

# National COPD Audit Programme

**An exercise in improvement**

Pulmonary rehabilitation 2017  
Clinical and organisational audits

**Findings and quality improvement**

# The audit programme partnership

Working in strategic partnership:



Supported by:



# Report overview

- Combined results from **clinical** and **organisational** snapshot audits
- Including data from **consenting** patients and registered services from England and Wales for the early 2017 audit period



## Participation




Royal College  
of Physicians




National COPD Audit Programme

**Pulmonary Rehabilitation:  
An exercise in improvement**

National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Clinical and organisational audits of pulmonary rehabilitation services in England and Wales 2017

National report  
February 2018

Prepared by:  
 Royal College  
of Physicians

In partnership with:  
   British  
Thoracic  
Society

Setting higher standards



# Key findings and recommendations

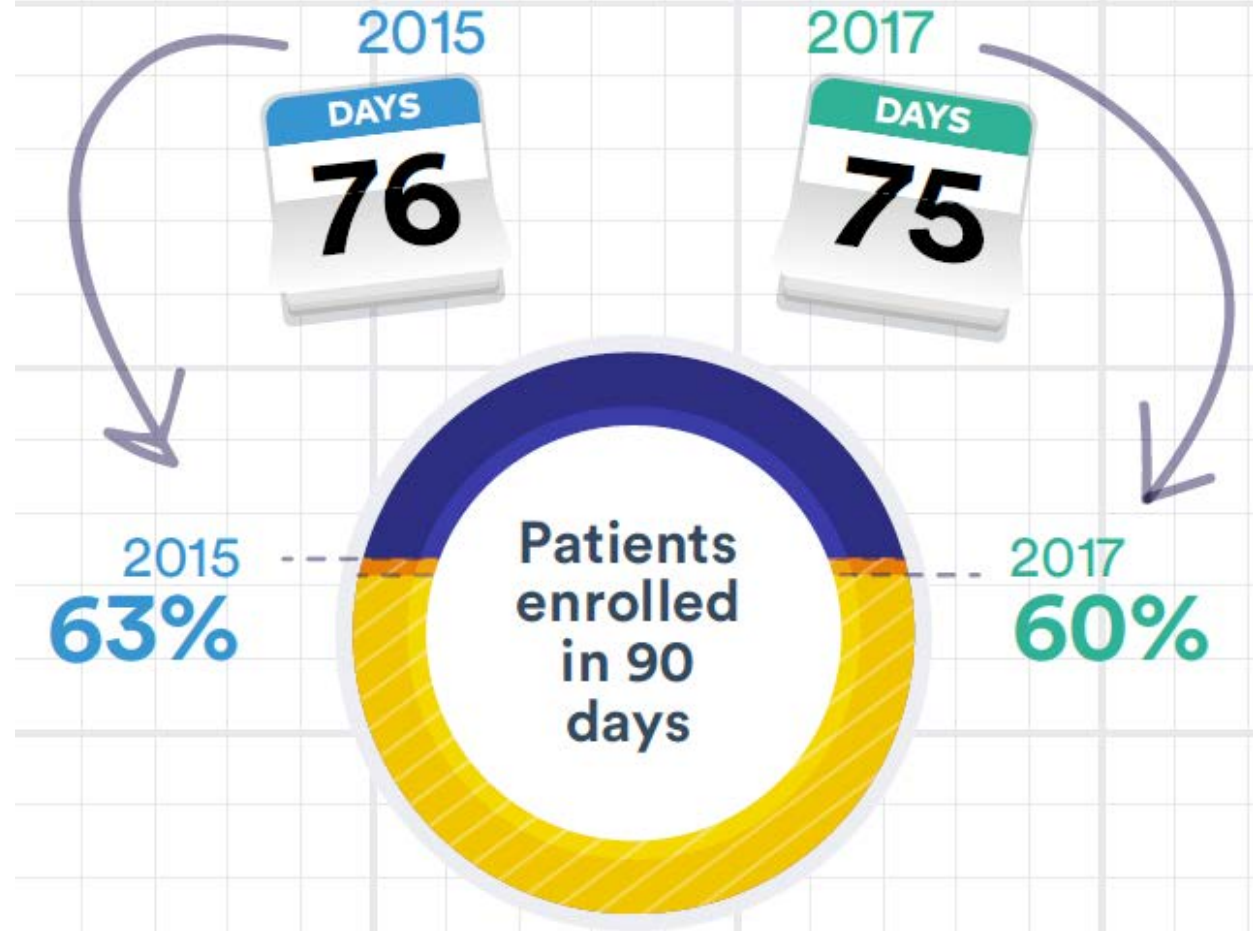




# Access to PR

## Key findings

The median waiting time between referral receipt and PR enrolment overall:





# Access to PR

## Key findings

Waiting times are **longer** for **cohort** than **rolling** programmes:

Cohort  
programmes



Rolling  
programmes

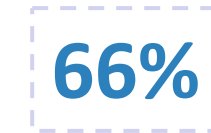


Percentage of patients **starting PR within 90 days** is **higher** in **rolling** than **cohort** programmes:

Cohort  
programmes



Rolling  
programmes

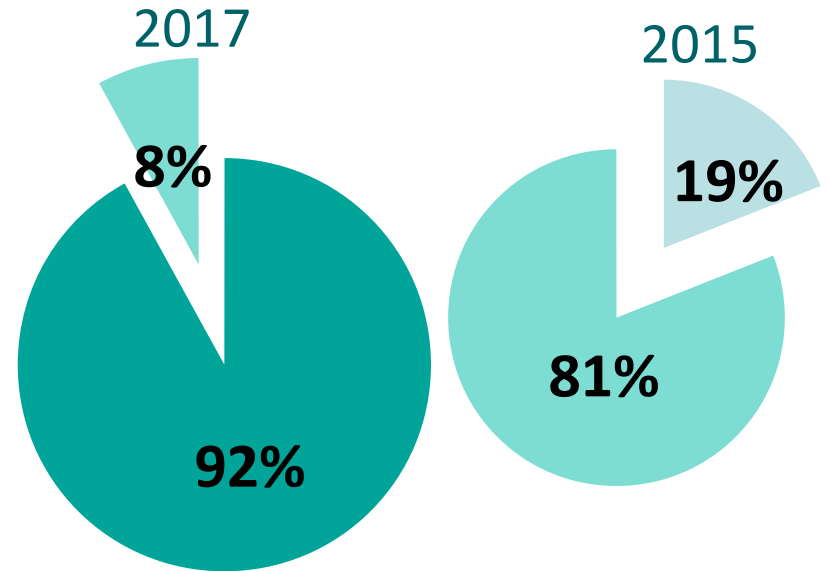




# Access to PR

## Key findings

Whilst the majority of services accepted patients with conditions other than COPD (eg asthma, lung cancer, heart failure), **5% do not**.



**92%** of services accept patients with more severe disability (**MRC grade 5**), compared to **81%** in 2015.





# Access to PR

## National QI priority



### Reduce waiting times

Services should set an achievement target  
85% enrolment of those referred for PR  
within 90 days.



## How this priority was derived

### BTS Quality Standard 1b<sup>a</sup>

People referred for PR should be enrolled within 3 months of service receipt of referral.

## Tips on how to achieve this

Services that **solely run cohort** programmes and struggle with waiting times:

- Consider changing to a **rolling design** (or to a **combination** of the two) to deliver this objective.



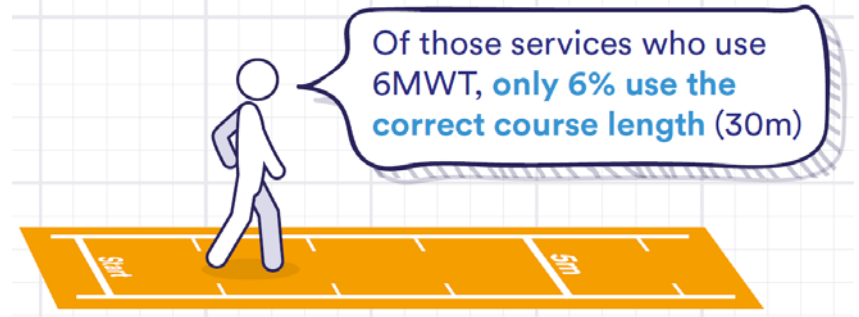
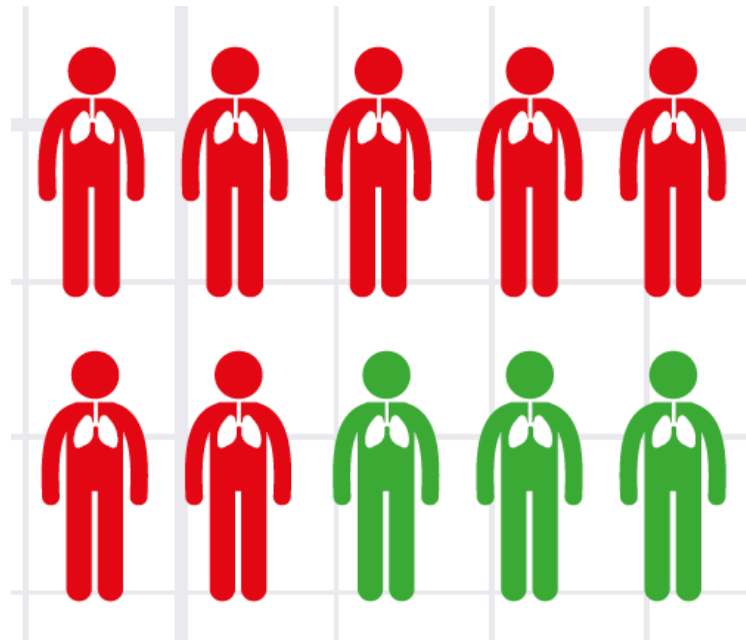




# Quality of PR services

## Key findings

**68%** of patients do not complete a recommended practice exercise test



\* 6MWT = six minute walk test



**10%** of services did not offer individually prescribed aerobic or resistance training

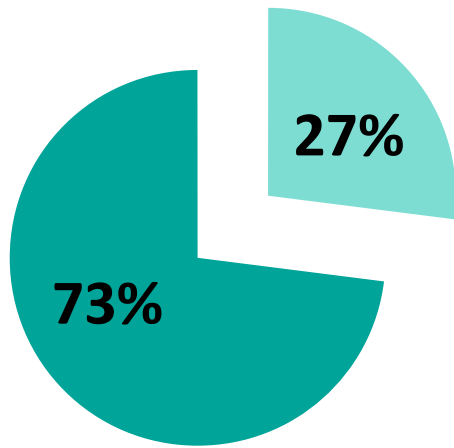




# Quality of PR services

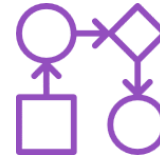
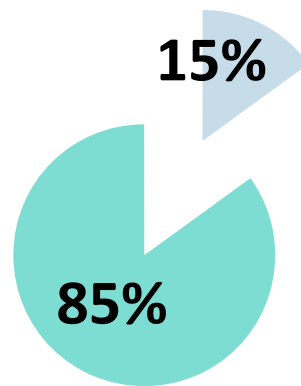
## Key findings

2017



**27%** of patients had an assessment of **muscle strength at baseline** in 2017, a **considerable improvement** from **15%** in the 2015 audit

2015



**84%** of services (67% 2015) have a standard operating procedure for local policies



**Spirometry** was reported for 60% of patients



**BMI** was reported for 70% of patients





# Quality of PR services

## National QI priority



**Exercise assessments should be performed to recommended technical standards**



Including practice walks and lengths of walking courses

## How this priority was derived

2015 audit data<sup>a</sup> suggests PR outcomes were better in services that undertook practice walks (17% more likely to complete PR).

