# PEP Health
Patient Experience Platform

# What Patients Think

Trends and variation in patient experience across hospitals in England 2019-20

# Contents

# Foreword

Throughout my time in the NHS I have worked with so many people who care passionately about patient experience, but this aspect of quality has always been something of a poor relation, with other domains easier to measure and hence manage.

A step change came about when Lord Ara Darzi defined quality in health care as comprising three components; safety, clinical effectiveness and patient experience. For the first time ever, experience was given its rightful place as an equal outcome. The NHS is committed to achieving the highest standards in each of these three, but progress on experience has always been hampered by the paucity of timely and robust information which has been gleaned from a large enough and hence truly representative sample. Without such evidence it just isn't possible to derive the insights which identify the changes we need to make.

A great step forward was made with the advent of the Friends and Family test, which supported the collection of large volumes of information about services, departments and institutions. However, in this digital age, where so many other industries have invested in sophisticated techniques to understand customer preferences, we still lag some way behind. We have not as yet been able to analyse and use this NHS data to its full potential, nor have we been able to marry it with the wealth of information which is now available through social media.

PEP Health (Patient Experience Platform) is our opportunity to change this.

PEP Health brings together data from a wide range of sources, but especially social media, and produces current and sophisticated insights into what patients think. The rigorous application of data science gives an in-depth understanding of how hospitals and their various departments and services are perceived, supporting comparisons with one another as well as identifying specific trends over time.

What has really surprised me about PEP Health, is that this data sampling can also provide insights into safety, potentially predicting areas of concern and signposting where urgent changes need to be made to protect those we serve. In turn, it can be used to support the strong message in the Cumberlege Report about listening to patients.

There are of course always challenges when it comes to making comparisons between institutions, but I hope the NHS will embrace PEP Health as a tool to build on the good work it has already done. PEP Health is an assurance tool which NHS boards who are committed to hearing their patients' voices can add to their armoury, thus bringing a new rigour to their oversight. It will allow them to compare their organisation with others, drill down into their different departments and services, predict problems and monitor the progress of subsequent actions. It represents a paradigm shift in how we can use patients' views to effect change for the better.

**Dame Barbara Hakin**

# Executive summary

PEP Health is a social media listening tool which offers a radical new approach to collecting and analysing the views of patients on the health services they encounter. The platform delivers comprehensive real-time reporting of what patients really think about their care.

We provide actionable insights that can function as a board assurance tool and provide feedback to inform operational decisions.

## Our methodology
PEP Health captures around 10 million data points per annum from publicly available forums and social media. We use only those comments that are directly about care episodes and that can be linked to a specific provider.

We use machine learning to generate scores that are based on patients' judgement of their care. In addition to the numerical scores which can rapidly flag up areas for celebration or concern, PEP Health can also analyse patient comments to understand the reasons for improved or declining patient satisfaction.

Our algorithms reveal national trends while also accurately categorising comments and scores according to regions, providers and individual departments, giving a comprehensive understanding of the variations in patient experience across different care settings.

We provide an 'overall experience' measure as well as segmenting the ratings into the eight commonly used quality domains:

- Effective care
- Fast access
- Emotional support
- Continuity of care
- Involvement and support for family and carers
- Clear information, communication and support
- Involvement in decisions in respect of preferences
- Appropriate environment addressing physical and environmental needs.

## Findings
This report explores some of the key findings from PEP Health data, including:

### National trends
- Overall, there is a considerably greater volume of positive feedback compared with negative feedback from patients on the care they received from providers.
- A decrease in patient satisfaction across most quality domains throughout the autumn of 2019 into early 2020.
- Distinct improvements in reported experiences of acute care as the Covid crisis took hold.
- Signs of plateauing and possible declines emerging in late summer / early autumn 2020.

# Executive summary continued...

## Regional variation
- We see different patterns across the country with some areas frequently achieving higher patient scores than others.
- For example, the South West saw considerable improvements in its ratings for fast access in summer 2019 and sustained high ratings through autumn and winter, whereas London had significantly lower and declining ratings for fast access over the same period.

## At provider level
- Considerable variation, both over time and among providers, with patients at neighbouring trusts often reporting markedly different care ratings.
- Maternity provision shows one of the highest levels of variation, with some trusts showing consistently high ratings while neighbouring trusts in the same STP can have very low ratings.

## Private providers
- The overall trend in satisfaction shows a different pattern from NHS providers, with steady declines in patient ratings for most quality domains over the summer of 2019, followed by improvements in performance which run consistently into the summer of 2020.
- A divergence between emotional support ratings, which fall sharply at the end of August 2020, and fast access ratings, which improve over the same period.

## Case studies
The report includes two case studies of trusts that are actively using PEP Health to inform their quality improvement processes: Northumbria Healthcare NHS Foundation Trust, which has achieved the highest ratings for emotional support in the country, and Royal Surrey, which has systematically improved its ratings over the course of 2020 to achieve impressive rankings across a range of measures.

## Wider context
The report demonstrates statistically significant correlations with external research such as the CQC inpatient survey. While the two datasets complement each other, the real-time delivery of PEP Health data makes it particularly valuable as a tool to spot emerging issues and to inform quality improvement initiatives.

We also demonstrate how understanding change and volatility in patient ratings can be used to focus resources on priority areas.

# Insights and recommendations

The ultimate aim of PEP Health is to derive insights from patient experience that can lead to improvements in care.

Throughout this report we suggest how the findings could be used by providers and policy makers to identify target areas for improvement:

- The data show conclusively that local variation is the norm, not the exception.
- This variation happens over time and across geography. We see considerable differences among regions, among neighbouring trusts within the same STPs and right down to departments at the same organisation.
- Changes in patient experience occur constantly, and what patients say at the time of their care frequently gives more timely and richer insights than our traditional ways of capturing performance information:
  - One-off snapshot metrics, such as annual surveys, may miss performance dips delaying issues from coming to light until long after they have become the norm.
  - Continuously listening to patients is essential to make accurate judgments about which improvement initiatives are having noticeable effects.
  - Tracking patients' reported experiences of waiting can reveal important gaps and weaknesses that may be hidden by waiting time standards.

Traditional metrics and surveys have their place, but they must be complemented by real-time information if we are to achieve genuinely responsive health services. We therefore recommend that all elements of the system should commit to real-time monitoring of patient experience and to act upon those insights.

## 1. Board oversight
For provider leadership, this should be an essential part of the board assurance process to ensure that:
a. Care quality aspirations are routinely met and exceeded within their organisations.
b. A wider understanding about what is possible is achieved by benchmarking with neighbouring trusts and similar providers further afield.
c. Providers actively seek to share and learn from excellent practice within and across organisations.

## 2. Operationally:
a. Real-time patient feedback should be embedded into quality improvement initiatives, focusing managers' and clinicians' attention towards issues as they arise.
b. Changes in measured patient experience should be routinely used as a key metric to assess the effectiveness of improvement initiatives.

## 3. Commissioners, regulators and system managers
with oversight across multiple providers should use real-time patient monitoring to inform decisions and direct action, aware that timely information can cover gaps often missed by currently used metrics. This should lead to:
a. Prioritising resources to address issues that matter to patients.
b. Informing lines of enquiry to explore areas of concern.
c. Targeted interventions across geographies to raise care quality and understand the root causes underlying problematic issues.

Historically, healthcare leaders had little choice but to rely on lagging indicators of quality, but now we no longer have to drive by the rear-view mirror. By listening at scale and in real-time to a wide and diverse population of patients, we can act promptly and accurately to address what matters most to patients.

# About PEP Health – the Patient Experience Platform

PEP Health is a social media listening tool which offers a radical new approach to collecting and analysing the views of patients on the health services they have received. The platform delivers comprehensive real-time reporting of what patients really think about their care.

PEP Health aggregates millions of social media and online comments about every NHS and independent acute hospital in England. It uses advanced machine learning, with comments themed into care quality domains, to give insights which fully reflect each provider's strengths and weaknesses, including at departmental level.

Providers can be benchmarked against each other. PEP Health's longitudinal tracking, going back nearly 3 years, allows individual organisations to track their progress across the different aspects of their care.

We have designed the platform to improve quality by supporting:

- Providers – easily recognise and learn from outstanding areas of care as well as rapidly identifying safety concerns and priorities for improvement.

- Commissioners – identify the providers that your patients most value and those where you may need to re-evaluate existing arrangements. Automatically identify high-risk providers, departments or pathways for further investigation, and benchmark your service quality in relation to your peers.
- Regulators – comprehensively and cost-effectively monitor in real-time what millions of patients and their families are saying about the quality of care, promptly highlighting issues for further investigation.

In March 2020, PEP Health was selected to join the award-winning NHS Innovation Accelerator following an international call and a rigorous selection process that included review by over 100 clinical, patient and commercial assessors, an informal review by the National Institute for Health and Care Excellence (NICE), interviews, and due diligence.

The standout value of PEP Health's approach has been recognised by its peers, winning the User Led Innovation category at the HTN Health Tech Awards in October 2020.

# Understanding the information in this paper



**Care quality domains**
- Effective care
- Fast access
- Emotional support
- Continuity of care
- Involvement & support for family & carers
- Clear information, comms and support
- Involvement in decisions on preferences
- Appropriate environment

## Case studies

PEP's insights are based directly on patients' reported experience of their care.

Our methodology involves capturing around 10 million data points per annum from publicly available forums and social media. We use only those comments that are directly about care episodes and that can be linked to a specific provider. General sentiment about healthcare, such as comments about the 'clap for carers' phenomenon, are not included.

This report focuses on acute trusts, though our approach can be used to provide insights into any type of health-care organisation.

## Scoring that tracks patients' views

Because many of these comments are bound to numerical ratings, our algorithms can learn how patients typically score their experiences. Through rigorous testing we have a high degree of confidence that we can predict how other comments would be evaluated. To avoid distortion through small numbers and outliers, we apply volume thresholds before reporting any figures and the scores are based on a 90-day moving average.

Crucially, these scores are based on patients' judgement of their care. We are not a third-party judge. Our goal is to accurately reflect patient views and the ratings they give to the care they receive.

Throughout this report, a '5' rating represents high quality care while a rating of '1' indicates a poor experience, as perceived and rated by patients. Encouragingly, we find that most care is rated at the high end of the scale. But problems do exist, and poor numerical ratings are almost always accompanied by patient stories that should raise concerns.

