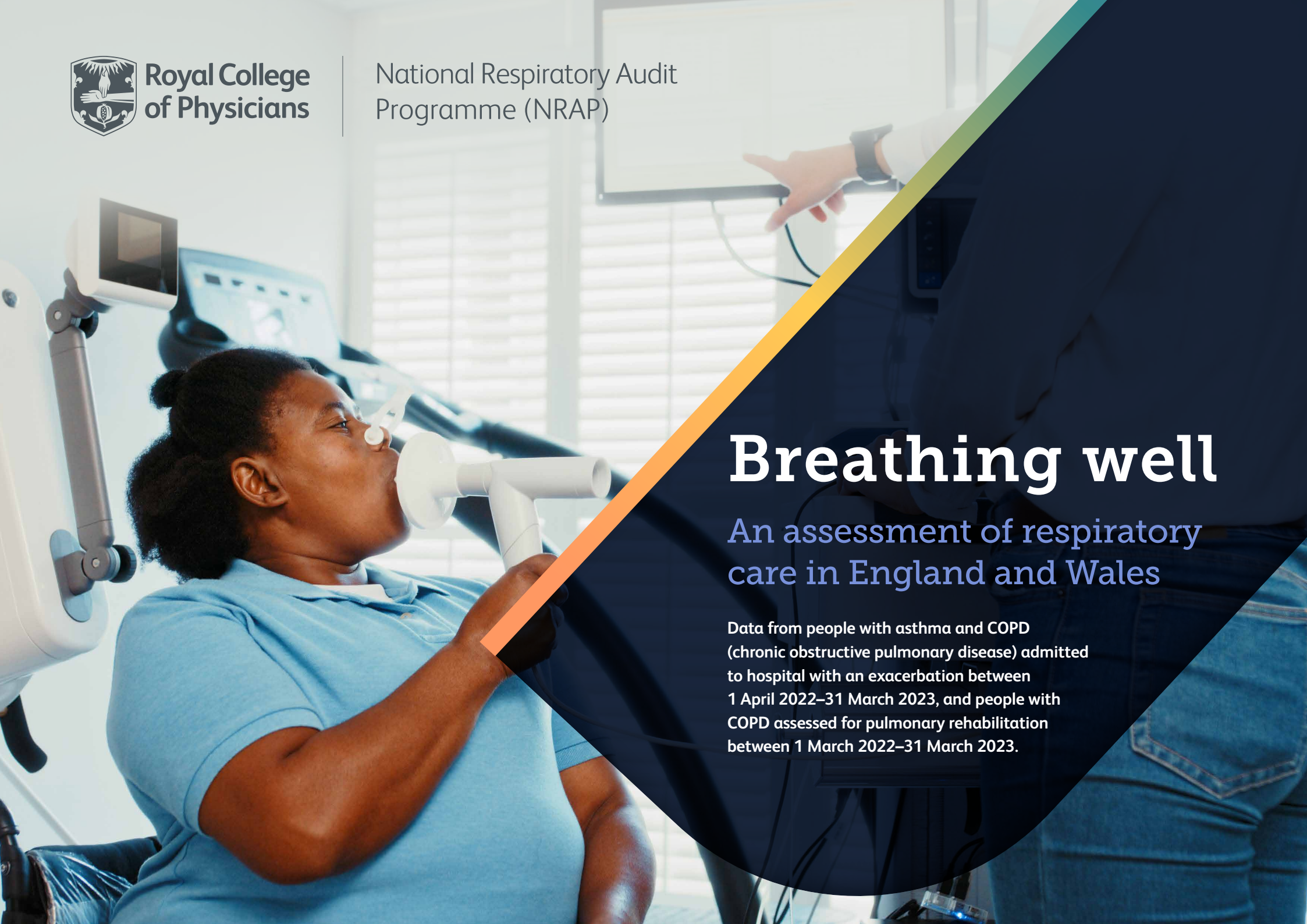

Royal College of Physicians

National Respiratory Audit Programme (NRAP)

Breathing well

An assessment of respiratory care in England and Wales

Data from people with asthma and COPD (chronic obstructive pulmonary disease) admitted to hospital with an exacerbation between 1 April 2022–31 March 2023, and people with COPD assessed for pulmonary rehabilitation between 1 March 2022–31 March 2023.

