NCAP

NATIONAL CARDIAC AUDIT PROGRAMME

NICOR

Management of heart attack: Myocardial Ischaemia National Audit Project (MINAP)

with reference to the National Audit of Percutaneous Coronary Intervention (NAPCI)

2025 Annual Report

Data up to 2023/24

British Cardiovascular Society

BCIS

Report at a glance

All data are for 2023/24 unless otherwise stated.

8% reduction in heart attacks reported to MINAP compared with 2017/18 (2% fewer than 2022/23)

3 minutes improvement in median Call-To-Balloon (CTB) time for patients undergoing primary PCI compared to 2022/23 (first reduction in a decade but still 22 minutes longer than in 2014/15)

3 minutes improvement in Call-To-Door (CTD) time

1 in 10 proportion of patients with higher-risk STEMI heart attacks who self-presented to hospital (compared with 5-7% in the pre-pandemic years)

84 minute additional delay in Symptom-To-Balloon (STB) times for self-presenting patients compared with those brought directly to hospital by ambulance

Only **51%** of eligible NSTEMI patients undergo angiography within 72 hours of admission (a 10-year low)

74% proportion of patients with poor heart function prescribed a mineralocorticoid receptor antagonist

Recommendations

1. Given the increased rate of self-presentation, staff in emergency departments and other hospital admission areas should rapidly employ robust systems to identify patients with a heart attack. Hospitals must have agreed processes in place to ensure that patients with a probable higher-risk STEMI heart attack are transferred speedily to a cardiac catheter laboratory for primary PCI.

2. In order to maintain ready access to an emergency ambulance response in the community, ambulance trusts should continue to work with receiving hospitals to facilitate safe and swift handover of patients who are brought to hospital by ambulance.

3. Interventional hospitals should collaborate with local non-interventional hospitals to reverse the decline in the proportion of patients with lower-risk NSTEMI heart attacks who receive an angiogram within 72 hours of admission (e.g. through early identification of suitable patients, rapid electronic referral for angiography, providing weekend elective angiography lists, ring-fencing of beds for NSTEMI patients, and systems for ‘treatment-and-repatriation’ between hospitals).

4. Staff in participating hospitals should use the audit data to examine their performance and compare it with others. Where performance for particular aspects of care appears suboptimal, they should first determine whether this reflects issues of data quality before moving on to implement quality improvement initiatives.

Introduction to the report

The Myocardial Ischaemia National Audit Project (MINAP) is part of the National Cardiac Audit Programme (NCAP) which is run by the National Institute for Cardiovascular Outcomes Research (NICOR). This report summarises the care provided within hospitals in England, Wales and Northern Ireland to almost 82,000 people who suffered a heart attack between April 2023 and March 2024.

A key focus of the audit is to support quality assurance and the improvement of services for people suffering a heart attack. The quality of care they receive is assessed against a set of quality improvement (QI) metrics derived from national and/or international standards and guidelines. These cover patients diagnosed with two types of heart attacks:

- Higher-risk ST-segment elevation myocardial infarction (STEMI)
- Non-ST-segment elevation myocardial infarction (NSTEMI).

This report is designed to be of value to a wide range of stakeholders. The slides in the report are interactive so you can select and explore the data that interest you.

Additional information is available from the National Institute for Cardiovascular Research (NICOR) website on:

- The description, derivation and validity of each metric used in the audit
- Individual hospital performance
- Data submission by hospitals (case ascertainment in the MINAP compared with reported admissions)
- The running of MINAP, including contact details of the NICOR project team, and the dataset.

The audit relies on the active contribution of staff in participating hospitals. Detailed information on almost 82,000 cases has been diligently entered by local clinical and audit teams, with subsequent analysis performed within NICOR. We are very grateful to all these staff for their contributions. We will continue to work closely with hospitals, patients and other stakeholders to improve the quality of audit data and how these are used to improve the provision of high quality care to heart attack patients in the UK.

The NICOR MINAP audit team

Contents of the report

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The number of heart attack cases in 2023/24 fell 2% from the previous year

In 2023/24, of 91,014 submitted episodes with a suspected acute coronary syndrome, 81,814 were confirmed admissions with a heart attack. The latter total is 2% lower than the 83,670 in 2022/23.

This continues the trend of recorded heart attacks reducing over the last 6 years.

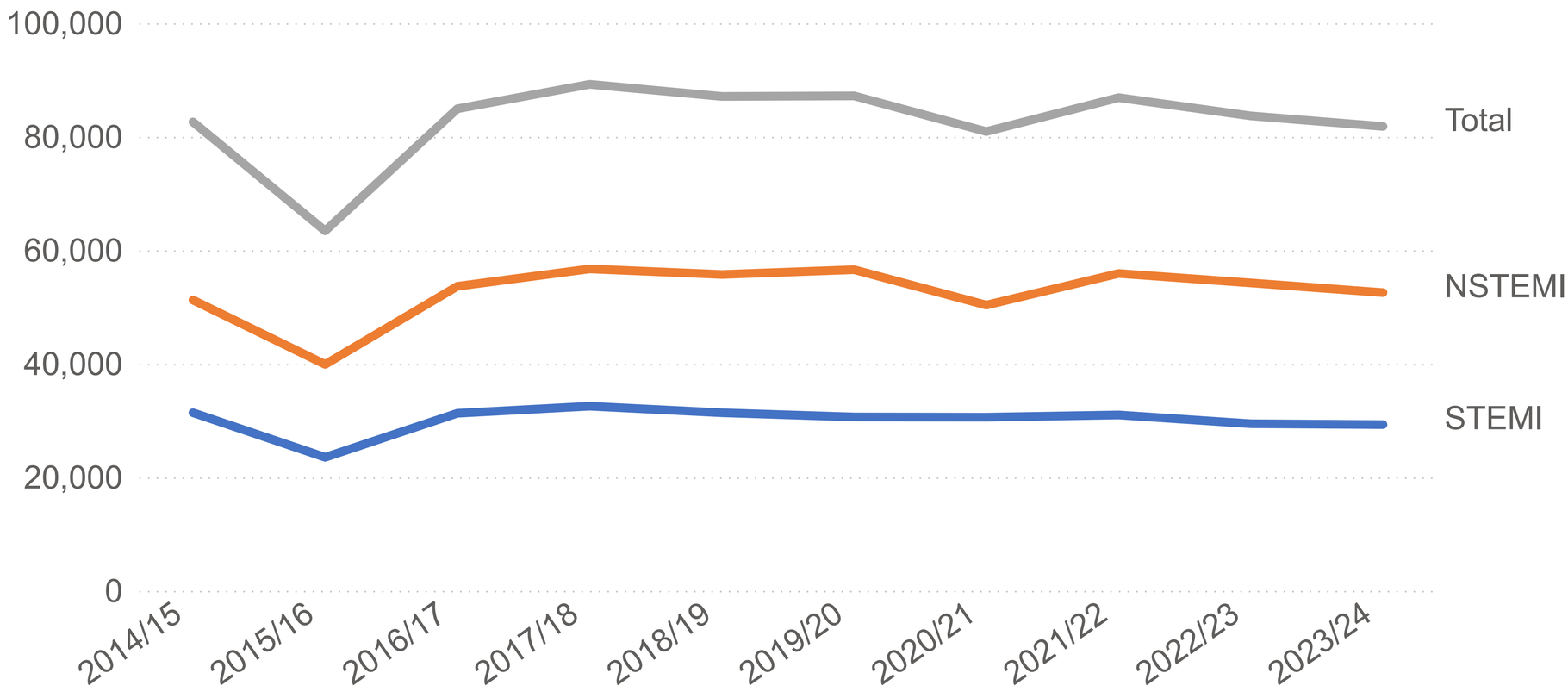
Since 2017/18, there has been an approximate 10% fall in STEMI cases across all age groups.

Just over 1 in 3 patients had ‘higher-risk’ STEMI heart attacks, the remainder being NSTEMIs.

Note: Data for 2015/16 were for 9 months only. The reduction in cases during 2020/21 was during the COVID-19 pandemic.

91,014	81,814	29,282	52,532
Suspected heart attacks	Confirmed heart attacks	Higher-risk STEMI heart attacks	Lower-risk NSTEMI heart attacks

Total STEMI and NSTEMI heart attack cases



The biggest drop in heart attacks has been in patients aged 75 or older

Individuals aged under 65 made up about half of all STEMI cases and about a third of NSTEMI cases.

Fewer heart attacks (especially NSTEMI cases) amongst people aged 75 or older is the main contributor to the overall reduction in cases over the last 6 years.

There was a 14% fall in all heart attacks for this age group between 2017/18 and 2023/24, compared to 4% for the under 65s.

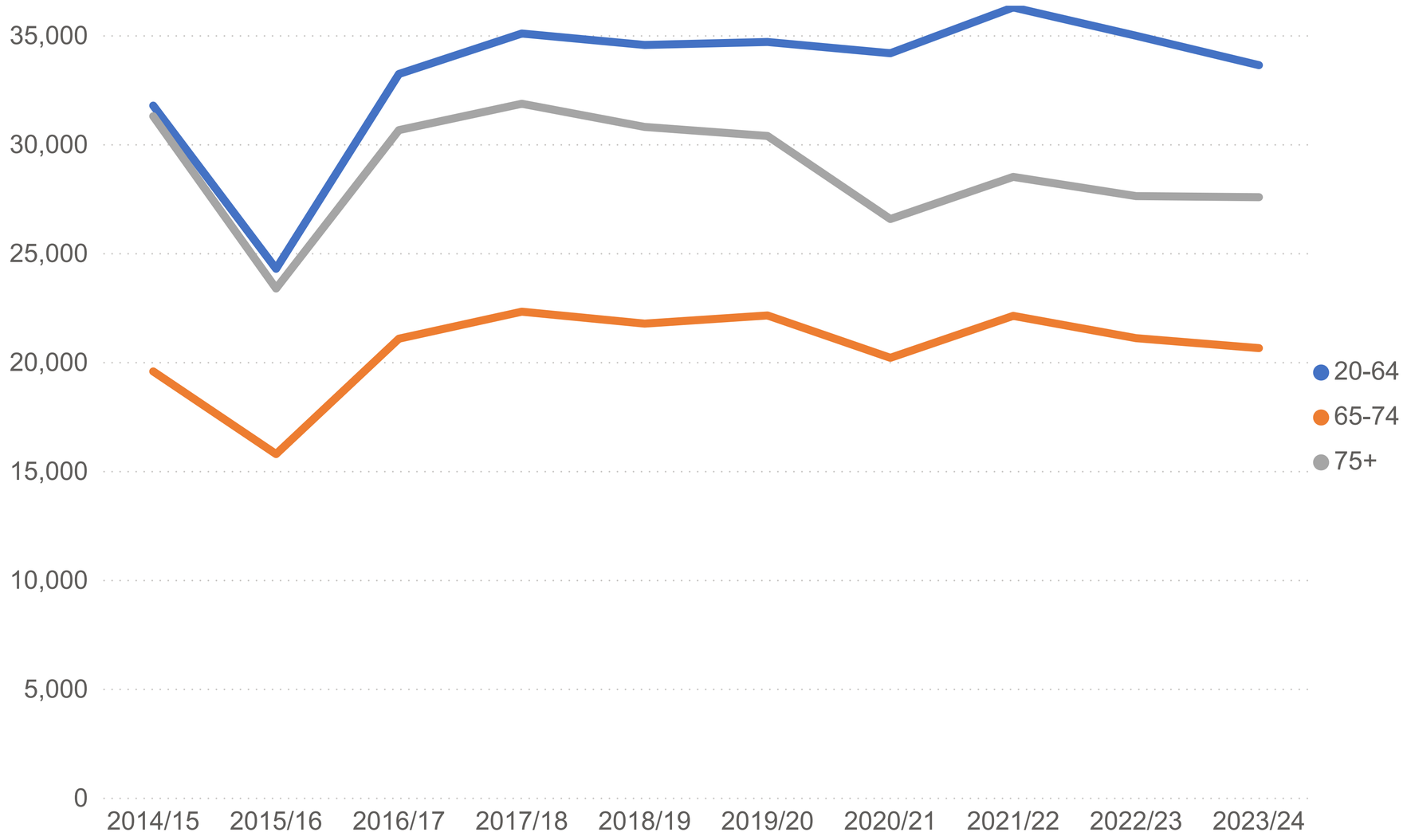
Since 2017/18, there has been a 15% fall in NSTEMI cases in the 75+ age group and a 6% fall in the 65-74 year group. For those under 65, rates appeared to climb for a period after the pandemic but are now very similar to the numbers recorded in 2017/18.

Select heart attack type below to see specific data.

Select heart attack type

Total

STEMI and NSTEMI cases by age group



Population heart attack rates are up to 3 times higher in some areas compared with the lowest levels

There is substantial regional variation in rates of heart attack cases per 100,000 population.

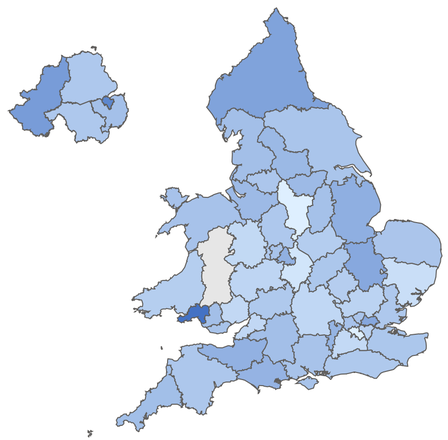
The maps show data for the 42 Integrated Care Boards (ICBs) in England, five Health and Social Care Trusts in Northern Ireland and seven Welsh Health Boards (HBs), with the darker shading indicating higher rates.

The region with the highest rate based on the home location of patients is Hywel Dda Local Health Board (221 per 100,000 population) compared with the lowest rate from Coventry and Warwickshire ICB (69 per 100,000 population).

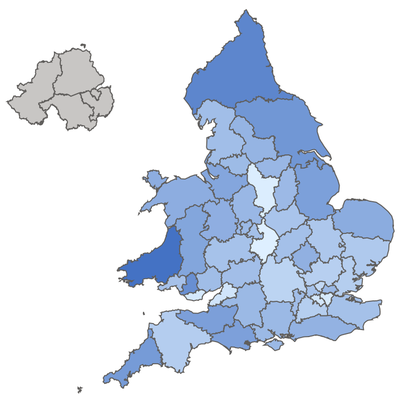
Select heart attack type below to see specific data or select an ICB or HB on the left hand map to see trends for that region.

NOTE: The MINAP audit is not provided with postcodes for patients admitted to hospitals in Northern Ireland so cannot present its rates of cases by patient home location. There is no District General Hospital in Powys that admits heart attack patients.

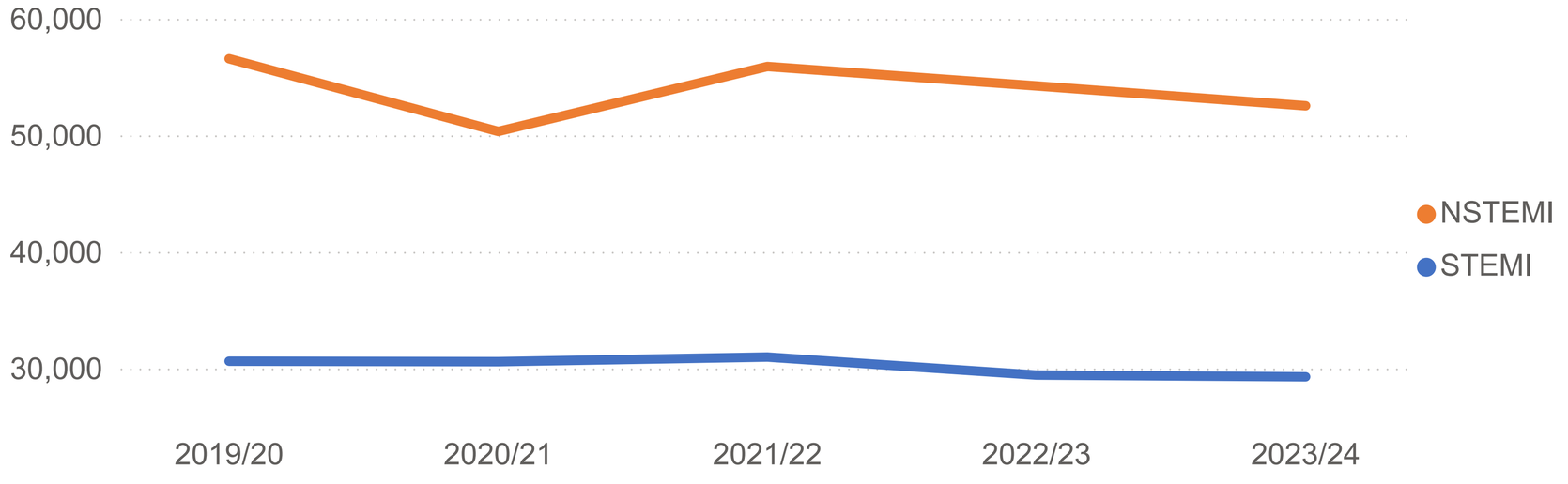
Cases per 100k of population based on hospital location by ICB/HB (2023/24)



Cases per 100k of population based on patient home location by ICB/HB (2023/24)



Total cases for selected ICB / HB based on hospital location



Select heart attack type

Select all | STEMI | NSTEMI

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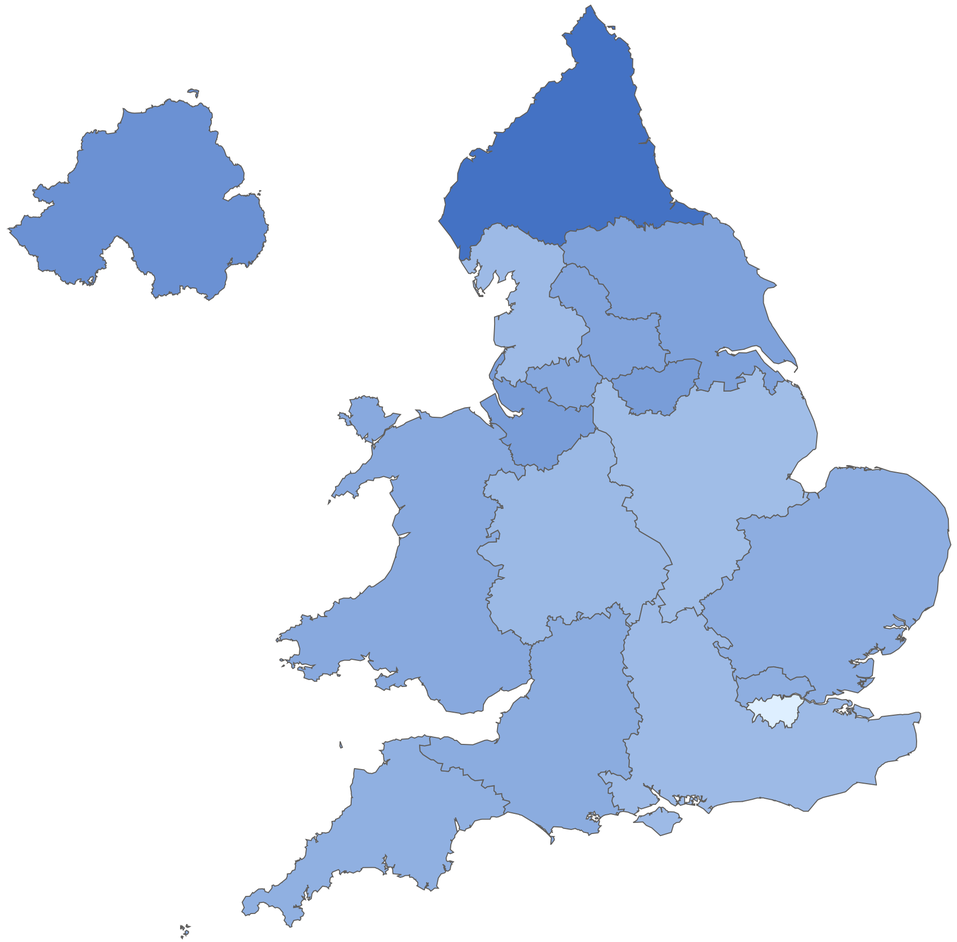
Rates of heart attack cases in the North East and North Cumbria Cardiac Network were more than 3 times higher than in South London

The map shows data for the 17 Cardiac Networks in England, Northern Ireland and Wales, with the darker shading indicating higher rates of heart attack cases per 100,000 population.