## Tips on how to achieve this

Space limitations may restrict walking course lengths for the **6MWT**



- Where this is the case, consider switching to the **ISWT** which requires only a 10m course.



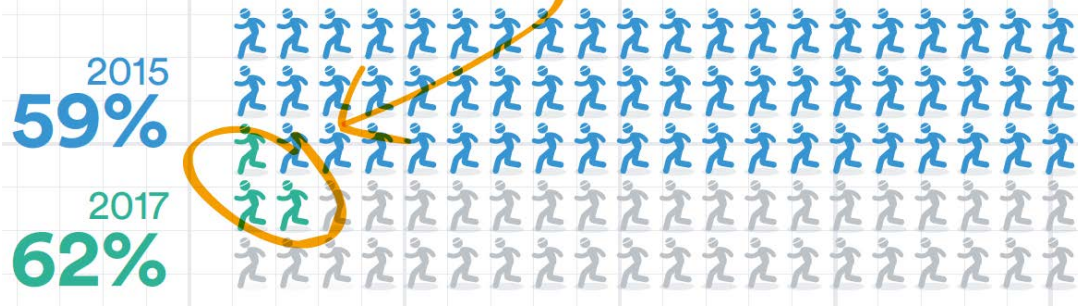
Guidance and standards<sup>b</sup> exist for each test, you might find it useful to use these in your planning.



# Outcomes of treatment

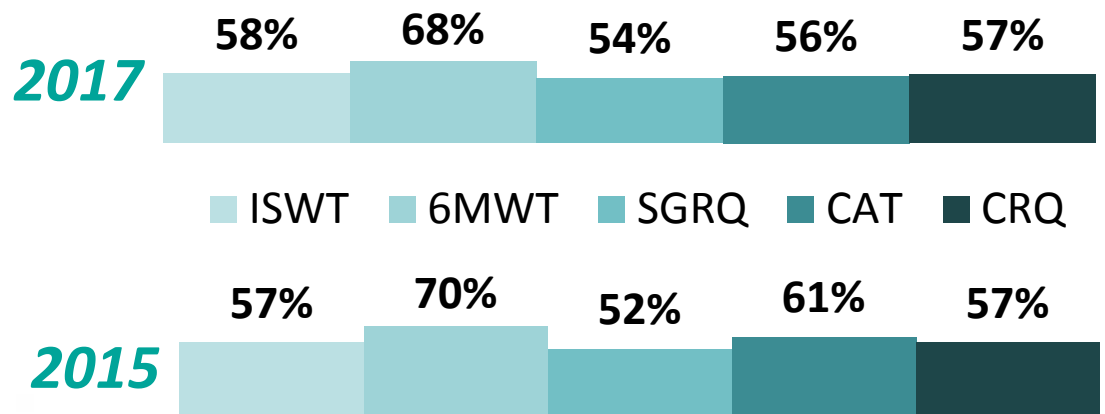
## Key findings

Overall completion of PR programmes has improved



There was no significant difference in outcome between patients enrolled on cohort or rolling programmes.

Clinical outcomes of patients who completed treatment were **excellent** (similar proportions met the MCID or surpassed it than did so in 2015).





# Outcomes of treatment

## National QI priority



### Increase completion rates

Following PR assessment, patient completion rates should be 70% or more



## Tips on how to achieve this

- Review completion rates, to identify non-completion factors
- Develop systems to identify patients at risk of exacerbation and hospital admission
- Implement local strategies with specialist and community COPD teams to improve:
  - Diagnosis, the optimisation of drug treatment, management of co-morbidities, and the promotion of smoking cessation and winter vaccination

## How this priority was derived

The 2015 PR outcomes report<sup>a</sup> found that PR completion was associated with lower hospital admission rates



 **And so, what next?**



# Quality improvement

## Using quality improvement methodology to plan a change (SMART)

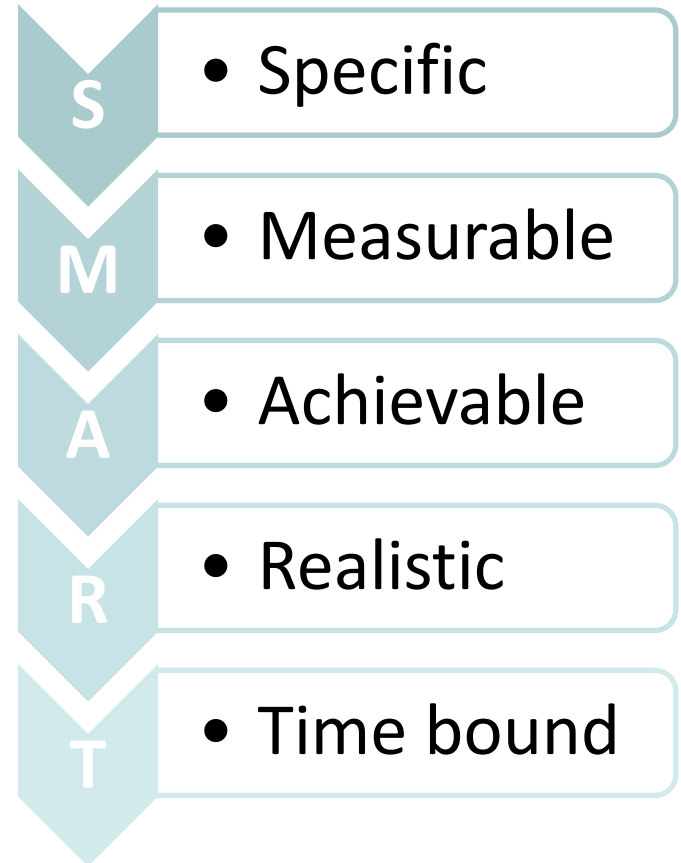
Look for areas where you can **realistically** make improvements.

