

NCAP

NATIONAL CARDIAC AUDIT PROGRAMME

NICOR

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



Annual Report 2025
(2024/25)



BCIS



7% decrease in number of heart attacks reported to MINAP since 2017/18

Large variation in heart attack rates across the country, with 2-fold differences in mean and 10-fold difference in women.

Only 69% of STEMI patients receive reperfusion within 12 hours, down from 76% in 2015/16, although provision of reperfusion in older patients has improved.

1 in 10 STEMI patients and nearly 1 in 3 NSTEMI patients self-presented to hospital in 2024/25, around double the rate pre-pandemic

Symptom-to-balloon times for STEMI average over 6 hours for patients who have an inter-hospital transfer, and around 3 1/2 hours for patients who arrive by ambulance. These times have increased over time, though have started to fall for those who arrive by ambulance.

59% of STEMI patients treated within target Call-to-balloon time of 150 minutes, and only 30% within 120 minutes.

55% of NSTEMI patients received coronary angiography within 72 hours, up from 51% in 2023/24 and reversing a longer term reducing trend.

High use of echocardiography with STEMI, but only 92 of 181 hospitals met the target of performing an echocardiogram in at least 90% of all heart attack patients.

78% of patients received guideline-directed medications for heart attack before discharge from hospital, down slightly from 79% in 2023/24.



1. Patients should receive high-quality pre-hospital care and timely reperfusion treatment in hospital

To shorten delays in the provision of emergency reperfusion treatment for higher-risk STEMI heart attacks, ambulance trusts should:

- continue to refine despatch algorithms to better identify such cases
- provide a reliable rapid response that brings modern pre-hospital care to the patient (including performance and interpretation of 12-lead ECGs)
- work with receiving hospitals to reduce handover times (releasing ambulances for further service) and in-hospital delays to intervention.

2. Inter-hospital transfer pathways for patients in non-interventional hospitals should be streamlined

To improve the care of the increasing proportion of patients who self-present with higher-risk STEMI heart attacks to hospitals that do not have primary PCI capability, receiving hospital Emergency Departments and Assessment Units should:

- have systems and processes for the rapid triage of patients with suspected heart attack (including performance and interpretation of 12-lead ECGs)
- ensure immediate and effective communication with cardiology teams in proximate interventional centres
- consider the role for intravenous thrombolytic therapy (as per guidelines) if rapid transfer to an interventional centre cannot be guaranteed.

3. Hospitals should submit accurate and timely data to the MINAP audit

Participating hospitals should submit data in a timely, accurate and complete fashion. This will enable rapid checking, curation and analysis so that the MINAP can continue to audit and feedback the contemporary management of heart attack.

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 2024 and March 2025.

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.

NICOR MINAP audit team

Contents of the report

Clicking on a page title will take you to that page



Number of cases

Timeliness of treatment

Quality of treatment

Heart attack admissions to hospital have been declining, although there was a slight upturn in 2024/25



Despite a small increase in cases during 2024/25 compared with the previous year, there has been a 7% decline in the total number of heart attack patients admitted to hospital since a peak of 89,226 in 2017/18.

Over that period, the number of higher-risk STEMI heart attacks have reduced by 9% compared with 6% for NSTEMI cases.

The dip in NSTEMI admissions during 2020/21 coincides with periods of 'lockdown' during the COVID-19 pandemic.

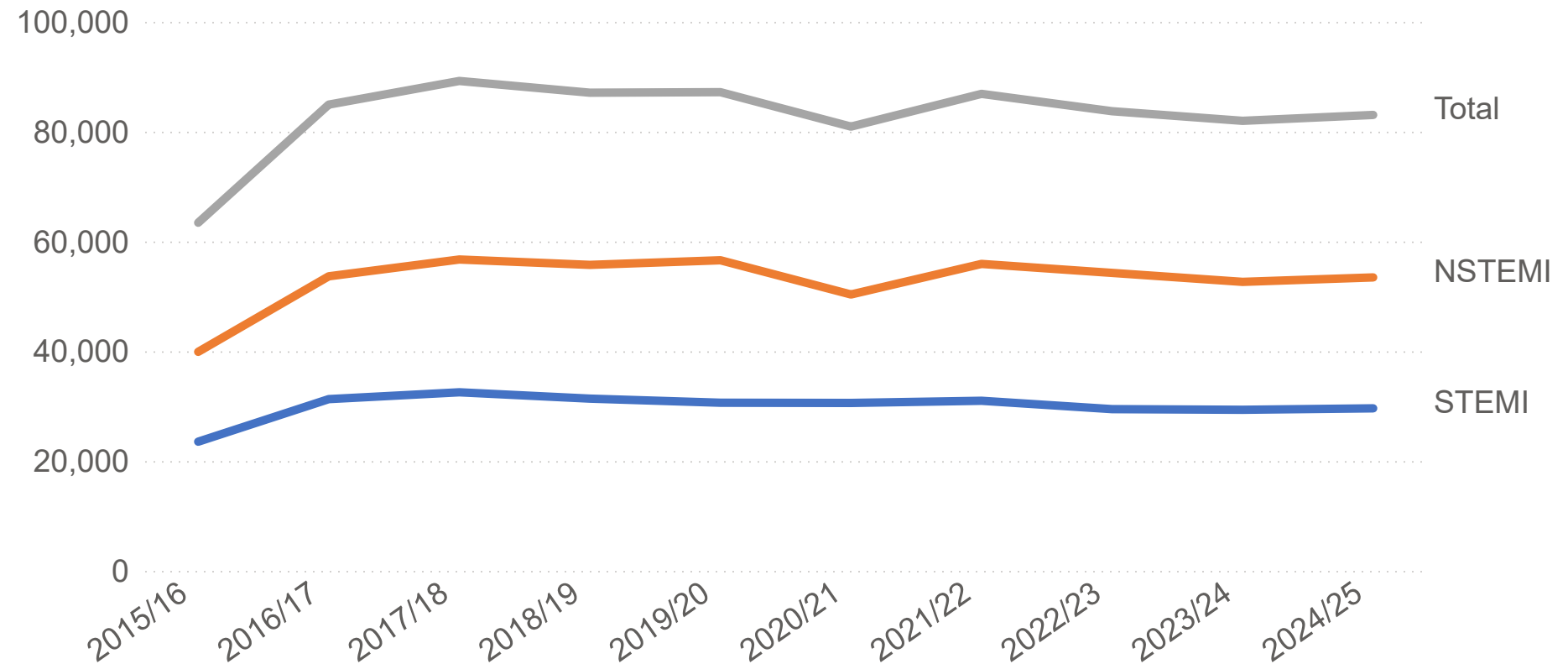
91,560
Suspected heart attacks

83,039
Confirmed heart attacks

29,596
Higher-risk STEMI heart attacks

53,443
Lower-risk NSTEMI heart attacks

Total STEMI and NSTEMI heart attack cases



The increase in heart attack cases in 2024/25 was predominantly in older people



The small increase in overall cases since the previous year was most marked for patients aged 75 years or older who, in 2024/25, accounted for 34% of all admissions (38% of NSTEMI and 26.8% of STEMI cases).

The number of recorded heart attack admissions in people aged 20-64 has decreased to the level seen pre-COVID19.

NSTEMI cases are more prevalent than higher-risk STEMI heart attacks in each age band.

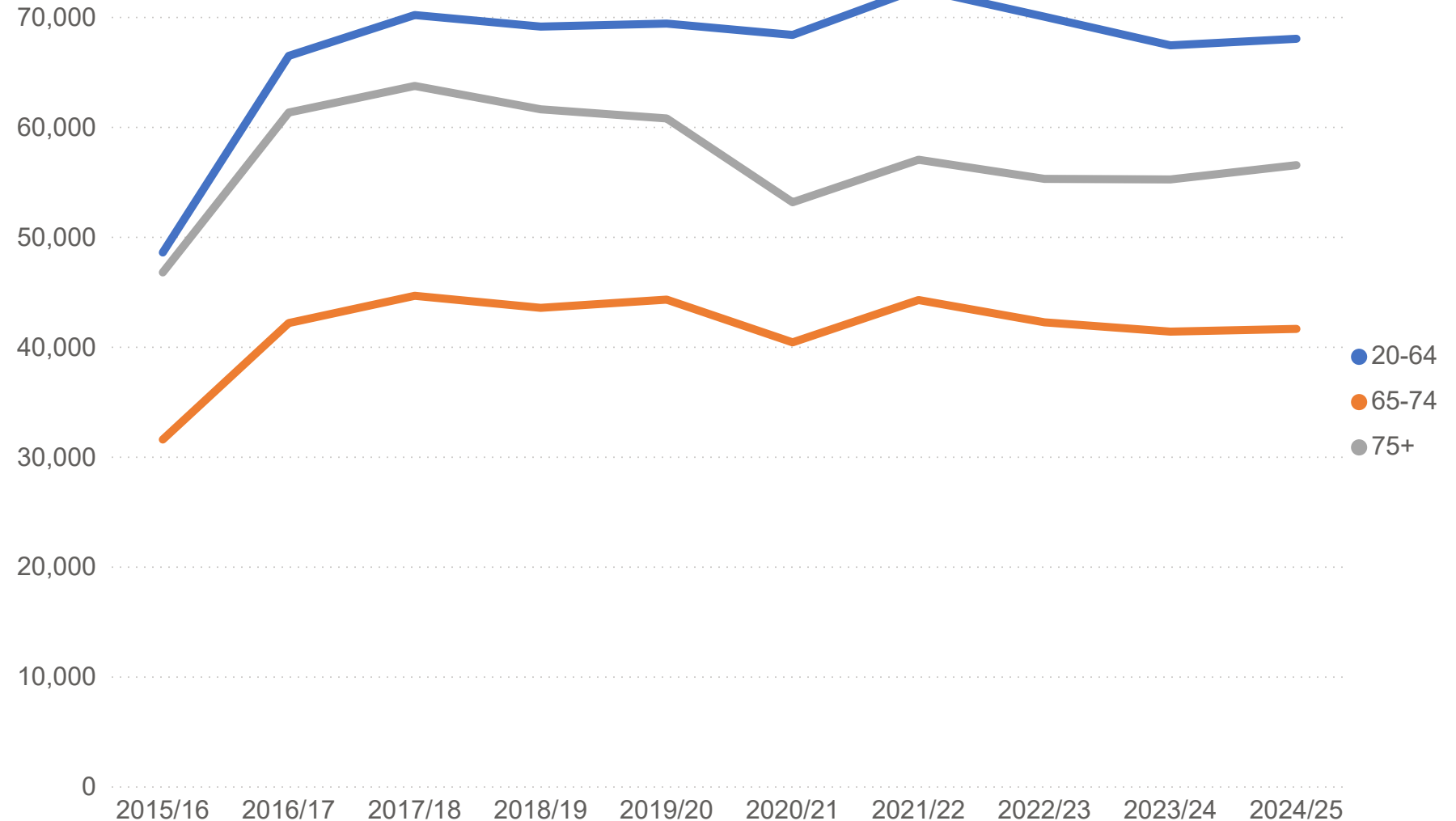
However, while only 28% of patients aged 75 years or older admitted with heart attack were STEMI cases, 42% of those aged 20-64 years had higher-risk STEMI heart attacks.

Select type of heart attack below to see specific data.

Select heart attack type

All

STEMI and NSTEMI cases by age group



Rates of admission for heart attacks vary by area based on patient home location for both males and females



The maps show rates of heart attack admissions for the 42 integrated Care Boards (ICBs) in England, 5 Health & Social Care Trusts in Northern Ireland and 7 Welsh Health Boards (HBs), based on patient home address. Darker shading = higher rates.

For all heart attacks, the rate varied between 56 and 414 cases in men per 100,000 men and between 20 and 254 cases per 100,000 women.

Significant regional differences remain even when age-standardised rates are used to adjust for the different age profiles of each area (age being a factor in heart attack risk).

Select type of heart attack and age rate below or hover over the maps to see specific data.

NOTE: Data are not shown for Northern Ireland as hospitals there do not provide the audit with patient postcodes.

Select age rate

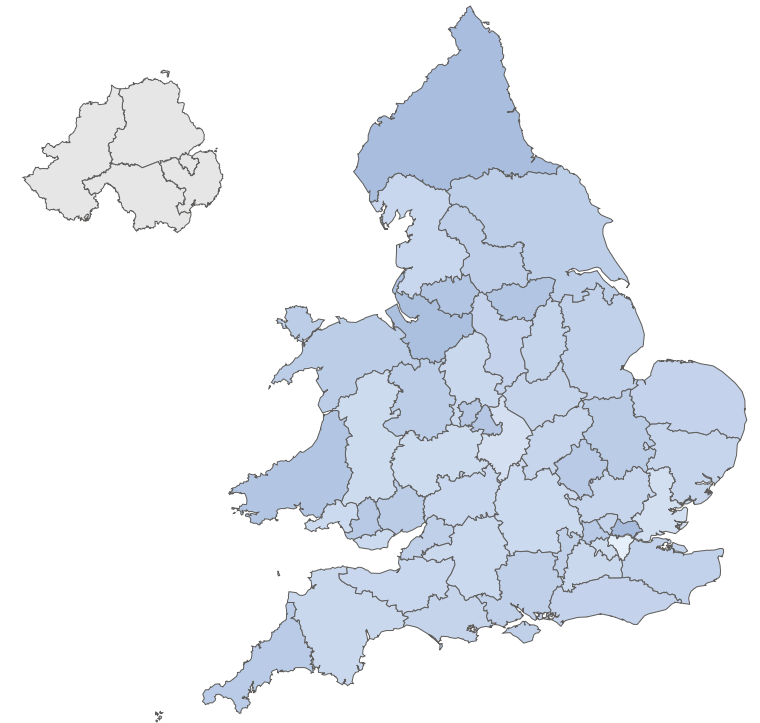
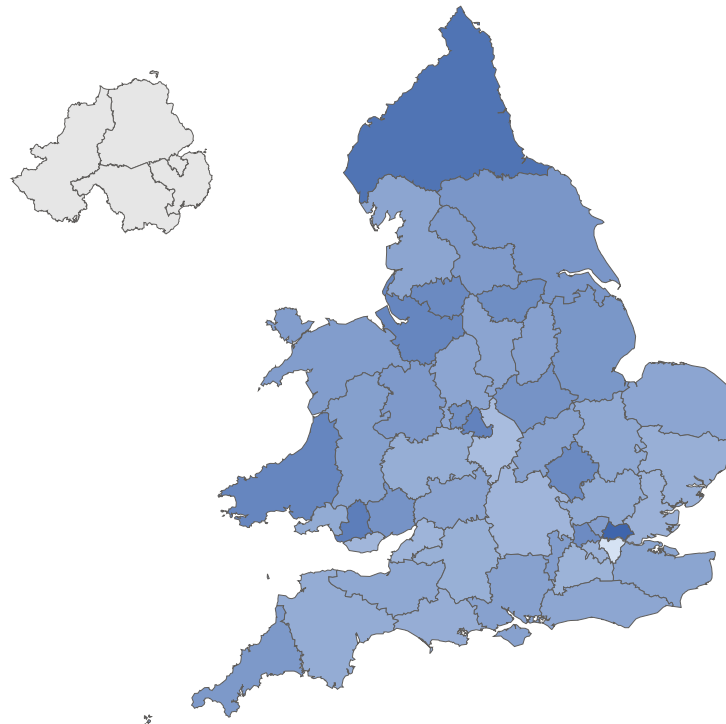
Age-standardised rate

Select heart attack type

All

Rate of heart attack admissions for male patients per 100k of male population based on patient home location by ICB/HB (2024/25)

Rate of heart attack admissions for female patients per 100k of female population based on patient home location by ICB/HB (2024/...



Rates of admission for heart attacks vary by area based on hospital location for both males and females



The maps show rates of heart attack admissions for the 42 integrated Care Boards (ICBs) in England, 5 Health & Social Care Trusts in Northern Ireland and 7 Welsh Health Boards (HBs), based on the location of the reporting hospital. Darker shading = higher rates.

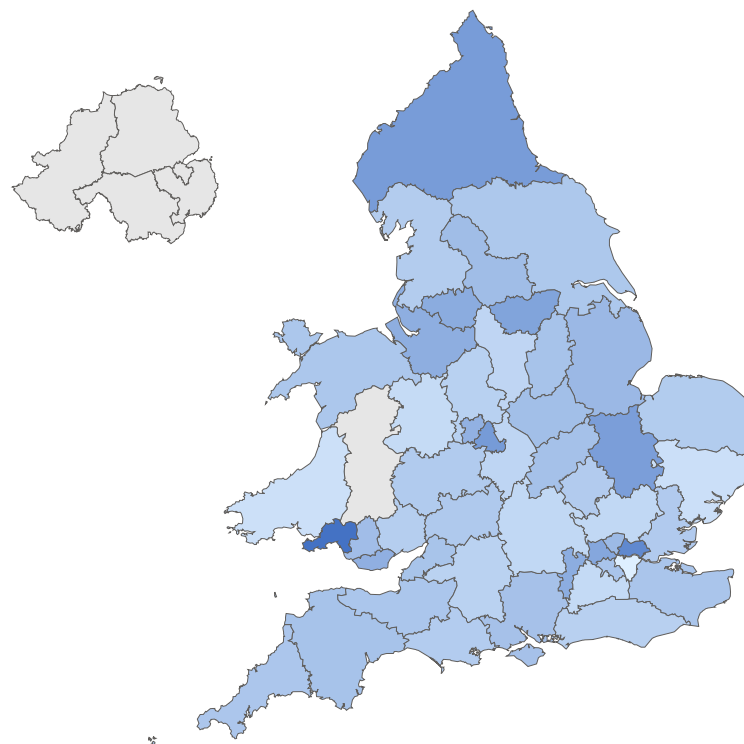
For males, the actual rate varied between 70 and 648 cases per 100,000 males (56 - 400 when age-adjusted).

For females, the actual rate varied between 22 and 252 cases per 100,000 females (22 - 154 when age-adjusted).

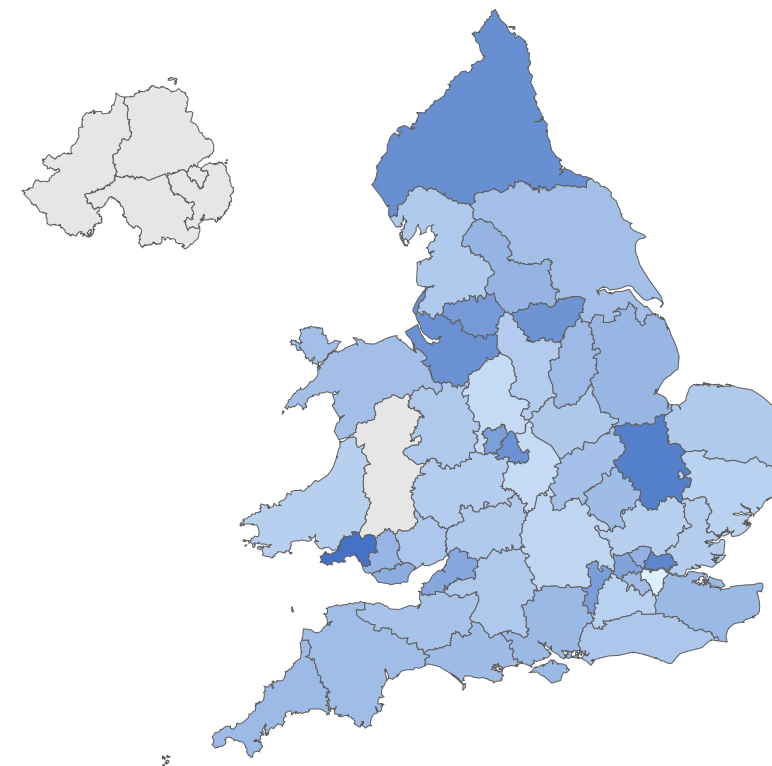
Select type of heart attack and age rate below or hover over the maps to see specific data.

NOTE: There is no District General Hospital in Powys that admits heart attack patients.

Rate of heart attack admissions for male patients per 100k of male population based on hospital location by ICB/HB (2024/25)



Rate of heart attack admissions for female patients per 100k of female population based on hospital location by ICB/HB (2024/25)



Select age rate

Age-standardised rate

Select heart attack type

All

Rates of heart attack cases by Cardiac Network are highest in the North East and Cumbria, London and South Yorkshire



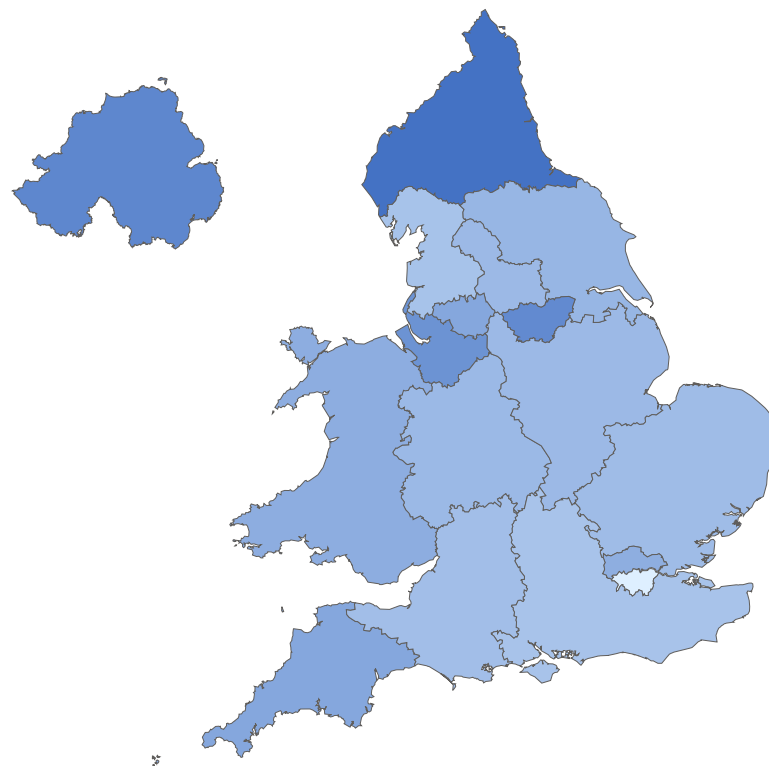
The maps show rates of heart attack admissions for the 17 Cardiac Networks in England, Northern Ireland, and Wales. Darker shading = higher rates.

For males, the actual rate varied between 88 and 304 cases per 100,000 males (126 - 284 when age-adjusted).