As well as scoring comments, our machine learning approaches can accurately categorise comments that relate to specific departments and specialties, as well as to care quality domains.

## View by care quality domains

Numerous bodies have explored how best to describe different aspects of care quality. Our algorithms accurately identify comments that relate to the three high-level areas of care quality: safety, effectiveness and patient experience.

We can also dig deeper and segment by the eight domains used by many healthcare organisations both in the UK and globally. This report explores trends and variations in some of those domains:

1 Effective care
2 Fast access – a measure of how quickly patients obtain care when they need it
3 Emotional support
4 Continuity of care

# Understanding the information in this paper continued…

5 Involvement and support for family and carers
6 Clear information, communication and support
7 Involvement in decisions in respect of preferences
8 Appropriate environment, addressing physical and environmental needs.

This report focuses on acute trusts, though our approach can be used to provide insights into any type of healthcare organisation.

## Departmental and specialty-level insights

As well as care quality domains, we can extract and analyse comments related to specialty or hospital department. This report references maternity, oncology and unscheduled care, i.e. provision delivered through accident and emergency departments, walk-in centres and urgent care provision specifically provided by any given trust.

## Correlations with established metrics

Our methodology means there are areas where it is reasonable to draw conclusions but there are also others which are beyond the scope of our insights.

This paper discusses the statistically significant correlation between our findings and those of the CQC inpatient survey. This gives us confidence that our results are an accurate indication of patient experience. It follows that a significant downward change should indicate a cause for concern and trigger further investigation. Conversely, an upward trend may provide evidence of quality improvement and should be explored to help build and maintain these positive developments.

We do not pretend to be a regulator. We do not pass judgement or seek to direct the scores we present. We simply seek to collate and accurately provide insights into the collective views of the millions of patients who receive acute care every year.

## Departmental and specialty-level insights

Because we reflect patients' views, it is likely that some judgements made by patients may diverge from clinical evidence. However, if we have learnt anything from the past 20 years of healthcare, we should note that when significant numbers of patients express concerns, the entire health community would be wise to take note.
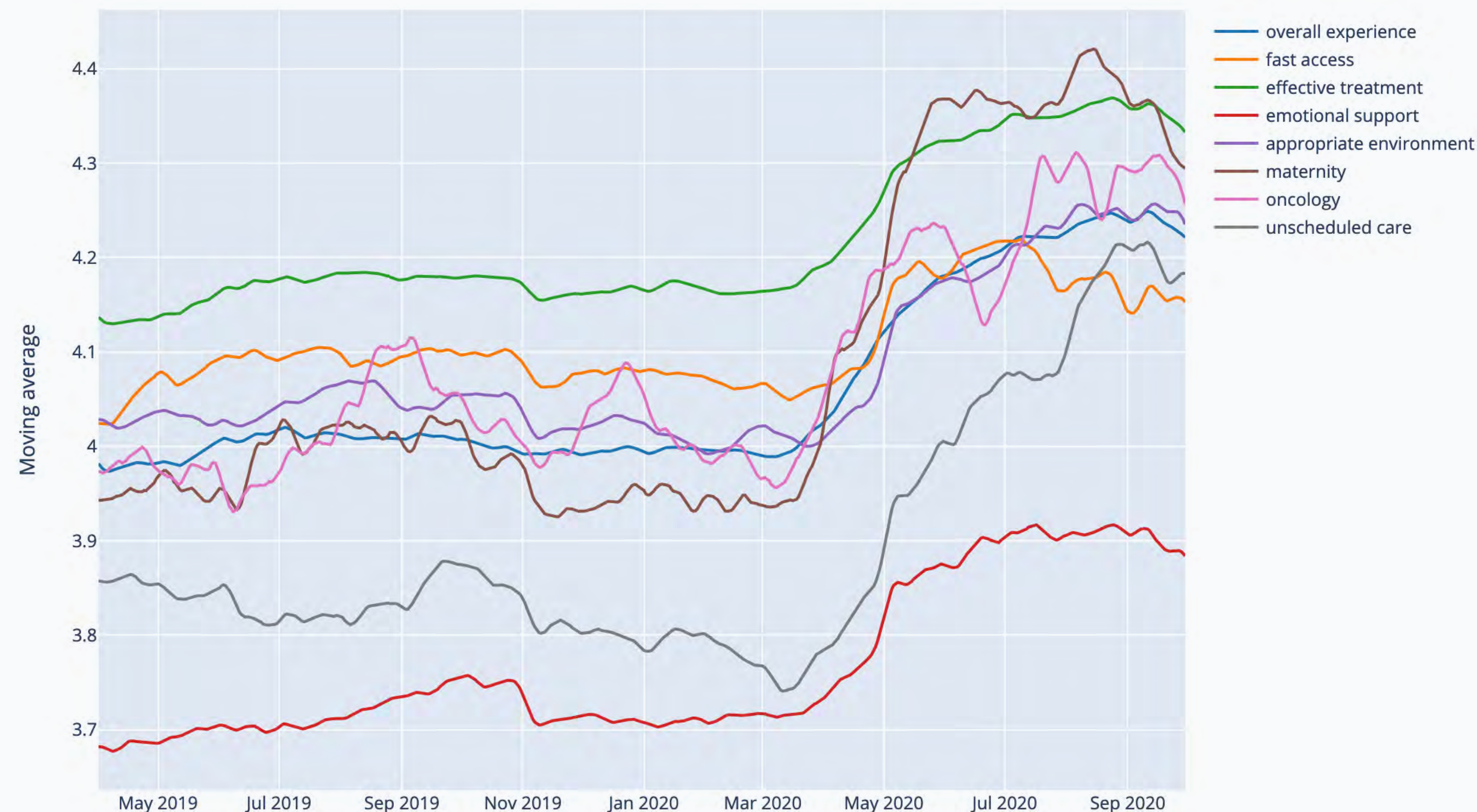
# National trends



**Legend:**
- overall experience
- fast access
- effective treatment
- emotional support
- appropriate environment
- maternity
- oncology
- unscheduled care

Y-axis: Moving average (4.4, 4.3, 4.2, 4.1, 4.0, 3.9, 3.8, 3.7)

X-axis: May 2019, Jul 2019, Sep 2019, Nov 2019, Jan 2020, Mar 2020, May 2020, Jul 2020, Sep 2020

**National moving average scores by domain**

The graph above shows how the moving average of eight key measures has changed over the course of the past 18 months.

Between the summer of 2019 and the period immediately before Covid, we saw a general decline in most measures, with a sharp decline occurring in November, continuing in most areas through to March.

Strikingly, there was then an increase in patient satisfaction around the time of the Covid outbreak. It would be easy to attribute this solely to the general rise in positive public sentiment towards the NHS, but a closer exploration of our data suggests a far more complex and nuanced picture. The key to understanding this is to look at how these national averages mask great variation at local level. We discuss this in more depth in the sections on overall experience, fast access and maternity.

Following that initial Covid rise, we see some divergence in the pattern of the different metrics over the summer. Most plateau around July and show some signs of falling during September. By contrast, the unscheduled care rating, which relates specifically to accident and emergency care, walk-in and urgent care centres, continues to rise during July. Analysis of actual patient comments help explain the improved ratings. During the initial stages of lockdown, many people report anticipating difficult access to care, but once care was accessed that initial trepidation and concern was allayed by care experiences which ran far more smoothly than expected. The plateauing and slight falls in recent weeks suggest that as services begin to resume on patients' return to services in greater numbers, operational pressures may begin to adversely impact patient experience.

# Overall experience
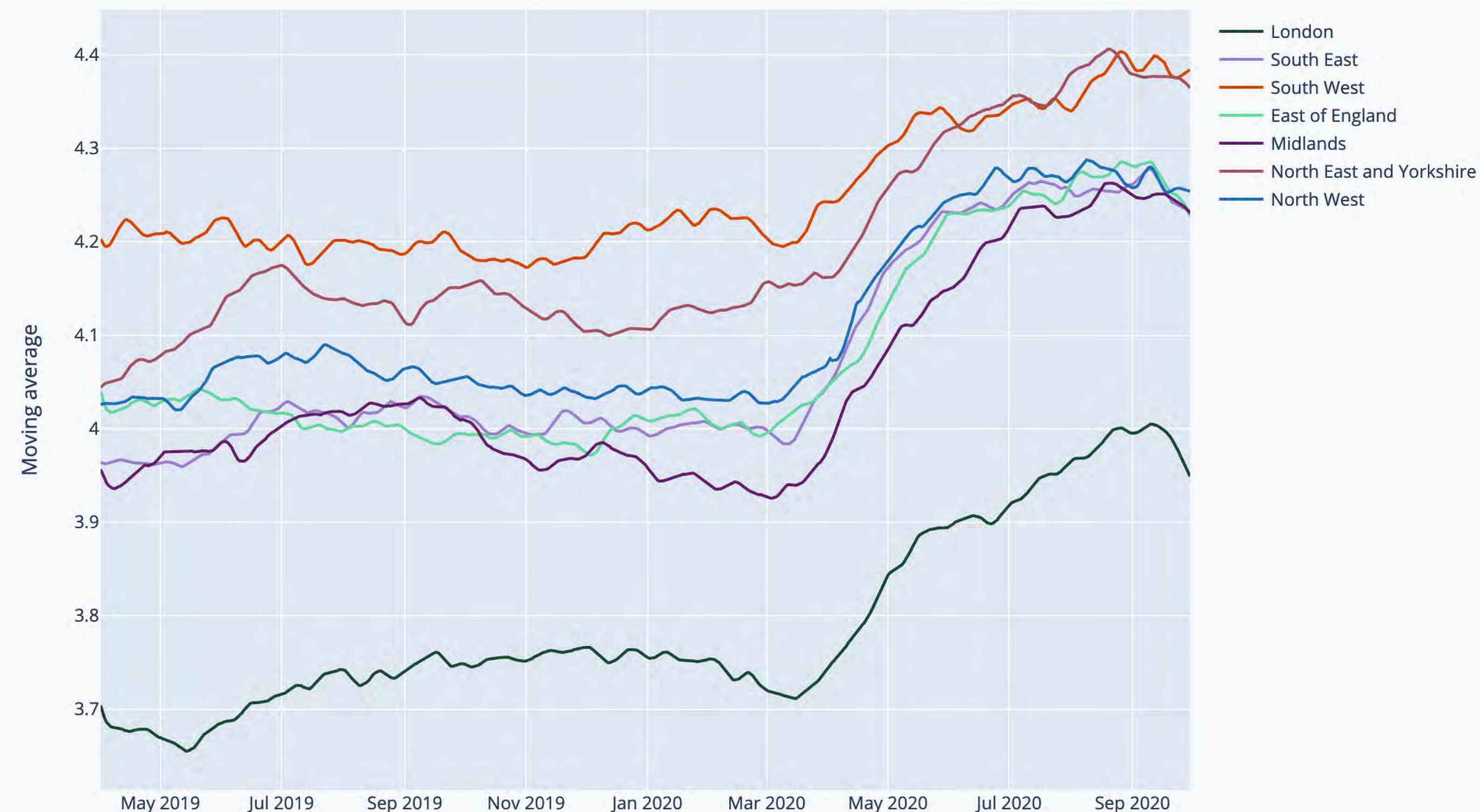


Overall experience moving average by region

**Variation in overall experience across regions**
The overall experience metric used by PEP Health is based on unstructured comments volunteered by patients. As its name suggests, it brings together all aspects of care and is carefully calibrated to reflect scores that patients typically award. In some ways it approximates to the Friends and Family Test but reveals considerably more differentiation between providers. That differentiation is of greater use when tracking performance and making decisions about how to improve care.

