CVDPREVENT 2024 New Indicator Guide

Department of Health & Social Care

NHS Benchmarking Network

(for new indicators introduced to the audit in July 2024)
Using data to drive cardiovascular disease prevention

HQIP
Healthcare Quality Improvement Partnership

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BACKGROUND

The CVDPREVENT audit is part of a broader strategic objective outlined in the NHS Long Term Plan to prevent 150,000 strokes, heart attacks and cases of dementia over the next ten years. The audit captures primary care data to drive cardiovascular disease (CVD) quality improvement at individual GP, primary care network (PCN), and integrated care board (ICB) level.

The CVDPREVENT Data & Improvement Tool allows you to benchmark national findings and support system change in your local area by viewing data at all system levels from national down to individual practice level. As the audit develops, new indicators are introduced to add to the insights into CVD prevention in primary care, as primary care teams will be able to assess their status and progress against national CVD quality improvement objectives. The indicators have been selected and developed by key stakeholders, including: the CVD Intelligence team that sits within the Office for Health Improvement and Disparities (OHID), NHS Benchmarking Networking (NHSBN), the CVDPREVENT Clinical Lead, Steering Group, Primary Care Clinical Panel and CVDPREVENT Patient Panel.

This guide is intended to give insight to the rationale behind the new indicators as well as the national level position and alignment with national guidance. These indicators have been introduced to the audit and have been published on the Data & Improvement Tool from the March 2024 data extract onwards.

The Round 4 indicators, published in July 2024, are listed below.

New indicator list

CVDP004AF: Percentage of patients aged 18 and over with GP recorded atrial fibrillation whose latest CHADS2 or CHA2DS2-VASc is less than 2 or there is no CHADS2 or CHA2DS2-VASc score recorded, in whom stroke risk has been assessed using the CHA2DS2-VASc score risk stratification scoring system in the preceding 12 months (excluding those patients currently receiving oral anticoagulants).

CVDP005AF: Percentage of patients aged 18 and over, with GP recorded atrial fibrillation and with a CHADS2 or CHA2DS2-VASc score of 2 or more, who were prescribed a direct-acting oral anticoagulant (DOAC), or, where a DOAC was declined, not indicated or contraindicated, a vitamin K antagonist.

CVDP009HYP: Percentage of patients aged 18 and over, with GP recorded hypertension, with a record of a urine albumin:creatinine ratio (ACR) test in the preceding 12 months.

CVDP011CHOL: Percentage of patients aged 18 and over, with GP recorded CVD (narrow definition), who have had a non-HDL (high density lipoprotein) or LDL (low density lipoprotein) cholesterol test within the preceding 12 months.

CVDP002CHD: Percentage of patients aged 18 and over, with GP recorded coronary heart disease, in whom the last blood pressure reading (measured in the preceding 12 months) is to the age appropriate treatment threshold (or equivalent home or ambulatory blood pressure threshold).

CVDP002STRK: Percentage of patients aged 18 and over, with GP recorded stroke or transient ischaemic attack, in whom the last blood pressure reading (measured in the preceding 12 months) is to the age appropriate treatment threshold (or equivalent home or ambulatory blood pressure threshold).

CVDP001HF: Prevalence of GP recorded heart failure in patients aged 18 and over.

CVDP002HF: Percentage of patients aged 18 and over, with GP recorded heart failure, with a record of an eGFR test in the preceding 6 months.

CVDP001BMI: Percentage of patients aged 18 and over, with GP recorded CVD or CVD risk factors, whose notes record BMI (body mass index) status in the preceding 12 months.

ATRIAL FIBRILLATION INDICATORS

Atrial fibrillation (AF) is a heart condition that causes an irregular and often abnormally fast heart rate, in some cases, it can be considerably higher than 100 beats a minute. This can cause problems including dizziness, shortness of breath and tiredness, although sometimes AF does not cause any symptoms and a person who has it is completely unaware that their heart rate is irregular.

The way the heart beats in atrial fibrillation means there's a risk of blood clots forming in the heart chambers. If these enter the bloodstream, they can cause a stroke. AF is a major risk factor for stroke and contributes to one in five strokes. Strokes where AF is a contributory factor are often more severe causing higher mortality and greater disability.