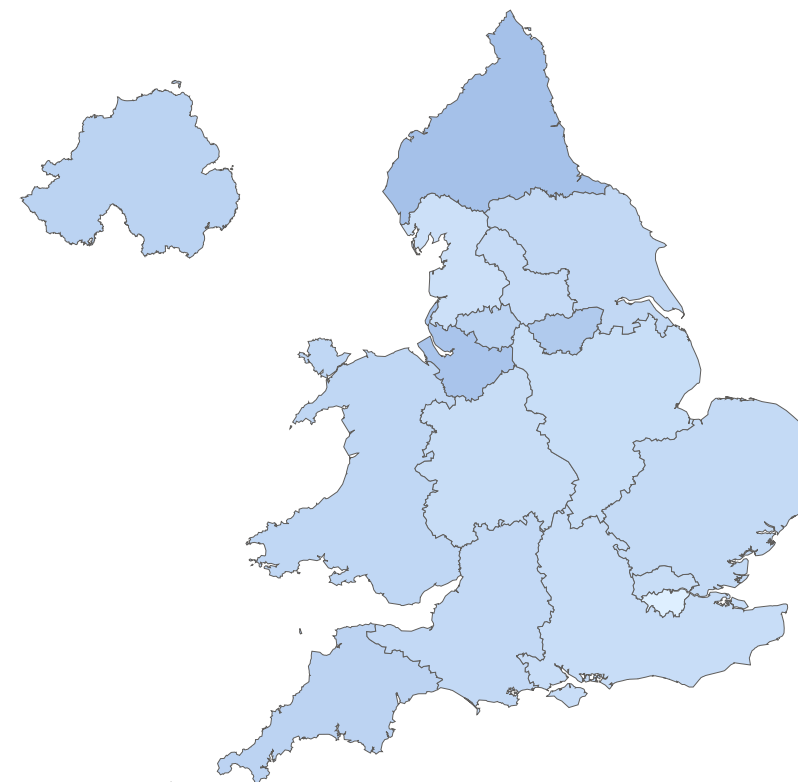
For females, the actual rate varied between 34 and 132 cases per 100,000 females (52 - 124 cases per 100,000 females when age-adjusted).

Select type of heart attack and age rate below or hover over the maps to see specific data.

Rate of heart attack admissions for male patients per 100k of male population based on hospital location by Cardiac Network (2024/25)



Rate of heart attack admissions for female patients per 100k of female population based on hospital location by Cardiac Network (2024/25)



Select rate to show:

Actual rate

Select heart attack type

All

The proportion of higher-risk STEMI patients receiving reperfusion within 12 hours of symptom onset seems to be slowly falling

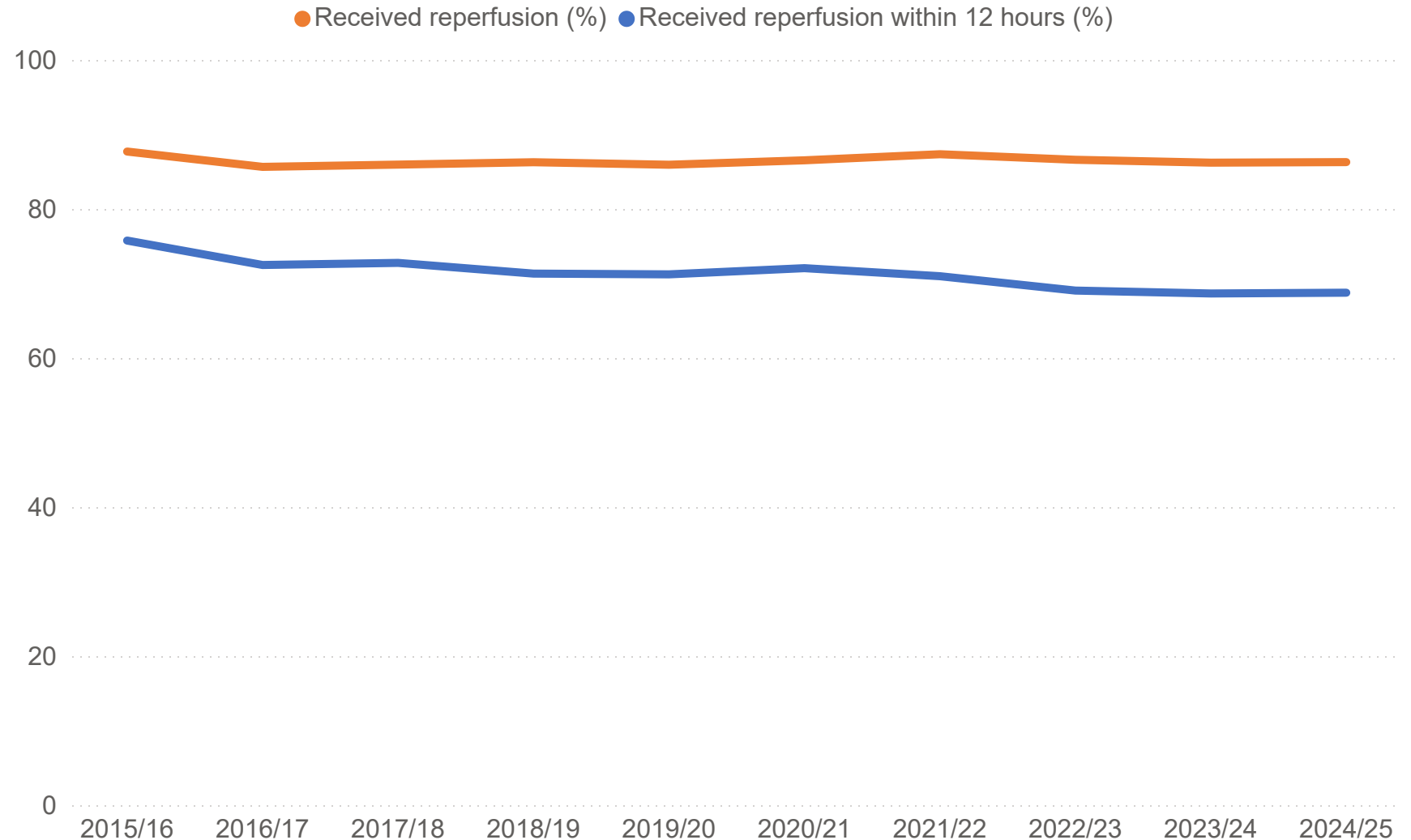


86% of patients with a higher-risk STEMI heart attack received reperfusion treatment during hospital admission (unchanged from 2023/24).

Worryingly, the proportion of patients who receive reperfusion within 12 hours of symptom onset (the group that is likely to derive the most benefit) has fallen from 76% in 2015/16 to 69% in 2024/25.

Note: the chart includes data only for those patients who had a valid symptom onset time in their audit submission

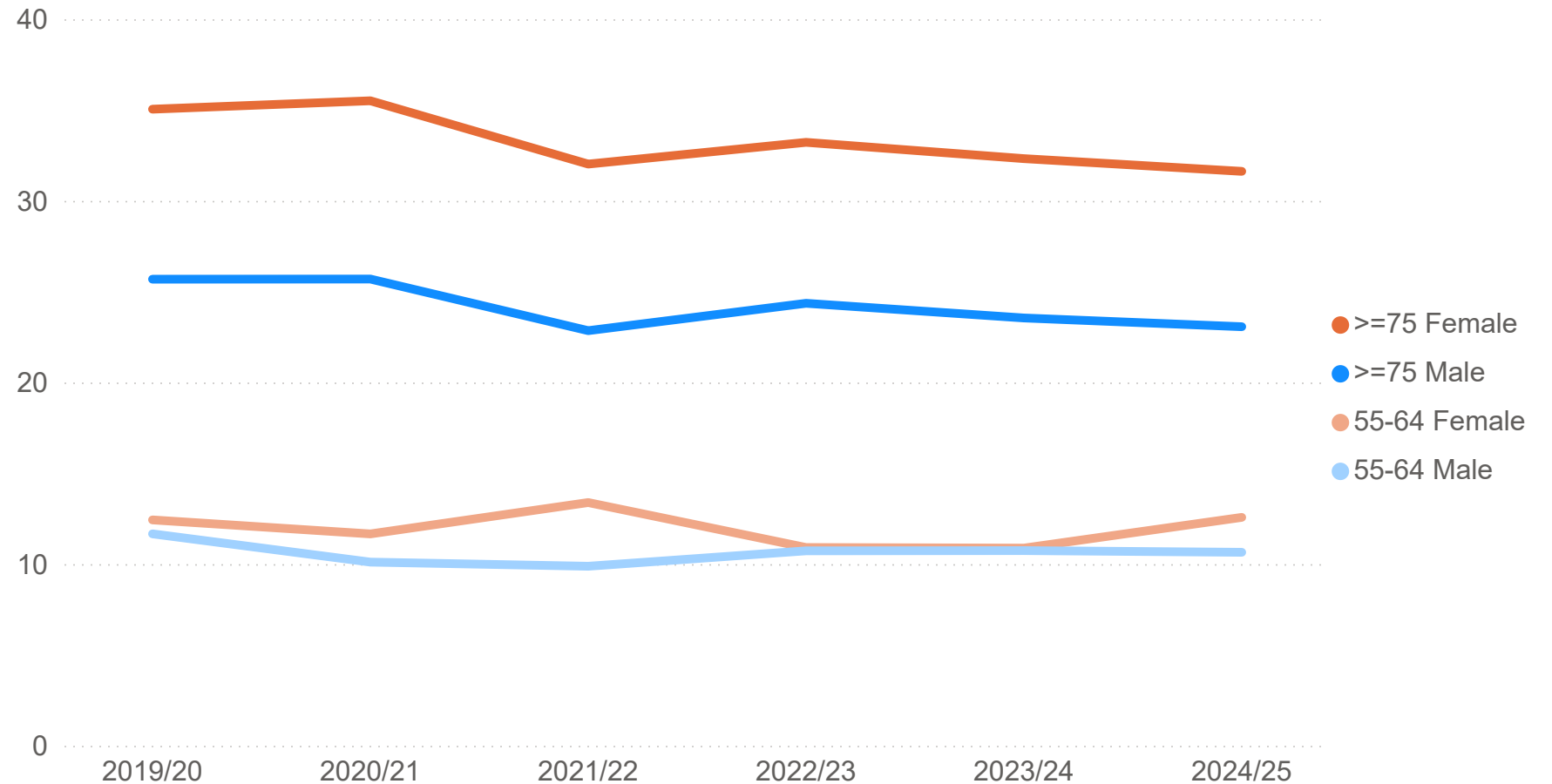
Percentage of all STEMI patients who received reperfusion and those who received reperfusion within 12 hours of symptom onset



There are gradual improvements in the provision of reperfusion treatment to older patients with higher-risk STEMI heart attacks



Percentage of patients with higher-risk STEMI heart attacks not receiving reperfusion by age and gender



There has been a gradual improvement in the provision of reperfusion to females with higher-risk STEMI heart attacks aged 75 years or older, though 32% of this group still do not receive this treatment.

For those aged 55-64 years, differences in reperfusion rates based by gender have reappeared in 2024/25 (12.6% of females compared with 10.6% of males) following 2 years when the rates converged .

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.

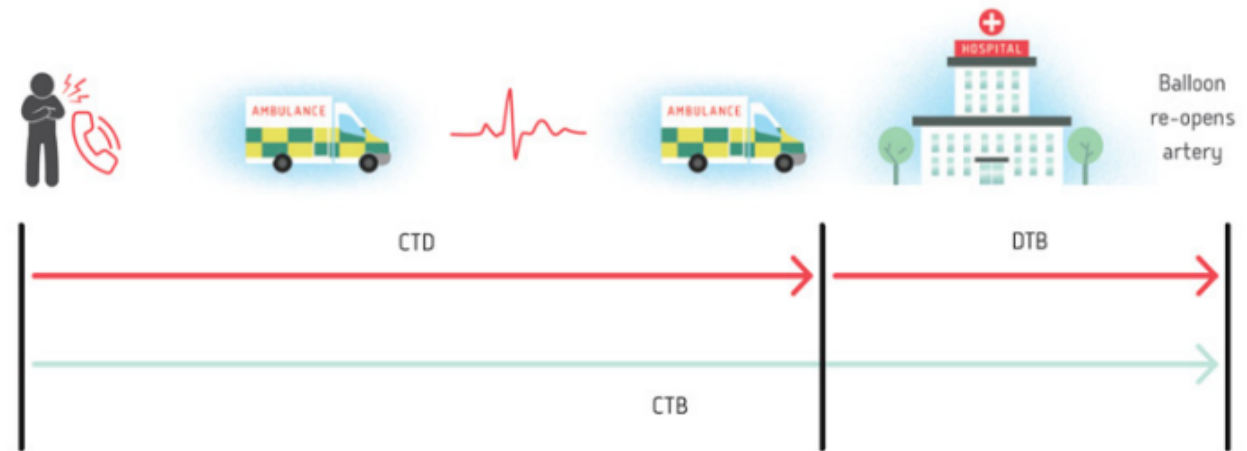
The Call-To-Door (CTD) time covers the period when the patient is brought to hospital by the ambulance services.

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

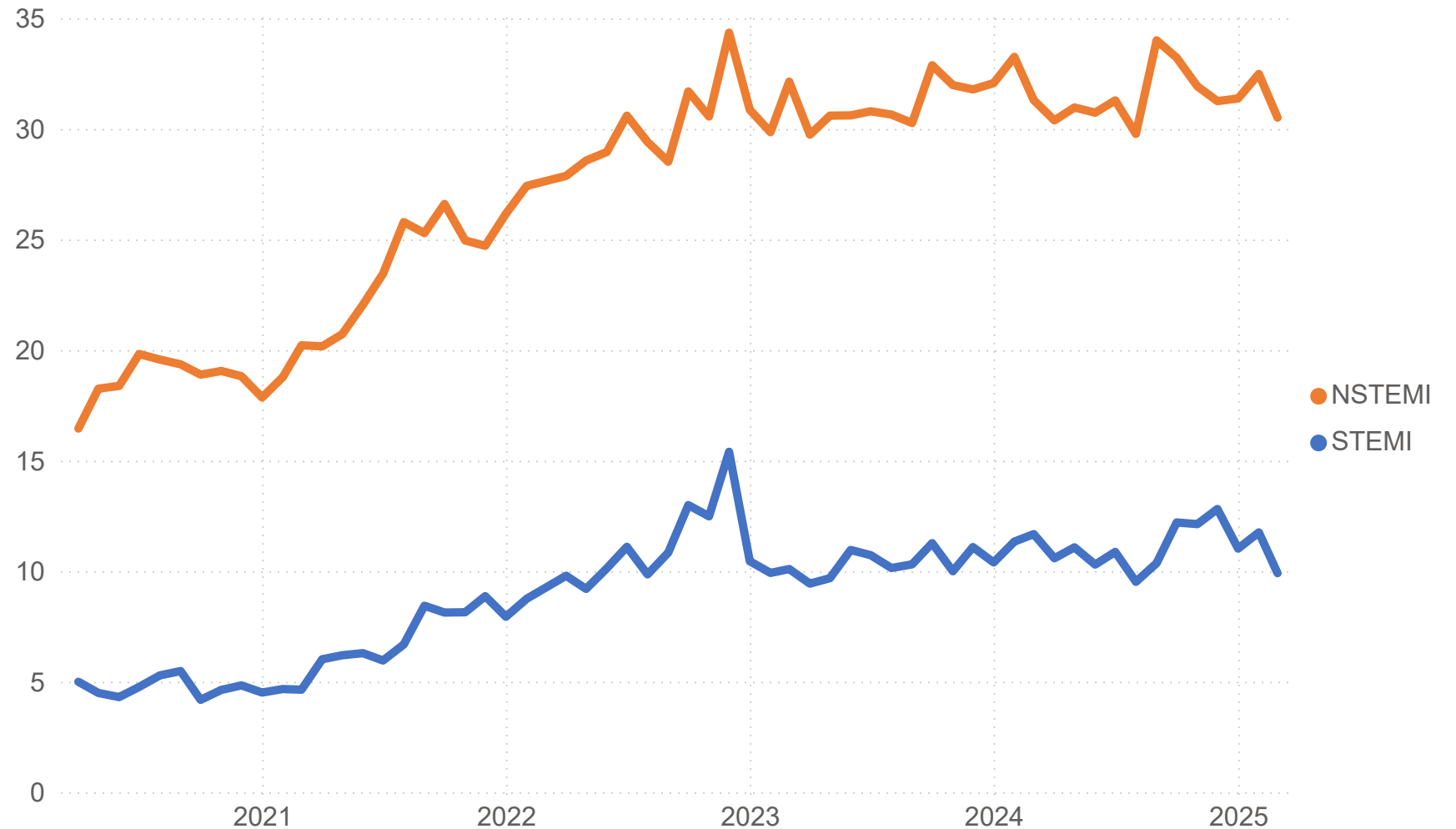
CTB = Call-To-Balloon time

From patient 999 call to re-opening of artery using reperfusion primary PCI therapy

A high proportion of people with a heart attack continue to self-present to hospital rather than wait for the emergency services



Percentage of heart attack patients self-presenting to hospital by month



The overall proportion of patients who self-present to hospital with heart attack in 2024/25 was similar to 2023/24.

This represents a doubling of the rate of self-presentation since 2020, both for higher-risk STEMI heart attacks (from about 5% to about 10%) and for NSTEMI cases (from about 15% to about 30%).

Symptom-To-Balloon times for STEMI patients are longest for inter-hospital transfers and shortest for those brought directly to hospital by ambulance

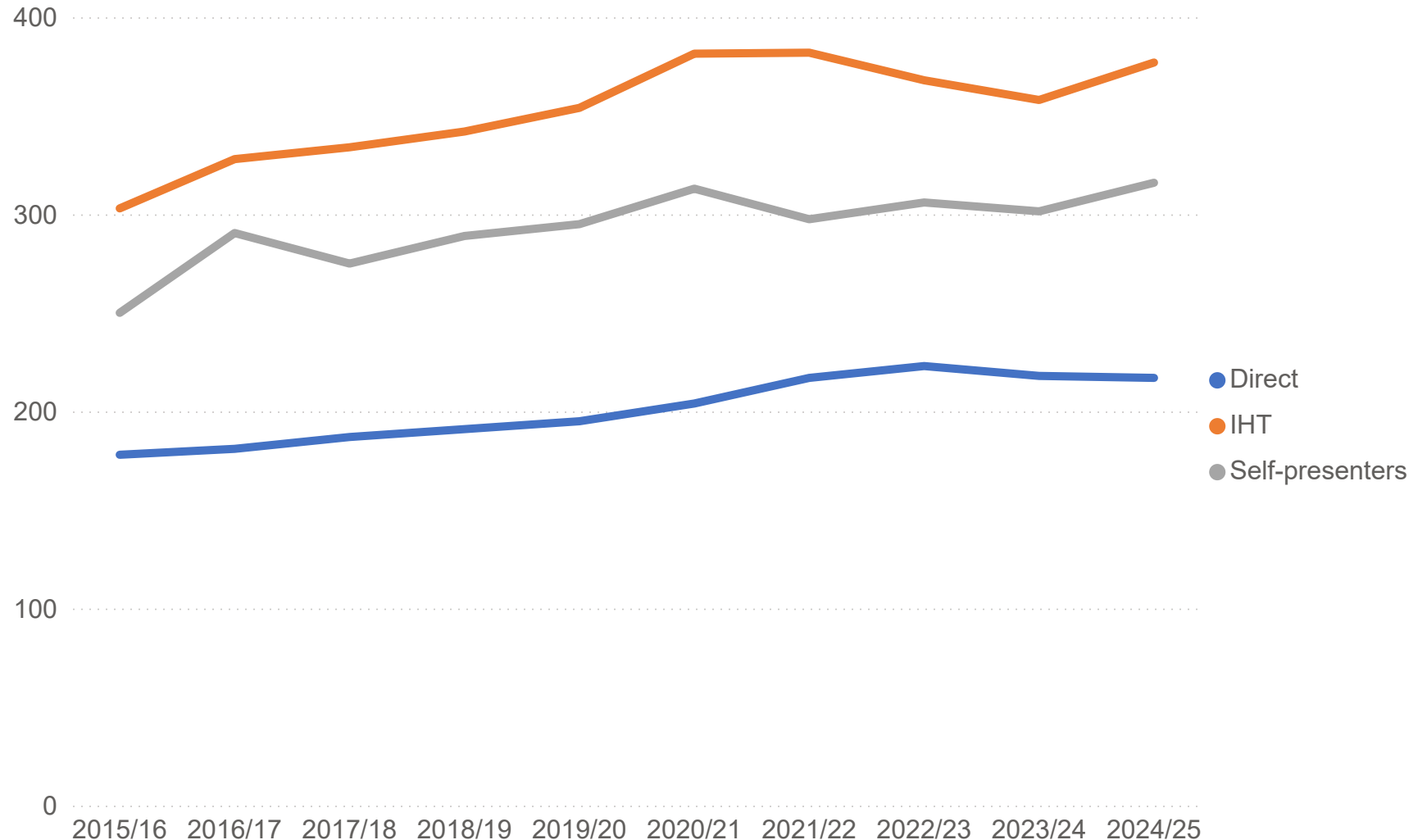


Over the last decade, patients with higher-risk STEMI heart attacks have seen increasing delays between the onset of their symptoms and the start of their PCI treatment. This is worst for those self-presenting to hospital and those requiring an inter-hospital transfer.

The symptom onset to balloon time fell very slightly in 2024/25 for those admitted directly by ambulance services (to 217 minutes) while there were increases for those self-presenting to hospital (up from 301 to 316 minutes) and for those requiring inter-hospital transfer (up from 358 to 377 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 the time of arrival at hospital.