Decide on an **aim**, this should be **SMART**.

Build a **team** and understand your **stakeholders**.

Meet with your team regularly to **performance manage** yourselves, and have **clear responsibilities**.

Plan how you will **achieve** your aim.



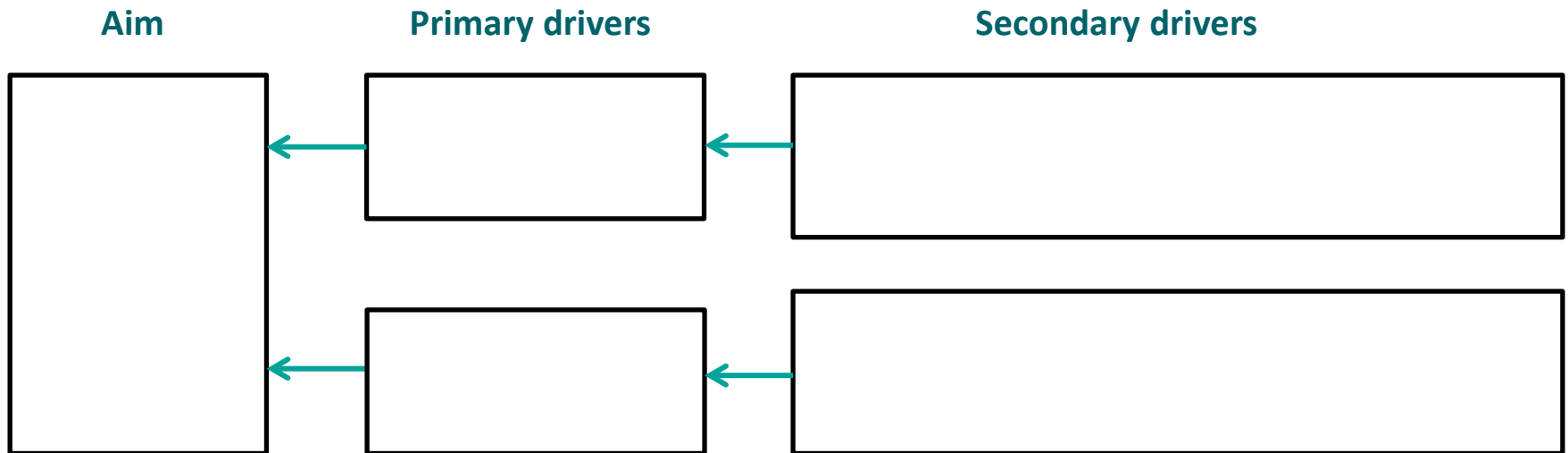


# Quality improvement

## Defining your overall aim (driver diagrams)

To decide what to start on for your overall improvement aim, you may find it helpful to use a driver diagram.

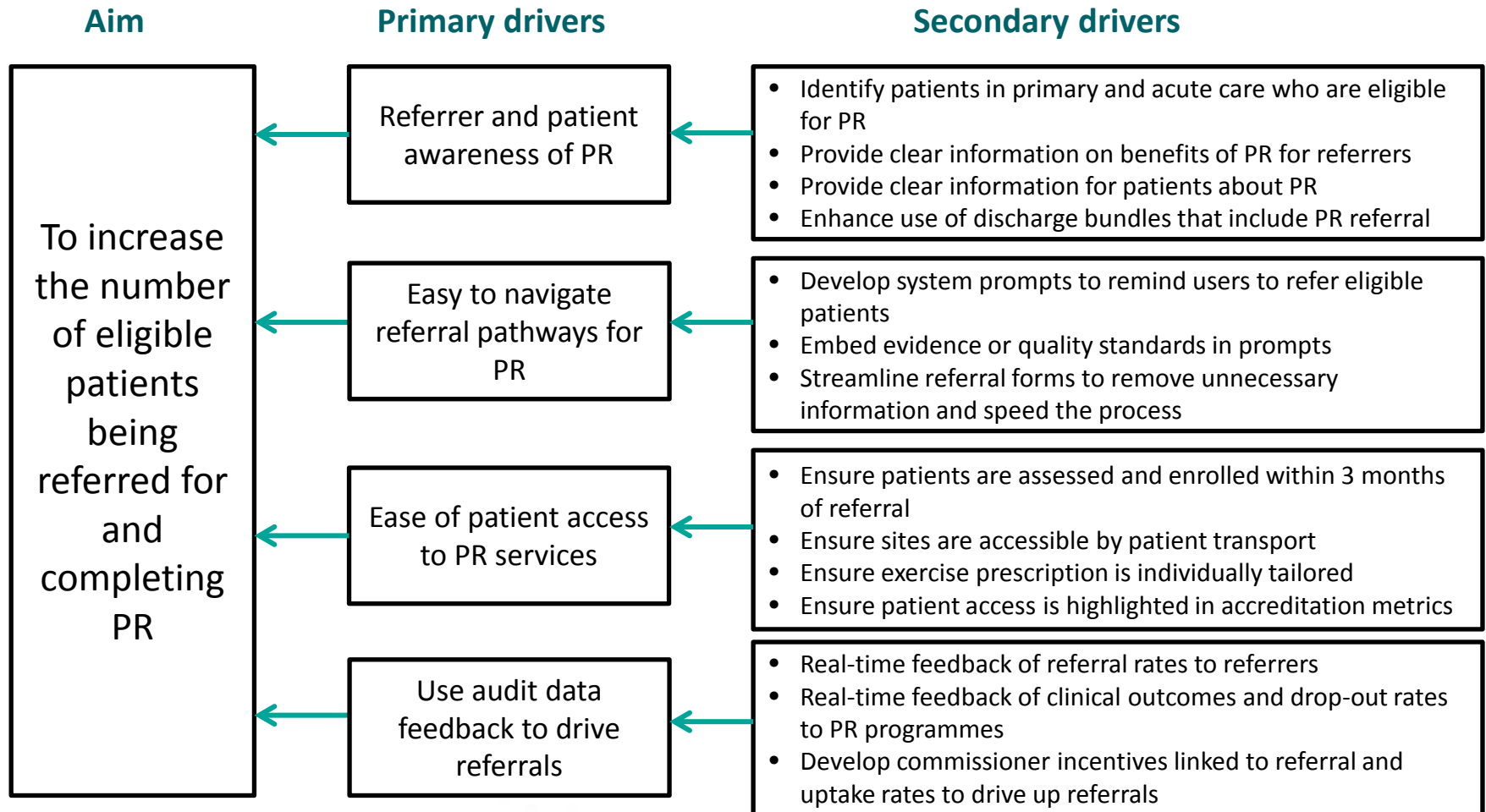
The Institute for Healthcare Improvement has a helpful guide on how to use them <http://www.ihp.org/resources/Pages/Tools/Driver-Diagram.aspx>







