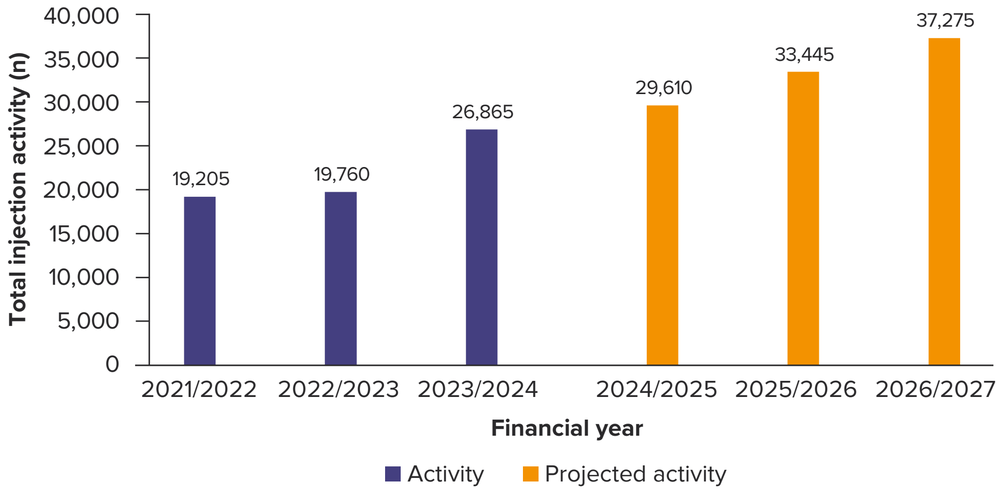


	2021/2022	2022/2023	2023/2024
Number of patients	4,545	4,770	6,895
Rate of patients	6.3	6.6	9.5
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
54.6	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Lancashire & South Cumbria ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.2	1.9
60–69	5.0	4.8
70–79	13.4	12.4
80–89	33.0	31.1
≥90	42.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	9.5	8.8
2	10.1	9.2
3	9.6	9.3
4	10.4	9.2
5	9.7	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

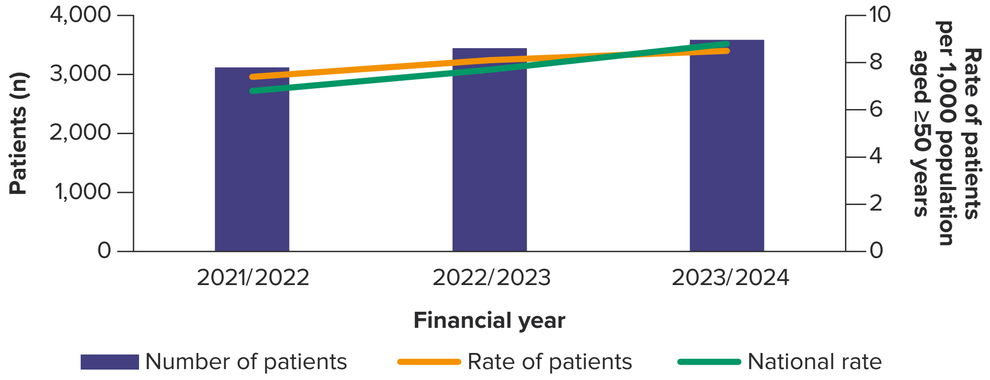
Detailed study methods

Leicester, Leicestershire & Rutland ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

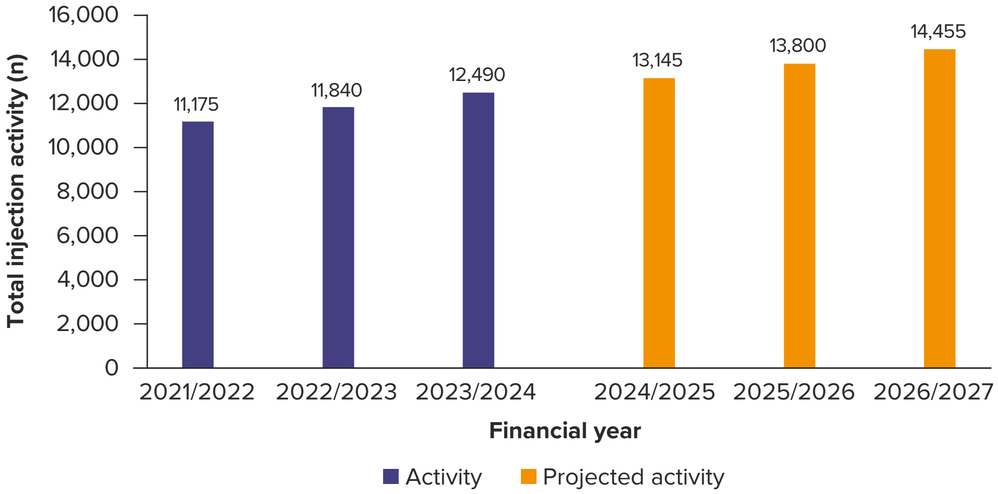
- overall
- aged ≥90 years
- in Quintile 2.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,120	3,445	3,590
Rate of patients	7.4	8.1	8.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
10.3	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Leicester, Leicestershire & Rutland ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.9	1.9
60–69	4.7	4.8
70–79	12.3	12.4
80–89	30.3	31.1
≥90	35.3	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.5	8.8
2	8.4	9.2
3	9.2	9.3
4	9.0	9.2
5	8.8	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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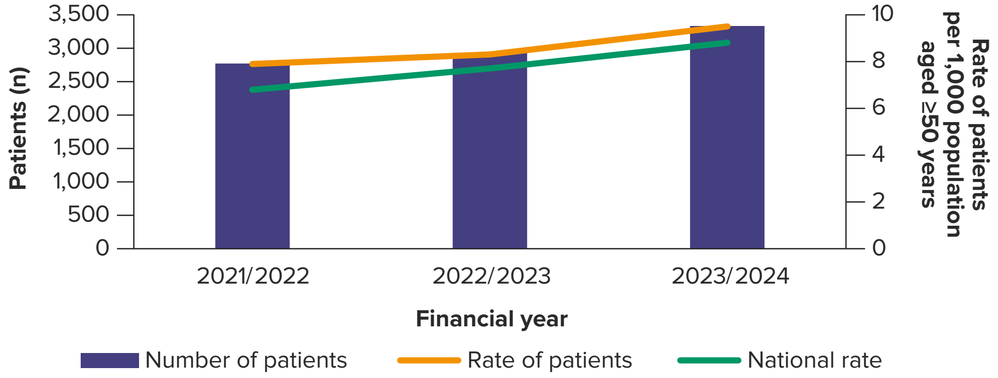
Lincolnshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

- overall
- aged 80–89 years
- in IMD Quintiles 3, 4 and 5.

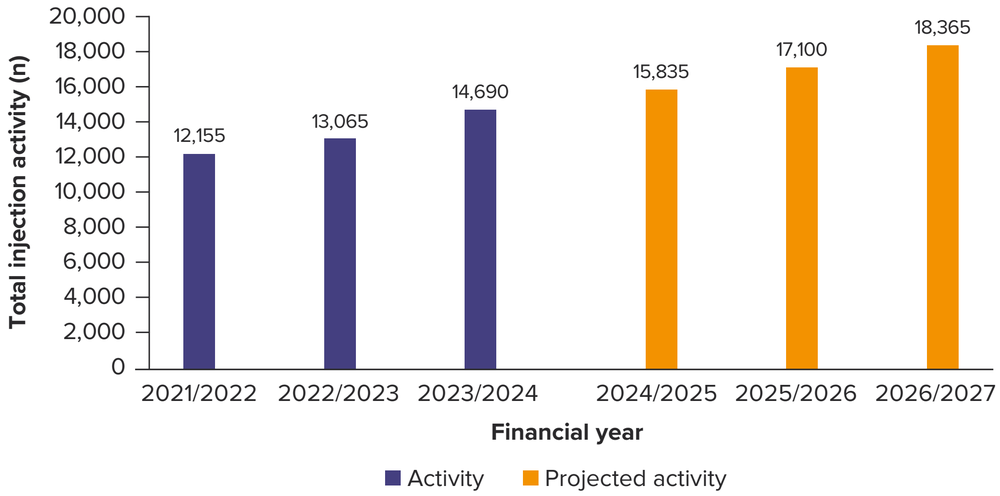
However, it injected significantly fewer patients aged 50–59 years than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,770	2,925	3,330
Rate of patients	7.9	8.3	9.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
19.3	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Lincolnshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.6	1.9
60–69	4.5	4.8
70–79	13.1	12.4
80–89	32.9	31.1
≥90	41.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.9	8.8
2	9.1	9.2
3	10.3	9.3
4	10.0	9.2
5	10.5	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

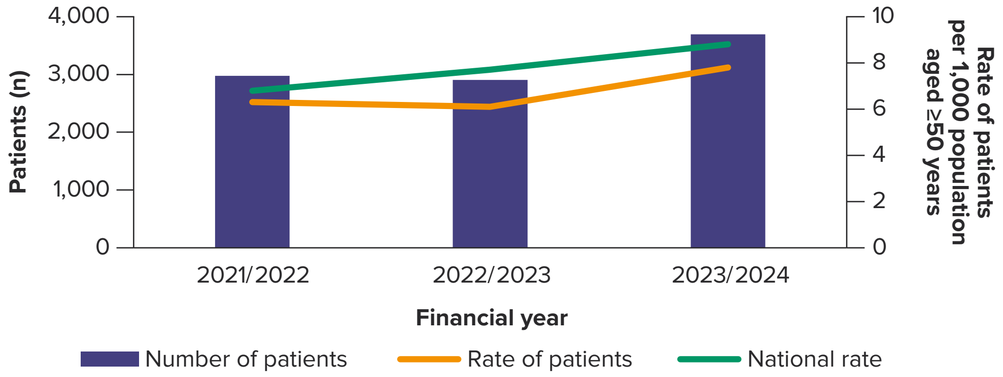
Detailed study methods

Mid & South Essex ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) than the national average:

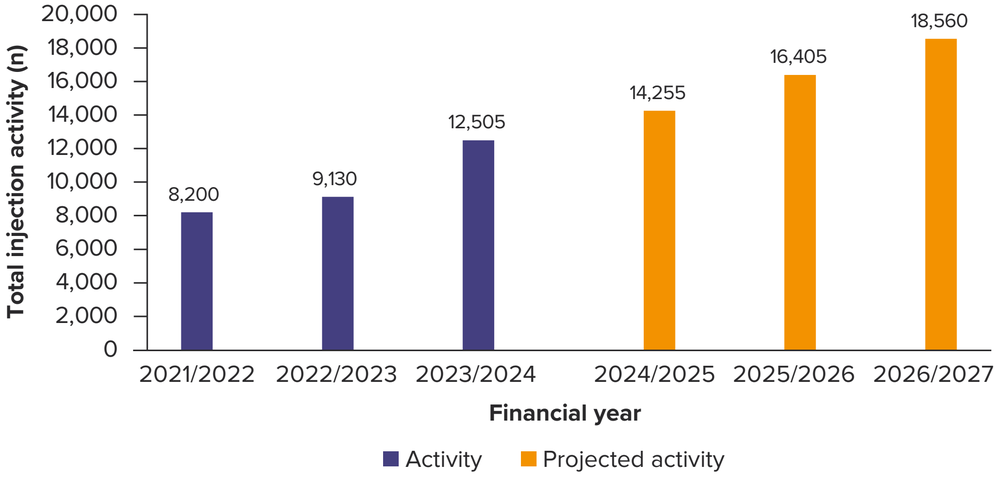
- overall
- in all five age groups
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,975	2,905	3,695
Rate of patients	6.3	6.1	7.8
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
31.7	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Mid & South Essex ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.5	1.9
60–69	4.0	4.8
70–79	11.1	12.4
80–89	26.9	31.1
≥90	33.6	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	7.4	8.8
2	7.7	9.2
3	7.9	9.3
4	7.7	9.2
5	8.2	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

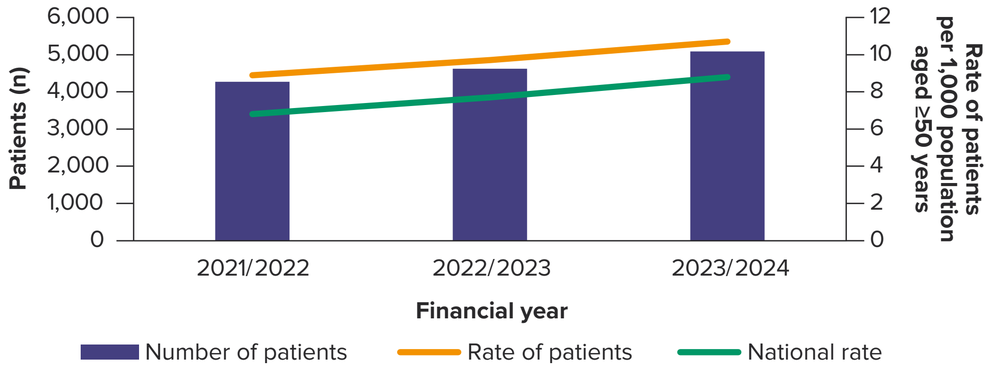
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Norfolk & Waveney ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

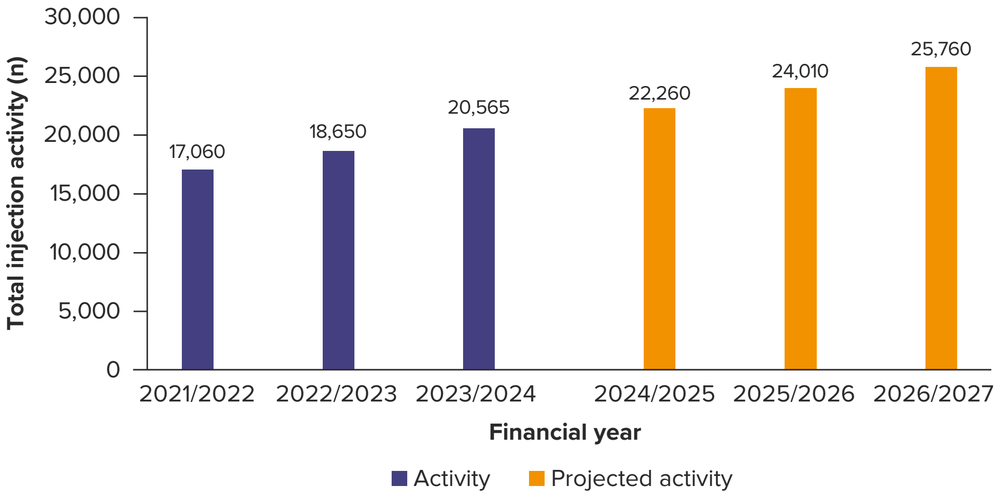
- overall
- aged 70–79, 80–89 and ≥90 years
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	4,270	4,620	5,090
Rate of patients	8.9	9.7	10.7
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
27.2	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Norfolk & Waveney ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.1	1.9
60–69	4.9	4.8
70–79	13.4	12.4
80–89	34.1	31.1
≥90	47.0	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.3	8.8
2	11.4	9.2
3	11.4	9.3
4	10.5	9.2
5	10.5	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Lower than national average
Rate of injectors per 1,000 population aged ≥50 years	Lower than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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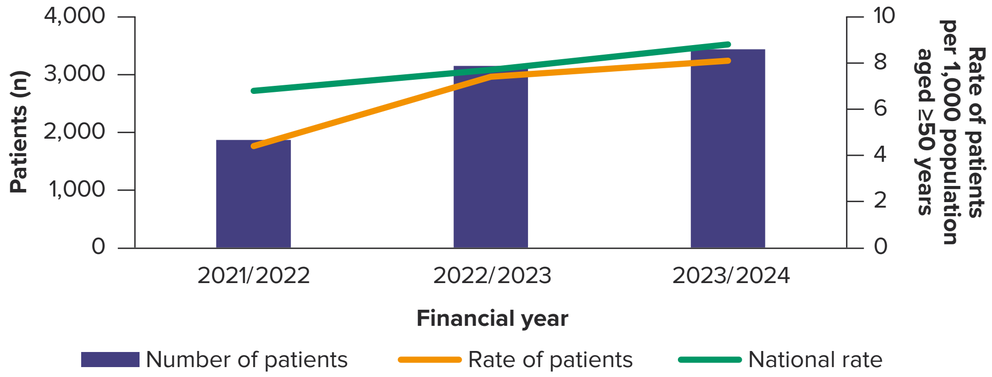
North Central London ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients aged 60–69 and 70–79 years (either first or repeat injection) compared to the national average.

However, it injected significantly fewer patients than the national average:

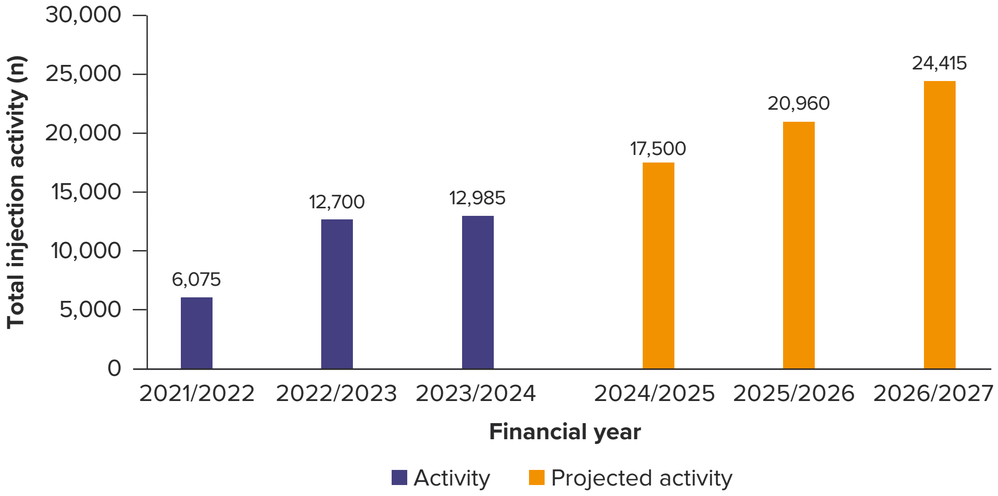
- overall
- aged 80–89 years
- in IMD quintiles 1, 2, 3 and 4

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	1,865	3,150	3,440
Rate of patients	4.4	7.4	8.1
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
59.9	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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North Central London ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.1	1.9
60–69	5.4	4.8
70–79	13.4	12.4
80–89	28.9	31.1
≥90	42.5	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	7.4	8.8
2	7.4	9.2
3	8.3	9.3
4	8.2	9.2
5	9.2	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

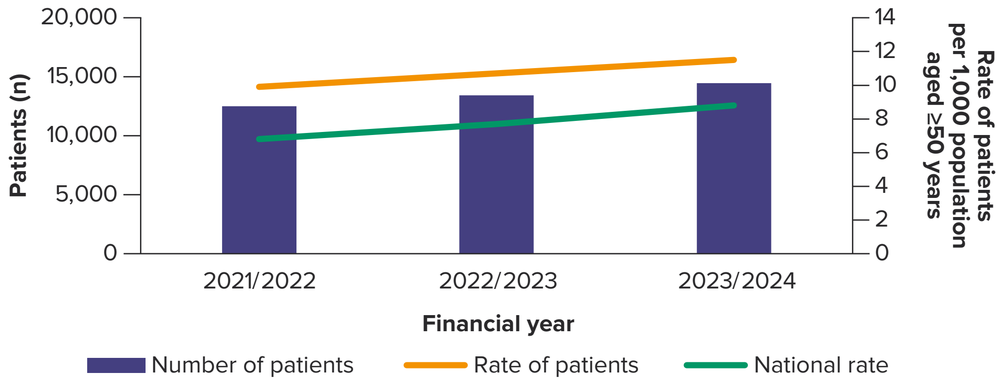
Detailed study methods

North East & North Cumbria ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

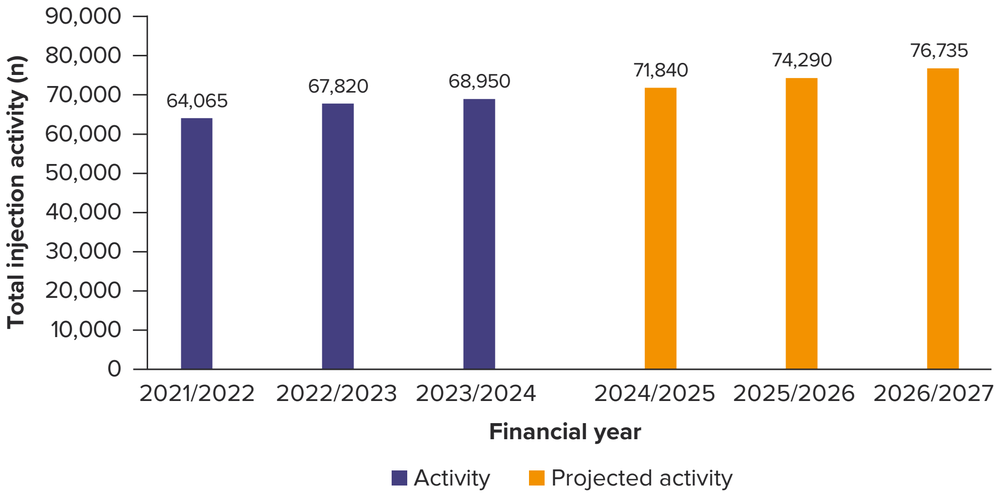
- overall
- in all age groups
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	12,520	13,430	14,460
Rate of patients	9.9	10.7	11.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
40.8	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

North East & North Cumbria ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.6	1.9
60–69	5.9	4.8
70–79	16.0	12.4
80–89	41.6	31.1
≥90	57.1	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	11.4	8.8
2	11.5	9.2
3	11.6	9.3
4	12.7	9.2
5	12.2	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Higher than national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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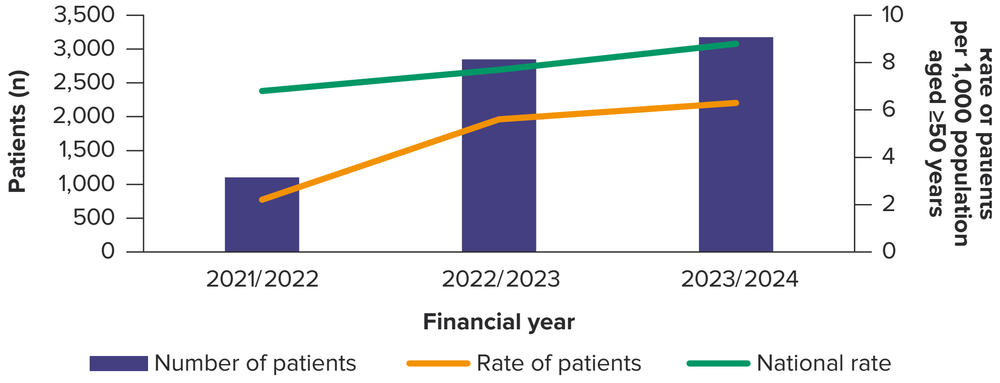
Individual ICB deep dive data

North East London ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) compared to the national average:

- overall
- aged 70–79, 80–89 and ≥90 years
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

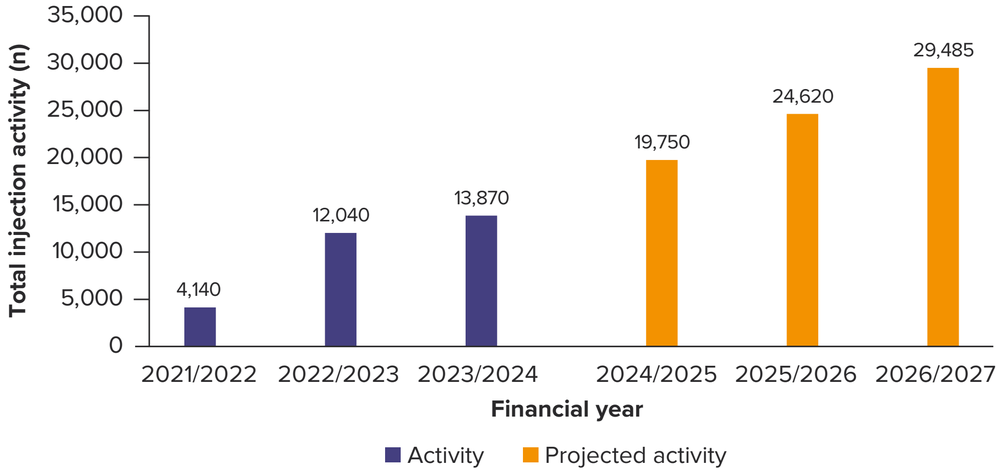


	2021/2022	2022/2023	2023/2024
Number of patients	1,105	2,850	3,175
Rate of patients	2.2	5.6	6.3
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
81.8	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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North East London ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.8	1.9
60–69	4.9	4.8
70–79	10.7	12.4
80–89	22.7	31.1
≥90	33.3	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	6.4	8.8
2	5.8	9.2
3	6.2	9.3
4	7.0	9.2
5	7.0	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Lower than national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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North West London ICB: current and projected injection activity

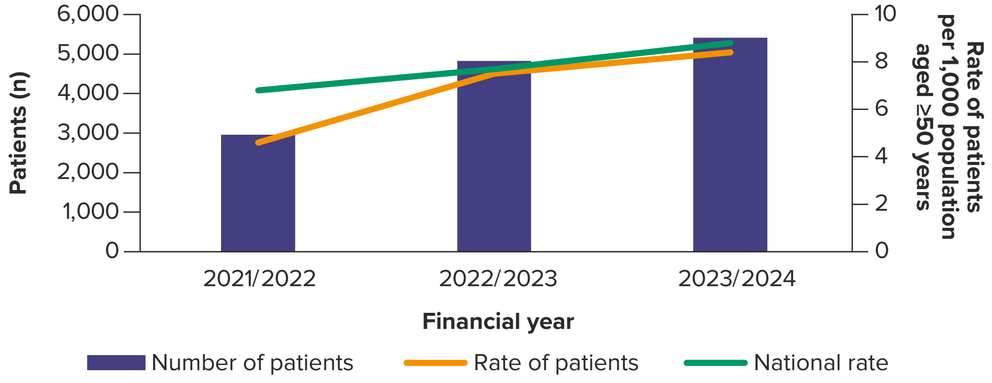
In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

- aged 50–59, 60–69 and 70–79 years
- in IMD Quintile 1

However, it injected significantly fewer patients than the national average:

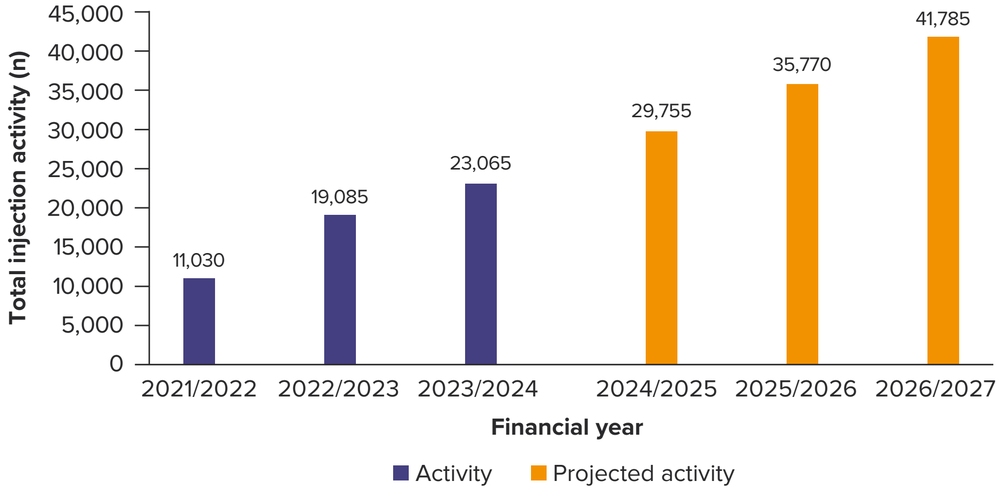
- overall
- in patients aged 80–89 years
- in IMD quintiles 2, 3, 4 and 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,960	4,825	5,415
Rate of patients	4.6	7.5	8.4
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
98.1	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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North West London ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.4	1.9
60–69	6.3	4.8
70–79	13.6	12.4
80–89	29.3	31.1
≥90	40.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.0	8.8
2	8.7	9.2
3	8.6	9.3
4	7.8	9.2
5	7.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

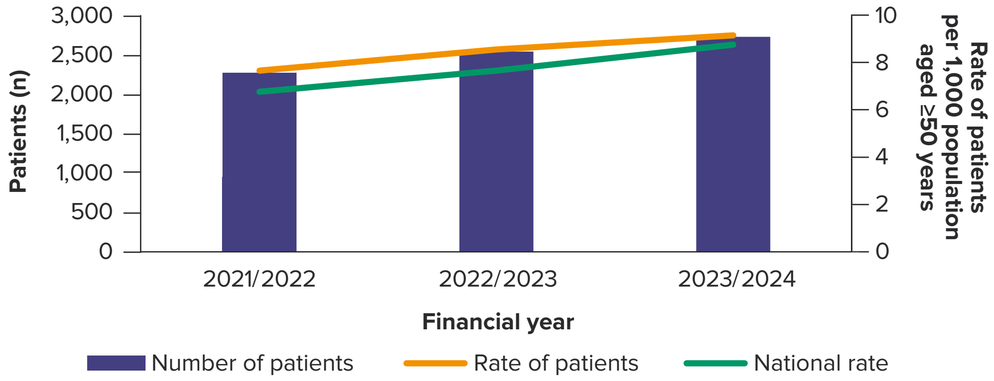
Detailed study methods

Northamptonshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

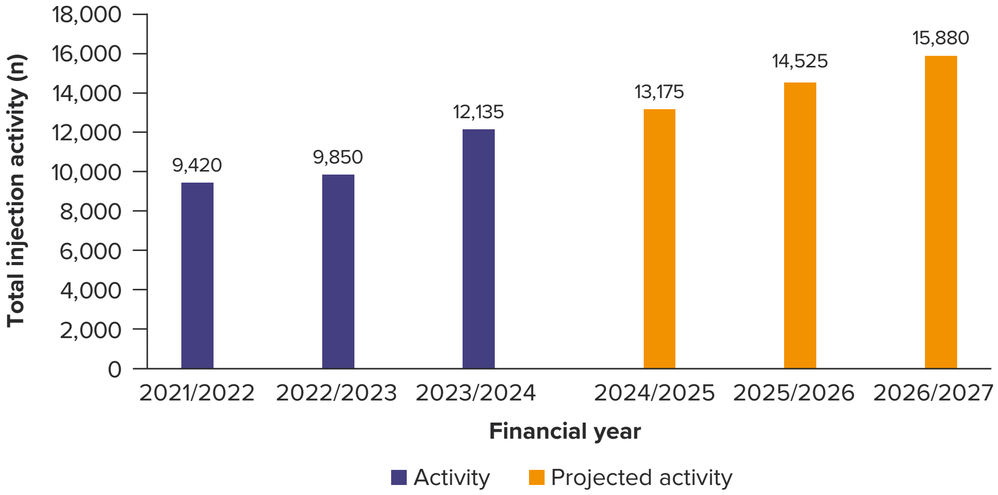
- overall
- aged 50–59, 60–69 and 80–89 years
- in IMD Quintiles 2, 3 and 4.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,285	2,555	2,740
Rate of patients	7.7	8.6	9.2
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
19.6	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Northamptonshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.4	1.9
60–69	5.9	4.8
70–79	13.2	12.4
80–89	33.5	31.1
≥90	41.5	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	9.2	8.8
2	10.3	9.2
3	10.9	9.3
4	10.2	9.2
5	8.8	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