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



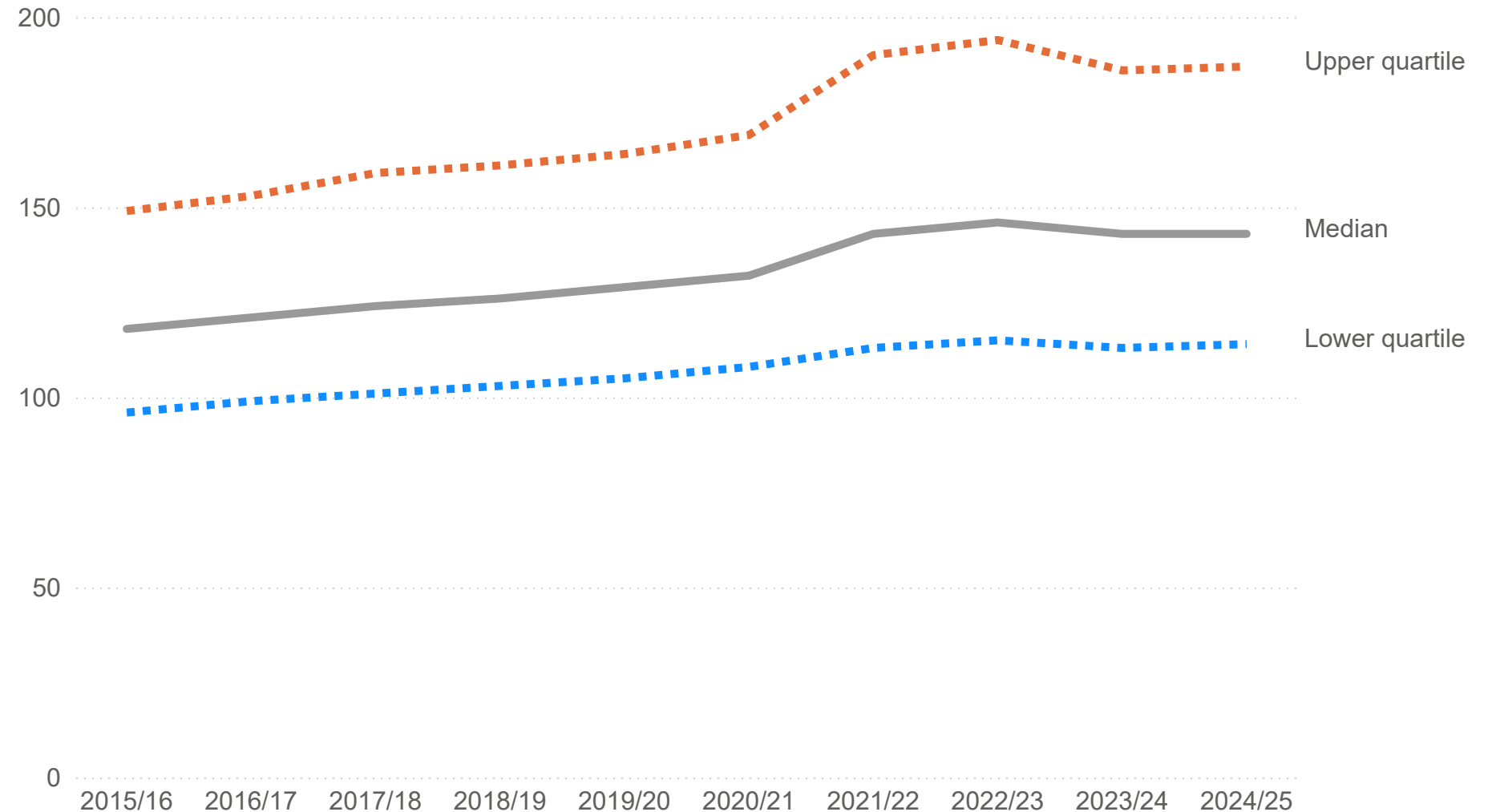
The improvement in Call-To-Balloon time seen last year has been maintained although delays to treatment remain longer than previously



CTB times (minutes) for higher-risk STEMI heart attack patients

The modest improvement in Call-To-Balloon (CTB) time seen last year has been maintained.

The median CTB time in 2024/25 was 143 minutes (compared with 118 minutes in 2015/16).



Call-To-Door times have improved modestly since the pandemic but have not returned to the much better levels of performance seen 10 years ago

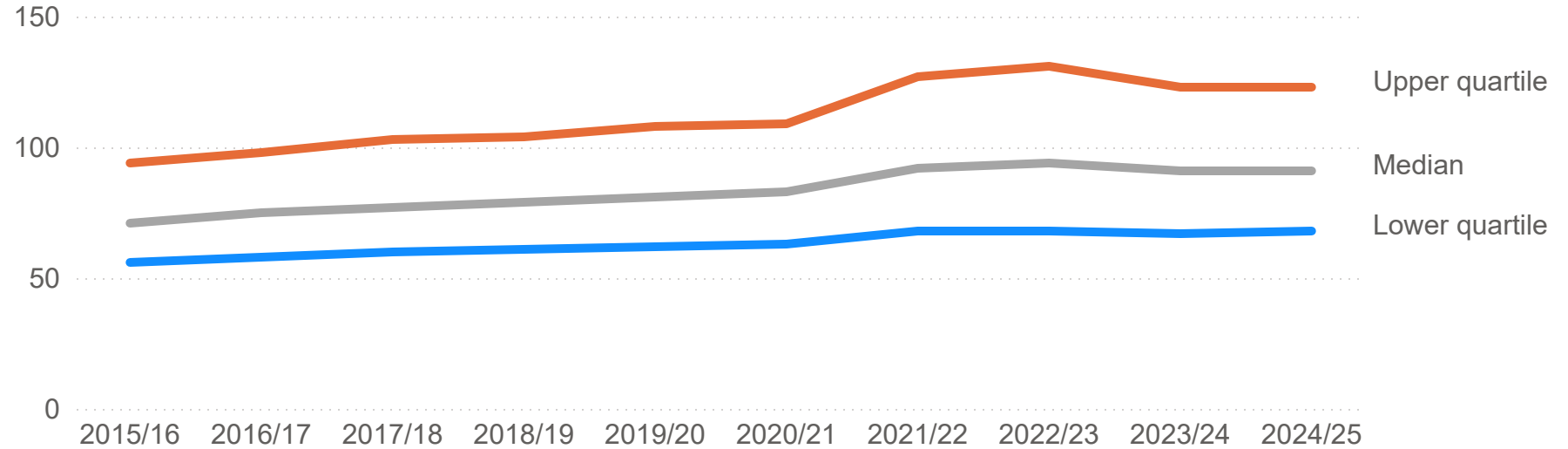


The modest improvement in Call-To-Door (CTD) time seen in 2023/24 has been maintained. However, the median CTD time (91 minutes) in 2024/25 remains longer than in 2015/16 (71 minutes).

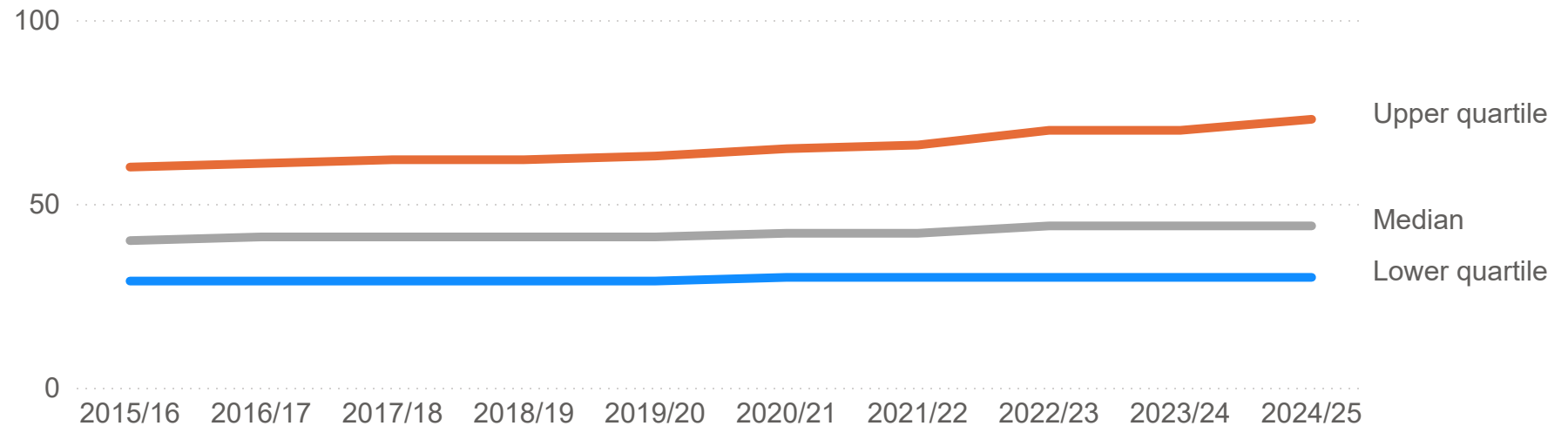
There has been a slight worsening of the median Door-To-Balloon (DTB) time over recent years, and the interquartile range (between the 25th and 75th centile) has widened from 31 minutes in 2015/16 to 44 minutes in 2024/25.

Note: DTB times shown are those at the hospital providing primary percutaneous coronary intervention (PPCI).

CTD times (minutes) for higher-risk STEMI heart attack patients



DTB times (minutes) for higher-risk STEMI heart attack patients



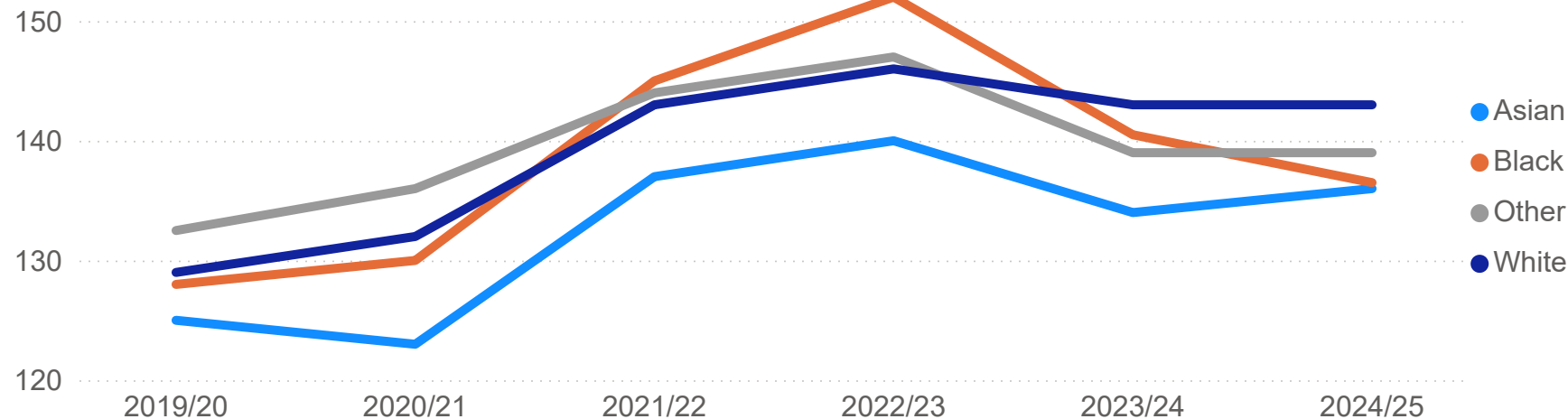
Persisting differences in Call-To-Balloon times and Door-To-Balloon times are seen between ethnic groups



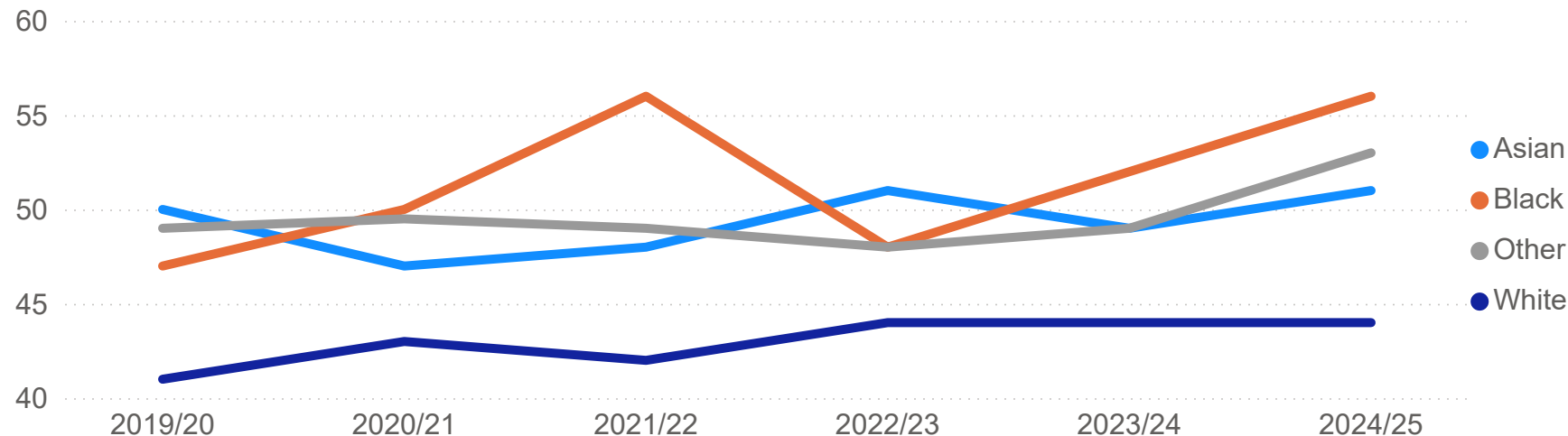
White ethnicity heart attack patients consistently have the shortest median Door-To-Balloon (DTB) times while Asian patients have the shortest median Call-To-Balloon (CTB) time.

Note: Relatively few patients identify as black, or are recorded as 'other', so there are wider confidence intervals around the median figures for these categories. No adjustment has been made for age or gender.

Median CTB times (minutes) by ethnicity



Median DTB times (minutes) by ethnicity



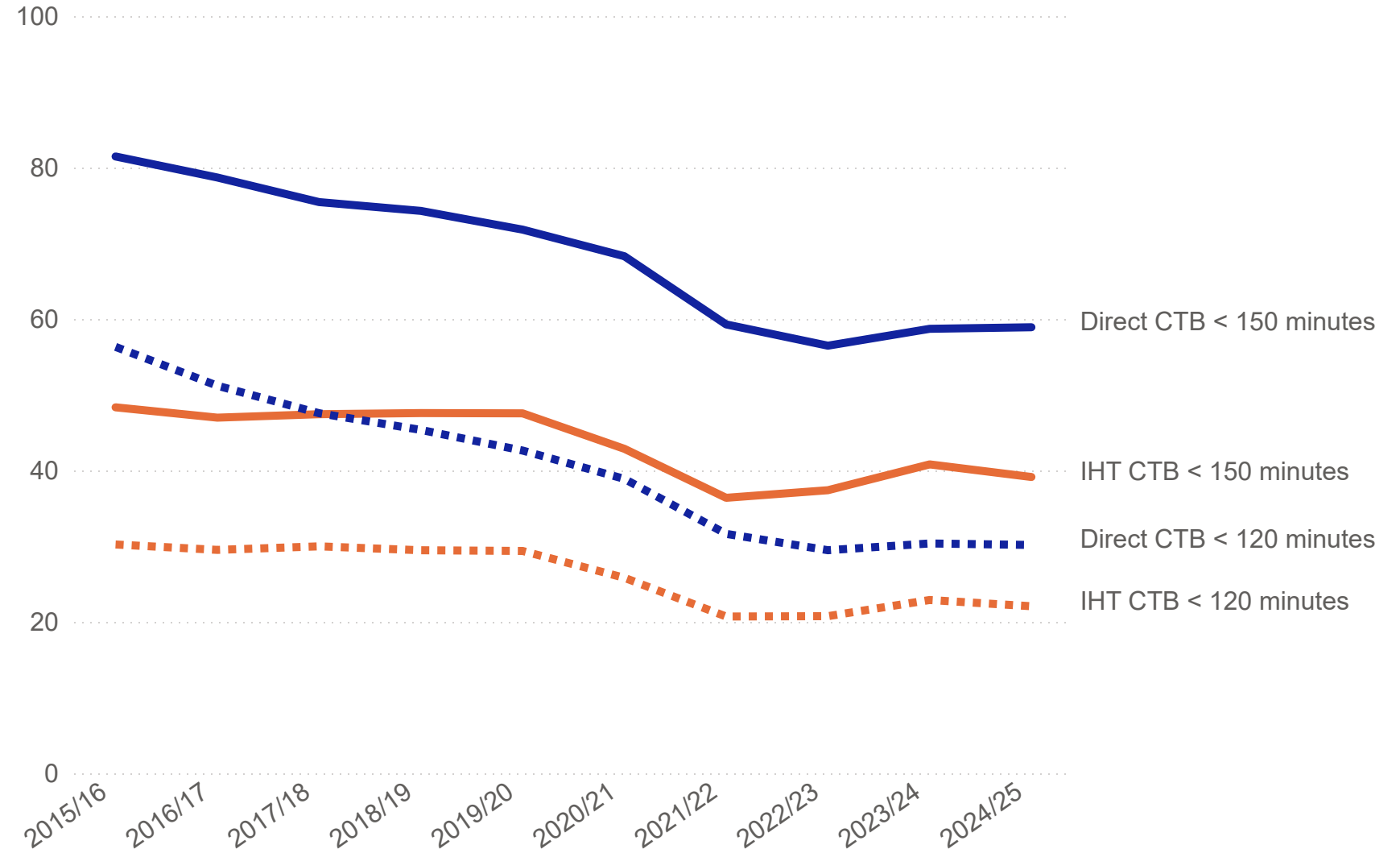
Call-To-Balloon performance is no longer declining but major improvements are needed for more patients to be treated within target times



While Call-To-Balloon (CTB) times did not worsen in 2024/25, only 59% of STEMI patients taken directly to a PCI-capable hospital received reperfusion within 150 minutes of calling for help (compared with 82% in 2015/16).

Those patients requiring inter-hospital transfer are less likely to receive timely reperfusion than those taken directly to a hospital with PCI services (39% v 59% being treated within 150 minutes).

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



Call-To-Balloon times differ substantially between areas



The maps show the Call-To-Balloon (CTB) times for the 42 integrated Care Boards (ICBs) in England, 5 Health & Social Care Trusts in Northern Ireland and 7 Welsh Health Boards (HBs), based on the location of the reporting hospital. Darker colours = higher values.

The median CTB time varied between 96 minutes (Surrey Heartlands ICB) and 174 minutes (South East London ICB).

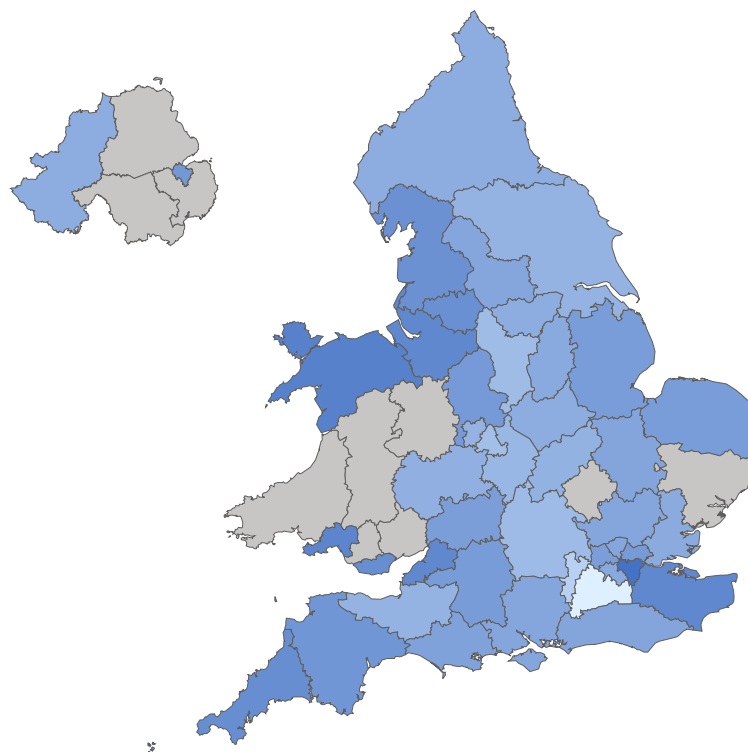
The percent of patients whose CTB time is **longer** than 150 minutes ranged between 8% (Surrey Heartlands ICB) and 62% (Betsi Cadwaladr UHB).

Note: Data were insufficient to allow meaningful analysis for:

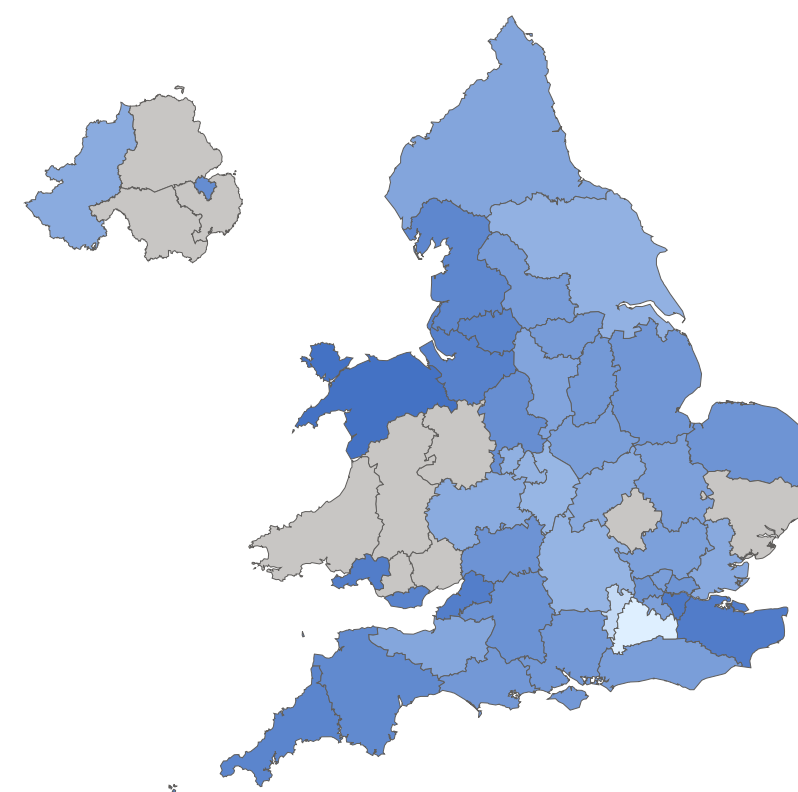
- Bedfordshire, Luton and Milton Keynes ICB
- NHS Suffolk ICB
- NHS Shropshire, Telford and Wrekin ICB
- Aneurin Bevan University HB

The remaining blank health boards in Wales do not contain centres capable of delivering PCI.