Just as we see variation at trust and departmental level, we see distinct regional trends. The graph above shows:

- London consistently lags the rest of the country, with a sharper fall in mid-September compared to other areas of the country.
- All other regions plateau in August and show signs of beginning to fall in September.
- Despite regional variation, there are examples of high-performing providers across the country.

"

We're delighted to learn that PEP Health has identified us as leading the way with respect to the emotional support offered to patients – I know that it's something that will mean the world to our teams too!

Annie Laverty, Chief Experience Officer,
Northumbria Healthcare NHS Foundation Trust

# Overall experience continued...



**Moving average overall experience score by STP –
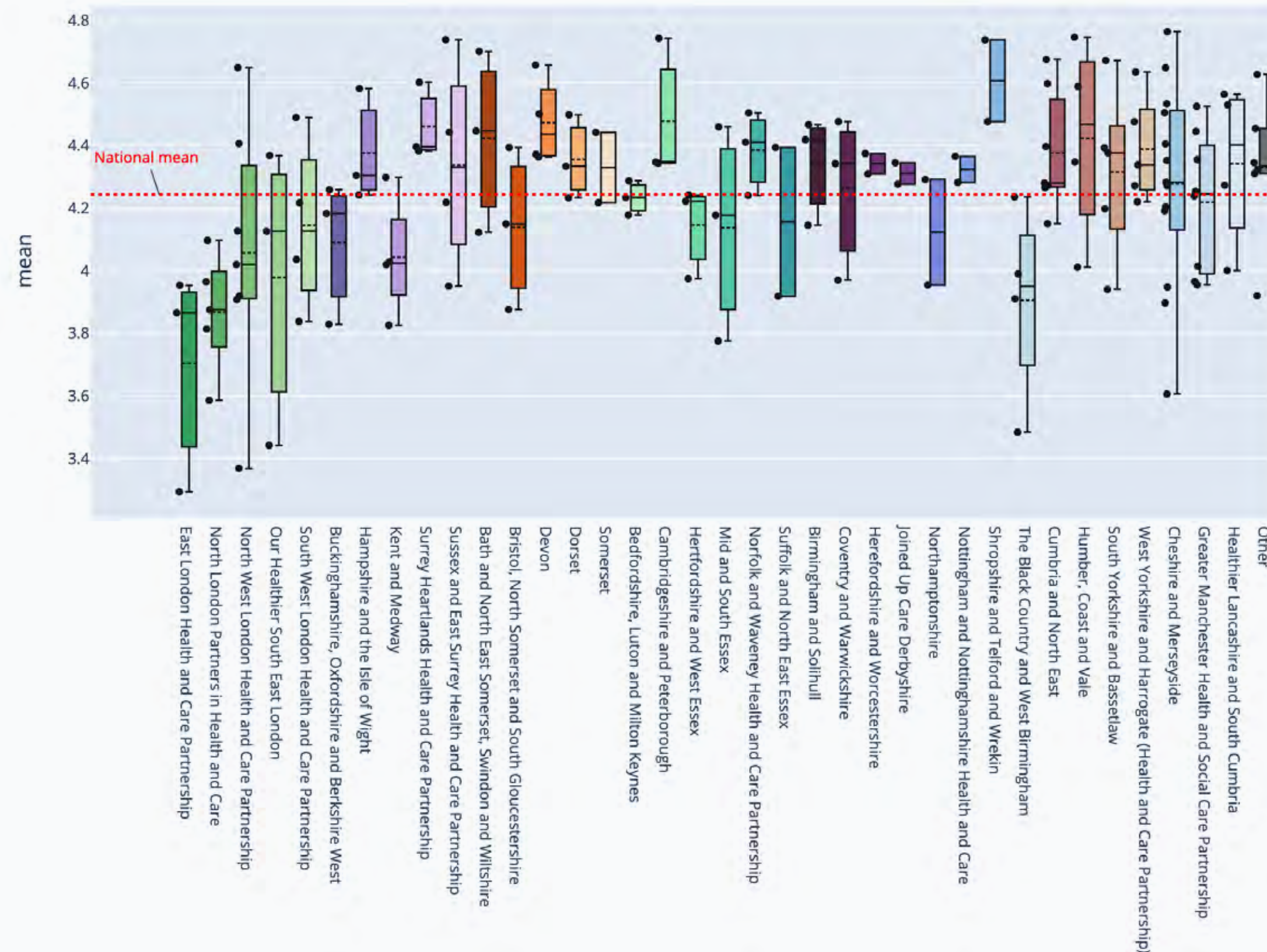3 months to Sep 2020**

**Overall experience across STPs**

As well as looking at the moving average trendline for the region, we can explore how STPs and neighbouring providers compare.

The box plots below show variation in the mean overall experience value for each STP area over the past three months. Each black dot represents the mean overall experience value for an individual trust. To protect anonymity, we have grouped STPs with just one trust into the 'Other' category on the right. The STPs are ordered by region, showing from left to right: London, South East, South West, East of England, Midlands, North East & Yorkshire, North West.

Here, we can immediately see there are high performing individual trusts within all regions including those that are struggling. We also see how STP-level performance can vary sharply within regions. Some regions, most notably the South West (orange boxes), perform consistently strongly and demonstrate a remarkable degree of consistency across all their component trusts. By contrast, other areas show considerably more variation. This variation matters because it reflects a significant number of patients experiencing markedly different care.

We need to dig deeper to understand the many diverse reasons for these variations, but only by exploring these insights can we understand why some geographies and sections of the community have such different experiences compared to others.

# Overall experience continued…



**Example providers from across England**



**Variation within London**

**Variation in overall experience at provider level**
Each line in these two graphics shows the moving average overall experience performance for a given provider.

The top two providers in the examples from across England are among the best performers in the country, while the orange providers cling to the lower end of the scale. We see providers that closely follow the national direction, e.g. the red provider on the England plot, but others that head in quite different directions.

Clearly, improvement in overall experience ratings over the Covid period is not a universal experience. As the London graph shows, providers' performances can diverge even when in close proximity.
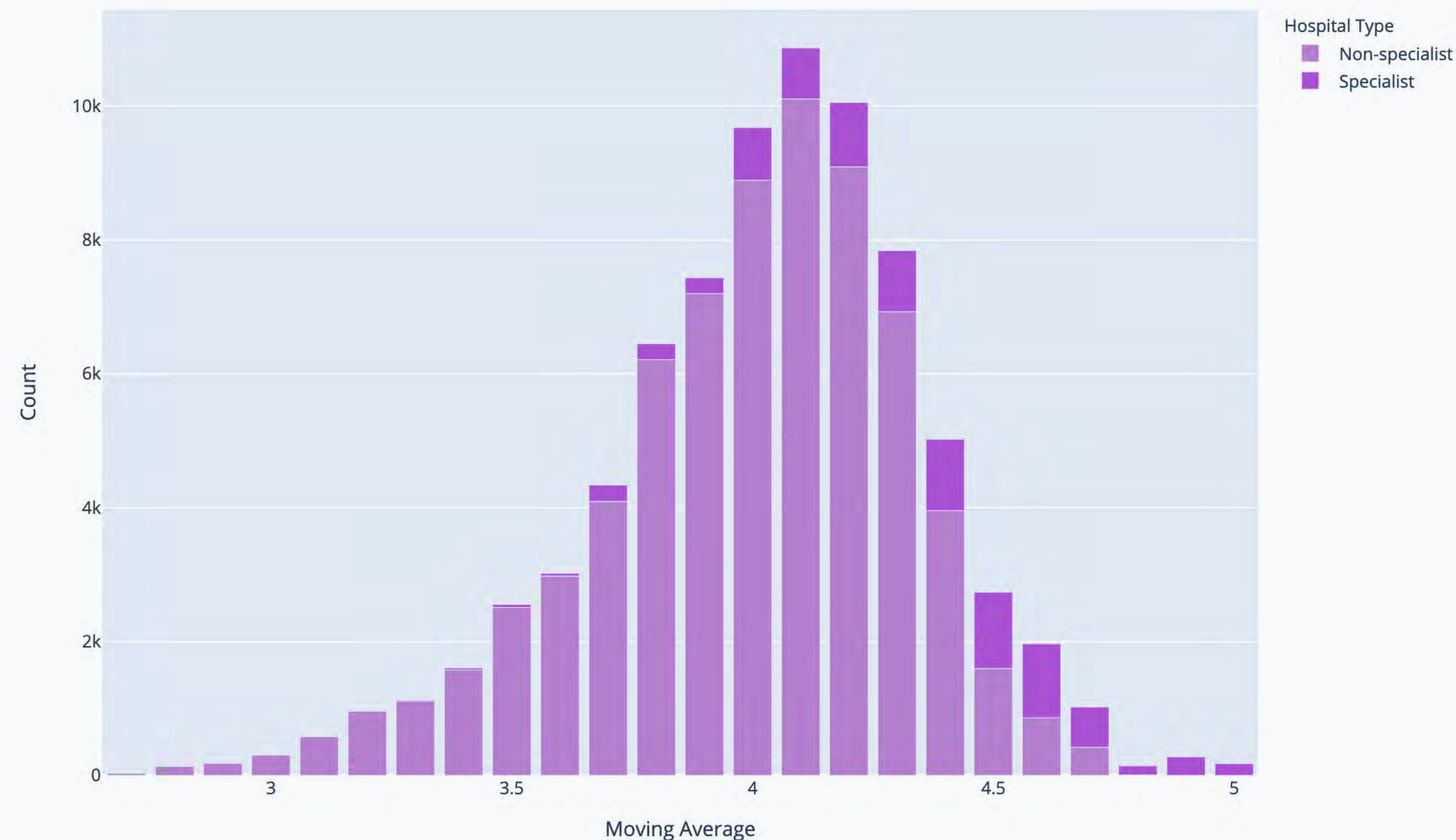
# Overall experience continued...