In association with:

ARNS
Association of Respiratory Nurses

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Commissioned by:

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Healthcare Quality Improvement Partnership

Funded by:

NHS England

Ariennir yn Rhannol gan **Lywodraeth Cymru**
Part Funded by **Welsh Government**

Introduction

We know how distressing the impact of chronic respiratory symptoms can be. They can shrink peoples' lives, leading to inactivity and isolation at all ages and stages of life. Moreover, chronic lung diseases have stark health inequalities, with significantly different morbidity and mortality outcomes depending on geography, ethnicity, and level of deprivation.

Across all care settings there are high-value and transformative interventions that are proven to be effective irrespective of a person's background or circumstances. For people with lung problems, it is often the lack of diagnosis and timely subsequent support that is a major driver of health inequalities.

A national programme of work led by NHS England is focusing on supporting systems to provide an early and accurate diagnosis and, building on that, the fundamentals of care which can help people better manage their conditions.

Delivered at scale, this has the potential to enhance quality of life, reduce hospitalisations and improve healthy life expectancy.

Much of this work aligns closely with the National Respiratory Audit Programme (NRAP): bundles of care to include inhaler optimisation, tobacco addiction support and linkage to community teams for ongoing management, as well as quality provision of pulmonary rehabilitation. The work of NRAP also supports people to receive high-quality and timely specialist care in hospital at the time of crisis, receiving the best evidenced care if diagnosed with conditions such as pneumonia.

Building on its role to support improvements in care, NRAP's greater focus on making submission and collection of data easier is very much welcomed. Increasing case ascertainment and making that information accessible to more of the NHS maximises the impact of the data collected, helping us tell the story of respiratory care in the NHS and building the case for investment and improvement in respiratory pathways.

There is enormous change happening right across the NHS now, and despite the relentless pressure on services, this does bring a great opportunity for the respiratory community. Over the next couple of years, integrated care boards (ICBs) will be taking on more responsibility for NHS services, including those that are specialised such as interstitial lung disease and asthma. At the same time, efforts are being made to create strong neighbourhood teams and support work across organisational boundaries.

In summary, there are significant opportunities to capitalise on the change that is underway across healthcare systems and the commitment to closer working between the NHS and NRAP gives us a strong platform to transform outcomes for our patients.

Dr Jonathan Fuld
National clinical director for respiratory disease,
NHS England

Case ascertainment and service participation

This report has been compiled using data from the 676 services in England and Wales that participated in the National Respiratory Audit Programme.

These data were informed by 117,340 case records relating to people with asthma and COPD (chronic obstructive pulmonary disease) admitted to hospital with an exacerbation between 1 April 2022–31 March 2023, and 23,024 case records relating to people with COPD assessed for pulmonary rehabilitation between 1 March 2022–31 March 2023. Case ascertainment data can be found here.

Click through on any metric to download a data table providing the relevant data broken down at national and service level.

How to use this report

We have a range of resources online to support the report:

- Our online infographic highlights key findings from the report.
- The full methodology outlining how the analysis was carried out is available to download, alongside a glossary.
- The line-of-sight table describes the evidence base for the recommendations in the report.
- Full data files are available to download 10 days after publication at data.gov.uk.
- Live benchmarking for key performance indicators is available on our website.

This report supports our healthcare improvement strategy. Our good practice repository contains real-world examples to support local improvement.

The infographics throughout show the reported data for 2022/23 alongside the data from 2021/22. Please note that the 2022/23 and 2021/22 figures are not directly comparable as methodology, definitions and criteria surrounding data collection have changed over time.

Making an impact

NRAP works with patient panels run by Asthma + Lung UK (adults) and the Royal College of Paediatrics and Child Health (children and young people) to ensure our audit programme focuses on improvements in the areas most important to people living with respiratory conditions.