Median CTB times based on hospital location by ICB/HB (2024/25)



Percentage of CTB times over 150 minutes based on hospital location by ICB/HB (2024/25)



Call-To-Balloon times are longest for patients in Powys Health Board



Median CTB times based on patient home location by ICB/HB (2024/25)

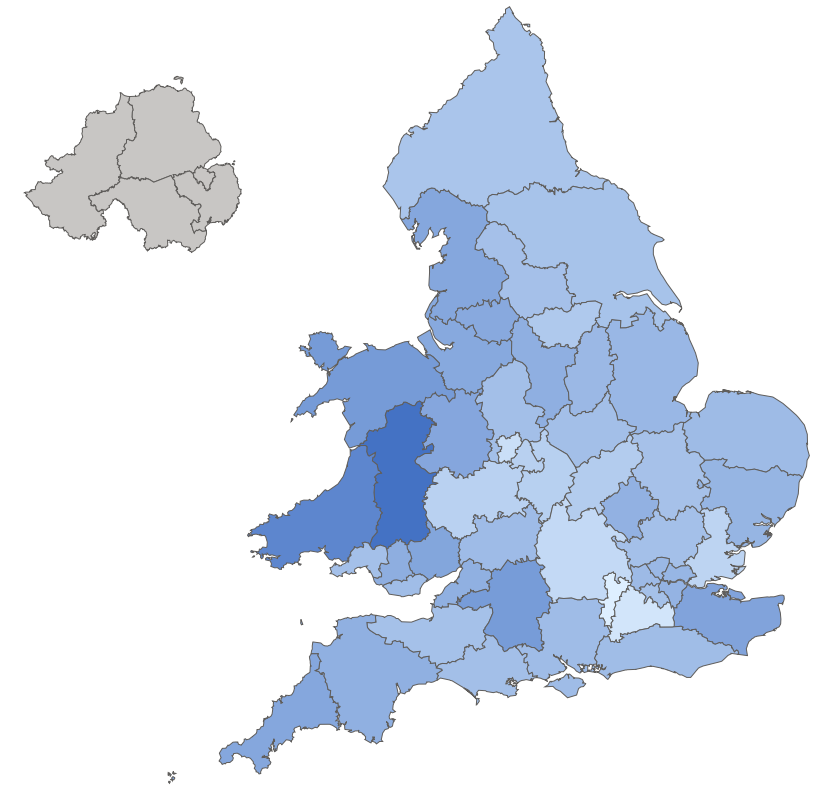
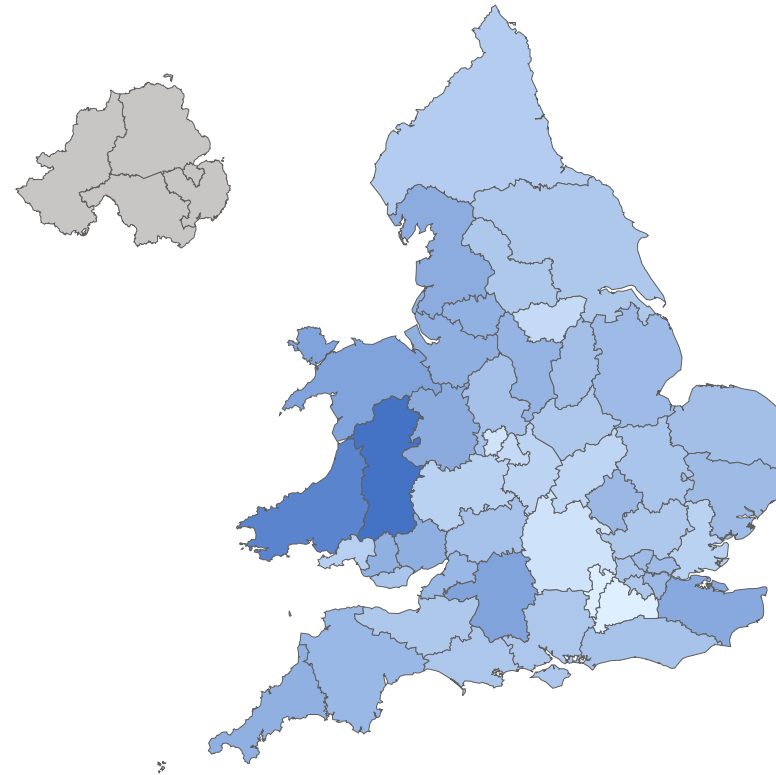
Percentage of CTB times over 150 minutes based on patient home location by ICB/HB (2024/25)

The maps show Call-To-Balloon (CTB) times data for the 42 integrated Care Boards (ICBs) in England, five Health & Social Care Trusts in Northern Ireland and seven Welsh Health Boards (HBs) based on the home address of the patient. Darker shading = higher values.

The median CTB time varied between 112 minutes (Surrey Heartlands ICB) and 198 minutes (Powys THB).

The percent of patients whose CTB time is **longer** than 150 minutes ranges between 18% (Frimley ICB) and 82% (Powys THB).

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



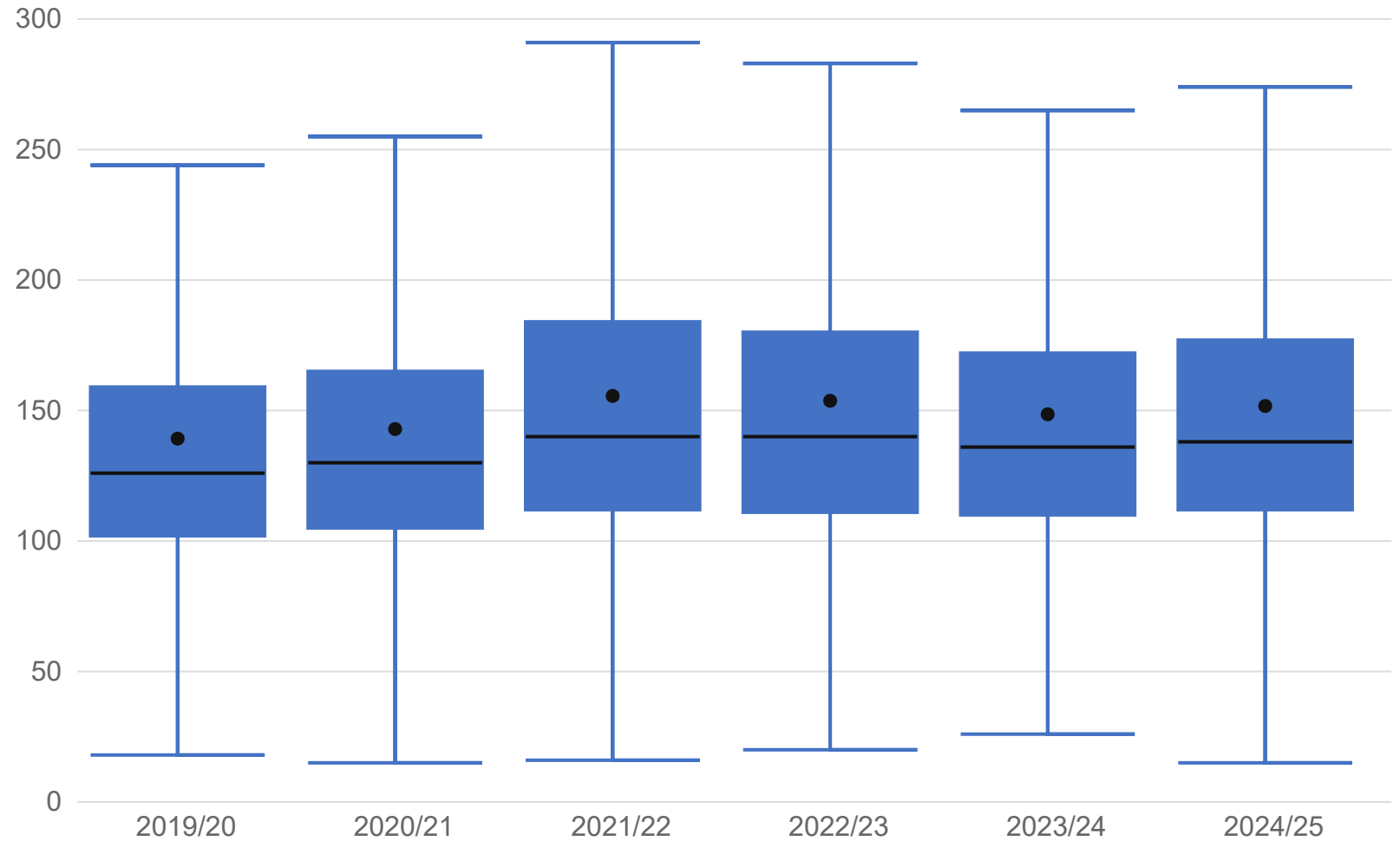
Call-to-balloon times vary by country or cardiac network



While overall temporal trends in call-to balloon times remain largely unaltered since 2019/20, there is variation in temporal performance by Cardiac Network in England.

Note: Due to the way this is calculated, the national figure (for all hospitals) is different from that shown.

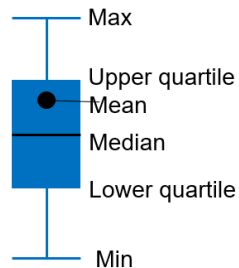
CTB times (median, mean and inter-quartile ranges in minutes) by country or Cardiac Network in England



Select country or Cardiac Network

All

Key to reading box and whisker plots:



The majority of hospitals do not provide PCI for STEMI patients within 150 minutes, and most fail to reach the 120 minute target



Threshold times exist within which hospitals are expected to provide primary PCI (PPCI) to at least 90% of higher-risk STEMI patients.

In 2024/25, primary PPCI for at least 50% of patients was undertaken:

- within 150 minutes of a call for help by 49 hospitals
- within 120 minutes of arrival by 5 hospitals

The best performing hospitals report:

- 92% of STEMI patients receiving PPCI within 150 minutes of calling for help
- 76% within 120 minutes

The poorest performing hospitals reported:

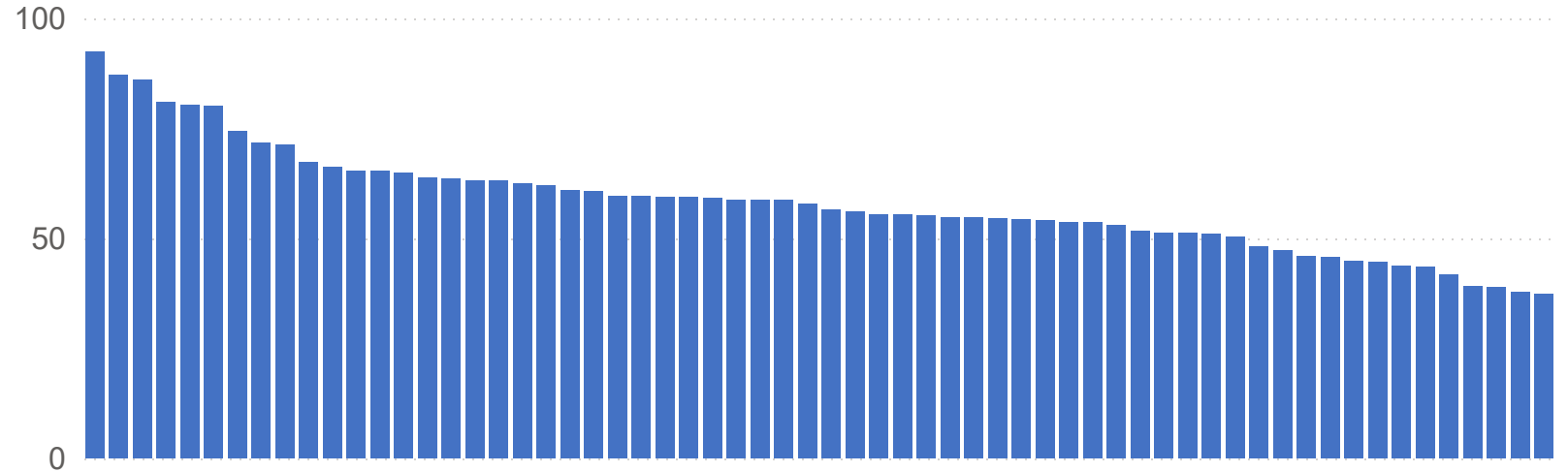
- 37% of STEMI patients receiving PPCI within 150 minutes of calling for help
- 13% within 120 minutes.

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

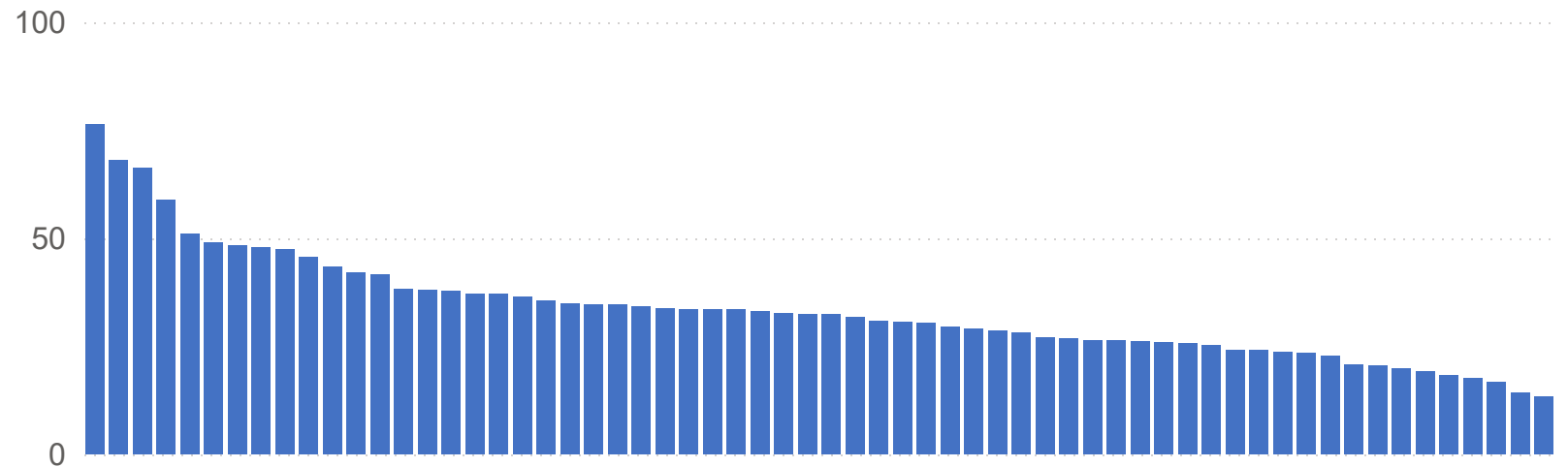
Select country or Cardiac Network

All

Percentage of patients who undergo PCI within 150 minutes of a call for help by individual hospital (2024/25)



Percentage of patients who undergo PCI within 120 minutes of a call for help by individual hospital (2024/25)



Door-To-Balloon target performance has declined more for people self-presenting to hospital than for direct and inter-hospital transfer admissions



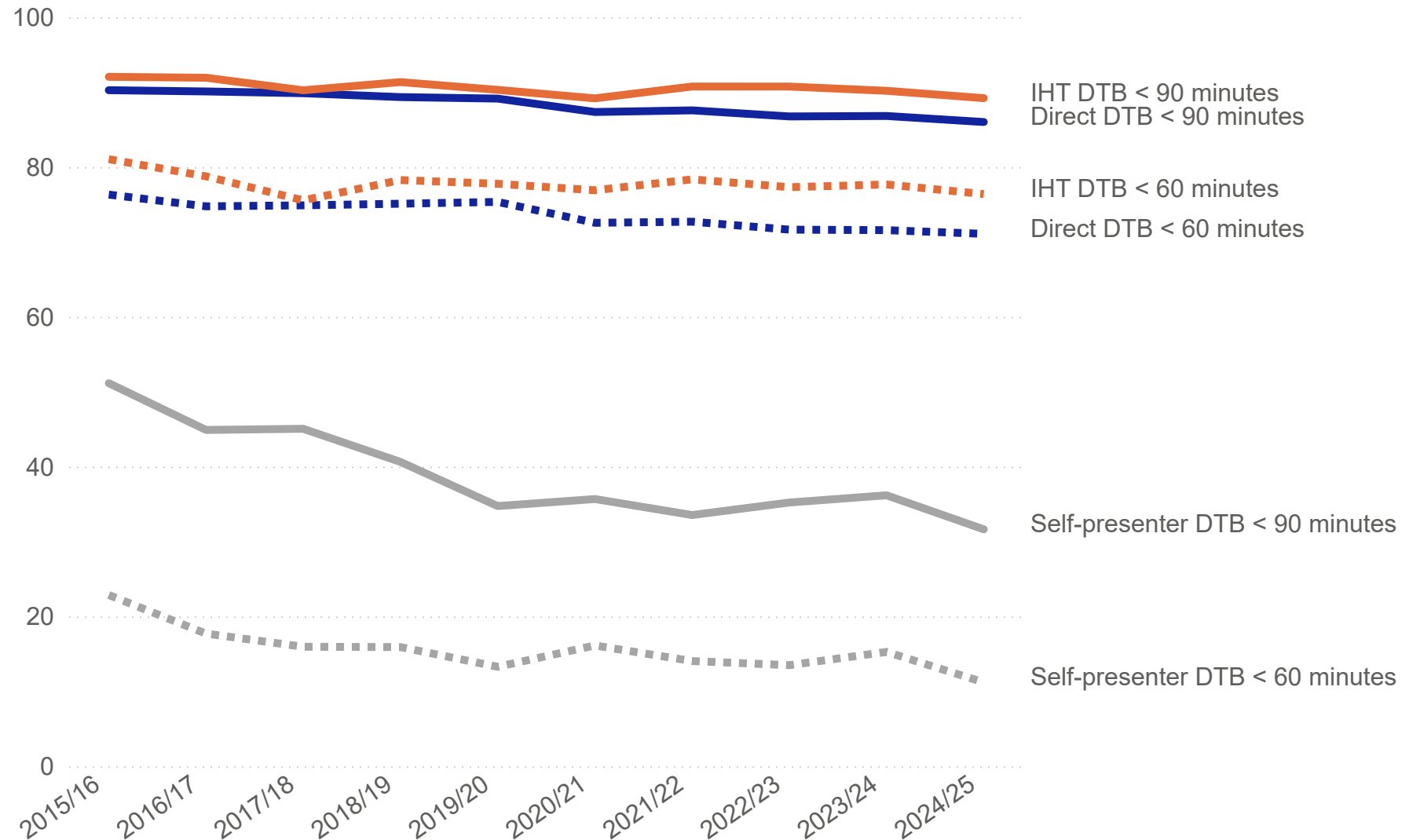
For STEMI patients who self-present to a PCI-capable hospital, the proportion receiving timely PCI (expressed through the Door-To-Balloon time) has fallen to the lowest recorded levels:

- 11.2% undergoing PCI within 60 minutes of arrival
- 32% within 90 minutes.

Staff in receiving hospitals are better prepared to provide timely PCI for those brought directly to hospital by ambulance services and particularly for those requiring inter-hospital transfer.

Note: DTB times shown are those at the receiving PPCI centre.

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



Door-To-Balloon times are longest in Suffolk & North East Essex ICB



The maps show the Door-To-Balloon (DTB) times for the 42 integrated Care Boards (ICBs) in England, 5 Health & Social Care Trusts in Northern Ireland and 7 Welsh Health Boards (HBs), based on the location of the reporting hospital. Darker shading = higher values.

The median DTB time varied between 12 minutes (South Yorkshire ICB) and 96 minutes (Suffolk & North East Essex ICB).

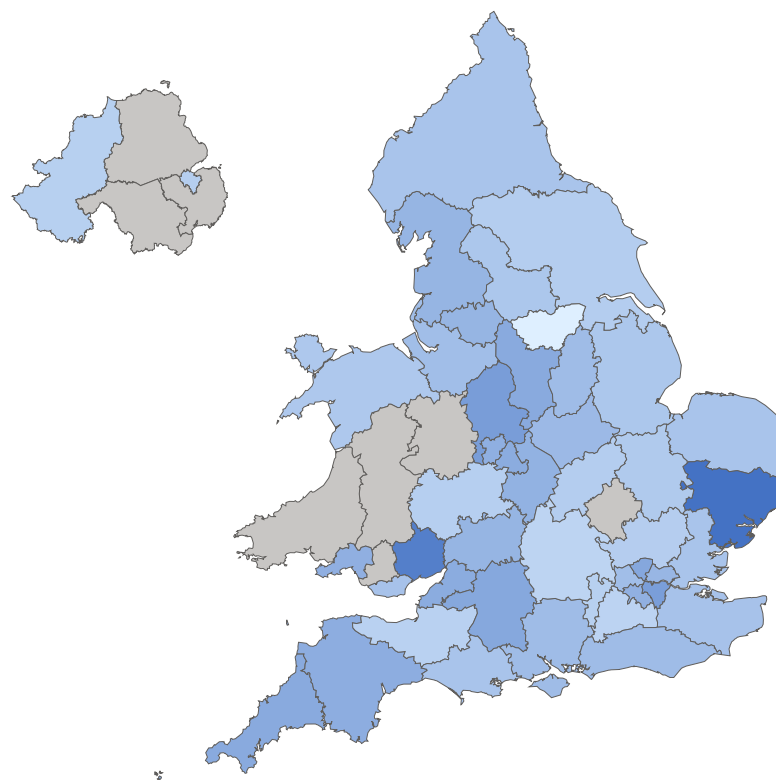
The percent of patients whose DTB time is **longer** than 90 minutes ranges between 7% (South Yorkshire ICB) and 62% (Suffolk & North East Essex ICB).

Note: Data were insufficient to allow meaningful analysis for:

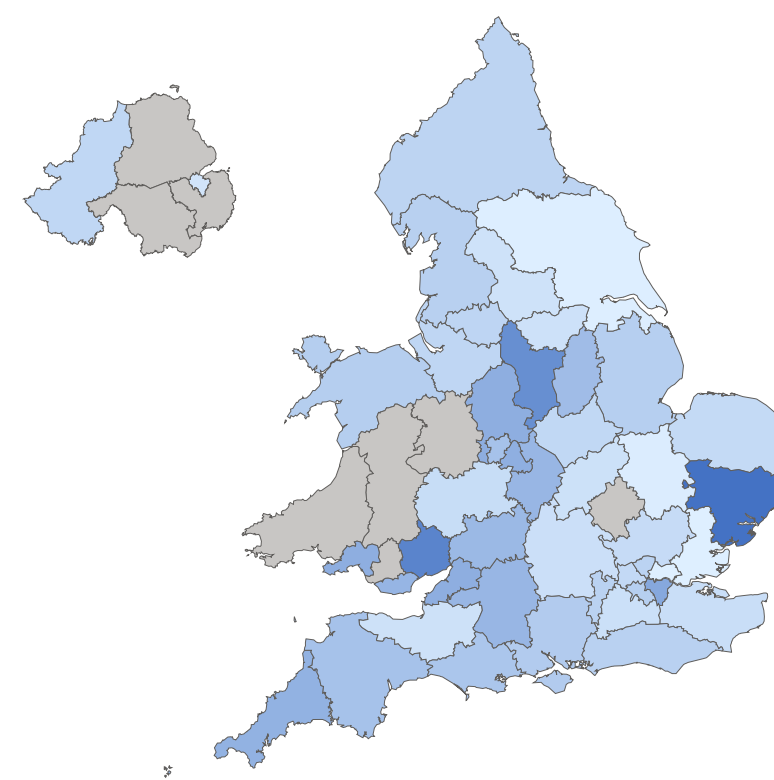
- Bedfordshire, Luton and Milton Keynes ICB
- Shropshire, Telford and Wrekin ICB

The blank health boards in Wales do not contain centres capable of delivering PCI.

