



**ASTHMA
AUSTRALIA**

QUALITY USE OF MEDICINES IN CHRONIC AIRWAYS DISEASE PROGRAM

Program Design Report | April 2024

Prepared by Asthma Australia on behalf of The Lung Learning Partnership



The Quality Use of Medicines in Chronic Airways Disease Program is funded by the Australian Government Department of Health and Aged Care

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DEFINITIONS AND ACRONYMS

Definitions and acronyms are provided enhance clarity and understanding of the document. If anything remains unclear, please contact us for further explanation ([Contact](#)).

Definitions

Table 1: Definitions of key concepts referred to within this document

Term	Description
Person-centred care	Australian Commission on Safety and Quality in Healthcare stated that “person-centred care is widely recognised as a foundation to safe, high-quality health care. It is care that respects and responds to the preferences, needs and values of patients and consumers.” ¹
Quality use of medicines	Quality use of medicines (QUM) is used somewhat interchangeably with Quality use of diagnostics, therapeutics and pathology (QUOTP).
Quality use of diagnostics, therapeutics and pathology	<p>The Quality Use of Diagnostics, Therapeutics and Pathology program defines the quality use of medicines and medical test as:²</p> <ul style="list-style-type: none"> • selecting the appropriate management option when treating illness and maintaining health • using medicines safely and effectively by <ul style="list-style-type: none"> • monitoring outcomes • minimising misuse, overuse and underuse • improving people’s ability to solve problems with their medication, such as negative side effects or managing multiple medications • choosing the most suitable medicines by considering <ul style="list-style-type: none"> • the individual • the clinical condition • the risks and benefits • the dosage and length of treatment • any coexisting conditions • other therapies • monitoring considerations • costs for the individual, the community and the health system as a whole <p>Recognising that non-medicinal approaches to manage many disorders may result in better health outcomes.</p>
Human-centred design	Human-centered design (HCD) is an approach to problem-solving and innovation that prioritises understanding the needs, behaviours, and preferences of the people who will ultimately use the product, service, or system being designed. It involves empathising with users, defining

¹ Australian Commission on Safety and Quality in Healthcare. *Person-centred care*.

² Australian Commission on Safety and Quality in Healthcare. *Quality Use of Medicines*.

Term	Description
	<p>their needs, ideating solutions, prototyping ideas, and testing them iteratively to create solutions that are user-friendly, effective, and meaningful.³</p>
<p>Lung Learning</p>	<p>The Lung Learning Partnership is a consortium of Lung Foundation of Australia (LFA), the Thoracic Society of Australia and New Zealand (TSANZ) and Asthma Australia (AA).</p> <p>The Lung Learning Program represents the culmination of the work from the Lung Learning Partnership to set standards for lung health education and training. The program is delivered through the key components of the Lung Learning Framework and Lung Learning Hub.</p> <p>The Lung Learning Framework is a structured competency-based model that captures the knowledge and skills which enable primary HCPs to provide best-practice care across lung conditions.</p> <p>The Lung Learning Hub acts as the online host of the Lung Learning Framework through a self-assessment tool. The Lung Learning Hub also acts a marketplace for a collection of continuing professional development CPD activities.</p>
<p>QUM in CAD Program</p>	<p>The QUM in CAD Program is the response of the Lung Learning Partnership to the Health Professional (HCP) Education grant opportunity from the Quality Use of Diagnostics, Therapeutics and Pathology (QUDTP) Program. The goal is to deliver a national program of education for HCPs that aims to improve the quality use of medicines and medical tests in the diagnosis and management of chronic airways disease, including asthma and COPD.</p> <p>QUM in CAD program will leverage the Lung Learning Program components (Lung Learning Framework and Lung Learning Hub) in addition to creating three Education Packages, focusing on three topics.</p> <ul style="list-style-type: none"> • Diagnosis of breathlessness and treatment initiation in CAD • A step-wise approach to the management of COPD to prevent exacerbations • Personalised management of asthma to prevent flare-ups

³ IDEO.org. 2015. The Field Guide to Human-Centered Design.

Acronyms

Table 2: List of frequently used acronyms in this document and their meanings

Acronyms	Meaning
AA	Asthma Australia
AAH	Australian Asthma Handbook
ACRRM	Australian College of Rural and Remote Medicine
ACSQHC	Australian Commission on Safety and Quality in Health Care, The Commission
AMC	Australian Medical Council
ATSI	Aboriginal and Torres Strait Islander
CAD	Chronic airways disease
COPD	Chronic obstructive pulmonary disease
CPD	Continuing professional development
EAG	Expert Advisory Group
GP	General Practitioner
HCD	Human-centred design
HCP	Healthcare professional
LFA	Lung Foundation of Australia
NMP	National Medicines Policy
NPS	National Prescribing Service
NSQUM	National Strategy for Quality Use of Medicines
PHC	Primary Healthcare
QI	Quality improvement
QUOTP	Quality Use of Diagnostics, Therapeutics and Pathology
QUM	Quality use of medicines
RACGP	Royal Australian College of General Practitioners
SRG	Stakeholder Reference Group
TSANZ	The Thoracic Society of Australia and New Zealand

ACKNOWLEDGEMENT OF COUNTRY

Asthma Australia acknowledges the Traditional Custodians of the lands on which we work and pay respect to Elders past and present, and the Aboriginal and Torres Strait Islander Peoples within the community.

We recognise and respect the holistic concept of health for First Nations Peoples which embraces physical, social, emotional, cultural, and spiritual wellbeing, for both the individual and the community, and which encompasses the importance of connection to land, water, culture, spirituality and ancestry.

We acknowledge and uphold the intrinsic connections and continuing relationships Aboriginal and Torres Strait Islander Peoples have to Country and value their cultural knowledge, strength and resilience in our work to improve the lives of people experiencing chronic airways disease.

How to read this document

The **Executive Summary** provides a concise summary of the Program Design for the QUM in CAD Program. Designed to provide an at-a-glance view of the outcomes of the Program Design process without the full details.

The **Program Design Synopsis** provides a summary of the process and outcomes. This ten-page overview presents key findings and insights gathered and a high-level version of the Program Design schematic and key design components.

The **Comprehensive Program Design Report** takes the reader from the background and purpose of the project, through each of the inputs in the DISCOVER phase including a thorough summary of the External Stakeholder Engagement to date. An overview of the outcomes of the participant exercises at the Design Thinking Workshop is included, as well as the eight pitches which resulted at the end of the day. These findings and insights are consolidated in the DEFINE section, and then used to expand the rationale for Program Design. Finally, a recommendation for the Solution Blueprint is included to pave the way for the next phase of the QUM in CAD Program.

Acknowledgements, References are provided, along with a number of Appendices covering further details of research or analysis which have formed the Program Design process.

I hope that you find the contents of this report useful in not only building Solution Blueprints for our Educational Activities but will also inspire further activities with the goal of improving the quality use of medicines for people living with chronic airways disease.







Cathryn Berry, Asthma Australia

EXECUTIVE SUMMARY

The Lung Learning Partnership, a consortium of the Lung Foundation of Australia, the Thoracic Society of Australia and New Zealand, and Asthma Australia, was awarded a Commonwealth-funded Grant to deliver the '**Quality Use of Medicines in Chronic Airways Disease (QUM in CAD) Program**'. The program aims to improve the quality use of medicines and medical tests in the diagnosis and management of chronic airways disease (CAD), including asthma and COPD, through a national program of education for healthcare professionals (HCPs).

- A human-centered design approach was used in **Program Design**, starting with gathering insights from various sources including the lived experience of people with CAD, analysing gaps in HCP capabilities using the Lung Learning Framework and self-appraisal data, and engagement with expert stakeholders including an Expert Advisory Group and Stakeholder Reference Group.
- A **Design Thinking Workshop** with HCPs and people with lived experience of CAD generated ideas for educational solutions focused on priority issues relating to quality use of medicines. Common themes included leveraging patient stories, providing practical tools and resources, and using engaging formats.
- **Key insights** that informed the design include:
 - People with CAD suffer from lack of understanding, discontinuity of care, and limited self-management options. They need education, HCP support, peer connection, and greater access to care.
 - Priority gaps in HCP capabilities relate to diagnostic testing, patient education, person-centered care, supporting self-management, and shared multidisciplinary care.
 - Quality use of medicines issues span preventive care, diagnosis, treatment initiation, ongoing care, self-management support, and acute exacerbations.
- The QUM in CAD Program will deliver **three Education Packages** on 1) diagnosis of breathlessness, 2) management of COPD, and 3) management of asthma. The packages will be multi-modal, evidence-based, and facilitate self-appraisal against the Lung Learning Framework.
 - Each package will target specific HCP audiences and address key capability gaps, and quality use of medicine issues along the patient journey from diagnosis to ongoing management. Suggested formats include online learning, webinars, checklists, patient resources, and communities of practice.
 - The packages will be hosted on a dedicated "QUM in CAD Program home" within the Lung Learning Hub and promoted widely to reach the target of engaging 5,000 HCPs.
- **Success will be measured** by improvements in HCP behaviours relating to diagnosis, treatment, inhaler device use, patient empowerment and multidisciplinary care, as well as increased collaboration and enhanced data collection via the Lung Learning Hub.