North East and North Cumbria Cardiac Network had the highest rate (207 per 100,000 population) while South London Cardiac Network had the lowest rate (57 per 100,000 population).

Cases per 100,000 population based on hospital location by Cardiac Network (2023/24)



The proportion of patients with STEMI receiving reperfusion within 12 hours of symptom onset has fallen over time

In patients with STEMI, reperfusion therapy uses percutaneous coronary intervention (PCI), and in rare cases intravenous ‘clot-busting’ drugs, to restore blood flow through blocked arteries and so reduce heart damage in the early stages of a heart attack.

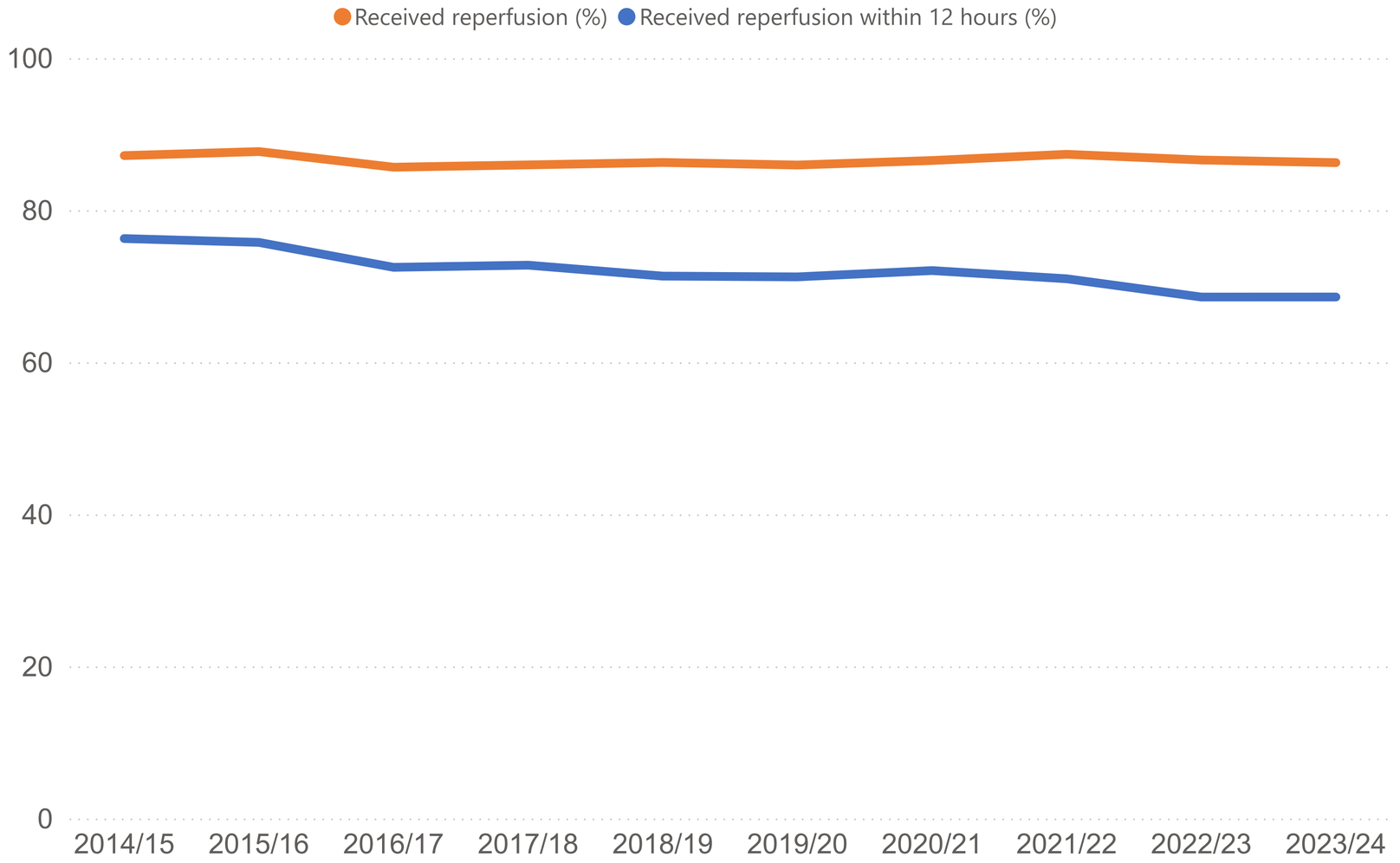
Guidelines suggest all patients with higher-risk STEMI heart attacks should be considered for reperfusion therapy within 12 hours from onset of symptoms.

For all patients with a diagnosis of STEMI the proportion receiving any form of reperfusion treatment has increased, from about 80% to 85%, over the past decade.

If the analysis is restricted to those patients for whom a symptom onset time is recorded (73% of cases), the proportion receiving reperfusion has remained steady at about 86% while the proportion receiving reperfusion within 12 hours of symptom onset has fallen slightly – to just under 70%.

This change – more people being treated but fewer within the target time – may reflect increased delays in patients acting upon symptoms, increasing pre-hospital response times and/or within-hospital delays.

Percentage of STEMI patients with a valid symptom onset time who received reperfusion and those who received it within 12 hours of symptom onset

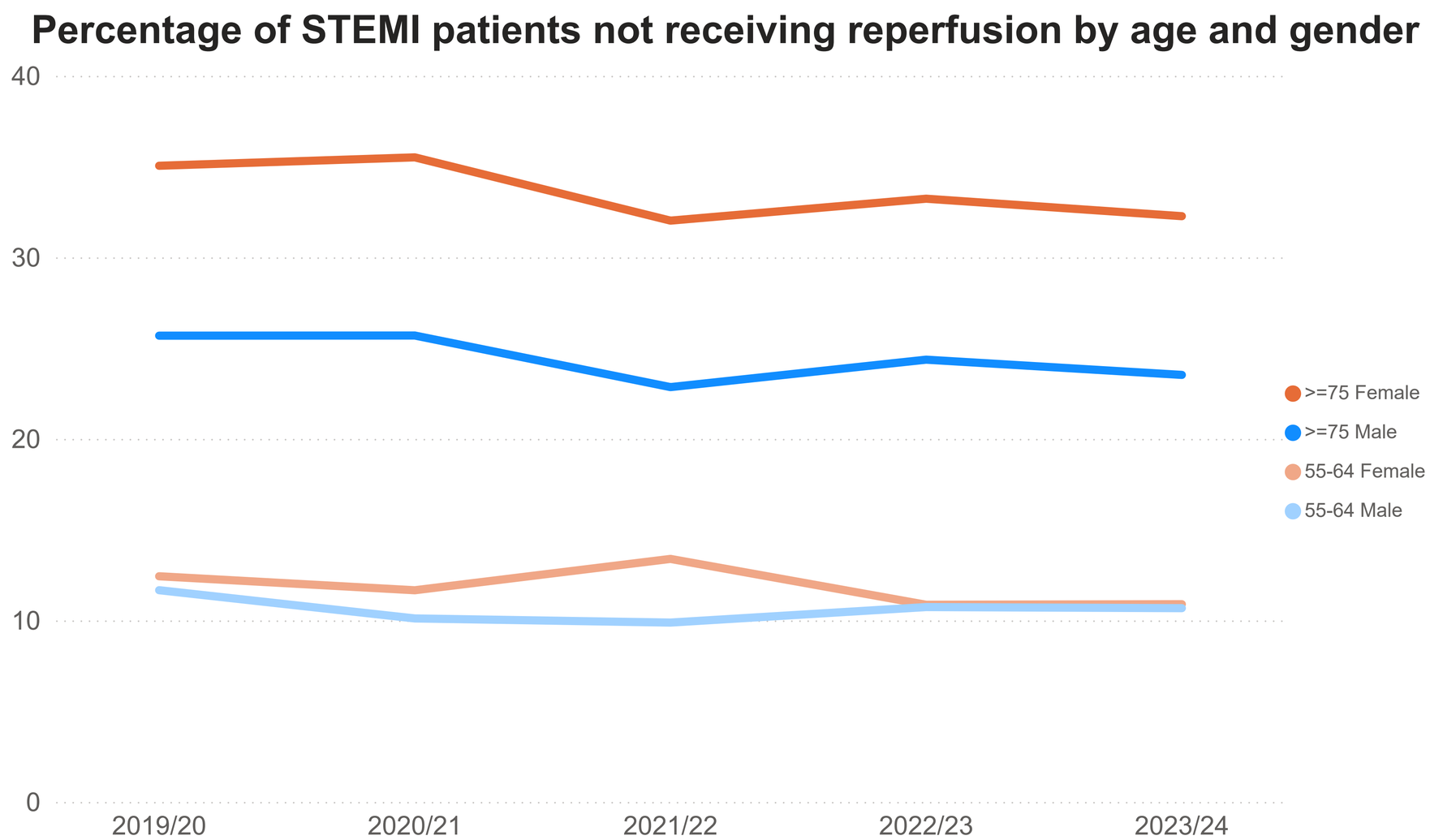


Older patients with higher-risk STEMI heart attacks are less likely to receive reperfusion treatment

A far higher proportion of older patients with STEMI do not receive reperfusion treatment, especially older females.

There is no difference in rates of reperfusion between male and female STEMI patients in the youngest age group (55-64 years), with almost 90% receiving reperfusion treatment.

The reasons for the lower rates of reperfusion in the older group might include the degree of frailty associated with age, difficulties in making a reliable diagnosis in older people and later presentation to hospital.



The times taken to treat STEMI heart attacks with primary PCI are critical to outcomes for patients

To achieve the best possible outcomes, after an initial call for help or self-presentation at hospital, patients must be rapidly assessed, and an ECG performed. Patients should then receive primary PCI (PPCI) if a ‘higher risk’ STEMI heart attack is confirmed.

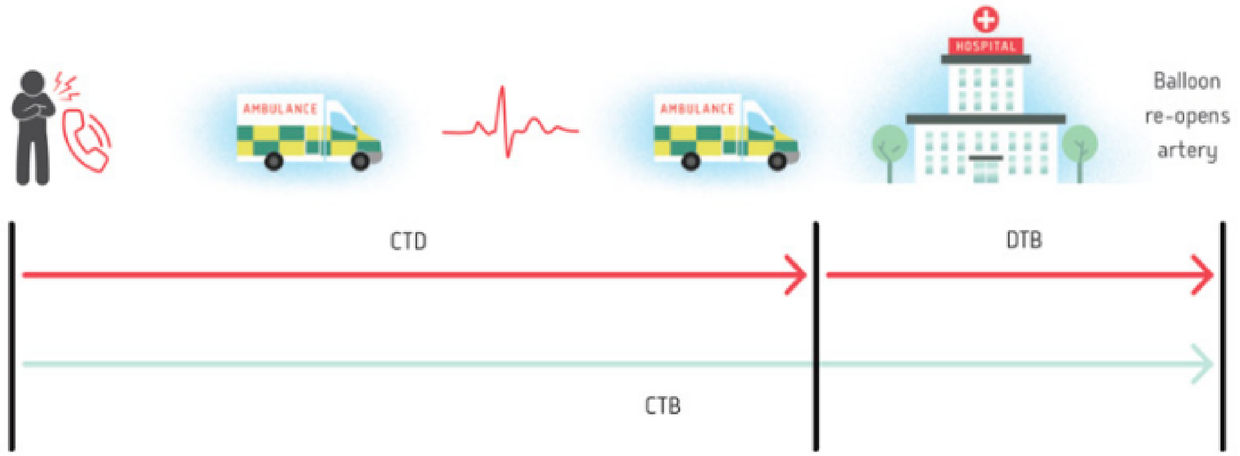
The Call-To-Door (CTD) time covers the period when the patient is brought to hospital by the ambulance services.

The Door-To-Balloon (DTB) time measures how long it takes the hospital to admit a patient and start PPCI treatment. Hospitals not set up to deliver PPCI transfer patients directly to the catheter laboratory of the nearest PCI Centre able to do this.

For patients who present themselves to hospital (usually to the A&E department), the DTB period covers the arrival at hospital to the start of treatment.

Taken together, the CTD and DTB times comprise the overall Call-To-Balloon (CTB) time.

Emergency time periods for the treatment of high-risk STEMI heart attack patients



CTD = Call-To-Door time
From patient 999 call to arrival at hospital

DTB = Door-To-Balloon time
From arrival at hospital to re-opening of artery using reperfusion primary PCI therapy

CTB = Call-To-Balloon time
From patient 999 call to re-opening of artery using reperfusion primary PCI therapy

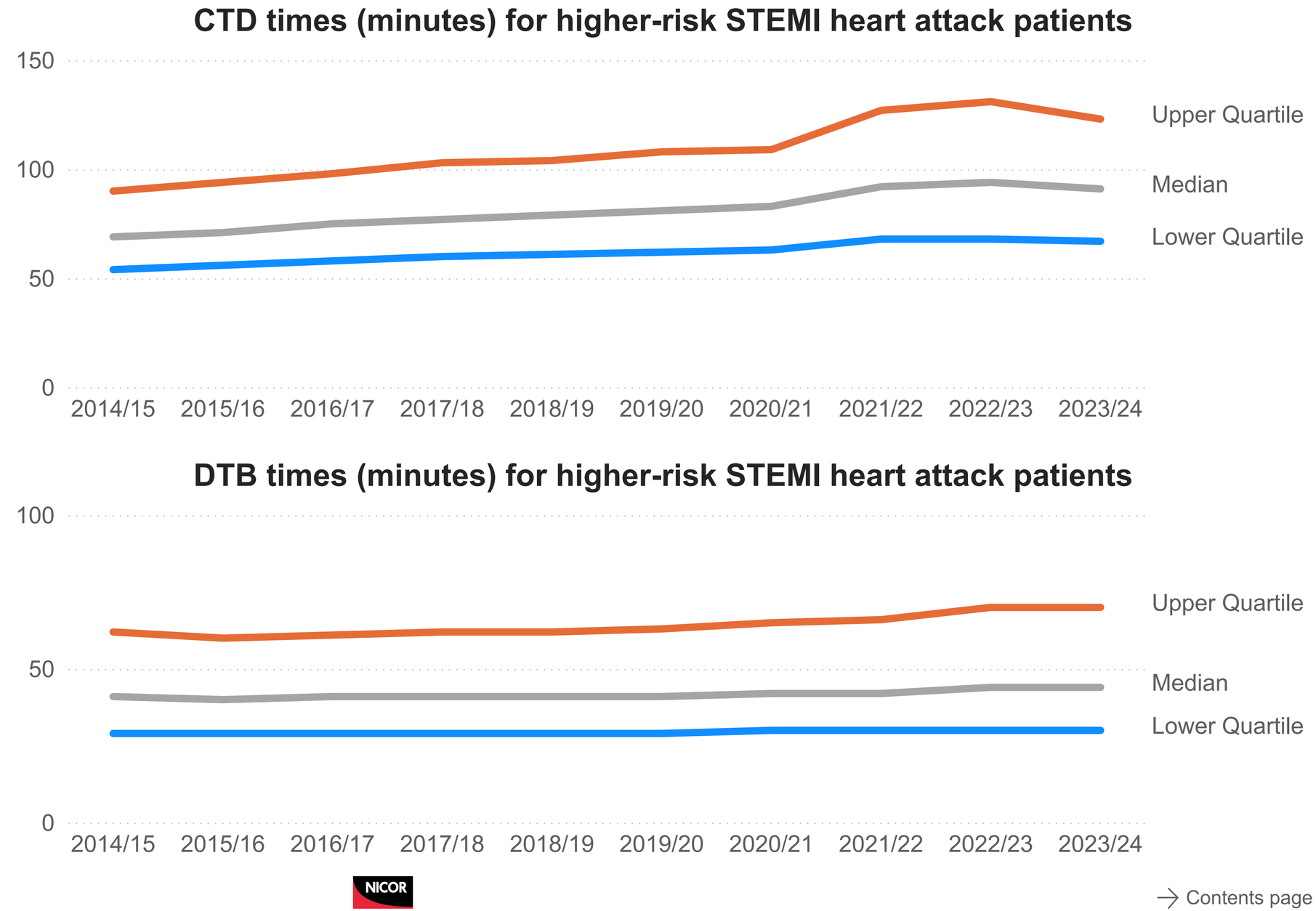
The first signs of improvement in Call-To-Door times for patients with higher-risk STEMI heart attacks were seen in 2023/24

For patients with higher-risk STEMI heart attacks who are brought to hospital by ambulance, and who receive primary PCI, the Call-To-Balloon (CTB) time is made up of the Call-To-Door (CTD) and Door-To-Balloon (DTB) times.

For the first time in the last decade, an improvement in median Call-To-Door time was seen in 2023/24, though this remains longer than 10 years ago.

There has been little change in the median Door-To-Balloon time, though the variability between cases has increased. The DTB provided for the upper quartile of cases (the 25% of patients with longest DTB time) has increased from 60 minutes in 2015/16 to 70 minutes in 2023/24.

Note: DTB times shown are those at the PPCI centres.



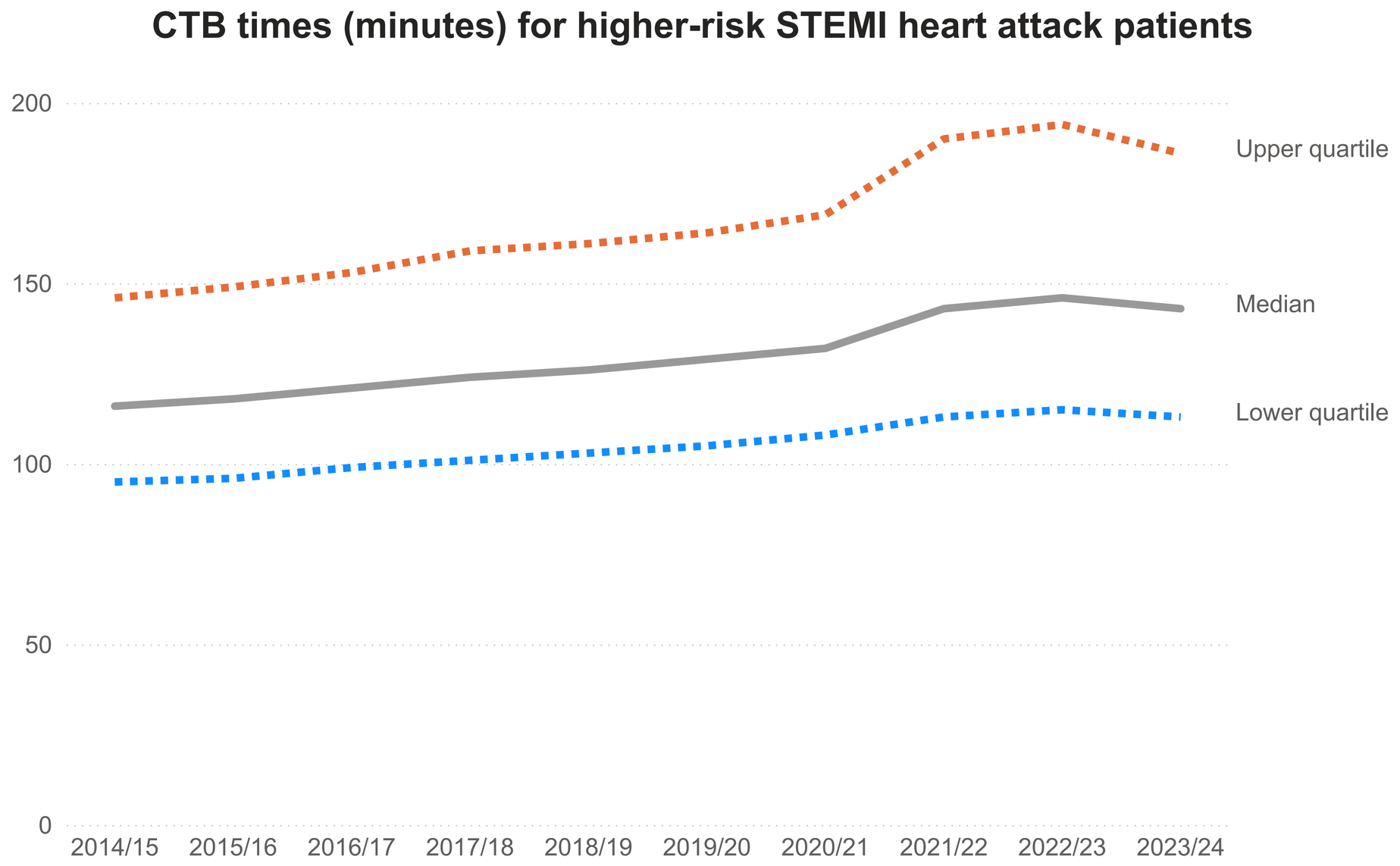
The overall Call-To-Balloon time to deliver reperfusion therapy to higher-risk STEMI patients improved for the first time in a decade

For the first time in more than 10 years, median Call-To-Balloon times improved in 2023/24 for patients with higher-risk STEMI heart attacks.