Median DTB times based on hospital location (2024/25)



Percentage of DTB times over 90 minutes based on hospital location (2024/25)



Door-To-Balloon times vary substantially between patient home areas



Median DTB based on patient home location by ICB/HB (2024/25)

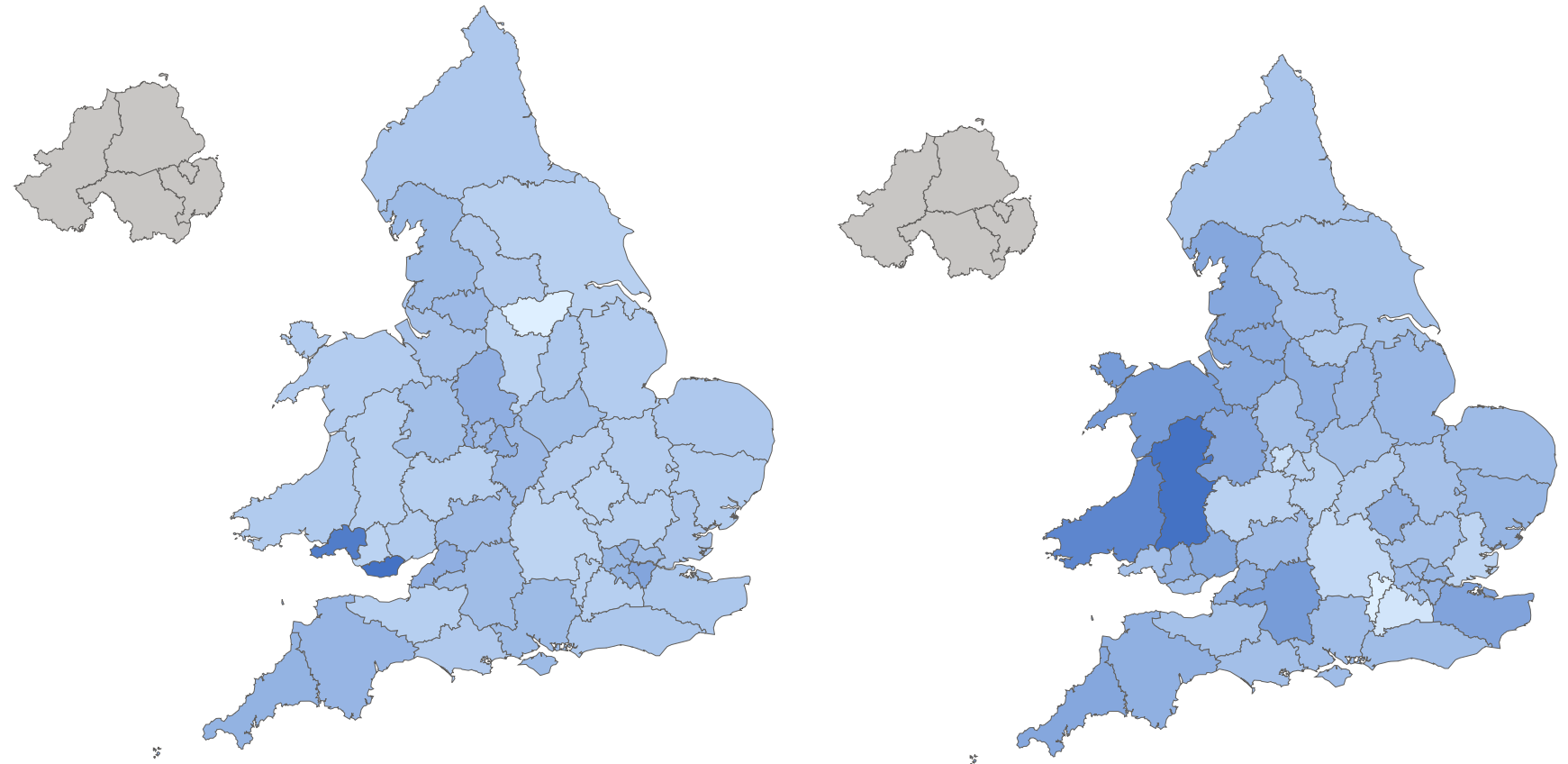
Percentage of DTB times over 90 minutes based on patient home location by ICB/HB (2024/25)

The maps show Door-To-Balloon (DTB times) for the 42 integrated Care Boards (ICBs) in England, 5 Health & Social Care Trusts in Northern Ireland and 7 Welsh Health Boards (HBs), based on the home address of the patient. Darker shading = higher rates.

The median DTB time varied between 12 minutes (South Yorkshire ICB) and 105 minutes (Cardiff and Vale UHB).

The percent of patients whose DTB time is **longer** than 90 minutes ranges between 18% (Frimley ICB) and 82% (Powys THB).

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



Some hospitals achieve the 90-minute target for the Door-To-Balloon time, but almost all miss the 60-minute target



Threshold times exist within which hospitals are expected to provide primary PCI (PPCI) to at least 90% of higher-risk STEMI patients.

In 2024/25, PPCI was undertaken within 90 minutes of arrival:

- for at least 70% of patients by 52 hospitals
- for at least 90% of patients by only 7 hospitals

24 hospitals provided at least 70% of their patients with STEMI with PPCI within 60 minutes of arrival.

The poorest performing hospitals for DTB reported:

- only 52% of STEMI patients receiving PPCI within 90 minutes
- only 32% within 60 minutes

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

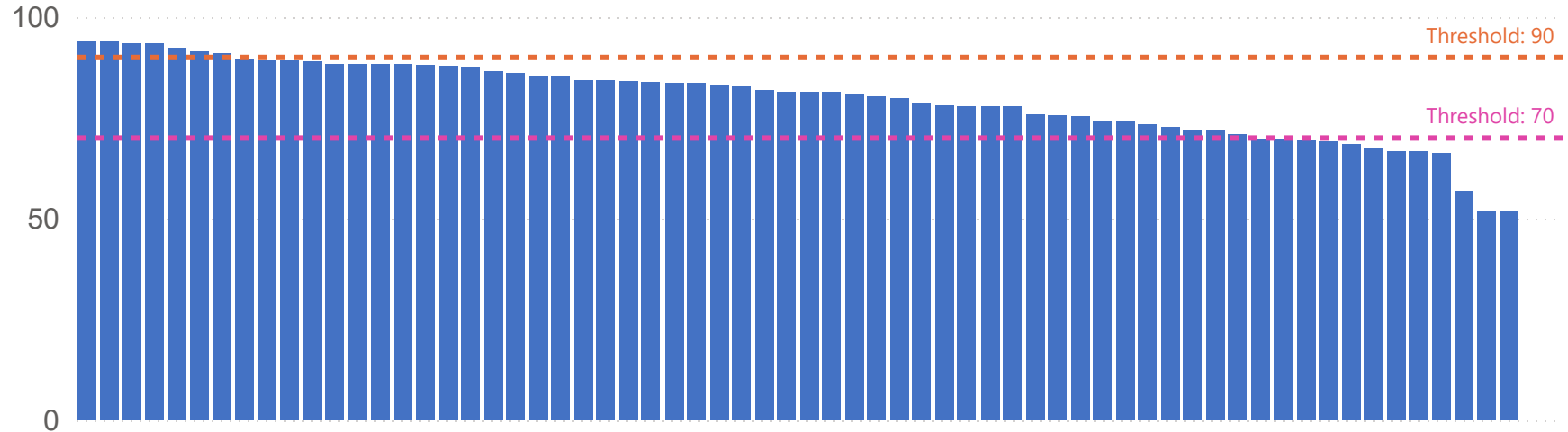
Select country or Cardiac Network ▼

All ▼

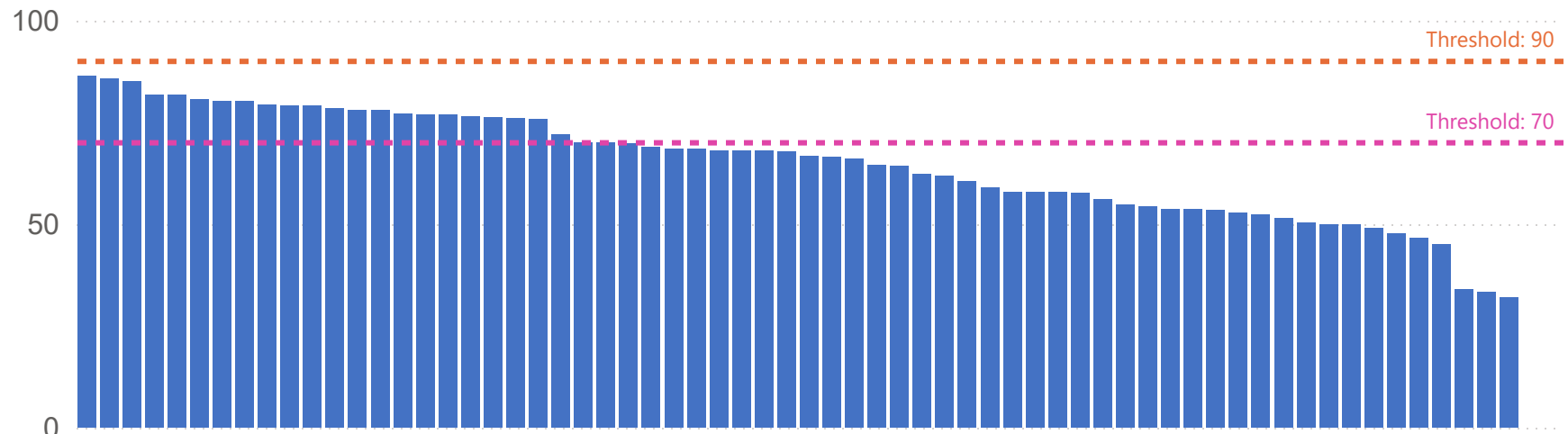
Select hospital ▼

All ▼

Percentage of patients with higher-risk STEMI heart attacks who undergo primary PCI within 90 minutes of arrival by hospital (2024/25)



Percentage of patients with higher-risk STEMI heart attacks who undergo primary PCI within 60 minutes of arrival by hospital (2024/25)



Call-to-Door times are generally worsening though Wales, the South East Coast and the North East improved their performance in 2024/25



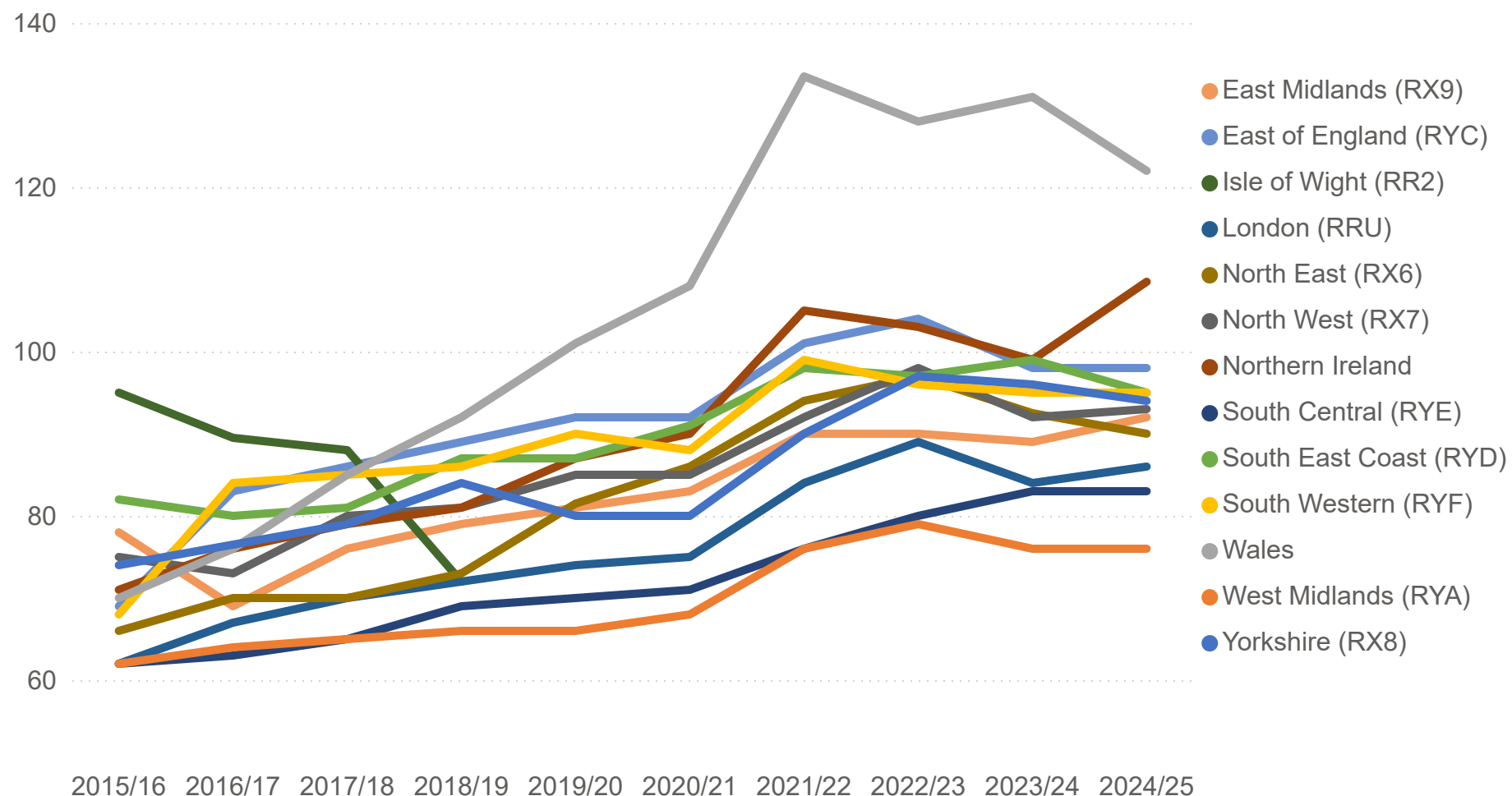
Median CTD times (minutes) by Ambulance Trust

All Ambulance Trusts now deliver significantly slower median Call-To-Door (CTD) times for patients with higher-risk STEMI heart attacks compared with 10 years ago.

In 2024/25, median CTD times were longer in Wales and Northern Ireland than in any of the English NHS Trusts.

There was improvement in the median CTD time in Wales, from 134 minutes in 2021/22 to 122 minutes in 2024/25, though this remains 46 minutes longer than the shortest median CTD time (West Midlands).

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



Call-To-Door times vary by almost 90 minutes between the worst and best performing ICBs/HBs



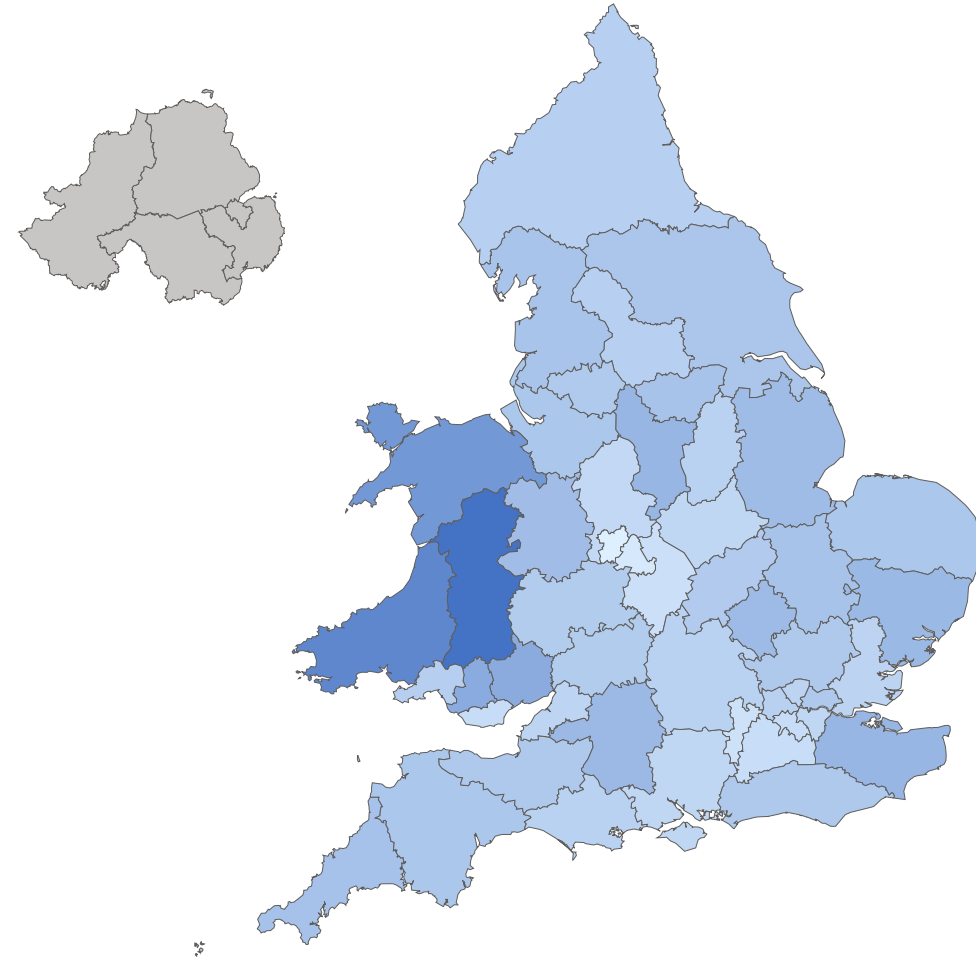
Median CTD times (minutes) by ICB/HB based on patient home location, excluding self-presenters (2024/25)

Patients from the Welsh county of Powys had the longest median Call-To-Door (CTD) time (164 minutes) in 2024/25.

The shortest median CTD time (65 minutes) was reported for patients living within the areas of the Black Country Integrated Care Board – Sandwell, Dudley, Wolverhampton, & Walsall.

There is no district general hospital within Powys, which is largely rural.

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



In 2024/25, more patients with NSTEMI received timely angiography, reversing a longer-term trend of worsening performance



The proportion of patients with NSTEMI heart attacks undergoing a coronary angiogram before leaving hospital improved in 2024/25 (up to 85% from 83% the year before).

55% received an angiogram within 72 hours of admission (up from 51% in 2023/24).

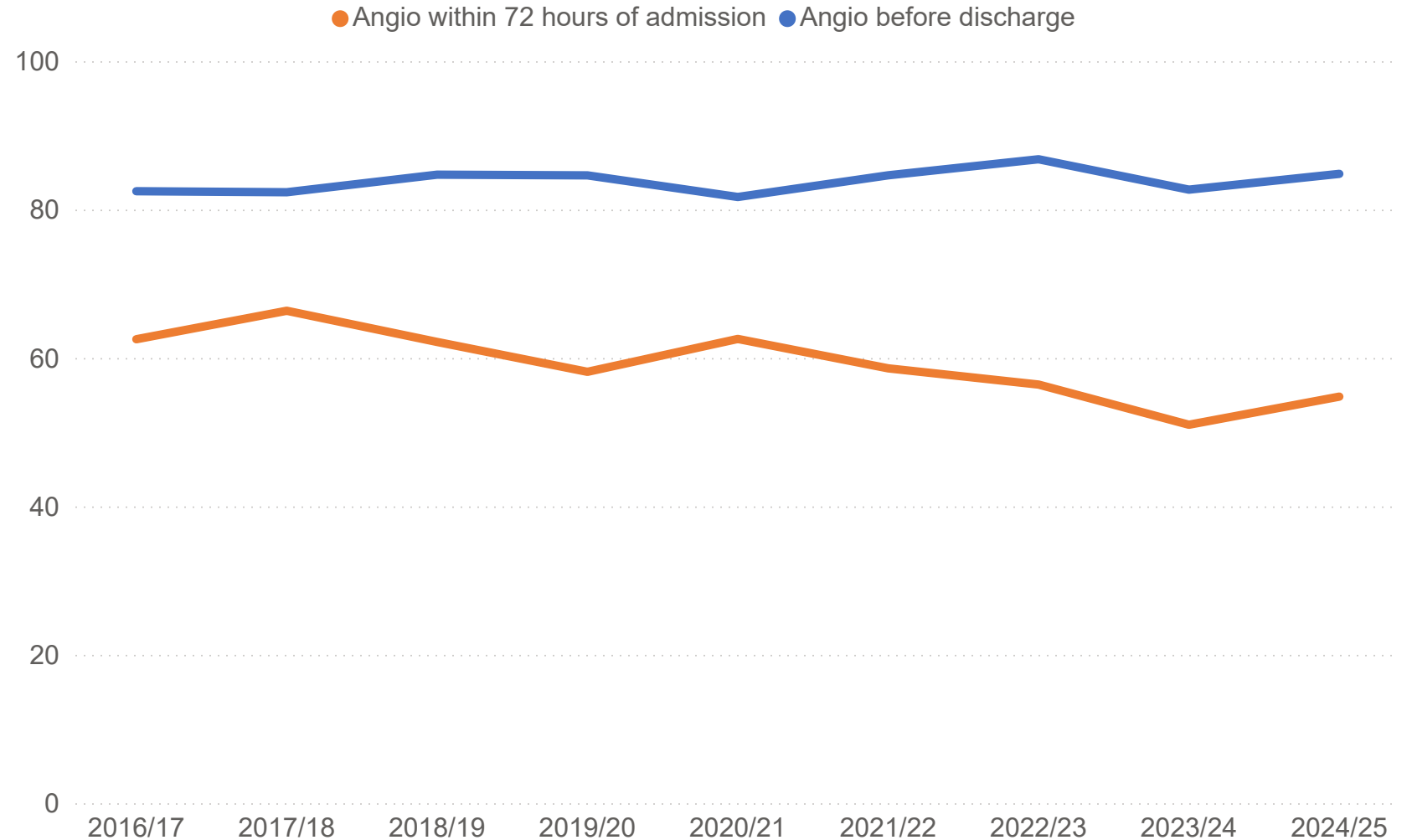
This reverses a trend of worsening performance seen over recent years.