Anticoagulants reduce the risk of blood clotting and are the main treatment for lowering stroke risk in people with AF. For people with AF who are at most risk of stroke, at a population level, the benefits of anticoagulation significantly outweigh the risks of bleeding. Anticoagulation is usually achieved by using oral anticoagulant medication. There are two main types of medications, direct acting oral anticoagulants (DOACs) such as apixaban (this is the preferred option in most cases), or vitamin K antagonists such as warfarin, which are recommended when DOACs are not indicated.

The CHA2DS2-VASc score is used to assess stroke risk in patients with AF. The CHA2DS2-VASc system calculates a score of up to a maximum of nine points based on each of the following risk factors:

- age: <65 (0 points), 65 to 74 (1 point), ≥75 (2 points)
- gender: male (0 points), female (1 point)
- congestive heart failure (1 point)
- hypertension (1 point)
- stroke, transient ischaemic attack (TIA) or thromboembolism (2 points)
- vascular disease (1 point)
- diabetes mellitus (1 point).

A score of 0 indicates low risk, a score of one indicates low to medium risk and a score of 2 or more indicates moderate to high risk. An earlier system, CHADS2, continues to be used for a minority of cases.

NICE guidance suggests that anticoagulation is recommended for people who have scored 2 or more on their risk assessment, and that it should also be considered in men who score one or more in their risk assessment.

For people with AF who are not deemed high risk (that is they have a CHADS2 or CHA2DS2-VASc score of less than 2), ongoing assessment with a CHA2DS2-VASc score can help to identify people whose stroke risk has increased allowing treatment options to be reviewed.

The CHA2DS2-VASc score is used to assess stroke risk and therefore the need for anticoagulation, so once a person is receiving anticoagulation treatment it is not always necessary to repeat the CHA2DS2-VASc score.

CVDP004AF: Percentage of patients aged 18 and over with GP recorded atrial fibrillation whose latest CHADS2 or CHA2DS2-VASc is less than 2 or there is no CHADS2 or CHA2DS2-VASc score recorded, in whom stroke risk has been assessed using the CHA2DS2-VASc score risk stratification scoring system in the preceding 12 months (excluding those patients currently receiving oral anticoagulants).

This indicator aims to support the identification of people with atrial fibrillation who are at increased risk of stroke so that they may be offered anticoagulation drug therapy. It counts the number of patients with a diagnosis of AF who are at a low risk of stroke (CHADS2 or CHA2DS2-VASc score of less than 2) or who have no CHADS2 or CHA2DS2-VASc score recorded on their record, who have had their CHADS2 or CHA2DS2-VASc score recorded in the previous year. Patients who are already receiving anticoagulant therapy are not included in this indicator as clinically their CHA2DS2-VASc score does not always need to be repeated.

Repeating the CHADS2 or CHA2DS2-VASc score regularly in people who are at low stroke risk means that if the risk increases (for example if a patient develops diabetes or heart failure) it can be identified quickly, and anticoagulation treatment can be considered to reduce the stroke risk.

Type of indicator: This is a CVDPREVENT treatment monitoring indicator.

Associated guidance: NICE guidance NG196, recommendations 1.6.14 and 1.6.15

Using this indicator: Differing levels of people with low risk AF who have had a CHA2DS2-VASc score repeated within the previous year, can be an indicator of variation in the quality of care. Patients with no CHA2DS2-VASc score within the previous year may require follow up to reassess the stroke risk with an up to date CHA2DS2-VASc score. Higher proportions of patients in this indicator suggests that patients who are currently deemed low risk have been recently assessed. This indicator can be used to identify areas of good practice and areas for improvement.

The CHADS2 and CHA2DS2-VASc scores incorporate age and sex as integral components in their calculations. Caution is therefore advised when interpreting age and sex specific achievement as it may not be directly comparable across different age and sex groups. Specifically, differences in scores by age and sex include:

- Females who are aged 65 years and older will be assessed as high risk using the CHA2DS2-VASc score (as they will automatically score 2 risk points) even if they have no other risk factors.
- Males who are aged 75 years and older will be assessed as high risk using the CHA2DS2-VASc score (as they will automatically score 2 risk points) even if they have no other risk factors.

In the age group 60-79 there are therefore likely to be fewer females than males in this indicator. This is because, if females are 65 years and older and have had a CHA2DS2-VASc score measured they will be excluded from the indicator denominator. Whereas this is only the case for males aged 75 years and older. The 80 and over age group is not presented as nobody in this age group should have a CHA2DS-VASc score below 2, although they are included in the broader analysis.