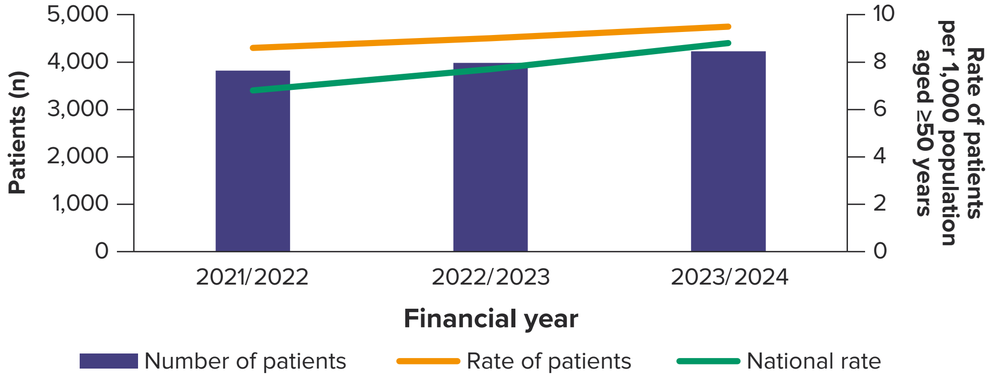
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Nottingham & Nottinghamshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

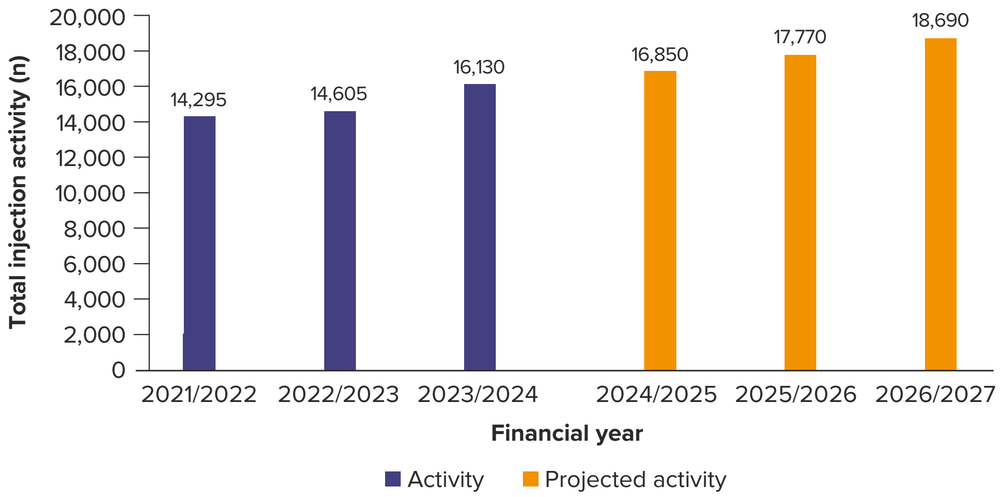
- overall
- in patients aged 70–79 and 80–89 years.
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,820	3,980	4,225
Rate of patients	8.6	9.0	9.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
13.4	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Nottingham & Nottinghamshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.0	1.9
60–69	4.7	4.8
70–79	13.7	12.4
80–89	34.8	31.1
≥90	41.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.3	8.8
2	11.2	9.2
3	12.0	9.3
4	12.3	9.2
5	10.0	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

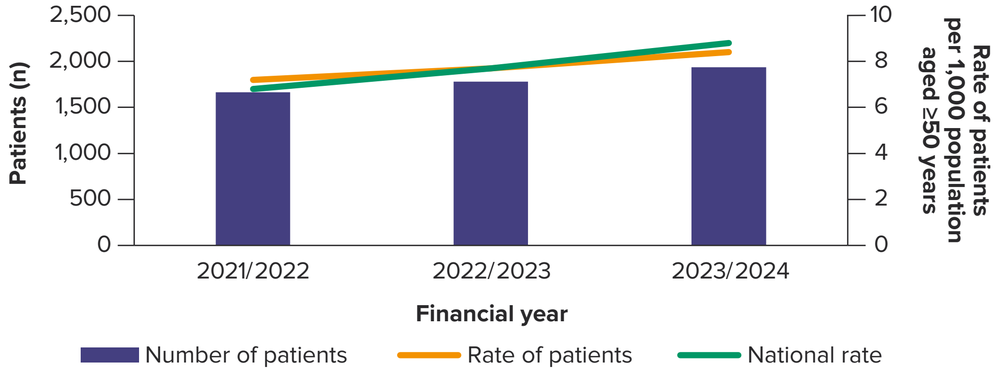
Detailed study methods

Shropshire, Telford and Wrekin ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) compared to the national average:

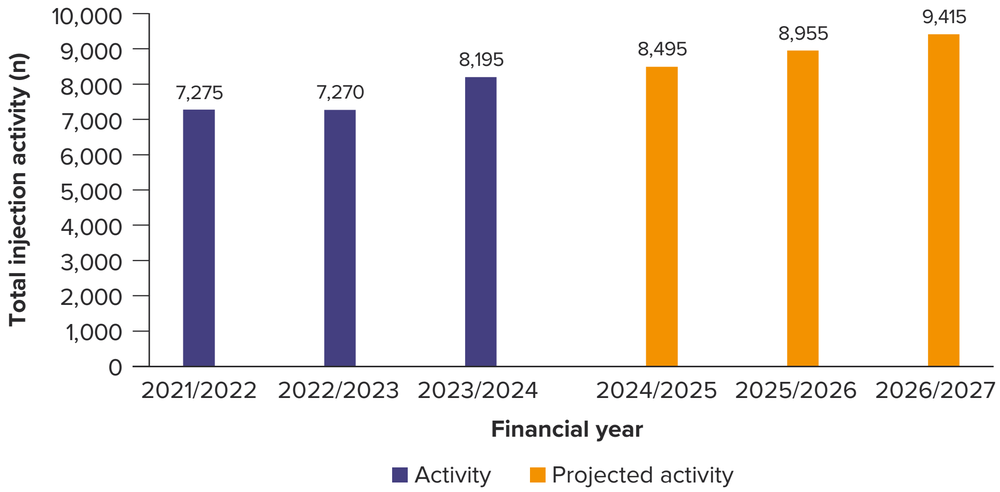
- overall
- aged 50–59 and 60–69 years
- in IMD quintiles 2 and 3.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	1,665	1,780	1,935
Rate of patients	7.2	7.7	8.4
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
6.4	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Shropshire, Telford and Wrekin ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.4	1.9
60–69	4.2	4.8
70–79	12.0	12.4
80–89	30.0	31.1
≥90	37.3	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	9.1	8.8
2	8.3	9.2
3	8.3	9.3
4	9.4	9.2
5	9.4	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Lower than national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

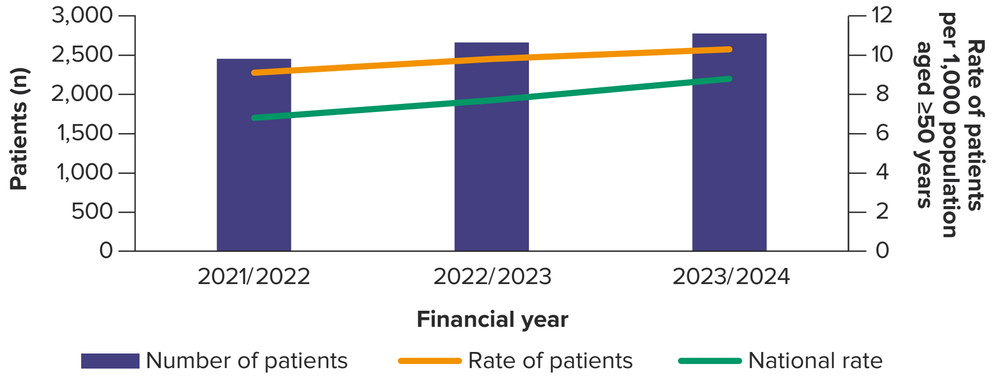
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Somerset ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

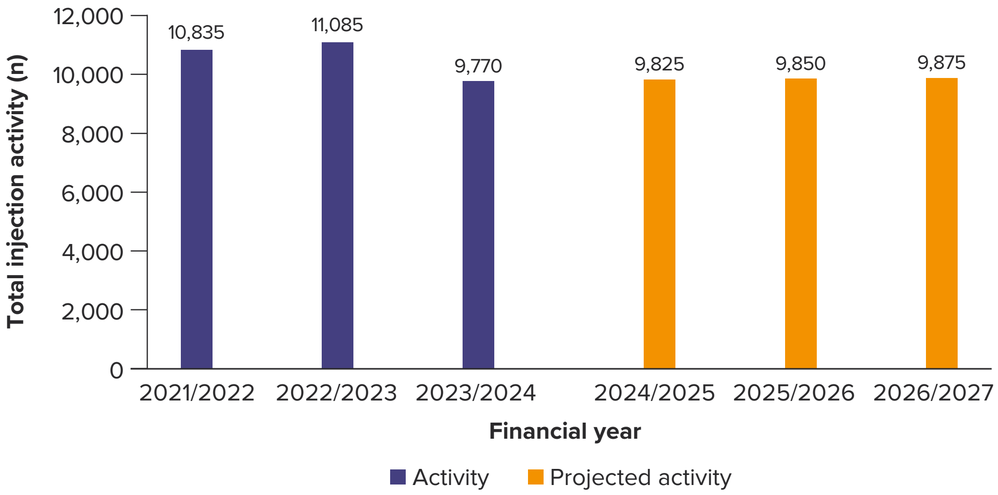
- overall
- aged 80–89 and ≥90 years
- in all five IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,455	2,660	2,775
Rate of patients	9.1	9.8	10.3
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
0.6	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Somerset ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.9	1.9
60–69	4.4	4.8
70–79	12.8	12.4
80–89	35.7	31.1
≥90	48.3	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.7	8.8
2	10.5	9.2
3	10.5	9.3
4	10.7	9.2
5	10.5	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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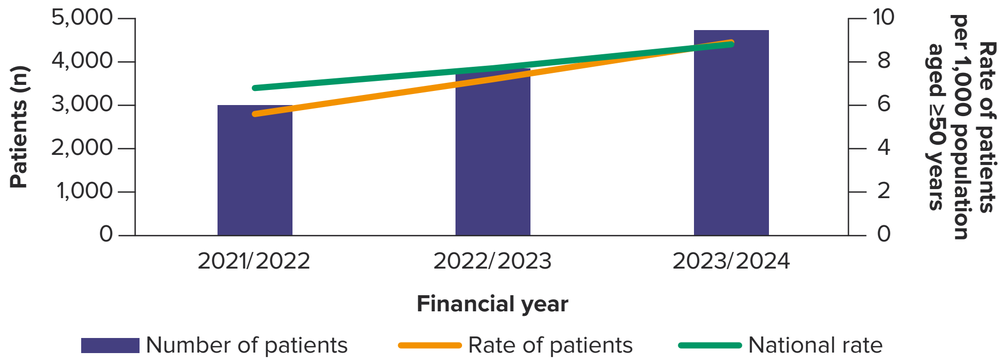
South East London ICB: current and projected injection activity

In 2023/2024, there was no statistical difference in the number of patients receiving either first or repeat injection overall compared to the national average at this ICB.

This ICB injected significantly more patients in all five age groups and in IMD Quintiles 4 and 5.

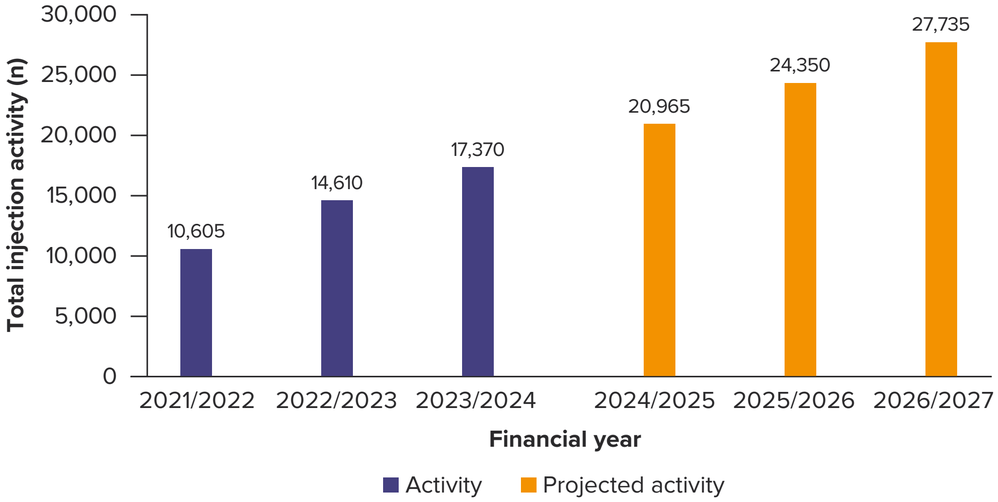
However, it injected significantly fewer patients in IMD Quintiles 2 and 3 than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,005	3,840	4,725
Rate of patients	5.6	7.2	8.9
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	National average
54.3	34.9

As the rate of patients receiving an injection (either first or repeat) for this ICB was in line with the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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South East London ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.4	1.9
60–69	6.4	4.8
70–79	13.4	12.4
80–89	34.0	31.1
≥90	47.2	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.6	8.8
2	8.2	9.2
3	8.7	9.3
4	10.8	9.2
5	10.2	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

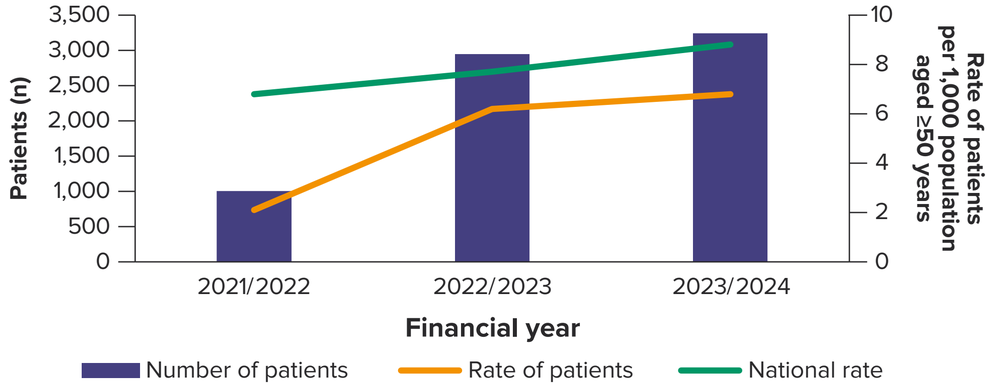
Detailed study methods

South West London ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) compared to the national average:

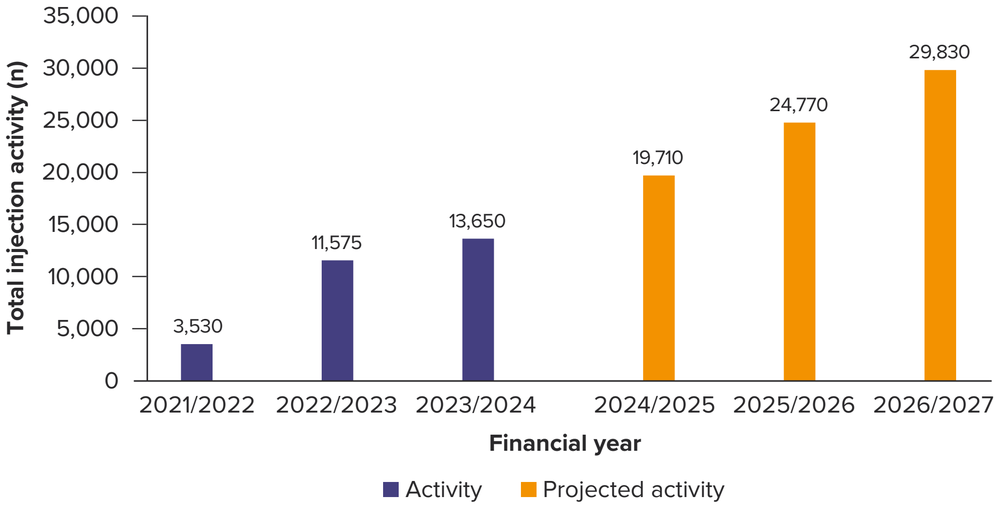
- overall
- aged 50–59, 70–79, 80–89 and ≥90 years
- in IMD Quintiles 2, 3, 4 and 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	1,005	2,945	3,240
Rate of patients	2.1	6.2	6.8
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
84.8	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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South West London ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.7	1.9
60–69	4.8	4.8
70–79	10.8	12.4
80–89	25.2	31.1
≥90	33.2	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	9.0	8.8
2	8.1	9.2
3	7.9	9.3
4	7.0	9.2
5	5.7	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Higher than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average

Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

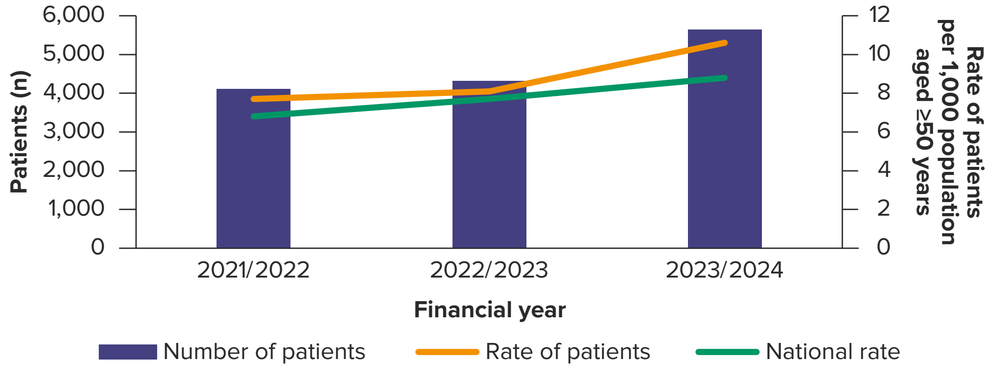
Detailed study methods

South Yorkshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

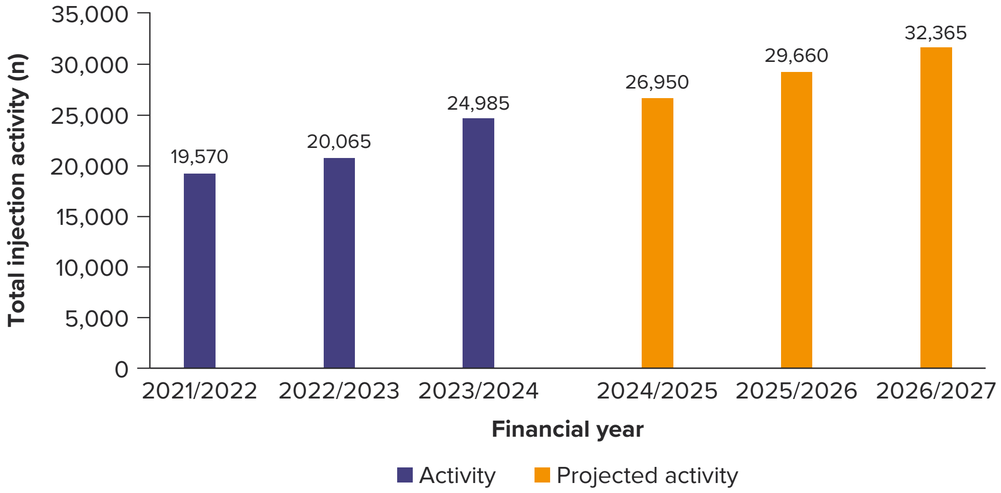
- overall
- in all age groups
- in IMD Quintiles 1 and 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	4,105	4,315	5,640
Rate of patients	7.7	8.1	10.6
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
38.7	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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South Yorkshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	2.7	1.9
60–69	5.8	4.8
70–79	15.1	12.4
80–89	37.4	31.1
≥90	46.8	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	10.0	8.8
2	9.8	9.2
3	9.7	9.3
4	9.7	9.2
5	10.1	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Lower than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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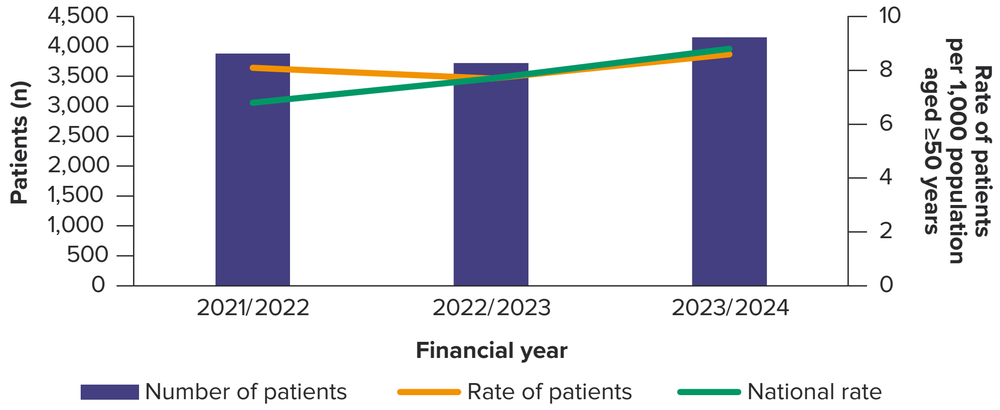
Individual ICB deep dive data

Staffordshire & Stoke-on-Trent ICB: current and projected injection activity

In 2023/2024, there was no statistical difference in the number of patients receiving either first or repeat injection overall compared to the national average at this ICB.

However, it injected significantly fewer patients aged 50–59 and 60–69 years than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024

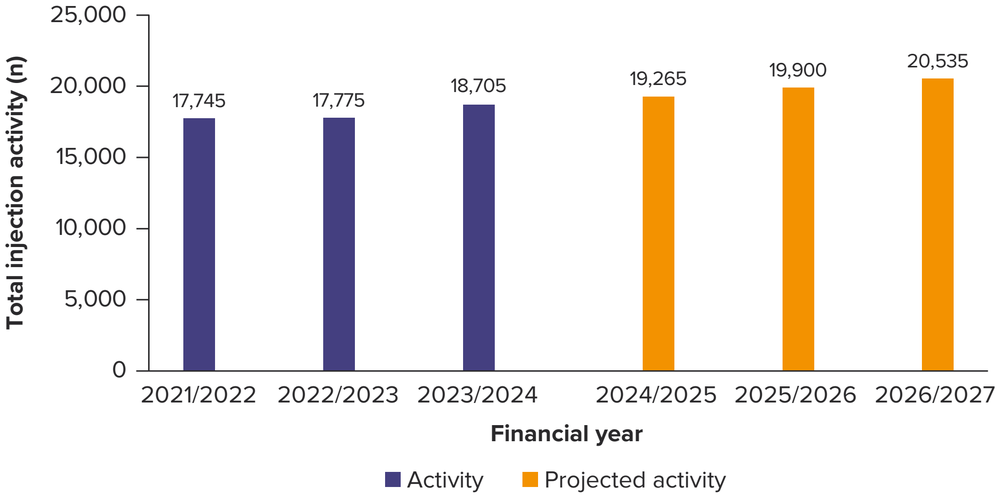


	2021/2022	2022/2023	2023/2024
Number of patients	3,880	3,725	4,155
Rate of patients	8.1	7.7	8.6
National rate	6.8	7.7	8.8

P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
9.6	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was in line with the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Staffordshire & Stoke-on-Trent ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.6	1.9
60–69	4.4	4.8
70–79	12.4	12.4
80–89	30.1	31.1
≥90	41.1	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.3	8.8
2	9.4	9.2
3	9.0	9.3
4	9.0	9.2
5	8.7	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

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Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

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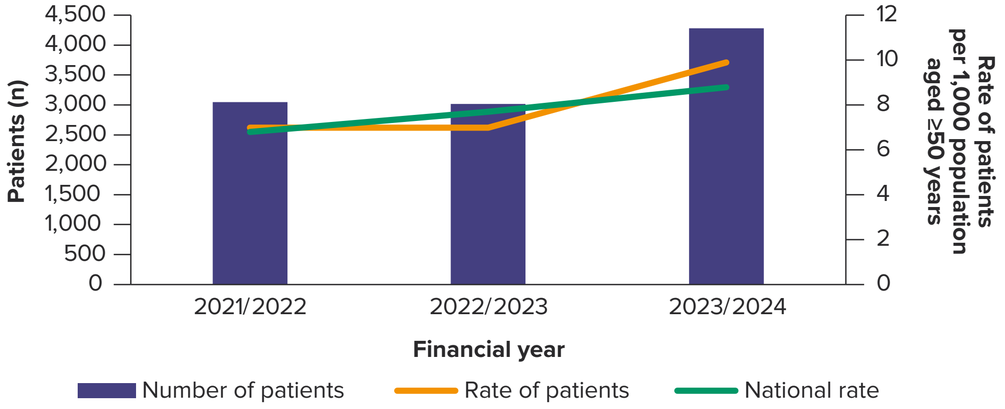
Suffolk and North East Essex ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

- overall
- aged ≥90 years
- in IMD quintiles 3, 4 and 5

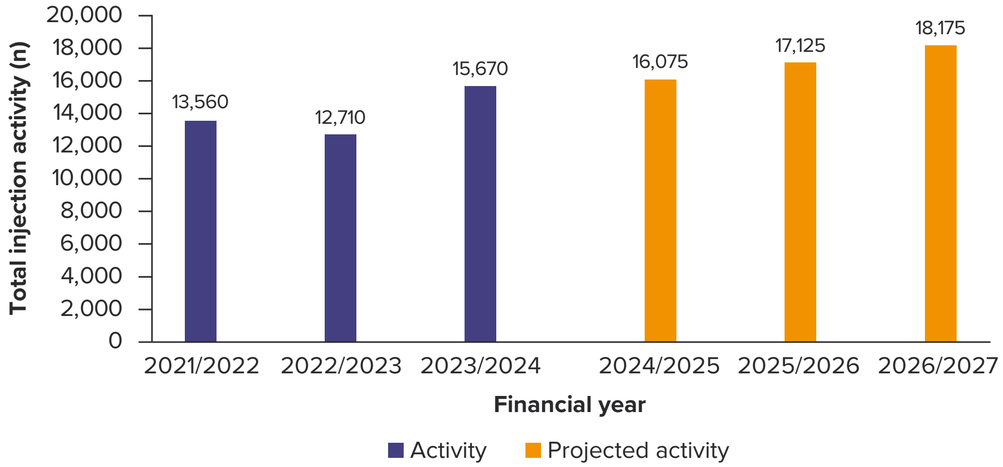
However, it injected significantly fewer patients aged 50–59 years than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,050	3,020	4,285
Rate of patients	7.0	7.0	9.9
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
13.1	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Suffolk and North East Essex ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.6	1.9
60–69	5.1	4.8
70–79	12.4	12.4
80–89	31.9	31.1
≥90	49.4	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	8.6	8.8
2	9.3	9.2
3	10.5	9.3
4	10.5	9.2
5	10.8	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	Lower than national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	Higher than national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

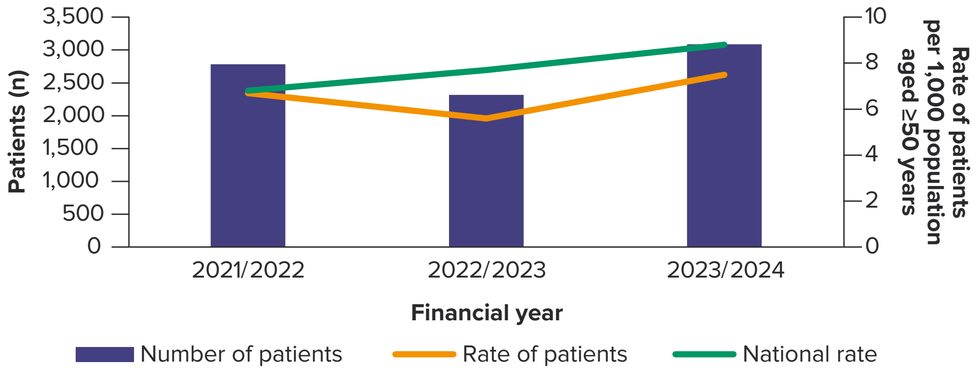
Detailed study methods

Surrey Heartlands ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) compared to the national average:

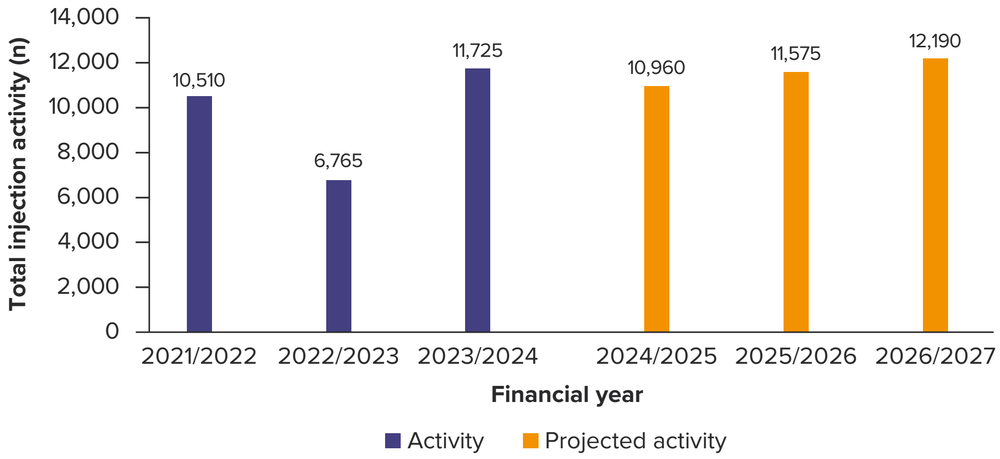
- overall
- in all age groups
- in IMD Quintiles 2, 3, 4 and 5.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	2,785	2,315	3,090
Rate of patients	6.7	5.6	7.5
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
2.4	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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Surrey Heartlands ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.2	1.9
60–69	3.6	4.8
70–79	9.6	12.4
80–89	27.4	31.1
≥90	36.8	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	11.6*	8.8
2	7.5	9.2
3	7.5	9.3
4	7.6	9.2
5	7.6	8.9

*Even though the rate of patients receiving a injection is higher than the national average for this ICB it is not statistically significant due to small patient numbers.