**Distribution of overall experience ratings**

**Overall experience variation by hospital type**

The plot shows the distribution of all 78,505 overall experience moving average ratings within the past 18 months, calculated daily across 151 providers, over an 18-month period. The median rating for non-specialist hospitals is 4.1 compared to 4.4 for specialist hospitals.[1]

As well as noting that patients are more likely to rate specialist hospitals more highly than general providers, we can see:

- The distribution is skewed slightly to the right, which means most patients experience good-quality care.
- Really excellent care, i.e. approaching '5 star' ratings, is rare and disproportionately skewed towards specialist providers.
- Because the majority of ratings are clustered towards good performance, a drop in moving average ratings implies something unusual – and almost invariably concerning – is going on. This means falls should be taken seriously and investigated.

[1] We have used the CQC's classification of specialist and non-specialist acute providers

13

# Northumbria Healthcare NHS Foundation Trust case study
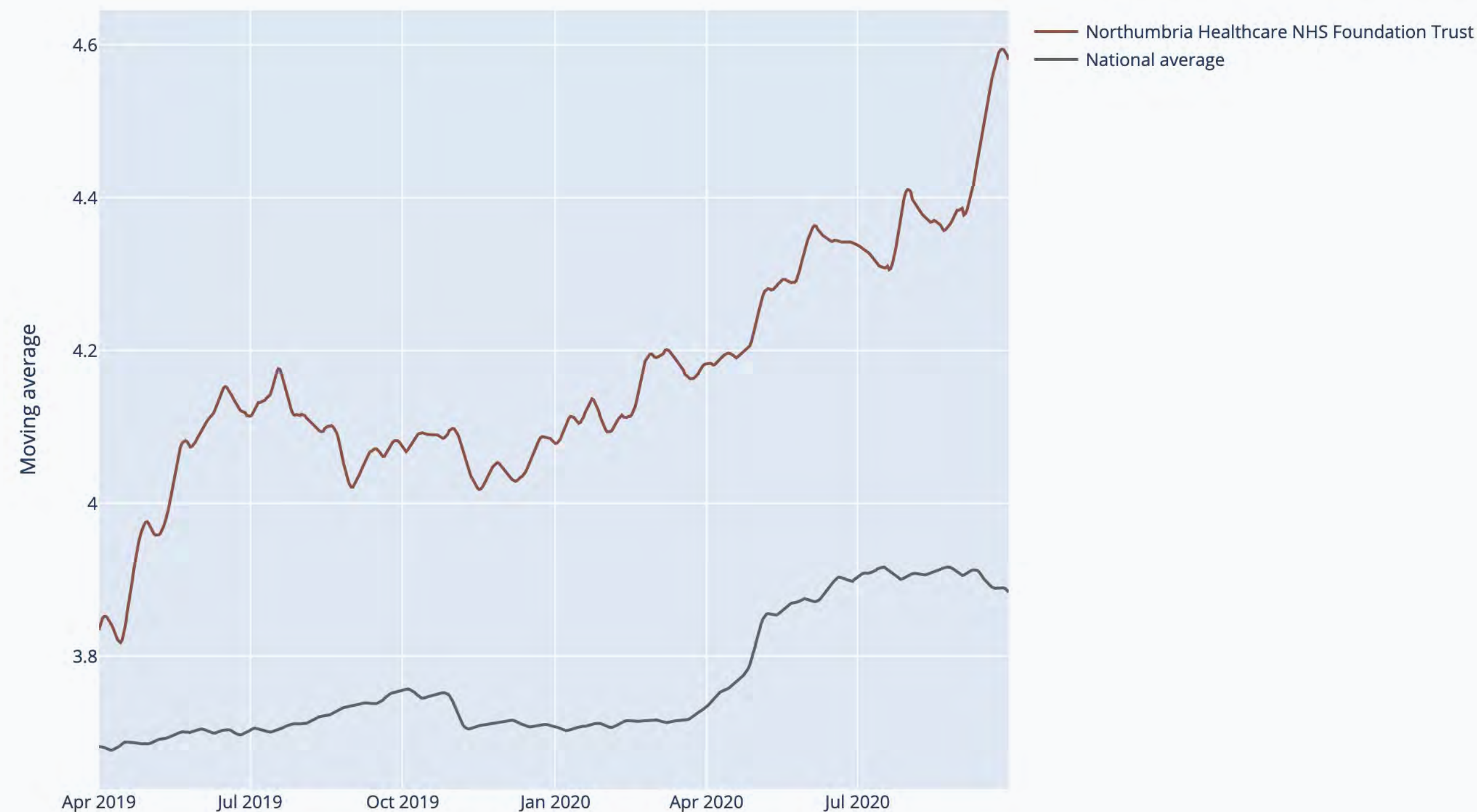


**Emotional support at Northumbria compared to the national average**

Number 1 in England for providing emotional support to patients.[2]

One of very few trusts to be rated outstanding twice by the CQC, Northumbria has long been recognised as one of the best trusts in the country. The trust has won multiple awards for delivering excellent patient experience and safety during this time and are constantly seeking ways of better understanding and using insights from patient experience.

Northumbria was also rated the best place to work in the NHS in the most recent national staff survey – with 90% of staff believing that the top priority of the trust was high-quality patient care and 95% of staff believing their role makes a positive difference for patients - that too the highest score in the NHS. The insights from PEP Health confirm this excellent performance, with the trust ranked #1 in emotional support to patients during the last year.

66

As a trust, we understand the inextricable link between staff and patient experience and have worked hard in recent years to develop a truly integrated approach to improving both, in real time. We're continuously focused on where we can further improve our care and have relied on great partnerships outside the trust to help us do this.

**Annie Laverty, Chief Experience Officer**

[2] As at 30 September 2020

# Fast access



Legend:
- London
- South East
- South West
- East of England
- Midlands
- North East and Yorkshire
- North West

**Fast access moving average by region**

The fast access score relates to comments made by patients about how easily and quickly they can access acute care.

It is different from our 'unscheduled care' measure which relates to overall experience of care at A&E departments, urgent care, and walk-in facilities which can be linked to a specific trust.

**Fast access trends by region**

The first, quite striking observation looking at the national trend is that, along with other measures, fast access ratings rose on average across the country after March 2020. However, the regional trendlines below show markedly different experiences in different regions. We see:

- Greater divergence among regions by September 2020 compared to the beginning of the year.
- London's ratings show that speed of access in the capital continues to be more challenging than in other parts of the country.
- After a challenging spring in 2019, the East of England appeared to be making steady progress, but its ratings have fallen sharply since the summer, a decline closely matched in the South East region.
- Fast access ratings have been broadly static in the North West.
- The South West saw patient experience improve throughout the summer of 2019 and has largely managed to maintain its ratings, though we see more volatility developing throughout the Covid period.

# Fast access continued…



National mean

mean

East London Health and Care Partnership
North London Partners in Health and Care
North West London Health and Care Partnership
Our Healthier South East London
South West London Health and Care Partnership
Buckinghamshire, Oxfordshire and Berkshire West
Kent and Medway
Hampshire and the Isle of Wight
Surrey Heartlands Health and Care Partnership
Sussex and East Surrey Health and Care Partnership
Bath and North East Somerset, Swindon and Wiltshire
Bristol, North Somerset and South Gloucestershire
Devon
Dorset
Somerset
Bedfordshire, Luton and Milton Keynes
Cambridgeshire and Peterborough
Hertfordshire and West Essex
Mid and South Essex
Norfolk and Waveney Health and Care Partnership
Suffolk and North East Essex
Birmingham and Solihull
Coventry and Warwickshire
Herefordshire and Worcestershire
Joined Up Care Derbyshire
Northamptonshire
Nottingham and Nottinghamshire Health and Care
The Black Country and West Birmingham
Cumbria and North East
Humber, Coast and Vale
South Yorkshire and Bassetlaw
West Yorkshire and Harrogate (Health and Care Partners
Cheshire and Merseyside
Greater Manchester Health and Social Care Partnership
Healthier Lancashire and South Cumbria
Other