# Driver diagram example

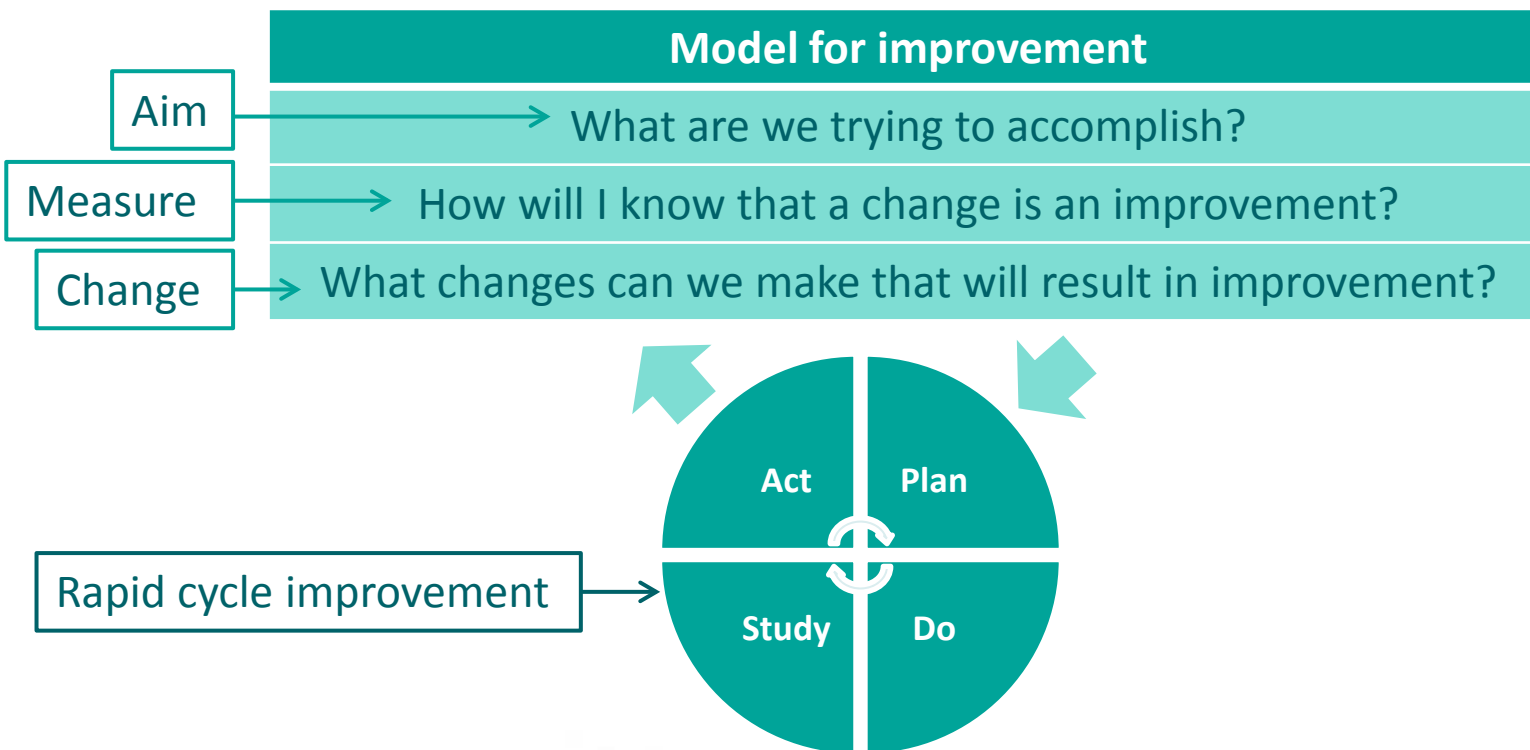




# Quality improvement

## A model for improvement

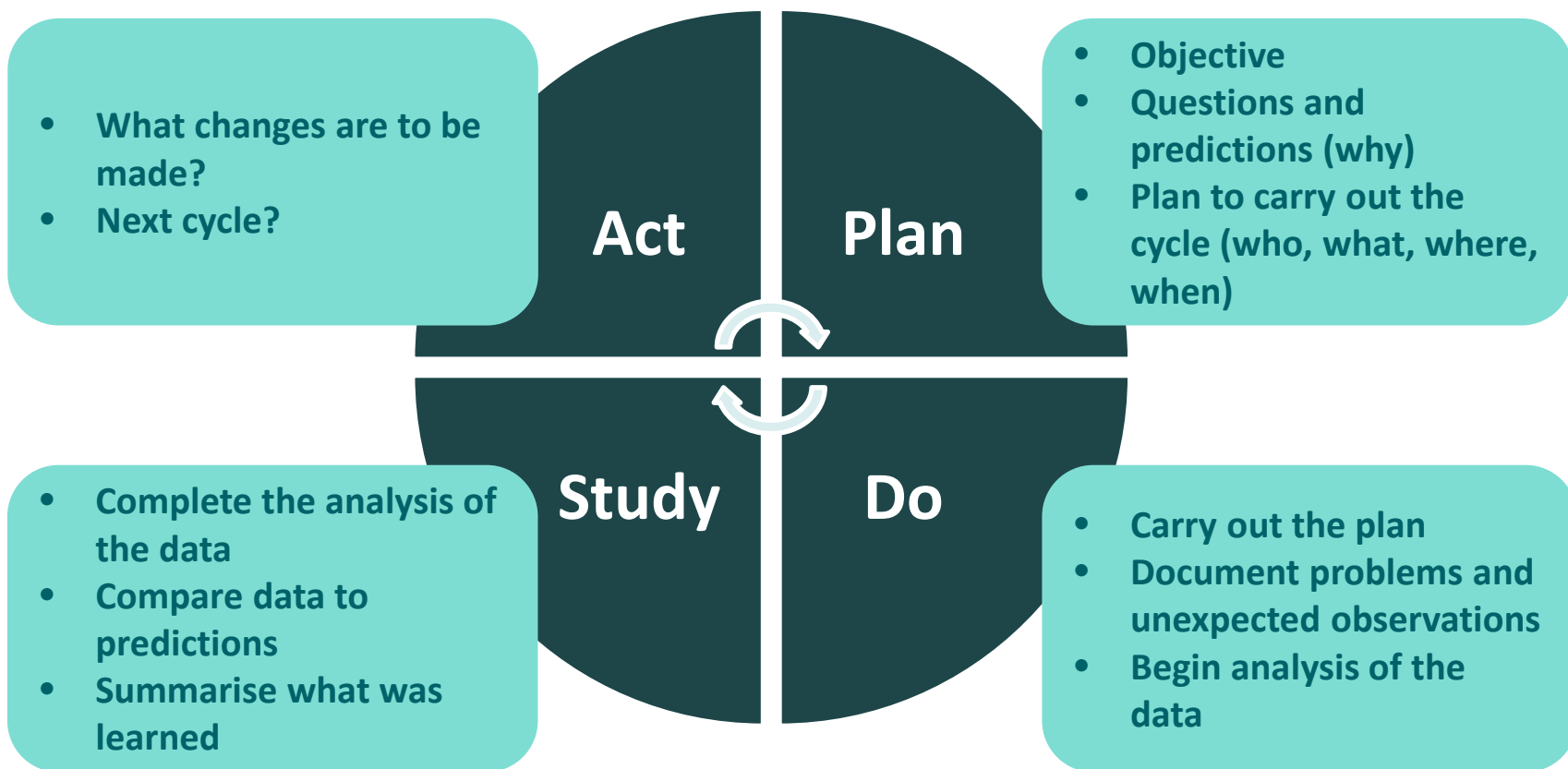
To plan your change it is important to regularly measure and study your activity using:





# Quality improvement

## The PDSA cycle





# Quality improvement

## The PDSA cycle example: non completion by patients

**ACT:** Identify what still needs to change to improve what you will do next  
(Next PDSA cycle)