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	Higher than national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Higher than national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

Detailed study methods

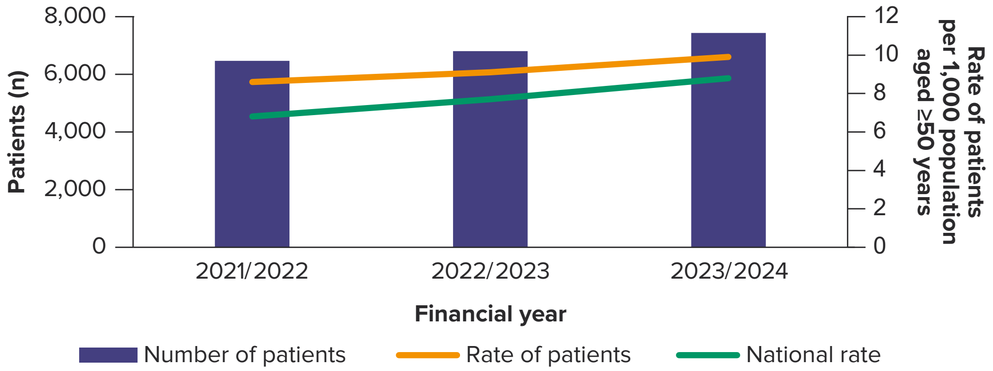
Sussex ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly more patients (either first or repeat injection) compared to the national average:

- overall
- aged 70–79, 80–89 and ≥90 years
- in all IMD quintiles.

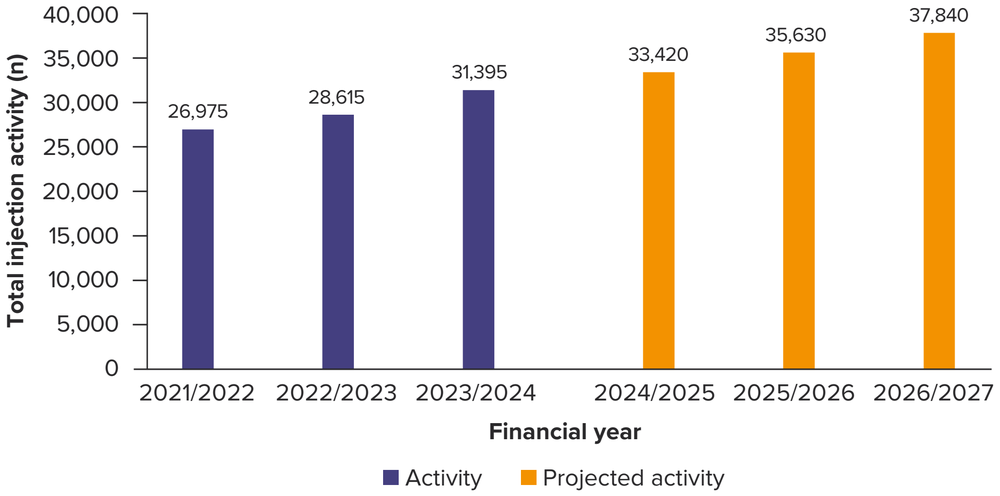
However, it injected significantly fewer patients aged 60–69 years than the national average.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	6,465	6,800	7,440
Rate of patients	8.6	9.1	9.9
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
33.8	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was higher than the national average, our estimate for this ICB should be accurate, but may increase if the ICB works to increase the rate further.

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Sussex ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.8	1.9
60–69	4.4	4.8
70–79	13.3	12.4
80–89	33.4	31.1
≥90	45.7	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	9.7	8.8
2	10.6	9.2
3	10.3	9.3
4	10.9	9.2
5	9.5	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	In line with national average



Can we do better?
View our suggested consideration points for these indicators

A table of indicators for all ICBs is available in **Appendix 5**.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients aged ≥50 years receiving an injection (either first or repeat) against the national average; this was classed as statistically significant if the p-value was <0.05. Forecasting was calculated using linear regression.

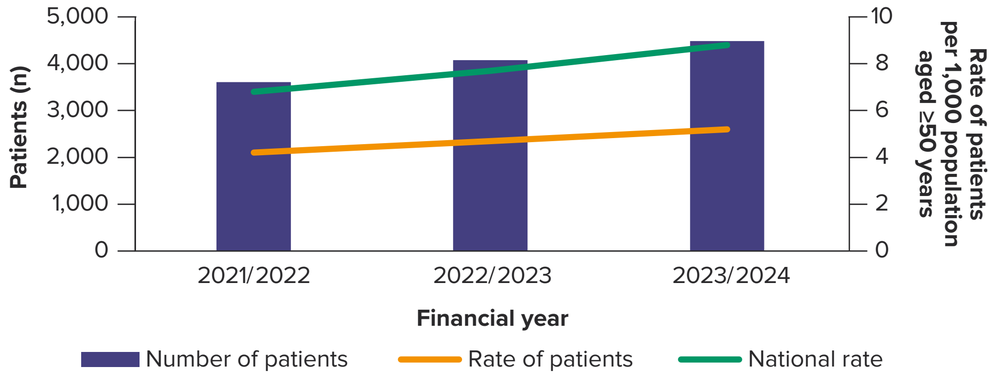
Detailed study methods

West Yorkshire ICB: current and projected injection activity

In 2023/2024, this ICB injected significantly fewer patients (either first or repeat injection) compared to the national average:

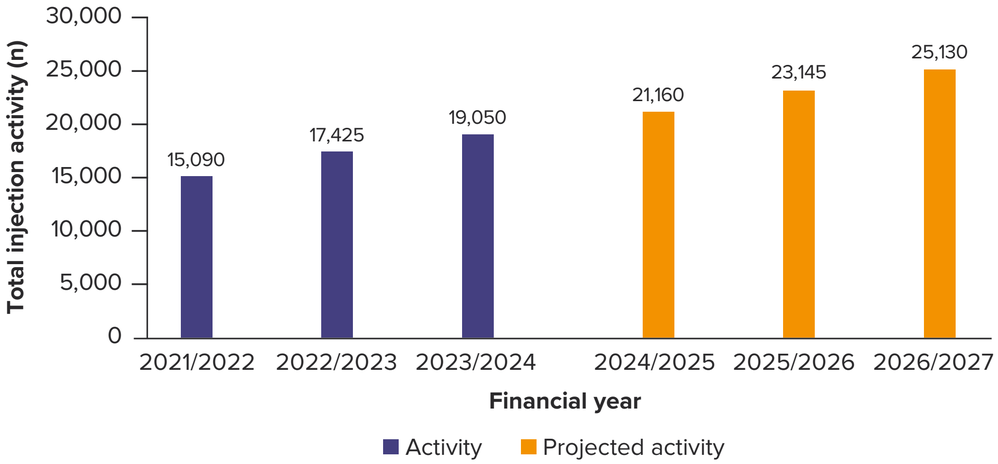
- overall
- in all age groups
- in all IMD quintiles.

Number and rate of patients aged ≥50 years receiving an injection (either first or repeat), 2023/2024



	2021/2022	2022/2023	2023/2024
Number of patients	3,605	4,075	4,485
Rate of patients	4.2	4.7	5.2
National rate	6.8	7.7	8.8

Projected growth in injection activity



Estimated additional monthly number of injection sessions needed by 2026/2027	
For this ICB	**National average**
31.9	**34.9**

As the rate of patients receiving an injection (either first or repeat) for this ICB was below the national average, our estimate for this ICB may be an underestimate if the ICB works to increase the rate towards the national average or if HES coding underreports actual rates.

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P-values were calculated from chi-squared tests comparing ICB values for rate of patients receiving an injection (either first or repeat) in each age group and IMD quintile against the national average; this is colour-coded in the table as statistically significant if the p-value was <0.05.

Detailed study methods

West Yorkshire ICB: key indicators

Rate of patients receiving an injection (either first or repeat) within each age group, 2023/2024

Age group (years)	ICB rate	National rate
50–59	1.2	1.9
60–69	2.7	4.8
70–79	7.4	12.4
80–89	19.3	31.1
≥90	27.0	42.3

Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years within each IMD quintile, 2023/2024

IMD quintile	ICB rate	National rate
1	5.5	8.8
2	6.0	9.2
3	5.3	9.3
4	4.9	9.2
5	5.0	8.9

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

Key indicators compared with the national average

Indicator	Compared with national average
% of hospital cancellations for first appointment after optician referral	In line with national average
Rate of injectors per 1,000 population aged ≥50 years	In line with national average
Rate of urgent first injections per 1,000 population aged ≥50 years	In line with national average
Rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years	Lower than national average
Rate of patients receiving an injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	Lower than national average



Can we do better?
View our suggested consideration points for these indicators

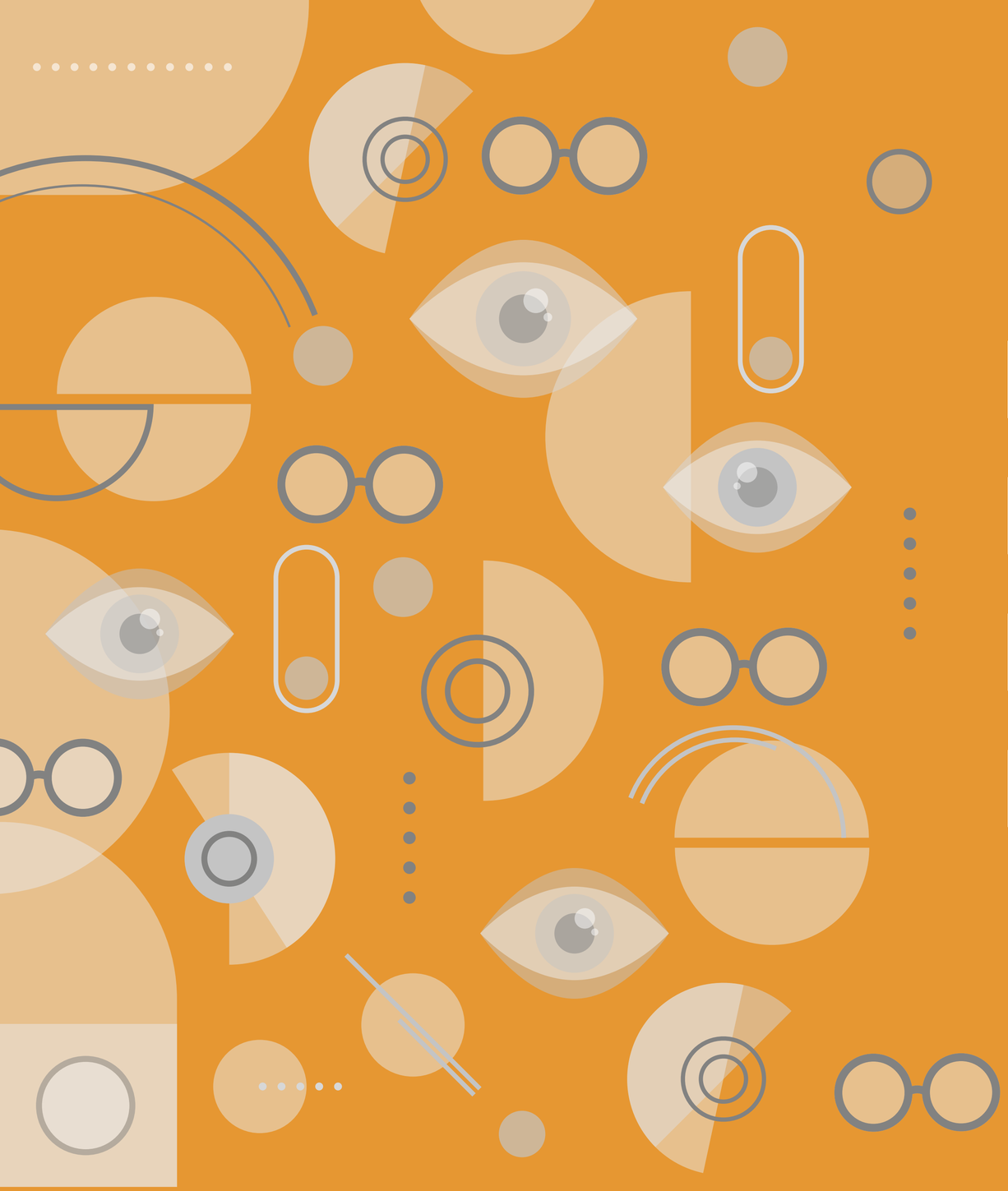
A table of indicators for all ICBs is available in **Appendix 5**.

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HSJ Advisory

Reflections and Looking to the Future



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Looking to the future

Introduction

This section reflects on the findings of our analysis:

- summarising the key results at both national and ICB levels and their implications for patient care now and in the future
- highlighting innovative approaches that may support service improvements
- providing recommendations and suggestions for England as a whole and individual ICBs to optimise pathways and engagement with disadvantaged groups.

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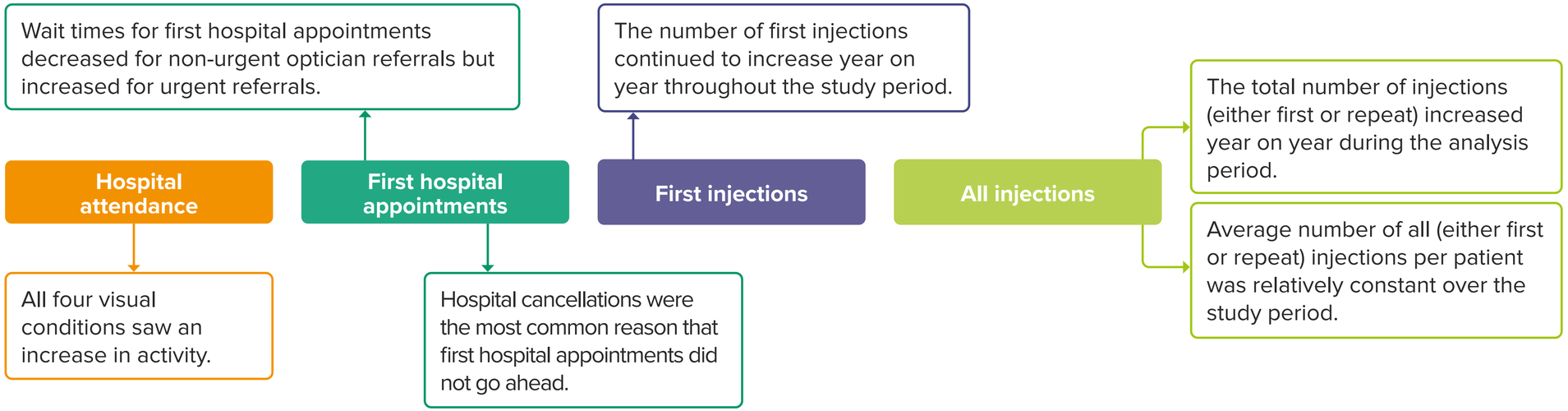
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Reflections on the national data



Using the 3-year data in our analysis, we predict that the number of patients receiving first injections will increase by almost 50% over the next 4 years and the number of all injections (either first or repeat) is set to exceed 1 million by 2025/2026.

We saw different patterns in the analysed metrics by age, deprivation and ethnicity.*

*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

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Key messages for service improvement

Optimising optician referrals

Optician referrals must be made with appropriate priority, through fast-track pathways when needed, and should provide sufficient information for hospital triage to move them forward through the most appropriate pathway. As the vast majority of referrals are made by opticians, it is vital that they are confident about which conditions should be referred as emergency, urgent and routine referrals and the information that should be included with all referrals to ensure prompt and appropriate triage by the consulting hospital.

Reducing hospital cancellations

Hospital cancellations were the most common reason that first outpatient appointments did not go ahead, so short-term pressures on capacity and workforce may be impacting the ability to deliver appointments as scheduled. Organisations should investigate the reasons for this so as to identify how to minimise cancellations and ensure contingency plans are in place, as cancellations can be distressing and frustrating for patients worrying about losing their sight.

Minimising wait times

Although wait times for hospital appointments after non-urgent optician referrals are decreasing, wait times for urgent referrals are increasing. Immediate attention therefore needs to be paid to optimising pathways to ensure sufficient capacity for urgent appointments, which may require an increase in clinic capacity or redesign of services to optimise availability of urgent appointments.

Demand and capacity planning

As demand for appointments and injections continues to grow, organisations need to look at their demand and capacity planning not just for now but over the next 5–10 years to produce innovative solutions to manage the expected increase in medical retina conditions – particularly wet AMD, the most common of the four. Organisations should look at ways to ensure the right patients are seen in the right place at the right time for best outcomes by improving referral quality and making sure that fast-track one-stop clinics prospectively covered by consultants but run and staffed predominantly by non-consultant healthcare professionals are available 52 weeks per year.

Addressing inequalities

Why rates for the metrics analysed in our study vary between IMD quintiles, age groups and ethnicities* needs to be understood so that communications can be targeted appropriately.

*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

Click on a topic

Hospital attendance

First hospital appointments

First injections

All injections

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*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

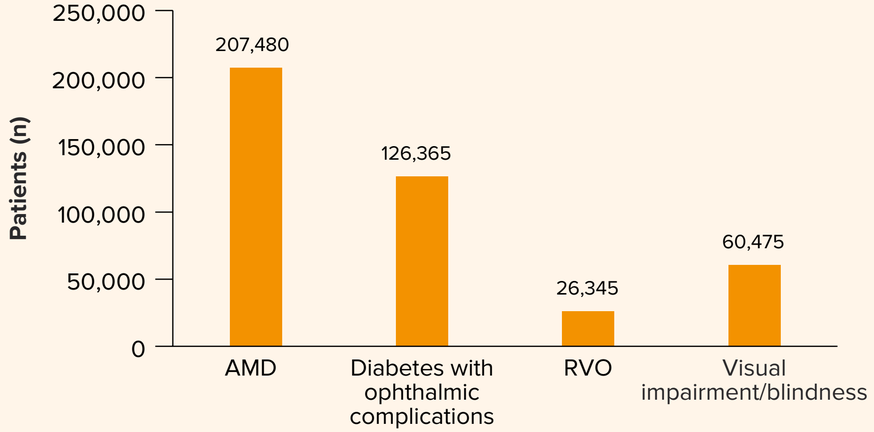
Detailed study methods

Hospital attendance:

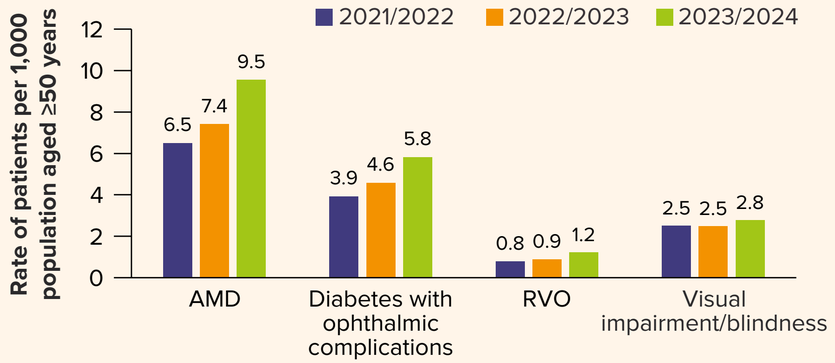
Number of patients attending hospital increased over time for all four visual conditions analysed with AMD the most common diagnosis

- We analysed the four conditions most commonly treated with intravitreal injections for patients attending hospital in an inpatient, outpatient or emergency setting.
- AMD was the most common condition overall among patients attending hospital with the four visual conditions analysed in this study.
- The pattern across conditions was broadly similar for age (increasing to 80–89 years then decreasing for ≥90 years) and over time (overall trend to increase but with slight reductions or plateaus in some populations in 2022/2023).
- The pattern in number of patients by deprivation varied between conditions – for example, AMD and RVO increased with decreasing level of deprivation, whereas diabetes with ophthalmic complications and visual impairment/blindness increased with increasing level of deprivation throughout the study period. However, the rate of all patients increased year on year for each condition.
- Numbers of diagnoses were highest among White patients and lowest among those of Mixed ethnicity.*

Patients attending hospital with four visual conditions most commonly treated with intravitreal injections England, 2023/2024



Rate of patients attending hospital with four visual conditions most commonly treated with intravitreal injections per 1,000 population aged ≥50 years England, 2021/2022–2023/2024



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Hospital attendance: implications for service planning

Capacity and workforce

- With most conditions showing consistent increases over time in all age groups, levels of deprivation and ethnicities, organisations need to ensure that capacity increases to cope in the future.
- Particular attention is needed around capacity for AMD, which is the most common code leading to hospital attendance of those analysed (AMD, diabetes with ophthalmic complications, RVO and visual impairment/blindness).
- Providers should look at their demand and capacity planning for now and the future 5–10 years in order to produce innovative solutions (see case studies in Solutions) to manage the expected increase in AMD and other medical retina conditions.

Inequalities

- Rate for conditions vary between different IMD quintiles and age groups. Understanding these differences and targeting communications and services appropriately is important.
- Whether variations in the number of hospital attendances between ethnic groups is purely due to population sizes needs to be better understood.*

*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

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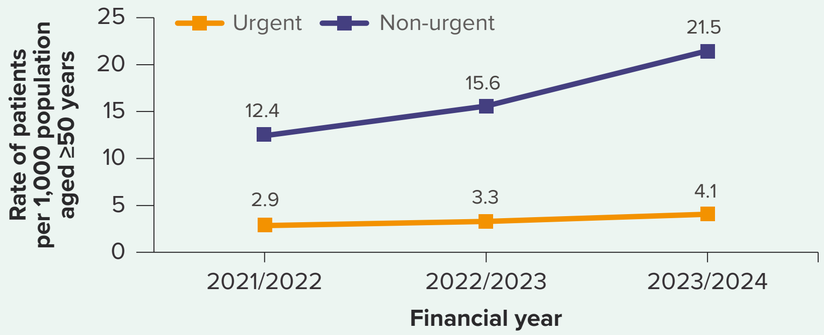
Looking to the future

First hospital appointments:

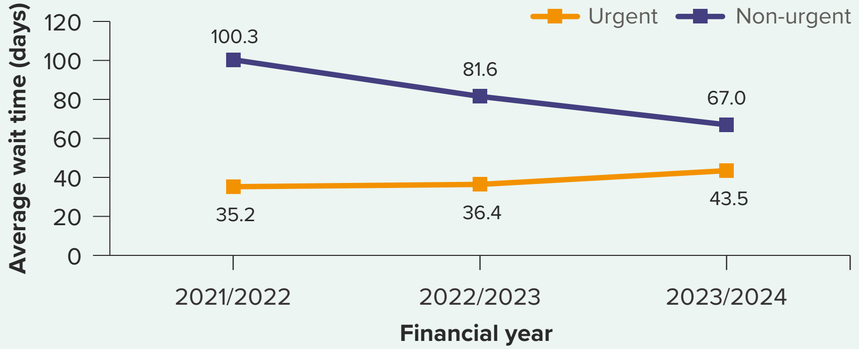
Although the rate of first hospital appointments increased over time, wait times decreased for non-urgent referrals; however, urgent referrals saw an increase in wait times

- Rate of patients attending first hospital appointments after optician referral for any condition:
  - increased over time, particularly for non-urgent referrals
  - showed broadly similar increases over time across age groups, levels of deprivation and ethnic groups
  - increased with increasing age to 80–89 years, then decreasing for those aged ≥90 years
  - were similar for IMD quintiles
  - were highest for White patients and lowest for Mixed ethnicity.*
- Wait time for an attended first hospital appointment for any condition:
  - decreased over time for non-urgent appointment but increased for urgent appointments
  - decreased over time for all age groups with largest decreases for ≥90 years
  - showed similar decreases across IMD quintiles and ethnic groups* (smallest decrease for Black patients).

Rate of patients attending first hospital appointment after optician referral for any condition per 1,000 of the population aged ≥50 years with each referral priority, England, 2021/2022–2023/2024



Average wait time for patients attending first hospital appointment after optician referral for any condition by referral priority, England, 2021/2022–2023/2024



Analysis details
*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

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Analysis details
Appointments cancelled where patient referred by optician and consultant specialty as per study methods. % calculation reason calculated as a % of all appointments.

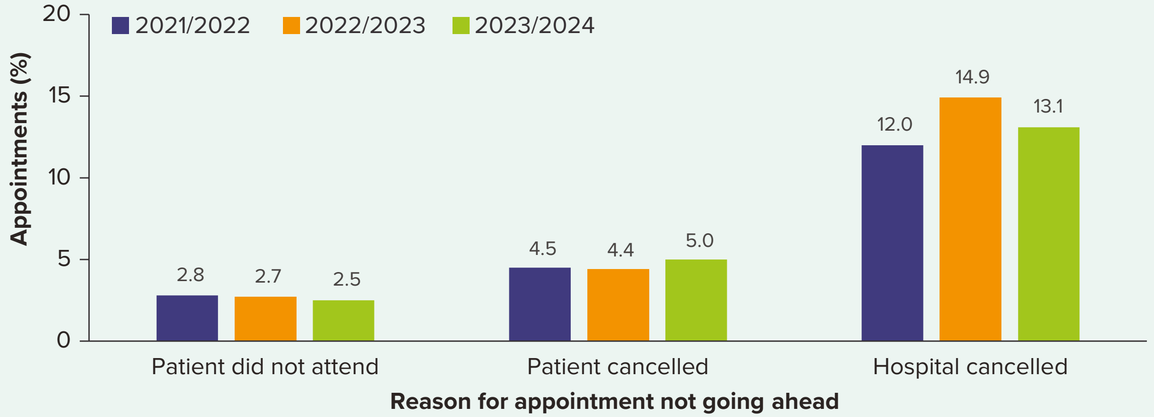
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First hospital appointments:

Hospital cancellations were the most common reason that first hospital appointments did not go ahead

- Hospital cancellations were by far the most common reason first hospital appointments did not go ahead.
- Proportions of DNAs and patient cancellations remained similar over time, while the proportion of hospital cancellations spiked in 2022/2023.
- DNAs:
  - were highest in ages 50–59 and ≥90 years and patients of Black, Asian and Mixed ethnicity
  - decreased with decreasing level of deprivation.
- Patient cancellations:
  - decrease with age to 70–79 years and then increase with increasing age
  - were similar across quintiles and over time
  - were highest for patients of Mixed ethnicity and lowest for Black patients.
- Hospital cancellations:
  - increased with increasing age up to 80–89 years
  - were similar across quintiles and ethnic groups.

Percentage of first hospital appointments after optician referral where patient did not attend, patient cancelled or hospital cancelled, England, 2021/2022–2023/2024



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First hospital appointments: implications for service planning

Capacity and workforce

- Non-urgent referrals saw large increases over time, but wait times decreased over the same period, indicating that capacity for non-urgent referrals is being well managed.
- Although urgent referrals increased at a slower rate, wait times for these increased, indicating that the system is particularly struggling to cope with increased demand for urgent appointments.
- The National Institute for Health and Care Excellence (NICE) recommends that patients with suspected wet AMD should be referred urgently and within 1 working day and that they should be seen within 1 week of referral.[19,52] Patients with delays of more than 1 week are advised to attend the emergency department as soon as possible if their symptoms worsen,[19] so delays can increase pressure on emergency care services.
- RCO guidance on RVO highlights that delays in initiating treatment up to 6 months resulted in fewer visual gains compared with immediate initiation of treatment,[53] so timely appointments are essential in order to expedite treatment initiation.
- College of Optometrists' guidance recommends urgent referrals for patients with wet AMD, central RVO (CRVO) with elevated intraocular pressure (IOP) (emergency referral for CRVO with IOP ≥40 mmHg), branch RVO with central foveal haemorrhage and proliferative diabetic retinopathy.[54]
- Average wait for a first hospital appointment during our study was 35.2 days following an urgent referral in 2021/2022, increasing to 43.5 days in 2023/2024, and 100.3 days following a non-urgent referral in 2021/2022, decreasing to 67.0 days by 2023/2024.
- With hospital cancellations the most common reason appointments did not go ahead, short-term pressures on capacity and workforce may be impacting the ability to deliver appointments as scheduled.
- Workforce strikes may have contributed to some hospital cancellations, but reasons should be investigated further to identify how to minimise this as it can be distressing and frustrating for patients, who may be worrying about losing their sight.
- Capacity will need to increase overall as demand for first hospital appointments continues to grow, but particular attention will need to be paid to ensuring sufficient capacity for urgent appointments. Innovative solutions – as in the case studies in Solutions – may be helpful to achieve this.
- Clear comprehensive referrals are key to maximising the use of urgent fast-track wet AMD clinics.

Inequalities

- Reasons for variations between age groups, IMD quintiles and ethnicities* in appointments and reasons for DNAs/cancellations need to be investigated so that inequities can be resolved and solutions, such as targeted communications, can be implemented.
- Whether variation in the number of first appointments between ethnic groups is purely due to population sizes needs to be better understood.*

*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

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*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year). Rate per 1,000 calculated using national data from mid-2022 on population of England aged ≥50 years. Forecast calculated using linear regression.

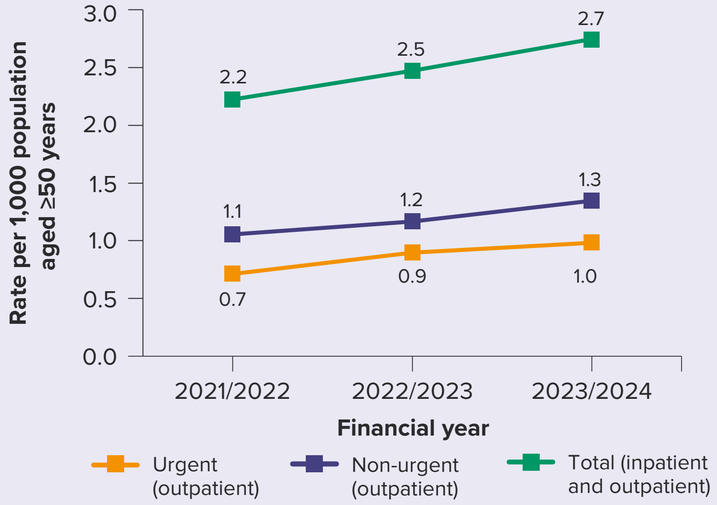
Detailed study methods

First injections:

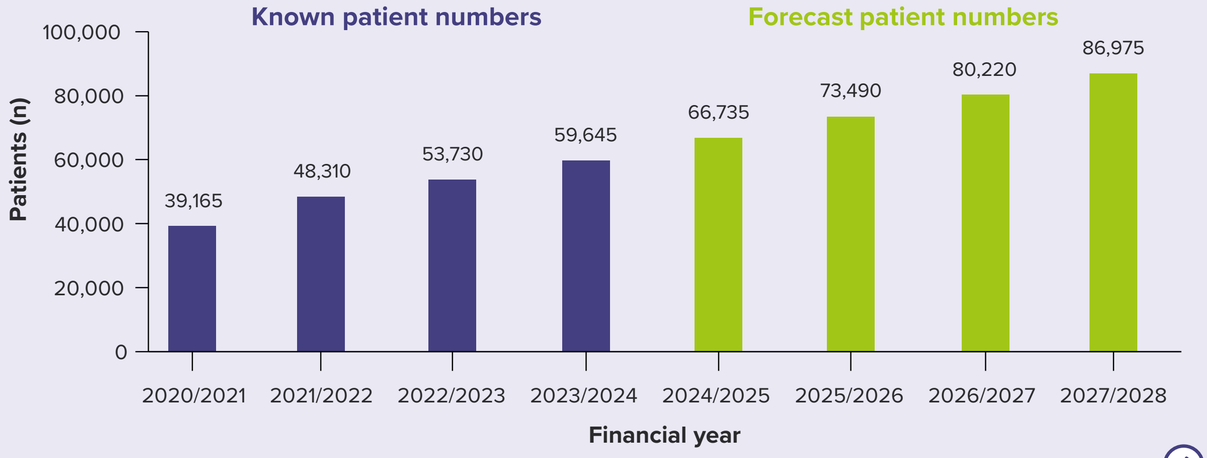
First injections increased over time during the study and are forecast to increase by almost 50% over the next 4 years

- The rates of first injections increased over time; the growth rate increased for non-urgent injections but plateaued for urgent injections.
- The rate of all priority first injections increases with increasing age and over time in all age groups.
- The rates were very similar between quintiles and increased over time across IMD quintiles.
- The number of first appointments was highest among White patients and lowest for those of Mixed ethnicity and increased over time overall.*
- Based on the current trajectory of increases in first injections, the number of patients receiving first injections is estimated to increase by almost 50% over the next 4 years.