In summary, a comprehensive design process has laid the foundation for an impactful program to address quality use of medicines in CAD through innovative, targeted education for HCPs across the continuum of care. Implementation will leverage the combined expertise and reach of Australia's leading lung health organizations to drive meaningful improvements in HCP behaviour and patient outcomes in chronic airways disease through, person-centred educational interventions.

	Lung Learning Program 		“Chronic Airways Disease Education Program for HCPs” [Identity TBA]		
DESCRIPTION	The Lung Learning Program represents the culmination of the work from the Lung Learning Partnership to set standards for lung health education and training. The program is delivered through the Lung Learning Framework and Lung Learning Hub		The “QUM in CAD Program” is a national program of education for healthcare professionals in primary care that aims to improve the quality use of medicines and medical tests in the diagnosis and management of chronic airways disease. Three topics are covered in a set of “Education Packages” focusing on breathlessness, COPD, and asthma, featuring activities that respond to identified needs. Each “Education Package” is aligned to the Lung Learning Framework and can be accessed via the Lung Learning Hub.		
	Lung Learning Framework 	Lung Learning Hub 	Diagnosis of breathlessness 	Management of COPD to prevent exacerbations 	Management of asthma to prevent flare-ups 
Description	A structured competency-based model that captures the knowledge and skills which enable primary HCPs to provide best-practice care across lung conditions	The online host of the Lung Learning Framework and self-assessment tool. A marketplace for a collection of continuing professional development activities.	An Education Package that focuses on the diagnosis of breathlessness and treatment initiation in CAD	An Education Package that focuses on a step-wise approach to the management of COPD to prevent exacerbations	An Education Package that focuses on personalised management of asthma to prevent flare-ups
OUTCOMES	<i>Increase collaboration between organisations with an interest in CAD and distribution of high-quality information, tools and resources via the Lung Learning Hub</i> <i>Enhance reporting capability of the Lung Learning Hub to provide longitudinal data on learning outcomes from training providers, in addition to data on HCP training and development needs</i>		<i>Improved HCP identification of symptoms of CAD, such as breathlessness, and activation of clinically appropriate diagnostic and referral pathways</i>	<i>Increased awareness and initiation of evidence-based, clinically appropriate pharmacological & non-pharmacological treatments</i>	<i>Increased HCP use of guideline-recommended approaches to selecting and demonstrating inhaler devices for patients</i>
			<i>Increased HCP awareness and initiation of multi-disciplinary care that supports best-practice coordination to prevent exacerbations</i>	<i>Increased HCP awareness and initiation of person-centred care that empowers patients / carers / family to be partners in the management of CAD</i>	
OBJECTIVES	On completion of the enhancement work to the Lung Learning Hub, the following objectives will be met: <ul style="list-style-type: none"> Enhance the user experience of the Hub based on industry feedback, aiming to scale-up functionality, interactivity, and aesthetic appeal. Upgrade the Hub’s reporting capabilities, offering enhanced analytics and impact metrics (including visualisation) to LFA, our training partners and funders. Increase site traffic to the Hub and self-appraisal completions. This will generate more data around the training needs of the workforce. Strengthen the Lung Learning monitoring and evaluation framework. A new digital evaluation tool will allow us to measure users’ achievement of learning outcomes and intention to change practice. 		On completion of the Education Package, participants will: <ul style="list-style-type: none"> be aware of breathlessness as an important presenting symptom for CAD and other conditions feel able to identify where breathlessness is a symptom of CAD activate clinically appropriate diagnostic and referral pathways, eg spirometry, imaging, sputum examination, blood tests. 	On completion of the Education Package, participants will: <ul style="list-style-type: none"> be familiar with the key evidence-based recommendations from The COPD-X Plan recognise the impact of fragmented care coordination and empathise with patients in this situation develop a plan of care for their patients with COPD which supports optimal management towards minimisation of exacerbations. 	On completion of the Education Package, participants will: <ul style="list-style-type: none"> be up-to-date with the current guidelines for managing asthma in children feel driven to ensure parents can independently manage their child’s asthma ensure that all children with asthma in their practice have an up-to-date Asthma Action Plan, have been educated on the plan including inhaler technique and they understand the need for preventative medication to avoid flare ups.
ACTIVITIES	Enhanced reporting capabilities <ul style="list-style-type: none"> Heat maps Trackable click-throughs Data export Improvement to Hub’s training provider portal <ul style="list-style-type: none"> Collateral download area Application form update Improvement to Hub’s HCP portal <ul style="list-style-type: none"> Microlearning zone Learner dashboard QUM in CAD ‘sub hub’ 		Educational activities <ul style="list-style-type: none"> Online learning module Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit 	Educational activities <ul style="list-style-type: none"> Webinar series Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit Community of practice 	Educational activities <ul style="list-style-type: none"> Webinar series Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit Community of practice

PROGRAM DESIGN SYNOPSIS

Chronic airways disease has a significant impact on the quality of life of Australians. The QUM in CAD Program will leverage the Lung Learning Program components (Lung Learning Framework and Lung Learning Hub) to deliver a national program of education for HCPs that aims to improve the quality use of medicines and medical tests in the diagnosis and management of chronic airways disease, focusing on breathlessness, asthma and COPD.

The QUM in CAD Program is the execution of a Health Professional Education Grant to the Lung Learning Partnership from the Australian Government Department of Health and Aging, as part of the Quality Use of Diagnostics, Therapeutics and Pathology Program.

Program Design approach

This report summarises the variety of inputs into the design process and demonstrates how these connect to define the challenges and to design the collaborative delivery of the QUM in CAD Program outcomes by the Lung Learning Partnership.

A human-centred design approach has been used in Program Design. The Program Design strategic process has taken us through discovery, definition to design and sets out the framework to develop the next steps.

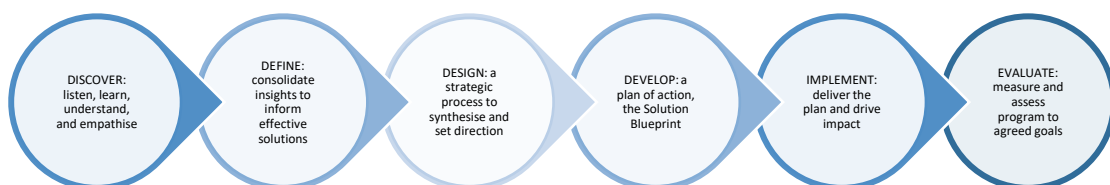


Figure 1: Adapted six stages of human-centred design approach to QUM in CAD Program

DISCOVER: listen, learn, understand, and empathise

Creating meaningful solutions begins with gaining a deep understanding of the needs of the people and organisations the problem affects

In this first phase of the Program Design process both internal and external sources were reviewed to consider relevance to the design of the QUM in CAD HCP Education Program. With a number of initiatives in place to support HCPs in the delivery of the quality of medicines, it is important that our program supports and amplifies these rather than adding another activity to the already crowded space. Analyses from the Lung Learning Framework were considered as well as findings from the Environment Scan, in addition to considerations of the current CPD requirements, HCP preferences and current indicators of best practice in QUM.

Multiple stakeholder organisations, clinical experts and consumers are being engaged to inform the development of the Program and its priorities as they relate to QUM and the target audiences it seeks to influence. In addition to the Project Consortium, a Stakeholder Reference Group and multidisciplinary Expert Working Group have been established. People with lived experience of CAD are a critically important stakeholder group, and additional clinical expert and/or end-user working groups will be assembled for specific program activities.

Design Thinking Workshop

The Design Thinking Workshop was the major activity of the Program Design process. Held on 26th February 2024 in Brisbane and hosted and facilitated by Prof Sharyn Rundle-Thiele and her team from Social Marketing @ Griffith, 54 HCPs and people with lived experience of CAD gathered for a five-stage participatory design thinking process: empathise, define, ideate, prototype and test.