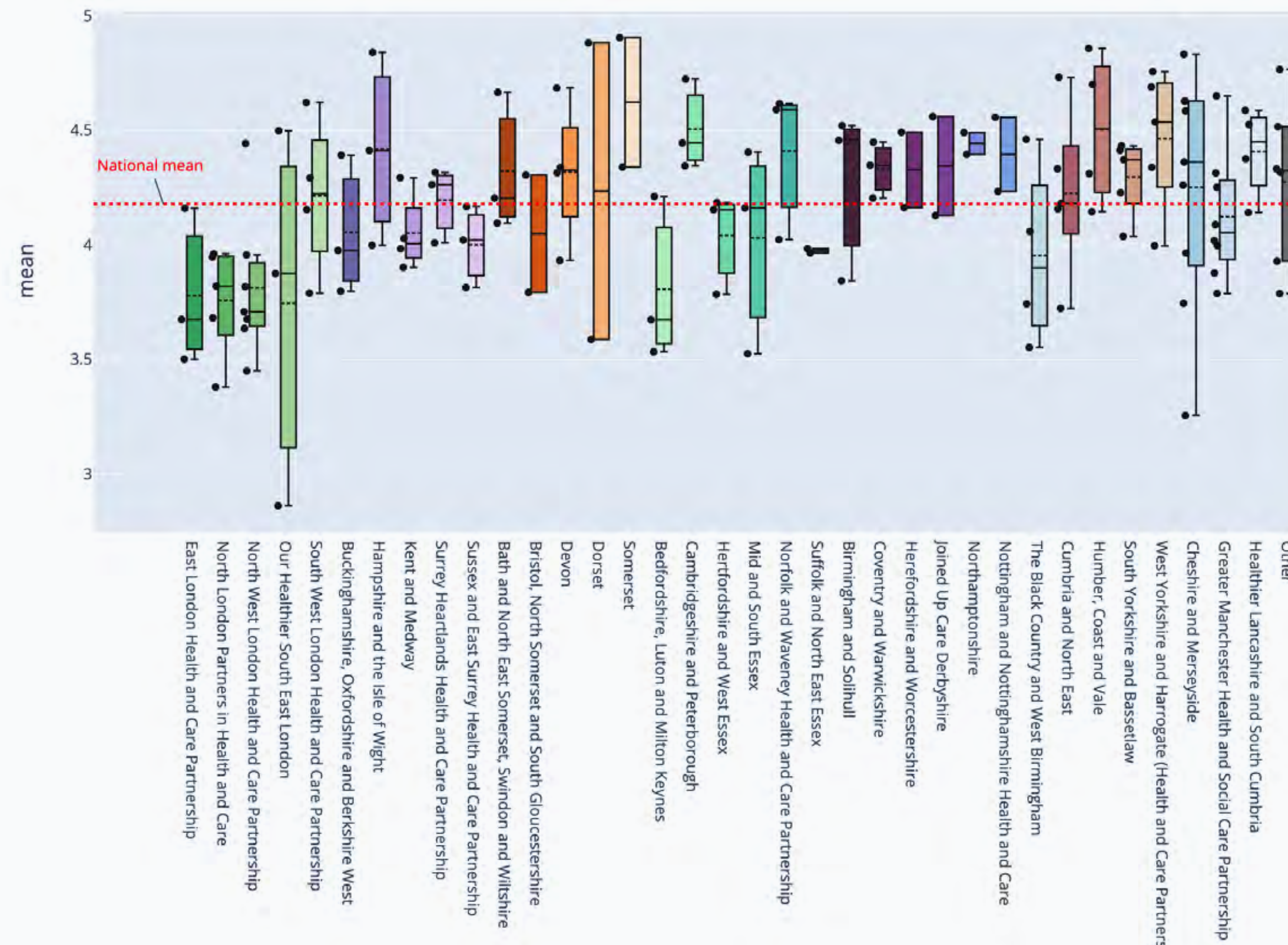**Moving average fast access score by STP –
3 months to Sep 2020**

- The Midlands most closely mirrors the national picture.
- The North East and Yorkshire has improved more than any other region over the past six months and, at least until the end of September, appears to be maintaining its high ratings.

As with other measures, these regional trends mask variation both at provider and STP-level.

## Variation in speed of access by STP

The box plots show variation across STPs in 'fast access' scores over the past three months. As with other box plots in this paper, the dots represent the mean ratings for individual trusts over that period.

Just as we see variation across regions, so we see variation across and within STPs. The larger box plots illustrate significant differences in performance among trusts that may often be geographically quite close. For example we see that in Our Healthier South East London STP, the best performer is comfortably above the national average, but the worst performer lags the country by a considerable margin. Similar variation is seen in areas such as Cheshire and Merseyside, and Dorset. This again illustrates just how much experience can vary even within relatively small geographic areas.

# Fast access
## continued...

### What do the changes in fast access ratings mean?

It is important to remember that these ratings are derived from patients' perceptions of their experiences of care. They are different from and should complement waiting time metrics such as A&E, cancer and RTT waiting time data.

On first consideration, it may appear surprising that fast access ratings have improved during Covid at precisely the same time that median waiting times for elective procedures have risen to historically unprecedented levels.

The key to making sense of this is to understand that of those patients that are being seen, many are seen quickly.

For elective care, the median waiting time for patients yet to begin their treatment increased from 7.5 weeks in February 2020 to 19.6 weeks by July 2020.[3] Yet concurrently, we also saw drops in the median wait for patients who have been admitted, from 11.2 weeks in February down to as low as 3.8 weeks in April.[4] When taken together with the observation that the number of admissions dropped significantly over the same period, this can only be explained by the prioritisation of care towards patients with pressing clinical needs in line with national policy. It is therefore not surprising that our fast access measures, which focus on patients' reported experiences of care received, show a corresponding improvement over this period.

Similarly, for non-elective provision, we see a preponderance of comments expressing relief that anticipated difficulties with access turned out to be unfounded.

By focusing on voluntary real-time patient comments, our fast access measure brings additional and complementary insights to existing metrics that focus on patient numbers and the length of time spent waiting. Specifically, our metrics can pick up on issues that may be hidden by focusing on mean or median waiting time measures, or can give further evidence to back up hypotheses to explain surprising data.

> ❝
>
> I was treated tonight for a head injury after being told by 111 I had to go. Due to everything that's going on at the minute I was dreading going however it is the quietest I've ever seen A and E and people were getting seen too quickly. I was seen by a doctor and a junior doctor, who were amazing and a credit to our NHS. Thank you.

[3] Incomplete RTT pathway. Source: https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/
[4] Admitted RTT pathway. Source: ibid

# The Covid 'bump' – cause or correlation?

"

I was extremely worried and quite anxious, not only about my condition, but of course about the possibility of coming into contact with Covid 19. It appeared that I was the only patient there, the waiting rooms were empty and the experience was a little eerie. However, the staff, from the security guards, to the receptionist, the nurse and the doctor, were absolutely brilliant. All my questions answered, and my treatment explained by the lovely doctor.

We have already shown that once we begin to delve below the national average it becomes immediately clear that patients report quite varied experiences across different geographies. We see differences among neighbouring providers, and even within the same organisation patient experience in one department can diverge dramatically from another, showing where improvements should be targeted.

This variation has continued throughout the Covid outbreak, so while overall public perceptions of the NHS have improved since March 2020, patients' reported experience of care is a more complex story.

As has been widely reported, Covid has seen a sharp reduction in the number of people seeking care. All areas have been affected, with the number of GP appointments falling precipitously, a suspension of 'routine' secondary care and a sharp drop in the number of patients presenting with potentially life-threatening conditions such as suspected cancer and stroke.

The overall impact of these unprecedented changes on the service's ability to cope will depend on whether patients' willingness to seek care has generally fallen at a faster or slower rate than service restrictions caused by Covid-related infection control practices, and the requirement to free acute hospital capacity in anticipation of a surge in Covid-related demand. PEP Health can help monitor patients' experience of these changes in real time.

As we report in our section on fast access, patients' actual experience of care during the pandemic differs from their expectations prior to receiving care. This reset of expectations may contribute to a rise in ratings, but by scrutinising the comments of patients we can go deeper into the causes of increased patient satisfaction. A common experience reported by patients in the Covid period, once they have entered an acute setting, is that they then encounter staff with more time to care, and lower on-the-day waiting times than usual. This supports the view that on average there has been an objective change for the better in the delivery of care.

Patient comments also point to a possible displacement effect, whereby patients who might usually have sought a GP appointment were pleased to receive instead fast access to care from their acute provider.

Of course, what goes up can come down. As the highly unusual circumstances of the summer of 2020 change, and the service rightly focuses on encouraging more patients to seek care, capacity will inevitably be placed under greater pressure. It is therefore quite possible that as services begin to show increasing signs of pressure heading into the winter, we may see a change in the overall direction of patients' comments.

Because our analysis is carried out in close to real time, we can track changes which through more traditional mechanisms may take much longer to identify. We already see signs of stress. Individual trusts are increasingly diverging from the mean as they attempt to respond to new pressures and resume service requirements.
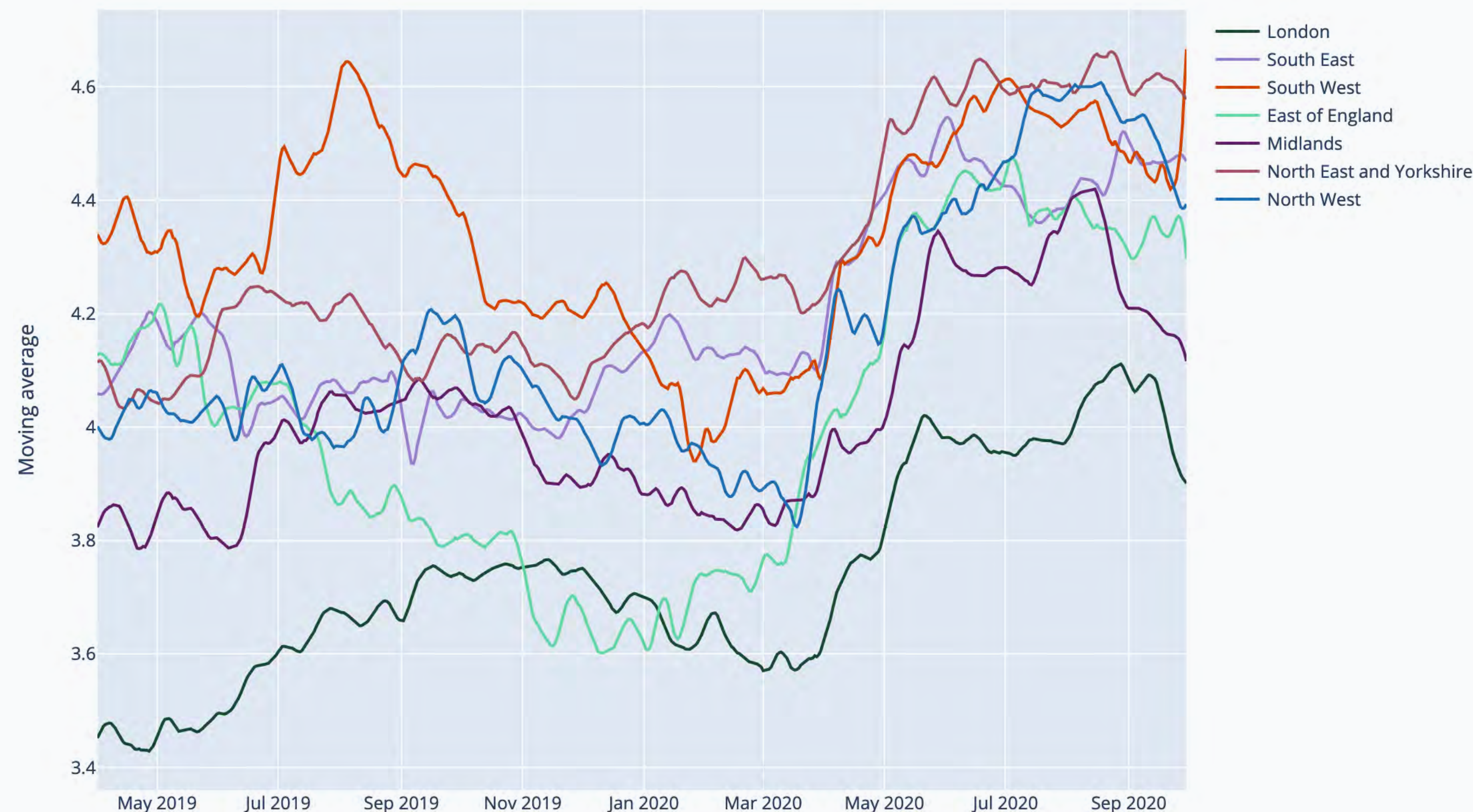
# Maternity



