Supporting the pan-London Implementation of a Workforce Competency Framework in Pulmonary Rehabilitation

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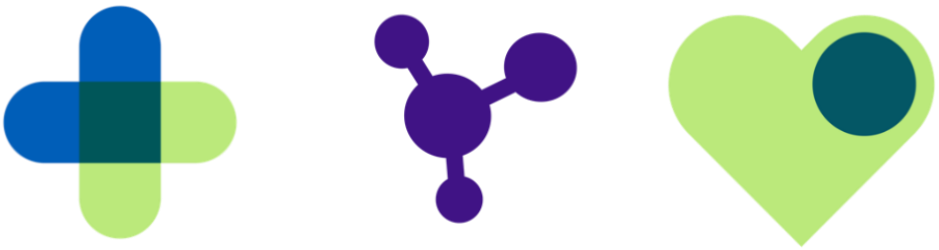
Contents

1. About

The Health Innovation Network (HIN) South London is one of 15 HINs (previously known as Academic Health Science Networks or 'AHSNs') across England. As the only bodies that connect NHS and academic organisations, local authorities, the third sector and industry, we are catalysts that create the right conditions to facilitate change across whole health and social care economies, with a clear focus on improving outcomes for patients.

This means we are uniquely placed to identify and spread health innovation at pace and scale; driving the adoption and spread of innovative ideas and technologies across large populations.



2. Acknowledgements

The Health Innovation Network (HIN) South London would like to thank the London Respiratory Clinical Network for their oversight and support of the pulmonary rehabilitation (PR) competency framework workstream and their valuable insights into the development of the implementation resources and training.

Thank you to colleagues across pulmonary rehabilitation services for their involvement and support in providing insights and feedback to shape the implementation resources. Thank you also to the members of our steering group, who helped inform decision making, provided insights that shaped our communication and engagement strategy, and allowed us to join their PR service team meetings.

Thank you to Michelle Maguire, Alice Kenward, Puja Trivedi and Stuart Clarke for generously giving up your time to help facilitate the face-to-face training day, and to Alice Kenward, Laura Moth and Karen Ingram for reviewing training content for the development of modules 1 and 2.

And with sincere thanks also to our clinical leads Dr Sam Kon and Laura Graham for their clinical expertise and strategic oversight throughout this project.

3. Executive Summary

3.1. Background

The London Pulmonary Rehabilitation Competency Framework was released in August 2023 by the London Respiratory Clinical Network (LRCN). The framework was designed to foster greater consistency in how pulmonary rehabilitation (PR) workforce competency was developed at an individual and whole service level. The Health Innovation Network (HIN) were commissioned to create a set of practical resources to sit alongside the framework, and a range of training modules to address gaps in the current provision.

3.2. Aims and Objectives

The project aimed to improve the uptake and impact of the pan-London competency framework by:

- Making a resource that set out the framework in a clearer, easy-to-use way.
- Addressing gaps in current training provision with a bespoke London training offer.
- Supporting consistent, high-quality delivery of PR services by building consistency in how staff competencies are identified and developed.

3.3. Approach

The project was structured around four workstreams:

- **Needs articulation** – Engaging PR services and training providers to understand current use of, and challenges with using the competency framework, and gaps in the provision of external PR training.
- **Toolkit development** – Creating function-based individualised competency records and an online access system using Microsoft Forms and Power Automate.
- **Training development** – Developing online learning modules and delivering a face-to-face training day focused on exercise assessment and prescription.

3.4. Key Outputs

The implementation resources can be found on the HIN website.

The infographic overleaf summarises the level of engagement with the implementation resources and increase in staff confidence from the launch of the resources on 30th September 2024 until 18th April 2025.

3.5. Learning

In addition to output data, a series of learning insights were gathered over the course of the project:

- PR staff valued training more immediately than the competency toolkit, though both resources were seen as useful and relevant.
- After using the individualised competency records, staff reported increased clarity on expectations and improved processes for induction, Personal Development Reviews (PDRs), and service evaluation.
- The flexible, co-produced nature of the resources allowed adaptation to local contexts, making them more impactful and sustainable.
- Engagement extended beyond London, despite there being no promotion of materials outside the Capital, suggesting national relevance.

3.6. Conclusion

Whilst cultural change in clinical settings takes time, and more structured support is required to further embed the resources into day-to-day practice, the PR competency framework implementation resources and training modules have already begun to strengthen workforce development practices across London. This is evidenced in south west London, where the structured and consistent approach across services has resulted in increased staff confidence, more efficient inductions and a more diverse skills mix in the respiratory multi-disciplinary team. By addressing variation, clarifying expectations, and creating a training offer that specifically focuses on practical delivery of PR, this project has produced a model for how to embed competency frameworks into other clinical areas. Likewise, the free-to-use and easy-access resources could be scaled and spread to other areas of the country; engagement to-date from other geographic areas indicates there is applicability and appetite beyond London.

4. Introduction

4.1. Introduction

The London Respiratory Clinical Network (LRCN) launched the 'London Pulmonary Rehabilitation Competency Framework' in August 2023. The framework aims to support the development and growth of a skilled and sustainable pulmonary rehabilitation (PR) workforce for London.

NHS England London and the LRCN commissioned the Health Innovation Network South London (HIN) to deliver a pan-London project aimed at creating and distributing resources to improve uptake and effectiveness of the competency framework in PR services and to foster a more consistent implementation of PR services. The HIN was also commissioned to identify any gaps in current training provision, and to design a suite of training resources should gaps exist.

The project aims were to:

- Understand the workforce structure of PR services across London, the specific challenges and barriers to implementing the competency framework, and to map the competencies to training opportunities and roles.
- Bring together these insights to produce an implementation toolkit that sits alongside the framework, which can be adapted by PR services across London.
- Assess the training needs for staff supporting and delivering PR services.
- Develop and deliver bespoke education resources; face-to-face and/or e-learning aligned with training needs and linked to the competency framework.
- Share learning across the London PR network.

The project objectives were:

- Make the Pulmonary Rehabilitation Competency Framework easier to use.
- Make it easier for staff to access relevant training to help with their development.
- Foster a consistent approach in how PR staff and services assess and develop competencies across London.

4.2. Evaluation

There are three aspects to this report:

- Describing the implementation approach and learnings (more detailed overview of the implementation approach is included in appendix 1.)
- Quantitative and qualitative data collected on the impacts of the project
- Case studies of how the implementation resources have been used in local services.

4.3. Limitations

The number of qualitative responses collected within the project evaluation was limited due to staff capacity for engagement in the projects and for giving feedback. It is an exceptionally busy and challenging period for frontline NHS workers.

Therefore, the decision was taken to focus on the quantitative website usage data to assess the level of engagement with the implementation resources and training. In-depth feedback was also collected through the face-to-face training session, which was attended by staff from across London, to capture perceived change in knowledge, skills and confidence caused by the training offer, and the quality of the teaching.

An additional method used to mitigate the qualitative data limitation was collecting case studies on how London PR services have implemented the resources including the barriers and enablers to implementation. The aim being to provide guidance for other PR services looking to embed the framework into their workforce processes.

5. Background

5.1. Pulmonary Rehabilitation background and context

Pulmonary rehabilitation (PR) is a multidisciplinary exercise and education programme designed for people with lung disease, who find themselves limited by breathlessness. People with stable COPD and a score of 3 or above on the Medical Research Council (MRC) dyspnoea scale are referred to a PR programme. The programme focuses on safely building cardiovascular and muscle fitness and empowering patients to better manage their mental and physical health. Courses typically last 6-8 weeks, with patients attending 2 sessions per week run by a multidisciplinary team, which can consist of a range of professions, for example physiotherapists, occupational therapists and exercise physiologists.