The Asthma &Me Ambassadors are aged 13–21 and have joined together from across the country with a shared mission mission to improve asthma care and services for children and young people. Some of them have personal experiences of asthma, others have an interest through family or friends, all have a passion to make a difference. They have collected voices from children, young people and families, and hope to represent their voices in NRAP, with the support the support of decision makers to take action and implement the changes they say are needed.

The Asthma &Me Ambassadors want the project to include more campaigns on asthma awareness in schools and better information sharing between health services. They also want to explore how NRAP can play a part in improving air quality and early and accurate diagnosis.

	COPD		Adult asthma		Children and young people asthma (1-5)		Children and young people asthma (6+)		Pulmonary rehabilitation	
	n	%	n	%	n	%	n	%	n	%
Country										
England	62,907	–	15,889	–	4,886	–	5,647	–	22,494	–
Wales	3,499	–	812	–	427	–	249	–	530	–
All	66,406	–	16,701	–	5,313	–	5,896	–	23,024	–
Gender										
Men	29,538	44.5	4,823	28.9	3,356	63.2	3,465	58.8	11,584	50.3
Women	36,783	55.4	11,849	70.9	1,954	36.8	2,427	41.2	11,405	49.5
Transgender	13	0	5	0	0	0	<5	0	6	0
Other	<5	0	<5	0	0	0	<5	0	<5	0
Age										
Median	73	–	50	–	3	–	9	–	70	–
Lower quartile	65	–	34	–	2	–	7	–	63	–
Upper quartile	79	–	65	–	4	–	12	–	76	–
IMD quintile										
1	23,874	36	4,971	29.8	1,626	30.6	1,893	32.1	5,834	25.3
2	15,794	23.8	3,874	23.2	1,206	22.7	1,382	23.4	5,247	22.8
3	11,756	17.7	3,063	18.3	945	17.8	1,019	17.3	4,557	19.8
4	8,862	13.3	2,534	15.2	860	16.2	849	14.4	4,031	17.5
5	5,553	8.4	2,088	12.5	643	12.1	700	11.9	3,159	13.7
Not recorded	567	0.9	171	1	33	0.6	53	0.9	196	0.9
Cases reported to HES (England) and PEDW (Wales), and via NRAP survey for pulmonary rehabilitation										
	122,161	–	37,033	–	16,467	–	–	–	30,956	–
Cases entered into NRAP audit										
	66,406	–	16,701	–	11,155	–	–	–	23,024	–
Case ascertainment (%)										
	–	54.4	–	45.1	–	67.5	–	–	–	76.1

Table 1: Admissions for exacerbations of COPD and asthma (adults and children and young people) between 1 April 2022–31 March 2023 and assessments of people with COPD for pulmonary rehabilitation between 1 March 2022–31 March 2023, by socio-demographic characteristics. Case ascertainment is presented as a single combined figure for children and young people with asthma of all ages.