Rate of first injections per 1,000 population aged ≥50 years, England, 2021/2022–2023/2024 by priority



Patients receiving a first injection: 2020/2021–2023/2024 and forecast growth for 2024/2025–2027/2028



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First injections: implications for service planning

Capacity and workforce

- The rate of non-urgent first injections increased over time and continued to increase, while the growth rate plateaued for non-urgent injections – in line with the pattern of increase for first hospital appointments.
- NICE recommends that patients for whom intravitreal injections are recommended for confirmed wet AMD should be offered treatment within 14 days of referral to the macular service.[52]
- RCO guidance on RVO highlights that delays in initiating treatment up to 6 months resulted in fewer visual gains compared with immediate initiation of treatment,[53] so timely injections are essential.
- Capacity in the future will need to increase considerably, as demand for first injections is estimated to increase by almost 50% over the next 4 years.
- This may require an increase in the number of clinics offering injections, more injectors to be trained and recruited, and more sites to offer injections. Innovative solutions – as in the case studies in Solutions – may be helpful to achieve this.

Inequalities

- Reasons for variations between age groups, IMD quintiles and ethnicities* in first injections need to be investigated – with differences in the incidence and prevalence of conditions between different age and ethnic groups accounted for – so that inequities can be resolved and solutions, such as targeted communications, can be implemented.

*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

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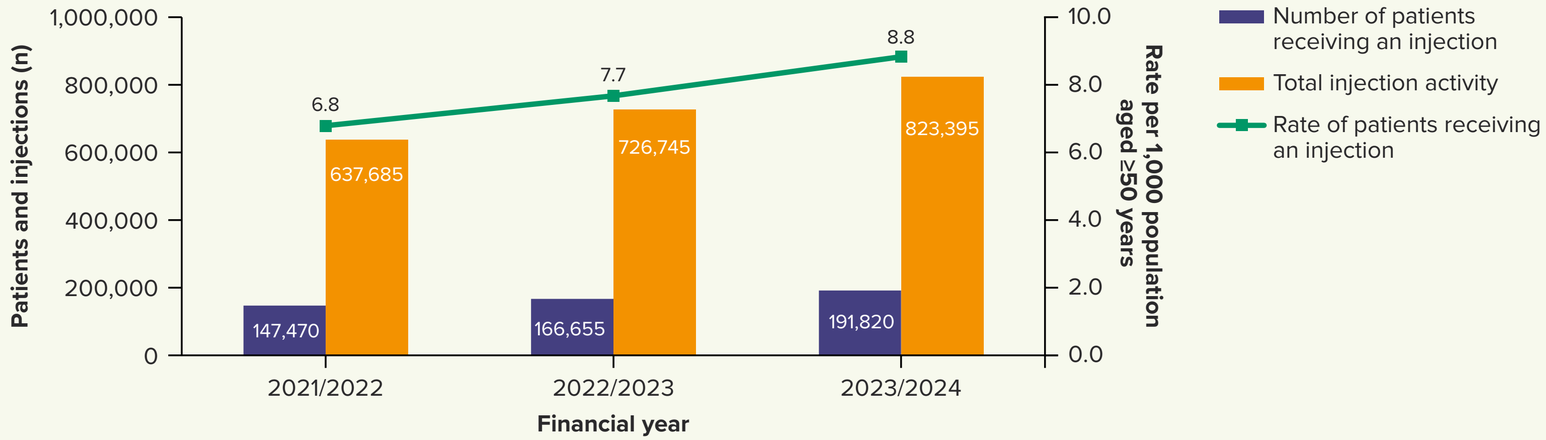
Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year). Rate per 1,000 calculated using national data from mid-2022 on population of England aged ≥50 years.

Detailed study methods

All injections:
Total number of injections, patients receiving injections and rate of all injections increased year on year

- The total number of injections (either first or repeat), number of patients receiving an injection (either first or repeat), and rate of patients receiving an injection (either first or repeat) per 1,000 population aged ≥50 years all increased year on year during the analysis period.
- Numbers of patients receiving an injection (either first or repeat) increased with increasing age to 80–89 years then decreased, while the rate increased with increasing age across all age groups.
- Number of patients receiving an injection (either first or repeat) increased up to Quintile 4 but there was a slight dip in Quintile 5, while the rate was consistent across the spectrum of deprivation.
- Total number of patients receiving an injection (either first or repeat) was highest by far in White patients and lowest in patients of Mixed ethnicity but increased over time in all ethnic groups.*
- When considering differences in number of injections between age groups, it is important to consider that incidence and prevalence of different conditions treated with intravitreal injections may vary by age and ethnicity.

Number of patients and rate per 1,000 population aged ≥50 years receiving at least one injection (either first or repeat) and total number of injections, England, 2021/2022–2023/2024



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*A patient is only counted once in the national average line in 2023/2024 but may be counted more than once if they change age group, IMD quintile or ethnicity (e.g. from unknown to a specific ethnicity) within the year. Hence, there is an element of double-counting in the bars that is not present in the national average line in 2023/2024.

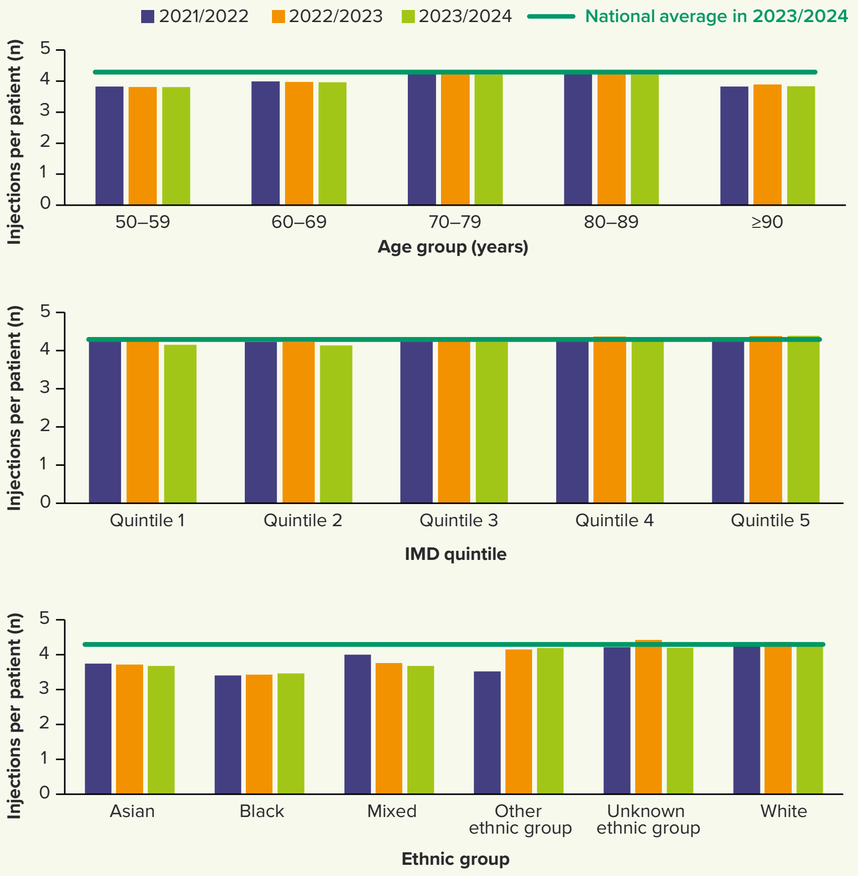
†Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

All injections:

Average number of injections per patient was relatively constant over the study period

- The average number of injections (either first or repeat) per patient remained fairly constant – about 4.3 – throughout the study period.*
- The average number was broadly similar for all age groups and all ethnic groups, with lowest rates for ages 50–59 and ≥90 years and Quintile 2 and highest rates for ages 70–79 and 80–89 years and Quintile 5. However, the maximum difference between the highest and lowest rates in any group and between any years was only 0.1 injection.
- The average number was lowest in Black and Asian patients and highest overall in White patients and patients of unknown ethnicity. Numbers over time were most consistent in Asian, Black and White patients†.

Average number of injections per patient by age group, IMD quintile and ethnic group, England, 2021/2022–2023/2024



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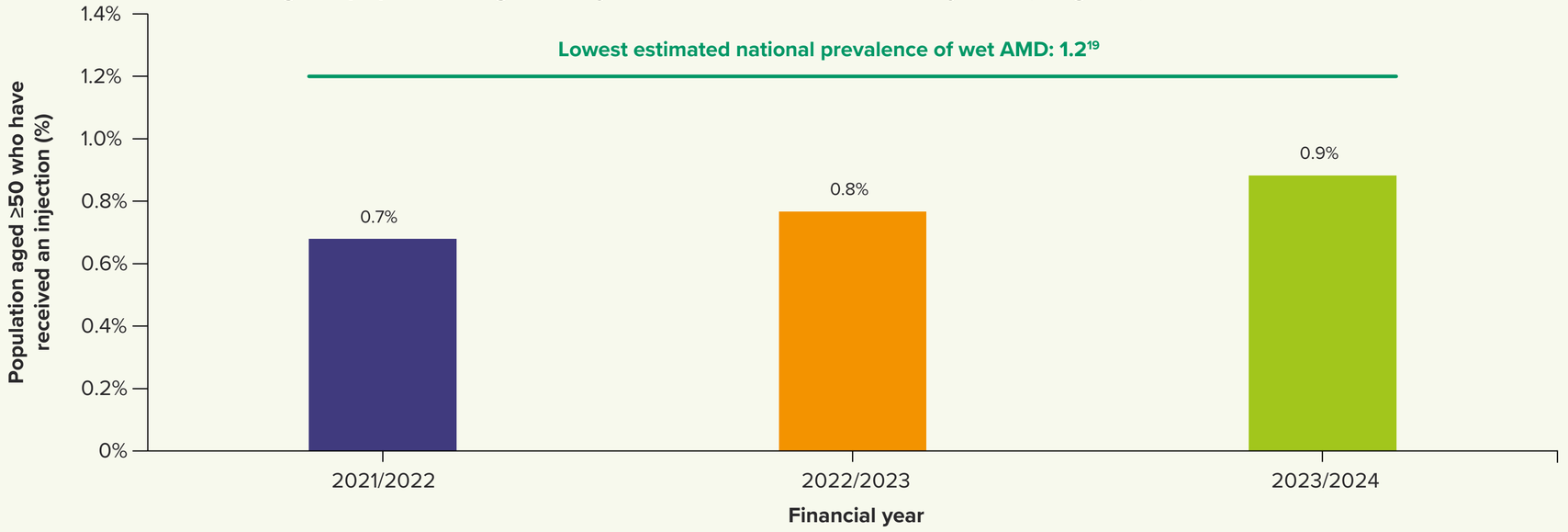
All injections:

As the percentage of population aged ≥50 years receiving an injection never exceeded the lowest estimated national prevalence of wet AMD, many patients may not be detected, referred and diagnosed appropriately

The percentage of people aged ≥50 years in England who received an injection (either first or repeat) increased consistently over time.

However, this percentage never exceeded the lowest estimated national prevalence of wet AMD (1.2–6.3%[19]) during the study, indicating that potentially many patients with wet AMD – and potentially other conditions that could be treated with intravitreal injections – are not being seen by an eyecare professional then detected, referred and diagnosed appropriately.*

Percentage of population aged ≥50 years who have received an injection, England, 2021/2022–2023/2024



*As there is no mandatory requirement for HES outpatient OPCS codes to be entered, the actual activity may be higher than our report is showing.[66]

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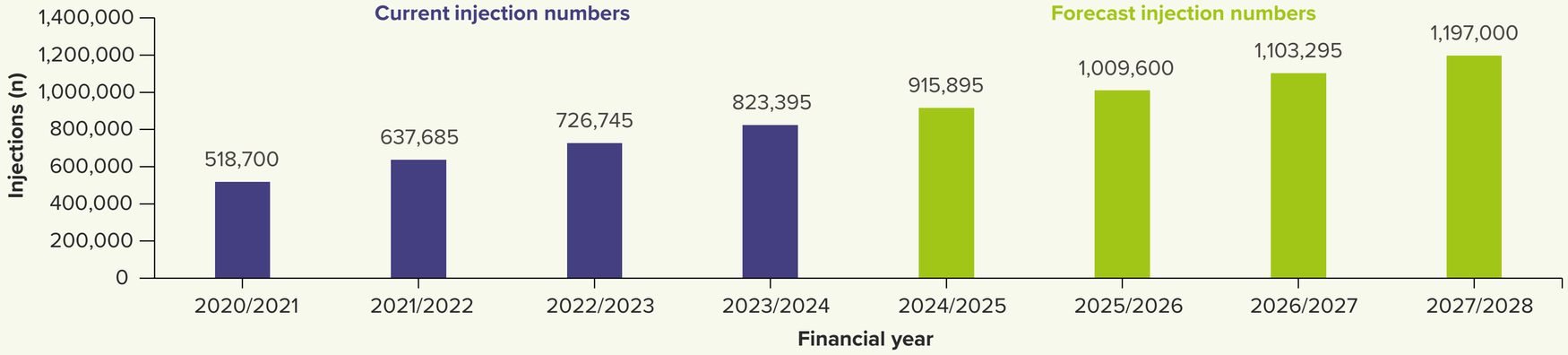
Looking to the future

All injections:

Number of all injections is set to exceed 1 million by 2025/2026

Based on the current trajectory of injections (either first or repeat), the number of injections will exceed 1 million by 2025/2026.

Total injection activity 2020/2021–2023/2024 and forecast growth for 2024/2025–2027/2028



Analysis details
Count of total patients receiving an injection (patients counted if they had received at least one injection in the financial year). Rate per 1,000 calculated using national data from mid-2022 on population of England aged ≥50 years. Forecast calculated using linear regression.

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All injections: implications for service planning

Capacity and workforce

- The rate of injections (either first or repeat) increased over time throughout the study.
- The average number of injections per patient was relatively constant during our study period and the percentage of the population aged ≥50 years in England who received an injection increased consistently. This suggests that capacity is sufficient to ensure patients who are referred for injections receive them despite increasing numbers of patients and injections.
- That said, as the percentage of the population aged ≥50 years never exceeded the lowest estimated national prevalence of wet AMD (1.2–6.3%[19]) during the study, many patients with wet AMD – and potentially other conditions treated with intravitreal injections – may not be detected, referred and diagnosed appropriately.
- Future capacity will need to increase considerably, as demand for all injections is estimated to increase by 1 million by 2025/2026. However, immediate attention should be directed to increasing capacity for injections to ensure everyone at risk of vision loss receives appropriate treatment.
- This may require more clinics offering injections (with a focus on repeat injections, as these will increase more than first injections), more injectors to be trained and recruited, and more sites to offer injections. Innovative solutions – as in the case studies in Solutions – may be helpful to achieve this.

Inequalities

- Reasons for variations between age groups, IMD quintiles and ethnicities* in first injections need to be investigated – with differences in the incidence and prevalence of conditions between different age and ethnic groups accounted for – so that inequities can be resolved and solutions, such as targeted communications, can be implemented.
- Whether variations in numbers of all injections between ethnic groups is purely due to population sizes needs to be better understood.*

*Conclusions for ethnicity are limited by the fact that rates per 1,000 population are not available, so differences may simply reflect population sizes in ethnic groups.

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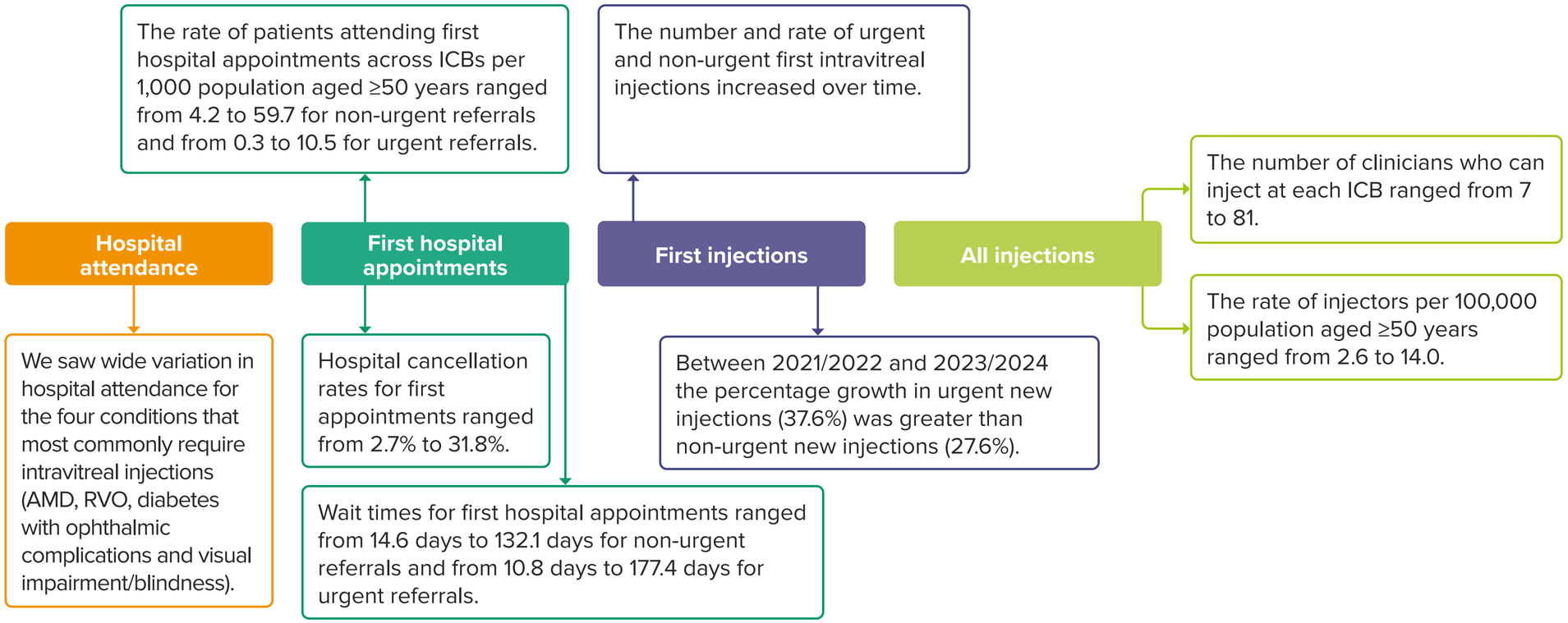
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In general, age had a larger influence on metrics analysed, with wide variations between ICBs, than deprivation, which saw smaller variations between ICBs.

Our data indicate that the number of patients requiring appointments and injections will continue to rise in all 42 ICBs.

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Key messages for service improvement

Optimising optician referrals	Reducing hospital cancellations	Demand and capacity planning	Addressing inequalities
As most referrals are made by opticians, ICBs should engage with local opticians to ensure they understand local pathways, which conditions require emergency, urgent and routine referrals, and the information that should be included with all referrals to ensure prompt and appropriate triage by the consulting hospital.	ICBs with metrics worse than the national average should identify ways to optimise pathways to ensure sufficient capacity for appointments and injections, which may require increased clinic capacity or redesign of services to improve efficiency, and ensure contingency plans are in place to reduce cancellations.	All ICBs need to look at demand and capacity planning now and over the next 5–10 years to produce innovative solutions to manage the expected increase in medical retina conditions – particularly wet AMD, the most common of the four. All ICBs should look at ways to ensure the right patients are seen in the right place and at the right time for best outcomes by improving referral quality and making sure that fast-track one-stop clinics prospectively covered by consultants but run and staffed predominantly by non-consultant healthcare professionals are available 52 weeks per year.	ICBs where age and deprivation influence their metrics need to investigate why so that solutions can be identified and communications targeted appropriately.

The ICB Deep Dive section gives detailed information on disparities for individual ICBs and suggests starting points for exploration to investigate these.

Click on a topic

Hospital attendance

First hospital appointments

First injections

All injections

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*As some patients may have more than one condition, there may be a small element of double counting.

Analysis details
Inpatient, outpatient and emergency care attendance analysed to calculate patient numbers by diagnosis for patients aged ≥50 years.

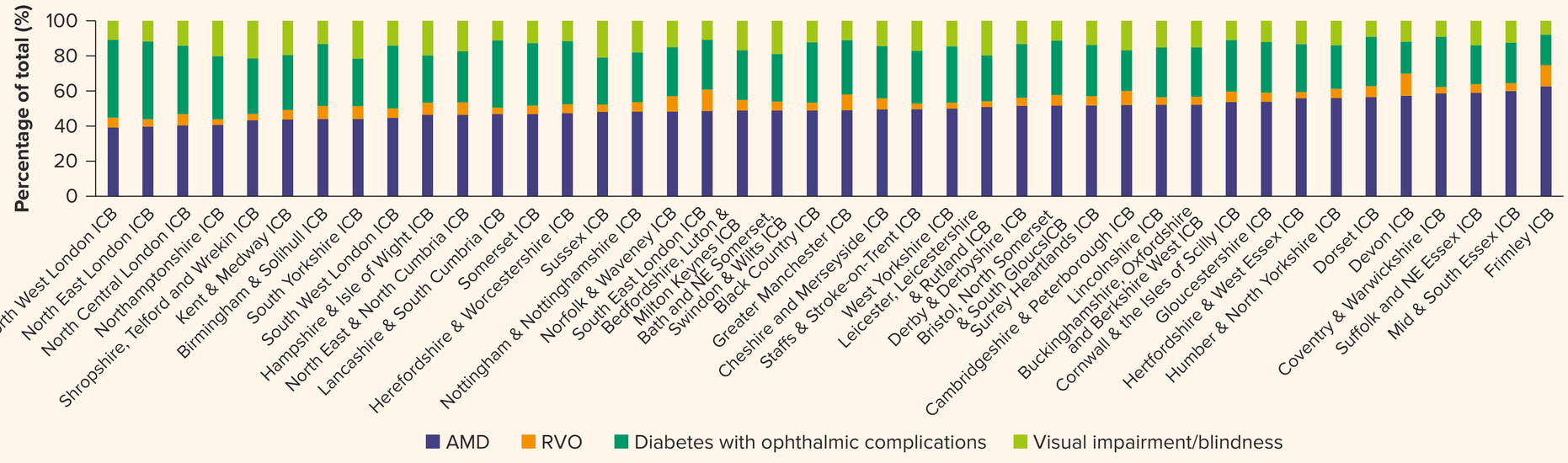
Detailed study methods

Hospital attendance:

AMD was the most common visual condition for patients attending hospital in most ICBs, but diabetes with ophthalmic complications was most common in two ICBs*

- We analysed the four conditions most commonly treated with intravitreal injections for patients attending hospital in an inpatient, outpatient or emergency setting.
- AMD was the most common of the four visual conditions analysed in this study in the majority of ICBs, but diabetes with ophthalmic complications was most common in two ICBs.
- Rates per 1,000 population with different visual conditions aged ≥50 years in 2023/2024 varied between ICB:
  - AMD ranged from 4.8 to 15.6
  - Diabetes with ophthalmic complications ranged from 2.7 to 10.2
  - RVO ranged from 0.4 to 3.2
  - Vision impairment/blindness ranged from 1.2 to 5.8

Percentage of patients attending hospital for common visual conditions treatable by intravitreal injections at each ICB, 2023/2024



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Hospital attendance: implications for service planning

Capacity and workforce

- The proportion of visual conditions accounting for hospital attendance varies between ICBs.
- ICBs will need to be aware of the split in their local population to tailor services accordingly.
- ICBs with rates of conditions lower than the national average should assess whether the incidence is truly lower or if people with these conditions are not being identified or accessing services.
- ICBs with rates of conditions higher than the national average should ensure that services are set up to deal with the higher proportion of patients with these conditions.
- Innovative solutions – as in the case studies in Solutions – may be helpful to achieve this.

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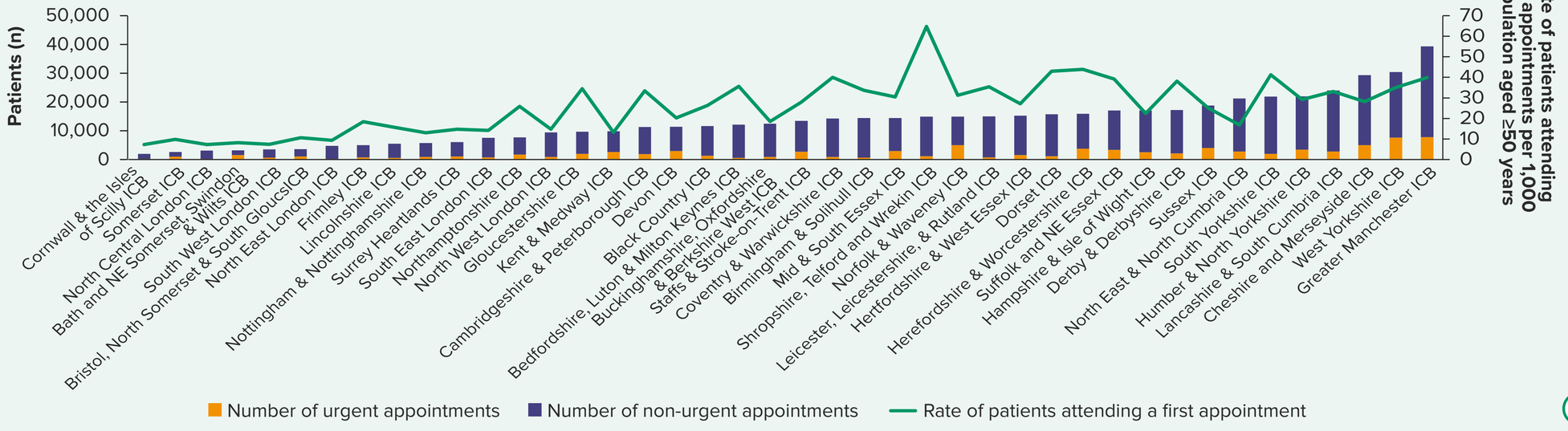
Looking to the future

First hospital appointments after optician referrals:

Number of patients attending hospital appointments and rates varied between ICBs, with some ICBs seeing a higher number of patients compared with their population size

- There was a wide variation in the rate per 1,000 population aged ≥50 years attending first hospital appointments for any visual condition across ICBs:
  - All referrals ranged from 7.3 to 64.8.
  - Non-urgent referrals ranged from 4.2 to 59.7.
  - Urgent referrals ranged from 0.3 to 10.5.
- Some ICBs with smaller population sizes had high rates of patients, such as Shropshire, Telford and Wrekin, for example
- Greater Manchester had the highest number of patients but was not among the highest in terms of rate of patients.

Number of patients attending urgent or non-urgent first outpatient appointments after optician referrals compared with the rate of patients attending first appointment per 1,000 population aged ≥50 years within the ICB, 2023/2024



Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods. Patient numbers analysed with data from mid-2022 on the population at each ICB aged ≥50 years to calculate rate per 1,000.

Detailed study methods

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Analysis details
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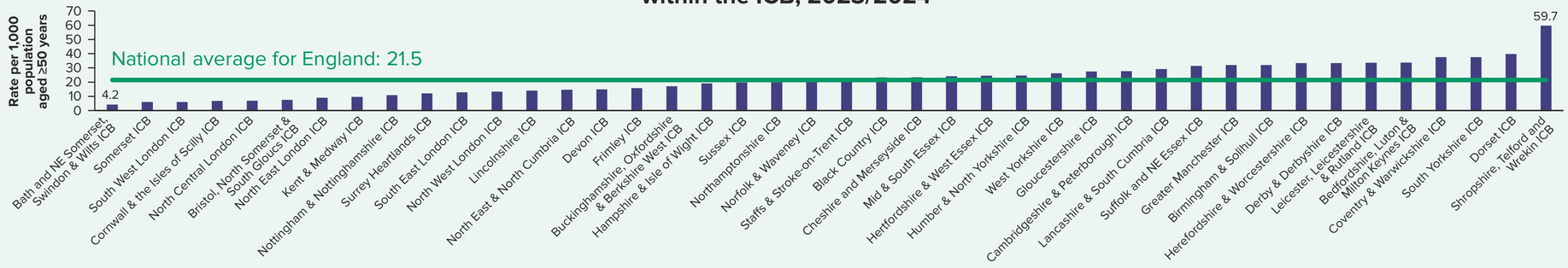
Detailed study methods

First hospital appointments after optician referrals:

For non-urgent referrals, the rate of patients ranged from 4.2 to 59.7, and average wait time ranged from 14.6 to 132.1 days in 2023/2024

- The national average rate for first hospital appointments after non-urgent optician referrals was 21.5 per 1,000 population aged ≥50 years.
  - Rates ranged from 4.2 to 59.7.
- The national average wait time was 67.0 days.
  - Waits ranged from 14.6 to 132.1 days.

Rate of patients attending first hospital appointments after non-urgent optician referrals per 1,000 population aged ≥50 years within the ICB, 2023/2024



Average wait time (days) for first attended hospital appointments after non-urgent optician referrals, 2023/2024



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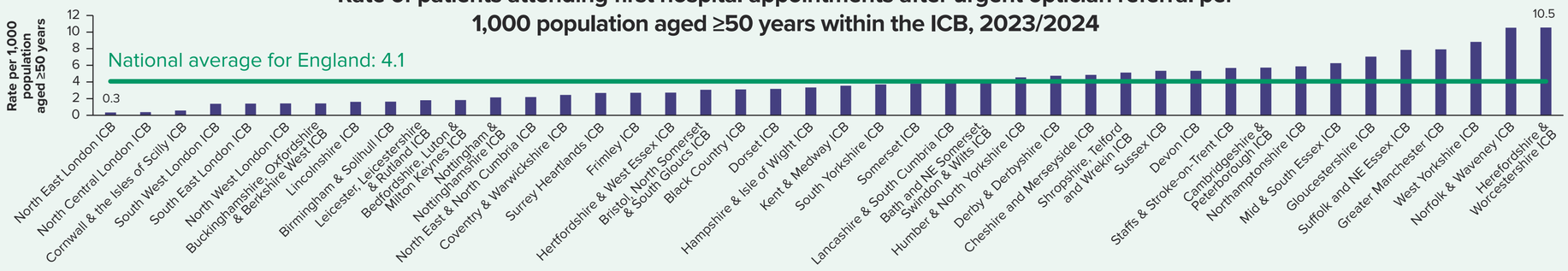
Looking to the future

First hospital appointments after optician referrals:

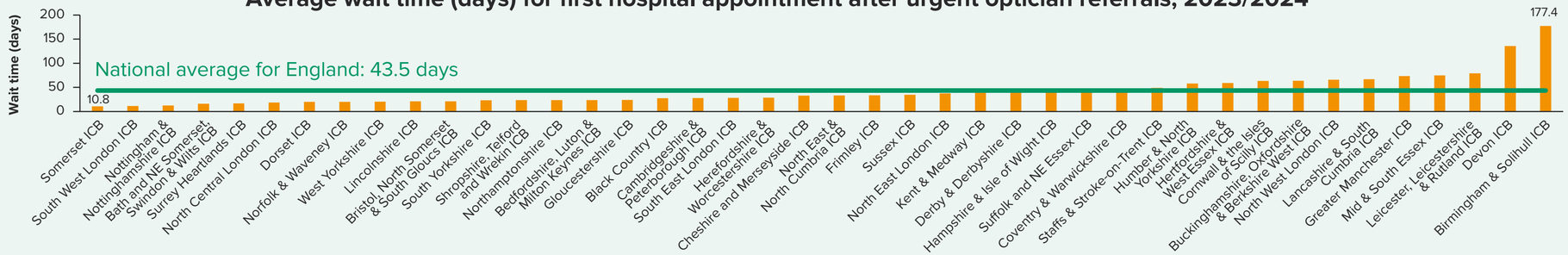
For urgent referrals, the rate of patients ranged from 0.3 to 10.5 and the wait time ranged from 10.8 to 177.4 days in 2023/2024

- The national average rate for first hospital appointments after an urgent optician referral was 4.1 per 1,000 population aged ≥50 years.
  - Rates ranged from 0.3 to 10.5.
- The national average wait time was 43.5 days.
  - Waits ranged from 10.8 to 177.4 days.