PR programmes begin with an assessment of the exercise capacity (and muscle strength) of the patient, which forms the basis of the individual exercise plan. The programme comprises of a supervised group exercise session, and then an education session section in which healthcare professionals provide patients with information on managing common symptoms, how to adapt day-to-day activities (such as going on holiday) around symptoms, and where to go for additional psychological and financial support. The sessions are usually delivered in person but in some services can be delivered online. The intensity, duration and type of exercise can be adjusted throughout the course based on changes to the patient (for example increased breathlessness) and responses to exercise. Patients are also taken through ways to embed the exercise regime into their daily lives at home in anticipation of completing the programme.

In order to ensure that PR programmes are delivered safely, efficiently and to a high quality, staff working in PR services require a range of specialist knowledge, skills and competencies. While services have in some cases created their own frameworks to set out the skills mix required, the London competency framework has been the first instance of a London-wide framework.

5.2. The London Competency Framework

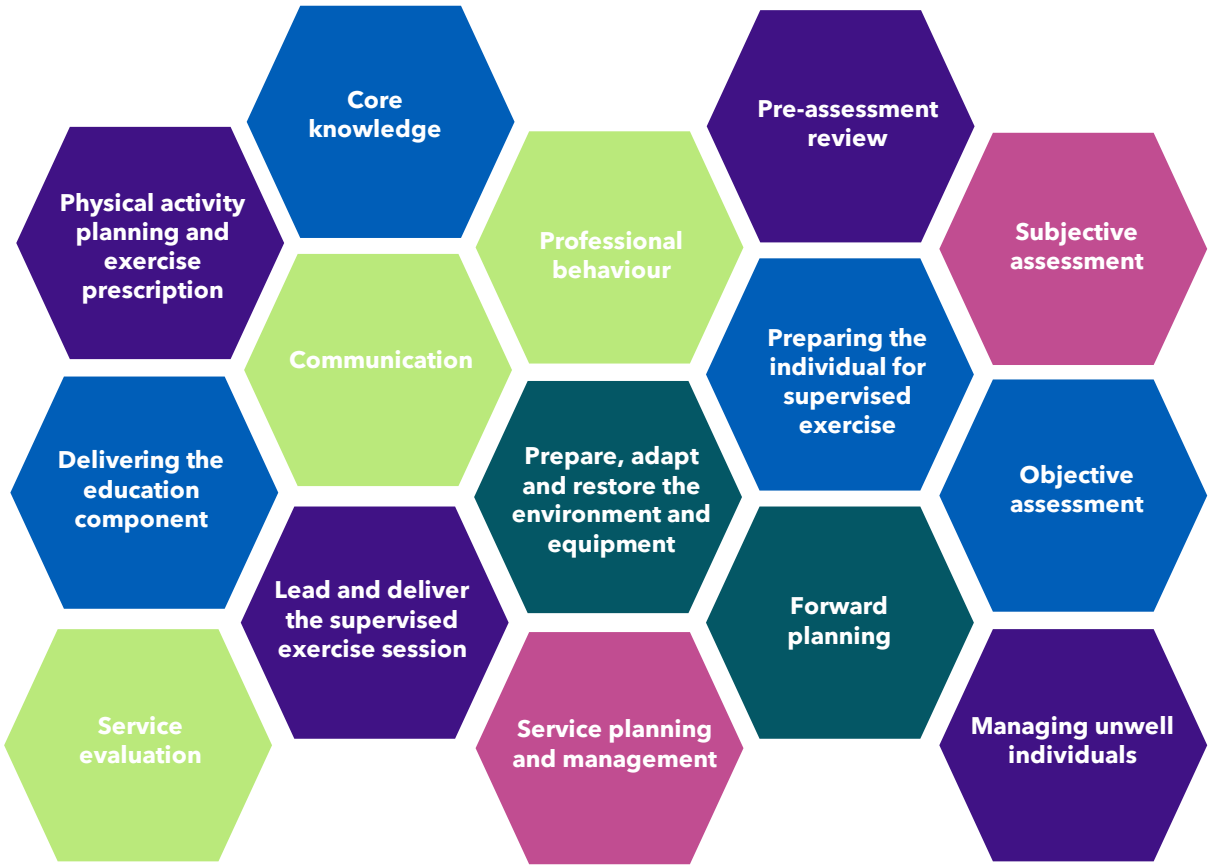
The London Pulmonary Rehabilitation Competency Framework was published in August 2023. The document was coproduced by members of the London Respiratory Clinical Network and was designed as a resource to support the development of a 'robust and sustainable pulmonary rehabilitation workforce' by fostering greater consistency in how competencies are identified, developed, evidenced and recorded. While not a mandatory framework, the purpose is to make sure that PR programmes across London are operating with the appropriate level of workforce competency to ensure safe and effective delivery in line with national guidelines.

There are ongoing workforce challenges across PR services, with the British Thoracic Society (BTS) estimating that at least 1,000 PR posts are needed to deliver the increased pulmonary rehabilitation

capacity requirements detailed in the NHS Long Term Plan[1]. Shortages of suitably skilled staff, migratory staff and other recruitment pressures have meant that some areas do not currently have access to adequately skilled staff. A secondary aim of the competency framework was to create a greater focus on competency rather than job title or clinical background, enabling the inclusion of a greater number of non-physiotherapy qualified health care professionals, such as occupational therapists, nurses and sports rehabilitators, into the London PR workforce.

The framework sets out 15 competency categories, each of which contain component competencies. Each service should be able to demonstrate coverage of all competencies, with individual staff members at different bands requiring different competencies, or different levels of competency.

Figure 1 – London Pulmonary Rehabilitation Competency Framework Competency Categories



Early feedback from PR staff indicated that the framework document was challenging and time consuming to implement in clinical practice due to its length and because it did not indicate which competencies were relevant for which staff members.

The LRCN agreed that creating a suite of implementation resources would make it easier for individuals and teams to understand and use the framework. The HIN was commissioned to develop the resources in December 2023.

[1] https://www.brit-thoracic.org.uk/document-library/workforce/workforce-people-plan/a-respiratory-workforce-for-the-future/

6. Approach

The project to develop the resources involved the following workstreams:

1. Needs articulation
2. Toolkit development
3. Training development

This section provides a brief summary of the aims, activities, outputs and learning for workstreams 1 to 3. Further detail on the implementation approach is provided in appendix 1.

6.1. Needs articulation

6.1.1. Aims

- To develop a detailed scope for the implementation toolkit; a suite of resources and documents to make it easier to identify, record and develop individual competencies as an individual and as a PR service.
- To develop curriculum and structure for training offer, as required.

6.1.2. Workstream activities

- Met with every London ICS Pulmonary Rehabilitation Leads, and 25 PR Service Leads (of the 29 London PR services) covering every ICS region of London.
- Engaged with these groups to understand the current staffing structure, desired use of the competency framework, barriers to implementation, and approach to internal and external training.
- Engagement with each of the 4 most widely used external training providers to access training curriculums. These were:
    - Loughborough College - Level 4 Certificate in Exercise Training for Chronic Respiratory Disease
    - WRIGHT Foundation – Level 4 Pulmonary Rehabilitation Qualification
    - British Thoracic Society – Fundamentals of Pulmonary Rehabilitation
    - British Thoracic Society – Advanced Practice in Pulmonary Rehabilitation
- Discussion with British Association for Cardiovascular Prevention and Rehabilitation (BACPR) and JAGS/ JETs endoscopy framework teams to understand their approach to workforce competency development and aligned documentation.