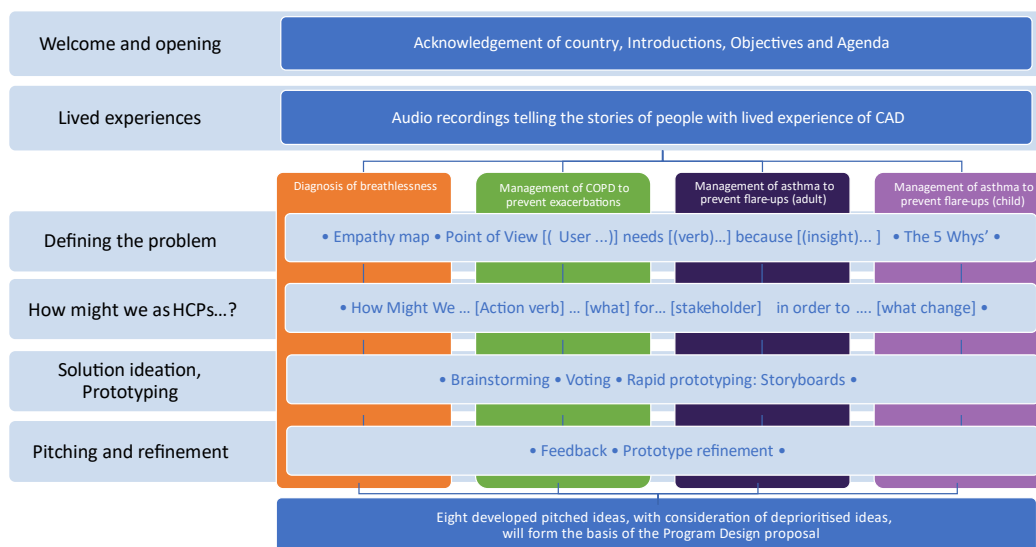


Figure 2: Design Thinking Workshop - agenda flow

1. Empathise

We began the workshop listening to recordings of Lived Experience Narratives from a selection of five people with CAD. The narratives were created from interviews with people with different CAD conditions, adapted to create stories of suitable length and recorded by actors.

2. Define the problem

A series of exercises were run with participants working individually and in groups in order to better understand and define the problem we would be designing the Education Packages to solve.

Table 4: Summary of outputs from the Design Thinking Workshop exercises to define the problem

	1. Young adult with recently-diagnosed COPD	2. Adult who has struggled with breathlessness for years	3. Adult with long-term poorly-controlled asthma and co-morbidities	4. Older adult with life-long silent asthma	5. Adult and children with asthma
POV statement	They need comprehensive patient care and education because they are frustrated with inadequate healthcare for COPD and feel isolated.	They need support to navigate the clinical journey because their life is limited by breathlessness.	They need to be empowered to self-manage their asthma, because they are overwhelmed.	They need greater support from others because they live life in fear.	They need support to organize the family asthma management because they don't want family life to be limited.
Problem	The patient needs to be holistically assessed and managed	HCPs are not able to diagnose breathlessness	Consumer feels like they are not being heard throughout the asthma journey		Good quality, person-centred care is compromised when multiple family members have asthma
Why is that?	HCP stigma	HCP doesn't recognise breathlessness	Lack of patient confidence		HCP takes a an individual view
Why is that?	HCP lack of knowledge	Long-standing problem	Patient-HCP power dynamic		HCPs are not supported to look at family
Why is that?	New information not disseminated	Out-dated HCP attitude	HCP doesn't recognise lived experience		PHC episodic business model
Why is that?	HCP competing priorities	Lack of HCP experience	HCP is reactive / solutionising		Lack of family-centred model of care in PPHC

Ultimately “How might we...?” questions were developed to frame the challenges in a way that inspires creative problem-solving and innovation. Overall, you could summarise our overarching challenge as follows.

How might we design Education Packages to inform and equip healthcare professionals with the knowledge, attitude and skills in order to deliver patient-centred care and empowerment?

3. Ideation

A series of brainstorming activities amongst participants both individually and in groups generated 427 unique responses to the different questions. The ideas could be categorized into the potential deliverable solutions for healthcare professional education, factors that would facilitate the delivery of these solutions, ideas targeting health services or system-level solutions, as well as more consumer-focused activities.

4. Prototype and test

The conclusion of the Workshop were eight pitches presented by the participants as the culmination of the Design Thinking process at the end of the day. Each group developed their ideas and presented and took feedback from other groups, refining their idea in an iterative fashion.

Table 5: Eight concepts pitched at the Design Thinking Workshop

Concept name (Group focus)	Description
Podcast series based around the AAH and connected to patient experience (Asthma in children)	A 12 episode-podcast based on sections of the AAH supported by patient experience. Extension activities include guided reflections, online learning, supplementary resources and behaviour change reflections.
Asthma certification program plus community of practice (Asthma in adults)	Asthma certification after completion of in-person training, online training and an assessment. Extension activities include an immersive experience at a respiratory clinic and community of practice.
Asthma Compass: checklist to create integrated care plan for all patients (Asthma in adults)	With the goal of supporting primary healthcare professionals to create and use an integrated plan of care, a checklist to build a plan pulling together existing resources. Considerations include tapping into existing MBS-funded items, CPD accreditation for reflective practice.
Breathlessness pie: a model to organise diagnosis and interventions in breathlessness (Breathlessness)	A biopsychosocial cultural model for organising thinking about how to manage the patient experience of breathlessness. Each slice of the pie represents a different aspect that is potentially treatable to impact a person's experience of breathlessness.
Resources for HCPs to support better lung health in Aboriginal people (COPD)	With the goal of empowering HCPs to understand the questions they need to ask so they're culturally appropriate for that community, how that needs to be framed, how they need to talk to their patient about their condition, this proposal sets out to engage and partner with community in APY Lands to co-design and develop a toolkit for HCPs
A digital destination on breathlessness for HCPs (Breathlessness)	A centralised digital space where information is available at a click as a quick resource for doctors within their consultation. The goal is to make information available at a click as a quick resource for doctors within their consultation. To help GPs how to assess, diagnose, investigate and manage. Supplemented by a learning module on how to use, and key principles.
Choose your own asthma adventure (Asthma in children)	An AI assisted platform to direct the user though a learning pathway based on a family with children or adolescents with asthma. Scenario-based learning combining real-life stories and messages around the quality use of medications, inhaler technique, prescription and deciding if an inhaler is correct for that person.
COPD checklist for GPs (COPD)	A tool to facilitate standardised, patient-centred COPD care and training resources on how to use it. the checklist is at the GP fingertips to prompt appropriate diagnosis and managements steps. Integrate existing assets. Supported by training on how to use. Supported by training on how to use.

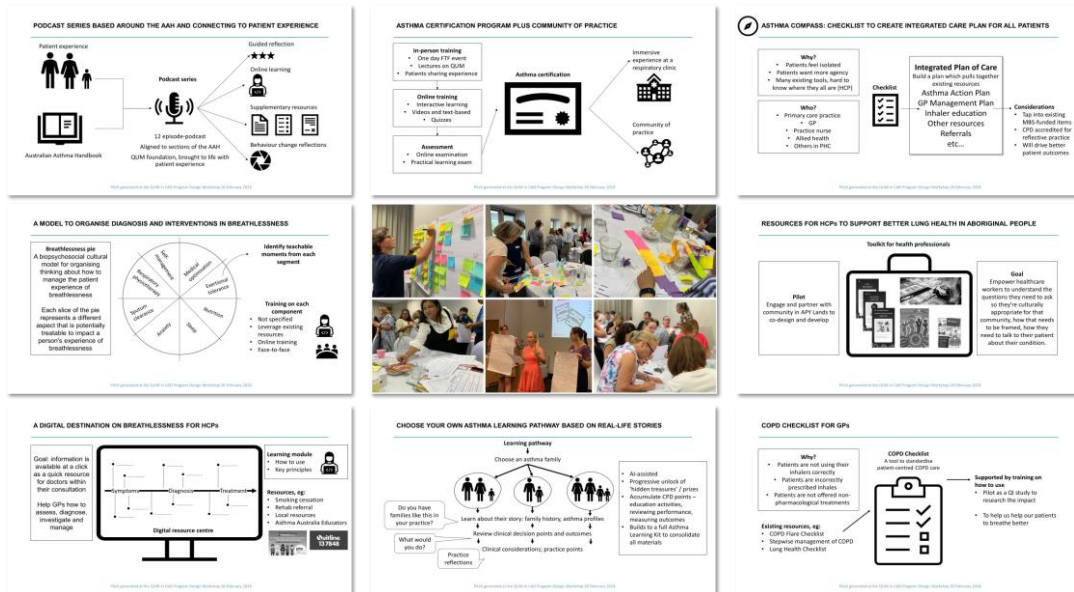


Figure 3: Summary of the eight pitches present at the conclusion of the Design Thinking Workshop

Each of the pitched education concepts aim to empower HCPs with the knowledge, skills, and resources needed to deliver high-quality, patient-centred care. Themes from the pitches can be summarised as principles to guide the Education Package design.

- **Understand patient experiences and integrate them into healthcare practice**
- **Use innovative educational methods**
- **Emphasise the importance of adhering to evidence-based practice guidelines.**
- **Provide opportunities for reflection and self-assessment.**
- **Community engagement, collaboration, and partnership are important in healthcare delivery.**
- **Provide practical tools, checklists, and resources that can be easily implemented into clinical practice**
- **Work in a way that is culturally sensitive, considering diversity, and inclusion.**

Elements of each pitch will be used in the Education Package and Activity Design.