**Maternity moving average by region**

Legend: London, South East, South West, East of England, Midlands, North East and Yorkshire, North West

Y-axis: Moving average (3.4, 3.6, 3.8, 4, 4.2, 4.4, 4.6)

X-axis: May 2019, Jul 2019, Sep 2019, Nov 2019, Jan 2020, Mar 2020, May 2020, Jul 2020, Sep 2020

**Maternity change over time across the regions**

Just as we can segment comments by care quality domain, so we can focus on specific departments and specialties within trusts. With maternity, we again see markedly differentiated patterns across the regions.

As with other measures, these show a rise in positive ratings in March 2020. Two regions, South West and North East & Yorkshire, dominate the highest scores. With the exception of these two regions, we also see a concerning downward shift in performance over the past four weeks, which perhaps reflects wider pressures on the NHS beginning to mount as providers aim to bring services back to 'normal' levels following the first Covid wave.

This decline since mid to late August is especially noticeable in the Midlands and London. In the Midlands we see a wider spread of ratings than in other areas. Encouragingly, East of England has managed to rise from being the lowest-ranking region at the end of last year to a reasonably stable and more positive position.
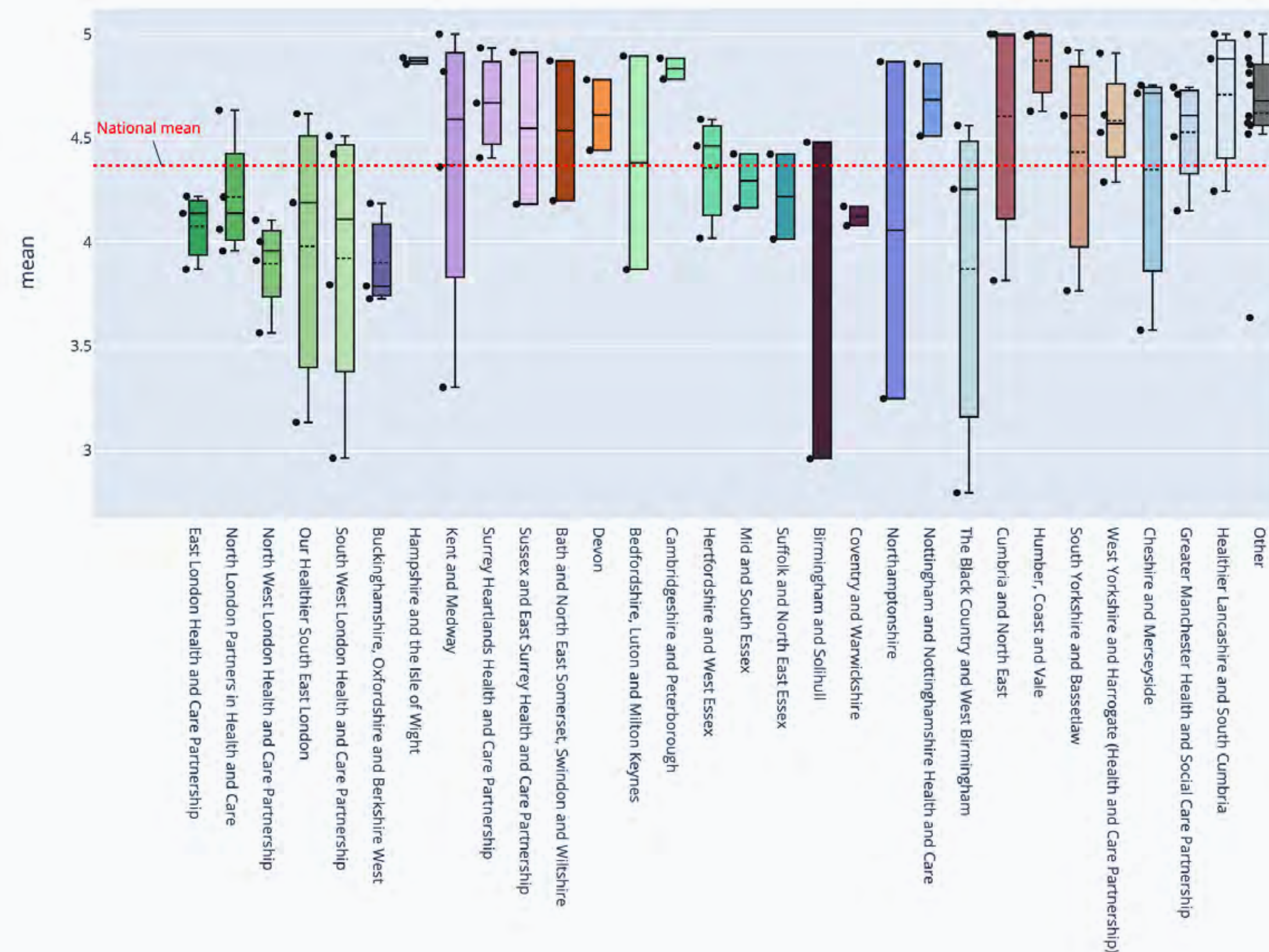
66

The staff - every single nurse, doctor, assistant or otherwise have been so pleasant and helpful. They really cared about our baby and her needs.

# Maternity continued…



National mean

**Moving average maternity score by STP –
3 months to Sep 2020**

## Maternity variation by and within STPs

As with care quality domains, we see considerable variation in performance within regions. The box plots show variation across STPs in maternity scores over the past three months. As with other box plots in this paper, the dots represent the mean ratings for individual trusts over that period. Those STPs with just one trust with sufficient maternity ratings are grouped together in the 'Other' category to preserve anonymity.

As with other STP-level box plots, we can see how provision often varies among locations that are geographically very close. We see considerably more variation in maternity scores than in other metrics. Several of the country's maternity services achieve ratings at level 5 sustained over reasonably long periods.

The performance of these trusts is cause for celebration and their achievements should be beacons of excellence from which others can learn. At the same time, it is clear that some neighbouring trusts within the same STPs have scores that are considerably lower, some among the lowest in the country.

From a policy perspective, decision makers will need to consider whether such variation in performance is acceptable, and if not, how to improve learning within local healthcare communities so that the same high-quality care can be made more widely available. From a management perspective, there is a pressing need to be aware of this variation and to act accordingly, especially where patients routinely identify concerns.

Pregnant women have the right to choose where they will give birth, and this data from PEP health can help inform the action needed to avoid the lottery of care and to enable positive choices.

# Maternity continued...



**Maternity examples from London**

## Maternity in London

London, like other regions of the country, shows significant variation among different providers.

The maternity ratings below all fluctuate, some with ratings heading in opposite directions. For example, the trusts represented by the red and the green lines (Provider B and Provider C) follow a pattern that is broadly consistent with the national picture – i.e. a rise in performance during summer and early autumn last year, a dip over the winter, and then a sizeable Covid 'bump'.

However, other trusts show different patterns. Provider A (the blue line) has risen steadily over the course of the past 18 months and provider E (the orange line) gradually declined up to the Covid period but has since risen significantly.

Worryingly, ratings for all the London trusts shown, and across the region more generally, show a distinct fall beginning in the last two weeks of September.

❝

Amazing midwives. They were kind, caring and helpful throughout... I found it quite distressing that my husband had to leave me hours after having my first baby... Had I known this I definitely would have chosen a different hospital.

# Royal Surrey Foundation NHS Trust case study



**Royal Surrey NHS Foundation Trust**

**Pioneers of patient-led quality improvement**

- In the top 3 nationally for emotional support to patients (non-specialised hospitals).
- In the top 10 nationally for maternity services (non-specialised hospitals).
- 11th nationally for effective treatment (non-specialised hospitals).

The Royal Surrey Foundation Trust, with its strategic focus on learning together and continuously improving, has long recognised the value of patient feedback and is one of the best performing trusts in the country for a positive patient experience. An early adopter of the tool, the trust has used it to enable a more direct, real-time connection between patient feedback and service delivery, as well as giving meaningful feedback to its front-line clinicians. Following feedback from the trust, PEP Health enhanced the tool to include alerts for any positive or negative feedback posted on social media, enabling the trust to proactively respond and manage any such comments made. Its divisional teams are also able to access the online dashboard and see feedback in real time and identify any trends.

The trust plans to build on this over the coming months by bringing other datasets into the reporting, for example the Friends & Family Test, to build up a broad picture and explore new ways to enhance the use of patient feedback in assurance processes.

"

It's a challenging time for the NHS and, as we adjust our services throughout the pandemic, access to real-time insights into patient feedback and experience is really important to us. Over time, we hope to build this data into a wider picture that includes surveys and other data points. We were attracted to this approach because of the potential to support a culture of continuous Quality Improvement, based on rapid learning from what matters to our patients and what they're experiencing. We are increasingly seeing that it's also a powerful tool to help us celebrate positive feedback and share it with our teams, which is a great benefit from a staff perspective.

**Nick Sands, Director of Transformation,
Royal Surrey NHS Foundation Trust**

# Independent providers

As well as NHS provision, PEP Health has collected information on independent providers across the country.