6.1.3. Insights captured

- There is significant variation across PR services in staffing models, current context and challenges, workforce development and training, and how people want to use the framework.
- It was identified that an implementation resource might make it easier for staff and services to understand which competencies were relevant to them, to know how to develop competencies, and to make it easier to embed the framework into their workforce development structures.
- There are gaps in the current education provision; courses are often over prescribed, only relevant for certain clinical backgrounds, and do not always cover the more practical elements of PR delivery.
- BACPR have created competency documents which are categorised by band and role within the cardiac rehabilitation service – these documents are used as part of PDR process for staff and

include links to relevant training offers.

6.1.4. Decisions

- **To produce individual competency records:** Engagement with staff identified the need to be clearer on which competencies were relevant for each profession, and to make it easier to record and develop their competencies. In response, the HIN project team and clinical leads created a series of individual competency records mapped against the different staff in the PR service, taking learning from the BACPR structure and document functionality.
- **To make the individual competency records an online document:** The personalised, function-based competency records needed to be accessible online, and required some level of interactivity. We decided to create an MS form linked to a Power Automate flow that would send staff their personalised competency record as a partially editable word document. This automated online process will continue to run indefinitely without the need to update and enables the project team to track access figures for evaluation.
- **To structure the personalised competency records by function rather than role:** To account for the variation in staffing structures across London PR services, it was decided that individual competency records should be created based on staff function in the service, as opposed to NHS Agenda for Change bands, roles or job titles.
- **To produce a training curriculum on individualised exercise programmes:** Given the current lack of external training that focus on practical elements of PR delivery, a training curriculum was created which focuses on assessing, prescribing, delivering and adapting/ progressing individualised exercise programmes.
- **To develop an online and face-to-face training offer:** In response, the project team created a series of online modules and a face-to-face training day. The online modules (which contain videos) are openly available for staff to visit and revisit learning at their convenience, and cover the fundamental information on individualised exercise assessment, prescription and delivery against national guidelines. The face-to-face training day offered an opportunity to reinforce learning on the practical parts of PR delivery, enabling staff to understand and ask question on how these elements are performed in a PR environment.

6.2. Toolkit development

6.2.1. Aim

- To develop an implementation resource / a series of individual competency records to make it easier for PR staff to identify, develop and record relevant competencies.

6.2.2. Workstream activities

- Created a competency matrix that mapped which competencies were relevant to staff according to their function in the service and provided a structure for individual competency records (e.g. space for comments and action plans alongside bespoke training overviews for each competency group).
- Created four variations of the individual competency record based on the following functions:
  - **Supporting pulmonary rehabilitation programmes**
    This is for staff working at bands 3 to 5. The responsibilities of someone supporting pulmonary rehabilitation delivery include performing outcome measures (but not prescribing exercise programmes), delivering warm up and cool down sessions, and supporting the delivery of education programmes (but likely not running sessions independently).
  - **Delivering pulmonary rehabilitation programmes**
    This is for staff who are involved in delivery of all aspects of the pulmonary rehabilitation patient pathway. From staff leading on assessments to the collection of exercise and health-

related outcomes. These staff may also be involved in pulmonary rehabilitation focused projects.

- **Leading pulmonary rehabilitation programmes (service management)**
  This record primarily focuses on service management, evaluation, and overarching leadership. This function is usually performed by the Service Lead. It has been separated from pulmonary rehabilitation session delivery because while Service Leads may often also run the sessions themselves, this is not always the case.
- **Delivering and managing pulmonary rehabilitation programmes.**
  This record is aimed primarily at Service Leads who, in addition to service management, also deliver the pulmonary rehabilitation programmes.

- Set up an automated online process for staff to access their own individual competency record as a sustainable long-term resource that does not require administrative support to maintain.

6.3. Training development

6.3.1. Aims

- Create a suite of online modules in alignment with the competency framework focusing on the gaps in current provision
- Design and deliver a face-to-face training day to reinforce learning on the practical elements of PR assessment and delivery.

6.3.2. Workstream activities

- Agreed a curriculum and set of learning outcomes for online modules.
- Designed learning modules, film video content and uploaded the materials onto the HIN website.
- Launched module 1 (assessing exercise capacity and peripheral muscle strength) on 30th September 2024.
- Organised and delivered a face-to-face training day on 11th March 2025 for 30 PR staff across London.
- Launched module 2 (assessing, prescribing, delivering and adapting individualised exercise programmes) on Friday 2nd May 2025.

7. Evaluation

This section draws upon online engagement data, survey responses and feedback from the face-to-face training day. The section is divided into two themes.

7.1. Theme 1: Engagement with developed resources

7.1.1. Toolkit - access figures

The personalised competency records can be accessed through the HIN website, where visitors are directed to an MS form that, once submitted, sends them their record.

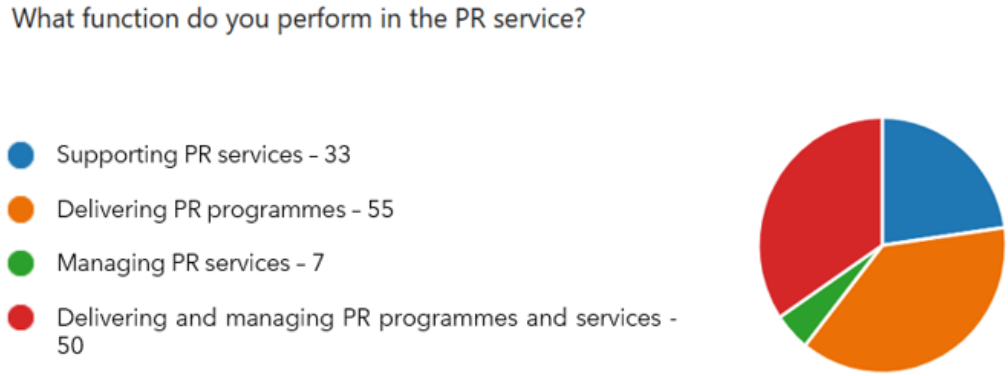
Between its launch on 30th September 2024 and the date on which data was analysed (18th April 2025) the competency framework main page had been viewed 955 times by 436 unique visitors. There were over 3097 active engagements (including link clicks, video plays, file downloads).

The MS form to access the individual competency record had been completed 145 times by 130 separate members of staff. This compares to an estimated London PR staff cohort of around 250-300 staff members.

27 of the 32 London boroughs (82%) had at least one staff member access a personalised competency record, and staff from every London ICS area accessed records.

As shown in figure 2, staff with a mix of functions accessed the personalised record, with 22.7% of users undertaking a supporting function, 37.9% delivering programmes, 4.8% managing services and 34.5% delivering and managing programmes and services. Overall, the records tended to be accessed by staff members in more senior positions.

Figure 2 - Survey response on staff function



39 staff who accessed a personalised competency record were not from London; there were responses from Bristol, Dorset, Hull, Cambridge and Wiltshire. These responses have been consistently submitted in the months following the toolkit and module 1 launch event in September 2024. The project was shared at the national PR network meeting; however, the implementation resources have not been actively promoted outside of London. Although the resources have been coproduced with London PR staff, colleagues from across the country may find them of interest to their local services.

7.1.2. Online Training module 1 – usage

The first training module, which focuses on assessing exercise capacity and peripheral muscle strength to national guidelines, was launched on 30th September 2024. The module is free to access and contains a mix of online e-learning materials and embedded training videos, along with a quiz.

Since its launch, the module has been viewed 715 times by 274 unique visitors. On average, viewers spend 3 minutes 13 seconds on the webpage.

The videos have (collectively) accumulated 225 views, of which 118 views are of the full length of the videos. This indicates strong viewer retention - average view time for a video is commonly expected to be less than 30 seconds, but the average across these three videos is 4 minutes 42 seconds.

7.1.3. Face to face training day – registrations and attendance

A total of 30 PR staff attended the face-to-face training day, of which 27 submitted feedback surveys.