This was also the case for the lower and upper quartile of patients.

However, CTB times remain significantly longer than 10 years ago.

In particular, the average CTB time for the upper quartile of cases (the 25% of STEMI patients with the longest delay) exceeded 3 hours in 2023/24.



Increasingly, patients self-present to hospital with symptoms of heart attack

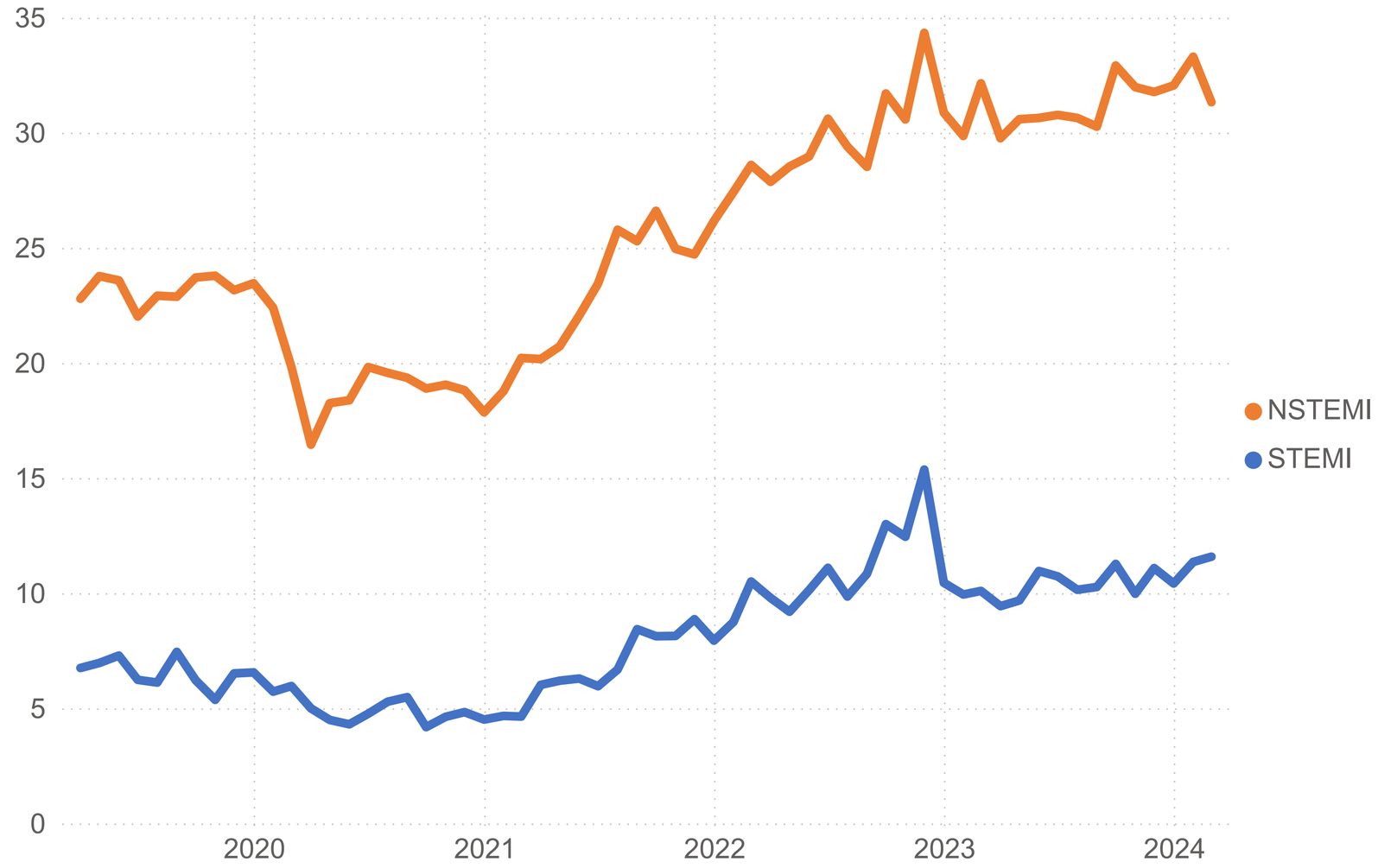
Patients with heart attack symptoms are advised to call for an ambulance rather than present themselves to hospital.

This allows the emergency services to dispatch to the scene expert clinicians who are capable of accurate diagnosis using an ECG, can provide advanced resuscitation if necessary, and can liaise with local cardiac centres.

Up to 2020, a little more than 5% STEMI patients and 25% of NSTEMI patients self-presented. This is no longer the case.

In 2023/24, almost 12% of STEMI patients and 31% of NSTEMI patients presented themselves at hospital. It is not known how many of these had first attempted to summon an ambulance.

Percentage of heart attack patients self-presenting by month



There has been some improvement in the proportion of patients treated within target Call-To-Balloon times

There was some improvement in the proportion of STEMI patients receiving primary PCI within target times (either 150 minutes or the more stringent 120 minutes), something that had been steadily declining since 2014/15.

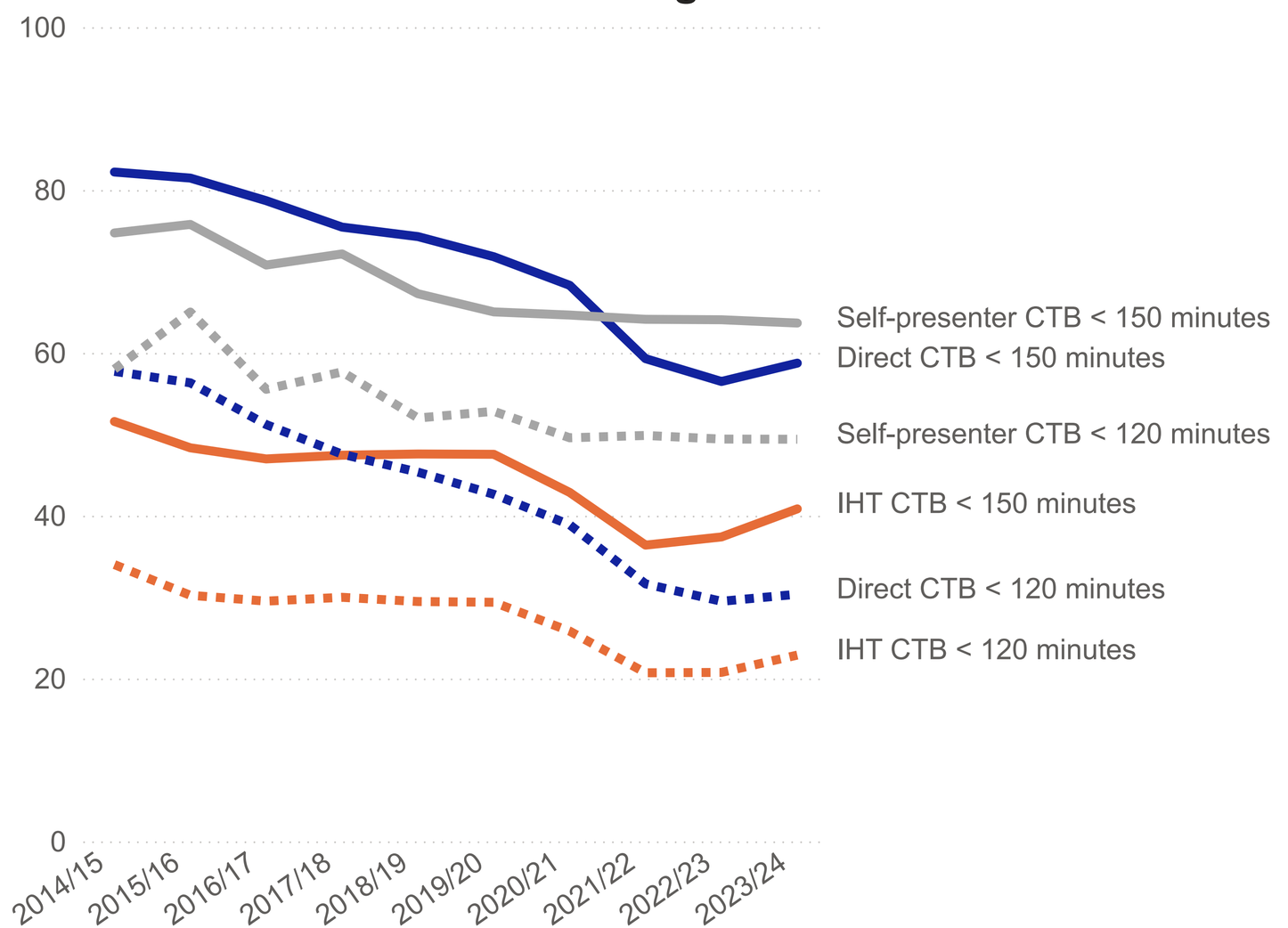
This was both for those taken by ambulance directly to an interventional centre (Direct), and those who require an inter-hospital (IHT) transfer having presented, or been taken, to a non-interventional hospital.

The proportion receiving target CTB times is greatest for those who self-present to an interventional hospital. However, it is not known how many such patients had initially attempted to call for an ambulance before deciding to make their own way to hospital, nor how long it took them to make that decision.

It is likely that many patients who require an inter-hospital transfer have self-presented to a non-interventional hospital, unaware that primary PCI was unavailable in that hospital.

Despite this improvement, only 30% of patients taken directly to a hospital received their treatment within the more stringent 120 minute target (59% were treated within 150 minutes).

Percentage of higher-risk STEMI patients treated within CTB time targets



Symptom-To-Balloon times are longest for patients requiring an inter-hospital transfer and shortest for those brought directly to hospital by ambulance

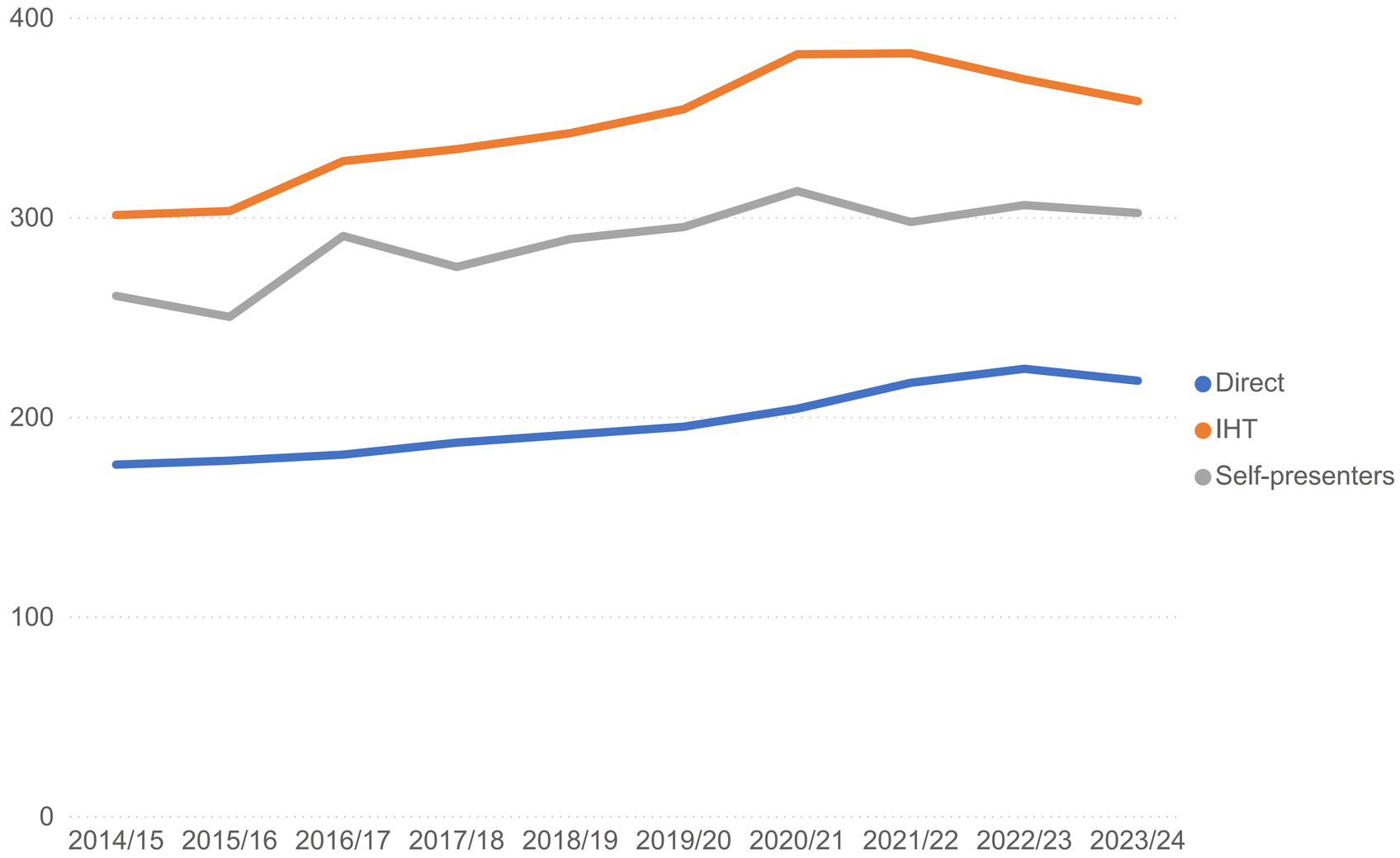
Patients differ in how long they tolerate symptoms of a heart attack before deciding to seek help. This delay is an important component of the overall delay in providing definitive treatment.

Those patients requiring inter-hospital transfer (IHT) have the longest overall delay from onset of heart attack symptoms to receiving primary PCI.

Those taken directly to an interventional hospital by ambulance (Direct) have the shortest delay (218 minutes), and are treated significantly faster than those who self-present (302 minutes).

Note: Patients may not recollect the exact time symptoms start and symptoms may begin gradually. So the recorded time of onset may be less reliable than the time a call for help is received and time of arrival at hospital.

Symptom-To-Balloon times (minutes) by admission route



There has been a modest improvement in the proportion of self-presenting patients meeting Door-To-Balloon targets

The proportion of STEMI patients receiving primary PCI within target times is lowest for patients who self-present to an interventional hospital, though there was a slight improvement in this during 2023/24.

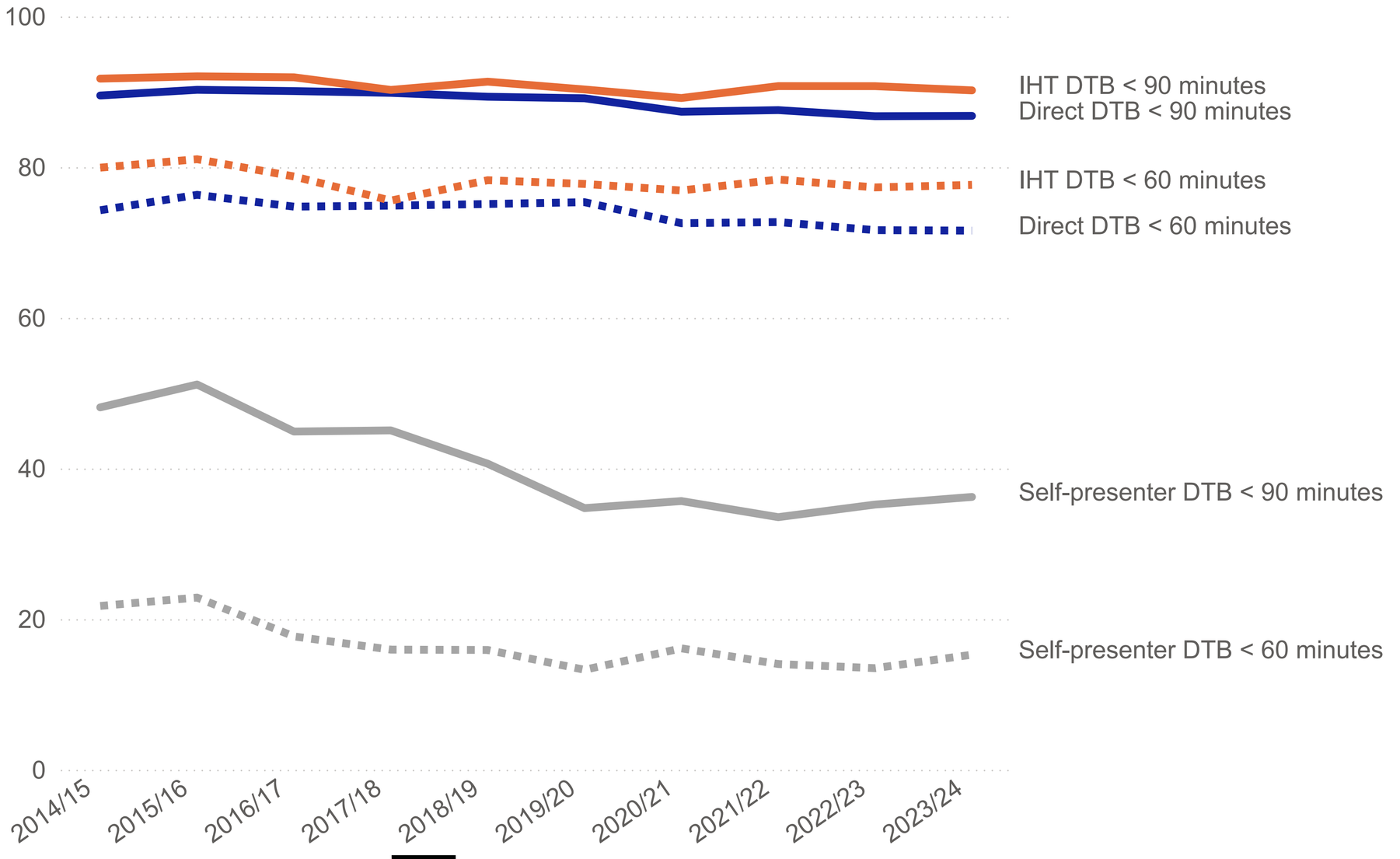
These patients are not expected by the cardiac teams within interventional hospitals, and usually must rely upon timely and accurate triage in the hospital Emergency Department before the need for PCI is identified.

The proportions achieving target DTB times are greater for those STEMI patients brought by ambulance (Direct).

In these cases, the hospital cardiac teams will have been alerted to the imminent arrival of these patients (either by the attending ambulance crew for 'direct admissions' or the referring non-interventional hospital, in cases of inter-hospital transfer).

Note: DTB times shown are those at the PPCI centres.

Percentage of higher-risk STEMI patients treated within DTB time targets



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The median Call-To-Balloon times for the worst performing areas are nearly twice as long as those for the best

For patients with higher-risk STEMI heart attacks, Call-To-Balloon (CTB) times should be no longer than 150 minutes and, ideally, less than 120 minutes.