Select a country/Cardiac Network or 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



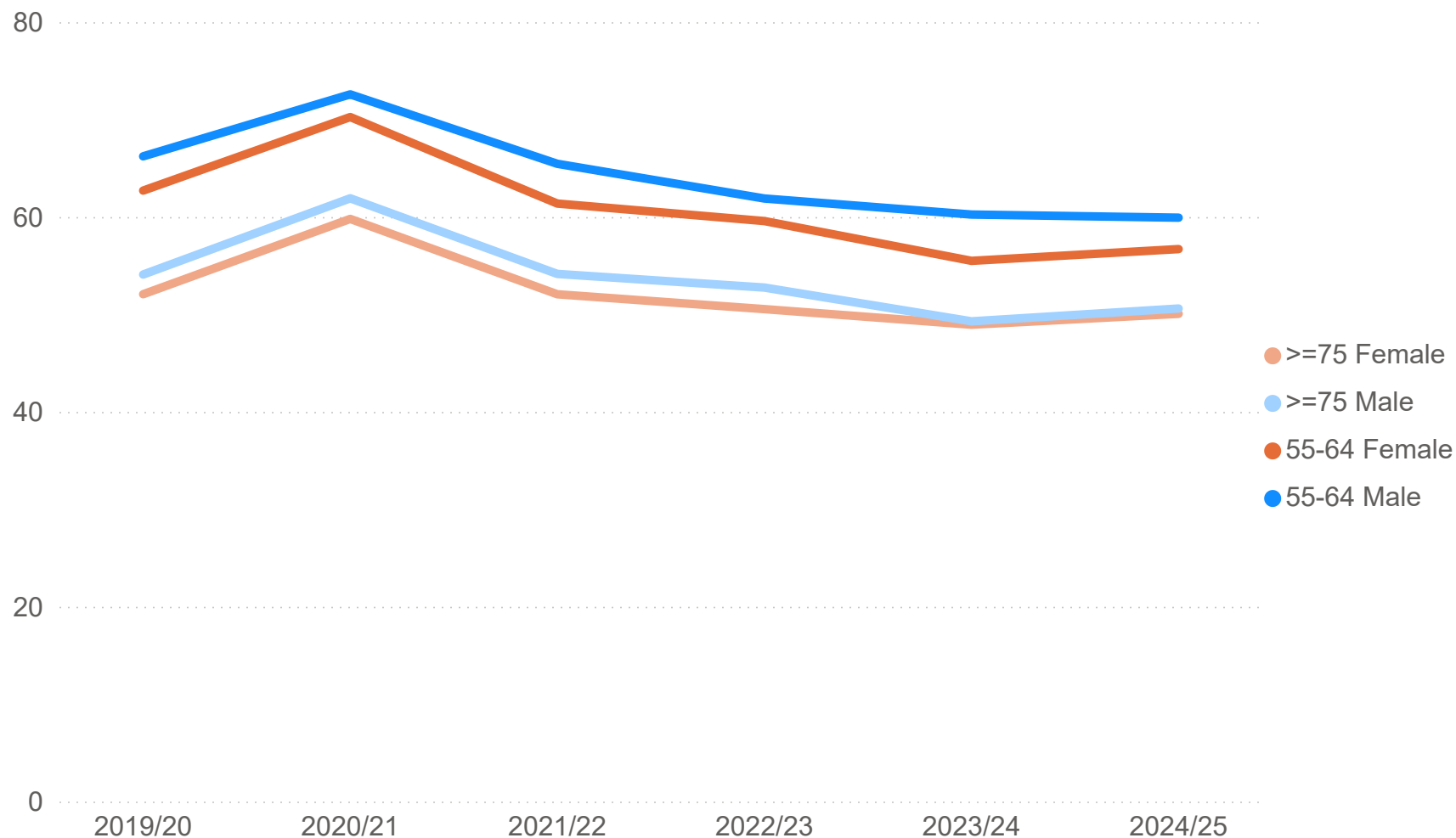
There are persisting differences in the provision of timely angiography by age



Younger males remain more likely than younger females to receive an angiogram within 72 hours of admission, though the difference has reduced to 3.2% (59.9% compared with 56.7%).

Older patients are less likely to receive early angiography. Previously reported differences between male and female in these older patients are now insignificant.

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



There is substantial geographical variation in the proportion of NSTEMI patients who are discharged without receiving an angiogram



The maps show the percentage of patients with NSTEMI who were discharged without undergoing an angiogram, based on hospital location (left map) and residence of patient (right map). Lighter shade = better performance.

Based on hospital location, the proportion of NSTEMI patients not undergoing an angiogram before discharge varied between:

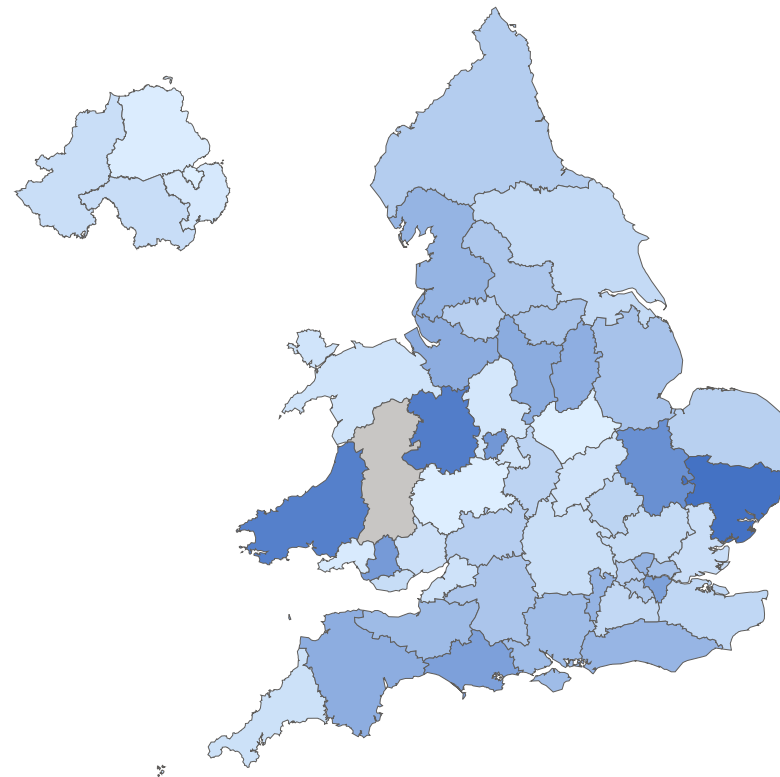
- **0%** in Leicester, Leicestershire and Rutland ICB
- **46%** in Suffolk and NE Essex ICB

Based on patient home location, the rates varied between:

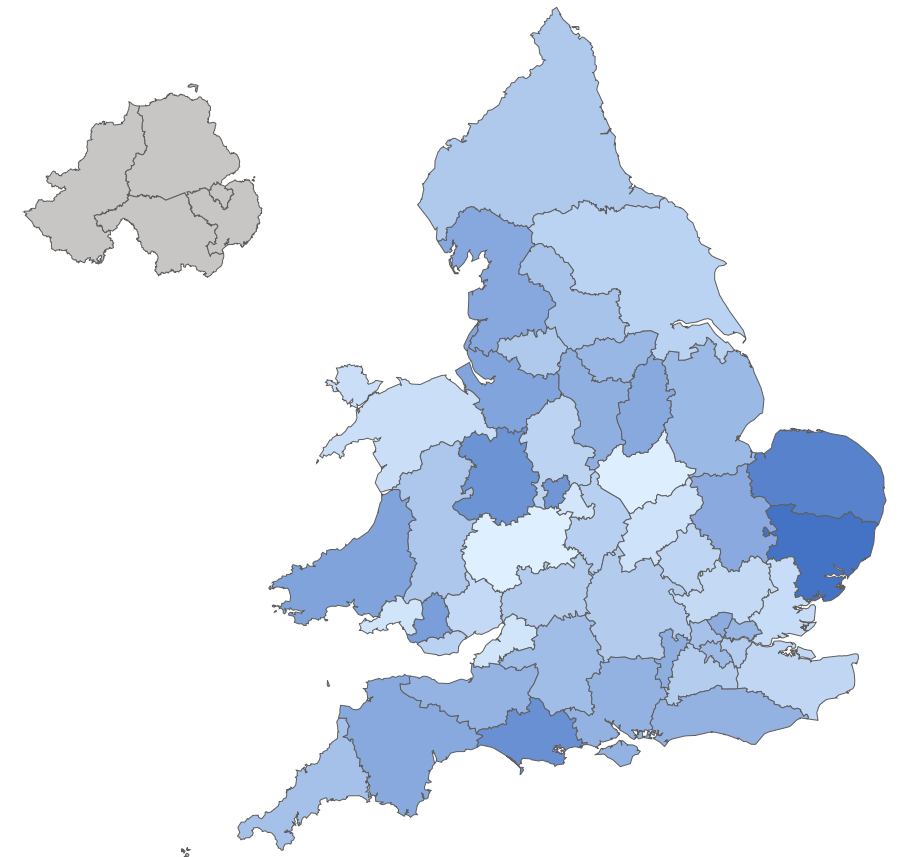
- **1.5%** in Herefordshire and Worcestershire ICB
- **38%** in Suffolk and NE Essex

Note: Hospitals in Northern Ireland do not provide post code data for patient home location to the audit.

Percentage of NSTEMI patients who DID NOT receive angiography before discharge by ICB/HB based on hospital location (2024/25)



Percentage of NSTEMI patients who DID NOT receive angiography before discharge by ICB/HB based on patient home location (2024/25)



There is very substantial geographical variation in the timeliness of angiography provided to NSTEMI heart attack patients



The maps show the percentage of patients with NSTEMI who undergo an angiogram during hospital admission but not within 72 hours of admission, based on hospital location (left map) and residence of patient (right map). Lighter shade = better performance.

Based on hospital location, the proportion of NSTEMI patients NOT undergoing an angiogram within 72 hours varied between:

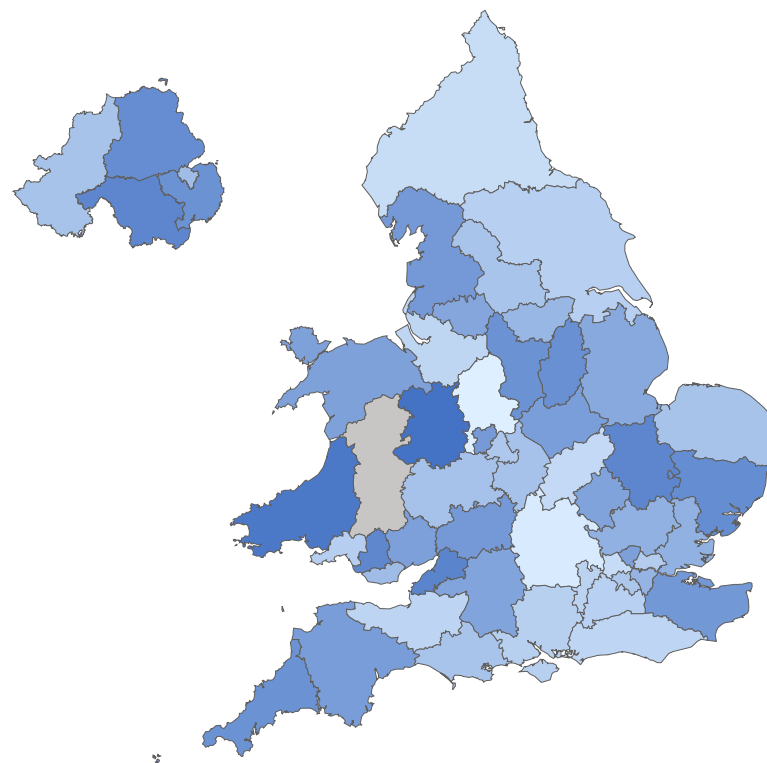
- **90% in Shropshire, Telford and Wrekin ICB**
- **10% in Staffordshire and Stoke-on-Trent ICB**

Based on patient home location, rates varied between:

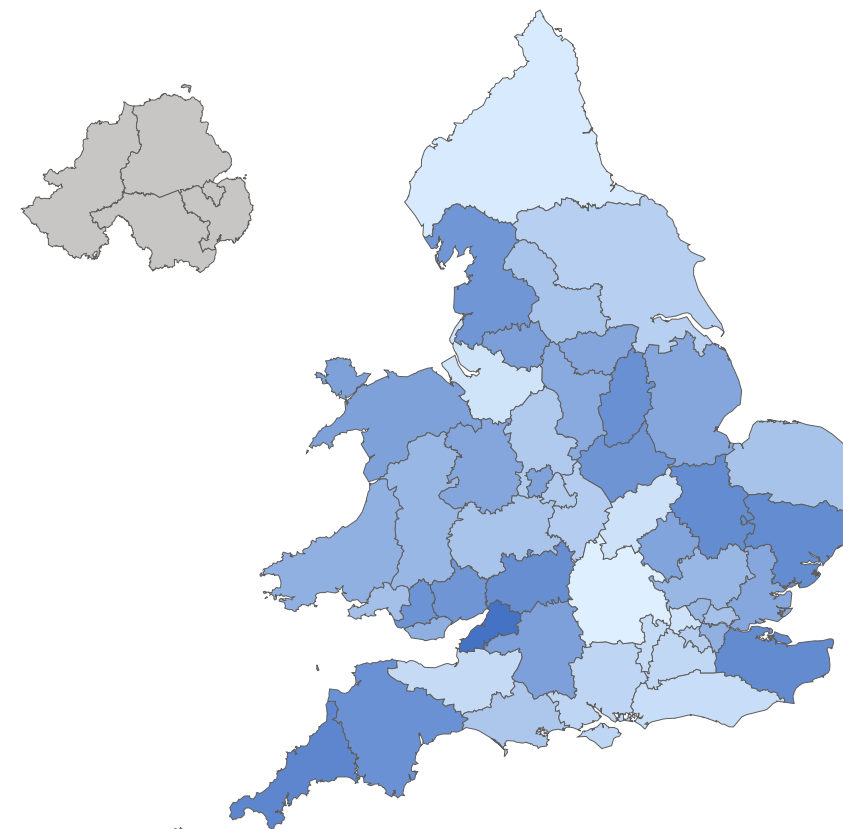
- **19% in Buckinghamshire, Oxfordshire and Berkshire ICB**
- **76% in Bristol, North Somerset and South Gloucestershire ICB**

Note: Hospitals in Northern Ireland do not provide post code data for patient home location to the audit.

Percentage of NSTEMI patients NOT receiving angiography within 72 hours of admission based on hospital location by ICB/HB (2024/25)



Percentage of NSTEMI patients NOT receiving angiography within 72 hours of admission based on patient home location by ICB/HB (2024/25)



There is wide variation in delivery of angiography during hospital admission as well as within 72 hours



124 out of 183 hospitals undertook an angiogram in at least 80% of NSTEMI heart attack patients before discharge.

76 out of 176 hospitals undertook an angiogram in 50% of NSTEMI heart attack patients within 72 hours of admission.

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

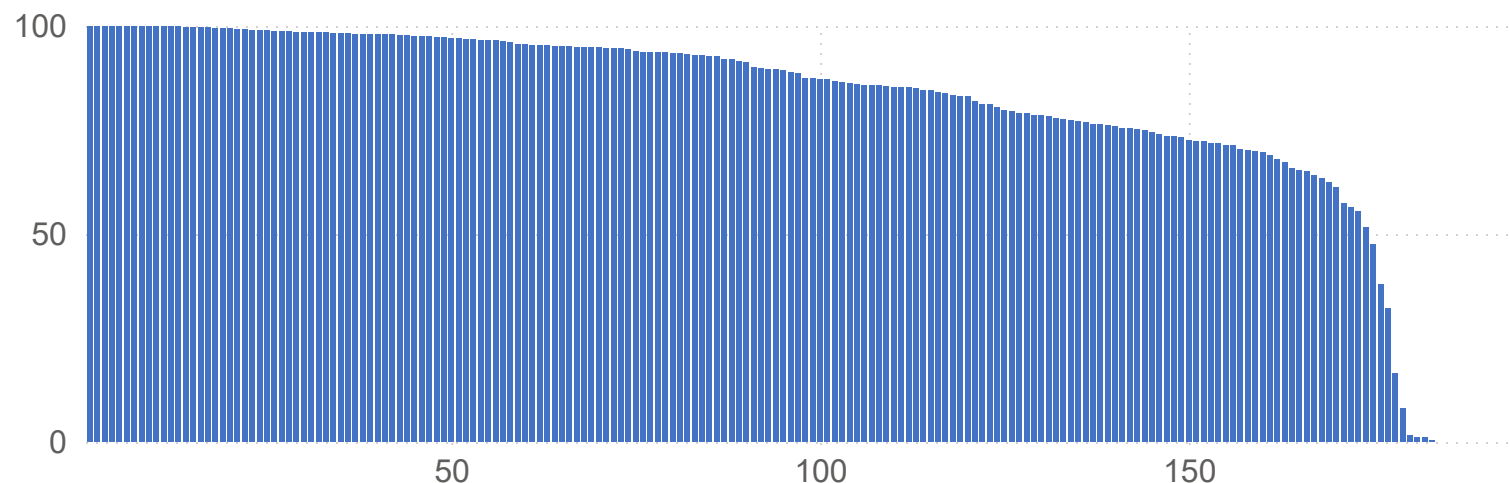
Select country or Cardiac Network

All

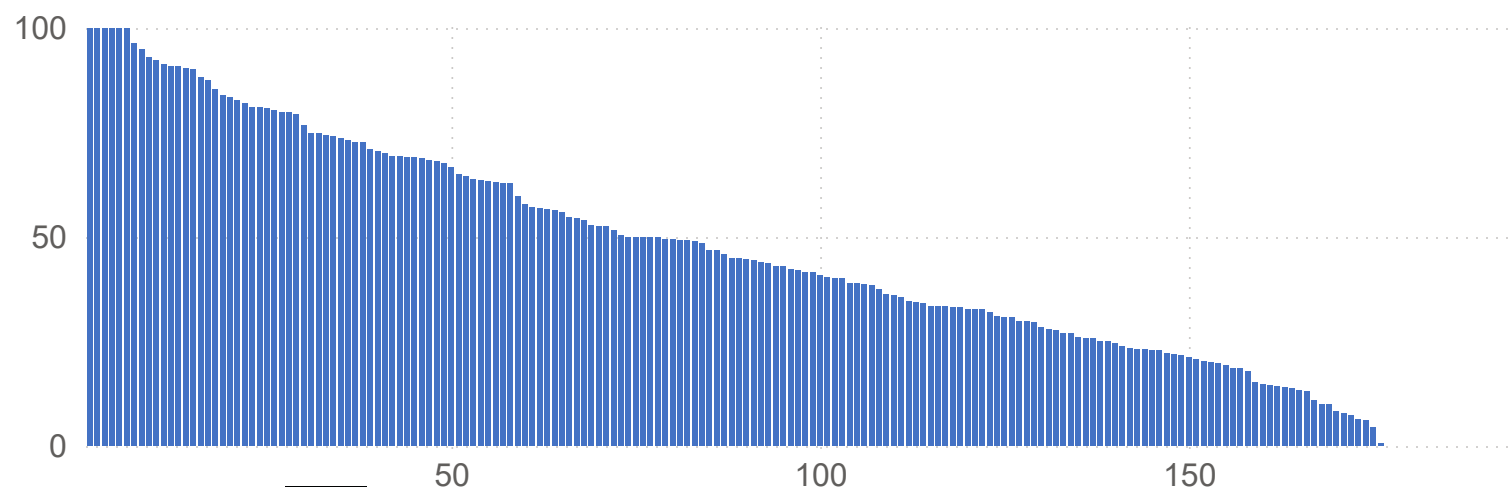
Select hospital

All

Percentage of NSTEMI patients undergoing an angiogram before discharge by hospital (2024/25)



Percentage of NSTEMI patients undergoing an angiogram within 72 hours by hospital (2024/25)



A high rate of use of echocardiography for patients with STEMI has been sustained

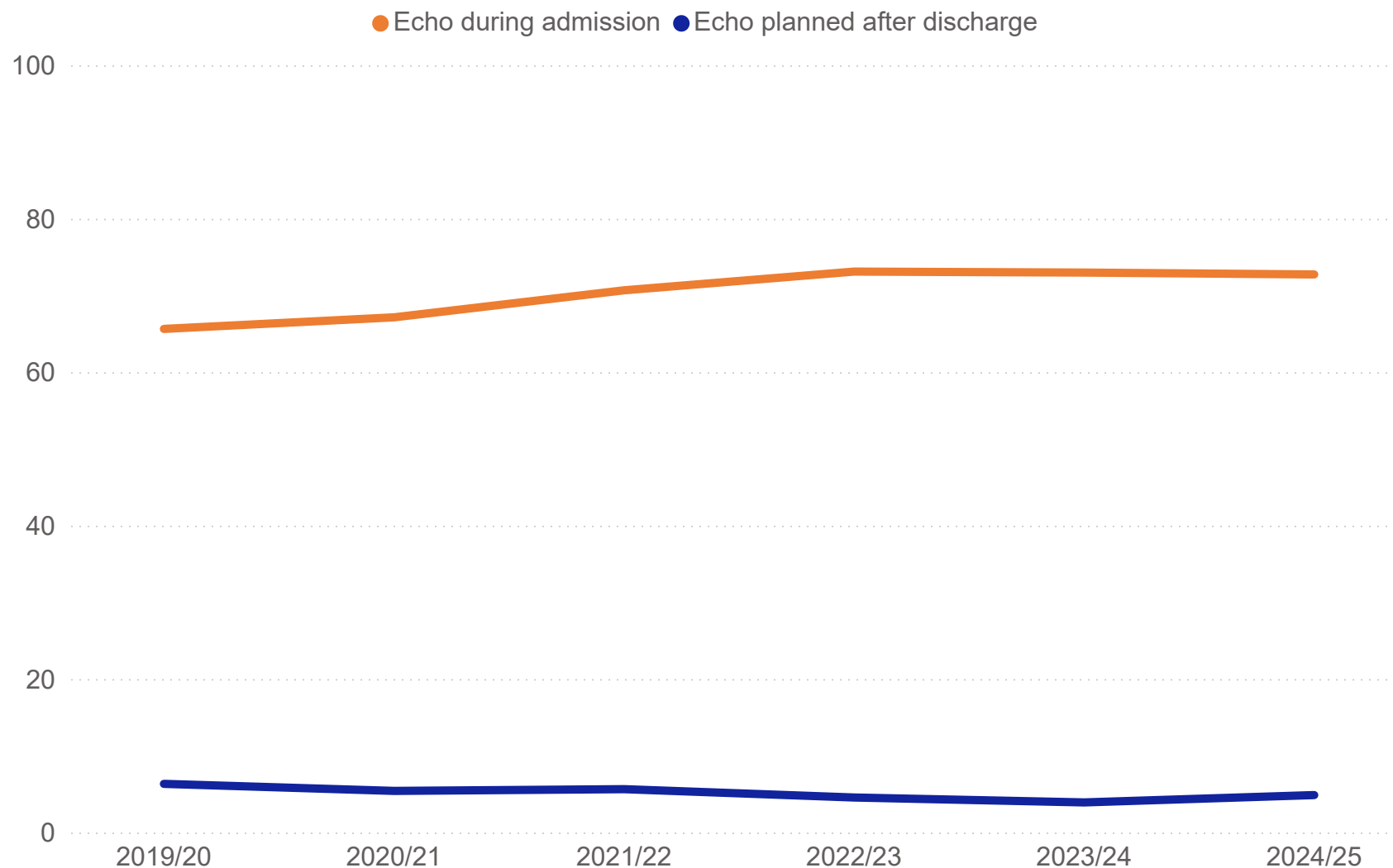


The rate of echocardiography use during admission of patients with higher-risk STEMI heart attacks appears to have plateaued.