1. Health inequalities and respiratory health

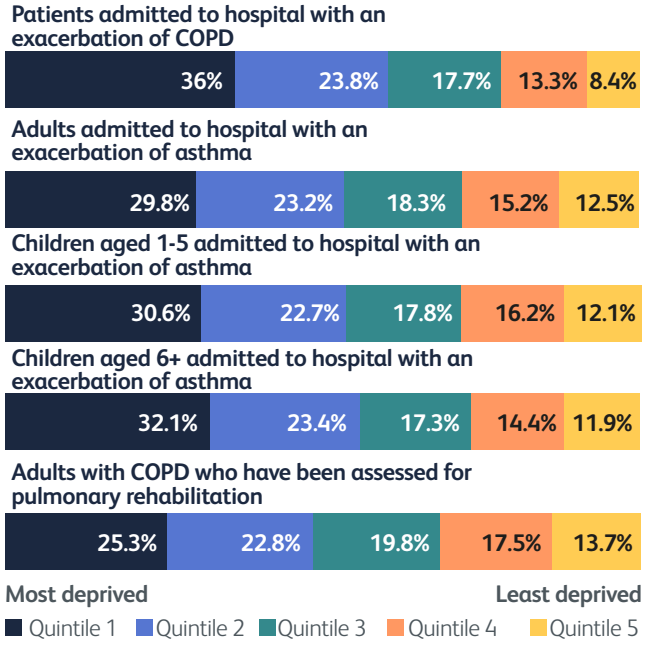


Table 2: Admissions between 1 April 2022–31 March 2023 and pulmonary rehabilitation assessments between 1 March 2022–31 March 2023, by IMD quintile.

Note: The population as a whole is divided into five equal groups (quintiles) based on indices of deprivation. This chart shows the highest proportion of people admitted to hospital admitted to hospital and those assessed for pulmonary rehabilitation for pulmonary rehabilitation live in the most deprived quintile.

There is a national focus on health inequalities in respiratory care, as outlined in the NHS Long Term Plan and the Core20PLUS5 approaches for all age groups.[1] Among people admitted to hospital with a COPD or asthma exacerbation, the highest proportion of people live in the most deprived quintile (see table 2). Importantly, in our current analyses, we have not observed that key outcomes related to the quality of care as inpatients vary based on the level of deprivation of a person's postcode. This suggests that the interaction between socio-economic inequalities and important clinical outcomes, including hospitalisation and mortality, are complex and driven by deep-rooted structural and societal factors associated with respiratory ill-health. Even though we need to see an improvement in the wider drivers of respiratory outcomes, it is crucial that we do everything we can to ensure that the standard of care given to all patients, regardless of their background, is as high as it can be.

Moving forward, NRAP will focus on further examining factors associated with inequality in clinical outcomes, such as ethnicity, gender, age and geographical location. To do this, we need participating healthcare organisations to enter the best quality data they can, from as many eligible patients as possible, to improve the validity of our analysis and limit biases in the clinical dataset. This will provide greater insight into how groups experiencing health inequalities are present in different geographies, which local systems can use when working together to address these inequalities.

Across England and Wales, national, regional and local decision-making organisations, including respiratory clinical networks where available, should ensure that they are systematically engaging with people with lived experience to develop their understanding of where and how people fall through the gaps in service provision. Insights should be used to inform planning and resources of respiratory services.

Recommendation 1

Integrated care boards and local health boards should ensure that they achieve 100% service participation and that services achieve a minimum 50% case ascertainment in NRAP audits by May 2026. This will require all hospitals having named NRAP clinical leadership and dedicated audit support.

2. Identifying, treating and reducing the impact of tobacco dependency

The percentage of all patients who had smoking status, or second-hand smoking exposure, recorded.

COPD

92.8%

2021/22: 92.5%

Adults with asthma

91.3%

2021/22: 91.8%

Children and young people (CYP) with asthma (aged 11+)

44.7%

2021/22: 42.1%

Children and young people (CYP) second-hand smoke exposure recorded

58.8%

2021/22: 37%

The percentage of smokers offered a referral to smoking cessation services as part of a discharge bundle.

COPD

60.5%

2021/22: 56.8%

Adults with asthma

69.4%

2021/22: 69.1%

Children and young people (CYP) with asthma (aged 11+)

72.7%

2021/22: 54%

Children and young people (CYP) parent or carer

36.0%

2021/22: 37%

Proportion of people recorded as being current smokers in each audit.

COPD

35.3%

2021/22: 35.1%
2019/20: 35.5%
2018/19: 34.2%

Adults with asthma

19.0%

2021/22: 21.6%
2019/20: 22.7%
2018/19: 20.7%

For people with COPD admitted to hospital, a substantial proportion who have their smoking status recorded are current smokers. This figure has been above 35% since 2019/20. For adults with asthma, the figure is currently 19%. Of these groups, around a third of patients with COPD or asthma are not given support to quit smoking while in hospital.