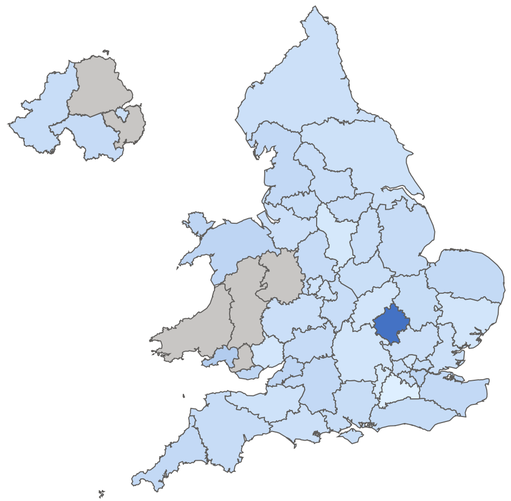
The maps show the median CTB times and the percentage of CTB times over 150 minutes for the 42 Integrated Care Boards in England, 5 Health and Social Care Trusts in Northern Ireland and 7 Welsh University Health Boards.

Darker shades are higher CTB times, so lighter shades show better performance.

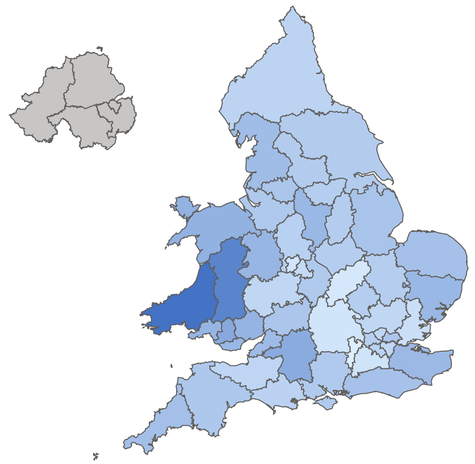
The population served by Hywel Dda University Health Board had the longest median CTB time in 2023/24 (224 minutes) whereas that served by NHS Northamptonshire ICB had the shortest (117 minutes).

Note: Patient home location is not provided by Northern Ireland. There were insufficient returns from Bedfordshire, Luton and Milton Keynes ICB to allow meaningful analysis. The blank health boards in Wales do not contain interventional centres.

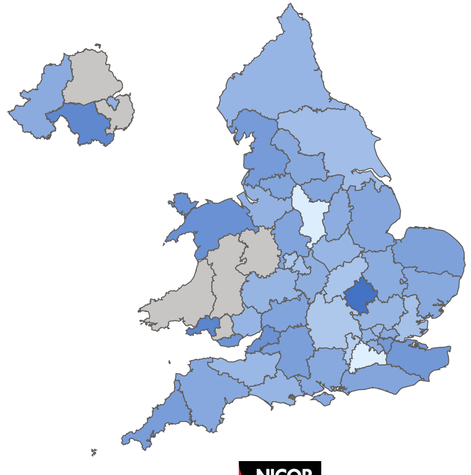
Median CTB times based on hospital location



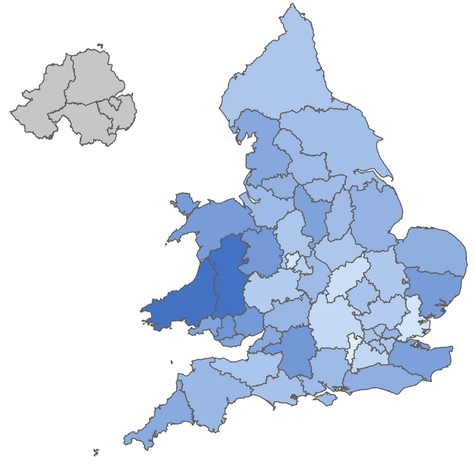
Median CTB times based on patient home location



Percentage of CTB times over 150 minutes by hospital location



Percentage of CTB times over 150 minutes based on patient home location



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The median Door-To-Balloon times for the worst performing areas are up to 3 times longer than for the best

For patients with higher-risk STEMI heart attacks, Door-To-Balloon (DTB) times should be no longer than 90 minutes and, ideally, less than 60 minutes.

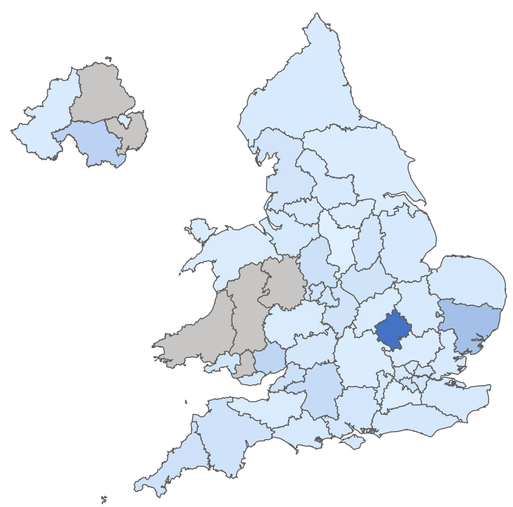
The maps show the median DTB time and the percentage of DTB times over 90 minutes for the 42 Integrated Care Boards (ICBs) in England, 5 Health and Social Care Trusts in Northern Ireland and 7 Welsh University Health Boards.

Darker shades are higher DTB times, so lighter shades show better performance.

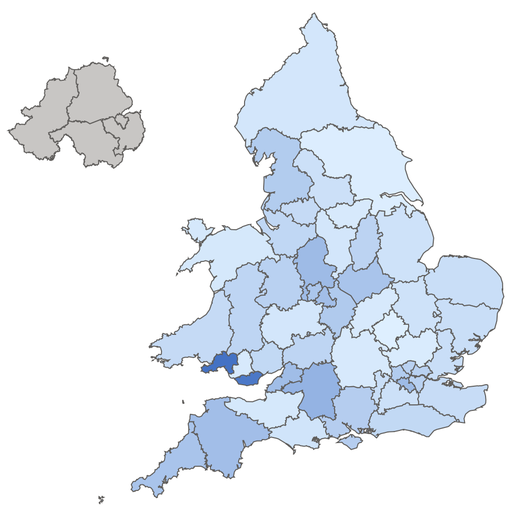
The population served by Swansea Bay University Health Board had the longest median DTB time in 2023/24 (99 minutes) compared to others such as NHS Humber and North Yorkshire ICB (33 minutes).

Note: Patient home location is not provided for Northern Ireland. There were insufficient returns from Bedfordshire, Luton and Milton Keynes ICB to allow meaningful analysis. The blank health boards in Wales do not contain interventional centres.

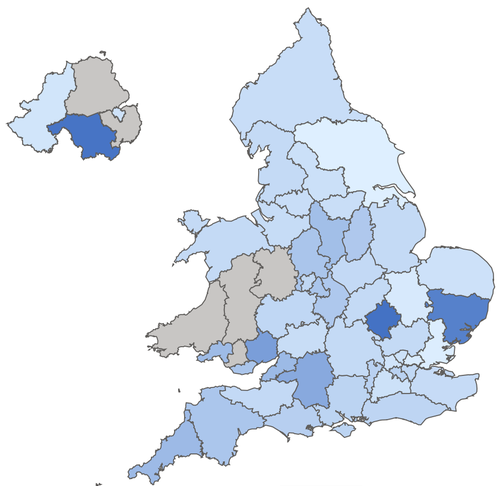
Median DTB times based on hospital location



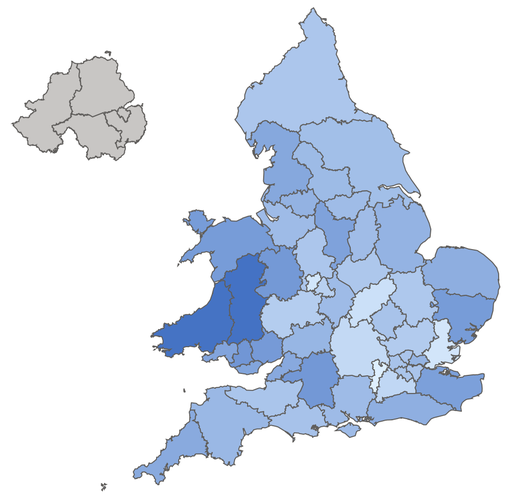
Median DTB based on patient home location



Percentage of DTB times over 90 minutes based on hospital location



Percentage of DTB times over 90 minutes based on patient home location



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Call-To-Door times have improved in most Ambulance Trusts in 2023/24

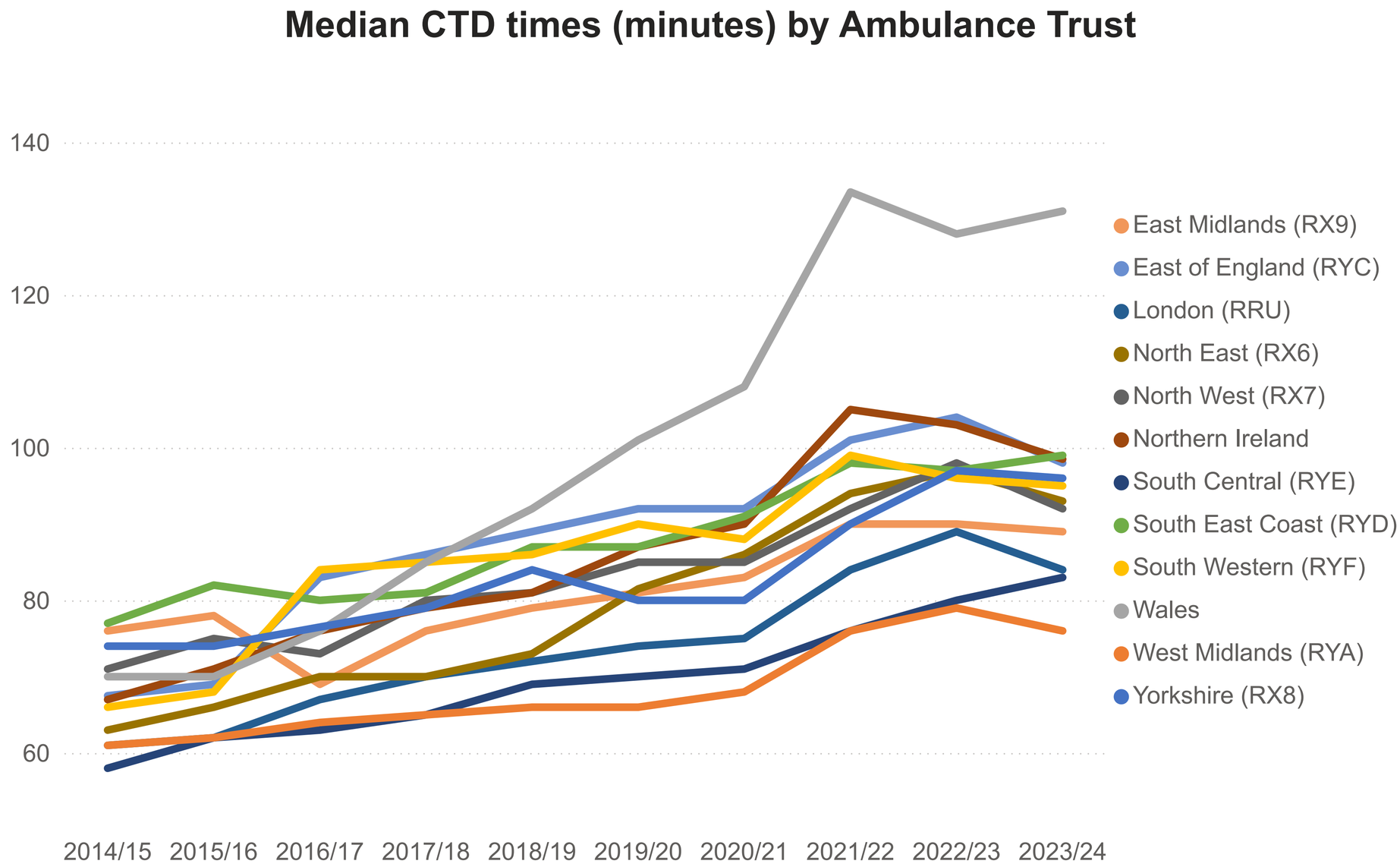
A critical component of the time to treat a STEMI heart attack patient is the time taken to arrive at hospital.

For those patients who arrive by ambulance, the Call-To-Door (CTD) time is made up of:
• the ambulance response time from receipt of a call to arrival of emergency staff at the patient's location
• the pre-hospital treatment time
• the time taken to transport the patient to hospital.

Since 2013, CTD times have risen across all Ambulance Trusts. There is also wide variation between Trusts, with the worst performers taking up to 70% longer than the better performing.

Most, but not all, Trusts have reported an annual improvement in 2023/24, but all have longer CTD times compared to 2014/15.

Note: Data from Isle of Wight Ambulance Service removed due to small numbers



There is almost 3-fold variation in Call-To-Door times across England and Wales

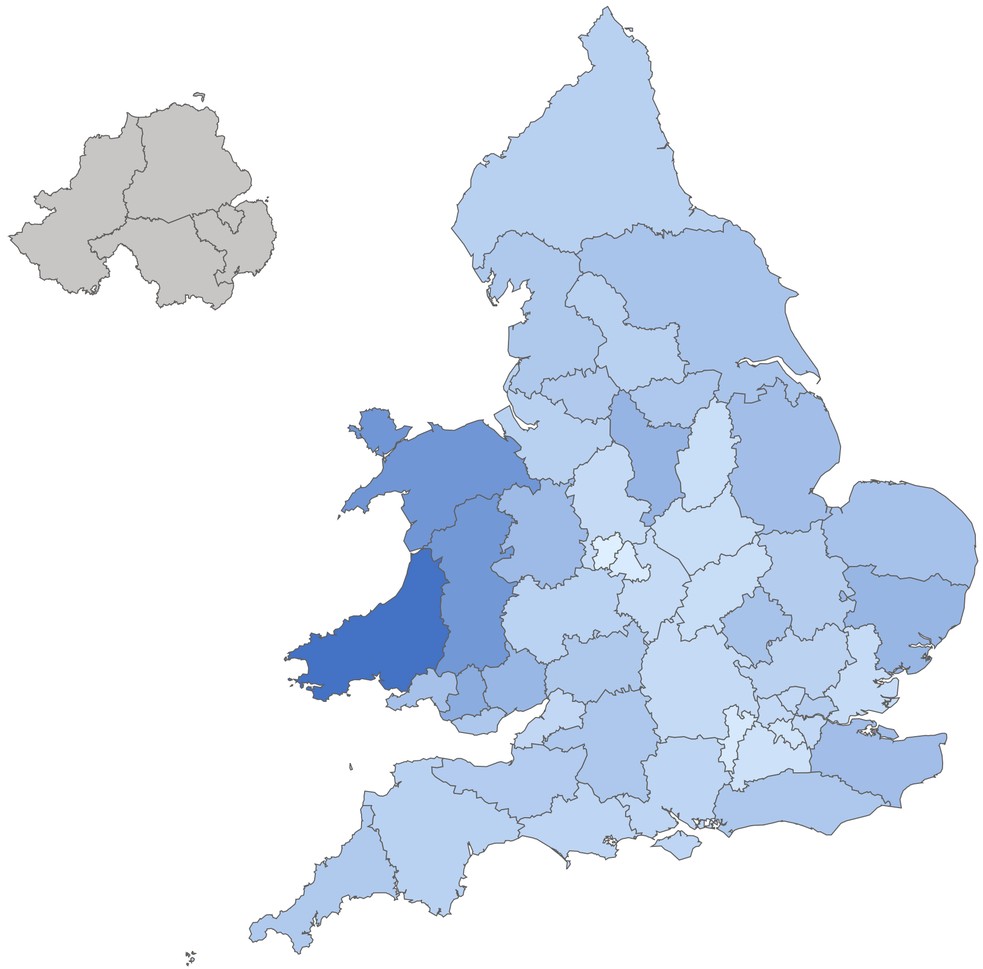
The map shows the median Call-To-Door (CTD) times based on patient home location for the 42 Integrated Care Boards in England and 7 Welsh University Health Boards.

Median CTD door times vary from 65 minutes in NHS Black Country ICB to 176 minutes in Hywel Dda University Health Board.

Hover over the map to see specific data.

Note: Patient home location is not provided for patients attending Northern Ireland hospitals.

Median CTD times (minutes) by ICB/HB based on patient home location (excluding self-presenters)



There has been a slight worsening of average Door-To-Balloon times over the last few years, but the range has reduced (more consistent performance)

This chart shows Door-To-Balloon (DTB) times at a country level for Northern Ireland and Wales and at Cardiac Network level for England.

Median DTB times are unchanged at 43 minutes nationally, however the inter-quartile range has decreased, showing increased consistency of treatment time.

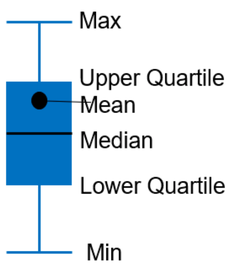
The variation between areas, from fastest to slowest treatment times, has also widened.

Select a country/Cardiac Network below or hover over the chart to see specific data.

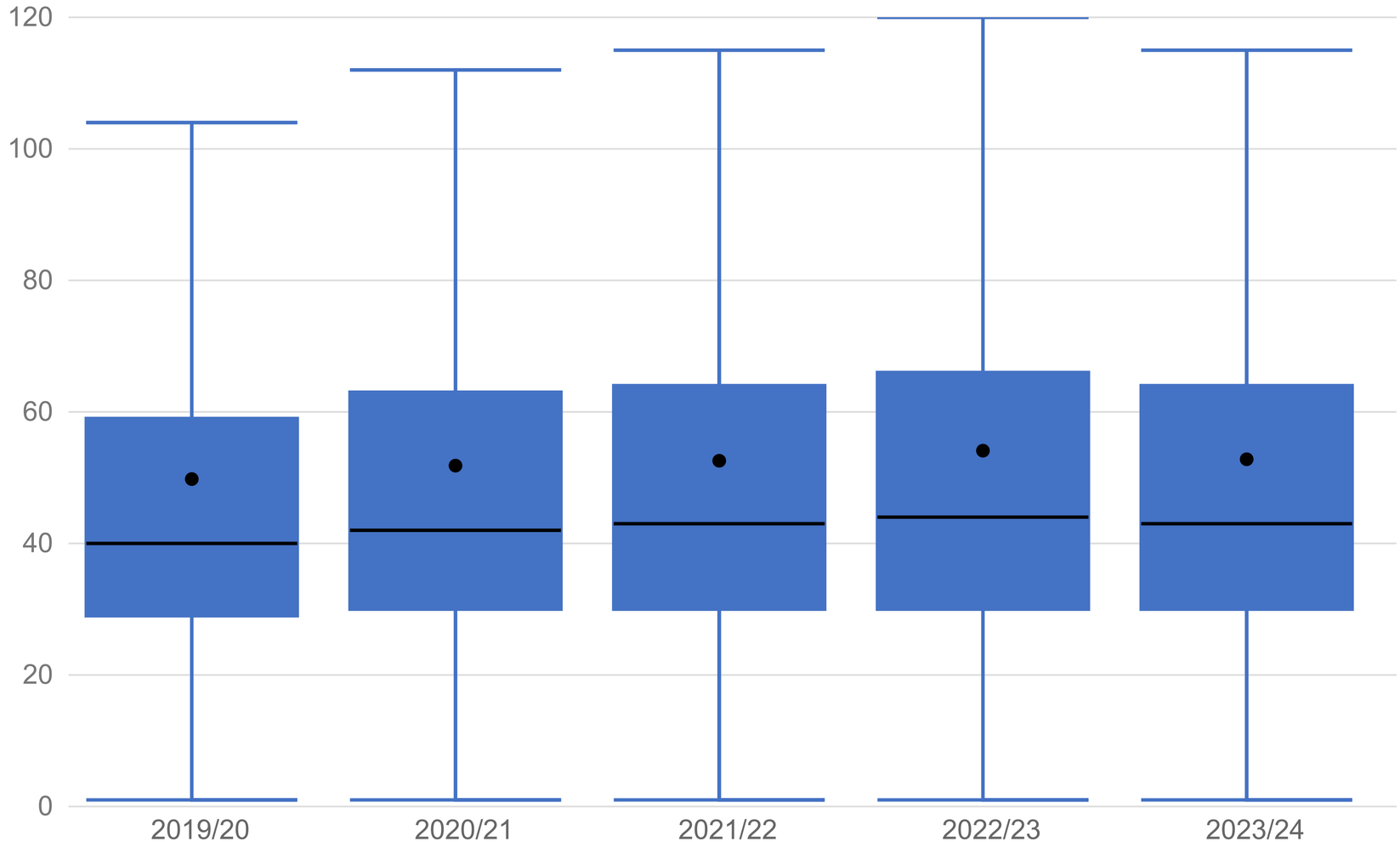
Select country or Cardiac Network

All

Key to reading box and whisker plots:



DTB times (median, mean and inter-quartile ranges in minutes) by country or Cardiac Network in England



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Most hospitals achieve the 90-minute target for Door-To-Balloon time, but the majority miss the 60-minute target

While the long-standing Door-To-Balloon (DTB) target time to treat higher-risk STEMI heart attack patients requiring primary percutaneous coronary intervention (PCI) is 90 minutes, the current ambition is to achieve this within 60 minutes from arrival at hospital.