**Act**

**PLAN:** Would changes to the patient information sheets help with non completion rates?

**Plan**

**STUDY:** Analyse data to see if the rate has improved. Plot the change over time and summarise what you have learned.

**Study**

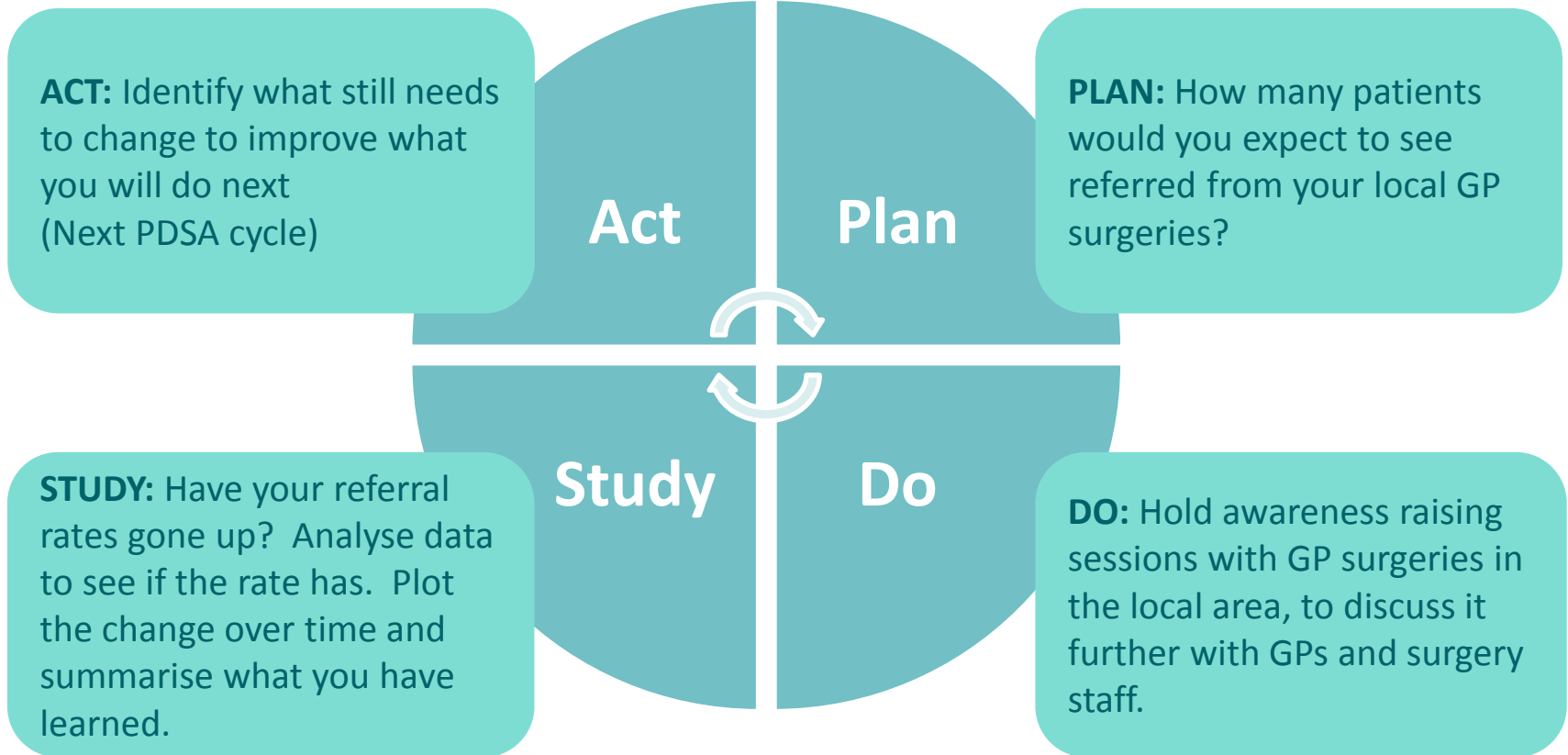
**DO:** Adapt the paperwork and information sheets according to patient feedback, making it more informative and easier to understand.