Tobacco dependence is a major driver of preventable death, ill health and health inequality in patients with lung disease. Identifying patients as current smokers, or as being exposed to second-hand smoke, and providing evidence-based support and treatment for tobacco dependency at any age gives extra years of life, slows lung function decline and increases the clinical effectiveness of respiratory medications such as inhaled steroids.[2]

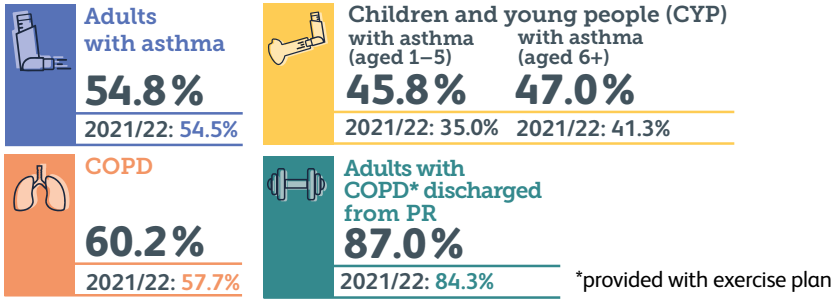
Identifying smokers in hospital during an acute admission and offering them evidence-based treatment is a key healthcare improvement goal for NRAP. Ultimately this should support the ambitions in the NHS Long Term Plan in England, and the Tobacco Control Delivery Plan in Wales, to deliver a universal opt-out service available to all inpatients who smoke.[3] The NHS Long Term Plan requires all inpatients to have access to NHS-delivered smoking cessation services by 2023/24 so all healthcare professionals should be trained in how to provide 'very brief advice' and treatment, and support patients at every opportunity to quit smoking.

Recommendation 2

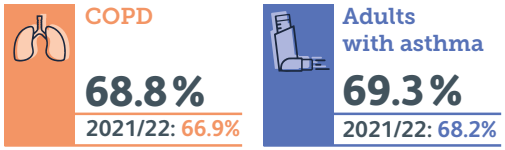
All people with COPD and asthma who smoke, and smokers who are parents of children and young people with asthma, should be offered evidence-based treatment and referral for tobacco dependency. In England, the Department of Health and Social Care, NHS England and integrated care boards should work together to provide increased resource to all acute, mental health and maternity services in England, so that every provider develops and implements a comprehensive inpatient tobacco dependency service.

3. Supporting self-management

The percentage of patients with documentation of a current self-management plan following an admission to hospital due to an exacerbation:



The percentage of patients who had a documented inhaler technique check before discharge from hospital:



Our data show around half of people with asthma and over a third of people with COPD are not receiving an up-to-date self-management plan when they are discharged from hospital. When patients leave a healthcare setting, whether it's a hospital or a GP surgery, they should know the 'why' behind their medications, the 'how' of using their inhalers effectively, the 'when' for timely interventions, and the 'what' to do in emergencies. This ensures that patients exercise their autonomy to seek support sooner rather than later, and actively participate in their wellbeing. A self-management plan should seamlessly integrate into a patient's routine, align with their daily life and refine what already works for them.

Recognising that patients are experts in their conditions is crucial. They inherently know the ebb and flow of their own health and this foundation of self-awareness is where self-management support should begin. Many patients are already adept at self-management and intuitively understand what makes them feel better. Healthcare professionals have a role to build on this existing knowledge, refining patients' self-management strategies for even better outcomes through coproduction of a current self-management plan. The overarching goal is to ensure universal access to self-management plans and support, with key components including the incorporation of digital tools as valuable supplements.

Patients should be supported to be advocates for self-management. Healthcare professionals should encourage the formation of support networks, emphasising peer-to-peer connections and the sharing of their experiences and insights to enhance collective wisdom. This can foster an environment where their self-management is recognised, supported, and fine-tuned collaboratively.