- 13 respondents performed both a 'delivering and managing the pulmonary rehabilitation service' function. The job roles were predominantly respiratory specialist physiotherapists and team leads.
- 7 respondents performed a 'delivering pulmonary rehabilitation programmes' function. These were assistant respiratory practitioners, PR exercise specialists and rotational physiotherapists.
- 3 respondents performed the 'managing the pulmonary rehabilitation service' function – these were all physiotherapist team leads.
- 4 respondents performed a 'supporting pulmonary rehabilitation sessions' function. These were assistant physiotherapists and a community respiratory nurse.

Session on strength testing

The event was highly subscribed, with over 10 additional staff on the waiting list and many staff emailing directly asking for additional places.

7.2. Theme 2 – perceived usefulness and learning impact of resources

7.2.1. Training day – change in confidence

There was a clear change in attendees' confidence across the three primary topic areas. There was an

increase in average confidence level of 29.2%, with the average confidence level rising from 3.59/5 to 4.25/5. The average proportion of staff reporting 3/5 level confidence fell from 44.2% to 5.02% from the start to the end of the day. The average proportion of respondents who reported either 4/5 or 5/5 level confidence rose from 46.6% to 91.9%, an increase of 97.2%.

As shown in Figures 3 to 5, the majority of attendees rated their confidence as having some knowledge (level 3) at the start of the day. At the end of the day most staff reported feeling able to at least perform the skills independently (level 4) or able to teach others (level 5). There was also a reduction in the number of staff reporting they had 1-2/5 level knowledge, indicating a shift from feeling like they needed development or had no knowledge of the skill to having some knowledge of the skill.

Session on 6-minute walk test

Figure 3 – Survey question on assessing exercise capacity and muscle strength

5 = I have in depth knowledge of this skill and can teach others
4 = I have a good knowledge this skill and can perform this independently
3 = I have some knowledge of this skill but there are some gaps and may need support
2 = I am developing my knowledge of this skill and need supervision
1 = I have no knowledge of this skill

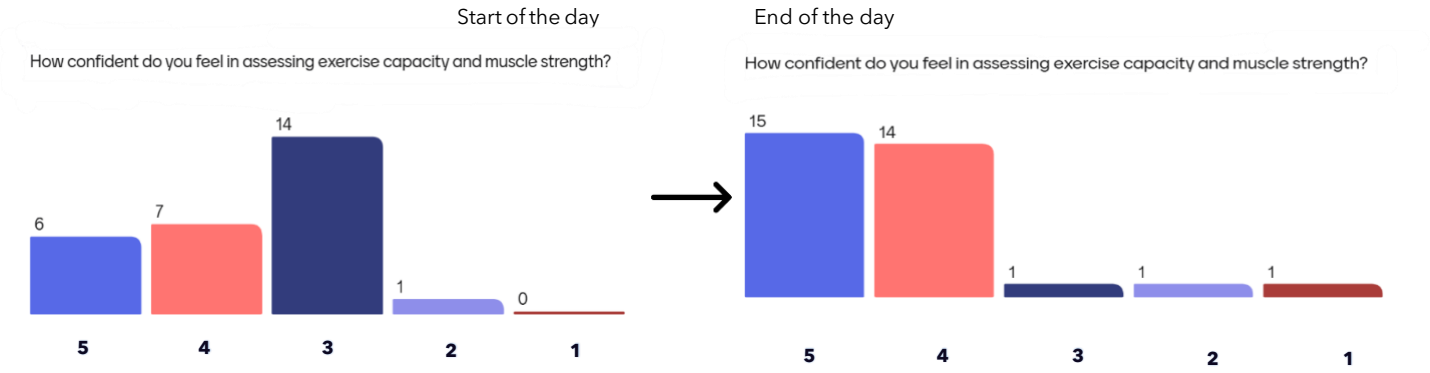


Figure 4 – Survey question on prescribing individualised exercise programmes

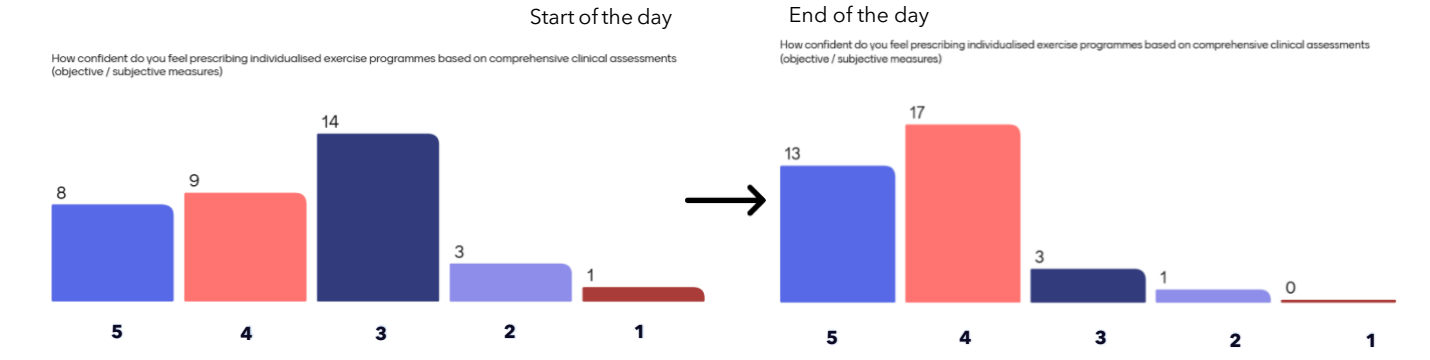
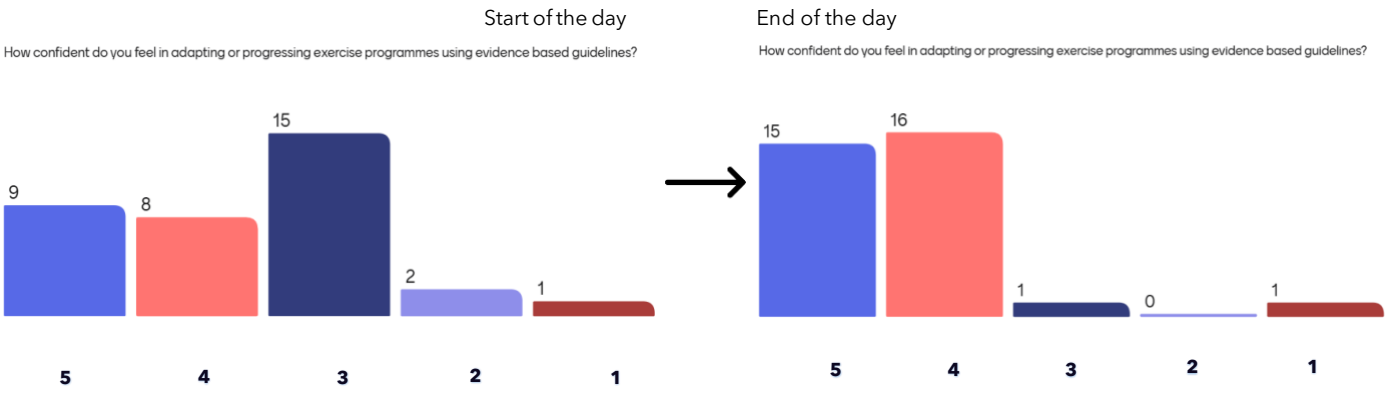


Figure 5 – Survey question on adapting or progressing exercise programmes using evidence-based guidelines



These changes in confidence indicated that staff left the sessions feeling more confident to deliver the objective tests in clinical practice.

One respondent worked as part of a wider respiratory multi-disciplinary team who had only recently begun working in PR and advised that they were very new to the topics. This may explain why one response generally did not appear to shift in confidence level over the day.