Accepting that some patients will by necessity require care prior to a PCI procedure (e.g. related to initial diagnostic uncertainty or the potential safety of treatment), the aim is for 70% of patients to be treated within the target times.

53 out of 66 hospitals met the 90 minute target, and 26 out of 66 met the 60 minute target, a slight improvement from last year.

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

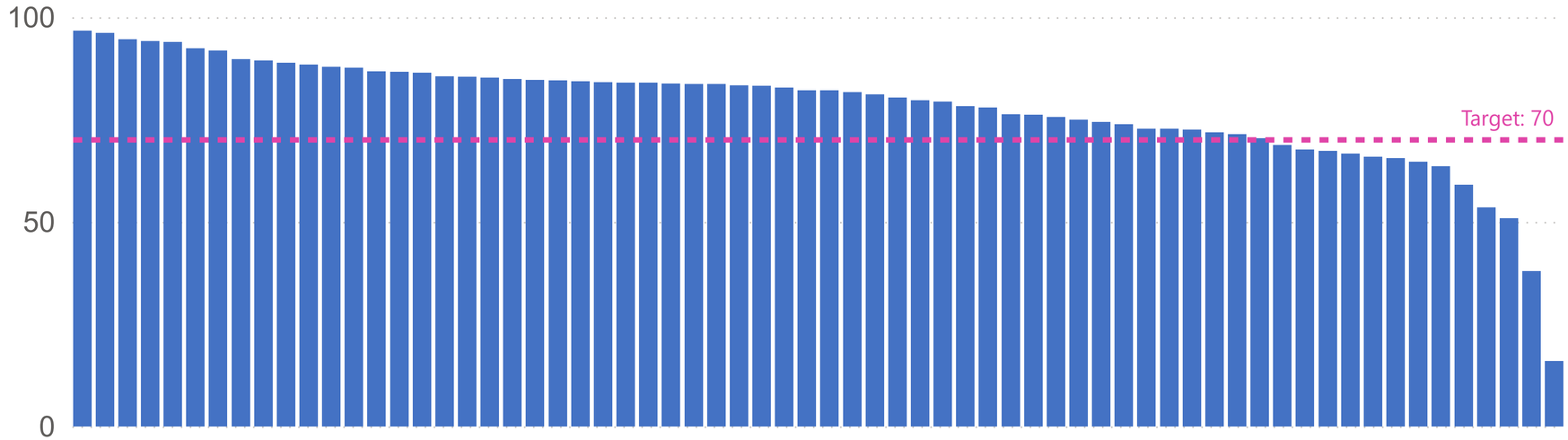
Select country or Cardiac Network

All

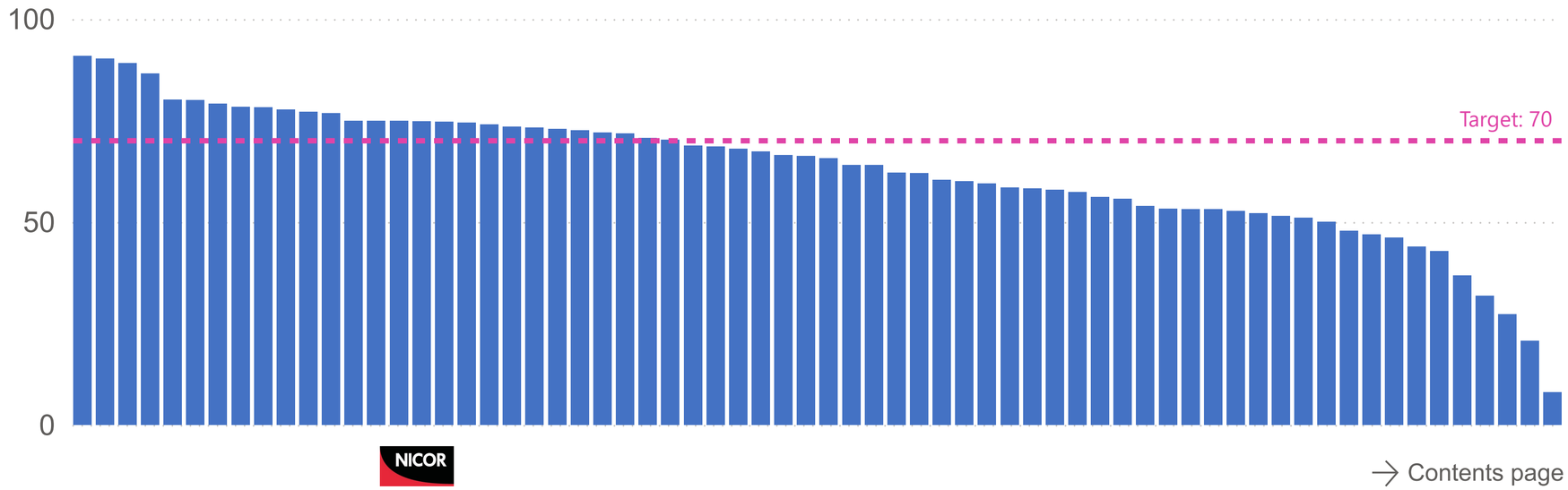
Select hospital

All

Percentage of patients with higher-risk STEMI heart attacks who undergo primary PCI within 90 minutes of arrival by individual hospital (2023/24)



Percentage of patients with higher-risk STEMI heart attacks who undergo primary PCI within 60 minutes of arrival by individual hospital (2023/24)



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There has been an improvement in average Call-to-Balloon times compared with 2022/23, with more consistent performance

The chart shows Call-To-Balloon (CTB) times at a country level for Northern Ireland and Wales and at a Cardiac Network level for England.

In 2023/24, most regions have a reduced median CTB time compared to 2022/23.

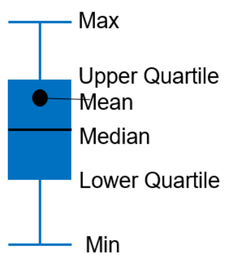
Select a country/Cardiac Network below or hover over the chart to see specific data.

Note: Due to the way this is calculated, the national figure is different from that shown.

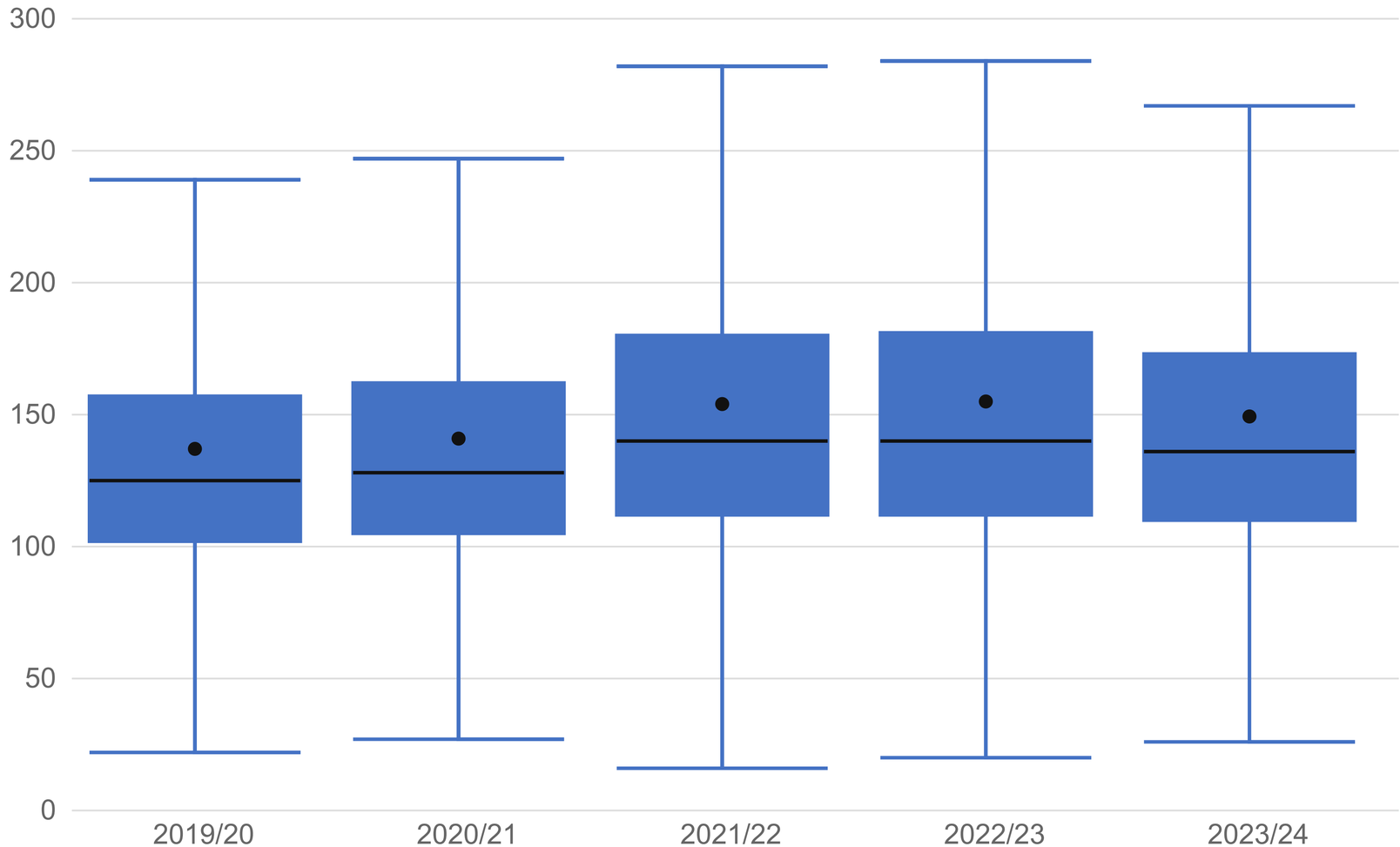
Select country or Cardiac Network

All

Key to reading box and whisker plots:



CTB times (median, mean and inter-quartile ranges in minutes) by country or Cardiac Network in England



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There has been a small improvement in the number of hospitals meeting Call-To-Balloon treatment target times

In 2023/24, 44 out of 61 hospitals treated more than half their patients within a Call-To-Ballon (CTB) time of 150 minutes, compared to 40 in 2022/23.

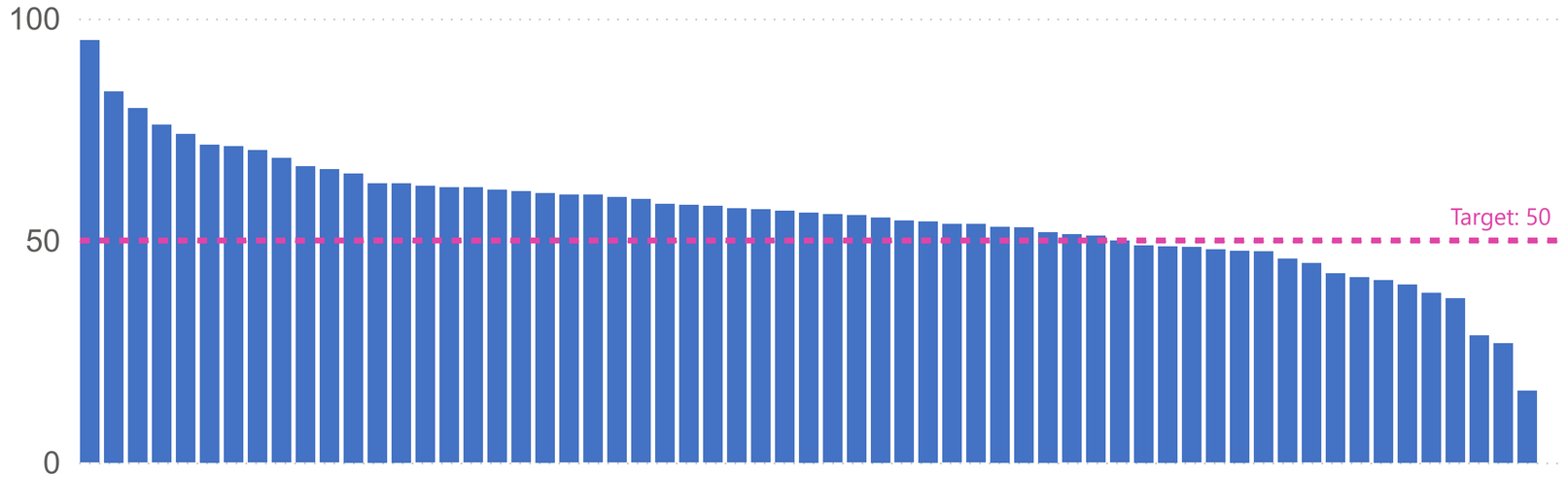
Only 7 hospitals achieved the target for a CTB time within 120 minutes (4 in 2022/23).

Select a country/Cardiac Network below or hover over the graphs to see specific data.

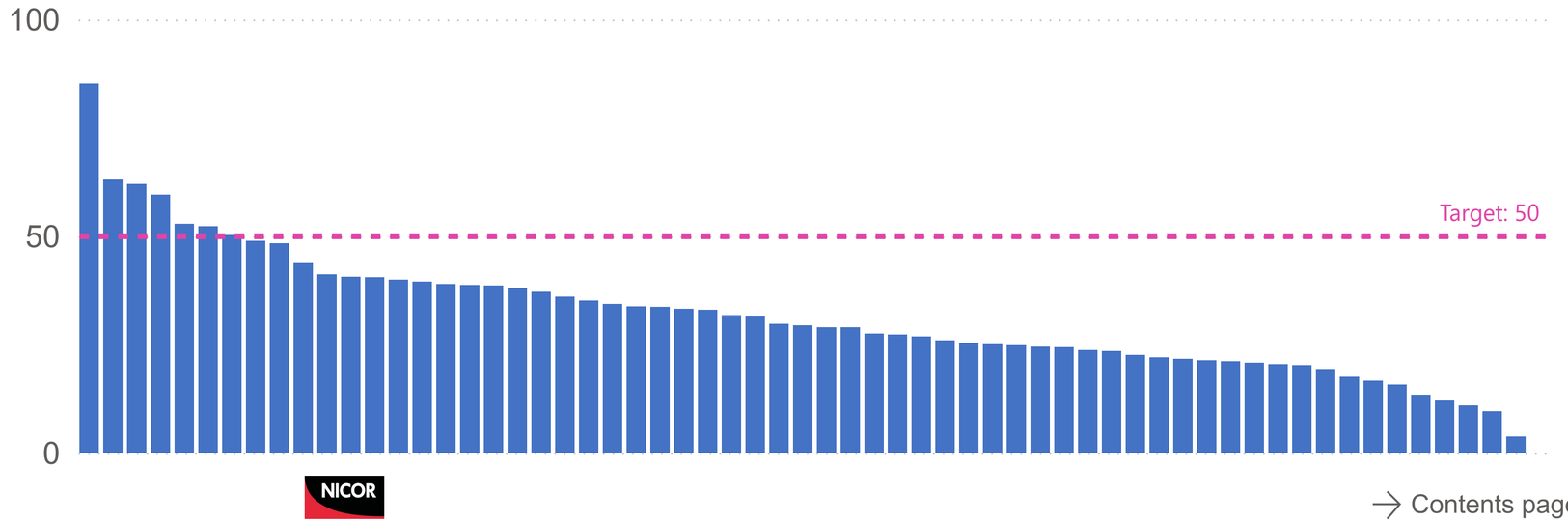
Select country or Cardiac Network

All

Percentage of patients who undergo PCI within 150 minutes of a call for help by individual hospital (2023/24)



Percentage of patients who undergo PCI within 120 minutes of a call for help by individual hospital (2023/24)



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Improvement in Call-To-Balloon times is seen for all ethnic groups

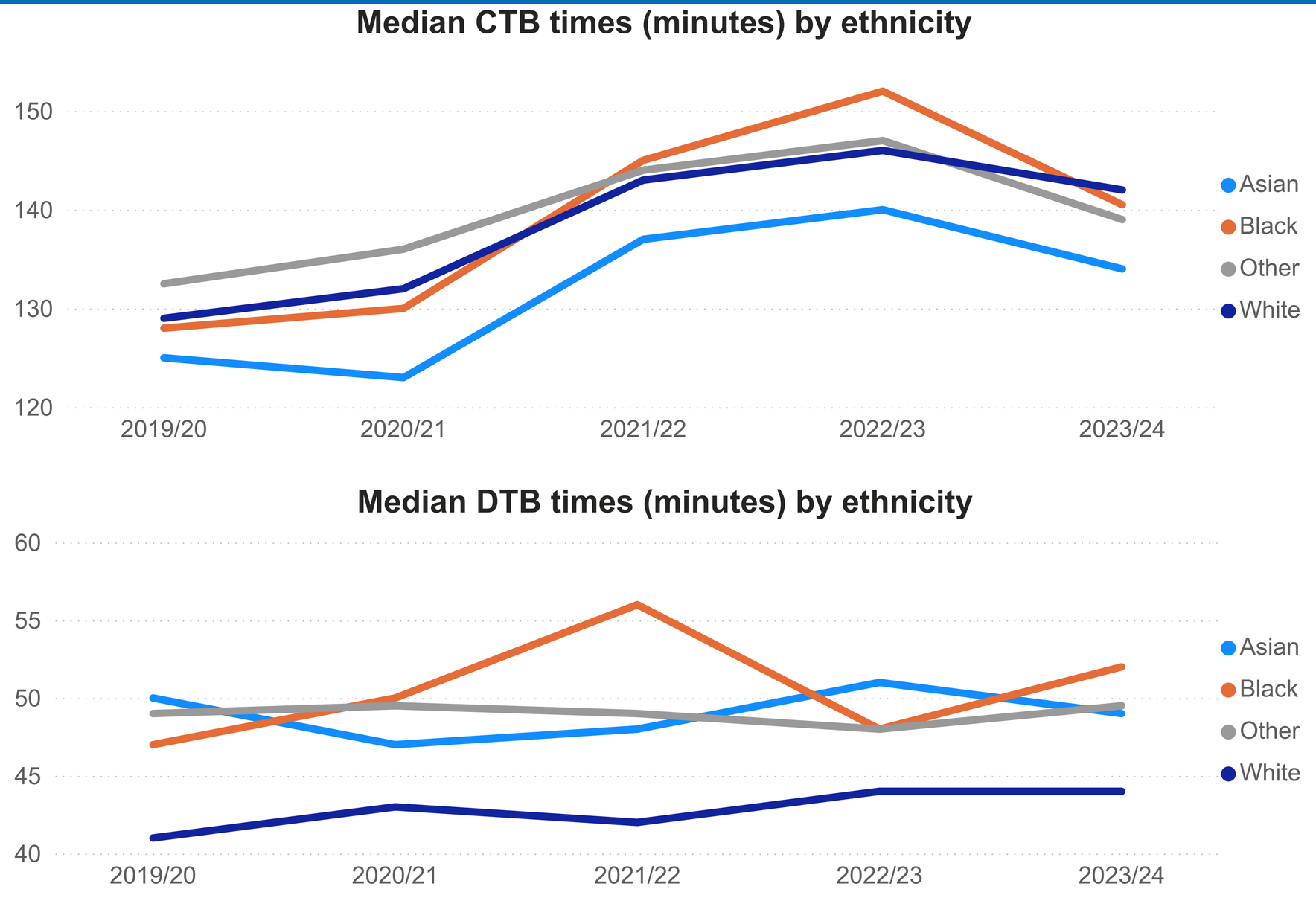
Capturing ethnicity data within the MINAP audit depends on self-reporting by patients who are offered a narrow categorisation of groups.