DEFINE: consolidate insights to inform effective solutions

Prioritised findings and rich insights around challenges are translated into opportunity areas for innovation

The DEFINE phase of human-centred design allows an opportunity to bring together the volume of findings and insights from the DISCOVER phase and organise them. Keeping the people we are delivering the Education Packages to, and the ultimate beneficiaries of the people living with chronic airways disease as our focus, in this section we have organised the findings in a way to point to optimal solution design.

Reflect priority QUM issues for people with CAD and promote patient empowerment as key to optimal management

- We heard that priority issues for people with CAD are as follows:
 - **Breathlessness** Patients suffer from lack of personal, community, and provider awareness, discontinuity of care, and too few clinical and self-management options.
 - **COPD** Fragmented care coordination of COPD and comorbidities causes additional stress from navigating the health system.
 - **Asthma** Lack of understanding of the disease, undervaluing of medications and easy access to relievers contribute to cyclic lack of control.
 - **People with CAD** need to feel empowered through engagement from HCPs in shared decision-making because their disease is poorly-controlled and they feel overwhelmed.
- The pitches emphasise the importance of understanding patient experiences and integrating them into the educational content through patient stories, scenarios, and real-life experiences.

Facilitate HCPs to self-appraise their knowledge and skills against the capabilities of the Lung Learning Framework

- Activities created within Education packages should be built around the identified gaps in current Lung Learning Framework and the training needs identifies HCP self-appraisal analysis.
- The design and build of the Education Packages must include planning of Journeys to connect the user with the self-appraisal, and re-appraisal of capabilities within the Framework.
- The pitches emphasised the importance of adherence to evidence-based practice guidelines and called out the need to provide opportunities for reflection and self-assessment.

Include multi-modal education and behaviour change activities that support HCPs to deliver evidence-based care

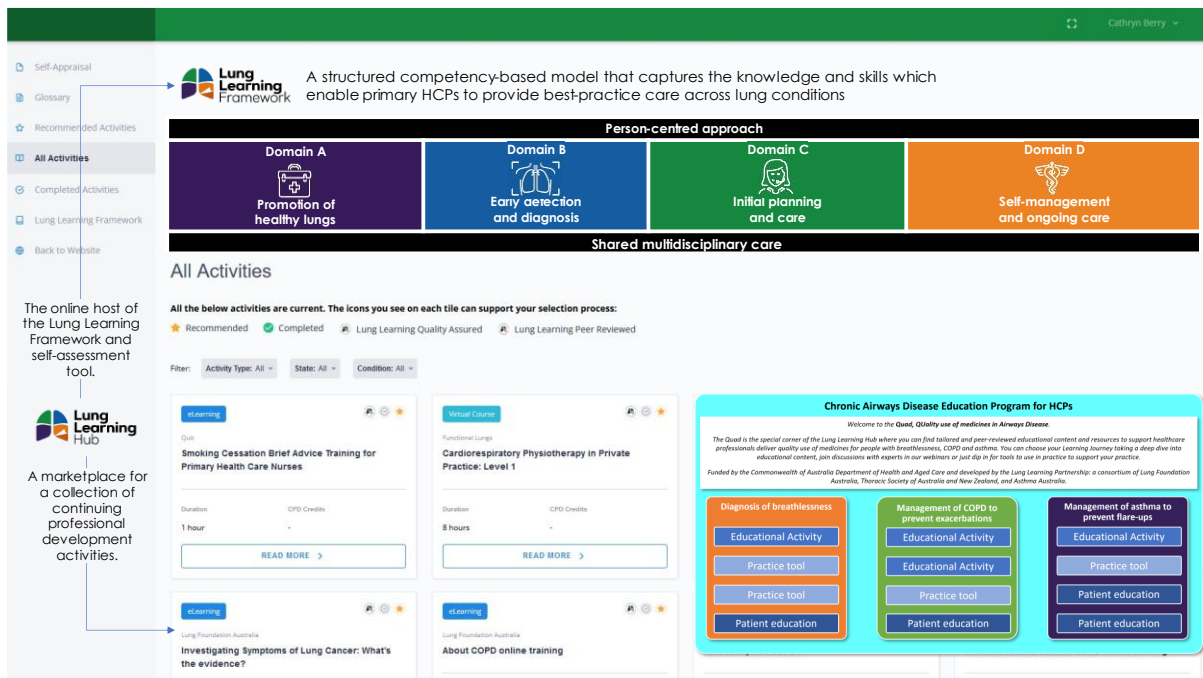
- It is important to include activities that provide Reviewing Performance and Measuring Outcomes time for the doctors who consume the content.
- Design of contemporary CPD requires consideration of suitable format and HCP preferences.
- Mapping issues relating to QUM to the relevant points in the patient journey and thinking about intervention design to tackle these concerns will drive a needs-based approach.
- Work with existing and planned activities which may overlap with the QUM in CAD Program
- The pitches incorporated a range of ideas, with a focus on utilising innovative educational methods and digital platforms to deliver education and training to HCPs. These methods aim to make learning accessible, engaging, and convenient for busy professionals.

DESIGN: a strategic process to synthesise and set direction

The more energy, creativity, and hard work that goes into program design, the greater the chances that a program will succeed

Taking a human-centered design approach to the development of the QUM in CAD Program Design builds on four principles: focus on people and their context, seek to understand and solve the right problems, think about the system of interconnected parts, and build small, simple interventions that truly meet the needs of the people in focus. In the DESIGN phase we have integrated the findings and insights and made decisions about the build of an interlinked set of Education Packages to deliver the QUM in CAD Program objectives and outcomes.

We set out the schema for the QUM in CAD Program “home” and its constituent Education Packages, separate from, but related to, the Lung Learning Program and its components. Also we outline high-level plans for the Education Package design by topic, mapping the lived experience needs, target audience, priority gaps in the Lung Learning Framework and identified QUDTP issues alongside a suite of activities to deliver to educational need of healthcare professionals.



The screenshot displays the Lung Learning Hub interface. At the top, the Lung Learning Framework is described as a structured competency-based model. Below this, a 'Person-centred approach' is shown with four domains: Domain A (Promotion of healthy lungs), Domain B (Early detection and diagnosis), Domain C (Initial planning and care), and Domain D (Self-management and ongoing care). A 'Shared multidisciplinary care' banner spans across these domains. The main content area, 'All Activities', lists various educational activities with filters for activity type, status, and condition. A callout box on the left states: 'The online host of the Lung Learning Framework and self-assessment tool. A marketplace for a collection of continuing professional development activities.'

Figure 4: QUM in CAD Program Schema illustrated within the context of the Lung Learning Hub

Table 6: Summary of the key design components of the three Education Packages

	EDUCATION PACKAGES		
	Diagnosis of breathlessness	Management of COPD to prevent exacerbations	Management of asthma to prevent flare-ups
Priority QUM issue: person with CAD	Patients suffer from lack of personal, community, and provider awareness, discontinuity of care, and too few clinical and self-management options	Fragmented care coordination of COPD and comorbidities causes additional stress from navigating the health system.	Lack of understanding of the disease, undervaluing of medications and easy access to relievers contribute to cyclic lack of control
Priority QUM issue: HCP	Lack of proper diagnosis for respiratory symptoms can mean over- or under-diagnosis	Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches	Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches Over-reliance solely on short-term symptom relief rather than chronic disease thinking
Primary HCP target	GP	GP	GP
Lung Learning Framework capability gap(s)	9: Radiological lung tests and findings 10: Lung function tests 11: Diagnosis	15: Empowering self-management and providing ongoing care	15: Empowering self-management and providing ongoing care
Learning objectives	On completion of the Education Package, participants will: <ul style="list-style-type: none"> • be aware of breathlessness as an important presenting symptom for CAD and other conditions • feel able to identify where breathlessness is a symptom of CAD • activate clinically appropriate diagnostic and referral pathways, eg spirometry, imaging, sputum examination, blood tests. 	On completion of the Education Package, participants will: <ul style="list-style-type: none"> • be familiar with the key evidence-based recommendations from The COPD-X Plan • recognise the impact of fragmented care coordination and empathise with patients in this situation • develop a plan of care for their patients with COPD which supports optimal management towards minimisation of exacerbations. 	On completion of the Education Package, participants will: <ul style="list-style-type: none"> • be up-to-date with the current guidelines for managing asthma in children • feel driven to ensure parents can independently manage their child's asthma • ensure that all children with asthma in their practice have an up-to-date Asthma Action Plan, have been educated on the plan including inhaler technique and they understand the need for preventative medication to avoid flare ups.
Multi-modal education and behaviour change activities	Educational activities <ul style="list-style-type: none"> - Online learning module - Mix of short-form content formats Practice tools <ul style="list-style-type: none"> - Checklist Patient education <ul style="list-style-type: none"> - Materials for patient education Other <ul style="list-style-type: none"> - Reflective practice audit 	Educational activities <ul style="list-style-type: none"> - Webinar series - Mix of short-form content formats Practice tools <ul style="list-style-type: none"> - Checklist Patient education <ul style="list-style-type: none"> - Materials for patient education Other <ul style="list-style-type: none"> - Reflective practice audit - Community of practice 	Educational activities <ul style="list-style-type: none"> - Webinar series - Mix of short-form content formats Practice tools <ul style="list-style-type: none"> - Checklist Patient education <ul style="list-style-type: none"> - Materials for patient education Other <ul style="list-style-type: none"> - Reflective practice audit - Community of practice

DEVELOP: a plan of action, the solution blueprint

A living document, the Solution Blueprint is a detailed plan that outlines the steps required to implement a specific solution or project

Following the Program Design the workflow now separates, with a Solution Blueprint to be created for each of the Education Packages. Additional clinical expert and/or end-user working groups will be assembled to advise us on the development and implementation of these plans.