While we segment comments along the same care quality domains and by department, the results are not directly comparable with NHS organisations because the nature of the comments frequently differs, and the focus of private provision has changed substantially in response to Covid. Specifically:

- Independent providers typically treat a balance of both NHS patients whose treatment is funded through taxation, and private patients whose treatment is funded either through self-pay or insurance.[5]
- It is common for comments about independent providers to contain references to fees and payment. In general, such comments normally focus on high or unexpected costs, and so are often negative in tone, though occasionally people do comment on value for money.
- Private providers took on a considerable amount of activity during the summer of 2020 as a block contract to assist the NHS with the national effort to tackle Covid. Consequently, a considerable number of patients were diverted towards private provision who previously would have expected to have been treated in NHS services. Again, comments relating to such changes are very specific to the independent sector, which makes it difficult to draw comparative conclusions.

Despite these differences, it is still possible to consider variation among independent providers over time and to identify changes that should prompt deeper investigation.

> "
> I really didn't want to go because of coronavirus... I was terrified to do this because of Covid 19... I was dreading going... I was extremely worried and quite anxious.

---

Amazed at how they continue to be so calm, compassionate and caring in the circumstances... Everything was done so professionally and like clockwork... They really couldn't have done enough for me... The staff were very empathetic, compassionate and professional... Everyone so incredibly kind.
> "

[5] Many NHS organisations also offer treatment to private patients through their Private Patient Units, but the comments we collect for these organisations are overwhelmingly focused on NHS provision.

# Independent providers continued...

The chart shown focuses on quality domains, i.e. overall experience, fast access, emotional support, effective treatment, and appropriate physical environment.
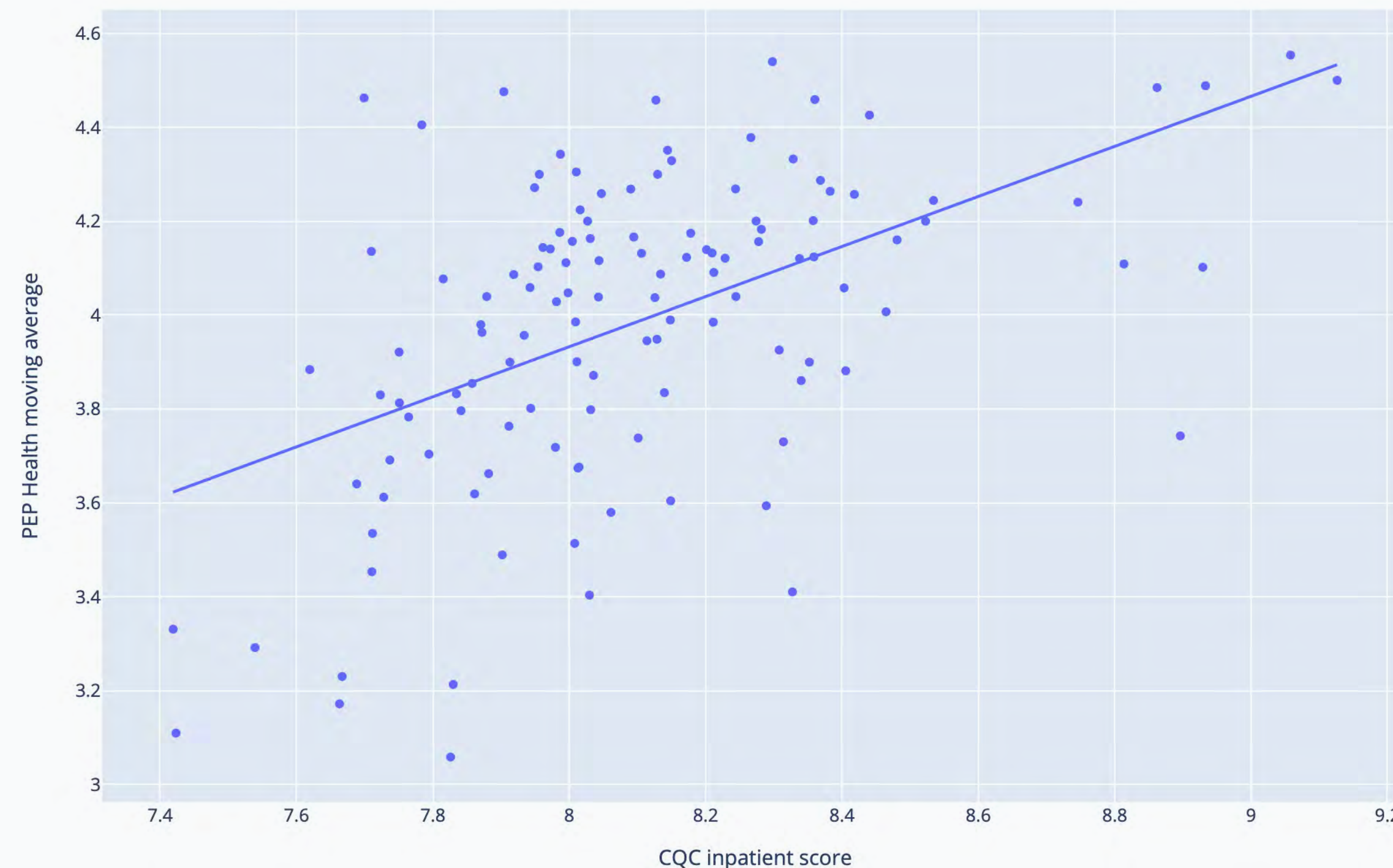
We see:

- Steady declines in most quality domains over the summer of 2019 followed by a steady increase in performance which runs consistently until the summer of 2020. This is a quite different pattern to that observed in the NHS.
- A slight fall in ratings in most domains from their peak levels in August 2020.
- A striking divergence between emotional support ratings, which fall sharply at the end of August, and fast access ratings, which improve over the same period. This could be explained by the increased pressures from the large number of NHS patients being transferred to independent providers as part of the Covid effort. The speed of access facilitated by that contract is reflected in the higher fast access ratings, but conversely the extra pressures that follow squeeze independent providers' capacity to provide higher levels of emotional support to patients.
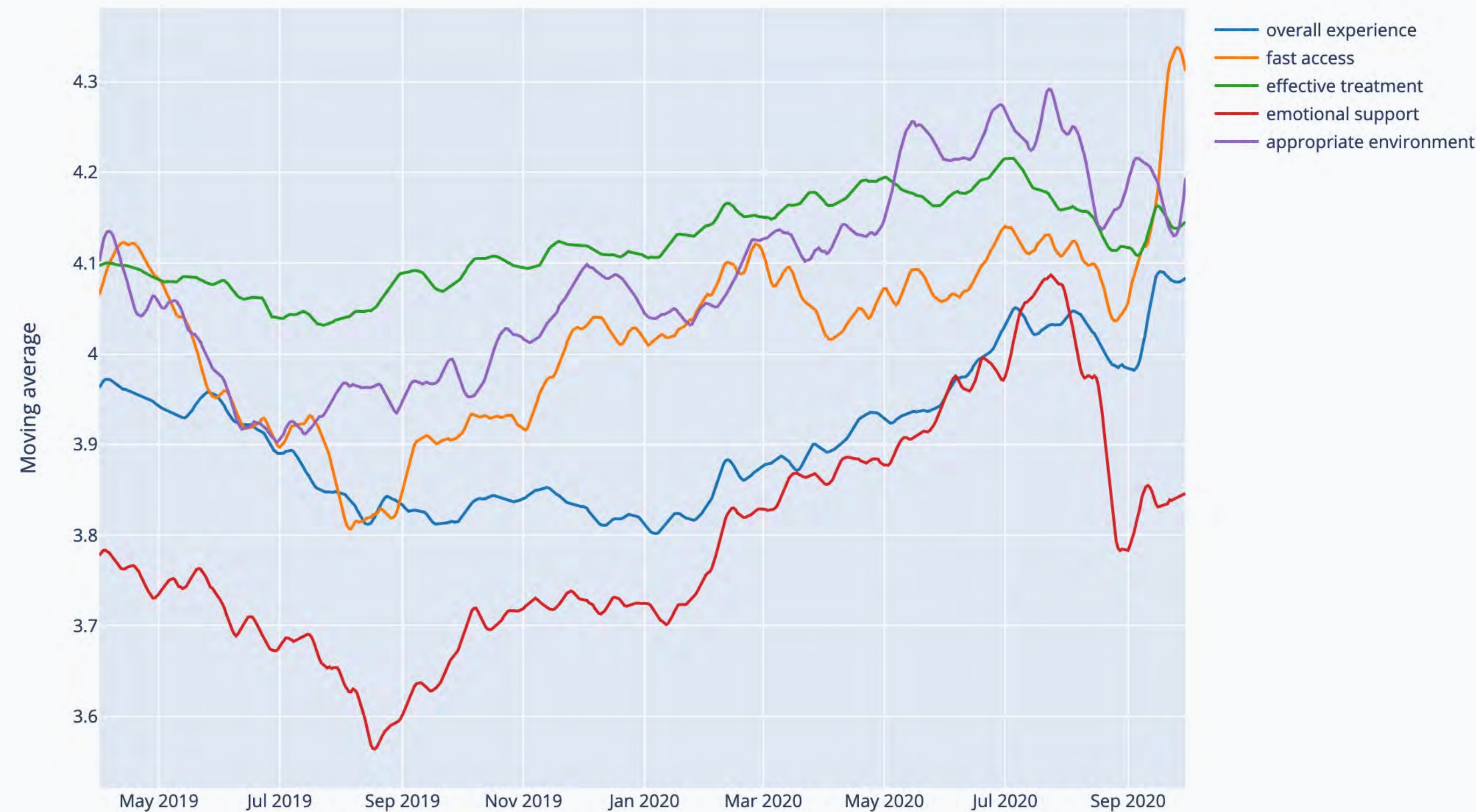


**Independent providers – moving averages**

# How patient comments relate to other datasets



**Each dot represents a trust. Their CQC inpatient overall experience score determines their position on the x-axis, and their y-axis position is their PEP Health overall experience rating for the same time period.**

**Correlation between CQC inpatient survey overall experience and PEP Health overall experience**

## CQC inpatient survey correlation

We believe it is important to understand how PEP Health metrics relate to other indicators of quality. The graph above explores the relationship between the CQC's inpatient survey overall experience scores and PEP Health's overall experience scores.

Although the methodology used by each organisation differs, there is considerable overlap in the meaning of what they are measuring. We see a reasonably strong correlation between the outcomes of the two measures (Pearson = 0.57)[6].