National position: 78.8% of patients with low risk AF (CHA2DS2-VASc score of less than 2) at the end of March 2024 have had the CHA2DS2-VASc score repeated in the previous year, which translates as 71,487 people within the audit sample.

Click here to find the full metadata for this indicator.

CVDP005AF: Percentage of patients aged 18 and over, with GP recorded atrial fibrillation and with a CHADS2 or CHA2DS2-VASc score of 2 or more, who were prescribed a direct-acting oral anticoagulant (DOAC), or, where a DOAC was declined, not indicated or contraindicated, a vitamin K antagonist.

This indicator counts the number of patients with AF who are at high risk of developing a stroke (CHADS2 or CHA2DS2-VASc score of 2 or more), and who are receiving anticoagulation therapy. Oral anticoagulants are recommended for people deemed at a high risk of stroke. In this indicator the DOAC medication is prioritised over the vitamin K antagonists, which are only counted as a valid therapy option if there is evidence that a DOAC is contraindicated, not clinically indicated, or refused by the patient.

This indicator is similar to the AF008 Indicator that is reported in the Quality and Outcomes Framework (QOF). CVDPREVENT does not include all the data that is collected in QOF on the contraindications for DOAC usage and has incomplete data on the effectiveness of anticoagulation using vitamin K antagonists (time in therapeutic range). This means that the QOF and CVDPREVENT indicators are similar but may be slightly different in their findings at a local level.

Type of indicator: This is a CVDPREVENT treatment indicator.

Associated guidance: NICE guidance NG196, recommendations 1.6.1 to 1.6.8

Using this indicator: Differing levels of treatment can be an indicator of variation in the quality of care. Higher proportions of patients receiving DOACs (or vitamin K antagonists if DOACs are not indicated or declined by the patient) can represent better quality of care. Lower proportions could indicate lower levels of DOAC or vitamin K antagonist prescribing. This indicator can be used to identify areas of good practice and areas for improvement.

National position: 89.6% of patients with AF and at a high risk of stroke were receiving DOACs, or vitamin K antagonists if DOACs are not indicated or refused at the end of March 2024. This translates as 906,967 people within the audit sample at the end of March 2024.

Click here to find the full metadata for this indicator.

HYPERTENSION INDICATOR

High blood pressure, or hypertension, rarely has noticeable symptoms. If untreated, hypertension increases the risk of serious health problems such as heart attacks and strokes.

Chronic kidney disease (CKD) is a term used worldwide to mean any form of kidney disease that continues for more than a few months. There are various stages of CKD, ranging from mild loss of kidney function to complete kidney failure. People are classified as grades one to five (G1-G5), with grades three to five representing more severe disease.

Hypertension and CKD occur commonly together: previous CVDPREVENT analysis from the first annual report has suggested that, overall, one in every six people with hypertension have GP recorded CKD. This varies by age with more than one in three people aged 80 and over with hypertension also having a CKD diagnosis. CKD is often asymptomatic and may remain undetected, however early diagnosis and treatment can reduce disease progression. So regular testing of people with hypertension for CKD can help to identify people with the condition.

A simple urine test called the urine albumin:creatinine ratio (ACR) is performed to look for signs that protein is leaking into the urine (a condition called albuminuria or proteinuria). This is an important sign of kidney damage. ACR testing is the first line test for assessing proteinuria, however in some cases, protein:creatinine ratio (PCR), rather than ACR, should be requested where non-albumin proteinuria is suspected. The NICE Clinical Knowledge Summary (CKS) hypertension management guidance scenarios suggest that kidney function (including a urine ACR) should be checked every year for signs of possible kidney disease.

CVDP009HYP: Percentage of patients aged 18 and over, with GP recorded hypertension, with a record of a urine (ACR) test in the preceding 12 months.

This indicator counts the number of people with hypertension who are having an ACR or PCR test performed. ACR testing can help to identify people with kidney disease. As CKD is common in people with hypertension, regular testing will help to identify people with undiagnosed kidney disease. This may mean that they are more likely to be reviewed or investigated further and, if appropriate, offered ongoing lifestyle advice, monitoring and treatment in accordance with NICE guidance. People with pre-existing CKD (grades 3a to 5) are removed from this indicator as the focus of this indicator is to identify undiagnosed CKD in hypertensive patients.

Type of indicator: This indicator is a CVDPREVENT monitoring indicator.

Associated guidance: NICE CKS hypertension management: 'How should I review the person annually?'