7.2.2. Module 1 quiz

There have been 71 quiz completions, with an average score of 79%. The questions with the lowest proportion of correct answers were around contraindications and factors impacting 6 minute walk tests (6MWT).

In March 2025, a feature to capture more detailed information on those completing the quiz was embedded. Thus far, there have been a range of clinical backgrounds, including physiotherapists and assistant practitioners, completing the quiz.

'It will be a great way of outsourcing the initial education for my rotational staff'

Survey respondent

A feedback survey was released upon launch of the first module in October 2024, and by May 2025 5 staff had responded. Surveyed staff found that the module provided a useful refresher to reinforce existing knowledge. Additionally, a PR service lead noted that the module could be used to reduce resourcing requirements for induction when rotational staff joined the service.

'It was good to have a refresher… confirming of the way I do these outcomes'

Survey respondent

7.2.3. Staff insights

We have engaged widely with London PR staff throughout the development of the implementation resources. The majority of feedback received was gathered on an ad hoc basis at network and team meetings, and through informal conversations with staff.

We gathered feedback and usage examples at a London PR Network Meeting on 4th March.

Staff had positive opinions of the personalised competency records, agreeing that the resources are comprehensive and make it easier to understand which competencies are relevant for them. PR Service Leads noted that it enables them to articulate and develop competencies of their staff and helps everyone understand what is expected of them. It has been used in Performance Development Reviews (PDRs) between staff and their line managers to identify required competencies, to sign off evidenced competencies, and to create action plans to develop currently unmet competencies.

'The framework document can serve a great purpose… to advance the standard of knowledge and skills for the PR workforce; also, to highlight the need for specialist training required for workforce to be able to deliver PR at a higher competency standard'.

PR Service Lead

Throughout our general engagement with the system we anecdotally found that PR staff were, in general, more interested in the training offer we created than the toolkit/ personalised competency records. There was a sense that the online modules were addressing a more immediate 'need' in the system, whereas the individualised competency records would need time and both cultural and structural change to embed in PR service workforce development processes.

The feedback from the training day was overwhelmingly positive; 25 of the 27 respondents found the day extremely useful, and the other 2 found it somewhat useful. Attendees particularly noted that having the opportunity to ask questions of the facilitators and other PR colleagues was a useful component, though some staff felt they wanted a longer session to practice the tests and work through the case study examples.

Overall, staff were evenly split between finding that the sessions met expectations and finding that they exceeded expectations. Each session had one respondent who felt neutral; when asked for more detail one respondent felt they needed more practice, and another felt that calculating the formulas was often confusing and not within the scope of their normal responsibilities.

Every attendee felt that running the session as a face-to-face training day was the most appropriate and effective way to upskill staff in assessing, prescribing and adapting individualised exercise classes for pulmonary rehabilitation. Staff noted that having opportunities to talk through case studies, network with peers across London, and to have practical demonstrations of the practical elements enhanced learning and enabled a greater quality of learning compared with online training.

I learned so much from the face-to-face training – even from other teams who have come in for the training.

Survey respondent

There were useful pieces of feedback on what could be done differently including: more time to practice the practical elements and to discuss the case studies, providing examples of paperwork currently in use in services (e.g. recording documents), and hosting additional sessions to enable more PR staff to attend.

Presentation on performing objective testing

8. Case Studies from south west London

South west London has a combination of community-based and hospital-linked PR models. A review of local competency frameworks revealed inconsistencies in how key elements of PR, such as assessments and exercise delivery, were being implemented across boroughs. With increasing pressure to meet Pulmonary Rehabilitation Services Accreditation Scheme (PRSAS) standards, variation in practice posed a barrier to system-wide accreditation and quality improvement.

The region had already begun collaborating at the Integrated Care System (ICS) level to reduce variation and support all services in achieving PRSAS accreditation. A PR Accreditation Project Manager was appointed to oversee this work. Audits across services identified key development needs, including inconsistency in the delivery of standardised elements like walking tests.

The London PR Competency Framework Implementation Resources offered a practical solution to standardising workforce competence. Teams embedded the training module into induction and ongoing training processes, using the individualised competency record to guide workforce development and review. The framework supported services in:

- Establishing clear standards for workforce competence
- Developing staff from a range of clinical and non-clinical backgrounds (for example staff with an exercise background)
- Addressing staffing and resourcing challenges
- Creating consistent pathways for recording, evidencing, and signing off competencies

Each service is adopting a flexible approach depending on the specific priorities, challenges and contexts: however, all services are embedding the training module into their induction and training processes and are using the individualised competency records as a standard part of their workforce review processes.

The framework has enabled greater clarity across services on individual and team development needs and has facilitated more structured induction for a migratory and rotational workforce. Standardising practice around competency has provided greater clarity to teams and to individuals about areas of development, overall service competency, and enabled staff members to use their competency records to grow and develop within their teams.

By aligning local practice with regional standards, the framework has accelerated progress toward PRSAS accreditation and improved consistency in PR delivery across south west London. These case studies also show that, due to the flexible nature of the resources, the framework can be applied in different areas to mitigate different challenges and achieve different objectives based on the context of the service.

8.1. Case study 1 - Sutton

Context

Sutton's PR team operate across two community-based sites with a smaller, non-rotational workforce comprised of an MDT with physiotherapists, occupational therapists and nurses. Sutton was planning to develop a competency document as part of their work towards accreditation and decided to adopt the London framework to ensure a more standardised approach.

Challenges

Initial resistance from staff – though over time gained buy-in.

Introducing the competency framework whilst also embedding strength testing into clinical practice has been challenging – balancing both initiatives has required careful time management and prioritisation.

'Having the competency framework given to us … has been really helpful to guide us through upskilling [process].'

Implementation Approach

- Updated clinical documentation records and standard operating procedures
- Watching module 1 of our training suite has become mandatory with team, incorporating key learnings into competency development. Plan to also embed module 2 into staff learning process once launched.
- Structured cascade model starting with senior staff signing off competency using peer review model in order to ensure appropriate expertise to sign off others in MDT.
- Adopt a 1:1 approach to competency development (making use of more static team) – allocating time for each team member. PR Service Lead supervises staff during PR session delivery to sign off competency, using the HIN produced competency document to record sign off.
- Competency training was introduced alongside implementation of strength testing as part of PR service assessment, aligning multiple service developments for greater efficiency and ensuring new procedure could be performed to required competency level.

Results

Identified opportunities to improve care

After noting that there wasn't documentation to evidence staff competency in prompting patient exercise, a small project was launched to improve patient exercise sheets. This has resulted in better progression during class and enhanced patient outcomes in a short period of time and is now embedded into business as usual for the service.

Staff motivation

The structured cascade approach has improved engagement as each staff member felt supported by someone already signed off as competent who had gone through the process.

Collaboration

The approach has built skills across the team, enabling the MDT to work together more efficiently.

Future planning and mitigating resource

The approach has built confidence and competence in non-physio staff, with a greater understanding of PR delivery and wider service model. A more diverse and skilled workforce will enable the service to mitigate issues such as losing PR physiotherapy posts.

8.2. Case study 2 – Croydon

Context

Croydon's PR team is integrated into the Croydon Respiratory team, delivering PR programmes across 4 sites (both community-based and gym-based settings). The integrated team has a rotational structure and utilises an exercise instructor to help address the current difficulties in recruiting to physiotherapist posts.

Challenges

Croydon's PR team is integrated into the Croydon Respiratory team, delivering PR programmes across 4 sites (both community-based and gym-based settings). The integrated team has a rotational structure and utilises an exercise instructor to help address the current difficulties in recruiting to physiotherapist posts.

Implementation Approach

Overarching strategy

- Gradual competency integration, aligning with ongoing service developments
- Embedded individualised competency records into workforce development process. Introduced peer review process for competency sign off at most senior level, and now using signed off senior managers to sign off band 4-6 team members.