The most recent CQC inpatient survey was published in July 2020, but its fieldwork took place a year earlier in July 2019. We used the same collection period for the PEP Health data in this correlation. We believe there is merit in continuing traditional survey techniques such as the inpatient survey, but we need to be realistic about the operational utility of a survey that takes such long period between fieldwork and publication.

We therefore believe that there is scope to use PEP Health's insights for a more timely and responsive view of how patients rate service provision.

PEP Health's co-founders, Alex Griffiths and Megan P. Leaver, published this research in the BMJ that demonstrates the predictive capabilities of some of PEP Health's early algorithms, and their potential use in identifying high-risk organisations, which could help prioritise CQC inspections.

[6] Where zero is no correlation and 1 is a perfect positive linear relationship.

# Overall experience continued…
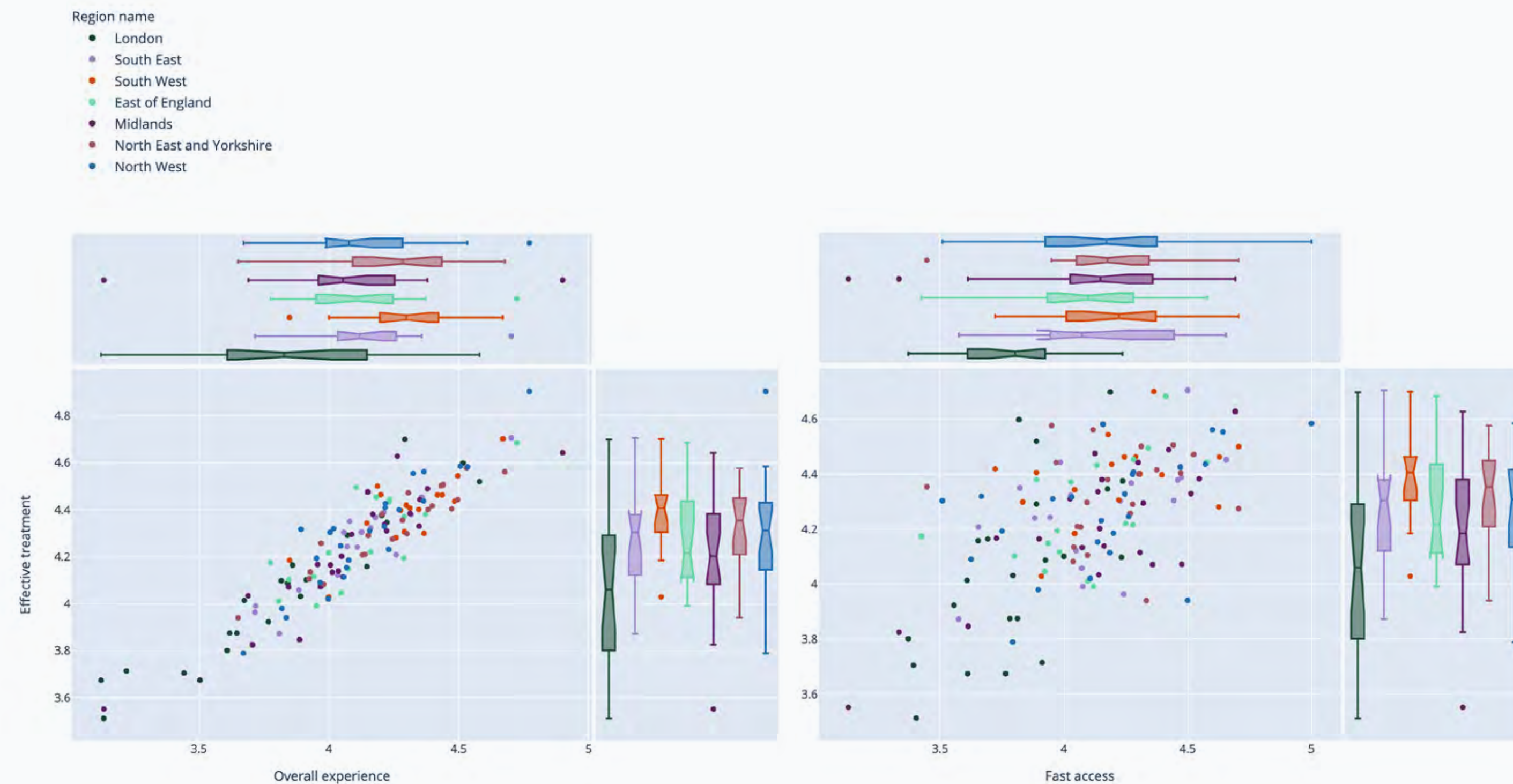


**Effective treatment and overall experience**



**Effective treatment and fast access**

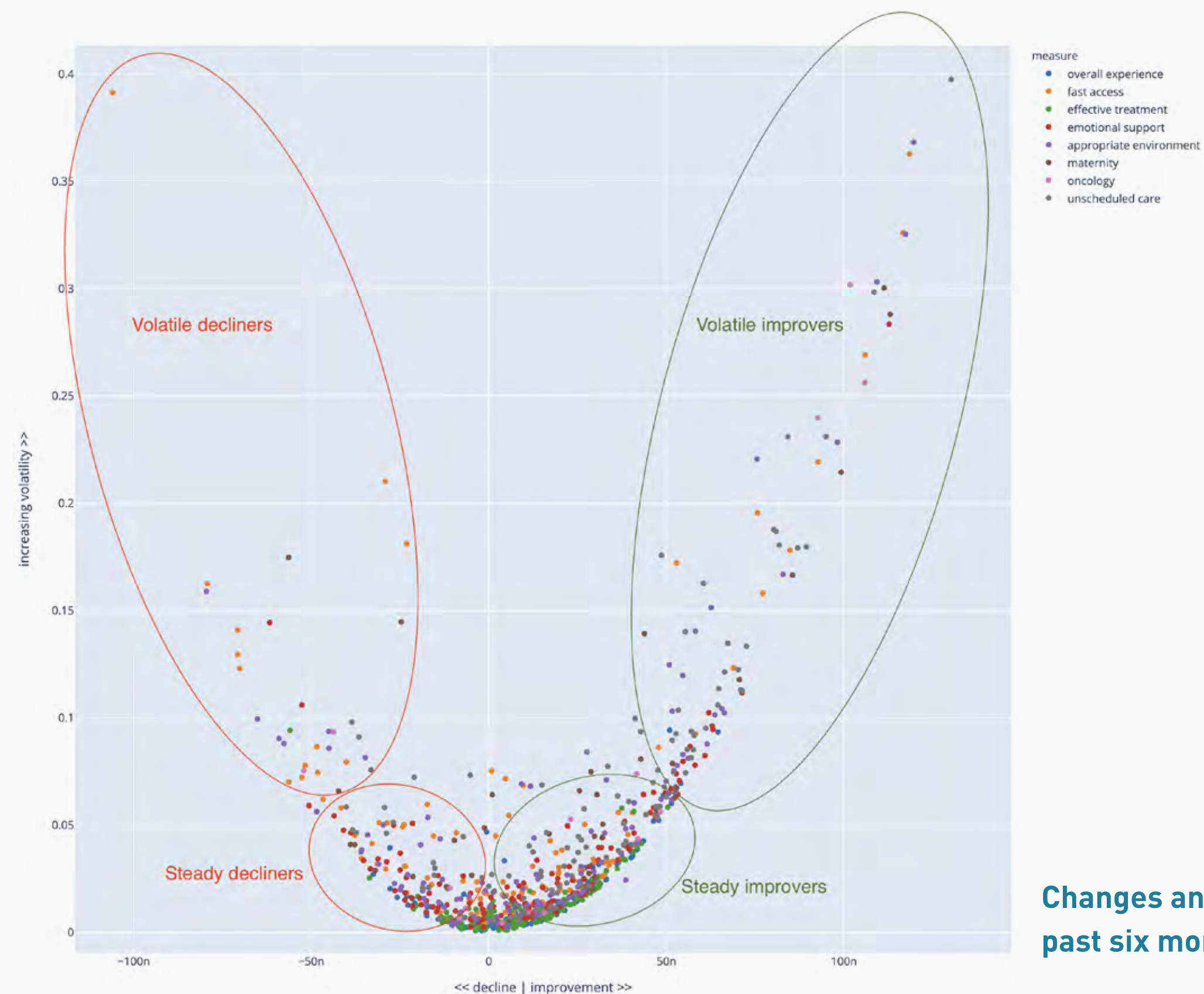**Relationships between different quality domains**

As well as relationships with other datasets, we can identify useful relationships among the metrics collected by PEP Health. The correlation between overall experience and effective treatment is particularly strong (Pearson = 0.92). Emotional support and unscheduled care also demonstrate a significant correlation with overall experience (Pearson scores of 0.66 and 0.72 respectively).

Looking at overlap among the individual quality domains, the strongest relationship is between fast access and effective treatment (Pearson = 0.61).

❝

Was in and out straight away, very good and quick service with very knowledgeable consultant who has finally put my mind at ease.

# Erratic decline or consistent, replicable improvement



**Changes and volatility by measure – past six months**

**Relationships between different quality domains**
Having an accurate understanding of how services are changing is a fundamental step in achieving replicable and sustainable quality improvement.

From our data we see that some organisations manage to improve their ratings, but patient experiences still fluctuate considerably. Others achieve more consistent improvement. This state of steady, replicable improvement is clearly where most providers want to be.

Conversely, some organisations see declines in patient experience ratings. For some, these are relatively steady falls. Others undergo a more chaotic journey. This is the most troubling position because it suggests that those organisations are lacking control and appropriate over-sight to provide consistent effective care. The graph shows where providers sit on these axes. Organisations to the left of the graph show declining performance, and those on the right are improving. The higher up the graph, the more fluctuations in ratings providers experience.

The key point about this plot is that we can quickly and intuitively identify organisations where patients have made comments that should raise concerns. Conversely, we can also identify organisations that are improving consistently. This is our cause for optimism, because all services can benefit if we delve deeper to share our understanding of how those organisations are achieving those sustainable improvements.

## Further information

We would be delighted to hear your thoughts on this report and would welcome the opportunity to share some insights with you that relate to your organisation.

If you would like more information about your region or hospital and to ensure your patients' views on their experience are available to help you with planning and operating your services, please visit **pephealth.ai** or email **enquiries@pephealth.ai**