In parallel with the Program Design, the Marketing and Communications Strategy and accompanying Implementation Plan have been in development, to support the reach of the Education Packages to reach the target number of healthcare professionals.

Meanwhile, updates are being made to the functionality of the Lung Learning Hub to facilitate the development of the QUM in CAD Program “home” and connect users more effectively on Learning Journeys.

COMPREHENSIVE PROGRAM DESIGN REPORT

BACKGROUND AND PURPOSE

Chronic airways disease has a significant impact on the quality of life of Australians

Chronic airways disease (CAD), including asthma and COPD, impacts quality of life and the burden of disease is high in Australia.

- Breathlessness is a highly prevalent, complex symptom in clinical practice. It is the cardinal symptom of many chronic respiratory and heart diseases, and a key indicator for poorly controlled CAD.
- Asthma and COPD are both subject to healthcare variation and substantially contribute to preventable healthcare utilisation.
- The impact of misdiagnosis, late diagnosis, ineffective disease management, including inappropriate prescribing and/or use of medicines, and a lack of collaborative care planning all contribute to disease burden.

QUOTP Program HCP Education Grant presents an opportunity to improve QUM in CAD

After the closure of NPS MedicineWise, the funds for Quality Use of Medicines (QUM) stewardship were put to tender under a series of Grants from the Australian Government initiative, the Quality Use of Diagnostics, Therapeutics and Pathology (QUOTP) Program.

The QUOTP Program is an Australian Government Initiative and provided funding to improve the way medicines and medical tests are prescribed and used. The Program contributes to the implementation of Australia's National Medicines Policy (NMP) and the National Strategy for Quality Use of Medicines (NSQUM). The QUOTP was redesigned to put the Australian Commission on Safety and Quality in Health Care (ACSQHC, The Commission) as the custodian of QUM stewardship, with new grant opportunities for a wider group of service providers to deliver education in place of the NPS.

The Health Professional Education Grant opportunity, targeted towards supporting the QUM educational needs of HCPs, was offered, with the following objectives:

- Implementation of evidence-based behaviour changes amongst prescribers, dispensers and other HCPs that are consistent with the quality use of medicines and diagnostic in the Australian health system, supporting an efficient and sustainable health system.
- The national delivery of free QUM interventions targeting areas of high need and addressing the Australian Government's priorities.
- Leverage grant funds through cross-sector collaboration and partnerships that support and promote the QUOTP.
- Leverage, develop, promote, distribute timely evidence-based information, tools and resources to support HCPs to deliver best-practice care supporting the QUOTP objectives.
- Delivery consumer-centred QUOTP initiatives for HCPs including specialists, general practitioners, pharmacists, nurses, aged care and disability workers and other HCPs.
- Address the QUM needs for all Australians and/or high-priority groups and settings such as older people, complex chronic disease, disability.

The Lung Learning Partnership is a consortium of peak respiratory organisations

The Lung Foundation of Australia (LFA), the Thoracic Society of Australia and New Zealand (TSANZ) and Asthma Australia (AA), were awarded a Commonwealth-funded Grant to deliver the ‘Quality Use of Medicines in Chronic Airways Disease Program’, as a consortium under the banner of The Lung Learning Partnership.



The Lung Learning Program

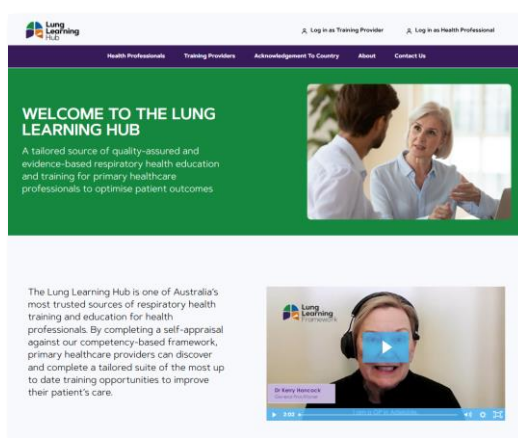
Since welcoming the Australian Government’s \$1.4m investment in lung health education and training in 2021, the Lung Learning Partnership collaborated with research and peak body partners to design a competency-based education and training framework (the [Lung Learning Framework](#)), and built the [Lung Learning Hub](#) as a home for a curated collection of education and training for HCP.

The Lung Learning Framework

The Lung Learning Framework is a competency-based framework that captures the knowledge and skills which enable primary HCPs to provide best-practice care across lung conditions. Divided into four domains representing the lived experience of lung disease, across a chronological continuum, the Framework has at its foundation the fundamentals of high-quality care – a person-centred approach, and shared multidisciplinary care.

The Lung Learning Hub

The Lung Learning Hub was designed to host the Lung Learning Framework to allow exploration of the Framework in an interactive format encouraging self-assessment. The Lung Learning Hub also acts as a marketplace for a collection of continuing professional development (CPD) activities, all of them linked to one or more of the 76 competencies within the Framework.



The QUM in CAD program will leverage the Lung Learning Program components (Lung Learning Framework and Lung Learning Hub) to deliver a national program of education for HCPs that aims to improve the quality use of medicines and medical tests in the diagnosis and management of chronic airways disease, including asthma and COPD.

Implementation of the QUM in CAD Program will deliver defined objectives and outcomes

Program objectives outline the deliverables

1. Deliver **three Education Packages that:**
 - reflect priority QUM-issues for people with CAD and promote patient empowerment as key to optimal management.
 - facilitate HCPs to self-appraise their knowledge and skills against the capabilities of the Lung Learning Framework.
 - include multi-modal education and behaviour change activities that support HCPs to deliver evidence-based care at critical points in the patient journey - differential diagnosis of breathlessness and personalised treatment planning to prevent flare-ups/exacerbations.
2. Identify, assess, and **increase the reach of evidence-based existing information**, tools, resources and education initiatives focused on CAD which align with the intended Project outcomes and those of the Grant Opportunity.



Figure 5: Implementation overview of the QUM in CAD Program within the Lung Learning Program

Program outcomes seek impact on both HCP behaviour and successful implementation

- Improved HCPs identification of symptoms of CAD, such as breathlessness, and activation of clinically appropriate diagnostic and referral pathways.
- Increased awareness and initiation of evidence-based, clinically appropriate pharmacological and non-pharmacological treatments in CAD.
- Increased HCPs use of guideline-recommended approaches to selecting and demonstrating inhaler devices for patients.
- Increased HCPs awareness and initiation of person-centred care that empowers patients/carers/family to be partners in the management of CAD.
- Increased HCPs awareness and initiation of shared multi-disciplinary care that supports best-practice coordination particularly as it relates to preventing exacerbations and hospital presentations/admissions.
- Increased collaboration between organisations with an interest in CAD and distribution of high-quality information, tools and resources via the Lung Learning Hub.
- Enhanced reporting capability of the Lung Learning Hub to provide longitudinal data on learning outcomes from training providers, in addition to data on HCP training and development needs.

PROGRAM DESIGN APPROACH

This report summarises the variety of inputs into the design process and demonstrate how these connect to define the challenges and design the collaborative delivery of the QUM in CAD Program outcomes by the Lung Learning Partnership.

Program design is both a verb and a noun, the collaborative process that results in a plan of action.

- Program design is a strategic and iterative process that brings together stakeholder engagement, data-driven decision-making, and continuous improvement to carefully plan effective programs that can address critical needs and achieve meaningful outcomes.
- A program design is also the plan of action that results from that process. Ideally, the plan is developed to the point that others can implement the program in the same way and consistently achieve its purpose.

A human-centred design approach has been used in Program Design

While the Grant Opportunity required the Lung Learning Partnership to specify key activities within each of the defined Education Packages, this was presented with the caveat that the modes of delivery were to be determined during a Program Design process.

An adapted human-centred design (HCD) approach has been taken to Program Design. Based on the principle of being people-centred, a drive to solve the right problem, systems thinking and the value of small and simple interventions; a series of activities have been conducted to evaluate, understand, define, and consolidate findings into a design approach.