Structured assessment

- Mixed medium training and assessment to enhance understanding – including quizzes, in-service training, practical observations and group discussions.
- Centralised competency folder with HIN produced individualised records where evidence of training and competency achievement are recorded and stored.
- Registered 2 staff members to attend HIN London PR face-to-face training day.

Induction overhaul

- Created in depth induction handbook to standardise practice for how the competencies are introduced during induction, how they are recorded, developed, evidenced and signed off within 6 months.
- HIN module 1 embedded into induction process – training videos must be viewed before performing objective testing.
- Registered 2 staff members to attend HIN London PR face-to-face training day.

Results

Increased consistency

Embedding competencies into workforce structures from point of induction has significantly improved consistency in the rotational workforce. New staff now complete core competencies as part of onboarding process, ensuring standardised knowledge and practice from point of entry.

Rapid inductions

Rotational and new staff are better prepared when they enter the service, reducing variation in service delivery and clinical practice.

Flexible offer

Adapting to the phased competency development approach, rather than a single intensive training block, has allowed workforce development to more flexibly align with shifting staff capacity and service demands.

Workforce insight

Changing the workforce development structure has highlighted key strengths in the team and gaps and development needs. This is enabling the team to shape workforce planning and training strategies.

Efficiency

Using the HIN videos has reduced workload on staff for training and induction.

Staff confidence

Band 5 staff have given positive feedback on the induction process, highlighting that the structured approach have them greater clarity on the expectations in their function.

9. Conclusion

This project set out to support the uptake of the London Pulmonary Rehabilitation Competency Framework by creating a suite of implementation resources and an aligned training offer. The co-production approach taken by the HIN project team and clinical leads resulted in the creation of a suite of implementation and learning resources designed with and for the London PR workforce.

Our implementation approach sets a precedent for how a co-production approach can be used to cultivate shared buy in and lead to the coproduction of resources by London staff for London staff. Our key learning was that engagement and seeking feedback must be a continuous process, that in diverse clinical services it is better to create flexible and multi-purpose documents that can be easily adapted, and that, while resource intensive, creating both online and face-to-face training, offering both bitesize and longer form practical teaching, has been perceived by PR staff to be an effective way to increase knowledge, skills and confidence in assessing. prescribing and delivering pulmonary rehabilitation programmes.

While still relatively new resources, early insights and usage data suggest that both the individual records and the first learning module are used across London and by a relatively high proportion of the overall PR workforce. Since the launch in late 2024, over 130 PR staff members have accessed a personalised competency record, and the dedicated framework page has received more than 950 views. Uptake has extended beyond London, with staff from areas including Bristol, Dorset, and Cambridge engaging with the tools – a signal that the resources may have broader applicability across the UK PR community. The high level of interest in the face-to-face training day – including a waiting list and direct requests for additional sessions – further reinforces the appetite for these kinds of tailored learning opportunities.

Feedback indicates that the resources have been useful and relevant in addressing current barriers to implementation of the original framework. By shifting from role-based to function-based categorisation of competency, the individualised records better enable staff to tailor their approach to workforce development and personal competency development based on the specific contexts, staffing structures and objectives of each service. The Croydon and Sutton case studies showcase how the resources and training can be embedded in processes such as PDRs, induction and workforce planning, and can deliver positive outcomes for staff and patients by making processes clearer and more consistent.

An evaluation of the face-to-face and online training highlighted high levels of engagement and benefits to participants. Module 1 was received positively by staff, who valued it as a refresher, an onboarding tool, and a way to build confidence in applying national standards. The face-to-face training day led to marked increases in self-reported confidence across key practical skills, including the 6-minute walk test, strength testing, and exercise prescription. Staff left the session feeling more equipped to translate theoretical knowledge into practical delivery – an outcome that is difficult to achieve via online learning alone. Ad hoc feedback from PR staff throughout the project indicates the level of interest in the second module, which was further reinforced by the appetite for, and positive feedback from, the face-to-face training day. Both modules address gaps in the current external training offer provision, and offer a free, accessible way for staff to increase their knowledge, skills and confidence across the practical elements of PR assessment, prescription and delivery.

There are significant staffing challenges being faced throughout PR services in London. The case studies underscore the potential of these resources to mitigate some of the wider workforce challenges facing PR services. In both Sutton and Croydon, services used the framework to build staff competence across diverse clinical backgrounds, support rotational staff, and reduce the training burden through consistent induction models. The flexible, co-produced design of the resources appeared to be a key factor in their successful integration.

Finally, the project also surfaced important learning about what is needed to embed this approach sustainably. Cultural change takes time, and some teams reported initial resistance or a need for stronger internal facilitation to use the tools effectively. Further embedding is likely to require ongoing communication, opportunities for peer learning, and potentially a second phase of practical support to help services move from initial engagement to full integration.

10. Glossary

Term	Definition
Competency	A measurable set of knowledge, skills, and behaviours required to perform a role or function effectively.
Core knowledge	Fundamental knowledge required by all staff involved in pulmonary rehabilitation.
Face-to-face training	In-person training session focused on practical PR delivery, such as assessment and prescription.
Function (in workforce context)	A way of categorising based on activity (e.g., delivering, managing) rather than job title. The implementation resources created for this project break down competencies against function, rather than role. When the report refers to job 'role' this is describing a point in the project before we had decided to focus on function, or otherwise specifically indicating different job roles in a wider PR workplace context away from the competency framework implementation project. When the report refers to job 'function' this is in relation to the implementation resources specifically.
Individualised competency record	A personalised tool for staff to track, evidence, and develop their PR-related competencies.
Personalised Competency Record	See *Individualised Competency Record*.
Role (in a workplace context)	A way of categorising based on job title, NHS band and/ or work background (e.g. 'Band 5 Physiotherapist, Healthcare Assistant, Respiratory Consultant). The implementation resources created for this project break down competencies against function, rather than role. When the report refers to job 'role' this is describing a point in the project before we had decided to focus on function, or otherwise specifically indicating different job roles in a wider PR workplace context away from the competency framework implementation project. When the report refers to job 'function' this is in relation to the implementation resources specifically.
Service lead	A professional responsible for the management and oversight of a PR service.
Toolkit	A set of implementation and training resources developed to support the PR competency framework.
Training mapping	The process of aligning existing training opportunities with defined competencies.

11. Appendix 1 – Implementation Approach

Project activity was split into 3 phases:

- **Needs articulation**
- **Toolkit development**
- **Training development**

11.1. Needs Articulation

Early scoping indicated that the implementation resource suite should contain both toolkit with resources that make is easier to use the framework and some element of training and education, though the specifics of what needed to be included wasn't clear.

In order to develop a detailed scope for the toolkit and training modules, we first needed to explicitly articulate the current usage of the framework, the key challenges obstructing implementation, and what PR staff wanted to see from a suite of implementation resources. We also wanted to understand how training in PR is structured and delivered, and which elements are performed internally vs by external training providers. This would enable us to understand the gaps in the current provision and to create a training offer to address them.

Lastly, we also wanted to learn from the examples set by other competency development resources across different clinical areas, appreciating that their experience may provide a useful foundation from which to develop resources for PR workforce.

Within the needs articulation process we engaged with PR staff, external training providers, and with other organisations who had implemented workforce competency frameworks within other clinical areas.

11.1.1. Engagement with pulmonary rehabilitation staff

Over the course of the needs articulation process, we met with every London ICS Pulmonary Rehabilitation Leads, and 25 PR Service Leads (of the 29 London PR services) covering every ICS region of London. By joining service team meetings in addition to regional and pan-London network meetings we also gained insights from a range of non-lead staff throughout the engagement process.