For higher-risk STEMI heart attack patients, those identifying as Asian have slightly shorter median Call-To-Balloon (CTB) times. Those identifying as White tend to have shorter Door-To-Balloon (DTB) times.

These variations may reflect differing patterns of response to the symptoms of heart attack (e.g. differing rates of self-presentation to hospital) and regional variations in ethnic diversity (with lower rates of diversity in rural areas).

Importantly, the improvement in CTB time over this period is seen across all ethnic groups, and the absolute differences in median CTB are very small.

Note: No adjustment has been made for age or gender.



There has been a reduction in the proportion of patients with NSTEMI receiving an angiogram both before discharge and within 72 hours of admission

International guidelines recommend that patients presenting with lower-risk NSTEMI heart attacks should undergo angiography imaging prior to discharge, preferably within 72 hours of admission (and within 24 hours for some patients with specific high-risk features).

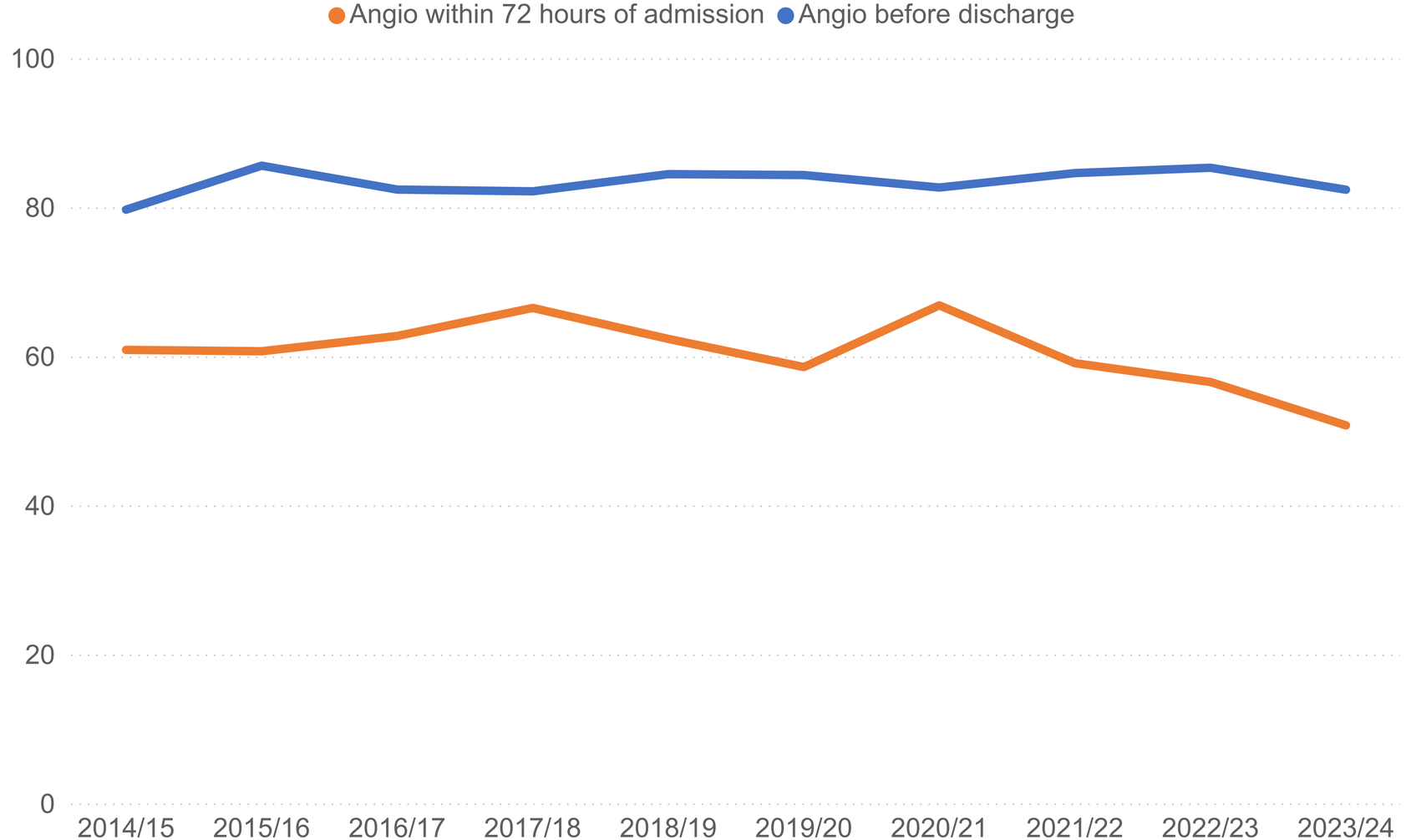
The proportion of eligible patients receiving an angiogram within 72 hours is the lowest in the last ten years (51% in 2023/24 compared with 67% in 2017/18).

Select a country/Cardiac Network/hospital below or hover over the graph to see specific data.

Select country or Cardiac Network

All

Percentage of patients receiving timely angiography after presenting with a lower-risk NSTEMI heart attack



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Performance against angiography target times for lower-risk NSTEMI patients is poorer across different age and gender groups than for higher-risk heart attacks

Compared with higher-risk patients, a smaller proportion of older people with lower-risk NSTEMI heart attacks receive angiography within 72 hours of admission.

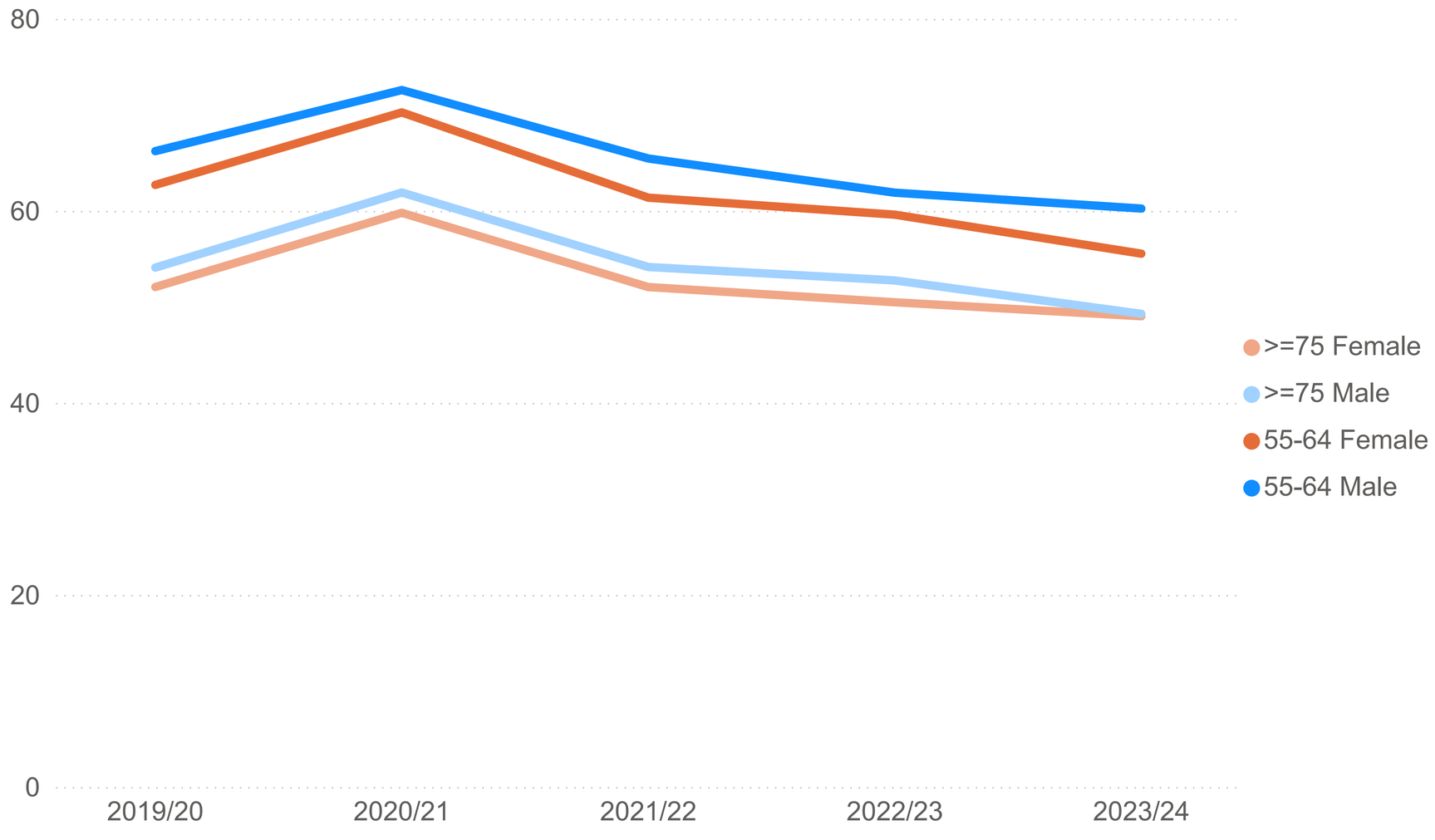
There is a small difference between males and females, with slightly fewer females receiving angiography within the target time.

These data are not adjusted for other factors that might drive the variations, such as:

- diagnostic difficulties relative to different modes of presentation
- clinical status on arrival
- ethnicity
- co-morbidities
- the need for inter-hospital transfer

Consequently, further investigation is desirable to ensure that service providers offer equal opportunities for optimal treatment regardless of gender.

Percentage of NSTEMI patients receiving angiography within 72 hours by age and gender



Some areas are not conforming to recommendations for angiography imaging of patients who have presented with lower-risk NSTEMI heart attacks

The maps show the percentage of patients who were NOT investigated using angiography imaging after presenting with lower-risk NSTEMI heart attacks for the:

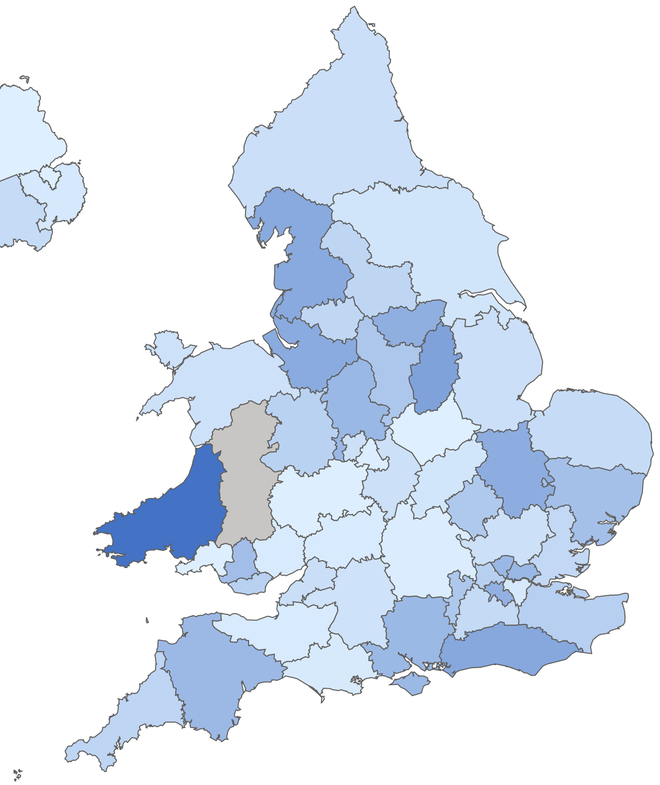
- 42 Integrated Care Boards (ICBs) in England
- 5 Health and Social Care Trusts in Northern Ireland
- 7 Welsh University Health Boards (HBs).

Lighter shades show better levels of performance.

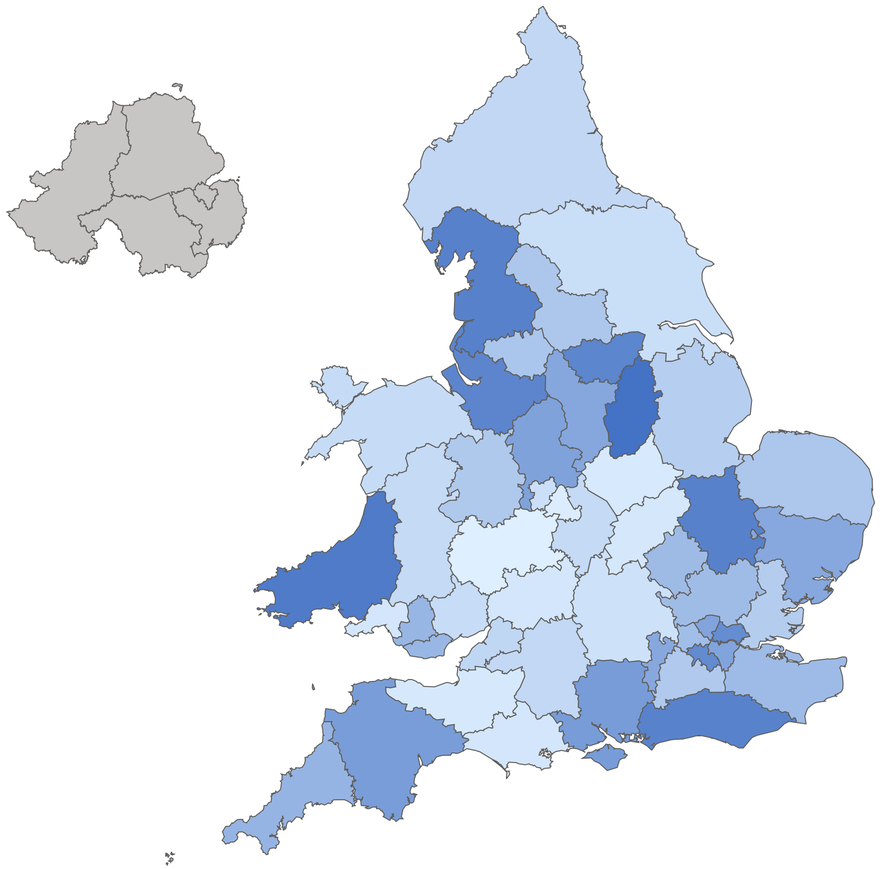
In 2023/24, some areas investigated all patients, while in others almost 20% do not undergo angiography before leaving hospital.

Note: Patient home location is not provided for Northern Ireland.

Percentage of NSTEMI patients who DID NOT receive angiography before discharge by ICB/HB based on hospital location (2023/24)



Percentage of NSTEMI patients who DID NOT receive angiography before discharge by ICB/HB based on patient home location (2023/24)



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There is significant geographical variation in the timeliness of angiography provided to NSTEMI patients

The maps show the percentage of patients who are NOT investigated by angiography imaging within the 72-hour target for the:

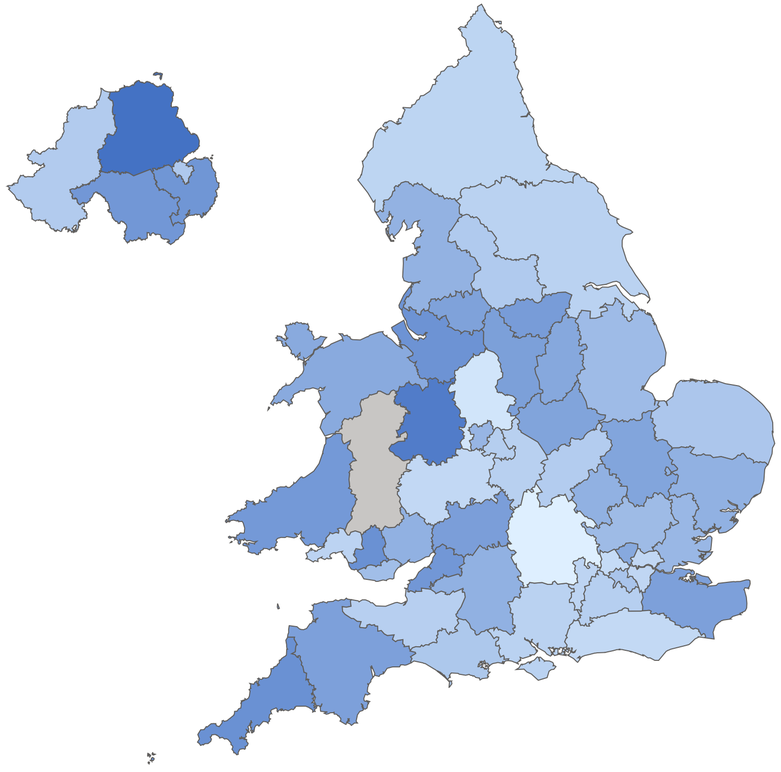
- 42 Integrated Care Boards (ICBs) in England
- 5 Health and Social Care Trusts in Northern Ireland
- 7 Welsh University Health Boards (HBs).

Lighter shades show better levels of performance.

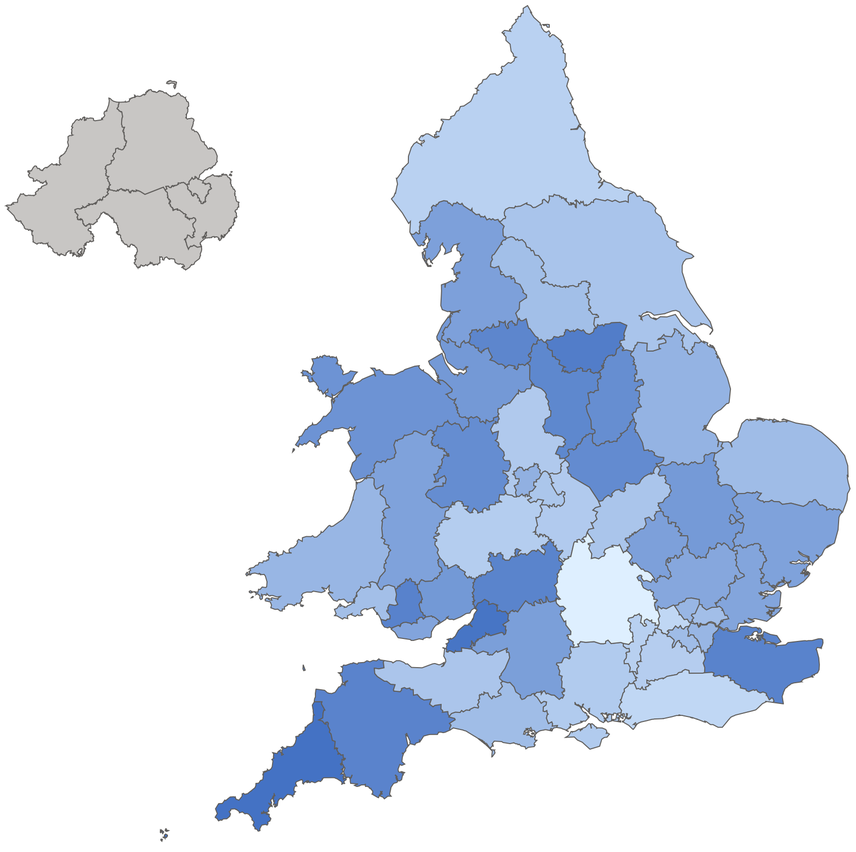
In 2023/24, some areas investigated the majority of patients within the 72-hour timeframe while other areas showed a very poor performance against this standard.

Note: Patient home location is not provided for Northern Ireland.

Percentage of NSTEMI patients NOT receiving angiography within 72 hours of admission based on hospital location by ICB/HB (2023/24)



Percentage of NSTEMI patients NOT receiving angiography within 72 hours of admission based on patient home location by ICB/HB (2023/24)



Two thirds of hospitals provide angiography to at least 80% of NSTEMI patients, but most hospitals fail to do so within 72 hours of admission

Ideally, 100% of eligible patients should undergo angiography imaging prior to discharge.