Rate of patients attending first hospital appointments after urgent optician referral per 1,000 population aged ≥50 years within the ICB, 2023/2024



Average wait time (days) for first hospital appointment after urgent optician referrals, 2023/2024



Analysis details
Patients counted if referral source was optician and consultant specialty as per the study methods. Patient numbers analysed with data from mid-2022 on the population at each ICB aged ≥50 years to calculate rate per 1,000.

Detailed study methods

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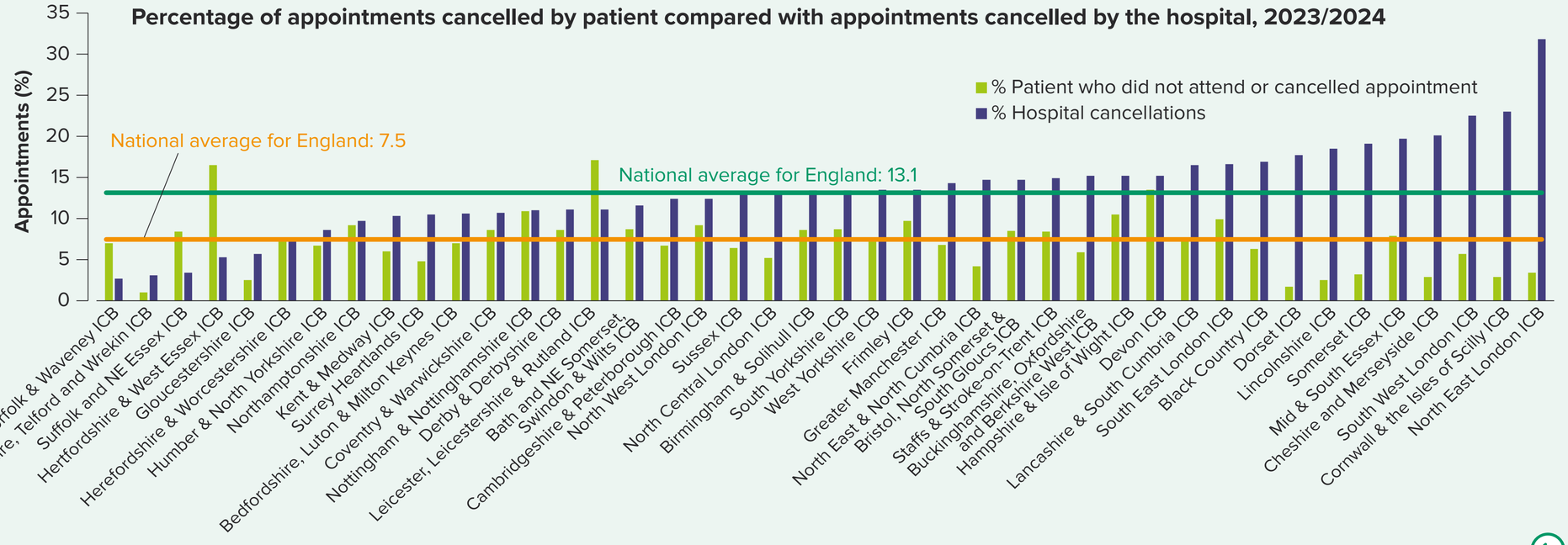
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Looking to the future

First hospital appointments after optician referrals:

Percentage of appointments cancelled by patient ranged from 1.0% to 17.1% compared to hospital cancelled appointments ranging from 2.7% to 31.8% in 2023/2024

- The national average rate for hospital cancellations of first appointment after optician referral was 13.1%.
  - Rates ranged from 2.7% to 31.8%.
- The national average rate for patient DNAs/cancellations of first appointments combined was 7.5%.
  - Rates ranged from 1.0% to 17.1%.



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First hospital appointments after optician referrals: implications for service planning

Capacity and workforce

- NICE recommends that patients with suspected wet AMD should be referred urgently and within 1 working day and that they should be seen within 1 week of referral.[19,52] Patients with delays of more than 1 week are advised to attend the emergency department as soon as possible if their symptoms worsen,[19] so delays can increase pressure on emergency care services.
- RCO guidance on RVO highlights that delays in initiating treatment up to 6 months resulted in fewer visual gains compared with immediate initiation of treatment,[53] so timely appointments are essential in order to expedite treatment initiation.
- RCO guidance recommends urgent referrals for patients with wet AMD, central RVO (CRVO) with elevated intraocular pressure (IOP) (emergency referral for CRVO with IOP ≥40 mmHg), branch RVO with central foveal haemorrhage and proliferative diabetic retinopathy.[54]
- Even in ICBs with the shortest average wait times, many patients would likely have waited longer than NICE recommends for AMD and some may have waited longer for an appointment than the 6 months recommendation for treatment of RVO.[52,53]
- ICBs with appointment rates lower than the national average and wait times longer than the national average should investigate why and identify ways to increase capacity locally. This can be a step towards increasing future capacity, as hospital attendance data indicate that the incidence of visual conditions is increasing.
- Increased capacity requires more clinic appointments for new patients, which may require hiring of new clinicians or innovative solutions – as in the case studies in Solutions – to manage the workload.
- High hospital cancellation rates in some ICBs may suggest short-term pressures on capacity and workforce, which may be impacting the ability to deliver appointments as scheduled.
- Workforce strikes may have contributed to some hospital cancellations, but reasons should be investigated further to identify how to minimise this, as it can be distressing and frustrating for patients fearful of losing their sight.
- Reasons for patient cancellations and DNAs also need to be investigated and initiatives to encourage attendance could be considered.

The ICB Deep Dive gives detailed information on disparities for individual ICBs and suggests starting points for exploration to investigate these.

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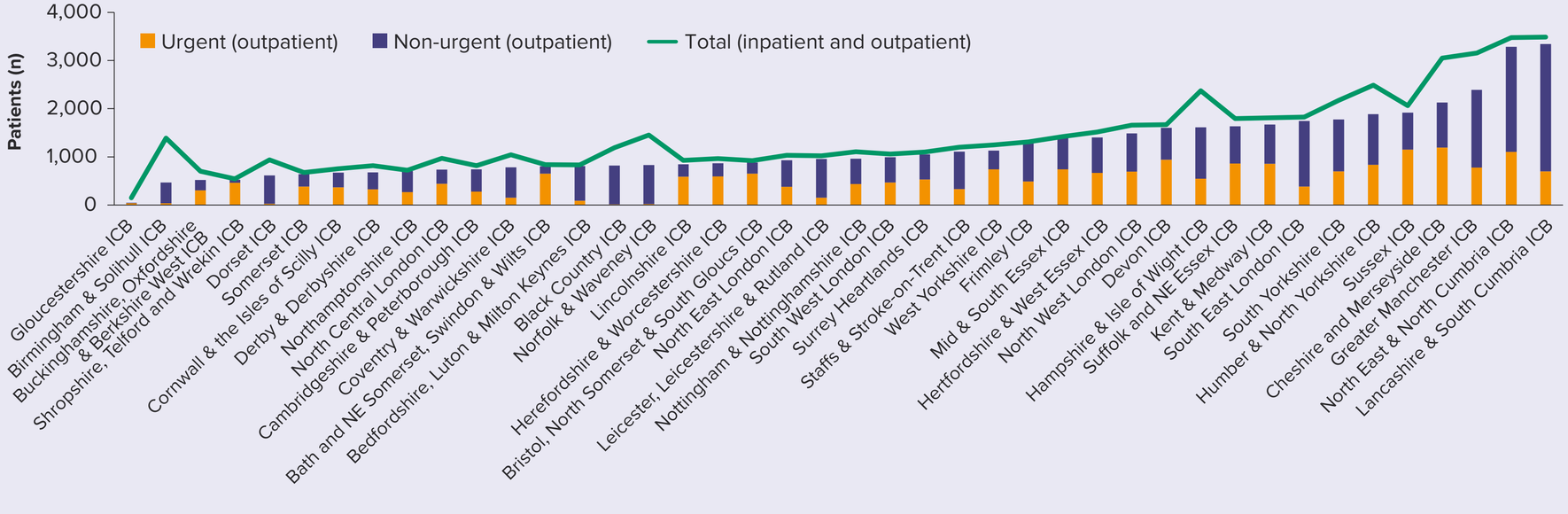
Solutions: case studies

Looking to the future

First injections:
In most ICBs, the majority of first injections were given via outpatients; however, a small number of ICBs delivered most of their first injections as inpatients

- The proportion of first injections given via inpatients and outpatients varied between ICBs.
- For most ICBs, the majority of first injections were given via outpatients – for example, 96% of first injections in Lancashire and South Cumbria were given as outpatients.
- However, for some ICBs, the majority of first injections were administered as inpatients – for example, in Birmingham and Solihull ICB, 67% of first injections were given as inpatients.

Number of patients receiving first injection as outpatients by referral priority and number of patients receiving first injections as inpatients and outpatients within each ICB, 2023/2024



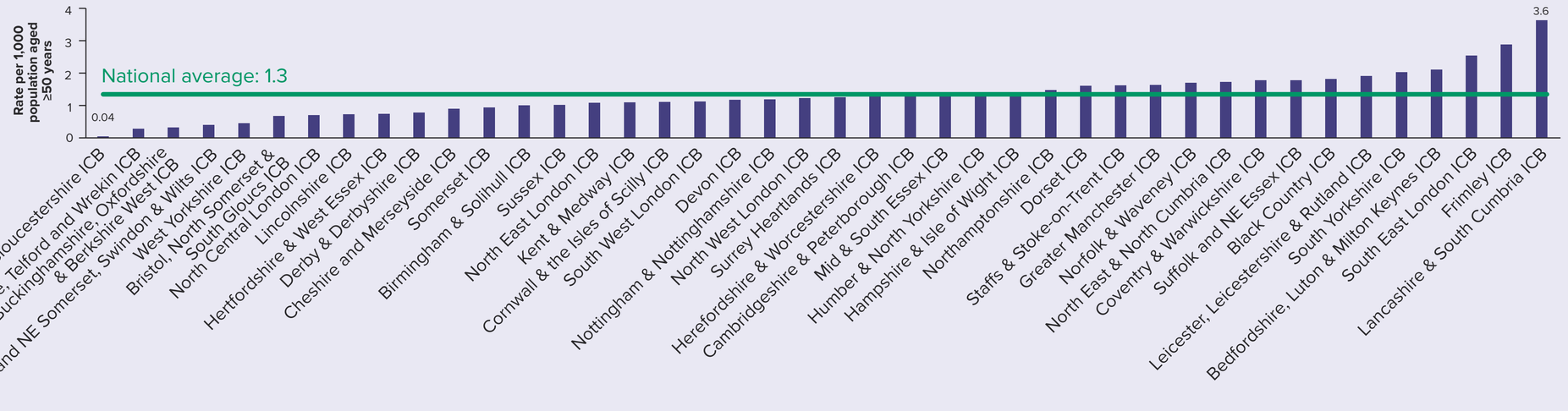
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First injections:
For non-urgent referrals, the rate of patients ranged from 0.04 to 3.6 in 2023/2024

The national average rate for patients attending first injections in outpatients after non-urgent referral was 1.3:

- Rates ranged from 0.04 to 3.6.
- 54.8% of ICBs had rates lower than the national average.

Rate of patients receiving first injection in outpatients after non-urgent referrals per 1,000 population aged ≥50 years, 2023/2024



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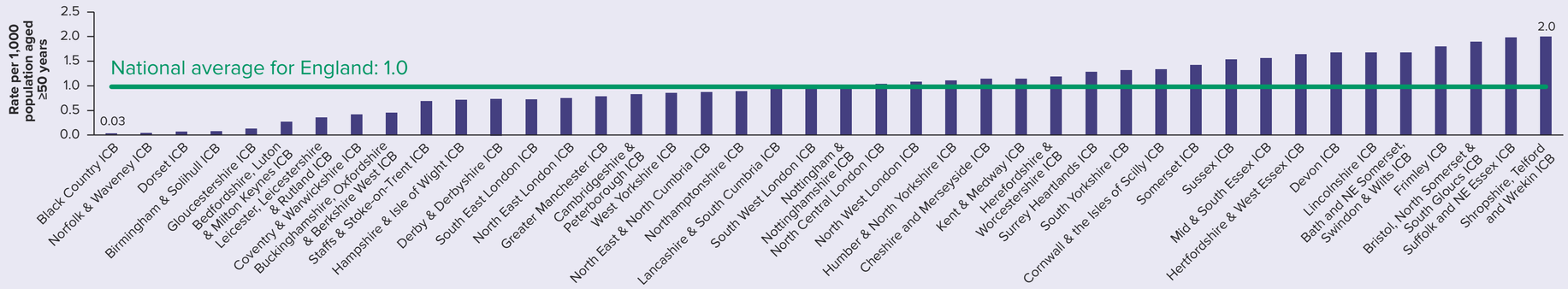
Looking to the future

First injections:
For urgent referrals, the rate of patients ranged from 0.03 to 2.0 in 2023/2024

The national average rate for patients attending first injections in outpatients after an urgent referral was 1.0:

- Rates ranged from 0.03 to 2.0.
- 21 (50.0%) ICBs had rates lower than the national average.

Rate of patients receiving first injection in outpatients after urgent referrals per 1,000 population aged ≥50 years, 2023/2024



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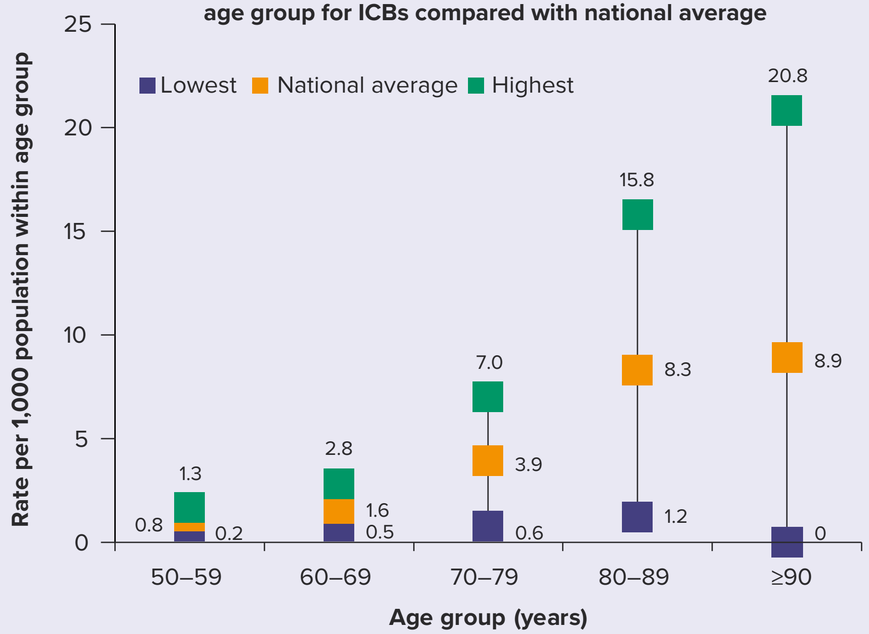
First injections:

Rates of first injections and range of rates between ICBs increased with increasing age, and the proportion of ICBs with rates below the national average varied between age groups

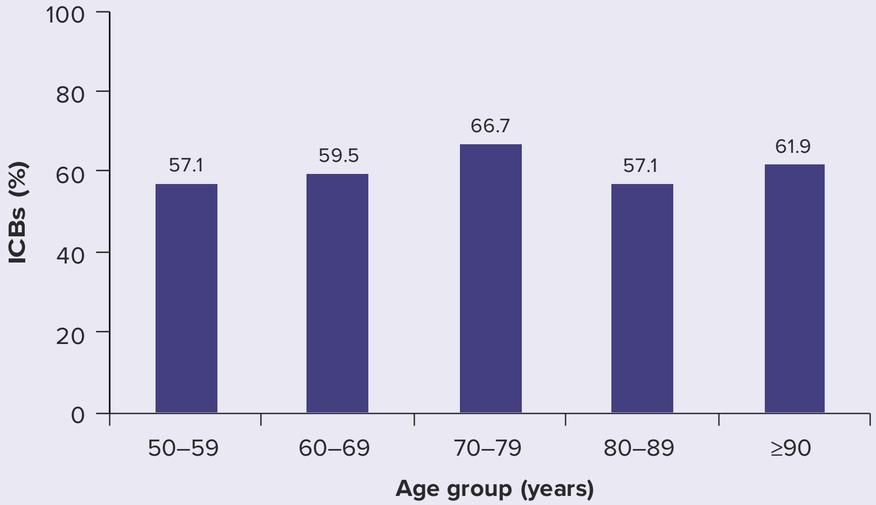
The rate of first injections per 1,000 population within each age group varied between ICBs and age groups. Differences in rates between age groups is to be expected, as the incidence of conditions requiring intravitreal injections increases with age. However, the difference between the ICBs with highest and lowest rates also increased with increasing age.

The percentage of ICBs with rates lower than the national average varied between age groups and was highest in patients aged 70–79 years and lowest in patients aged 50–59 years and 80-89 years.

Highest and lowest rates of first injection per 1,000 population within each age group for ICBs compared with national average



Percentage of ICBs with rates of first injection per 1,000 population within each age group below the national average



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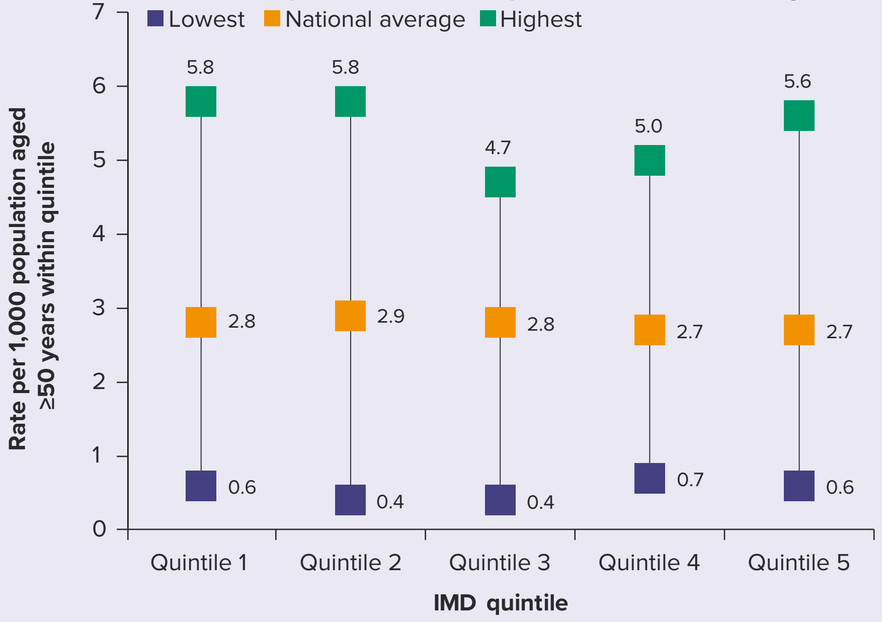
First injections:

Small variations were seen in rates of first injections between quintiles, range of rates between ICBs, and the proportion of ICBs with rates below the national average

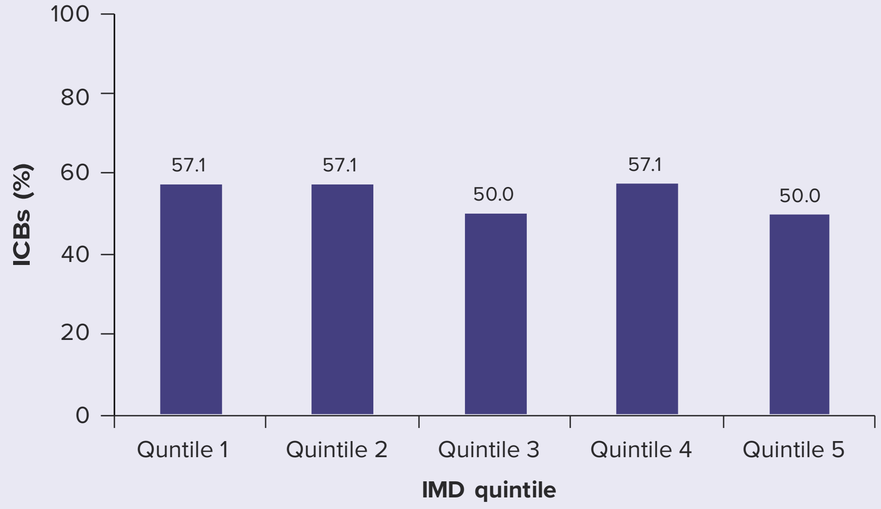
The national average rate of first injections per 1,000 population in each IMD quintile varied only slightly between quintiles, indicating that level of deprivation does not have a major impact on first injections. The range for the ICBs with highest and lowest rates was relatively small and fairly consistent between quintiles, with the smallest variation in Quintile 3.

The percentage of ICBs with rates lower than the national average varied slightly between quintiles and was highest in Quintiles 1, 2 and 4 and lowest in Quintiles 3 and 5.

Highest and lowest rates of first injection per 1,000 population within each IMD quintile for ICBs compared with national average



Percentage of ICBs with rates of first injection per 1,000 population within each IMD quintile below the national average for each quintile



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First injections: implications for service planning

Capacity and workforce

- Most ICBs gave the majority of first injections as outpatients, but a small number of ICBs were recorded as delivering most injections as inpatients. Delivering injections on an inpatient basis could be more costly and a less efficient use of department time. Whether these are inpatient spells or admissions and whether injections are being coded correctly as inpatients should be investigated.
- Capacity in the future will need to increase considerably, as demand for first injections is estimated to increase by amost 50% over the next 4 years. However, immediate attention needs to given to capacity for first injections to ensure wait times are as short as possible.
- To increase capacity and achieve best outcomes, ICBs will need to ensure that the right patients are seen in the right place and at the right time by improving referral quality and ensuring weekly fast-track one-stop clinics, which can start treatment, are available. Such clinics need to be prospectively covered by consultants but should be started and run by non-consultant clinicians.
- This may also require an increase in the number of clinics offering injections, more injectors to be recruited and trained, and more sites to offer injections. Innovative solutions – as in the case studies in Solutions – may be helpful to achieve this.

Inequalities

- Reasons for variations between age groups and IMD quintiles in first injections need to be investigated – with differences in the incidence and prevalence of conditions between different age groups accounted for – so that inequities can be resolved and solutions, such as targeted communications, can be implemented.

The ICB Deep Dive gives detailed information on disparities for individual ICBs and suggests starting points for exploration to investigate these.

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All injections:

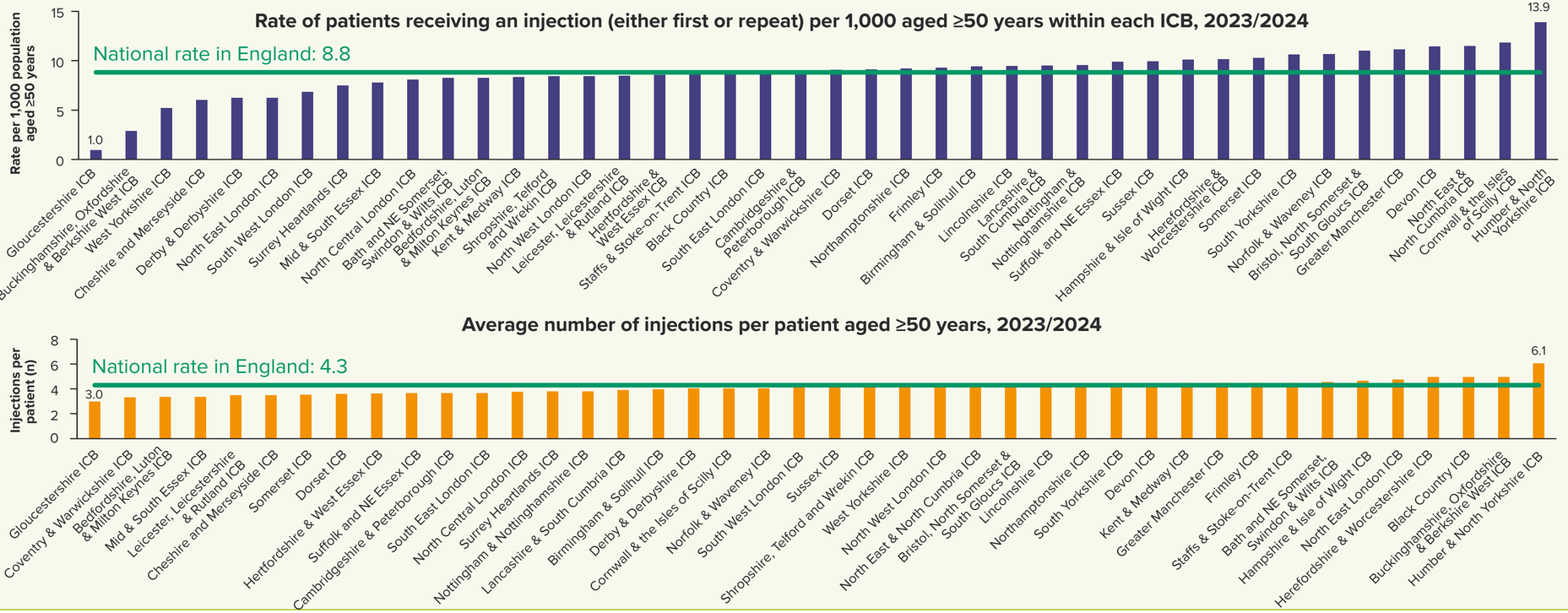
The rate of patients receiving an injection (either first or repeat) ranged from 1.0 to 13.9 and the average number of injections per patient ranged from 3.0 to 6.1 in 2023/2024

The national average rate for injections in outpatients after any referral source was 8.8:

- Rates ranged from 1.0 to 13.9.
- 42.9% of ICBs had rates lower than the national average.

The national average of injections per patient was 4.3:

- Numbers ranged from 3.0 to 6.1 injections per patient.
- 59.5% of ICBs gave fewer injections per patient than the national average.



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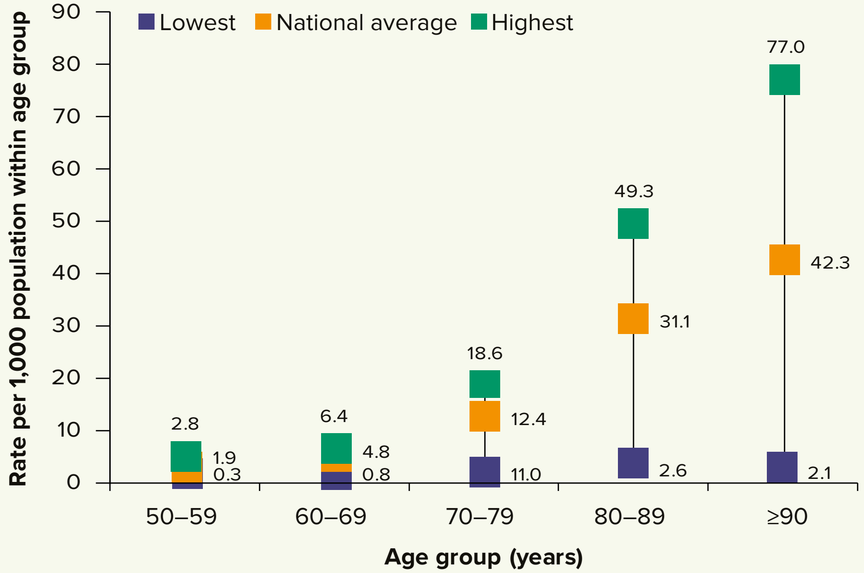
Looking to the future

All injections:
Wide variations were seen in rates of injections within age groups between ICBs

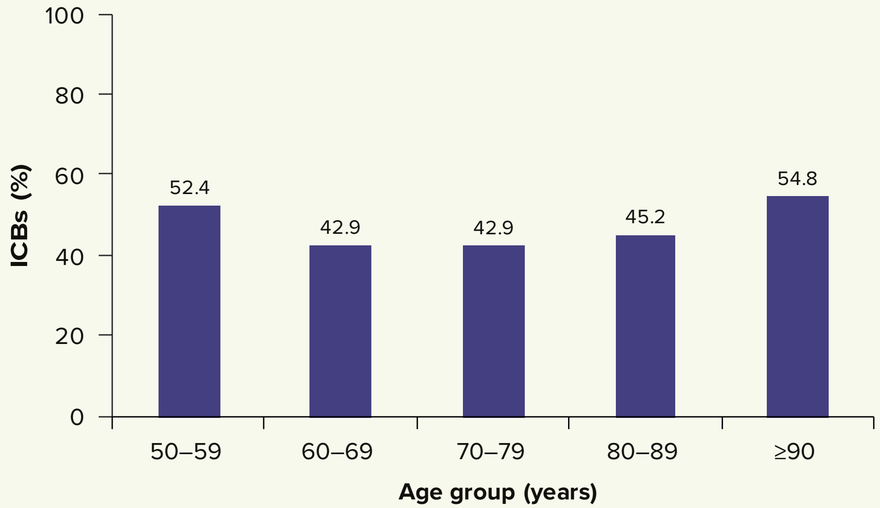
The rate of all injections (either first or repeat) per 1,000 population within each age group varied between age groups, peaking at ≥90 years. Differences in rates between age groups are to be expected, as the incidence and prevalence of conditions requiring intravitreal injections increases with age. However, the difference between the ICBs with highest and lowest rates also increased with increasing age.

The percentage of ICBs with rates lower than the national average varied between age groups and was highest in patients aged ≥90 years and lowest in patients aged 60–69 years and 70–79 years.