Key Questions

The key questions were:

- How is the competency framework document currently being used in PR services?
- If it isn't – what perceived issues and challenges are preventing services from embedding the framework into workforce development structures?
- What is the workforce structure of each PR service? What healthcare professional specialities currently perform which responsibilities in the service?
- What wider contextual challenges or factors are impacting workforce within PR? Could a suite of implementation resources mitigate these challenges?
- How would people like to use the framework? Could it be used to e.g. add structure and

consistency to PDRs, support with accreditation, help with recruitment and job descriptions?
- Where do staff go for internal / external training? What factors impacted which training course staff registered for?

After the consultation process, we created a thematic analysis to articulate and categorise the perceptions about limitations of the framework, the wider context factors impacting the PR workforce, and the potential improvements identified.

Key output – Needs articulation thematic analysis table

Perceptions of limitations of competency framework	Potential improvements identified	External Pressures on PR services
Does not accommodate for differences in staffing skills and models across services/regions	Needs standardising Needs to be specific and aligned to NHS bands Clarify who signs of competencies	High reliance on rotational staff
Duplication of competencies **-** Not always applicable to rotational staff	**Create a digital record to carry over skills from previous service(s)** - Useful to have a 'passport'	
Unable to edit Formatting issues	Needs to be interactive	Lack of time and resource to implement
Lacks admin elements of roles (not always PR specific)	Identify core/essential competencies Benchmark standards for permanent/longer-serving employees Clarify competencies required to work independently Identify PDR specific competencies	
Time-consuming Lengthy document	Identify core/essential competencies Needs to be measurable	

11.1.2. Engagement with Training Providers

Early conversations with PR staff indicated that, while the majority of staff training was performed in-house and through induction, there were 4 external education offers that staff commonly attended. These were:

- Loughborough College - Level 4 Certificate in Exercise Training for Chronic Respiratory Disease
- WRIGHT Foundation – Level 4 Pulmonary Rehabilitation Qualification
- British Thoracic Society – Fundamentals of Pulmonary Rehabilitation
- British Thoracic Society – Advanced Practice in Pulmonary Rehabilitation

We met with each provider to understand who each course was aimed at and to get a detailed course curriculum. This enabled us to map each curriculum against the competency framework document, identifying which competencies were covered and at what level of expertise by which course.

Each course varies in cost, length, medium of delivery and target audience. Most of the courses are also delivered online, with a high demand against the capacity of each course. Different courses teach a different range of competencies, and that there are competencies not covered by any of the curriculums. The Loughborough Level 4 Exercise Prescription course is the most in depth of the teaching offers, as this involves a mix of theory and practical application in clinical practice over an 11- 15 week period: however, this course is only available to exercise professionals rather than clinicians such as physiotherapists.

Additionally, much of the course content across these training offers is focused on core knowledge (for example lung anatomy), on communication methods such as motivational interviewing, and on the theory of how to assess and prescribe exercise. As most staff training is done in-house, many of the practical elements are learned 'on the job'. This is particularly true for the more advanced competencies asociated with more senior members of staff, such as delivering the education component, service management and forward planning for patients.

11.1.3. Curriculum mapping against competency framework

After speaking with each external training provider, we mapped out the curriculums of each offer against each line of the competency framework, identifying which competencies were covered, the type of training offered (e.g. online learning, practical teaching) and the target audience (e.g. physiotherapist, exercise professionals).

By mapping the curriculums of the 4 main training offers, and by speaking to services about their approach to training and workforce development, we found that there were gaps in the current training offer for PR staff. We had an opportunity to address these gaps by creating our own London training package.

As there are topics (particularly those more specifically related to assessing, prescribing, delivering and adapting individualised exercise) that are missing from external training offers, there was an opportunity to use training modules to address these topic gaps and focus on these more advanced competencies. Focusing on building competency in standardised assessment, prescription and delivery in line with national guidelines also aligned with the aims of the original competency framework; to emphasise competency-based learning to enable a more diverse range of professional backgrounds to join the PR workforce, and to provide patients with assured access to high quality PR programmes.

11.1.4. Engagement with other competency framework providers

British Association for Cardiovascular Prevention and Rehabilitation

The British Association for Cardiovascular Prevention and Rehabilitation (BACPR) represents professionals who are involved in cardiovascular disease prevention and rehabilitation. Among its many areas of focus, the organisation produces research, education and training resources, and publishes national care standards and overarching strategic guidance. They also produce the *BACPR Core Competencies for the Physical Activity and Exercise Component (3rd edition published 2024),* which sets out a framework for what skills, knowledge, competencies and minimum qualifications required of all professional groups involved in the delivery of the physical activity component of cardiac rehabilitation (CR).

We met with the BACPR team to understand the process of creating the framework, how they mapped the training offer to align with the core competencies, and what implementation resources have been developed to support adoption and foster consistency in CR services.

JETS - JAG Endoscopy Training System

JETS is an online workforce development and training system for endoscopy. It provides an online framework for trainee certification across a range of endoscopy modalities, and links training and certification to an interactive competency framework where staff can identify, evidence and develop their competencies.

We met with the team to talk through how they had developed the training mapping in alignment with their competency framework, and to explore possibilities of using a similar online platform approach

11.1.5. Conclusion and key insights

The key insights from the needs articulation period can be summarised in the following:

General

Extreme variation in staffing / training across London PR services.

PR landscape in London is relatively small; many services leads work as accreditation assessors, BTS trainers etc.

Most ICS PR Leads at least somewhat involved in creation of framework – baseline buy in.

Most PR service Leads aware of framework, but few have tried to implement.

PR staff tend to move roles often, and there are currently staffing shortages – lots of effort for PR service leads to take time to go through framework.

Training

Some of the most in-depth and well received training offers (e.g. Loughborough Level 4 Exercise Prescription qualification) are oversubscribed, online only, and are only available to certain clinical specialities e.g. exercise physiologists.

Most staff training is done in house; the external training is oversubscribed and doesn't cover all competencies.

Many competencies needed by PR Service Leads have no training available – expectation is they learn 'on the job'.

There is no central resource hub that signposts to all available/ relevant training.

Need to signpost to existing training on general topics – motivational interviewing, facilitating group sessions etc.

Toolkit

There could be many uses for the framework, e.g. recruitment, PDR, accreditation and service evaluation.

PR Staff want guidance on how to evidence their attainment of more nuanced/ complex competencies.

PR Leads would be more likely to use the framework if the document was shorter, more interactive, and more specifically mapped to different functions the service.

Across different services, the same function (e.g. session delivery) may be performed by staff who have different roles, bands and clinical expertise. There is no one staffing model across London.

Need a mechanism for PR Leads to see the overall competency level of a service.

Learnings

We learned from PR staff that:

- There is significant variation across PR services in staffing models, current context and challenges, how competencies are identified and developed, how staff are trained, and how people want to use the framework.
- The framework has many potential applications if embedded properly; it provides an opportunity to mitigate staffing challenges, to supplement workforce development structures, to support in accreditation, and to generate recruitment tools, among other functions.
- In its current structure and format, the framework is too long and unwieldy to identify relevant competencies for each staff member, to assess whole service competency and to identify development need.
- Not all competencies are relevant to all staff – some competencies are for everyone, some are for those who perform certain functions in the service e.g. service management, some competencies are required by al but at different levels of knowledge/ skill, and some are NHS standards so not specific to PR.
- An implementation resource is required to make it easier for staff and services to understand which competencies were relevant to them, to know how to develop competencies, and to make it easier to embed the framework into their workforce development structures.

11.2. Toolkit Development

11.2.1. Developing a competency matrix

Understanding priorities

The first step in creating an implementation resource was to create a matrix that mapped out which competencies were relevant to which staff, and which set out what functionality would be embedded into the document.