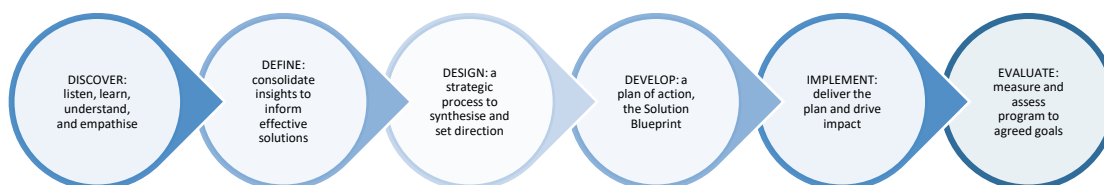


Figure 6: Adapted six stages of human-centred design approach to QUM in CAD Program

The Program Design strategic process has taken us through discovery, definition to design

In the DISCOVER phase, we listened, learned, tried to understand and empathise with the people with lived experience of CAD and the HCPs who care for them. We looked at internal sources of information for insights, such as the analyses of the Lung Learning Framework design and implementation, as well as the Lung Learning Partnership member organisations’ findings from lived experience research.

An important component of the Program Design process was a Design Thinking Workshop held with a multidisciplinary group of people including those with lived experience of CAD, HCPs and behaviour change and education design professionals. The purpose of engaging people in this way was to better understand QUM behavioural drivers amongst HCPs, confirm the program scope and objectives and competencies to be addressed and represent the relevant target audiences. The Design Thinking Workshop challenged us to identify and define the problems to be solved and ideate on solutions, and an output of the Workshop was a set of co-designed solutions to inform the implementation of the three Education Packages.

Stakeholder Engagement included representatives from organisations in the Stakeholder Reference Group, a group of multidisciplinary experts in our External Advisory Group, those who joined our Design Thinking Workshop and others with lived experience of CAD. External parameters were considered, including Continuing Professional Development requirements and what else is currently or planned to be happening in this space.

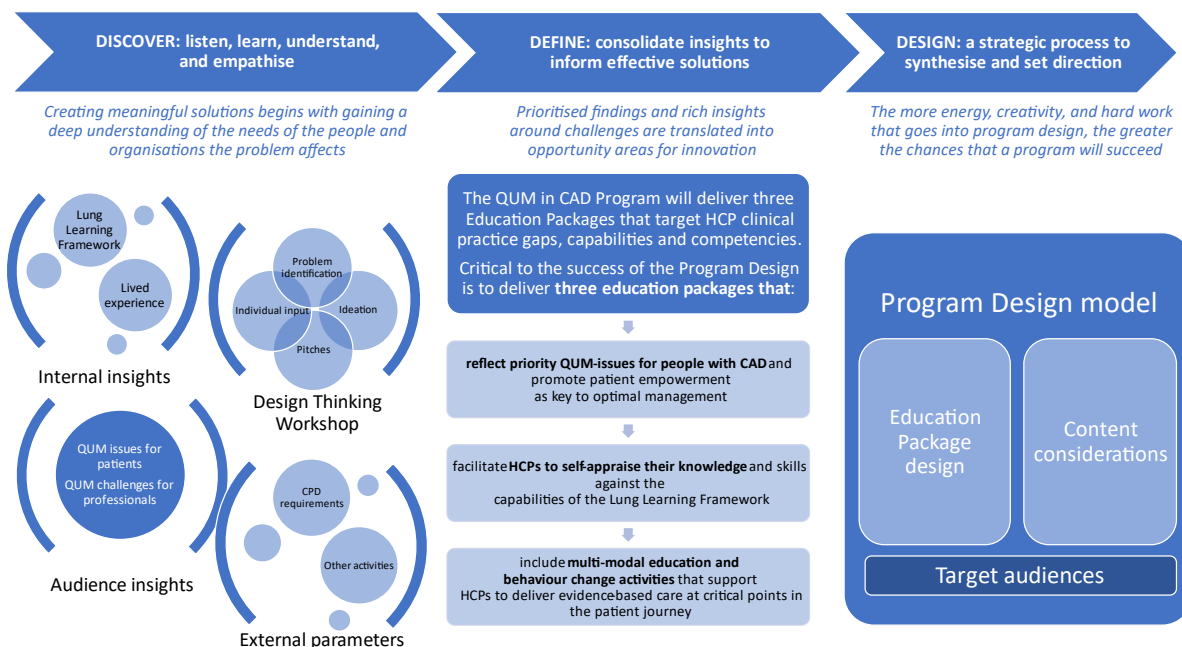


Figure 7: Program Design process overview

In the DEFINE phase the prioritised findings and rich insights around the challenge of delivering quality use of medicines for people with chronic airways disease were consolidated. The focus was placed around success factors defined in the Grant opportunity, to:

- reflect priority QUM-issues for people with CAD and promote patient empowerment as key to optimal management
- facilitate HCPs to self-appraise their knowledge and skills against the capabilities of the Lung Learning Framework
- include multi-modal education and behaviour change activities that support HCPs to deliver evidence-based care at critical points in the patient journey

As the process matured into the DESIGN phase, a Program Design model has been set out, considering the wider objectives of the Grant opportunity to **deliver three Education Packages** and to **optimise the delivery and reach of the Lung Learning Program**. Careful consideration has been made of how the overall Program will deliver on the defined outcomes - both in terms of HCP behaviour and the successful implementation of the Program.

Direction for the Education Package Design including suggestions for Activity Design, as well as Content considerations are set out, and a map of Target Audiences is also included in this report. The aim is that this sets the foundation for the streamlined development of the Solution Blueprint for each of the three Education Packages, as the program moves into later phases of DEVELOP and IMPLEMENT. It is intended that the EVALUATION will be informed by this Report, and we will work with the appointed Evaluators to revise and further develop the Solution Blueprint on their advice.

The following sessions review these phases in turn in detail, summarising key findings and insights in the development of the Program Design.

DISCOVER: LISTEN, LEARN, UNDERSTAND, AND EMPATHISE

Creating meaningful solutions begins with gaining a deep understanding of the needs of the people and organisations the problem affects

Healthcare professionals, including general practitioners, nurses and midwives, and pharmacists, play important roles and have responsibility to ensure the quality use of medicines. A significant number of initiatives are already in place which aim to support HCPs to assess that diagnostics, therapeutics and pathology are appropriate and conducted /dispensed and/or administered correctly, in accordance with the assessed person's needs.

In this first phase of the Program Design process both internal and external sources were reviewed considering the relevance to the design of the QUM in CAD HCP Education Program. Major themes and insights from these sources are outlined in the pages that follow.

Lung Learning Program (internal) sources

- The Lung Learning Framework
 - Gap Analysis and Recommendations
 - Self-Appraisal Gap Analysis
- The Lung Learning Hub
 - User Feedback Survey

External sources of information

- Themes from Environmental Scan and content audit
- Continuing Professional Development
 - Requirements for healthcare professionals
 - Designing contemporary CPD to meet HCP preferences
- Quality use of medicines in primary care
 - RACGP QI Standards

The Lung Learning Framework

The Framework covers four domains of the journey individuals living with lung conditions experience, including the promotion of healthy lungs, early detection and diagnosis, initial care and planning, and self-management and ongoing care.⁴

It comprehensively captures the capabilities and competencies of lung HCPs and after self-assessment it guides learners and educators to consider, adapt and enhance their skills within lung health to deliver best-practice care.