In 2023/24, 82% of NSTEMI heart attack patients underwent angiography before discharge from hospital. While most hospitals performed above that figure, 60 hospitals fell below that level.

Of all NSTEMI patients, 51% had angiography within 72 hours of admission in 2023/24. A total of 82 hospitals performed worse than this figure.

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

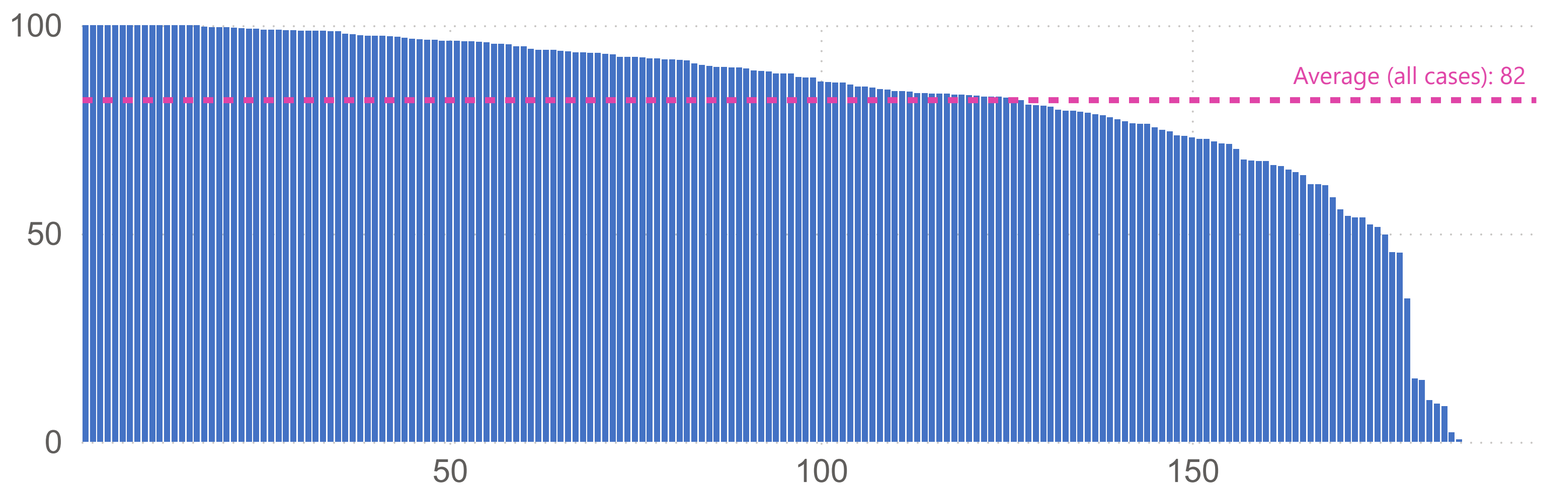
Select country or Cardiac Network

All

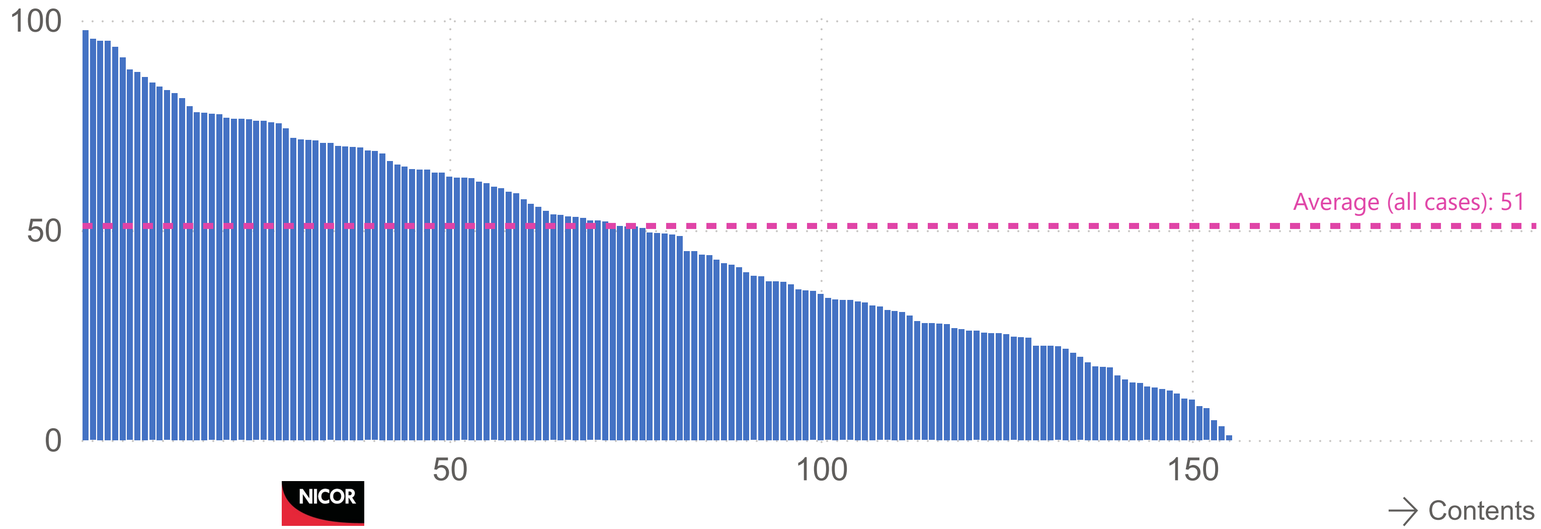
Select hospital

All

Percentage of NSTEMI patients undergoing an angiogram before discharge by hospital (2023/24)



Percentage of NSTEMI patients undergoing an angiogram within 72 hours by hospital (2023/24)



Echocardiography rates following heart attack remain stable, but the 90% target rate has not been reached

After a heart attack, all patients should undergo an investigation to evaluate their left ventricular function as this determines treatment strategies.

This is most commonly performed by echocardiography, although other techniques are used and some patients do not undergo a test if, for example, they have recently had one and a repeat result will not change treatment decisions.

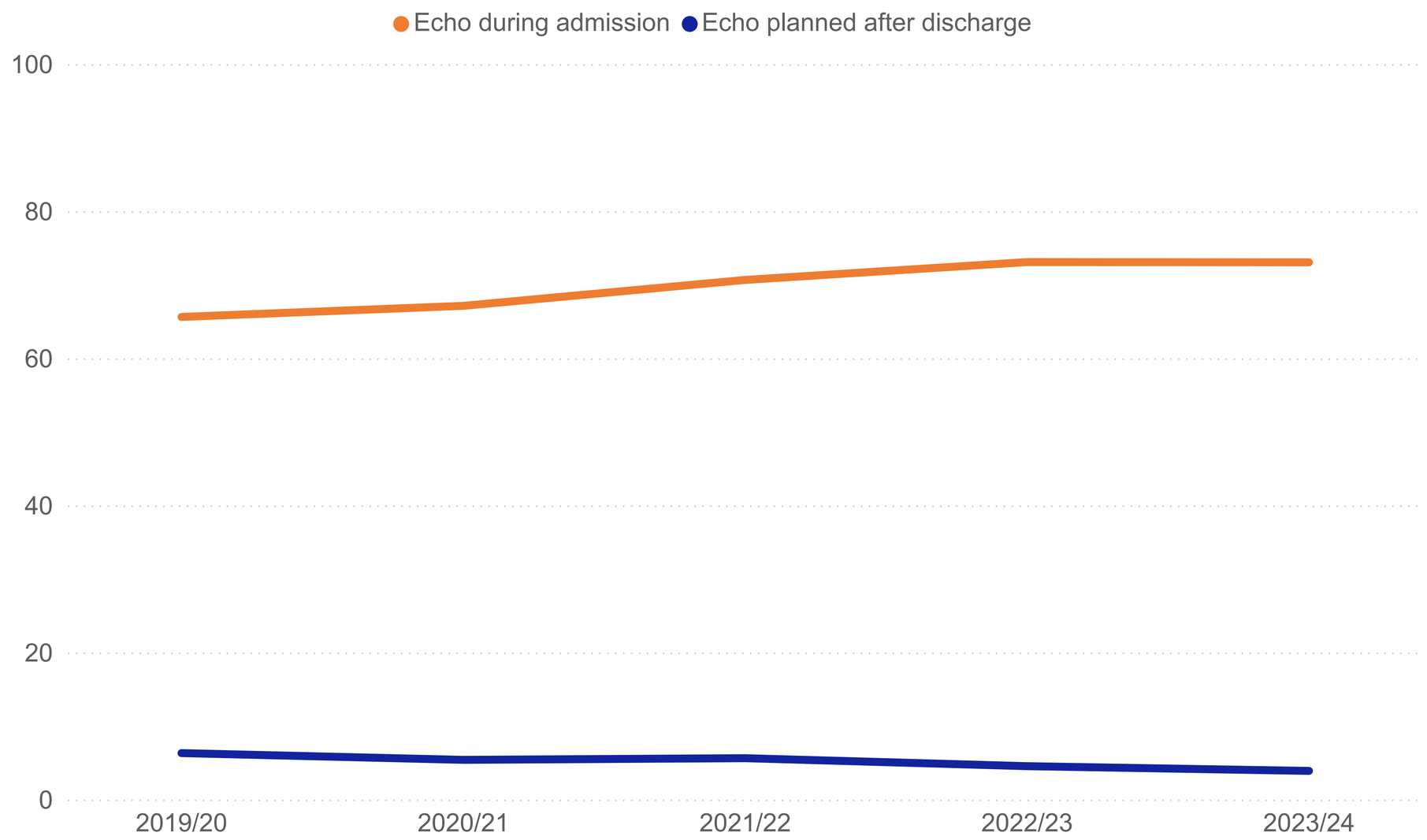
Echocardiography rates have plateaued at 73% and remain well short of the target set at 90% of patients.

Select a country/Cardiac Network/hospital below or hover over the graph to see specific data.

Select country or Cardiac Network

All

Percentage of STEMI patients who underwent echocardiography



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Most hospitals do not achieve the target for the use of echocardiography to investigate patients after a heart attack

89 hospitals meet the target of 90% of patients receiving echocardiography, and this increases to 92 hospitals when considering STEMI patients alone.

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

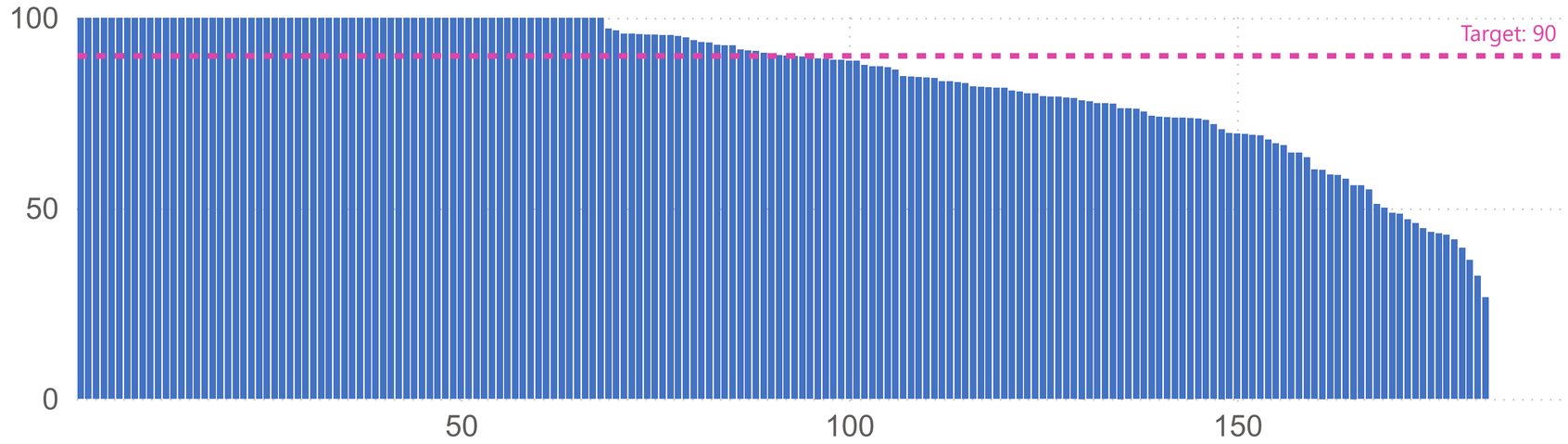
Select country or Cardiac Network

All

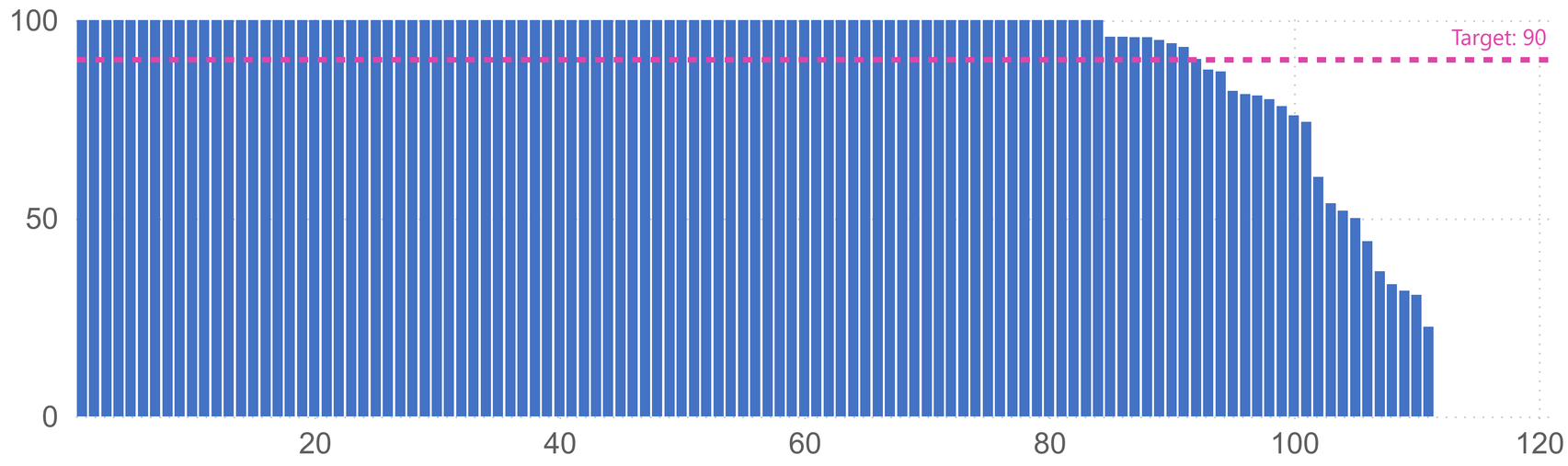
Select hospital

All

Percentage of all heart attack patients undergoing echocardiography by hospital (2023/24)



Percentage of STEMI patients undergoing echocardiography by hospital (2023/24)



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There is no substantial change in the proportion of patients with NSTEMI receiving specialist care but more were admitted to a cardiac ward

It is expected that patients suffering a heart attack should be:

- Cared for on a cardiac ward
- Seen by a specialist cardiology team.

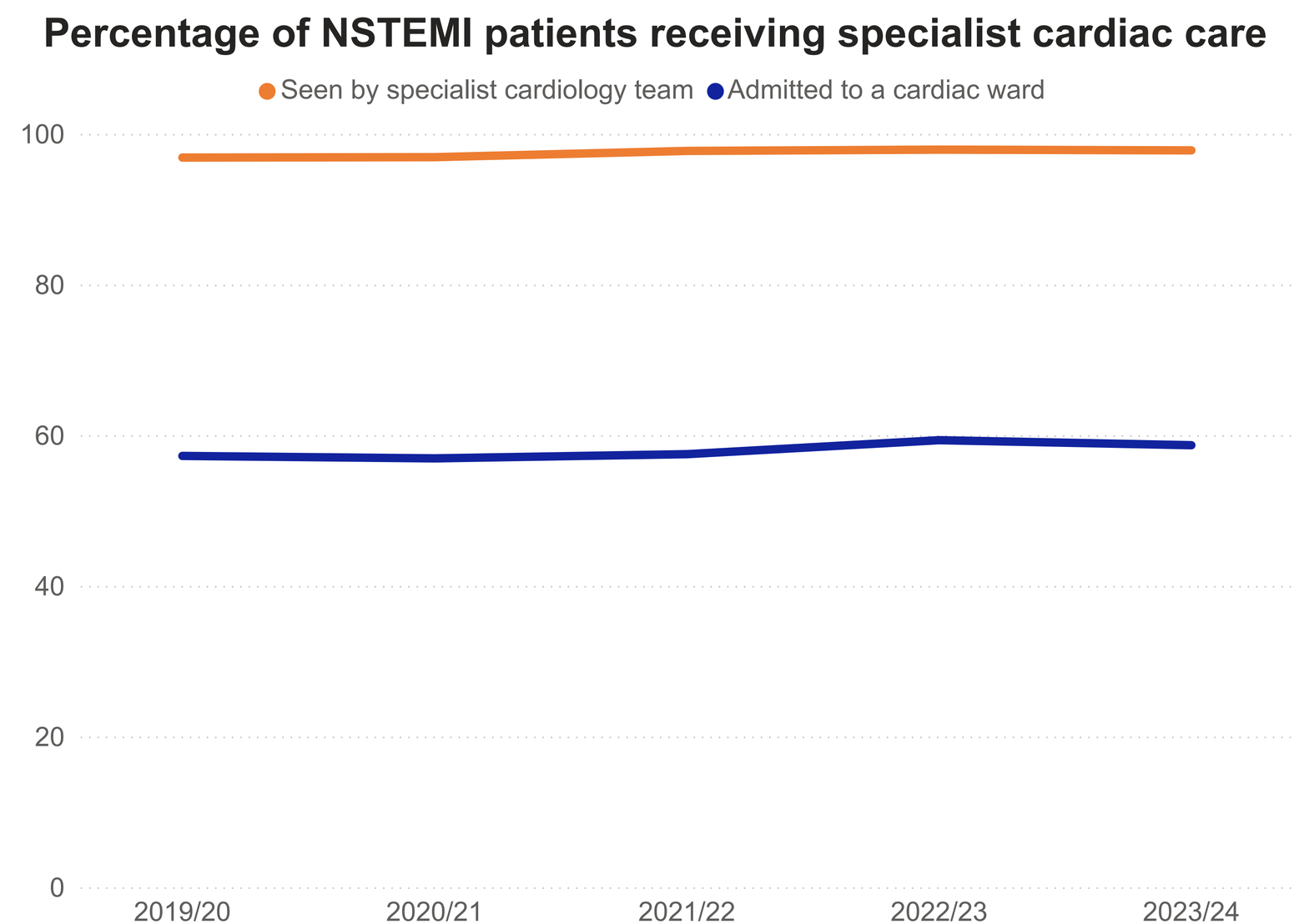
Admission to a cardiac ward allows optimal cardiac monitoring and care from highly trained cardiac nursing staff. The proportion of patients admitted to a cardiac ward increased to 84% in 2023/24.

Almost all patients with lower-risk NSTEMI heart attacks were seen by a specialist in 2023/24, as in recent years (this review by a specialist cardiology team during their initial hospital admission ensures access to recommended treatments).

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

Select country or Cardiac Network

All



Many hospitals do not achieve the aim of admitting 80% of NSTEMI patients to a cardiac ward and not all patients are seen by a specialist team

The aspiration is that 80% of patients with a lower-risk NSTEMI heart attack caused by an acute coronary event should be cared for on a cardiac ward. **This target was achieved by only 62 hospitals.**

104 hospitals delivered specialist cardiology care in at least 99% of cases and 54 hospitals achieved this for all patients.