The needs articulation process provided us with a clearer understanding of the challenges with the original framework that the implementation resources needed to address and gave us indications of the ways in which staff wanted to use the framework. However, there was an early challenge in how to create a resource that worked for all staff in the diverse PR services across London.

We learned that there was significant variation in how staff wanted to use the competency framework, which made it challenging to prioritise functions. Some staff wanted a highly prescriptive document that set out the exact requirements to evidence or develop each competency, for example performing x number of walk tests under supervision, or attending x training course, or to specifically note which competencies contributed towards accreditation. Others wanted the framework to stay flexible as to better account for their specific staffing needs and local contexts.

Similarly, we found variation in the staffing mix in each service, and what responsibilities were performed by which grade staff member. For example, in some services the PR service Lead also delivered PR programmes, and in others the Lead only performed the service management aspects of the role. The responsibilities of e.g. a band 6 physiotherapist in one service resembled the responsibilities of a band 5 clinician in another service. Likewise, given the migratory nature of PR with fixed term contracts causing staff movement, many services were comprised of a mix of fixed term and rotational staff.

Any avenues where we set out one way of using the document, or specific criteria for the evidencing and development of competencies would inevitably fail to account for the specific context of different services or staff situations and desired functionality. Likewise, there is no specific national guidance on exactly what constitutes 'evidence of competency' for each competency.

Structure and content
After consultation with our steering group, which comprised a pan-London mix of PR service Leads and ICS PR Leads, we decided to make a document that was flexible and light touch, which could be used for many functions (e.g. as a PDR document, a tool to create job descriptions, an evidence document for accreditation). A highly specific document which set out exactly the evidence required for each competency, dictated the exact training and qualification requirements, and categorised competencies by e.g. NHS band or job title would have been overly prescriptive, would have failed to account for every context, and would need regular updating. A lighter touch document which mapped out competencies by staffing function, highlighted potential training offers to develop each competency, and provided a structure for evidencing and recording competency, but which left room for each service to adapt to their staffing mix, would foster consistency whilst retaining service autonomy. It would enable PR staff/ leads to decide what evidence can sign off a competency and how to develop their staffs' skills and prevent the document from becoming outdated when e.g. new staff training becomes available.

The document also needed to be more visually clear and be at least partially interactive so staff can add evidence and development plans.

We decided to frame the document in a PDR structure, with interactive sections to include evidence of competency achievement, manager sign off, comments and actions plans. We would also map each of the external training offers, and the to-be-developed training offer from our training workstream, against each competency category (for example 'physical activity and exercise prescription') in order to make it easier for staff to understand where to develop their competencies.

We produced an introduction section that provides an overview of the project, the structure of the individual competency document, and details potential ways to evidence competencies.

Decision - Function over role
In addition to making the document flexible and light touch to account for the diversity of staffing structures across London, we likewise decided that, rather than map competencies to AfC band, role or job title, we would map against the function a staff member performs in the PR service.

Breaking down by function allows service to more flexibly apply competencies based on day-to-day activities performed, accounting for variety in staff experience, clinical background, specific service staffing contexts; in two different services staff members of varied roles and bands may be performing the same responsibilities. The emphasis on function also enables staff to more easily identify their development routes into higher levels of responsibility, with an emphasis on what skills they need to gain, or the ways in which they need to enhance their existing competencies into e.g. a greater level of independence, more specialist knowledge or decision making responsibility.

The functions are:

(1) Supporting pulmonary rehabilitation programmes
A member of staff that supports the delivery of pulmonary rehabilitation may be working as a band 3-5, and most will not be qualified health care professionals. The responsibilities of someone supporting pulmonary rehabilitation delivery include performing outcome measures (but not prescribing exercise programmes) delivering warm up and cool down sessions and supporting the delivery of education programmes (but likely not running sessions independently).

(2) Delivering pulmonary rehabilitation programmes
Those delivering pulmonary rehabilitation programmes would be involved in all aspects of the pulmonary rehabilitation patient pathway. From leading on assessments to the collection of exercise and health-related outcomes, they would be able to deliver all aspects of the pulmonary rehabilitation class and may be involved in pulmonary rehabilitation focused projects.

(3) Leading pulmonary rehabilitation programmes (service management)
This function primarily focuses on service management, evaluation, and overarching leadership. This function is usually performed by the Service Lead. It has been separated from pulmonary rehabilitation session delivery because while Service Leads may often also run the sessions themselves, this is not always the case.

(4) Delivering and managing pulmonary rehabilitation programmes
Aimed primarily at Service Leads who, in addition to service management, also deliver the pulmonary rehabilitation programmes.

11.2.2. Designing and hosting a solution

Power Automate

The personalised, function-based competency records needed to be accessible online, and required some level of interactivity. We decided to create an MS form linked to a Power Automate flow that would send respondents their personalised competency record as a partially editable word document. This has enabled the project team to track access figures for evaluation and means the process can continue after project activity closes with minimal capacity requirements.

11.3. Module development

11.3.1. Online modules

Staff find it challenging to access external training offers due to high demand, so we needed to create a mixed medium training offer that contained free and easily accessible online elements, with videos to practically demonstrate how e.g. assessment looks in clinical practice with a patient.

That said, given the limited access to applied learning, we decided to also create a proof-of-concept face-to-face training day focused on practical application of assessment, prescription and adaptation of exercise, to give staff the opportunity to practice these elements in a real world setting, and to network with other PR healthcare professionals across London.

The needs articulation process enabled us to create the following curriculum structure:

Competency Category	**Type of training**
5: Preparing the individual for supervised exercise	Relevant competencies covered in e-learning and videos
6: Pre-assessment review	Relevant competencies covered in e-learning and videos
7: Subjective assessment	Relevant competencies covered in e-learning and videos
8: Objective assessment	**Module 1 (online)** - **How to assess exercise capacity and peripheral muscle strength using standard tests** **Face to face session** - **How to perform objective assessments**
9: Physical activity planning and exercise prescription	**Module 2 (online)** - **How to prescribe individualised exercise programmes and activities** - **How to design individualised exercise programmes**

10: Lead and deliver the supervised exercise session (with adaptation of exercise programmes based on patient reported measures)	- **How to adapt an exercise programme based on patient response and other factors** - **How to understand the changes brought about by the programme?** **Face to face session** - **How to perform objective assessments** - **How to prescribe individualised exercise programmes and activities** - **How to design individualised exercise programmes** - **How to adapt an exercise programme based on patient response and other factors**

Each module was designed jointly between the clinical leads and the HIN Communications Team, who collaborated on developing the learning objectives and education content, designing the structure of the online module, and writing and filming the videos.

11.3.2. Face to face training

In addition to online modules, the project team felt that it was vital to design and run a face-to-face training day for London PR staff. Training mapping showed that most practical learning for the assessment, prescription and delivery of individualised exercise occurred in-house at each service, with variation in what skills were covered, how often staff were trained, and the structure of learning. Creating a proof of concept face-to-face session provided an opportunity to explore what a more practical focused training offer could look like, and to standardise practice in how these practical competencies are taught to London staff.

The face-to-face training day curriculum specifically focused on the topics which were both least likely to be covered by external training courses, and which formed the groundwork for active delivery of PR programmes.

The structure of the training day was as follows:

Competency	Teaching structure
Assessing exercise capacity and muscle strength	Presentation followed by group sessions on: - Incremental shuttle walk tests - 6 minute walk tests - Assessing peripheral muscle strength - Functional testing
Planning an exercise programme and prescription • Presentation on how to • Group facilitated work	Presentation followed by group discussions with worked case study examples
Prescribing a home exercise programme discharge	Presentation followed by group discussions with worked case study examples
Measuring Health Status in patients with respiratory disease	Presentation