Using this indicator: Differing levels of treatment can be an indicator of variation in the quality of care. Higher proportions of patients with hypertension receiving regular ACR testing can represent better quality of care. This indicator can be used to identify areas of good practice and areas for improvement.

National position: 28.6% of patients aged 18 and over with a diagnosis of hypertension and with no CKD had an ACR test in the previous year. This translates as 1,954,947 people within the audit sample at the end of March 2024.

Click here to find the full metadata for this indicator.

CHOLESTEROL INDICATOR

Cholesterol reduction can be beneficial for the secondary prevention of CVD. It is important to identify and address modifiable risk factors and, if appropriate, use lipid lowering therapy for cholesterol reduction. Regular cholesterol testing is recommended to help to guide the different treatment options.

CVDP011CHOL: Percentage of patients aged 18 and over, with GP recorded CVD (narrow definition), who have had a non-HDL (high density lipoprotein) or LDL (low density lipoprotein) cholesterol test within the preceding 12 months.

This indicator includes people with the diseases below:

- Coronary heart disease (CHD)
- A non-haemorrhagic stroke or TIA
- Peripheral arterial disease (PAD)

See CVDP007CHOL for full definitions of the above diseases.

Type of indicator: This indicator is a CVDPREVENT monitoring indicator.

Associated guidance: NICE guidance CG238, recommendation 1.11.9

Using this indicator: Differing levels of cholesterol monitoring can be an indicator of variation in the quality of care. Higher proportions of patients receiving regular cholesterol testing can represent better quality of care. This indicator can be used to identify areas of good practice and areas for improvement.
Caveats: People eligible for secondary prevention of CVD with lipid lowering therapy is specified in the NHS and Accelerated Access Collaborative (AAC) lipid management pathway. The pathway suggests secondary prevention in the listed groups:

- angina
- previous MI
- revascularisation
- stroke or TIA
- symptomatic peripheral arterial disease

Not all these fields are available in the CVDPREVENT dataset. For this reason, we are approximating those groups using people with GP recorded CHD, non-haemorrhagic stroke or TIA, and PAD.

National position: 79.2% of patients with GP recorded CVD had been tested for cholesterol in the previous year at the end of March 2024. This translates as 2,076,815 people within the audit sample at the end of March 2024.

Click here to find the full metadata for this indicator.

CORONARY HEART DISEASE (CHD), STROKE AND TRANSIENT ISCHAEMIC ATTACK (TIA) INDICATORS

Coronary heart disease (CHD) is sometimes called ischaemic heart disease or coronary artery disease. It is the term that describes what happens when your heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries.

A stroke is a serious life-threatening medical condition that happens when the blood supply to part of the brain is cut off. A transient ischaemic attack (TIA) or "mini stroke" is caused by a temporary disruption in the blood supply to part of the brain. The disruption in blood supply results in a lack of oxygen to the brain.

Blood pressure control can help to reduce the progression of CVD. Blood pressure can be managed through lifestyle changes, medications, or both. Following a diagnosis of CHD, stroke or TIA, regular monitoring, and a reduction of blood pressure to specific treatment thresholds is recommended to reduce the risk of disease progression. There are different treatment thresholds for blood pressure depending on a person's age:

- for adults aged 79 years and under with CHD, stroke or TIA, reducing clinic blood pressure to below 140/90 mmHg is recommended
- for adults 80 years and over with CHD, stroke or TIA, reducing clinic blood pressure to below 150/90 mmHg is recommended

Blood pressure thresholds differ between clinic and home settings because blood pressure can be raised in formal settings such as in clinic. When using ambulatory blood pressure monitoring (ABPM) or home blood pressure monitoring (HBPM) to monitor the response to treatment, average blood pressure treatment thresholds should be reduced to:

- below 135/85 mmHg for adults aged 79 years and under
- below 145/85 mmHg for adults aged 80 and over

CVDP002CHD: Percentage of patients aged 18 and over, with GP recorded coronary heart disease, in whom the last blood pressure reading (measured in the preceding 12 months) is to the age appropriate treatment threshold (or equivalent home or ambulatory blood pressure threshold).

CVDP002STRK: Percentage of patients aged 18 and over, with GP recorded stroke or transient ischaemic attack, in whom the last blood pressure reading (measured in the preceding 12 months) is to the age appropriate treatment threshold (or equivalent home or ambulatory blood pressure threshold).