Recommendation 3

All people with asthma and COPD discharged from hospital after an acute event should have a current self-management plan. Where this is not achieved, services should work towards a target of 75% by May 2026. Services should prioritise patient-centred approaches and explore the role of clinically approved digitally supported self-management. In England, integrated care boards should work with providers to ensure that there is adequate resource to support frontline clinicians in the delivery of patient's discharge bundles.

Spotlight on healthcare improvement

The use of self-management plans is a key healthcare improvement priority for NRAP. We will continue to track and report on the improvement of plans being used and reviewed within patients' discharge bundles, and resources for services are available in our good practice repository. NRAP would like to see increased access to primary care data in England so that we can monitor the use of plans in primary care, as is currently tracked in Wales.

4. Timely access to optimal care

COPD

62.0% Percentage of patients with COPD who received a specialist respiratory review within 24 hours of hospital admission.

2021/22: 60.0%

Adults with asthma

48.0% Percentage of patients with asthma who received a specialist respiratory review within 24 hours of hospital arrival.

2021/22: 51.0%

Children and young people (CYP) aged 1–18

85.2% Percentage of children and young people with asthma who are reviewed by a member of the MDT trained in asthma care.

COPD

16.0% Acute treatment with non-invasive ventilation (NIV) within 2 hours of arrival at hospital.

2021/22: 15.6%

Patients who received systemic steroids within 1-hour of arrival at hospital:

Adults with asthma

21.0%

2021/22: 23.0%

CYP aged 6–18

35.0%

2021/22: 31.0%

Patients who received ALL elements of care as defined by the Best Practice Tariff*:

COPD

52.0%

2021/22: 18.7%

Adults with asthma

51.2%

2021/22: 30.1%

Timely access to optimal care was identified by our patient panel as a key priority. Previous audit data has shown that patients seen by specialist respiratory teams are more likely to receive optimal care and more likely to go on to receive specialist follow-up.[4,5] In asthma, for instance, access to specialists is important to improve access to under-utilised NICE-approved treatments including biologics.[6]

Less than a third of people admitted to hospital with asthma and COPD are receiving timely access to key treatments. Only 48% of adults with asthma are reviewed by a specialist within 24 hours of hospital arrival, and 62% of people with COPD are reviewed within 24 hours of admission. While this may reflect wider pressures on NHS urgent and emergency care, it should not be viewed as intractable. Sharing good practice and ensuring enhanced support and adequate resource will be critical going forward.

To reduce unwarranted regional variation in receiving timely access to care, healthcare provider teams should plan improvement projects informed by our good practice repository.

Spotlight on healthcare improvement

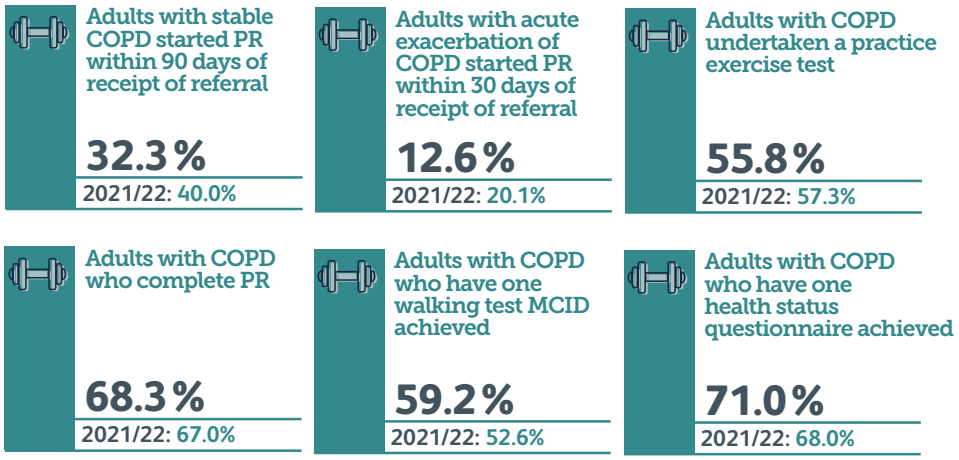
Providing optimal care remains a key healthcare improvement area for NRAP. We suggest the following areas of improvement for services:

- All services should participate in NRAP and achieve a minimum of 50% case ascertainment.
- Hospitals in England should ensure resources generated from achievement of asthma and COPD best practice tariff (BPT) are available to frontline clinical and administrative teams to support NRAP participation and quality improvement.
- Locally collected NRAP data should be reviewed at least annually by both providers and commissioners to monitor delivery of optimal care and drive improvement.
- Specifically, this should generate locally agreed actions plans to improve performance against national guidance on the first hour of care and specialist respiratory review within 24 hrs.