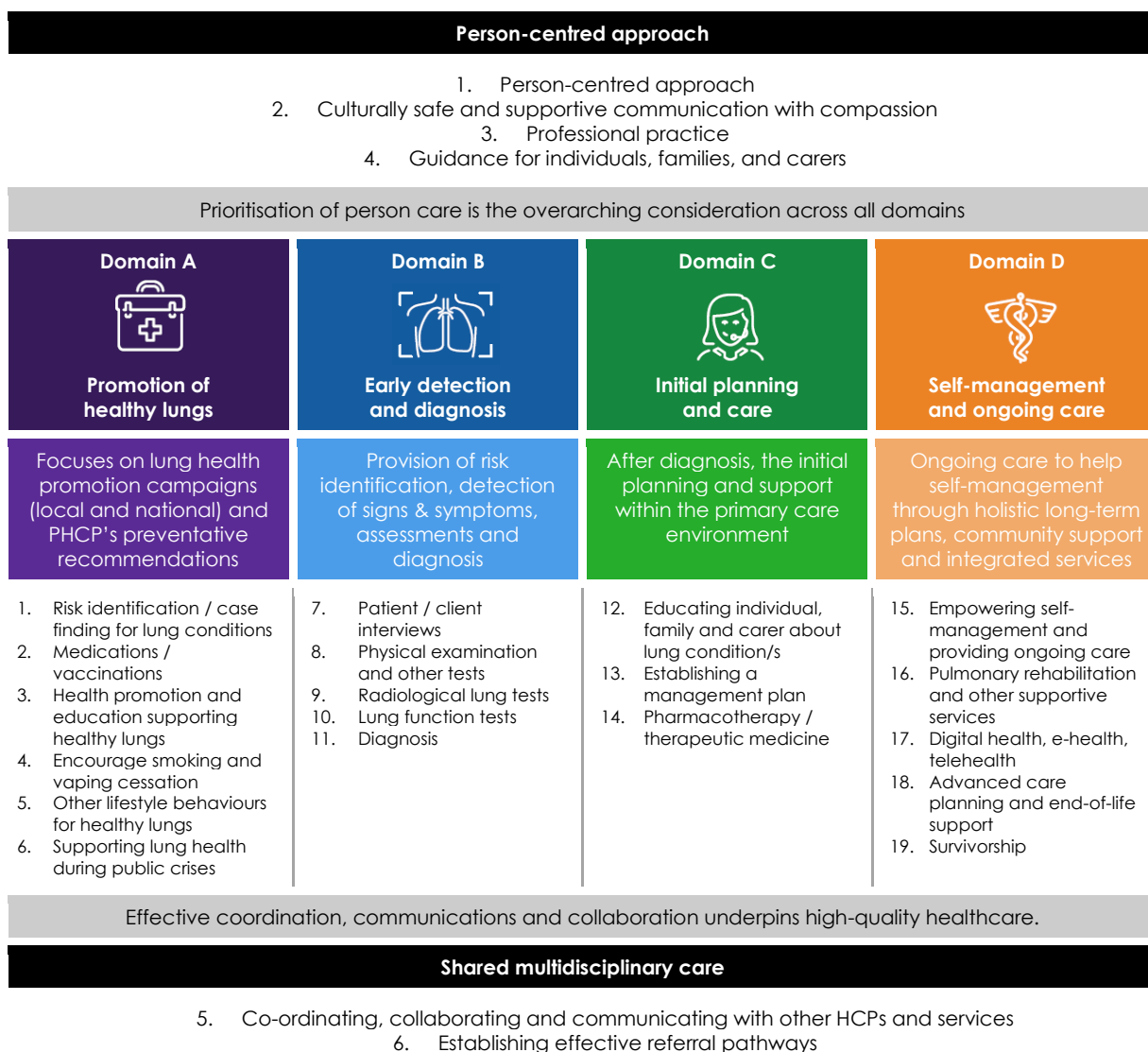


Figure 8: Capabilities of the Lung Learning Framework

⁴ Lung Foundation Australia. 2022. *The Lung Learning Framework for Primary Healthcare professionals.*

Lung Learning Framework Gap Analysis and Recommendations 2023⁵

- A review of gaps in the training and development landscape related to the Framework and developed a set of priorities to identify areas of need for future education.
- A number of capabilities and domains are listed as recommendations where further education and training needs to be developed. Recommendations are based on the above data and analysis presented in accordance with the framework remaining disease agnostic.
- A comprehensive needs analysis was recommended to get a comprehensive picture of unmet needs in respiratory healthcare.

Recommendations where further education and training needs to be developed

Domain A: Lung health promotion and campaigns

- 1 Risk identification and case finding for lung conditions
 - Multiple sources identified a requirement for improved education in risk identification which is not related to a specific lung condition
- 4 Encourage smoking and vaping cessation.
 - Nearly all data sources identified this a critically need in education and training. It is particularly relevant in the care of people living with lung cancer and COPD where education across all levels of competency is required.
- 5 Other lifestyle behaviours for healthy lungs
 - Changes to people's lifestyle behaviours will impact on the care of all people but it was noticed that was an apparent need in relation to Occupational Lung Disease, Lung Cancer, Rare lung diseases primarily Pulmonary Arterial Hypertension.
- 6 Supporting lung health during public health crises
 - It was noted that education in this capability was required across all levels of the Framework. It is especially relevant to the care of people living with asthma.

Domain B - Early detection and diagnosis

- 7: Patient/client interviews
 - This was very frequent among the National Frameworks and points to the importance of the therapeutic relationship in establishing trust, generating information, to make accurate assessments, diagnosis and tailor treatment, in addition to counselling on relevant lifestyle changes and providing ongoing support and education
- 9 Radiological lung tests and findings
 - A need was found paying particular focus for education and training at intermediate, advanced, and expert levels of the Framework especially when considering lung cancer screening, detection, diagnosis and management
- 10 Lung function tests
 - Special consideration to the audience should be thought of when developing education pertaining to this capability is being developed. Eg focus on spirometry training that is delivered to a given audience such as a nurse or aboriginal health practitioner should be given carefully-crafted this will further support the diagnosis and care of those with COPD and asthma

• 11 Diagnosis

- Diagnosis is an area that covers a range of competencies. Education was lacking in the intermediate, advanced, and expert levels of the Framework and should be focussed on this is particularly relevant in relation to COPD and asthma

Domain C Initial care and planning

- 12 Educating individuals, families & carers, and communities about lung condition/s the impact of which will be felt especially from those with asthma or a rare lung disease
- 14 Pharmacotherapy
 - This capability requires content development at the expert level taking specific consideration of asthma and COPD and the addressable factors that lead to poor control and high risk (device use and adherence)

Domain D Empowering individuals to self-manage and ongoing care support] were all evenly represented.

- 15 Empowering self-management and providing ongoing care
 - This was a very common capability within the National Frameworks and indicates the critical mass of support across the range of experts around the potential and benefit of empowering health consumers to take control of their disease
- 16 Pulmonary rehabilitation and other supportive services.
 - The impact of developing further education in this capability will enhance the lives of so many and was found across multiple lung conditions to be a need, including that of people experiencing post-COVID syndrome
- 19 Survivorship
 - An area that was highlighted specifically by the NACCHO's, developing education at all levels of the Framework will impact the lives of numerous people but specifically those people surviving lung cancer

⁵ Thoracic Society of Australia and New Zealand. 2023. *Lung Learning gap analysis and recommendations paper*.

Healthcare professionals' Lung Learning Framework Self-Appraisal Gap Analysis⁶

- An analysis of the responses of the HCPs to the self-appraisal tool on the Lung Learning Hub over the period of 26th September 2022- 31st October 2023. There were 286 responses recorded in total from the self-appraisal tool during this period.
- Note, that the analysis is limited as the tool does not capture demographic or professional data and there was a low completion rate.

Four major areas of training needs have been identified in this analysis

1. Performing and interpreting diagnostic tests:
 - Capability 9: More education on managing risks associated with radiological investigations, interpreting findings from appropriate investigations and communication would aid the HCPs to reach the expert level of competency (unless restricted by scope of profession).
 - Capability 10: Training courses for lung tests would empower the HCPs to be confident in their knowledge of the tests and their ability to not only perform them but also interpret and discuss the results with individuals.
 - Capability 11: Majority of the HCPs (especially in 11.2 and 11.3) will require further education to evaluate the findings/reports from different specialists and/or diagnostic services and use clinical reasoning to formulate an evidence-based diagnosis of lung condition/s.
2. Communicating with individuals, families and carers and educating their staff:
 - Capability 7: The HCPs would require training on how best they can educate their teams about conducting the patient interviews more effectively and confidently. Furthermore, providing training in effective communication would provide HCPs the ability to encourage the team to screen and monitor for co-morbidities, facilitate increased health literacy and support to individuals.
 - Capability 12: With further education, those at foundational levels would be able to give brief advice and guidance for individuals, families and carers and recommend additional resources and/or services which may offer additional guidance and support (intermediate level).
3. Cultural safety and awareness:
 - Capability 14: Unless limited by scope of practice, all HCPs would require training on communicating with individuals, families and carers in a culturally safe and in a clear way and prioritising the individual's need to be empowered to self-manage their lung condition unless limited by scope of practice.
 - Capability 18: The responses to this capability highlighted the need for and importance of providing cultural awareness training to HCPs.
4. Education specific to gaps in knowledge and clinical practice:
 - Capability 2: To increase the competency levels of HCPs to the expert level, they would require further education about when to increase or decrease treatment/management based on clinical practice guidelines and medical counselling. It would also empower the HCPs to offer appropriate resources to individuals to help informed consent and shared decision making for recommended medications.
 - Capability 4: with more education, they would be able to explore the barriers to quit smoking, teach the benefits of smoking, be able to identify individuals who smoke/vape and discuss pharmacotherapy options with them.
 - Capability 6: In order to increase the confidence of HCPs to reach the expert levels, they would require further education to be able to develop customised resources based on reliable information for the most current advice help to facilitate and empower individuals to develop action plans to manage impacts of the lung health crises and teach their teams to do the same.
 - Capability 15: With further education, the HCPs might be able to confidently identify individuals at risk of additional lung comorbidities, monitor measure and evaluate individual's response to lung practices, organise follow up appointments and give clear explanations of common lung condition/s.
 - Capability 17: More education is required around digital health so that HCPs are not only able to confidently use the available digital resources but are also able to teach others to use them to improve lung health.

⁶ Thoracic Society of Australia and New Zealand. 2023. *Healthcare Professionals' Lung Learning Framework Self-Appraisal Gap Analysis*.