Type of indicator: These indicators are CVDPREVENT treatment indicators.

Associated guidance: NICE guidance NG136, recommendations 1.4.20 to 1.4.24

Using this indicator: These are 'all age' blood pressure management indicators. They combine two age dependant hypertension management thresholds to give an 'all age' summary. Differing levels of treatment can be an indicator of variation in the quality of care. These indicators measure two processes: regular blood pressure measurement and treatment to the threshold levels. Higher proportions of patients managed to threshold can represent better quality of care, whereas lower levels can represent either low

levels of testing, low numbers of people achieving the blood pressure treatment thresholds, or both. These indicators can be used to identify areas of good practice and areas for improvement.

National position: 79.0% of patients with GP recorded CHD and 76.0% of patients with GP recorded stroke or TIA had achieved the age appropriate BP threshold in the previous year at the end of March 2024.

Click here to find the full metadata for the CHD indicator.

Click here to find the full metadata for the stroke indicator.

HEART FAILURE INDICATORS

Heart failure is a condition in which the heart does not pump enough blood to meet all the needs of the body. It usually happens because the heart has become too weak or stiff. It is a long term condition that tends to get gradually worse over time. It cannot usually be cured, but the symptoms can often be controlled for many years. Treatment for heart failure usually aims to control the symptoms for as long as possible and slow down the progression of the condition.

Regular reviews of people with heart failure are associated with improvement in quality of life and a reduction in the need for urgent hospitalisation. NICE's guidance on chronic heart failure recommends short monitoring intervals if the clinical condition or medication has changed and longer intervals for people with stable heart failure.

CVDP001HF: Prevalence of GP recorded heart failure in patients aged 18 and over.

This indicator counts the number of people with a GP record of heart failure. Identifying people with heart failure may mean that they are more likely to be reviewed or investigated further and, if appropriate, offered ongoing lifestyle advice, monitoring and treatment, in accordance with NICE guidance.

Type of indicator: This indicator is a CVDPREVENT prevalence indicator.

Associated guidance:

- Chronic heart failure in adults: diagnosis and management. NICE guideline NG106
- Acute heart failure: diagnosis and management. NICE guideline CG187

Using this indicator: Differing levels of people with a GP diagnosis of heart failure can reflect higher or lower prevalence of heart failure in the population, it can also reflect the levels of case ascertainment of the condition. Lower proportions of patients in this indicator could represent fewer people with heart failure in the population, or lower levels of testing for heart failure and lower case ascertainment. High levels may indicate more people with heart failure or better levels of case ascertainment. Local knowledge is required to aid the interpretation of the prevalence figures.

National position: 1.3% of patients aged 18 and over have a GP record of heart failure in the CVDPREVENT audit. This translates as 624,921 people within the audit sample at the end of March 2024.

Click here to find the full metadata for this indicator.

CVDP002HF: Percentage of patients aged 18 and over, with GP recorded heart failure, with a record of an eGFR test in the preceding 6 months.

This indicator counts the number of people with a GP diagnosis of heart failure who have been tested for kidney function (using an estimated glomerular filtration rate (eGFR) test) in the previous 6 months. NICE guidance suggests that all people with chronic heart failure should undergo monitoring and that this monitoring should include assessment of renal function.

Monitoring frequency should depend on the clinical status of the patient but is advised at least 6 monthly for people with stable heart failure. The most common test for kidney function is the eGFR. The eGFR is a measure of how much blood (in millilitres) is 'cleaned' by the kidneys in one minute. By using a blood test to measure creatinine levels, the eGFR can be calculated.

Type of indicator: This indicator is a CVDPREVENT monitoring indicator.

Associated guidance: Chronic heart failure in adults: diagnosis and management. NICE guideline NG106, recommendations 1.7.1 and 1.7.3

Using this indicator: Differing levels of monitoring can be an indicator of variation in the quality of care. Higher proportions of patients being monitored with kidney function tests can represent better quality of care. This indicator can be used to identify areas of good practice and areas for improvement.

National position: 74.4% of patients with GP recorded heart failure had a record of an eGFR test in the preceding 12 months at the end of March 2024. This translates as 465,128 people within the audit sample at the end of March 2024.

Click here to find the full metadata for this indicator.

BMI INDICATOR

Obesity is directly linked to several different conditions as a risk factor, including CVD.