Highest and lowest rates of all injections per 1,000 population within each age group for ICBs compared with national average



Percentage of ICBs with rates of all injections per 1,000 population within each age group below the national average



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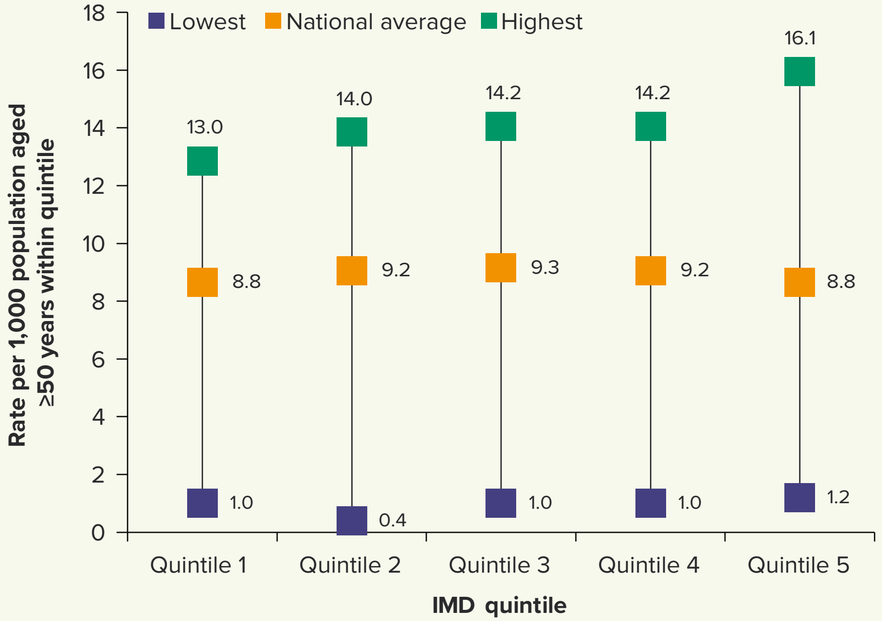
Small variations were seen in rates of all injections within quintiles between ICBs

The rate of all injections per 1,000 population within each quintile varied slightly between ICBs, similar to the pattern seen with first injections. This again indicates that deprivation has little impact on delivery of injections.

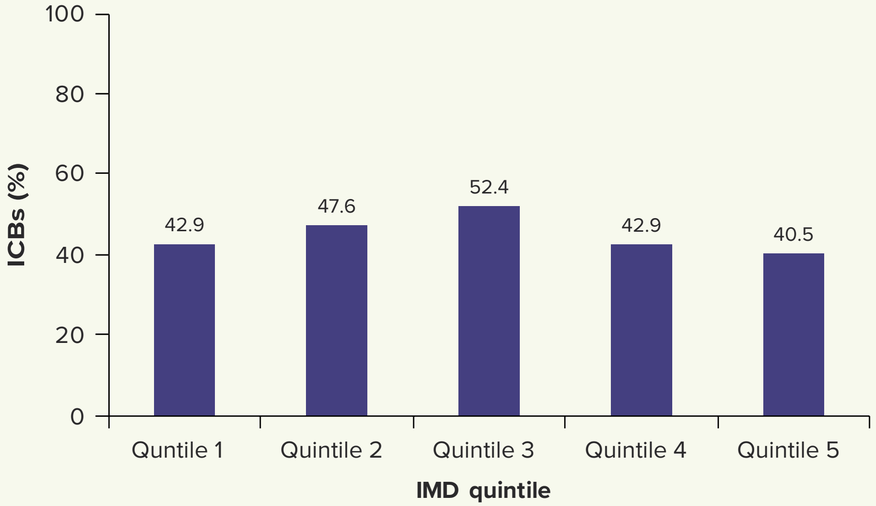
However, the range between the ICBs with the highest and lowest rates varied much more than was seen for first injections alone.

The percentage of ICBs with rates lower than the national average varied between quintiles, being highest in Quintile 3 and lowest in Quintile 5.

Highest and lowest rates of all injections per 1,000 population within each IMD quintile for ICBs compared with national average



Percentage of ICBs with rates of all injections per 1,000 population within each IMD quintile below the national average



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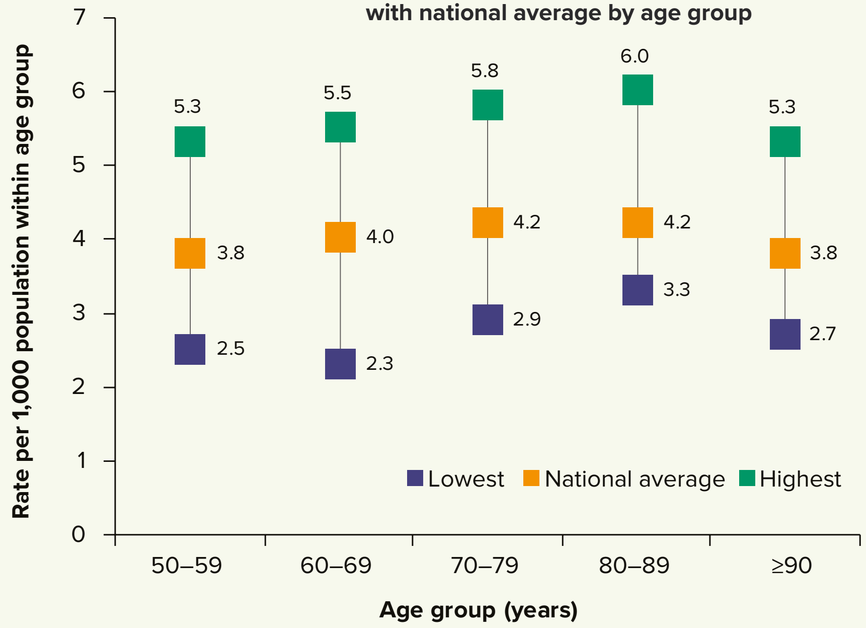
All injections:

Variations were seen in numbers of injections per patient within age groups between ICBs

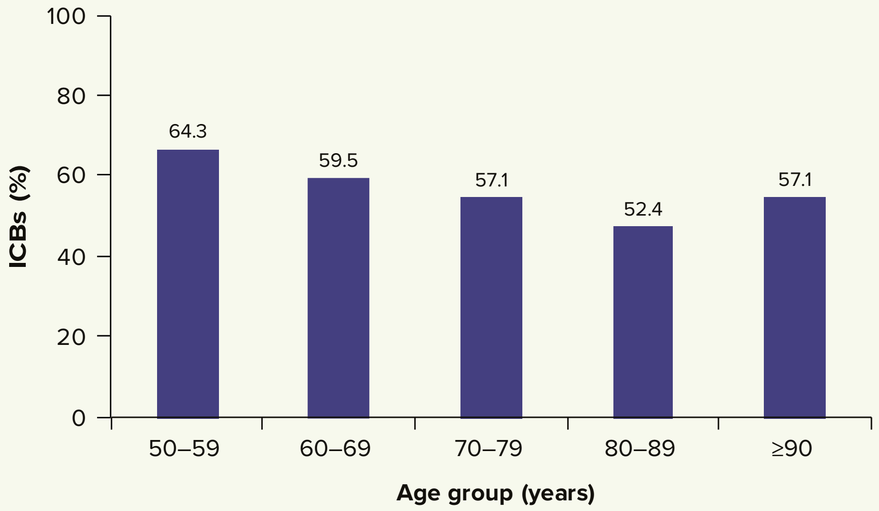
The average number of injections per patient within each age group varied slightly between ICBs, indicating that patients across age groups are being treated similarly in terms of number of injections each receives. There was a relatively small range between the ICBs with the highest range in all age groups compared with the rates of all injections.

The percentage of ICBs with fewer injections per patient than the national average varied between age groups and was highest in patients aged 50–59 years and lowest in those aged 80–89 years.

Highest and lowest number of injections per patient for ICBs compared with national average by age group



Percentage of ICBs with fewer injections per patient than the national average by age group



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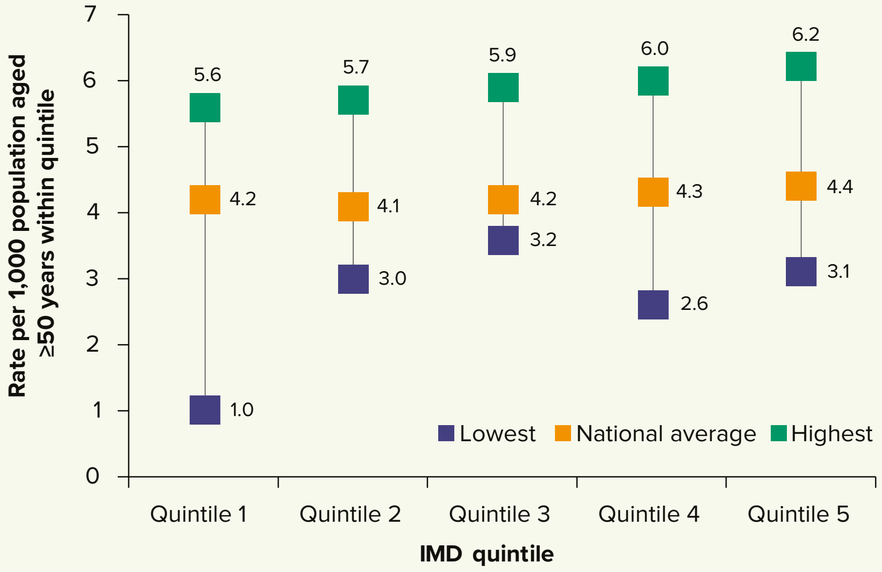
All injections:

Variations are seen in numbers of injections per patient within IMD quintiles between ICBs

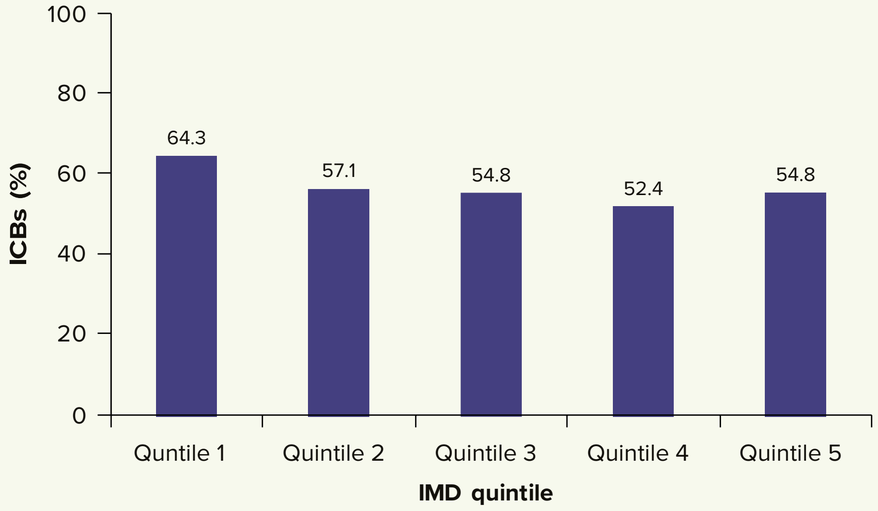
The average number of injections per patient within each IMD quintile varied slightly between ICBs, again indicating that deprivation does not have a major impact on how patients' injections are managed. The range between ICBs with the lowest and highest rates also varied similarly across quintiles, except in Quintile 1 (most deprived), where the lowest rate in an ICB was notably lower than the national average.

The percentage of ICBs with fewer injections per patient than the national average varied between quintiles and was highest in Quintile 1 (most deprived) and lowest in Quintile 4.

Highest and lowest number of injections per patient for ICBs compared with national average by IMD quintile



Percentage of ICBs with fewer injections per patient than the national average by IMD quintile



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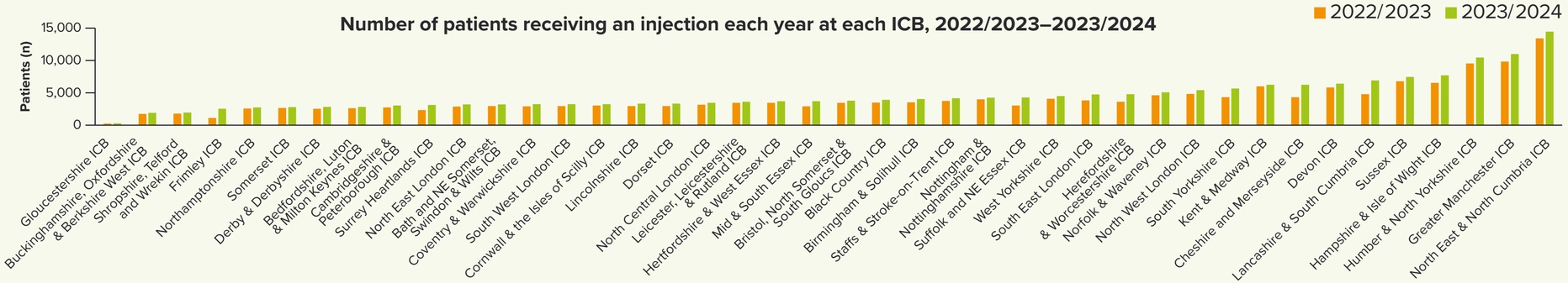
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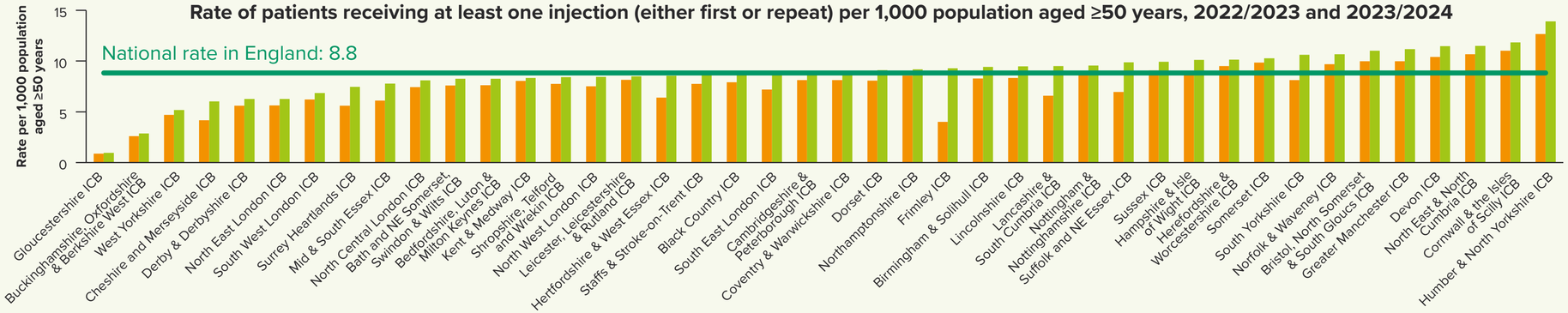
Looking to the future

All injections:

Number and rate of patients having injections increased in all 42 ICBs between 2022/2023 and 2023/2024

- The number and rate of patients having all injections (either first or repeat) increased between 2022/2023 and 2023/2024 in all 42 ICBs, but the increases varied between ICBs.
- Frimley ICB had the largest increase in injections (132.1%).
- Frimley ICB also saw the largest change in rate of all injections, which more than doubled, moving from well below to just above the national average.





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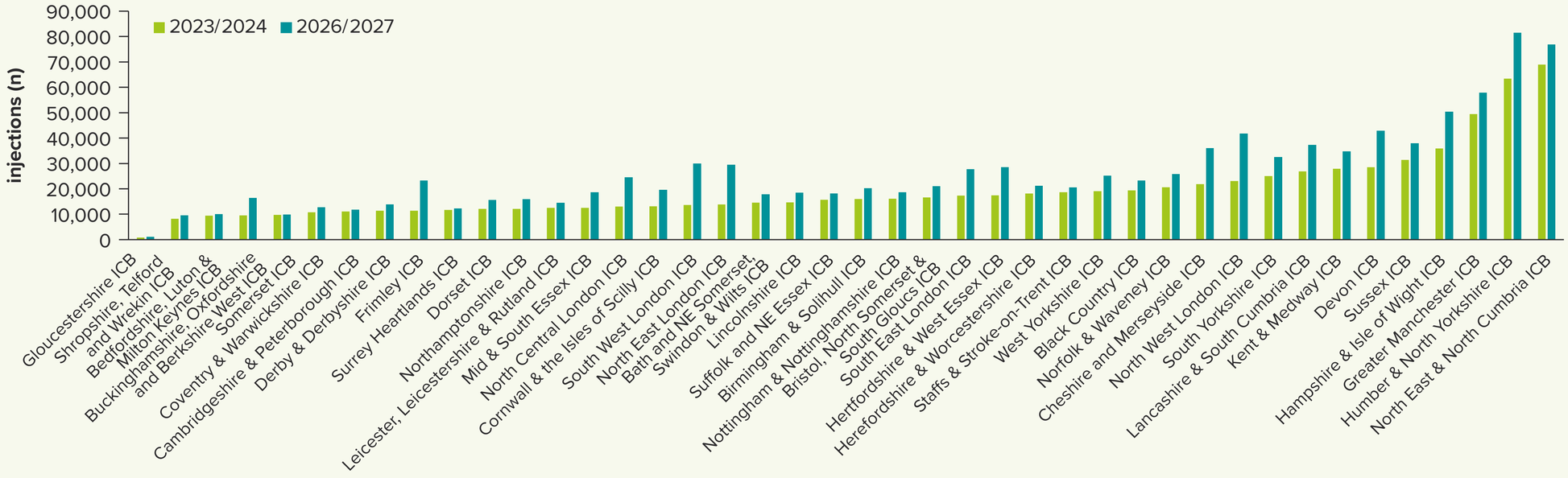
Our forecasts are based on previous numbers and historical growth in HES data for each ICB between 2021/2022 and 2023/2024. It assumes that the numbers reported in HES data are accurate and that the rate of growth will continue.

All injections:

Estimated number of injections (either first or repeat) in outpatients will continue to rise in all 42 ICBs

Estimated number of injections (either first or repeat) in outpatients will continue to rise in all 42 ICBs.

Comparing injection activity in 2023/2024 to forecast activity in 2026/2027 at each ICB



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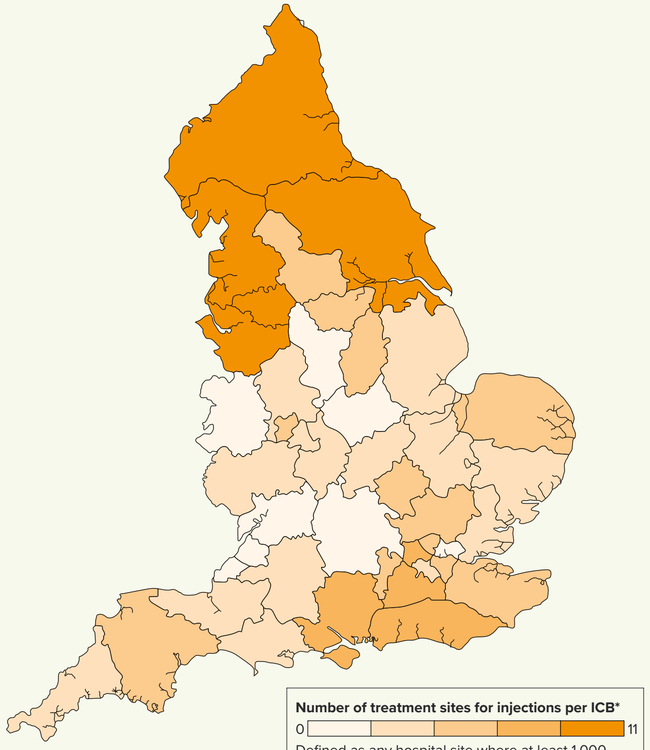
Solutions: case studies

Looking to the future

Please note that the data presented here shows all unique sites that have provided at least 1,000 injections per ICB in any given year from 2019/2020 to 2023/2024 – this represents a 5-year period of analysis in comparison to the 3-year period of analysis presented elsewhere.

All injections:
Number of sites that provide injections differs between ICBs

Wide variation is seen in the number of unique sites that provided at least 1,000 injections per ICB in any year in the study period, although this may reflect differing population sizes.



© 2025 Mapbox © OpenStreetMap

Number and rate of sites per 100,000 population aged ≥50 years at each ICB

ICB name	Sites (n)	Rate	ICB name	Sites (n)	Rate
NHS Surrey Heartlands ICB	8	1.9	NHS Hampshire & Isle of Wight ICB	8	1.1
NHS Somerset ICB	4	1.5	NHS Norfolk & Waveney ICB	5	1.0
NHS Bedfordshire, Luton & Milton Keynes ICB	5	1.5	NHS Birmingham & Solihull ICB	4	0.9
NHS Cornwall & the Isles of Scilly ICB	4	1.5	NHS Cambridgeshire & Peterborough ICB	3	0.9
NHS Northamptonshire ICB	4	1.3	NHS Shropshire, Telford and Wrekin ICB	2	0.9
NHS Humber & North Yorkshire ICB	10	1.3	NHS Lincolnshire ICB	3	0.9
NHS North West London ICB	8	1.2	NHS South West London ICB	4	0.8
NHS Lancashire & South Cumbria ICB	9	1.2	NHS Mid & South Essex ICB	4	0.8
NHS North Central London ICB	5	1.2	NHS Staffs & Stoke-on-Trent ICB	4	0.8
NHS Black Country ICB	5	1.1	NHS Herefordshire & Worcestershire ICB	3	0.8
NHS South Yorkshire ICB	6	1.1	NHS Kent & Medway ICB	6	0.8
NHS Nottingham & Nottinghamshire ICB	5	1.1	NHS Bath and NE Somerset, Swindon & Wilts ICB	3	0.8
NHS South East London ICB	6	1.1	NHS North East & North Cumbria ICB	9	0.7
NHS Coventry & Warwickshire ICB	4	1.1	NHS West Yorkshire ICB	6	0.7
NHS Greater Manchester ICB	11	1.1	NHS Suffolk and NE Essex ICB	3	0.7
NHS Frimley ICB	3	1.1	NHS Leicester, Leicestershire & Rutland ICB	2	0.5
NHS Dorset ICB	4	1.1	NHS Derby & Derbyshire ICB	2	0.4
NHS Devon ICB	6	1.1	NHS North East London ICB	2	0.4
NHS Hertfordshire & West Essex ICB	6	1.1	NHS Buckinghamshire, Oxfordshire and Berkshire West ICB	2	0.3
NHS Sussex ICB	8	1.1	NHS Bristol, North Somerset & South Gloucs ICB	1	0.3
NHS Cheshire & Merseyside ICB	11	1.1	NHS Gloucestershire ICB	0	0.0

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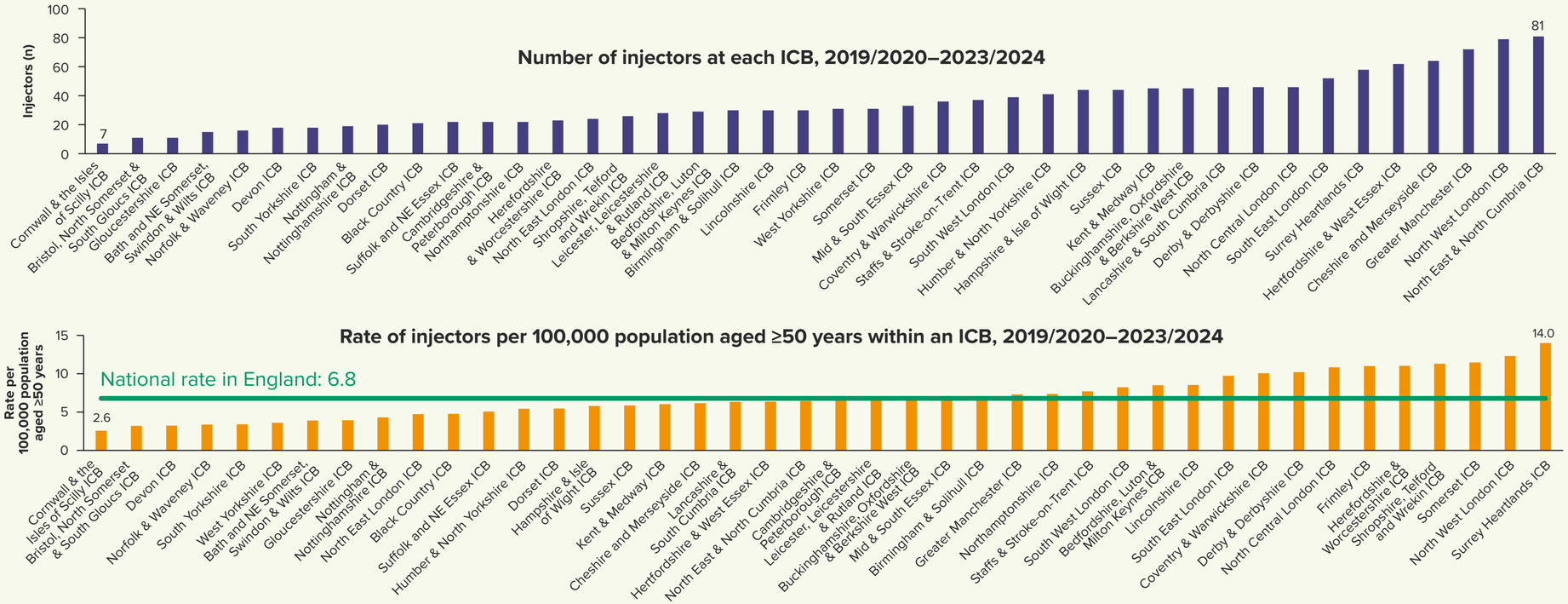
Looking to the future

All injections:
Number of injectors who can inject at each ICB ranged from 7 to 81

The number of unique injectors who delivered more than 20 injections in any year during the study period at each ICB ranged from 7 to 81.

The average rate of injectors per 100,000 population aged ≥50 years at each ICB was 6.8.

- Rates ranged from 2.6 to 14.0.
- 24 (57.1%) ICBs had rates lower than the national average of 6.8.



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All injections: implications for service planning

Capacity and workforce

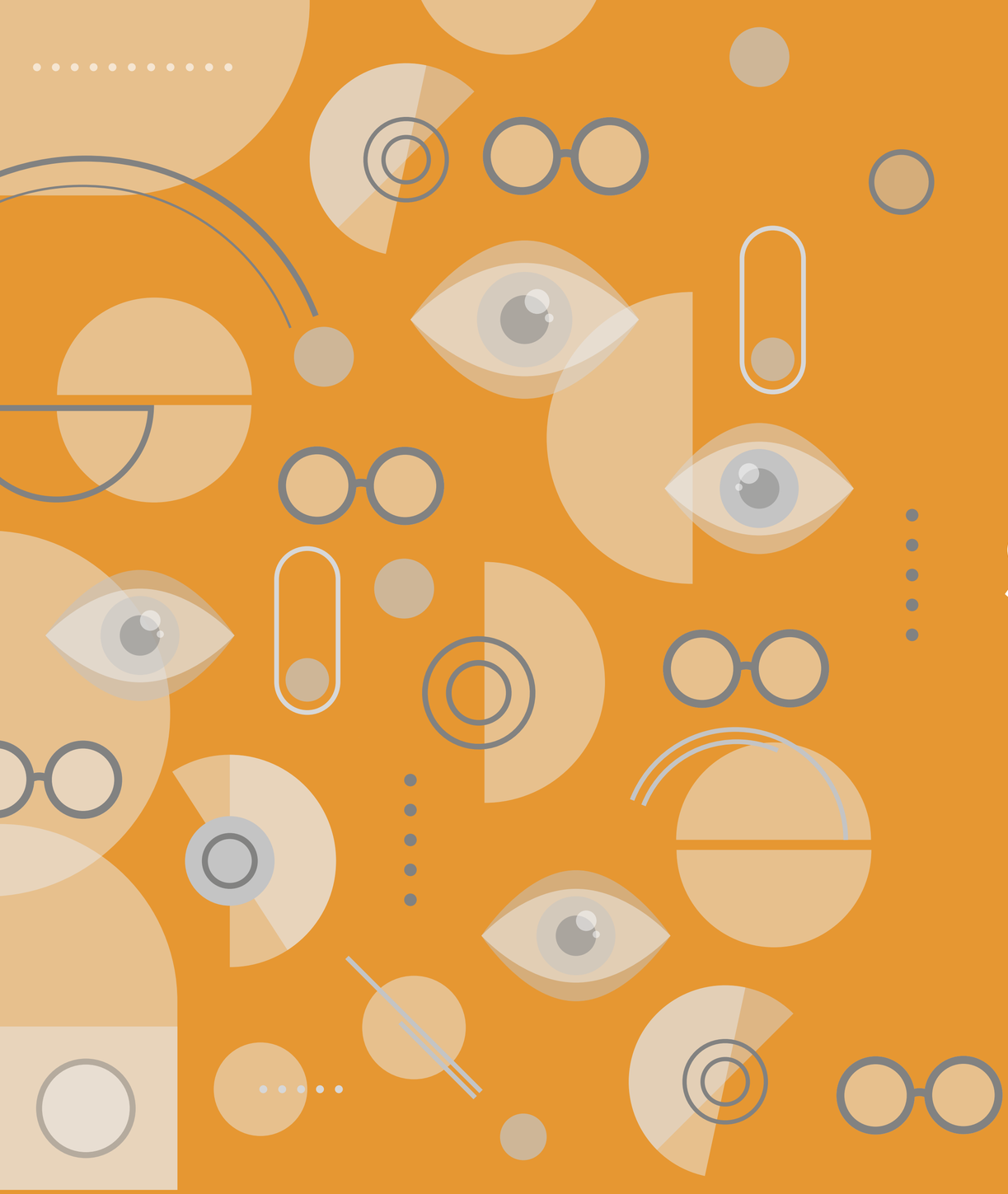
- When considering data on all injections either first or repeat, it is important to bear in mind that numbers and rates of injections and average numbers per patient may depend on the repeat injection protocol an ICB uses – e.g. a 1- or 2-month fixed schedule or the treat-and-extend model. Furthermore, not all conditions require the same number of repeat injections, and the number and schedule of injections may vary between patients.[24,53] Some patients may therefore receive fewer injections but still be receiving a good standard of care and achieving good outcomes.
- Rates for all injections per 1,000 population aged ≥50 years were lower than the national average in 42.9% of ICBs, and 59.5% of ICBs gave fewer injections per patient than the national average:
  - ICBs with low rates of injections could investigate whether this is due to use of the treat-and-extend model, because of their local pattern of different conditions requiring injections, or because there are capacity pressures and patients are missing out on scheduled injections.
  - ICBs with the highest rate of injections could evaluate whether they are using the most appropriate treat-and-extend model for repeat injections in order to optimise the pathway and increase capacity for first injections.
- The number of sites that deliver injections varies between ICBs, and 57.1% of ICBs had rates of injectors per 1,000 population aged ≥50 years lower than the national average of 6.8.
- Capacity in the future will need to increase considerably, as total demand for injections is estimated nationally to reach more than 1 million by 2025/2026. However, immediate attention needs to be given to capacity for first and repeat injections to ensure that wait times are as short as possible and that all patients receive repeat injections as needed to improve outcomes and avoid sight loss.[29]
- This may require an increase in the number of clinics and sites offering injections, more injectors to be trained and recruited, and a shift towards treat-and-extend dosing of intravitreal injections where this is not already in place. Innovative solutions – as in the case studies in Solutions – may be helpful to achieve this.

Inequalities

- Reasons for variations between age groups and IMD quintiles in first injections need to be investigated – with differences in the incidence and prevalence of conditions between different age groups accounted for – so that inequities can be resolved and solutions, such as targeted communications, can be implemented.
- Lower injection rates and fewer injections per patient in some patient groups may reflect true inequities but could also be due to increased awareness of variable injection schedules among different groups.

The ICB Deep Dive gives detailed information on disparities for individual ICBs and suggests starting points for exploration to investigate these.

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Case study 1: Ophthalmology diagnostic hubs improve access and avoid admissions[55]

The challenge

The Ophthalmology Department at Worcestershire Acute Hospitals NHS Trust faced challenges following the COVID-19 pandemic:

- Significant backlogs of patients waiting for treatment for glaucoma and medical retina.
- Patients attending multiple times for tests by different staff (nurses, orthoptists and doctors).
- Delays for subsequent review and treatment.
- Difficulties recruiting medical staff.