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

Note: Approximately a quarter of patients do not undergo an echocardiogram. This may reflect the use of other methods to assess cardiac function after a heart attack, or the availability of a recently-performed echocardiogram that provides necessary information without the need of a repeat investigation.

Percentage of STEMI patients undergoing echocardiography



Select country or Cardiac Network

All

Half of all hospitals need to increase their use of echocardiography



92 of 181 hospitals met the target of performing an echocardiogram during admission in at least 90% of all heart attack patients.

More worryingly, 20 hospitals are well below the target of performing an echocardiogram during admission in at least 90% of patients with higher-risk STEMI heart attacks.

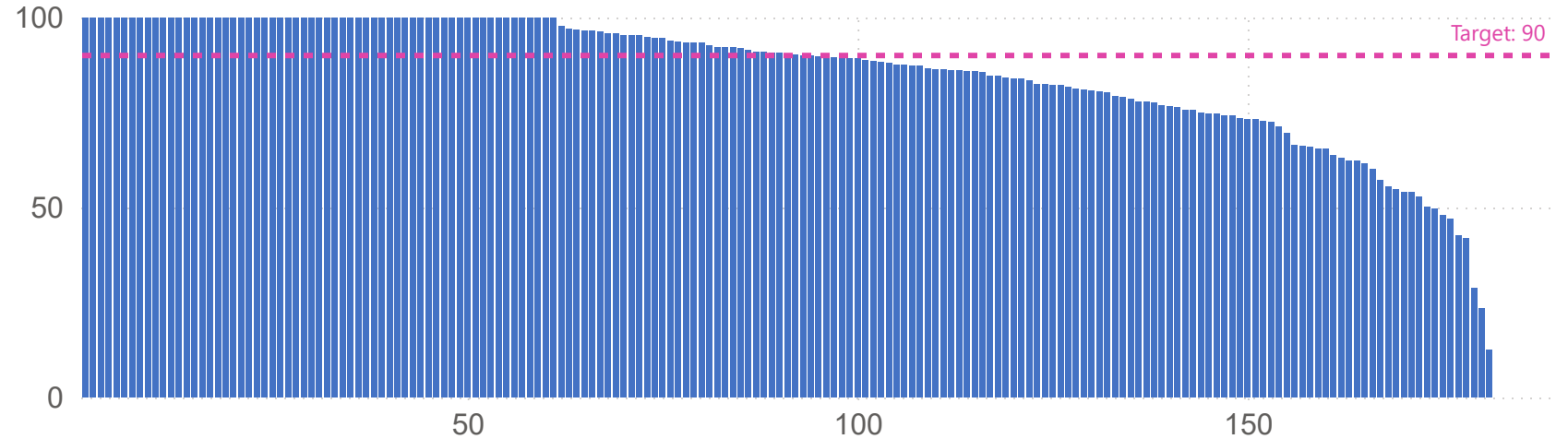
Select a country/Cardiac Network or hospital below or hover over the graphs to see specific data.

Note: Some hospitals only manage patients with NSTEMI heart attacks, which accounts for the smaller number of hospitals reporting echo performance for STEMI patients alone.

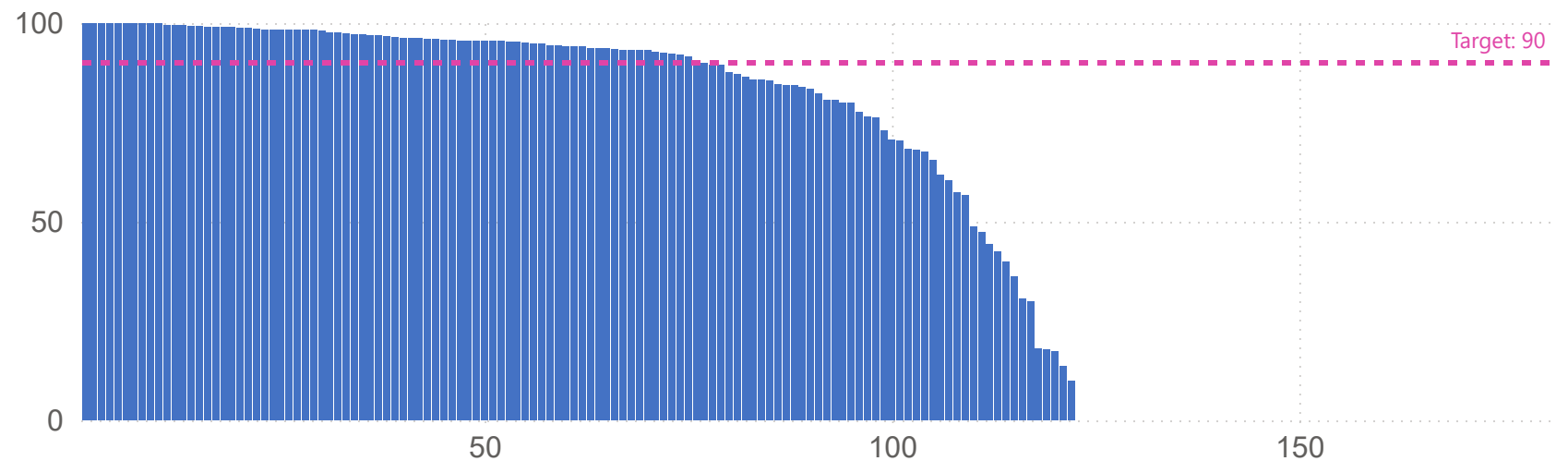
Select country or Cardiac Network

Select hospital

Percentage of all heart attack patients undergoing echocardiography by hospital (2024/25)



Percentage of STEMI patients undergoing echocardiography by hospital (2024/25)



A high proportion of NSTEMI patients are seen by a cardiology team but only 60% of patients are initially admitted to a cardiac ward



Review by a specialist cardiology team during the hospital admission ensures access to recommended treatments. Admission to a cardiac ward allows optimal monitoring and care from highly trained cardiac nursing staff.

Almost all patients with NSTEMI were seen by a specialist cardiology team, with a slight improvement in the rate during 2024/25 (up to 98.3% from 97.8% in 2023/24).

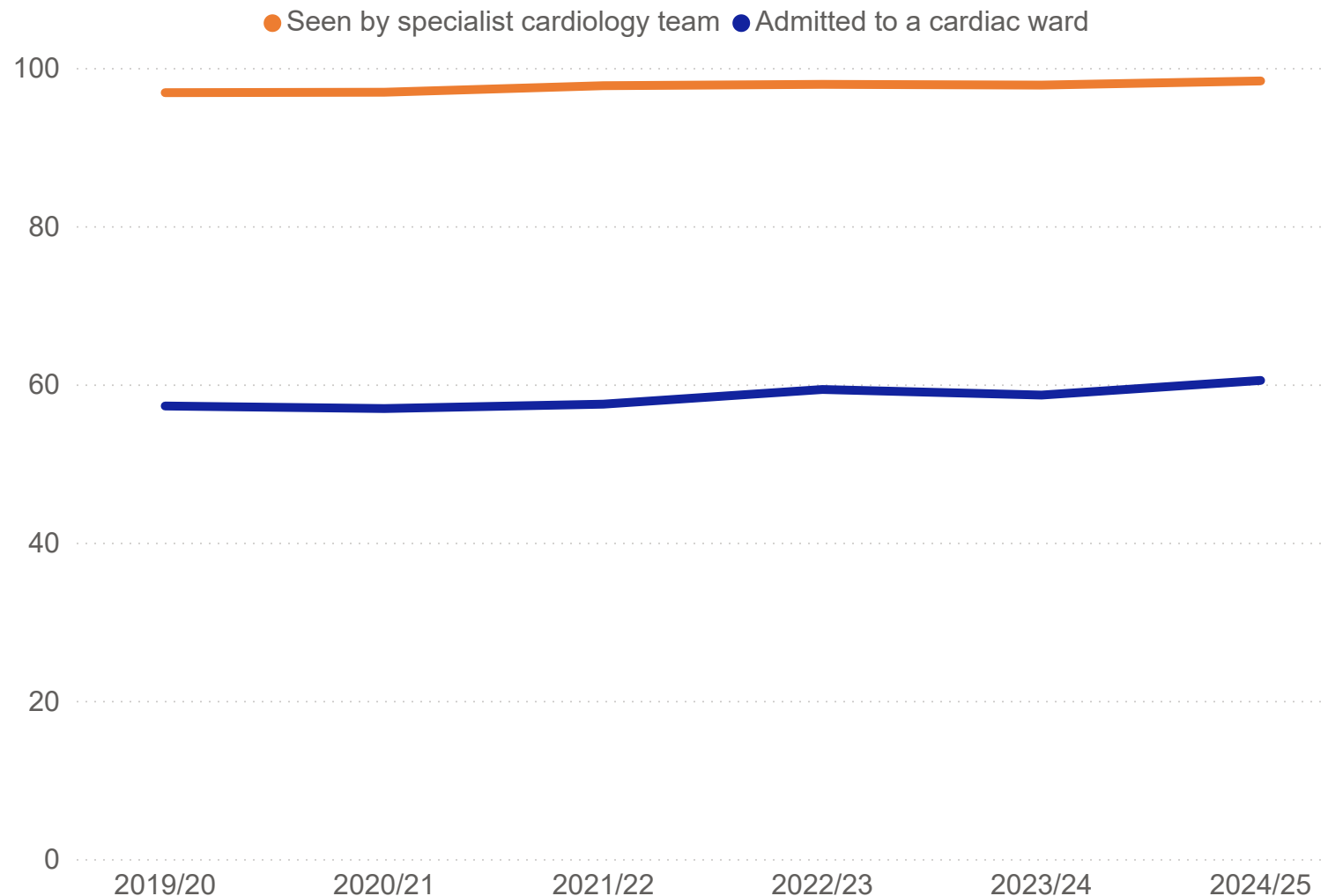
There was a slight improvement in the rate of admission (within the first 24 hours of arrival at hospital) to a cardiac ward (up to 60.5% in 2024/25 from 58.6% the year before).

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

Select country or Cardiac Network

All

Percentage of NSTEMI patients receiving specialist cardiac care



Not all hospitals ensure that NSTEMI heart attack patients are being seen by specialist cardiology teams as they should be



64 of 187 hospitals managed to provide specialist cardiology team involvement in the care of every patient with NSTEMI.

In 71 of 183 hospitals at least 80% of patients with NSTEMI are initially admitted to a cardiac ward.

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

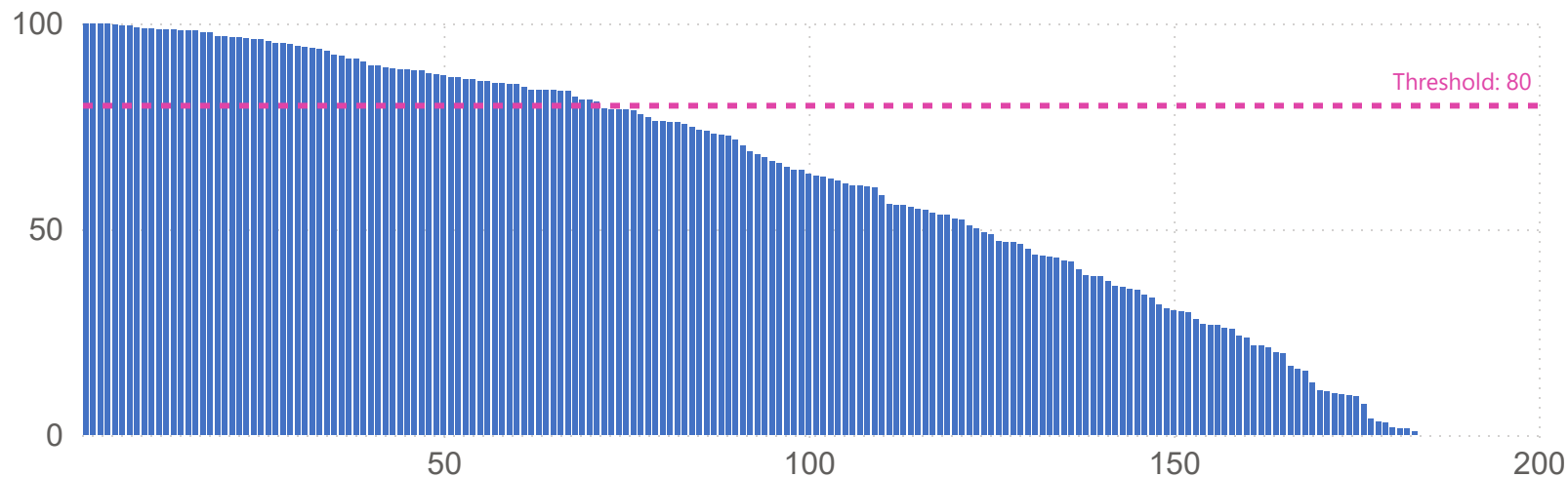
Select country or Cardiac Network

All

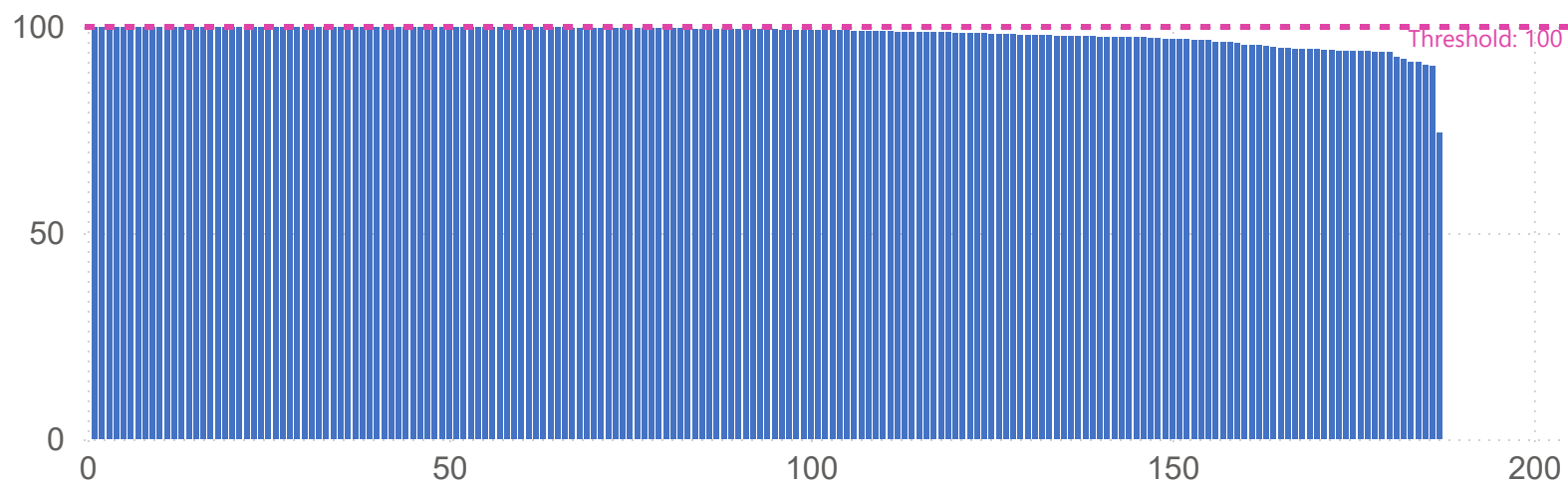
Select hospital

All

Percentage of NSTEMI patients admitted to a cardiac ward by hospital (2024/25)



Percentage of NSTEMI patients receiving specialist cardiology care by hospital (2024/25)



Recorded use of guideline-directed medical therapies for heart attack at the point of discharge from hospital has fallen slightly



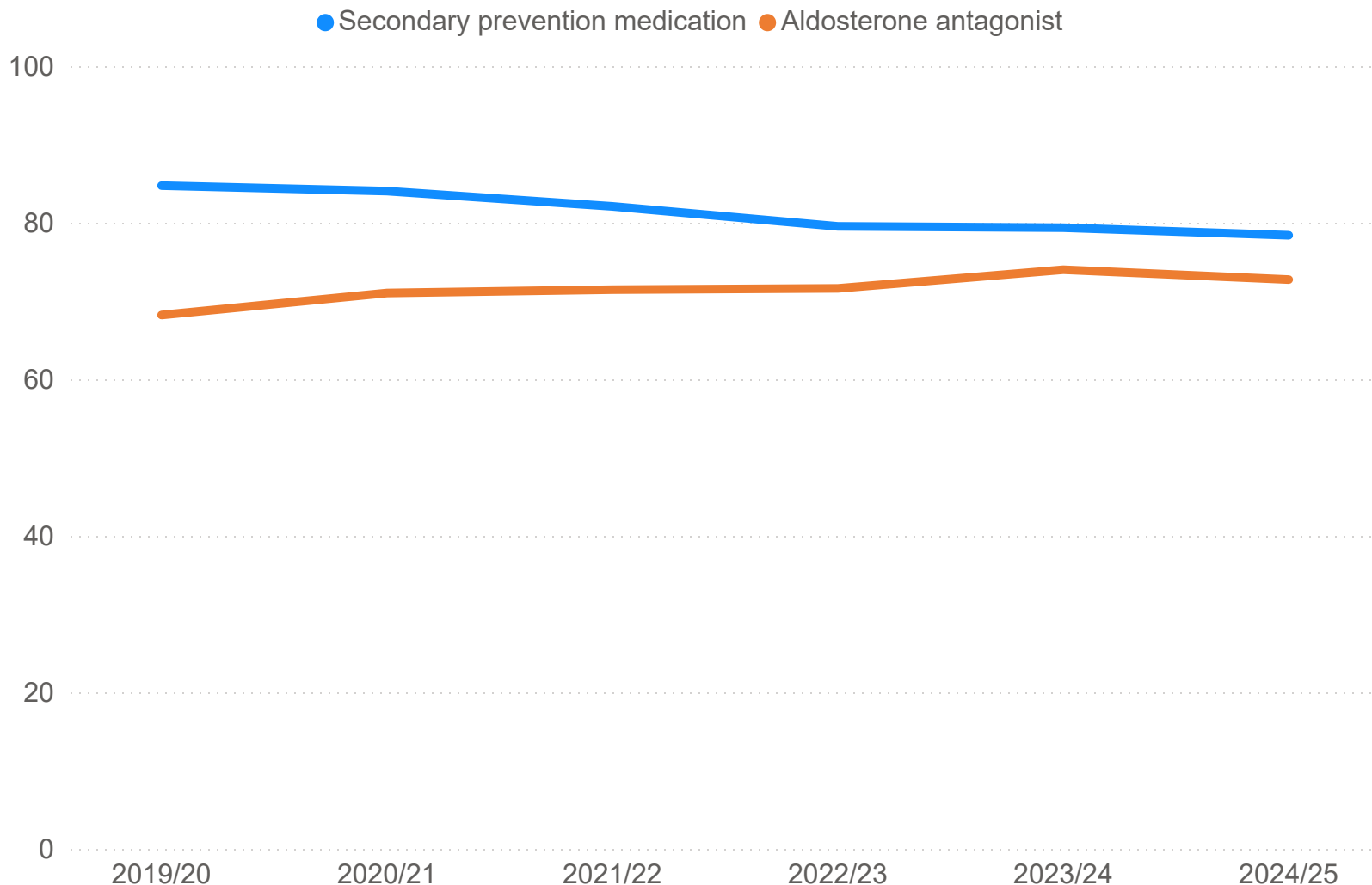
National guidelines recommend that all heart attack patients should be considered for important secondary prevention drugs that have been shown to improve outcomes – these include a beta blocker, a statin, dual antiplatelet drugs, and one of an ACE inhibitor, and angiotensin receptor blocker or angiotensin receptor-neprilysin inhibitor. In those with poor heart function aldosterone antagonists are also recommended.

There has been a small fall in the percentage of eligible patients receiving:

- all the secondary prevention drugs for which they are eligible (down to 78.4% in 2024/25 from 79.4% the year before)
- aldosterone antagonists (down to 72.7% from 74.0%).

Note: Where participating hospitals have recorded as 'unknown' or left blank the relevant data field, it is assumed that such patients were eligible for treatment yet did not receive it. Actual performance may be slightly better than presented here.

Percentage of eligible heart attack patients receiving guideline drugs



Select country or Cardiac Network

All

Many patients with a heart attack are not being prescribed guideline-directed medical therapies that have been shown to improve prognosis



Many patients are being discharged without receiving optimal therapy. Only 86 of 191 hospitals prescribed at least 90% of heart attack patients on discharge with all guideline-directed medical therapies for which they were eligible.

75 of 175 hospitals prescribed aldosterone antagonists to at least 90% of eligible patients with either STEMI or NSTEMI on discharge.

Select a country/Cardiac Network or 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.