**Do**



# Quality improvement

## The PDSA cycle example: non referral by GPs





# Quality improvement

## Case study

Quality improvement case study: **BreathingSpace**, a pulmonary rehabilitation service in Rotherham, describe a QI project performed locally to increase patient completion.

*... to reduce drop out rates [they looked at providing patients, their families and carers with clear, comprehensive and consistent communication.*

*80% of patients rated the [new] leaflet as 'useful' or 'very useful'. 85% of health and care professionals rated it ... a useful tool to issue to patients when introducing ... PR.*



Raising awareness of pulmonary rehabilitation in the form of a patient information leaflet.

BreathingSpace, Rotherham

### Background:

In the 2015 PR audit BreathingSpace, Rotherham reported that 21% of patients that were assessed and enrolled to PR did not complete treatment. Therefore to take steps to reduce dropout rates BreathingSpace utilised a communication tools quality improvement methodology.

### Aim:

Evidence suggests that one of the reasons for non-attendance and non-completion is uncertainty and a lack of understanding of the benefits of PR.<sup>11,14</sup>

To increase patient uptake and completion of PR by providing them, their families and carers with clear, comprehensive and consistent communication which is focused on improving the quality of the care they receive.

### Process:

An outdated information leaflet was being used across the trust. It was recognised that the leaflet lacked patient input and didn't address the aspects of PR that patients felt were most important.

A patient focus group was conducted with those patients already engaged with PR to help understand better the importance of what they expected to find within the leaflet and include anything that prior to attendance they felt apprehensive about. It was recognised that some patients were unsure about what the term 'rehabilitation' would involve and therefore this was identified as a potential barrier to uptake. In addition to the focus group telephone interviews were conducted with patients that had been identified as having either declined after the initial assessment or enrolled and not completed PR. Both these methods helped broaden the depth of information that was included in the leaflet.

### Outcomes:

The new patient information leaflet was distributed trustwide. Patients that received the leaflet and health care professionals providing it were asked to rate the value of its effectiveness. Results showed that 80% of patients rated the leaflet as 'Useful' or 'very useful'. 85% of health and care professionals rated it as being a useful tool to issue to patients when introducing the idea of referral to PR. Governance procedures have been put in place to routinely review and revise the document. Copies of the outdated leaflet have now been withdrawn.

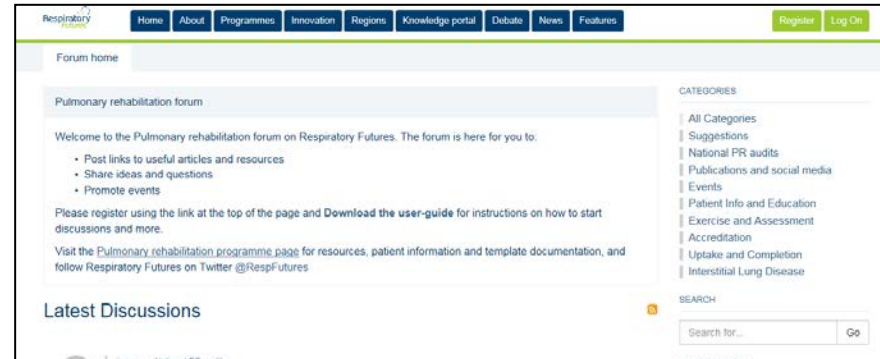


# Useful quality improvement resources

## Sharing learning

Respiratory Futures have a PR page <http://www.respiratoryfutures.org.uk/programmes/pulmonary-rehabilitation/> and forum <http://www.respiratoryfutures.org.uk/pulmonaryrehabforum>

The British Thoracic Society page has useful resources and signposts <https://www.brit-thoracic.org.uk/standards-of-care/quality-improvement/>



The screenshot shows the 'Pulmonary rehabilitation forum' on the Respiratory Futures website. The page includes a navigation menu with links for Home, About, Programmes, Innovation, Regions, Knowledge portal, Debate, News, and Features. A 'Register' button and a 'Log On' link are visible in the top right. The main content area welcomes users to the forum and lists several categories: All Categories, Suggestions, National PR audits, Publications and social media, Events, Patient Info and Education, Exercise and Assessment, Accreditation, Uptake and Completion, and Interstitial Lung Disease. A search bar is located at the bottom right of the forum page.