The innovation

The Ophthalmology Department implemented a number of measures:

- Improved skill mix through training.
- Removed barriers across multidisciplinary teams (MDTs) through flexible and adaptive role sharing to deliver service requirement on weekly basis.
- Expanded roles of supporting staff to release more medical time for review of complex patients:
  - Segregated roles within orthoptist technicians and Band 3 healthcare assistants (HCAs) in nursing team.
  - Trained nurses to release orthoptist time.
  - Expanded role of nurse practitioners beyond intravitreal injections to include review of patients and roles within other subspecialties.
  - Ensured maximum flexibility across clinical areas (outpatients and theatres) and geographical teams (three hospital sites).

Outcomes

- Reduced cataract waiting times from 43 weeks to 16 weeks.
- Enabled more patients to be seen and utilised consultant time for specialist care.
- Decreased follow-up waiting list by 10% and saved £135,000 annually.
- Continued to provide care for sight-threatening conditions.
- Minimised the impact of the pandemic.
- Released orthoptist time, avoided shortage of staff and improved patient pathways.

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Case study 2: Single point of access for direct community optometrist referrals[56]

The challenge

- Community optometrists faced barriers to direct referrals, leading to over-referral and poor decision-making.
- Lack of feedback created disconnect between optometrists and secondary care providers.
- Delays in referral processing (11 days) impacted treatment, especially for urgent cases such as wet AMD.
- Clinical decision-making was inconsistent due to insufficient imaging and diagnostic details.

The innovation

A group of organisations including Moorfields Eye Hospital Foundation Trust, Royal Free Hospital, North Central London ICB, NHS England and the Local Optical Committee Support Unit introduced various measures:

- Established a single point of access (SPoA) for direct referrals from community optometrists to secondary care.
- Implemented a fully digital pathway to improve referral processing speed.
- Provided training to optometrists, increasing the quality of referrals with imaging/diagnostic.
- Engaged and trained >750 optometrists in speciality eye care through continuing professional development (CPD)-accredited sessions.
- Developed guidance to improve referral communication and feedback loops.

Outcomes

- Referral processing times reduced from 11 days to 2 hours, with 17,000 referrals managed at the time of reporting.
- 40% of referrals redirected to the correct service, cutting patient wait times.
- 58% of urgent referrals downgraded to routine care, optimising secondary care resources.
- 1% of referrals identified as emergencies, saving sight and lives.
- 208 referrals processed via ongoing e-referral rollout.

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Case study 3: Self-assessing eye test app for patients[57]

The challenge

- Conditions such as AMD are a leading cause of blindness in the UK and patients with AMD frequently visited Moorfields Eye Hospital for check-ups, causing a travel burden.
- The hospital needed to ensure early detection of AMD while also reducing the risk of COVID-19 exposure among elderly, immunocompromised and vulnerable patients during the pandemic.
- A solution was needed to empower patients to test/monitor changes in their vision at home and reduce unnecessary hospital appointments.

The innovation

- Moorfields Eye Hospital introduced the Home Vision Monitor – a smartphone-based app that empowers patients to test and monitor changes in their vision at home, during COVID-19 lockdowns and beyond.
- The app offered common vision-threatening diseases.
- Configured a shape-discrimination test on the app to enable patients to test their vision.
- Patients asked to test their own vision twice a week, with results sent instantly to their clinician at Moorfields.
- If both tests showed any discrepancies, an alert was automatically triggered to help the clinician intervene at an early stage of disease progression and provide patients with the chance of better outcomes.

Outcomes

- Recorded 14,445 individual self-tests of patients' vision.
- Triggered 52 vision-change alerts since app-deployment.
- 44 patients had increased disease activity detected, benefitting from earlier treatment.
- Led to early identification of patients at risk of preventable vision loss, enabling prompt intervention by the clinical team.
- Improved experience of care, contributed to increased patient safety.

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Case study 4: AI telephone solution support for patients[58]

The challenge

- Frimley Health has a high-volume cataract service of 5,000 cases a year, in part to due to a new facility at Heatherwood Hospital.
- Routine cataract patients receive a follow-up telephone call by ophthalmic nurses to assess the procedure and determine if the patient needs to be seen again at the hospital or can be discharged to an optician.
- Increasing volumes of patients had flooded capacity, stretching the surgery-to-call time from 2 weeks to 10 weeks and providing a poor experience for patients.

The innovation

- Frimley Health assessed how best to offer the required appointments – by the existing busy team or by recruiting more staff – by mapping the exact path of cataract patients from referral to discharge.
- An artificial intelligence (AI) telephone solution, 'Dora', developed by Ufonia, an Oxford-based technology company, emerged as a solution.
- Dora delivers clinical conversations to patients at unlimited scale, providing demonstrable efficiencies and accessible, convenient and standardised care for cataract patients.
- Dora asks for verbal feedback, both for the call itself and on the experience of cataract surgery in general.
- The main goal was to increase capacity for post-operative telephone follow-ups; however, secondary aims were to free ophthalmic nursing time and collect high-quality pre- and post-operative patient-reported outcome measures (PROMS) data.

Outcomes

- A month after launching Dora, the surgery-to-call time had returned to an ideal 2 weeks, with the backlog of calls cleared.
- Dora has:
  - made more than 4,500 calls to post-op cataract patients.
  - freed up 550 hours, equivalent to 14 full-time weeks of ophthalmic nurse employed time.
  - allowed the team to provide 300 additional nurse-led clinics.
- Cost per call is 22% of the cost of an outpatient appointment.
- 9 out of 10 patients would recommend Dora to friends and family.

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Case study 5: One-stop service for AMD main treatment cycles[59]

The challenge

- The retinal team at Royal Bolton Hospital diagnose 200 new patients with AMD annually.
- Approximately 4,800 follow-up patients attend every month and could have up to three appointments per month – clinic appointment, diagnostic appointment and appointment for injections, none of which happened on the same day.
- Over 300 patients are seen and listed for injections per month, and it was challenging to ensure all had a fixed treatment pattern.
- The DNA rate was 9%, and 950 of 1,204 follow-up patients on the waiting list did not have a booked appointment.

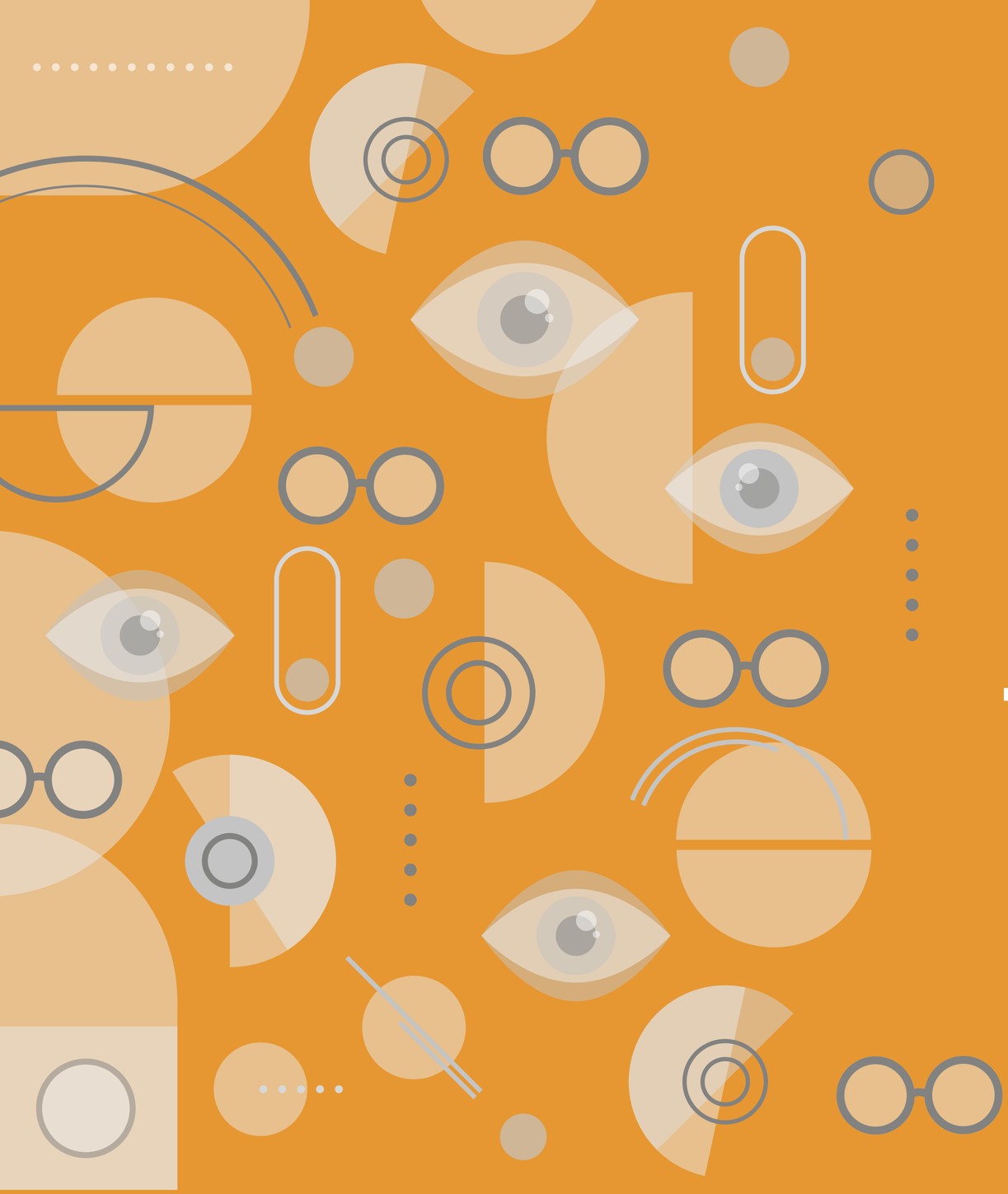
The innovation

- When COVID-19 emerged in the UK, the retinal team transformed their service to a one-stop service.
- With the one-stop service, a patient would only need to attend once a month for their clinic appointment, diagnostic tests and treatment.
- A new treat-and-extend (TREX) model was also implemented to assess how much time patients needed between injections. This allowed the potential for injections to move from 12 to 8 per year by carefully evaluating the history of the patient to assess how long was safe to wait for the next injection.
- TREX virtual clinics were set up so that patients were added to the OpenEyes electronic patient record system and the consultant was given a clinic to fully review all complex images and history to determine how long the patient could wait before their next injection.

Outcomes

- 1,778 patients seen in the one-stop service over 9 months, equating to approximately 1,700 fewer hospital visits.
- DNA rate reduced to 6.5%, and the waiting list reduced to 1,163, with 770 patients without a booked appointment.
- 2,961 patients assessed through TREX virtual clinics, ensuring individualised treatment.
- The number of injections needed reduced, with 212 patients having an interval >4 weeks for their next injection.
- Decreased risk of errors and missed appointments.

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Looking to the future

Early detection and timely intervention of conditions such as AMD and diabetic retinopathy are crucial to avoid irreversible vision loss.[18]

NICE recommendation – referral[19]

- Patients with suspected wet AMD should be referred urgently and within 1 working day[52]
- Patients should be seen **within 1 week of referral**
- Patients with delays of more than 1 week are advised to attend A&E as soon as possible if symptoms worsen

NICE recommendation – first injection[19,52]

- Patients for whom intravitreal injections are recommended for confirmed wet AMD should be offered treatment **within 14 days of referral** to the macular service

Urgent action is clearly needed to optimise management of visual impairment/blindness and align with NICE recommendations on timelines for referral and treatment of conditions such as wet AMD.

Click on the buttons below to view our suggested action plans as starting points to stimulate change.

Optimise your pathway

Optimise engagement

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Looking to the future

Optimise your pathway

- To ensure that patients receive the best care from optician referral through to discharge, local and system leaders must ensure that opticians make clear and comprehensive referrals with the appropriate priority and that hospital appointments, first injections and repeat injections are delivered in a timely and efficient manner, which will preserve vision and improve quality of life for individuals at risk of visual impairment/blindness and mitigate costs.

Review

- Review the Data Centre of this report to familiarise yourself with the situation nationally and see how ICBs compare
- Use the alerts and suggested starting points for exploration in the ICB Deep Dive to delve deeper into the local situation
- Review the national- and ICB-level Reflections to identify topics where you might want to focus

Invite

- Invite all stakeholders, including optician representatives, to identify stumbling blocks and barriers to delivering comprehensive and clear referrals of appropriate priority and timely first appointments, first injections and repeat injections

Map

- Map out the pathway in your area to highlight inefficiencies, bottlenecks, and under-resourced steps in the pathway

Research

- Research examples of best practice that are already tackling these problems effectively – start with our example case studies in the Solutions section

Identify and implement

- Identify improvements that can be made easily with existing resourcing by making small adjustments – for example:
  - Audit HES coding to ensure that data is being coded correctly
  - Consider switching to a treat-and-extend protocol to optimise the number of injections per patient
  - Develop local referral guidance for opticians to improve referral quality
- Consider alternative or innovative changes – for example:
  - Ophthalmology diagnostic hubs
  - Single point of access for direct referrals
  - Self-monitoring apps between injections to support treat-and-extend models
  - One-stop clinics
  - AI telephone support for patients for other conditions to free up clinician time
  - Digital integration

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Looking to the future

Optimise engagement

- To ensure that patients in the disadvantaged groups identified in our study have equity of access to services and injections, it is vital that local and system leaders identify why particular populations locally are experiencing lower rates of appointments and injections and longer wait times

Review	Invite	Map	Research	Identify and implement

• Review the Data Centre of this report to familiarise yourself with the situation nationally and see how ICBs compare
• Use the alerts and suggested starting points for exploration in the ICB Deep Dive to delve deeper into the local situation
• Review the national- and ICB-level Reflections to identify topics where you might want to focus
	• Invite stakeholders, including people with lived experience from disadvantaged groups that our analysis has flagged locally, to identify barriers to awareness, engagement, access and participation – for example:
	  • What are the barriers to clinician awareness and engagement with disadvantaged groups?
	  • What are the barriers to public awareness in disadvantaged groups?
	  • What are the barriers to engagement among disadvantaged groups?
	  • What are the barriers to access among disadvantaged groups?
		• Map out identified barriers and where they fit in the pathway to identify where work is needed	• Research examples of best practice that are already tackling these problems effectively – start with our example case studies in the Solutions section	• Identify improvements that can be made easily with existing resourcing by making small adjustments – for example:
				  • Develop public and patient information materials targeted to groups that can be circulated in relevant settings – for example, community centres, churches, mosques, mental health clinics, shopping centres, public toilets
				• Consider alternative or innovative changes – for example:
				  • Expand clinic opening hours to make it easier for working-age people to attend clinics
				  • Tailor clinic availability and opening hours to local public transport to make it easier for people to attend clinics
				  • Introduce community ophthalmology clinics to bring appointments closer to home

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HSJ Advisory

Appendices



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Appendix 1: NHS pathways

We used the following GIRFT pathways to identify common steps to map a pathway to inform our data analysis:[48–50]

- emergency eye care
- AMD
- diabetic macular oedema

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Appendix 2: Study methods – methods, setting and study period

Study methods and setting

In this observational study, we used Hospital Episode Statistics (HES)[1] and Emergency Care Dataset (ECDS) data[51] to analyse:

- patients attending hospital by diagnosis
- patients attending an outpatient appointment after referral from optician
- patients receiving their first intravitreal injection
- patients receiving at least one intravitreal injection (either first or repeat)
- overall intravitreal injection activity
- injectors
- treatment sites for injections.

Study period

The study period was 1 April 2019 to 31 March 2024, as this was the most recent available finalised period in HES at the time of the study.

For our analysis, we queried the 12-month periods April 2019 to March 2020, April 2020 to March 2021, April 2021 to March 2022, April 2022 to March 2023, and April 2023 to March 2024.

We also used data from ECDS when looking at presentation in hospital by diagnosis, which were only available for 2021/2022–2023/2024.

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Appendix 2: Study methods – study attributes

Patients attending hospital by diagnosis (hospital attendance)

Numbers were defined as patients aged ≥50 years who had a hospital inpatient spell, outpatient or emergency care attendance. The table on the right shows the World Health Organization's International Classification of Disease codes, 10th revision (ICD-10) codes[60] (used for inpatient and outpatient attendance) and Electronic Health Record (SNOMED) clinical term codes[61] (used for ECDS attendance).

These diagnoses were chosen to look at the overall burden on the system of common conditions that could require an intravitreal injection.

Data were split by the following:

- hospital setting – inpatient, outpatient or accident and emergency (A&E)
- IMD,[62] age and ethnicity (see Social determinants of health for definitions)

Rates per 1,000 of the population aged ≥50 years for each diagnosis were calculated at national and ICB levels using Office for National Statistics (ONS) data on the most recent population data available (mid-2022).[63]

ICD-10 and SNOMED codes included in the analysis[60,61]

Diagnosis	Code type	Code	Description
Age-related macular degeneration	ICD-10	H353	• Degeneration of macula and posterior pole
	SNOMED	414875008	• Non-exudative age-related macular degeneration
		247153005	• Retinal drusen
		414173003	• Exudative age-related macular degeneration
		231995008	• Myopic chorioretinal atrophy
Diabetes with ophthalmic complications	ICD-10	E113	• Non-insulin independent diabetes with ophthalmic complications
	SNOMED	4855003	• Retinopathy due to diabetes mellitus
Retinal vein occlusion	ICD-10	H348	• Other retinal vascular occlusions
	SNOMED	68478007	• Central retinal vein occlusion
Visual impairment/ blindness	ICD-10	H54	• Visual impairment including blindness (binocular or monocular)
	SNOMED	193699007	• Blindness – both eyes
		274571007	• Blind left eye
		274572000	• Blind right eye
		22950006	• Blindness of one eye
		170727003	• Registered blind

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Patients attending an outpatient appointment after referral from optician (first appointment)

A count of outpatient first attendances (or first/follow-up unknown) in ophthalmology and the average days waiting from request for appointment, where the referral source is listed as optician and any of the following main specialties are coded:

Main specialties

Specialty	Main specialty
Ophthalmology	• General surgery • Ophthalmology • Medical ophthalmology • Optometry • Nursing • Allied health professional

Other specialities had optician referrals against them but these were discounted as it is unlikely that an ophthalmologist would have been working in a speciality not listed in the table to the left

Data were split by:

- referral type (non-urgent or urgent)
- appointment attendance (attended, patient cancelled, hospital cancelled, or patient did not attend)
- IMD, age and ethnicity (see Social determinants of health for definitions)

Rates per 1,000 of the population aged ≥50 years having a first appointment were calculated at national and ICB levels using the latest available ONS data (mid-2022).[63]

Percentage of patient cancelled, hospital cancelled and patient did not attend were calculated as a percentage of all appointments.

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Appendix 2: Study methods – study attributes

Patients receiving their first intravitreal injection (first injection)

A count of patients receiving their first injection in an inpatient spell or outpatient attendance.

Definition of injection

Operation type	OPCS code[64]	Operation description
Injections	C794	• Injection Into Vitreous Body not elsewhere coded (nec)

OPCS-4, OPCS Classification of Interventions and Procedures version 4.

Data were split by:

- Priority of referral (routine or urgent) for outpatient activity
- IMD, age and ethnicity (see Social determinants of health for definitions).

Rates per 1,000 of the population aged ≥50 years having a first injection were calculated at national and ICB levels using the latest available ONS data (mid-2022).[63]

Overall intravitreal injection activity (all injections)

- Patient numbers and activity totals were calculated for “injection into vitreous body nec”.
- Average number of injections per patient (injection activity divided by patient number)

Data were split by:

- IMD, age and ethnicity (see Social determinants of health for definitions).

Rates per 1,000 of the population aged ≥50 years having an injection were calculated at national and ICB level using latest available ONS data (mid-2022).[63]

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Injectors

A count of injectors who performed at least 20 "Injection Into Vitreous Body nec" procedures in a financial year (from 2019/2020 to 2023/2024) by ICB. For ICB-level data, this meant an injector had performed at least 20 relevant procedures for patients registered at a GP practice in that ICB.

Normalised rates of injectors per 100,000 population aged ≥50 years have been calculated using latest available ONS data (mid-2022).[63]

Injection sites

A count of hospital sites where at least 1,000 "Injection Into Vitreous Body nec" procedures were performed in a financial year (from 2019/2020 to 2023/2024) by ICB. For ICB-level data, this means the hospital site has performed at least 1,000 relevant procedures for patients registered at a GP practice in that ICB.

Normalised counts of treatment sites per 100,000 population aged ≥50 years have been calculated using latest available ONS data (mid-2022).[63]

Estimating additional sessions required to deliver forecasted activity

We estimated the number of additional injections sessions that may be needed for future activity based on forecast injection activity and the assumption that 15.9 injections can be delivered in a 4-hour session (as per GIRFT report[25]). We divided the projected total number of injections at a national level and at each ICB by 15.9 to estimate the number of sessions needed to deliver forecast injections.

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Appendix 2: Study methods – social determinants of health

Investigating different social determinants of health and their relationship with diagnosis or intravitreal injection activity may reveal unwarranted variation and healthcare inequalities. We analysed the following social determinants of health:

Age

The cohort of patients included in the data was defined as patients aged ≥50 years.

When analysing individual age groups, the following five age groups were defined:

- 50–59 years
- 60–69 years
- 70–79 years
- 80–89 years
- ≥90 years.

Patient numbers were taken from HES[1] and used in combination with published ICB-level data for each individual age group to work out rates per 1,000 of the population for each individual age group using the latest available ONS data (mid-2022).[63]

Deprivation

We defined deprivation by the Indices of Multiple Deprivation (IMD) Lower-layer Super Output Areas (LSOA) where the patient resides.[65] We further quantified deprivation into Quintiles 1 (most deprived 20th percentile of population) through Quintile 5 (least deprived 20th percentile).

To work out rates per 1,000 of the population at ICB level, we used ONS (mid-2020) published data, which shows age at LSOA level, and then matched this to IMD quintile at LSOA level to define the population aged ≥50 years in each IMD at all ICBs.[65]

Ethnicity

HES data categorise patients as White, Black, Asian, Mixed, Other, and Unknown.[1] We took patient counts on each ethnicity for patients aged ≥50 years. Rates of the population were not calculated for ethnicity, as the total population of each ethnicity aged ≥50 years is not available.

Geography

We analysed data for England in total and for each of the 42 ICBs.

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Appendix 2: Study methods – forecasting methods used in deep dive

Forecasting methods

New patients receiving injections and all injection activity (either first or repeat) have been forecast through to 2027/2028 (financial years 2024/2025, 2025/2026, 2026/2027 and 2027/2028) using the FORECAST.LINEAR function. This function performs a linear regression on the base period data in order to forecast the projection period. A considerable degree of judgement went into this projection, notably:

- Only the prior three years (2021/2022, 2022/2023 and 2023/2024) were chosen. We considered the year 2020/2021 to be an outlier (due to COVID) so did not include it in the projection.
- Projection was done at the age band level. We considered age band to be the most robust way to stratify and project, anchored on the hypothesis that older patients are expected to have a much higher incidence of AMD. The age bands into which the data were stratified were 50–59 years, 60–69 years, 70–79 years, 80–89 years and ≥90 years. These age band totals were then summed up to give projections for age ≥50 years overall.
- Projecting at ICB level reflects ICB-level patterns in patient injection activity. Projecting at national level provides a way to sense-check the total of ICB-level projections. Projections were aggregated together to calculate the national (England) projections presented in this report.
- Adjustments were made for the uncommon circumstance of patient numbers trending downwards from 2021/2022 to 2023/24. In those cases, we set projection year patient injections equal to 2023/24.

Note also that all HES data was either rounded to the nearest multiple of 5 or suppressed. In this analysis, only one ICB age band (out of 210) had suppressed values: Gloucestershire ICB, age ≥90 years. In this case, projected year numbers were also suppressed for this age group.

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Appendix 2: Study methods – defining key indicators in deep dive

Five key indicators were analysed at ICB level, comparing ICB values to the national average. If the ICB value was within a certain percentage of the national average (which varies for each indicator as detailed below), then it was considered within the national average.

The percentage range has been chosen to ensure at least two thirds of ICBs fall within the national average for each indicator. The remainder are classified as either "higher than national average" or "lower than national average".

Definitions of how indicators were classed as below, within or above the national average

Indicator	Time period	Classification and percentage values relating to national average
Percentage of first appointments for optician referrals where the hospital cancelled	2023/2024	• If ICB value within 40% of the national average then "within national average" • If ICB value >40% higher than national average then "higher than national average" (highlighted in red) • If ICB value <40% lower than national average then "lower than national average" (highlighted in green)
Rate of injectors per 100,000 population aged ≥50 years	2019/2020–2023/2024	• If ICB value within 50% of the national average then "within national average" • If ICB value >50% higher than national average then "higher than national average" (highlighted in green) • If ICB value <50% lower than national average then "lower than national average" (highlighted in red)
Rate of patients receiving first injection in outpatients after urgent referral per 1,000 population aged ≥50 years	2023/2024	• If ICB value within 70% of the national average then "within national average" • If ICB value >70% higher than national average then "higher than national average" (highlighted in green) • If ICB value <70% lower than national average then "lower than national average" (highlighted in red)
Rate of patients receiving an injection (either first or repeat) per 1,000 population ≥50 years	2023/2024	• If ICB value within 25% of the national average then "within national average" • If ICB value >25% higher than national average then "higher than national average" (highlighted in green) • If ICB value <25% lower than national average then "lower than national average" (highlighted in red)
Rate of patients receiving an injection (either first or repeat) per 1,000 population ≥50 years: Quintile 1	2023/2024	• If ICB value within 25% of the national average then "within national average". • If ICB value >25% higher than national average then "higher than national average" (highlighted in green) • If ICB value <25% lower than national average then "lower than national average" (highlighted in red)

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Appendix 2: Study methods – statistical testing used in deep dive

To determine whether the rate of injections varies significantly at ICB level compared to the national (England) average, the chi-squared test was used. The chi-squared test was performed on ICB rates of patients receiving an injection (either first or repeat) per 1,000 population in the financial year 2023/2024 and compared to the national average for the cohorts of patient groups on the table to the right.

For each cohort p-values were output. We considered a p-value <0.05 as the threshold for statistical significance, i.e. less than 5% probability that the null hypothesis is true.

Patient cohorts
Rate per 1,000 population aged ≥50 years
Rate per 1,000 population aged 50–59 years
Rate per 1,000 population aged 60–69 years
Rate per 1,000 population aged 70–79 years
Rate per 1,000 population aged 80–89 years
Rate per 1,000 population aged ≥90 years
Rate per 1,000 population aged ≥50 years living in Quintile 1
Rate per 1,000 population aged ≥50 years living in Quintile 2
Rate per 1,000 population aged ≥50 years living in Quintile 3
Rate per 1,000 population aged ≥50 years living in Quintile 4
Rate per 1,000 population aged ≥50 years living in Quintile 5

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Appendix 2: Limitations

Rounding

Rounding patient counts to the nearest multiple of five to protect anonymity impacts the granularity of presented data.

Rates of patients per 1,000 of the population have been calculated using rounded patient counts in the numerator.

Double-counting

There may be an element of double-counting in patient counts across the social determinants of health as a patient might present in hospital more than once a year but have a different age group, ethnicity or IMD quintile recorded in each instance. For example, if a patient changed their residence they may appear in a different IMD quintile or if their age changed from 59 years to 60 years they may be recorded in two different age groups (50–59 years and 60–69 years). Therefore the sum of patients by IMD quintile, ethnicity or age group may appear slightly higher than the patient count for all patients aged ≥50 years.

Similarly, if a patient changed residence to a different ICB they may be recorded in both meaning the sum of ICB patient counts could be slightly higher than the national total.

Please note that there may also be an element of double-counting when conditions are presented in the stacked bar charts, as a patient may present in hospital with more than one of these conditions within the study period.

Ethnicity

Patient ethnicity is frequently coded as ‘Unknown’ in HES data, and ethnic groups, particularly for older age groups, are more likely to be unknown.

Injection activity

As there is no mandatory requirement for HES outpatient episodes to be coded by diagnosis (ICD-10) or by procedure (OPCS-4[64]) the actual activity may be higher than our report is showing.[66]

ICD-10 codes

A patient presenting in hospital with visual conditions may be assigned more than one of the codes analysed over the course of the study period: AMD, diabetes with ophthalmic complications, RVO or visual impairment/blindness. This is particularly true for patients coded with visual impairment/blindness, who were often also coded with one of AMD, diabetes with ophthalmic complications or RVO.

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Appendix 2: Limitations

Population estimates – by age and overall

Rates of patients per 1,000 population aged ≥50 years (or rates of sites/injectors per 100,000 population aged ≥50 years have been calculated using the most recent ONS population estimates at ICB level (mid-2022). Because mid-2022 population estimates have been applied to all years in the study (2021/22, 2022/23 and 2023/24), any small changes in the size of the population aged ≥50 years from year-to-year are unaccounted for in the calculation of rates per 1,000 or per 100,000 population.

Population estimates – by IMD quintile

Rates of patients per 1,000 population aged ≥50 years by IMD quintile have been calculated using ONS mid-2020 population estimates at LSOA level (the latest available data which used the same 2011 LSOA boundaries as the IMD data). Because population estimates by IMD quintile are based on an earlier date period (mid-2020 as opposed to mid-2022), the calculated rates by IMD quintile will not be directly comparable with the calculated rates by age group and overall.

In addition, because mid-2020 population estimates have been applied to all years in the study (2021/22, 2022/23 and 2023/24), any changes in the size of the population aged ≥50 years by IMD quintile from year-to-year are unaccounted for in the calculation of rates per 1,000 population.

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4. ICD-10 codes, terms and text © World Health Organization, 1992-2025
5. ONS Population Estimates for 2024 Integrated Care Boards in England by Single Year of Age and Sex, mid-2011 to mid-2022 are published by ONS (https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/populationprojectionsforsubintegratedcareboardsbysingleyearofageandsexengland) and licensed under the Open Government Licence; ONS Mid-2020 Population Estimates for Lower Layer Super Output Areas in England and Wales by Single Year of Age and Sex are published by ONS (https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimates) and licensed under the Open Government Licence.
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Appendix 4: Data table – patient demographics

Characteristic		First appointment (after optician referral)			First injections (all referral sources)			All injections (all referral sources)*		
		2021/2022	2022/2023	2023/2024	2021/2022	2022/2023	2023/2024	2021/2022	2022/2023	2023/2024
All patients aged ≥50 years		332,490	410,420	555,075	48,310	53,730	59,645	147,470	166,655	191,820
Patients by age group (years)	50–59	36,525	42,820	57,025	4,745	5,610	6,305	10,915	12,645	14,775
	60–69	69,870	85,355	117,170	7,925	9,400	10,170	21,745	25,420	29,670
	70–79	126,235	159,235	215,345	15,710	17,165	19,025	47,655	53,865	61,390
	80–89	86,785	107,900	145,870	15,880	17,235	19,500	56,325	63,205	72,880
	≥90	13,080	151,10	19,660	4,050	4,315	4,645	17,435	19,495	22,000
Patients by IMD quintile	Quintile 1	57,045	69,670	87,290	8,050	8,800	9,860	23,480	26,515	30,260
	Quintile 2	55,570	70,300	93,975	8,620	10,705	11,545	26,445	31,110	36,200
	Quintile 3	68,310	84,900	116,750	10,100	11,580	12,600	31,870	36,270	41,385
	Quintile 4	75,995	93,705	127,375	10,780	11,570	12,840	34,125	38,150	43,445
	Quintile 5	75,565	91,840	129,690	10,755	11,075	12,800	33,265	36,595	42,540
Patients by ethnicity	Asian	10,220	13,805	16,740	1,665	2,825	2,250	4,445	6,235	7,135
	Black	3,660	4,795	5,855	640	1,130	1,085	1,525	2,225	2,760
	Mixed	735	995	1,355	150	175	240	400	505	650
	Other ethnic group	2,765	3,525	4,800	655	1,895	1,230	1,640	3,180	3,750
	Unknown ethnic group	96,165	115,025	195,150	8,900	10,715	11,595	22,870	27,510	32,225
	White	218,950	272,270	331,175	36,300	36,985	43,245	117,610	128,560	147,240

*There may be an element of double-counting in patient counts across the social determinants of health, as a patient might present in hospital more than once a year but have a different age group, ethnicity or IMD quintile recorded in each instance. For example, if a patient changed their residence they may appear in a different IMD quintile or if their age changed from 59 years to 60 years they may be recorded in two different age groups (50–59 years and 60–69 years). Therefore the sum of patients by IMD quintile, ethnicity or age group may appear slightly higher than the patient count for all patients aged ≥50 years.