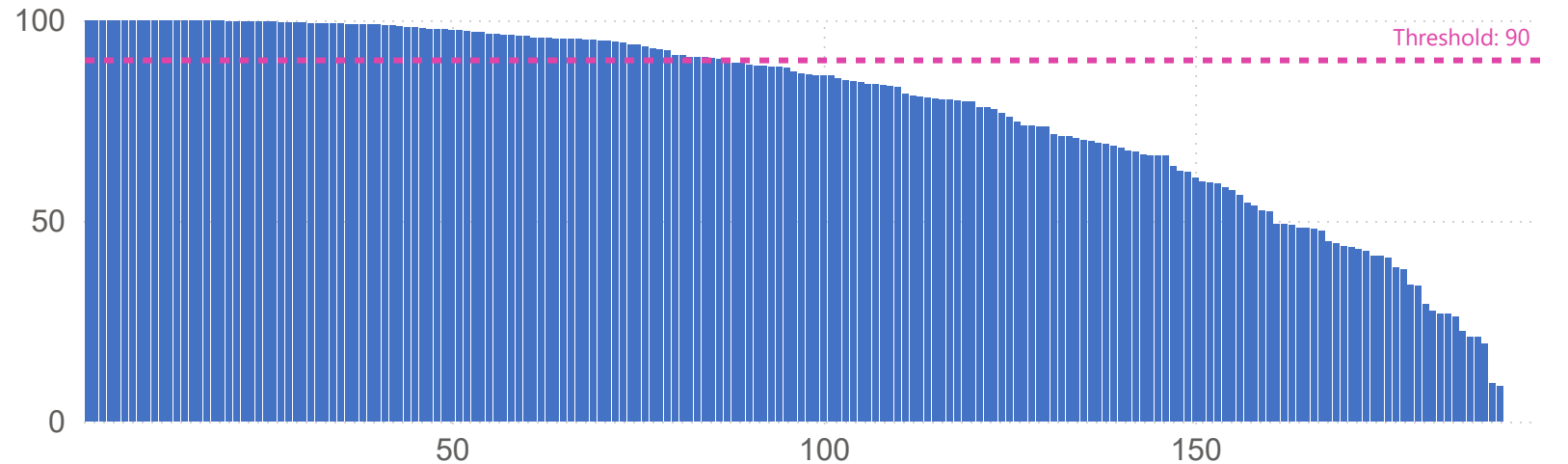
Select country or Cardiac Network

All

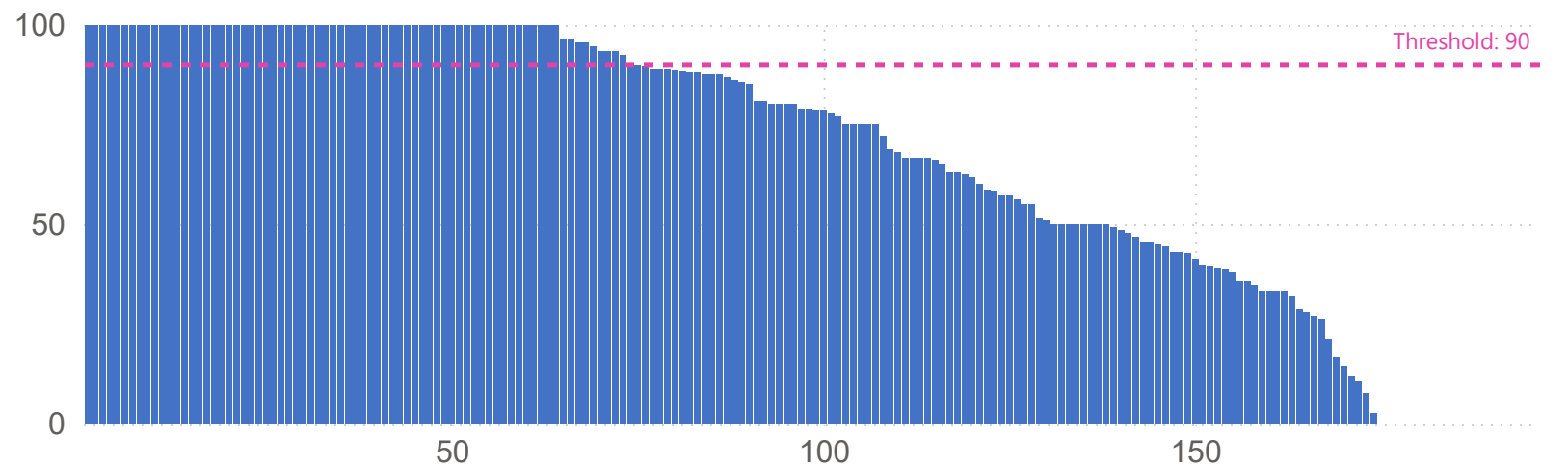
Select hospital

All

Percentage of heart attack patients receiving secondary prevention medication by hospital (2024/25)



Percentage of heart attack patients receiving aldosterone antagonists by hospital (2024/25)



A consistently high proportion of heart attack patients receive an in-hospital referral for cardiac rehabilitation, but some hospitals need to improve this



The proportion of patients with either STEMI or NSTEMI heart attacks referred to cardiac rehabilitation programmes remained unchanged in 2024/25 at 81%.

Many hospitals are not achieving the desired level of referrals, with only 115 of 186 hospitals referring at least 85% of patients to rehabilitation programmes when discharged.

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

Note: Most patients receive 'phase 1' cardiac rehabilitation during their hospital stay.

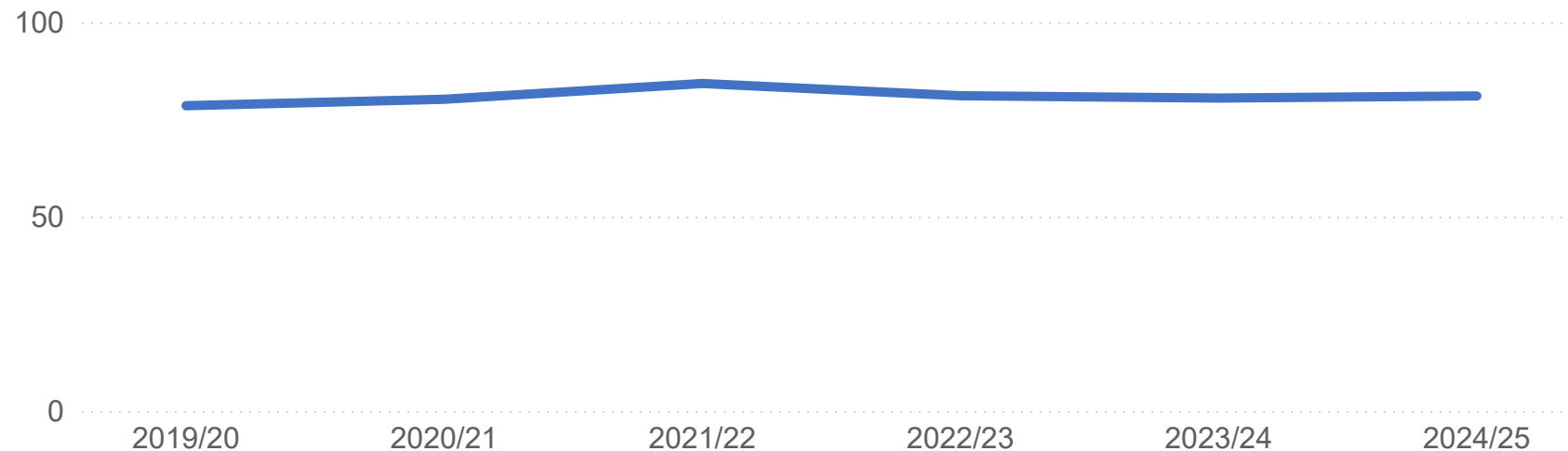
Select a country or Cardiac Network

All

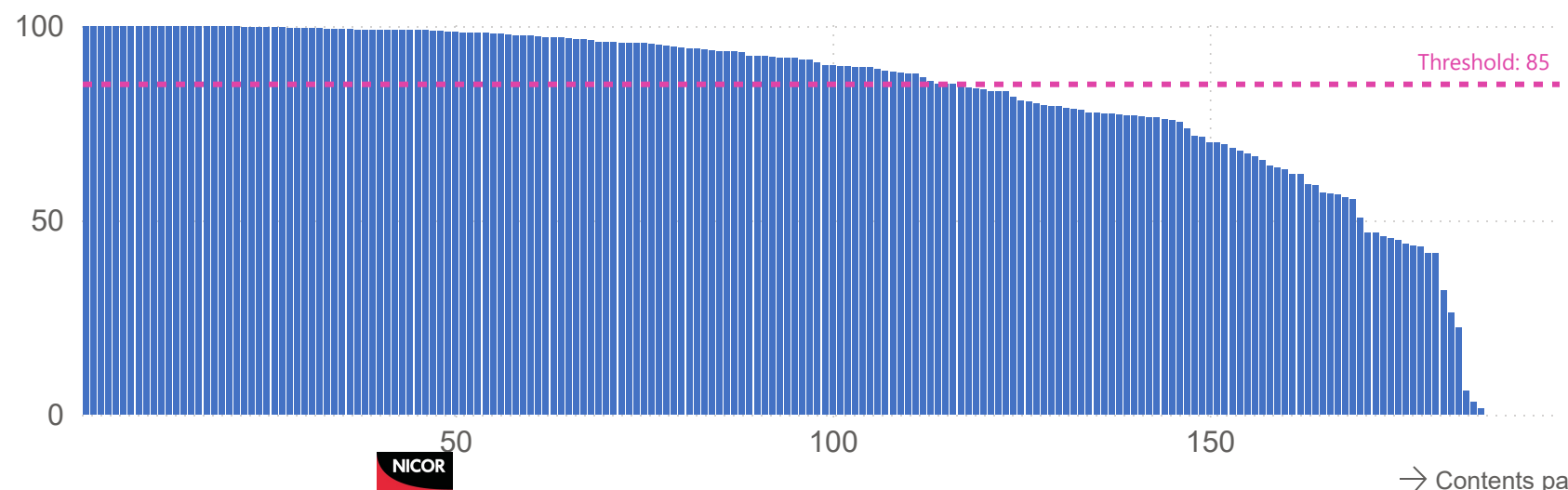
Select hospital

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 referred for cardiac rehabilitation at point of discharge home or transfer to another hospital by hospital (2024/25)





The following pages contain analyse previously contained in the appendices available on the NICOR website.

These supplemental data may not be relevant to all users of our report.

Performance of an angiogram



Management of patients admitted to hospital with NSTEMI, with respect to proportion undergoing angiography during index admission, and the proportion undergoing angiogram within 72hr of admission

Hospital	Number of patients eligible for angiogram	Number of patients undergoing angiogram during admission	Proportion of patients with angiography during admission (%)	Number of patients with valid admission and angiography times	Number of patients undergoing angiography within 72 hours	Proportion of patients undergoing angiography within 72 hours of admission
Addenbrooke's Hospital	244	237	97.13	61	<20	
Airedale General Hospital	25	<20		<20	<20	
Alexandra Hospital	223	223	100.00	223	109	48.88
Altnagelvin Area Hospital	227	225	99.12	225	169	75.11
Antrim Area Hospital	249	246	98.80	201	62	30.85
Arrowe Park Hospital	198	193	97.47	<20	<20	
Barnet General Hospital	135	104	77.04	104	39	37.50
Barnsley Hospital	240	179	74.58	178	<20	
Basildon Hospital	245	225	91.84	223	115	51.57
Basingstoke and North Hampshire Hospital	340	290	85.29	291	165	56.70
Bassetlaw Hospital	102	99	97.06	99	<20	
Bedford Hospital	204	189	92.65	186	97	52.15
Belfast City Hospital	<20	<20		<20	<20	

Select a cardiac network

All

Select a hospital

All

Performance of an echocardiogram



Performance of an echocardiogram in patients with a final diagnosis of either STEMI alone, or STEMI and NSTEMI combined, during admission to hospitals in England, Wales and Northern Ireland. The number indicates the number of patients suitable for an echocardiogram and the percentage is the proportion of patients who underwent an echocardiogram. ['<20' indicates that fewer than 20 relevant patients were submitted]

Hospital	STEMI patients	Number of patients undergoing echo during admission (STEMI)	Percentage of patients undergoing echo during admission (STEMI)	STEMI & NSTEMI patients	Number of patients undergoing echo during admission (STEMI & NSTEMI)	Percentage of patients undergoing echo during admission (STEMI & NSTEMI)
Addenbrooke's Hospital	<20	<20		348	295	84.77
Airedale General Hospital	<20	<20		56	32	57.14
Alexandra Hospital	29	29	100.00	323	319	98.76
Altnagelvin Area Hospital	211	170	80.57	468	419	89.53
Antrim Area Hospital	124	124	100.00	413	406	98.31
Arrowe Park Hospital	42	40	95.24	366	327	89.34
Barnet General Hospital	<20	<20		178	176	98.88
Barnsley Hospital	103	75	72.82	375	290	77.33
Basildon Hospital	649	649	100.00	1036	1033	99.71
Basingstoke and North Hampshire Hospital	169	156	92.31	530	503	94.91
Bassetlaw Hospital	33	<20		197	136	69.04
Bedford Hospital	27	25	92.59	332	310	93.37
Belfast City Hospital	<20	<20		<20	<20	
Birmingham City Hospital	121	114	94.21	275	220	80.00
Birmingham Heartlands Hospital	488	483	98.98	1173	1025	87.38

Select a cardiac network

All

Select a hospital

All

Referral to cardiac rehabilitation



Performance of hospitals with respect to referral of patients with either STEMI or NSTEMI to cardiac rehabilitation programmes. This is expressed both for those discharged home from hospital and for patients either discharged home or transferred to another hospital for further treatment ['<20' indicates that there were fewer than 20 relevant patients]

Hospital	Number of eligible patients discharged home	Number referred at time of discharge home	Proportion of eligible patients referred (%)	Number of eligible patients discharged home or transferred	Number referred at time of discharge home or transfer to another hospital	Proportion of all eligible patients referred (%)
Addenbrooke's Hospital	93	63	67.74	309	259	83.82
Alexandra Hospital	243	242	99.59	289	287	99.31
Altnagelvin Area Hospital	302	302	100.00	429	429	100.00
Antrim Area Hospital	231	224	96.97	394	382	96.95
Arrowe Park Hospital	91	73	80.22	340	266	78.24
Barnet General Hospital	144	109	75.69	156	120	76.92
Barnsley Hospital	309	272	88.03	334	283	84.73
Basildon Hospital	931	922	99.03	956	939	98.22
Basingstoke and North Hampshire Hospital	398	377	94.72	414	387	93.48
Bassetlaw Hospital	162	142	87.65	184	145	78.80
Bedford Hospital	246	146	59.35	353	165	46.74
Birmingham City Hospital	270	270	100.00	285	285	100.00
Birmingham Heartlands Hospital	886	857	96.73	888	859	96.73
Blackpool Victoria Hospital	1071	1057	98.69	1093	1071	97.99

Select a cardiac network

All

Select a hospital

All

Reviewed by a cardiologist and admitted to cardiac ward



Management of patients admitted to hospital with NSTEMI with respect to involvement of a cardiologist and admission to a specialist cardiac ward

Hospital	Total eligible patients	Total number admitted to Cardiac Ward	Percentage admitted to Cardiac Ward	Total number seen by Cardiologist	Percentage seen by Cardiologist
Addenbrooke's Hospital	327	142	43.43	303	92.66
Alexandra Hospital	255	128	50.20	255	100.00
Altnagelvin Area Hospital	251	247	98.41	251	100.00
Antrim Area Hospital	287	285	99.30	284	98.95
Arrowe Park Hospital	305	248	81.31	301	98.69
Barnet General Hospital	138	135	97.83	137	99.28
Barnsley Hospital	271	20	7.38	255	94.10
Basildon Hospital	247	149	60.32	243	98.38
Basingstoke and North Hampshire Hospital	356	190	53.37	349	98.03
Bassetlaw Hospital	131	121	92.37	130	99.24
Bedford Hospital	287	103	35.89	284	98.95
Birmingham City Hospital	158	117	74.05	158	100.00
Birmingham Heartlands Hospital	695	688	98.99	695	100.00
Blackpool Victoria Hospital	363	351	96.69	362	99.72
Bradford Royal Infirmary	518	279	53.86	494	95.37

Select a cardiac network

All

Select a hospital

All

Discharged on appropriate medications



Performance of hospitals with respect to prescription of secondary prevention medication at time of discharge home to patients with either STEMI or NSTEMI. Performance is not reported when there are fewer than 20 eligible patients. Patients are excluded if there were transferred to another hospital or if they died in hospital. The medication presented in this table includes the use of aldosterone antagonists in patients with echocardiographically proven poor left ventricular (LV) function and a combination of: Angiotensin Converting Enzyme (ACE) inhibitors, Angiotensin receptor blockers (ARBs), aspirin, other anti-platelet agents, beta blockers and statins.

Hospital	Number of patients discharged home	Number of patients discharged on all medication for which they were eligible	Percentage discharged on all medication for which they were eligible
Addenbrooke's Hospital	104	48	46.15
Alexandra Hospital	294	294	100.00
Altnagelvin Area Hospital	322	320	99.38
Antrim Area Hospital	237	223	94.09
Arrowe Park Hospital	129	126	97.67
Barnet General Hospital	165	118	71.52
Barnsley Hospital	312	144	46.15
Basildon Hospital	969	905	93.40
Basingstoke and North Hampshire Hospital	456	450	98.68
Bassetlaw Hospital	165	138	83.64
Bedford Hospital	266	184	69.17
Birmingham City Hospital	270	267	98.89

Select a cardiac network

All

Select a hospital

All



Delays to treatment reported by those hospitals providing primary PCI for patients admitted directly and those transferred from another hospital with STEMI.

DTB = door to balloon interval

CTB = call to balloon interval

CTB150 = proportion treated within 150 minutes of call for help

CTB120 = proportion treated within 120 minutes of call for help

DTB90 = proportion treated within 90 minutes of arrival at hospital

DTB60 = proportion treated within 60 minutes of arrival at hospital

Median is the time within which 50% of patients were treated (following call for help - CTB Median - and arrival at hospital - DTB Median). Delays are not reported when there were fewer than 20 patients in any particular category. Highlighted Hospitals are those with 20 or more patients. The majority of the hospitals in this table are not designated Heart Attack Centres, designed to be continuously able to receive and treat patients with STEMI with primary PCI. However, some of these (non-Heart Attack Centre) hospitals provide primary PCI opportunistically to a limited number of patients, allowing presentation of a median DTB/CTB even when there are fewer than 20 patients.

Timeliness of pPCI in hospitals in England, Wales and Northern Ireland - by Hospital and Cardiac Network



Hospital	Out of N (DTB)	N achieving DTB < 60	N achieving DTB < 90	Median DTB	Out of N (CTB)	N achieving CTB < 120	N achieving CTB < 150	Median CTB
Airedale General Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Altnagelvin Area Hospital	198	151	166	33	161	50	103	137
Antrim Area Hospital	<20	<20	<20	NA	NA	NA	NA	NA
Arrove Park Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Basildon Hospital	576	443	538	41	519	154	329	138
Basingstoke and North Hampshire Hospital	135	84	99	41	110	41	69	131
Bedford Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Birmingham City Hospital	115	74	94	49	93	64	82	104
Birmingham Heartlands Hospital	398	190	265	62.5	398	136	230	138
Blackpool Victoria Hospital	584	397	485	51	498	72	243	154
Bradford Royal Infirmary	<20	<20	<20	NA	<20	<20	<20	NA
Bristol Royal Infirmary	458	246	319	55.5	430	85	194	159.5
Calderdale Royal Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Castle Hill Hospital	488	421	458	35	392	150	259	133
Chesterfield Royal Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Conquest Hospital	117	89	103	40	103	36	74	134
Countess of Chester Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Craigavon Area Hospital	<20	<20	<20	NA	<20	<20	<20	NA
Croydon University Hospital	<20	<20	<20	NA	NA	NA	NA	NA

Select a cardiac network

All

Select a hospital

All

Timeliness of pPCI in hospitals in England, Wales and Northern Ireland - by Ambulance Trust



Ambulance Trust	Number of patients with STEMI who received pPCI and have valid call and balloon times	Median CTB	Median CTD	Percentage who received primary PCI within 120 minutes of calling for help	Percentage who received primary PCI within 150 minutes of calling for help
Welsh	667	165	122.00	18.14	38.68
North West	2081	154	93.00	22.20	48.20
South Western	1746	151	95.00	24.97	49.83
Northern Ireland	662	149	108.50	26.74	51.81
London	1669	143	86.00	26.66	57.28
East of England	1795	142	98.00	30.03	59.00
South East Coast	1428	141	95.00	29.34	59.80
Yorkshire	1321	141	94.00	31.49	57.68
East Midlands	1301	140	92.00	32.21	58.49
North East	936	132	90.00	37.39	64.85
West Midlands	1692	132	76.00	39.78	66.13
Republic of Ireland	47	129	104.00	31.91	80.85
South Central	972	127	83.00	43.11	67.18



Case ascertainment rates are expressed at a NHS Trust level with audit participation displayed for constituent hospital sites. Case ascertainment is expressed as a ratio of the number of cases submitted to the MINAP database to the number coded as myocardial infarction (in the Hospital Episode Statistics (HES) data provided by NHS Digital in England).

NICOR Submit the following inclusion criteria to NHS Digital with respect to ICD 10 Codes:

Stringent criteria :

STEMI: all patients discharged with final diagnosis of STEMI – identified by the presence of the following ICD 10 codes IN ANY POSITION:

- I21.0 ST elevation (STEMI) myocardial infarction of anterior wall;
- I21.1 ST elevation (STEMI) myocardial infarction of inferior wall;
- I21.2 ST elevation (STEMI) myocardial infarction of other sites;
- I21.3 ST elevation (STEMI) myocardial infarction of unspecified site

NSTEMI : all patients discharged with final diagnosis of NSTEMI – identified by the presence of the following code IN THE FIRST POSITION:

- I21.4 Non-ST elevation (NSTEMI) myocardial infarction.

Non-Stringent criteria :

STEMI :all patients discharged with final diagnosis of STEMI – identified by the presence of the following ICD 10 codes IN ANY POSITION

- I21.0 ST elevation (STEMI) myocardial infarction of anterior wall;
- I21.1 ST elevation (STEMI) myocardial infarction of inferior wall;
- I21.2 ST elevation (STEMI) myocardial infarction of other sites;
- I21.3 ST elevation (STEMI) myocardial infarction of unspecified site;
- I21.9 Acute myocardial infarction (unspecified)
- I22.0 Subsequent ST elevation (STEMI) myocardial infarction of anterior wall;
- I22.1 Subsequent ST elevation (STEMI) myocardial infarction of inferior wall;
- I22.8 Subsequent ST elevation (STEMI) myocardial infarction of other sites;
- I22.9 Subsequent ST elevation (STEMI) myocardial infarction of unspecified site;

Case ascertainment for England



Hospital	NHS Trust	STEMI cases	NSTEMI cases	Total MINAP submissions (N)	HES cases - stringent (N)	Case ascertainment - stringent (%)	HES cases - non-stringent (N)	Case ascertainment - non-stringent (%)
ADDENBROOKE'S HOSPITAL	CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	17	328	352	473	74.42	892	39.46
AIREDALE GENERAL HOSPITAL	AIREDALE NHS FOUNDATION TRUST	9	25	57	417	13.67	518	11.00
ALEXANDRA HOSPITAL	WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST	30	255	346	365	94.79	444	77.93
ARROWE PARK HOSPITAL	WIRRAL UNIVERSITY TEACHING HOSPITAL NHS FOUNDATION TRUST	71	305	419	304	137.83	501	83.63
BARNET GENERAL HOSPITAL	ROYAL FREE LONDON NHS FOUNDATION TRUST	1	139	179	223	80.27	308	58.12
BARNSELY HOSPITAL	BARNSELY HOSPITAL NHS FOUNDATION TRUST	103	271	375	409	91.69	630	59.52
BASILDON HOSPITAL	MID AND SOUTH ESSEX NHS FOUNDATION TRUST	664	247	1075	1131	95.05	1389	77.39
BASINGSTOKE AND NORTH HAMPSHIRE HOSPITAL	HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST	181	356	555	442	125.57	528	105.11
BASSETLAW HOSPITAL	DONCASTER AND	33	135	197	155	127.10	230	85.65

Select a cardiac network

All

Select a hospital

All



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