* Adult asthma BPT (England only) mandatory elements – specialist review within 24 hours of admissions, personalised asthma action plan (PAAP) issued or reviewed, inhaler technique review, smoking cessation advice, referral or support I COPD BPT (England only) mandatory elements – specialist review within 24 hours of admission and a discharge bundle to cover the following elements: 1. Understanding medication and inhaler use, 2. Self-management/emergency drug pack 3. Smoking cessation. 4. Referral to pulmonary rehabilitation if appropriate 5. Timely follow-up.

5. Quality and availability of rehabilitation services

Percentage of people with COPD who started PR within recommended timeframes, and who received elements of care which reflect high-quality PR:



Pulmonary rehabilitation continues to be a highly effective intervention for individuals with COPD in England and Wales. However, access to rehabilitation remains compromised, and this year the proportion of people who start PR within recommended timelines has fallen compared with the previous year.

Timely access to rehabilitation is important and the British Thoracic Society's Quality Standards for Pulmonary Rehabilitation propose a 90-day threshold for access in stable disease and 30 days post-discharge.[7] Less than one-third of individuals with stable disease commence rehabilitation within 90 days (which represents an 8% drop from the previous 2021/22 audit). A small proportion (12.6%) of people post-hospital discharge commence rehabilitation within 30 days (representing a similar drop from the previous audit).

International guidance recommends a practice walk at the initial assessment; this has remained stable over the last two audits at 56% (2022/23). A key indicator of a high-quality programme is that these tests are carried out correctly. Over 70% of individuals have important changes in their health status after taking part in PR and almost 60% achieve important changes in their exercise capacity. The number of participants completing a programme after enrolment remains constant at just under 70%.

Recommendation 4

All patients requiring pulmonary rehabilitation should have timely access to the intervention, in line with recommendations from NICE and the British Thoracic Society's clinical statement on pulmonary rehabilitation.[8] Where that's not achieved, services should work towards a target of 70% of patients starting a PR programme within 90 days of referral, and 70% of patients with acute exacerbation of COPD starting within 30 days of referral, by May 2026. In England, integrated care boards should be resourced to create increased pulmonary rehabilitation capacity.

Royal College of Physicians

The Royal College of Physicians (RCP) plays a leading role in the delivery of high-quality patient care by setting standards of medical practice and promoting clinical excellence. The RCP provides physicians in over 30 medical specialties with education, training and support throughout their careers. As an independent charity representing 40,000 fellows and members worldwide, the RCP advises and works with government, patients, allied healthcare professionals and the public to improve health and healthcare.

Healthcare Quality Improvement Partnership

The National Respiratory Audit Programme (NRAP) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges and the Royal College of Nursing. Its aim is to promote quality improvement in patient outcomes, and in particular, to increase the impact that clinical audit, outcome review programmes and registries have on healthcare quality in England and Wales.

HQIP holds the contract to commission, manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies www.hqip.org.uk/national-programmes.

National Respiratory Audit Programme (NRAP)

National Respiratory Audit Programme (NRAP) aims to improve the quality of the care, services and clinical outcomes for patients with respiratory disease across England and Wales. It does this by using data to support and train clinicians, empowering people living with respiratory disease, and their carers, and informing national and local policy. NRAP has a track record of delivery and is critical in assessing progress against the NHS Long Term Plan. To find out more about the NRAP visit our website.

Acknowledgements

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NRAP Board
NRAP patient panels

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