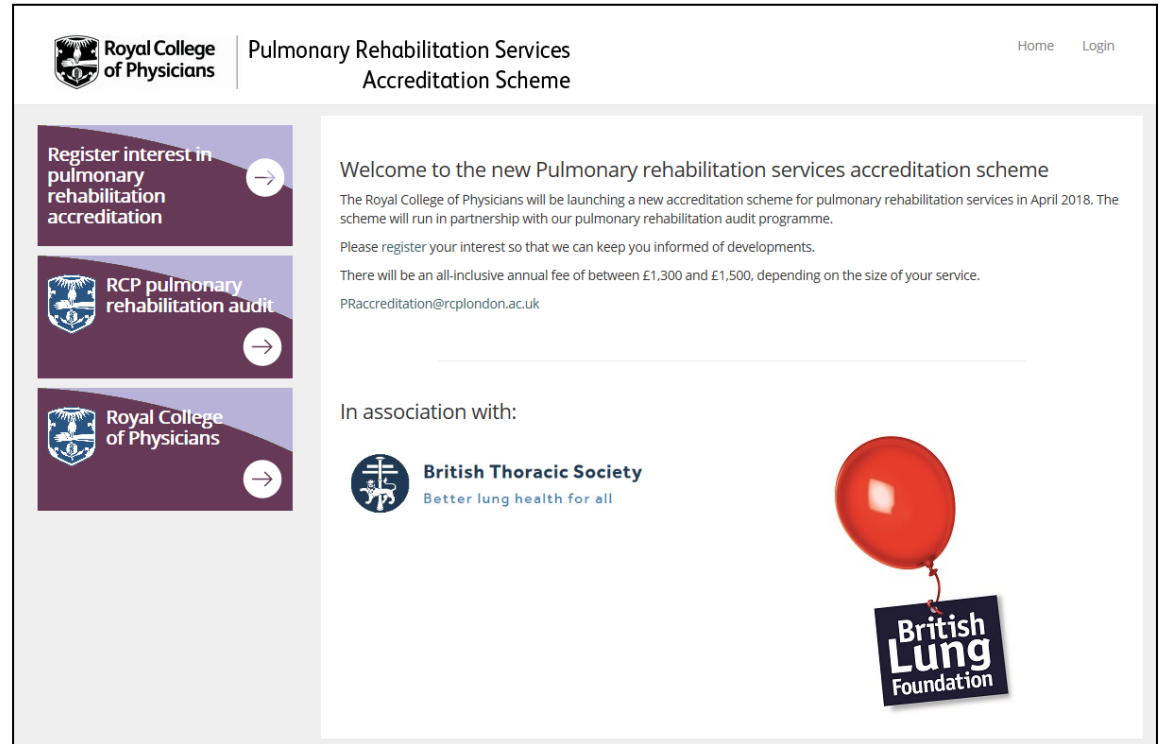
The screenshot shows the British Thoracic Society (BTS) website. The header features the BTS logo and the tagline 'Better lung health for all'. The navigation menu includes Home, About BTS, Join BTS, Learning Hub, Standards of care, Research & Innovation, Press/Media, Publication Library, Working in respiratory, and Contact. The main content area is titled 'Quality Improvement' and features a large image of a healthcare professional in a clinical setting. Below the image, there is a section titled 'Quality Improvement' with a brief description of the section's purpose. To the right, there are two sidebars: 'Standards of Care' with links to Guidelines, Quality Standards, Audit, Quality Improvement, and Lung Disease Registries; and 'Related Links' with checkboxes for Institute for Healthcare Improvement, Healthcare Quality Improvement Partnership, NHS Improvement, Respiratory Futures, BTS Audit Reports, and Thorax Audit Reports. At the bottom, there are three columns of related content: 'QI Tools and Methodology', 'Environment and Lung Health', and 'NCEPOD study on NIV'.

# Useful quality improvement resources

## Accreditation

Check out the new website for the Pulmonary Rehabilitation Accreditation scheme to read more about the scheme and how to apply

<http://www.prsas.org/>



The screenshot shows the website for the Royal College of Physicians Pulmonary Rehabilitation Services Accreditation Scheme. The header includes the RCP logo and the text "Royal College of Physicians" and "Pulmonary Rehabilitation Services Accreditation Scheme". There are links for "Home" and "Login". The main content area features three purple buttons with white text and right-pointing arrows: "Register interest in pulmonary rehabilitation accreditation", "RCP pulmonary rehabilitation audit", and "Royal College of Physicians". The text below the buttons reads: "Welcome to the new Pulmonary rehabilitation services accreditation scheme. The Royal College of Physicians will be launching a new accreditation scheme for pulmonary rehabilitation services in April 2018. The scheme will run in partnership with our pulmonary rehabilitation audit programme. Please register your interest so that we can keep you informed of developments. There will be an all-inclusive annual fee of between £1,300 and £1,500, depending on the size of your service. PRaccreditation@rcplondon.ac.uk". Below this, it says "In association with:" followed by the logos for the "British Thoracic Society" (with the tagline "Better lung health for all") and the "British Lung Foundation" (represented by a red balloon with a tag).



# National COPD Audit Programme

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[pulmrehab@rcplondon.ac.uk](mailto:pulmrehab@rcplondon.ac.uk)

020 3075 1526

[www.rcplondon.ac.uk/COPD](http://www.rcplondon.ac.uk/COPD)



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