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

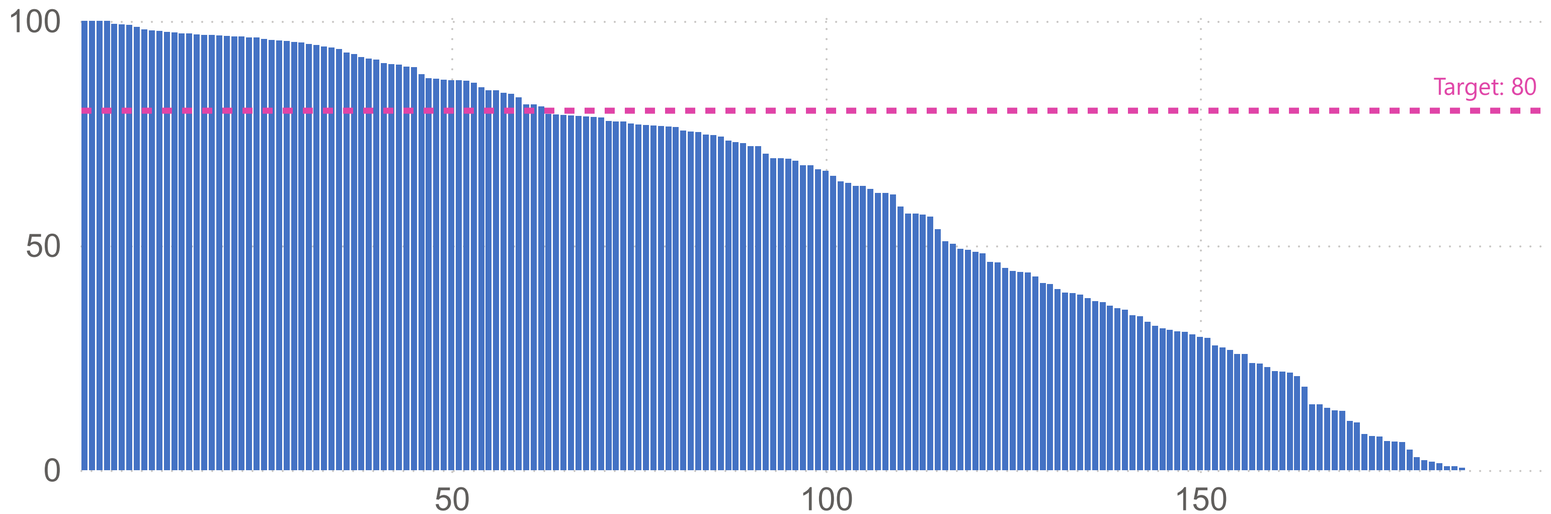
Select country or Cardiac Network

All

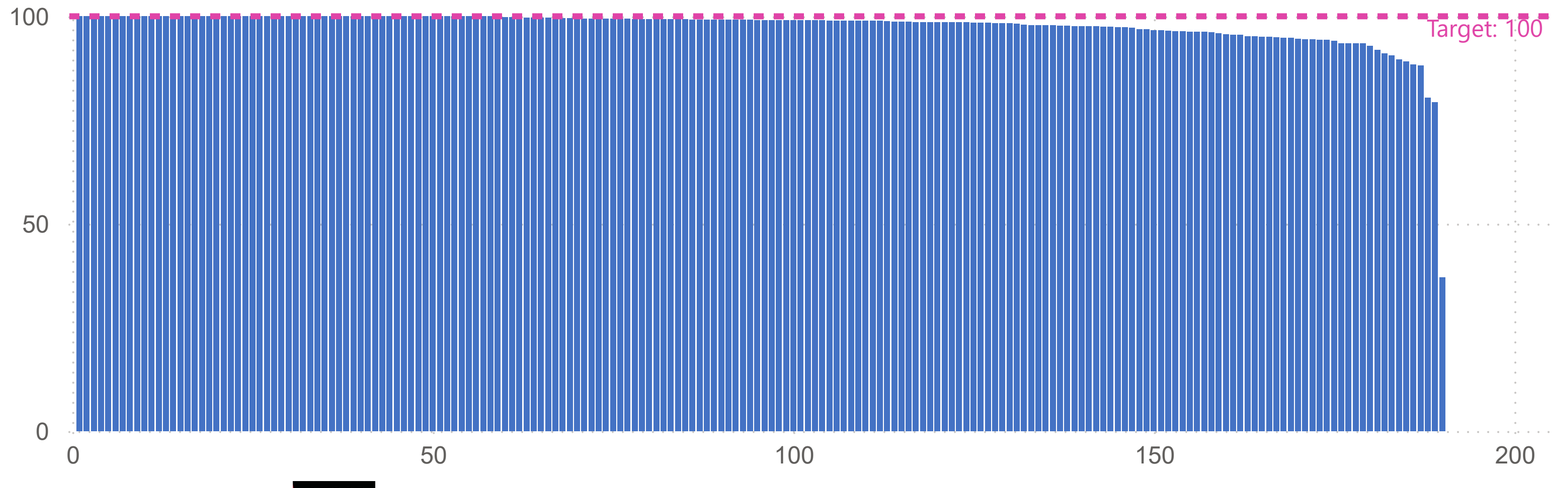
Select hospital

All

Percentage of NSTEMI patients admitted to a cardiac ward (2023/24)



Percentage of NSTEMI patients receiving specialist cardiology care (2023/24)



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Secondary prevention medication rates have fallen slightly over the last 4 years, while use of aldosterone antagonists has improved

National guidelines recommend that all heart attack patients should be considered for important secondary prevention drugs that have been shown to improve outcomes (including ACE inhibitors, beta blockers, dual antiplatelet drugs and statins). The audit measures prescribing to those patients who are eligible for these.

The slight fall in performance overall may reflect recent questioning of whether all patients with good heart function after a heart attack may benefit from a beta blocker.

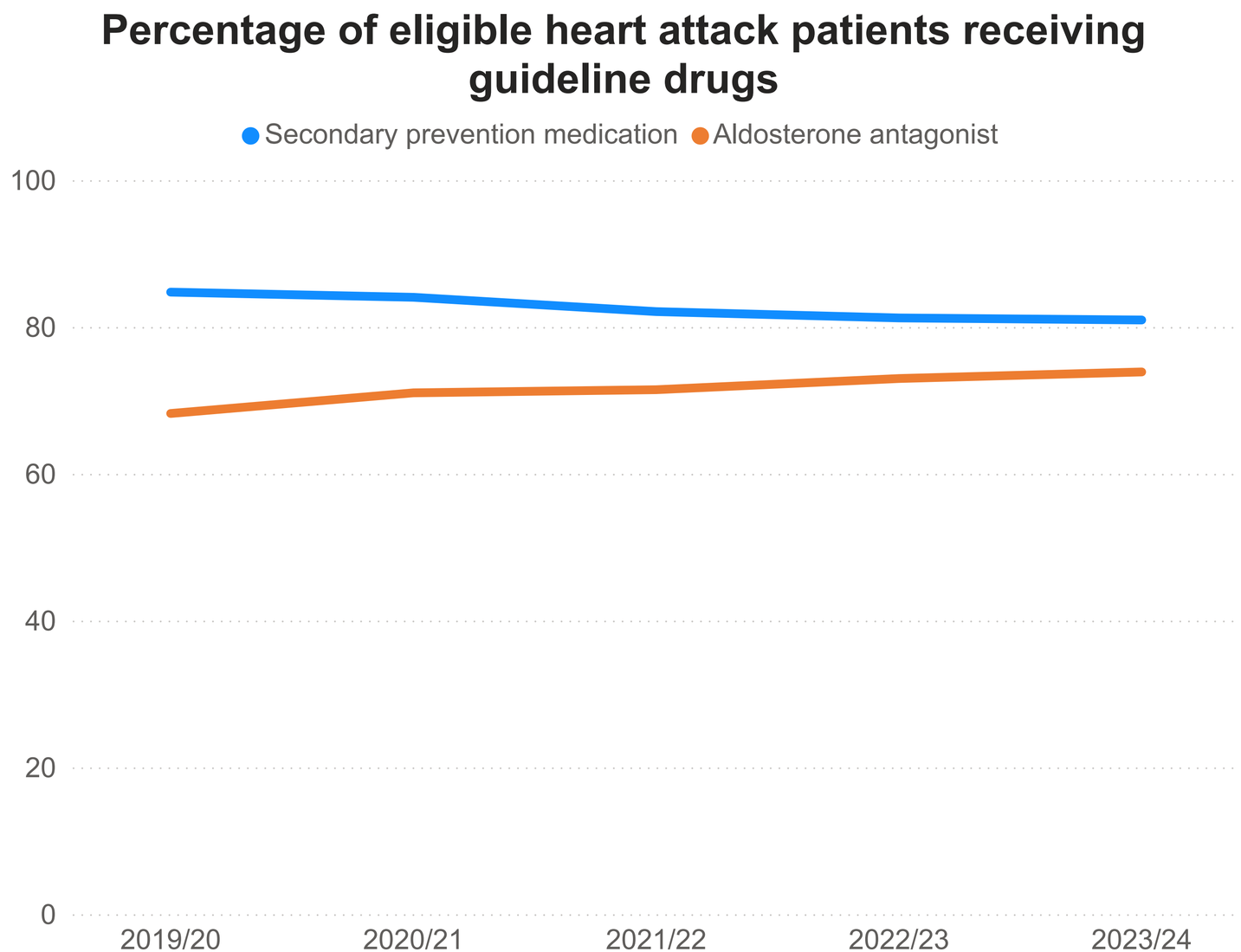
In patients shown to have poor heart function, aldosterone antagonists are also recommended. There has been a gradual improvement in the prescription of these drugs for this group of patients.

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

Note: This analysis now assumes that audit data submitted as 'unknown' or left blank means that the drug was not given to an eligible patient.

Select country or Cardiac Network

All



More hospitals achieve targets for aldosterone antagonist use, but fewer achieve targets for other secondary prevention medication

The audit aspiration is for:

- 90% of heart attack patients to be prescribed all the standard secondary prevention medications for which they are eligible
- 90% of patients who are eligible to receive an aldosterone antagonist to be prescribed a medication in this class.

98 hospitals achieved the target for secondary prevention medications (107 in 2022/23).

81 hospitals achieved the target for discharge on an aldosterone antagonist (76 in 2022/23).

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

Note: This analysis now assumes that audit data submitted as 'unknown' or left blank means that the drug was not given to an eligible patient.

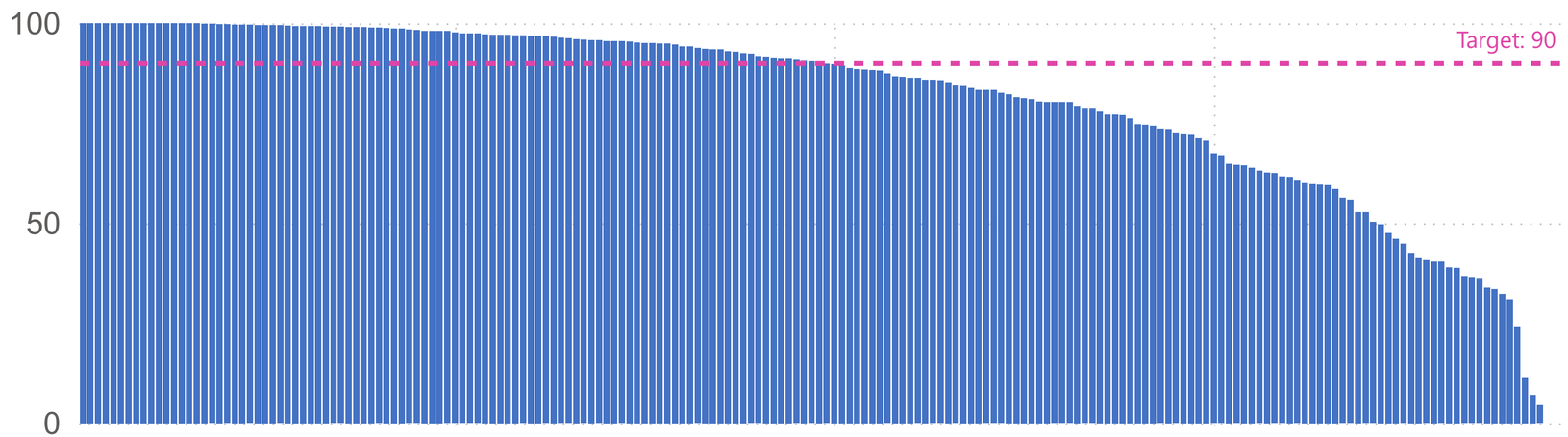
Select country or Cardiac Network

All

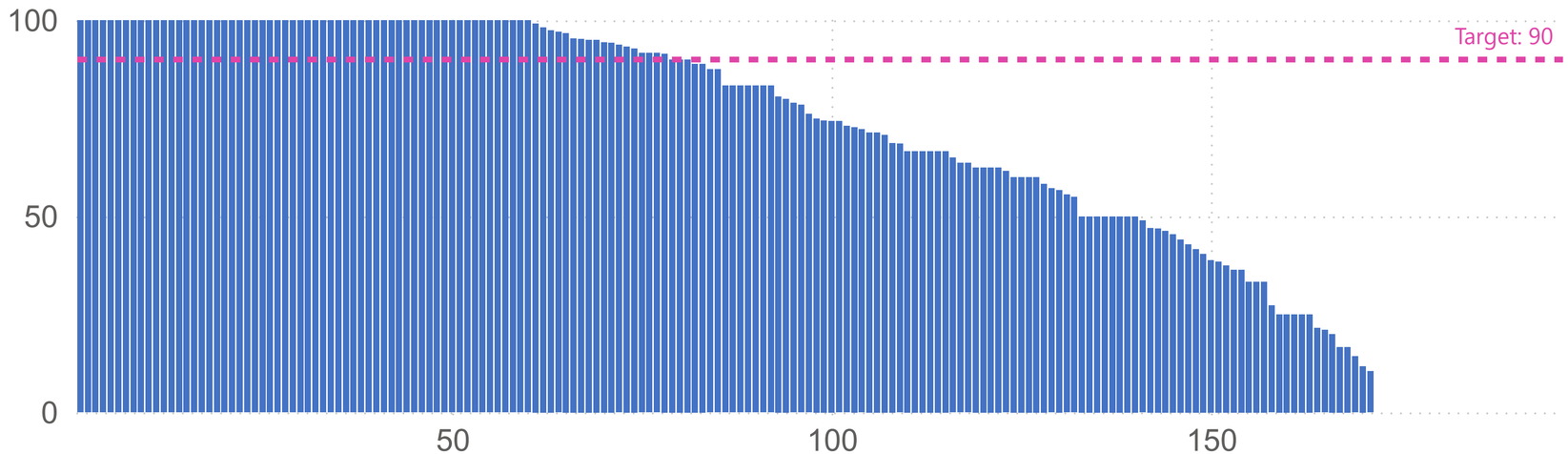
Select hospital

All

Percentage of all eligible heart attack patients receiving secondary prevention medication by hospital (2023/24)



Percentage of all eligible heart attack patients receiving aldosterone antagonists (2023/24)



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Referral to cardiac rehabilitation programmes at discharge remains high and is achieved for most patients

National guidelines recommend that all patients after a heart attack should receive cardiac rehabilitation. This begins during the hospital admission and is normally followed by an invitation to attend an exercise-based outpatient (or virtual) cardiac rehabilitation programme. Such programmes are not suitable for all patients, and not all patients take up the invitation.

The audit target for hospitals is that 85% of patients discharged home or transferred to another hospital for further treatment receive an invitation to cardiac rehab. **A total of 125 hospitals met this target in 2023/24, but 66 did not.**

Select a country/Cardiac Network/hospital below or hover over the graphs to see specific data.

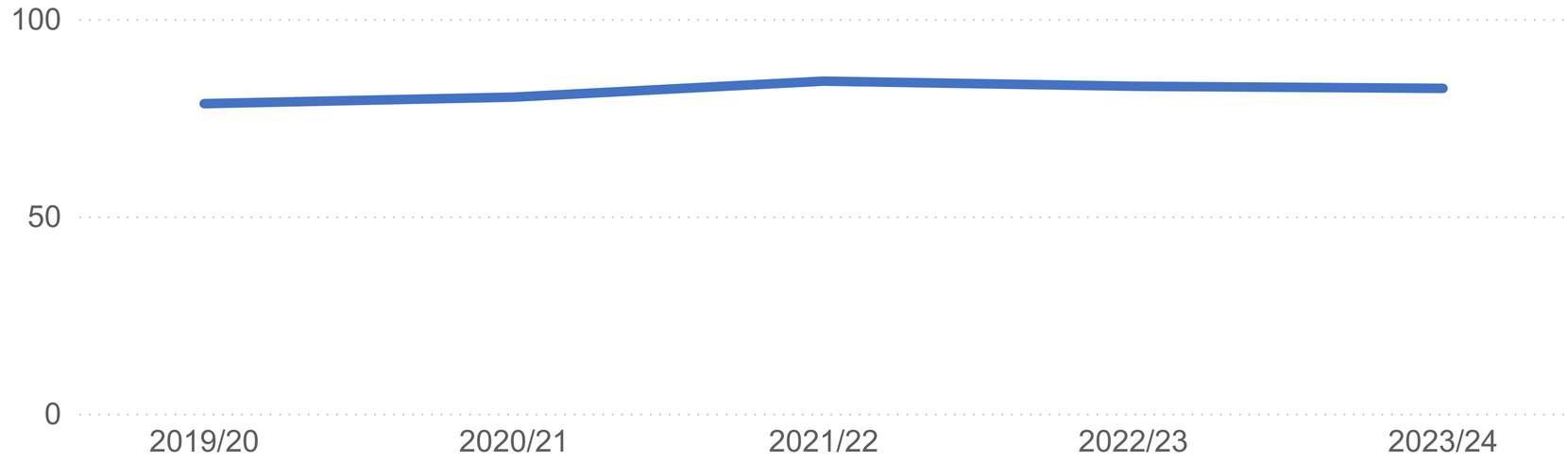
Select a country or Cardiac Network

All

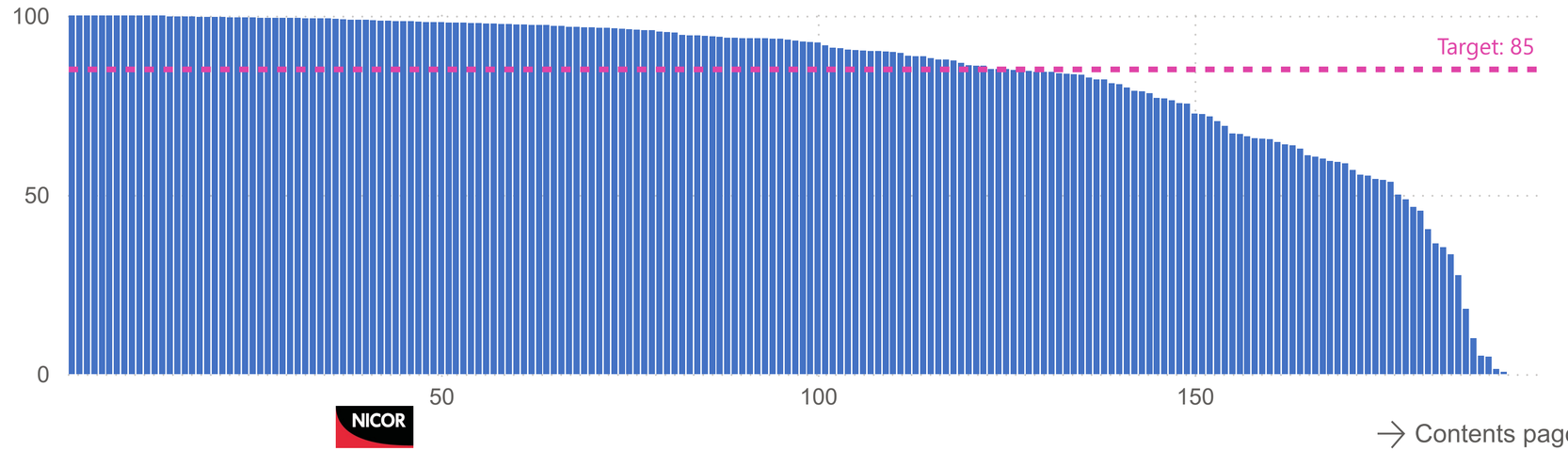
Select hospital

All

Percentage of STEMI and NSTEMI patients who were referred for cardiac rehabilitation at point of discharge home or transfer to another hospital



Percentage of all heart attack patients who were referred for cardiac rehabilitation at point of discharge home or transfer to another hospital (2023/24)



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