The body mass index (BMI) is a measure of whether you are a healthy weight for your height. NICE's guideline on obesity identifies consultations for managing long term conditions as an opportunity to record a person's BMI. Recording BMI can encourage conversations about weight management interventions (where this is appropriate for the patient).

CVDP001BMI: Percentage of patients aged 18 and over, with GP recorded CVD or CVD risk factors, whose notes record BMI (body mass index) status in the preceding 12 months.

The purpose of this indicator is to support regular weight monitoring in people with long term conditions to identify weight gain and weight loss. It counts the number of patients who have a GP diagnosis of the conditions that are listed below, who have had their BMI recorded in the previous 12 months

CVD and CVD high risk conditions included in this indicator:

- coronary heart disease (CHD)
- stroke or transient ischemic attack (TIA)
- peripheral arterial disease (PAD)
- heart failure (HF)
- diabetes mellitus (DM)
- non-diabetic hyperglycaemia (NDH)
- familial hypercholesterolaemia (FH)
- chronic kidney disease (CKD)
- hypertension
- atrial fibrillation (AF)

Note that abdominal aortic aneurysm (AAA) is not included in this indicator.

Type of indicator: This indicator is a CVDPREVENT monitoring indicator.

Associated guidance: Obesity: identification, assessment, and management. NICE guideline CG189, recommendations 1.2.4, 1.2.7 and 1.2.8

Using this indicator: Differing levels of people with the listed conditions who have had their BMI recorded in the previous year can be an indicator of variation in the quality of care. Lower proportions of patients in this indicator could represent lower BMI monitoring or lower levels of BMI recording. This indicator can be used to identify areas of good practice and areas for improvement.

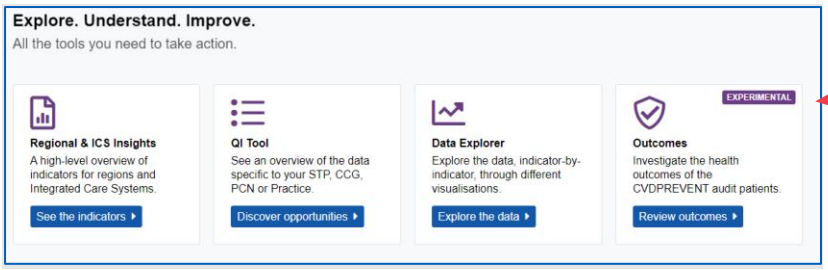
National position: 60.5% of patients aged 18 and over with the listed CVD related conditions had a BMI recorded in the previous 12 months. This translates as 7,707,720 people within the audit sample at the end of March 2024.

Click here to find the full metadata for this indicator.

CVDPREVENT DATA & IMPROVEMENT TOOL

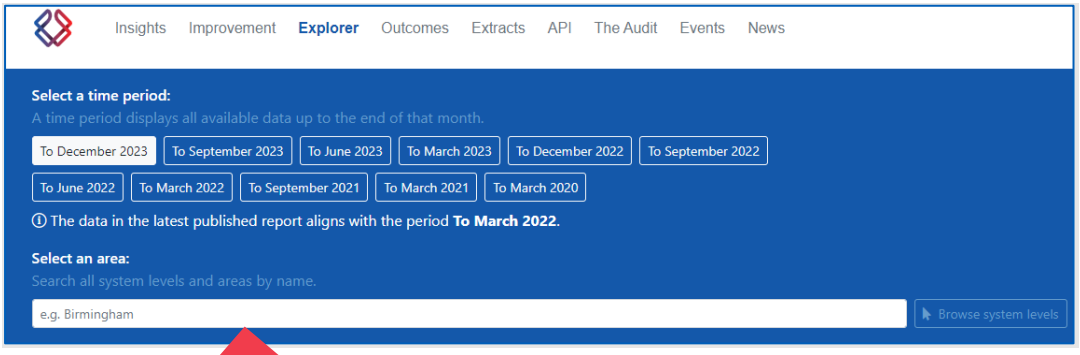
Go to the Data & Improvement Tool to find out how your organisation is performing against these new indicators.

How to use the Data & Improvement Tool:



1. There are four main sections of the tool.

These new indicators can be found on the Regional & ICS Insights, QI Tool and Data Explorer sections.



2. Use the blue bar to find the information that is relevant to you.

Choose the time period and type in your chosen area, or 'browse system levels' to choose your ICB, region, sub-ICB PCN or practice.

3. Navigate through the charts displaying time series, health inequalities markers and benchmarked comparative charts.