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Detailed study methods

Appendix 5: ICB deep dive resources – table of alerts for ICBs (table 1 of 2)

ICB name	% Hospital cancellations after optician referral	Rate of injectors per 100,000 population aged ≥50 years	Rate of urgent first injections per 1,000 population aged ≥50 years	Rate of patients receiving an injection per 1,000 population aged ≥50 years	Rate of patients receiving an injection in Quintile 1 per 1,000 population aged ≥50 years
Bath and NE Somerset, Swindon & Wilts	11.6	3.9	1.7	8.2	10.2
Bedfordshire, Luton & Milton Keynes	10.6	8.5	0.3	8.2	8.2
Birmingham & Solihull	13.4	7.0	0.1	9.4	10.0
Black Country	16.9	4.8	0.0	8.8	7.1
Bristol, North Somerset & South Gloucs	14.7	3.2	1.9	11.0	11.0
Buckinghamshire, Oxfordshire and Berkshire West	15.2	6.7	0.5	2.9	3.1
Cambridgeshire & Peterborough	12.4	6.5	0.8	8.9	10.9
Cheshire & Merseyside	20.1	6.2	1.1	6.0	4.5
Cornwall & the Isles of Scilly	23.0	2.6	1.3	11.8	12.1
Coventry & Warwickshire	10.7	10.1	0.4	9.1	9.0
Derby & Derbyshire	11.1	10.2	0.7	6.3	6.4
Devon	15.2	3.2	1.7	11.5	11.8
Dorset	17.7	5.5	0.1	9.1	8.5
Frimley	13.5	11.0	1.8	9.3	7.7
Gloucestershire	5.7	3.9	0.1	1.0	1.0
Greater Manchester	14.3	7.3	0.8	11.2	10.7
Hampshire & Isle of Wight	15.2	5.8	0.7	10.1	10.0
Herefordshire & Worcestershire	7.3	6.3	1.6	10.1	10.8
Hertfordshire & West Essex	5.3	11.0	1.2	8.5	7.1
Humber & North Yorkshire	8.6	5.4	1.1	13.9	13.0
Kent & Medway	10.3	6.0	1.1	8.3	8.2

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

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Appendix 5: ICB deep dive resources – table of alerts for ICBs (table 2 of 2)

ICB name	% Hospital cancellations after optician referral	Rate of injectors per 100,000 population aged ≥50 years	Rate of urgent first injections per 1,000 population aged ≥50 years	Rate of patients receiving an injection per 1,000 population aged ≥50 years	Rate of patients receiving an injection in Quintile 1 per 1,000 population aged ≥50 years
Lancashire & South Cumbria	16.5	6.3	1.0	9.5	9.5
Leicester, Leicestershire & Rutland	11.1	6.6	0.4	8.5	8.5
Lincolnshire	18.5	8.5	1.7	9.5	8.9
Mid & South Essex	19.7	6.9	1.6	7.8	7.4
Norfolk & Waveney	2.7	3.4	0.0	10.7	10.3
North Central London	13.2	10.8	1.0	8.1	7.4
North East & North Cumbria	14.7	6.4	0.9	11.5	11.4
North East London	31.8	4.7	0.7	6.3	6.4
North West London	12.4	12.3	1.1	8.4	10.0
Northamptonshire	9.7	7.4	0.9	9.2	9.2
Nottingham & Nottinghamshire	11.0	4.3	1.0	9.5	10.3
Shropshire, Telford and Wrekin	3.1	11.3	2.0	8.4	9.1
Somerset	19.1	11.5	1.4	10.3	10.7
South East London	16.6	9.7	0.7	8.9	8.6
South West London	22.5	8.2	1.0	6.8	9.0
South Yorkshire	13.4	3.4	1.3	10.6	10.0
Staffs & Stoke-on-Trent	14.9	7.7	0.7	8.6	8.3
Suffolk and NE Essex	3.4	5.1	2.0	9.9	8.6
Surrey Heartlands	10.5	14.0	1.3	7.5	11.6
Sussex	13.0	5.9	1.5	9.9	9.7
West Yorkshire	13.5	3.6	0.9	5.2	5.5

Statistically lower than the national average
No statistical difference from the national average
Statistically higher than the national average

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Appendix 6: Can we do better? Questions for ICBs to consider

Indicator	Amber alert	Neutral alert	Green alert
% of hospital cancellations for first appointment after optician referral	• What are the key reasons for hospital cancellations and how can they be reduced? • What plans are in place to cover clinician sickness and unexpected leave? • How can appointment numbers be increased to reduce hospital cancellations closer to the national average? • How can services be redesigned to reduce hospital cancellations closer to the national average? • How do hospital cancellations affect wait times and patient outcomes? • How can capacity be increased to minimise cancellations as the number of patients needing appointments increases in the future?	• What are the key reasons for hospital cancellations and how can they be reduced further? • What plans are in place to cover clinician sickness and unexpected leave? • How can appointment numbers be increased to further reduce hospital cancellations? • How can services be redesigned to further reduce hospital cancellations? • How do hospital cancellations affect wait times and patient outcomes? • How can capacity be increased to minimise cancellations as the number of patients needing appointments increases in the future?	• What are the key reasons for hospital cancellations and how can they be minimised? • What plans are in place to cover clinician sickness and unexpected leave? • How can appointment numbers be increased to further improve on hospital cancellations? • How can services be redesigned to further improve on hospital cancellations? • How do hospital cancellations affect wait times and patient outcomes? • How can capacity be increased to maintain low cancellation rates as the number of patients needing appointments increases in the future?
Rate of injectors per 1,000 population aged >50 years	• How does the number of injectors correlate with wait times for injections? • Do injector numbers need to increase to increase the number of injections that can be delivered closer to the national average? • How many more injectors will be needed in the future as the number of patients requiring injections increases?	• How does the number of injectors correlate with wait times for injections? • Do injector numbers need to be increased to further increase the number of injections that can be delivered? • How many more injectors will be needed in the future as the number of patients requiring injections increases?	• How does the number of injectors correlate with wait times for injections? • Do injector numbers need to be increased to further improve on the number of injections that can be delivered? • How many more injectors will be needed in the future as the number of patients requiring injections increases?
Rate of urgent first injections per 1,000 population aged ≥50 years	• How can appointment numbers be increased to increase rates closer to the national average? • How can services be redesigned to increase rates closer to the national average? • Are more injectors/injection sites needed to meet demand? • How can capacity be increased as the number of patients needing injections increases in the future?	• How can appointment numbers be increased to further increase rates of urgent injections? • How can services be redesigned to further increase rates of urgent injections? • Are more injectors or injection sites needed to meet demand? • How can capacity be increased as the number of patients needing injections increases in the future?	• How can appointment numbers be increased to further improve on rates of urgent injections? • How can services be redesigned to further improve on rates of urgent injections? • How can capacity be increased as the number of patients needing injections increases in the future?

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Appendix 6: Can we do better? Questions for ICBs to consider

Indicator	Amber alert	Neutral alert	Green alert
Rate of patients receiving at least one injection (either first or repeat) per 1,000 population aged ≥50 years	• Are rates lower than the national average because of the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • How can appointment numbers be increased to bring rates closer to the national average? • Are more injectors/injection sites needed to meet immediate demand? • How can services be redesigned to bring rates closer to the national average? • Can a different injection protocol be introduced? • How can capacity be increased as the number of patients needing injections increases in the future?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • How can appointment numbers be increased to further increase rates? • Are more injectors/injection sites needed to meet immediate demand? • How can services be redesigned to further increase rates? • Can a different injection protocol be introduced? • How can capacity be increased as the number of patients needing injections increases in the future?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • How can appointment numbers be increased to further improve on rates? • Are more injectors/injection sites needed to meet immediate demand? • How can services be redesigned to further improve rates? • Can a different injection protocol be introduced to optimise injection rates? • How can capacity be increased as the number of patients needing injections increases in the future?

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Appendix 6: Can we do better? Questions for ICBs to consider

Indicator	Amber alert	Neutral alert	Green alert
Rate of patients receiving at least one injection (either first or repeat) by age group	• Are rates lower than the national average because of the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • Are all patients in all age groups appropriately reached and engaged with? • How is information communicated to age groups with significantly lower rates? • Are materials being co-created with communities and people with lived experience from age groups with significantly lower rates? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • Are all patients in all age groups appropriately reached and engaged with? • How can communications with different age groups be further improved? • Are materials being co-created with communities and people with lived experience of all ages? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • Are all patients in all age groups appropriately reached and engaged with? • How is information communicated to different age groups? • Are materials being co-created with communities and people with lived experience? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?
Rate of patients receiving at least one injection (either first or repeat) in Quintile 1 per 1,000 population aged ≥50 years within the quintile	• Are rates lower than the national average because of the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • What factors are impacting on rates for people from the most deprived quintile and how can they be addressed? • Is there enough engagement with patients from deprived areas? • How is information communicated to communities in deprived areas? • Are materials being co-created with communities and people with lived experience from deprived areas? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • What factors impacting on rates for people from the most deprived quintile can be further improved? • How can engagement with patients from deprived areas be further improved? • How can communications with different communities be further improved? • Are materials being co-created with communities and people with lived experience? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • What factors impacting on rates for people from the most deprived quintile can be further optimised? • How can engagement with patients from deprived areas be further optimised? • How can communications with different communities be further optimised? • Are materials being co-created with communities and people with lived experience? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?

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Appendix 6: Can we do better? Questions for ICBs to consider

Indicator	Amber alert	Neutral alert	Green alert
Rate of patients receiving at least one injection (first and/or repeat) by deprivation	• Are rates lower than the national average because of the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • What factors are impacting on rates for people from quintiles with significantly lower rates and how can they be addressed? • Is there enough engagement with people from quintiles with significantly lower rates? • How is information communicated to people from quintiles with significantly lower rates? • Are materials being co-created with communities and people with lived experience from quintiles with significantly lower rates? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • How can any factors impacting on rates for people from areas with different levels of deprivation be addressed to further improve rates? • How can engagement with people from areas with different levels of deprivation be improved? • How can communications with people from areas with different levels of deprivation be improved? • Are materials being co-created with communities and people with lived experience from areas with different levels of deprivation? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?	• Are rates in line with the injection protocol implemented? (Different models may mean injection rates are lower, but patients are still receiving an appropriate standard of care.) • How can any factors impacting on rates for people from areas with different levels of deprivation be further optimised? • How can engagement with people from areas with different deprivation levels be further optimised? • How can communications with people from areas with different levels of deprivation be further optimised? • Are materials being co-created with communities and people with lived experience from areas with different levels of deprivation? • Are clinics close to people's workplaces and open outside normal working hours? • Are clinics easily accessible via public transport, especially for those with limited mobility and visual impairment?

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A&E	accident and emergency
AI	artificial intelligence
AMD	age-related macular degeneration
BRVO	branch retinal vein occlusion
CPD	continuing professional development
CRVO	central retinal vein occlusion
CVI	Certificate of Vision Impairment
DALY	disability-adjusted life-year
DMO	diabetic macular oedema
DNA	did not attend
ECDS	Emergency Care Dataset
GIRFT	Getting It Right First Time
GOS	General Ophthalmic Services
HCA	healthcare assistant
HCP	healthcare professional
HES	Hospital Episode Statistics
ICB	integrated care board
ICD-10	International Classification of Disease codes, 10th revision
IOP	intraocular pressure
IMD	Index of Multiple Deprivation
LSOA	Lower-layer Super Output Area
MDT	multidisciplinary team
nec	not elsewhere coded
NICE	National Institute for Health and Care Excellence
OCT	optical coherence tomography
ONS	Office for National Statistics
OPCS-4	OPCS Classification of Interventions and Procedures version 4
PCSE	Primary Care Support England
PROMS	patient-reported outcome measures
RCO	Royal College of Ophthalmologists
RVO	retinal vein occlusion
SNOMED	Structured Clinical Vocabulary for use in an Electronic Health Record
SPoA	single point of access
TREX	treat-and-extend
VEGF	vascular endothelial growth factor

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1. NHS England. *Hospital Episode Statistics (HES).* Available at: https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/hospital-episode-statistics (accessed April 2025).
2. NHS England. *Registered blind and partially sighted people, England 2019-20.* 2021. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/registered-blind-and-partially-sighted-people/registered-blind-and-partially-sighted-people-england-2019-20 (accessed April 2025).
3. Royal National Institute for the Blind (RNIB). *Key statistics about sight loss.* Available at: https://media.rnib.org.uk/documents/Key_stats_about_sight_loss_2021.pdf (accessed April 2025).
4. Quartilho A, Simkiss P, Zekite A *et al.* Leading causes of certifiable visual loss in England and Wales during the year ending 31 March 2013. *Eye* 2016;**30**:602–7. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC5108547 (accessed April 2025).
5. Macular Society. *Age-related macular degeneration (AMD).* Available at: https://www.macularsociety.org/macular-disease/macular-conditions/wet-age-related-macular-degeneration/ (accessed April 2025).
6. National Ophthalmology Database Audit. *The first report of age-related macular degeneration audit (AMD). Patients starting treatment for neovascular AMD in the 2020 NHS year (01 April 2020 to 31 March 2021).* 2023. Available at: https://nodaudit.org.uk/sites/default/files/2023-02/NOD%20AMD%20Audit%20Full%20Annual%20Report%202023_0.pdf (accessed April 2025).
7. Pezzullo L, Streatfield J, Simkiss P, Shickle D. The economic impact of sight loss and blindness in the UK adult population. *BMC Health Serv Res* 2018;**18**:63.
8. Association of Optometrists (AOP). *RNIB predicts 27% rise in people living with sight loss in the UK by 2035.* Available at: https://www.aop.org.uk/ot/news/2024/10/14/rnib-predicts-27-rise-in-people-living-with-sight-loss-in-the-uk-by-2035 (accessed April 2025).
9. RNIB. *World Sight Day 2024.* Available at: https://www.rnib.org.uk/news/world-sight-day-2024/ (accessed April 2025).
10. Macular Society, Fight for Sight/Vision Foundation, RNIB, Association of Optometrists, Royal College of Optometrists, Roche. *Laying the foundations for the future of eye health in England.* 2023. Available at: https://eyeshaveit.co.uk/wp-content/uploads/2024/06/Laying-the-foundations-for-the-future-of-eye-health-in-England.pdf (accessed May 2025).
11. RNIB. Key information and statistics on sight loss in the UK. Available at: https://www.rnib.org.uk/professionals/health-social-care-education-professionals/knowledge-and-research-hub/key-information-and-statistics-on-sight-loss-in-the-uk/ (accessed April 2025).
12. Welp A, Woodbury RB, McCoy MA, *et al,* editors. *Making eye health a population health imperative: vision for tomorrow.* 2016. Available at: https://www.ncbi.nlm.nih.gov/books/NBK402367/ (accessed April 2025).
13. Centers for Disease Control and Prevention. *Why vision loss is a public health problem.* Available at: https://www.cdc.gov/vision-health/about-eye-disorders/vision-loss-public-health-problem.html (accessed April 2025).
14. Slade J, Edwards E, White A. *Employment status and sight loss.* 2017. Available at: https://media.rnib.org.uk/documents/Employment_status_and_sight_loss_2017_0ONDEUK.docx (accessed April 2025).
15. Padley M, Ellis W. *Sight loss and the minimum cost of living 2024 update.* Available at: https://media.rnib.org.uk/documents/Sight_loss_and_the_minimum_cost_of_living_2024_Update.docx (accessed April 2025).
16. Fight for Sight. *Time to Focus.* Available at: https://www.fightforsight.org.uk/media/voaj1bxm/time-to-focus-report.pdf (accessed April 2025).
17. Department of Health and Social Care. *Fingertips: vision.* Available at: https://fingertips.phe.org.uk/profile/vision (accessed April 2025).
18. World Health Organization. *Blindness and visual impairment.* Available at: https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment (accessed April 2025).
19. National Institute for Health and Care Excellence (NICE). *Clinical knowledge summary: macular degeneration – age related.* 2022. Available at: https://cks.nice.org.uk/topics/macular-degeneration-age-related (accessed April 2025).
20. Hobbs SD, Tripathy K, Pierce K. *Wet age-related macular degeneration (AMD).* Available at: https://www.ncbi.nlm.nih.gov/books/NBK572147/ (accessed April 2025).
21. Kohli P, Tripathy K, Patel BC. *Macular edema.* Available at: https://www.ncbi.nlm.nih.gov/books/NBK576396/ (accessed April 2025).
22. Blair K, Czyz CN. *Central retinal vein occlusion.* Available at: https://www.ncbi.nlm.nih.gov/books/NBK525985/ (accessed April 2025).
23. Shukla UV, Tripathy K. *(2025) Diabetic retinopathy.* 2025. Available at: https://www.ncbi.nlm.nih.gov/books/NBK560805/ (accessed April 2025).
24. RNIB. *Fact sheet: anti-VEGF treatment.* Available at: https://www.rnib.org.uk/documents/686/Anti_VEGF_2024.docx (accessed April 2025).
25. Getting It Right First Time (GIRFT). *Ophthalmology: GIRFT Programme national specialty report.* 2019. Available at: https://gettingitrightfirsttime.co.uk/wp-content/uploads/2019/12/OphthalmologyReportGIRFT19P-FINAL.pdf (accessed April 2025).
26. Royal College of Ophthalmologists (RCO). *Census report: Facing workforce shortages and backlogs in the aftermath of COVID-19: the 2022 census of the ophthalmology consultant, trainee and SAS workforce.* 2023. Available at: https://www.rcophth.ac.uk/wp-content/uploads/2023/03/2022-Ophthalmology-census-Facing-workforce-shortages-and-backlogs-in-the-aftermath-of-COVID-19.pdf (accessed April 2025).

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27. AOP. *NHS patient backlogs are leading to life-changing sight loss.* Available at: https://www.aop.org.uk/our-voice/media-centre/press-releases/2023/03/21/nhs-patient-backlogs-are-leading-to-life-changing-sight-loss (accessed April 2025).
28. Davey CJ, Green C, Elliott DB. Assessment of referrals to the hospital eye service by optometrists and GPs in Bradford and Airedale. *Ophthalmic Physiol Opt* 2011;**31**:23–8.
29. Carmichael J, Abdi S, Balaskas K *et al.* Assessment of optometrists' referral accuracy and contributing factors: a review. *Ophthalmic Physiol Opt* 2023;**43**:1255–77.
30. Clarke M. NHS sight tests include unevaluated screening examinations that lead to waste. *BMJ* 2014;**348**:g2034.
31. Jindal A, Ctori I, Fidalgo B. Impact of optical coherence tomography on diagnostic decision-making by UK community optometrists: a clinical vignette study. *Ophthalmic Physiol Opt* 2019;**39**:205–15.
32. General Optical Council. *Standards of practice for optometrists and dispensing opticians.* Available at: https://optical.org/standards-and-guidance/standards/standards-of-practice-for-optometrists-and-dispens.html (accessed April 2025).
33. Sanders FWB, John R, Jones P, Williams GS. A novel optometry-led decision-making community referral refinement scheme for neovascular age-related macular degeneration screening. *Clin Optom* 2024;**16**:293–299.
34. Fulcher C, Davey C, Denniss J. The quality, accuracy and appropriateness of UK optometric age-related macular degeneration referrals. *Ophthalmic Physiol Opt* 2025;**45**:799–809.
35. Khou V, Ly A, Moore L *et al.* Review of referrals reveal the impact of referral content on the triage and management of ophthalmology wait lists. *BMJ Open* 2021;**11**:e347246.
36. College of Optometrists. *Communication, partnership and teamwork: working with colleagues – referrals.* Available at: https://www.college-optometrists.org/clinical-guidance/guidance/communication,-partnership-and-teamwork/working-with-colleagues/referrals (accessed April 2025).
37. Cameron JR, Ahmed S, Curry P *et al.* Impact of direct electronic optometric referral with ocular imaging to a hospital eye service. *Eye* 2009;**23**:1134–40.
38. Shah R, Edgar DF, Khautoon A *et al.* Referrals from community optometrists to the hospital eye service in Scotland and England. *Eye* 2022;**36**:1754–60.
39. Bourne RRA, Jonas JB, Bron AM *et al.* Prevalence and causes of vision loss in high-income countries and in Eastern and Central Europe in 2015: magnitude, temporal trends and projections. *Br J Ophthalmol* 2018;**102**:575–85.
40. RCO. *Workforce census 2018.* 2018. Available at: https://www.rcophth.ac.uk/wp-content/uploads/2020/05/RCOphth-Workforce-Census-2018.pdf (accessed April 2025).
41. NHS England. *2024/2025 priorities and operational planning guidance.* 2024. Available at: https://www.england.nhs.uk/wp-content/uploads/2024/03/2024-25-priorities-and-operational-planning-guidance-v1.1.pdf (accessed April 2025).
42. NHS England. *Digital eye screening for people with diabetes could save hundreds of thousands of hospital appointments.* 2024. Available at: https://www.england.nhs.uk/2024/11/digital-eye-screening-for-people-with-diabetes-could-save-hundreds-of-thousands-of-hospital-appointments (accessed April 2025).
43. Department of Health & Social Care (DHSC). *Letter setting out general ophthalmic services fees, payments, optical voucher values and hospital eye service maximum charges from 1 April 2024.* 2025. Available at: https://www.gov.uk/government/publications/nhs-general-ophthalmic-service-fees-and-optical-voucher-values-from-april-2024/letter-setting-out-general-ophthalmic-services-fees-payments-optical-voucher-values-and-hospital-eye-service-maximum-charges-from-1-april-2024 (accessed April 2025).
44. Department of Health & Social Care, NHS England. *Reforming elective care for patients.* 2025. Available at: https://www.england.nhs.uk/wp-content/uploads/2023/04/reforming-elective-care-for-patients.pdf (accessed April 2025).
45. NHS England. *Letter: changes to General Ophthalmic Services (GOS) regulations.* 2023. Available at: https://www.england.nhs.uk/long-read/changes-to-general-ophthalmic-services-gos-regulations (accessed April 2025).
46. Primary Care Support England. *Using PCSE Online for ophthalmic payment services: user guide.* Available at: https://pcse.england.nhs.uk/sites/default/files/2024-02/19416-ophthalmic-main-user-guide_v3.pdf (accessed April 2025).
47. AOP. *Our response to the government's consultation on the 10-year health plan.* 2024. Available at: https://www.aop.org.uk/our-voice/policy/consultations/2024/12/03/our-response-to-the-governments-consultation-on-the-10-year-health-plan (accessed April 2025).
48. GIRFT. *Age-related macular degeneration (AMD). Ophthalmology – March 2023.* Available at: https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/03/AMD-pathway.drawio.html (accessed April 2025).
49. GIRFT. *Diabetic macular oedema. Ophthalmology – March 2023.* Available at: https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/03/DMO-pathway.drawio.html (accessed April 2025).
50. GIRFT. *Urgent and emergency eye care. Ophthalmology – March 2023.* Available at: https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/03/Urgent-and-Emergency-Eyecare-Pathway.drawio.html (accessed April 2025).

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51. NHS England. *Emergency Care Data Set (ECDS).* Available at: https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/emergency-care-data-set-ecds (accessed April 2025).
52. NICE. *Age-related macular degeneration. NICE Guidance 82.* 2018. Available at: https://www.nice.org.uk/guidance/ng82 (accessed April 2025).
53. RCO. *Clinical guidelines: retinal vein occlusion (RVO).* 2022. Available at: https://www.rcophth.ac.uk/wp-content/uploads/2015/07/Retinal-Vein-Occlusion-Guidelines-2022.pdf (accessed April 2025).
54. College of Optometrists. *Annex 4: Urgency of referrals table.* Available at: https://www.college-optometrists.org/clinical-guidance/guidance/guidance-annexes/annex-4-urgency-of-referrals-table (accessed April 2025).
55. HSJ Solutions. *Trust removes barriers across multidisciplinary teams to counter the effects of covid-19 on ophthalmology, achieves reduction in cataract waiting times from 43 to 16 weeks.* Available at: https://solutions.hsj.co.uk/diagnostic-hub-helps-shrink-follow-up-waiting-list-and-save-135000-annually/7021356.article (accessed April 2025).
56. HSJ Solutions. *Organisations collaborate for a Single Point of Access for direct community optometrist referrals, managing 17,000 referrals, improving referral accuracy and patient outcomes.* Available at: https://solutions.hsj.co.uk/direct-referral-system-reduces-wait-times-from-11-days-to-2-hours/7022735.article (accessed April 2025).
57. HSJ Solutions. *Trust launches self-assessing eye-test app for its patients, enabling self-diagnosis from home and thereby improving patient experience and safety.* Available at: https://solutions.hsj.co.uk/home-vision-monitor-app-records-14445-self-tests-enabling-early-disease-control/7021490.article (accessed April 2025).
58. HSJ Solutions. *Trust develops an AI telephone solution that delivers clinical conversations to cataract patients at an unlimited scale, reducing nurse-led phone calls by 66 per cent.* Available at: https://solutions.hsj.co.uk/ais-clinical-conversations-free-up-550-hours-of-ophthalmic-nurse-employed-time/7022688.article (accessed April 2025).
59. HSJ Solutions. *Trust set-up a one stop service to maintain treatment cycles of patients with age-related macular degeneration, assessing 2961 patients by ensuring tailored treatment.* Available at: https://solutions.hsj.co.uk/treat-and-extend-model-helps-reduce-1700-hospital-visits-and-increase-capacity/7021064.article (accessed April 2025).
60. World Health Organization. ***International statistical classification of diseases and related health problems, 10th revision.*** Available at: https://icd.who.int/browse10/2019/en (accessed April 2025).
61. NHS Digital. *SNOMED CT.* Available at: https://digital.nhs.uk/services/terminology-and-classifications/snomed-ct (accessed April 2025).
62. Ministry of Housing, Communities and Local Government of the United Kingdom. *English indices of deprivation 2019.* Available at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019 (accessed April 2025).
63. ONS. *Population Estimates for 2024 Integrated Care Boards in England by Single Year of Age and Sex, mid-2011 to mid-2022.* Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/clinicalcommissioninggroupmidyearpopulationestimates (accessed April 2025)
64. NHS Standards Directory. *OPCS classification of interventions and procedures.* Available at: https://standards.nhs.uk/published-standards/opcs-classification-of-interventions-and-procedures (accessed April 2025).
65. ONS. *Mid-2020 population estimates for lower layer super output areas in England and Wales by broad age groups and sex.* Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimatesnationalstatistics (accessed April 2025).
66. Office for Health Improvement & Disparitis. *Vision profile statistical commentary: May 2024.* Available at: https://www.gov.uk/government/statistics/vision-profile-may-2024-update/vision-profile-statistical-commentary-may-2024 (accessed April 2025)

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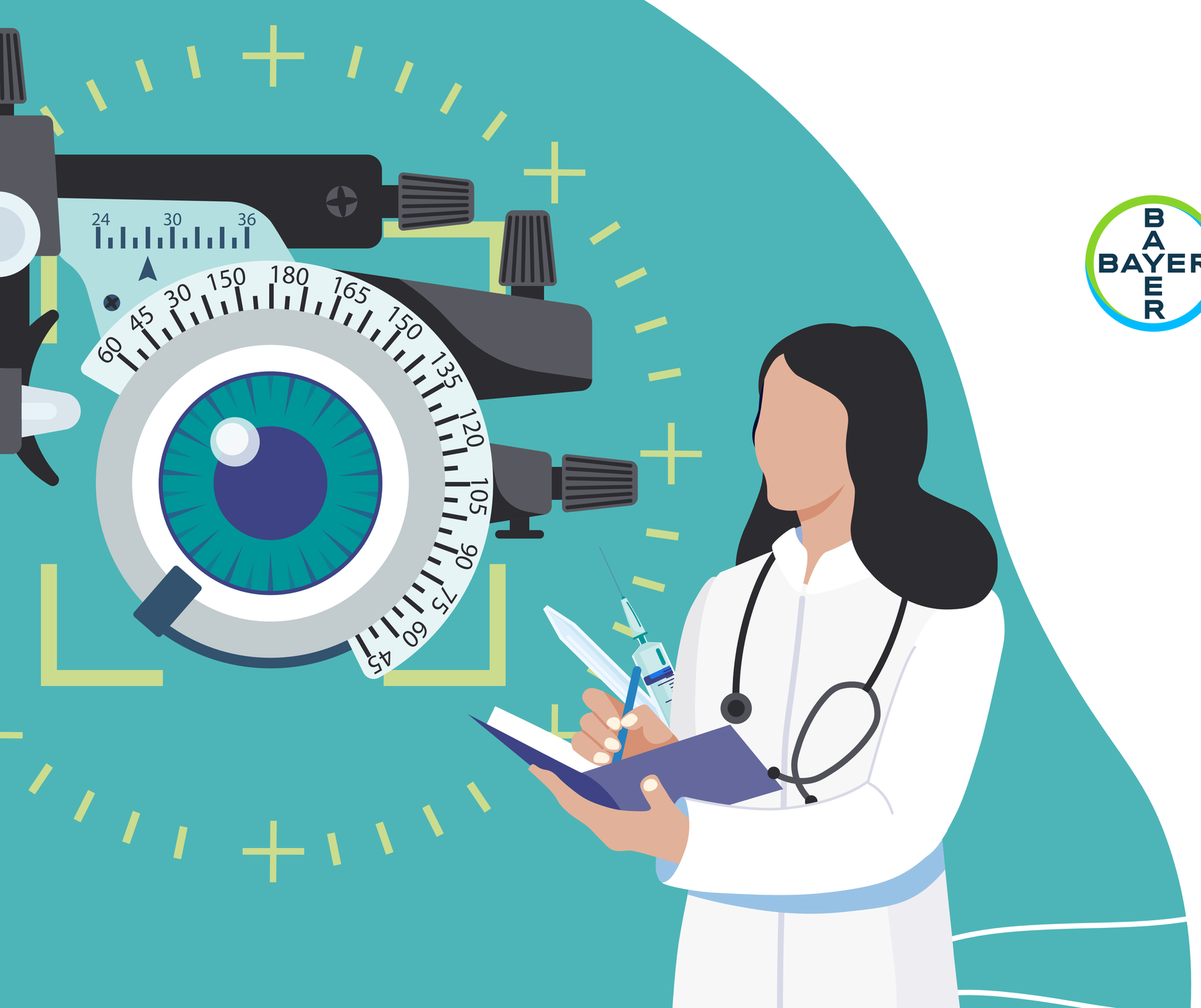
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BAYER

HSJ Advisory

BACK TO START