The Lung Learning Hub

Lung Learning Hub Feedback Survey⁷

- 36 HCPs responded to a survey about the Lung Learning Hub in Jan-Feb 2024, of these only 36% had enrolled in an education activity. Overall, they considered it to be extremely easy to find specific activities and most found the knowledge and skills self-appraisal tool easy to use (although 30% of respondents had not yet completed a self-appraisal yet).
- The respondents were positive when asked “Does the Hub support: your understanding of the Lung Learning Framework; development of your lung health knowledge and skills” and were also able to do so without major technical difficulty.
- The respondents rated a high level of trust in the information and learning opportunities presented on the Hub and a trend towards completely meeting expectations as a trusted lung health education and training marketplace.
- Suggested improvements included feedback on functionality (for example: website navigation; more information in the preview boxes; case study format) and content (for example: information on lung disease in adolescents; links to national and international guidelines; non-disease specific training such as motivational interviewing, trauma informed care, communication, healthy literacy).

⁷ Lung Foundation Australia. 2024. *Lung Learning Hub Survey Export Data*.

Environmental Scan⁸

An environmental scan was conducted with the primary goal of finding existing QUM education and training activities to support activity 3.1: Extend access and uptake of existing QUM education and training. A secondary outcome of conducting the environmental scan was that it afforded an opportunity for the team to conduct an audit of currently available education for HCPs.

Major themes of the environmental scan and content audit

There is a great deal of educational content on the topic of QUM in CAD currently available

- Some of the content identified was created over ten years ago, but there have not been significant updates in understanding of disease mechanisms so the content may still be relevant. Format, however, of the older products may not be preferred today.
- Some content remained available, despite relating to out-of-date guidelines.

Accessibility can be restricted and not all is pre-accredited for CPD

- While mostly free, some content was only accessible via a login that required the user to confirm they are an Australian healthcare professional.
- Most content identified was targeted at the GP (37%), or the GP and other HCPs, 10% of the content was identified as being targeted at a nurse, but only 3.6% for the pharmacist.
- Not all content was pre-accredited for the user to claim CPD points. We don't have visibility of whether this impacts the uptake of material, however the RACGP tell us that accreditation is a driver of uptake.
- Some of the accredited content was for past triennium.
- Where documented, most of the accredited content provided 1 hour of Education Activity.

Online learning is the predominant format

- Where documented 57% were categorised as online learning. The next most common format was webinar (17%) followed by video (11%). Other formats included: articles, audio (podcast), and opinion pieces.
- Recognition of a wider scope of content format for CPD is a fairly recent introduction.

There are several limitations of this environmental scan and content audit

- There was no set protocol for the search, multiple team members contributed, and not all fields were completed in the audit file.
- Search was limited to publicly available information and did not cover all healthcare professional-specific channels.
- As noted, the purpose of the scan was primarily to seek existing content and training providers to engage with them to bring the content into the Lung Learning Hub. TSANZ will be conducting quality review of a selection of the identified activities for potential inclusion on the Lung Learning Hub.

⁸ Lung Learning Partnership. 2024. *Content Audit*.

Continuing Professional Development

Requirements for HCPs

Since 2023 an HCP in Australia must complete and report on 50 hours of CPD annually to their CPD home, made up of a mix of activities:

- Educational activities (EA): expand knowledge, skills and attitudes. Can include logging informal activities like reading or listening to podcasts
- Measuring outcomes (MO): use practice data to ensure quality results
- Reviewing performance (RP): reflect on feedback.



Figure 9: Activity requirements for doctors in Australia since 2023

Additionally, they must complete a Professional Development Plan (PDP) annually and refresh their CPR every 5 years.

After the first year of the updated CPD program requirements, while the change had been disliked by the Australian Doctor Group readership, in a survey the shift towards reviewing performance had positive feedback, with GPs commenting that they had run clinical audits, one-on-one performance reviews, and 360 feedback processes. In discussions with HCPs and other education providers it is clear that activities that feature Reviewing Performance and Measuring Outcomes time are not easy to find at present. Offering these components in addition to Educational Activity time will make our CPD offerings appealing.

Designing contemporary CPD to meet HCP preferences

Continuing professional development in the last decade – A scoping review, authored by Magwenya, R. H., et al 2023, provides an excellent overview of considerations in designing a contemporary continuing professional development or medical education program⁹. Of particular relevance to our Program Design were the findings on content delivery attitudes of HCPs towards CPD. In terms of content delivery, a variety of formats should be used with mobile-first delivery. The authors highlighted that the context which learning is taking place, ie remote learning online, calls for design to consider distractions and promote interaction sessions to enhance engagement.

HCPs reported that initiatives that are developed by peers, rely on evidence-based content, and emphasise interactive methods like blended learning and face-to-face interaction are preferred. Interaction between facilitators / presenters and participants is highly valued, and can be designed in line with adult learning theories.

Further details are available in [Appendix 1. CONTINUING Professional Development for healthcare professionals](#). These findings will be explored in more depth in the design of the Solution Blueprints for each topic.

⁹ Magwenya, R. H., Ross, A. J., & Ngatiane, L. S. (2023). *Continuing professional development in the last decade – A scoping review*. *Journal of Adult and Continuing Education* 2023; 29(2), 408-437.

Quality Use of Medicines in primary care

HCPs require access to information, education and training that supports best practice

Quality use of medicines is described in the National Strategy for Quality Use of Medicines as the keystone needed to deliver optimised health outcomes, locking in components of quality safety and efficacy; equity of access; and a viable pharmaceutical industry.

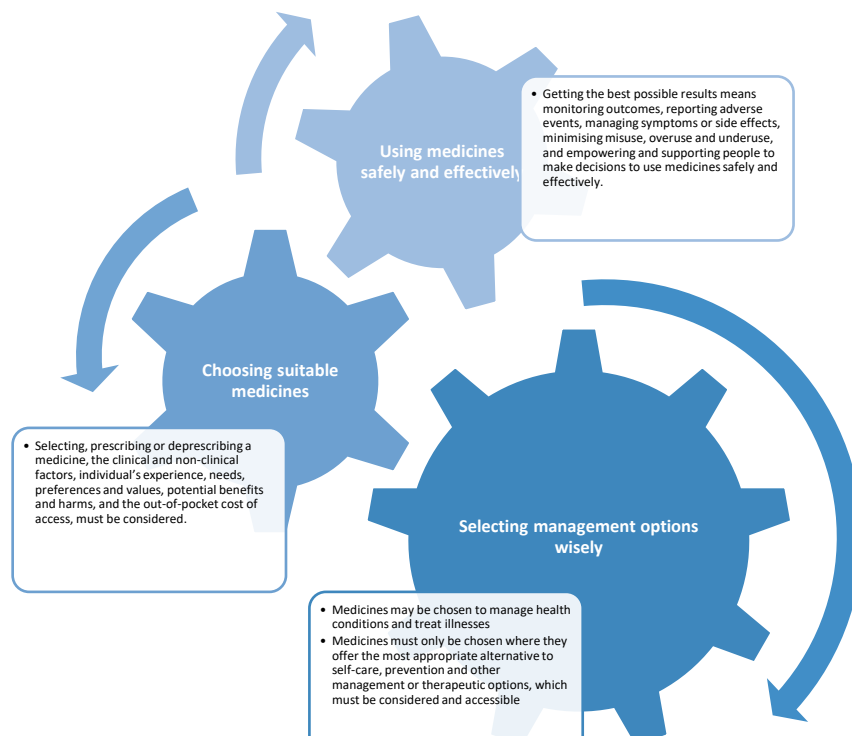


Figure 10: Quality use of medicines (QUM) includes three major, interrelated components

A number of “building blocks” are identified that support QUM, and the scope of this project aligns with the evidence that HCPs require access to information, education and training that supports best practice. This distinguishes this program from those targeted at policy, health systems and services, direct to consumer, or evaluation.

RACGP QI Standards: QI2.2: Safe and quality use of medicines

The RACGP specifies indicators relating to QUM within their QI Standard 2 – Clinical indicators.¹⁰,

Indicators

- QI2.2 A Our patients are informed of the purpose, importance, benefits, and risks of their medicines and treatments.
- QI2.2 B Our patients are made aware of their role in their own treatment.
- QI2.2 C Our clinical team accesses current information on medicines, and reviews our prescribing patterns, in accordance with best available evidence.
- QI2.2 D Our clinical team ensures that patients and other health providers to whom we refer receive an accurate and current medicines list.
- QI2.2 E Our clinical team ensures that medicines, samples and medical consumables are acquired, stored, administered, supplied and disposed of in accordance with manufacturers' directions and relevant laws.

Further details are available in [Appendix 2. Quality Use of Medicines in primary care](#). The indicators will be useful in determining the learning outcomes in the Education Packages.

¹⁰ RACGP. Criterion QI2.2 Safe and quality use of medicines.

EXTERNAL STAKEHOLDER ENGAGEMENT

Multiple stakeholder organisations, clinical experts and consumers are being engaged to inform the development of the Program and its priorities as they relate to QUM and the target audiences it seeks to influence. In addition to the Consortium, a Stakeholder Reference Group and multidisciplinary Expert Working Group have been established. Members have agreed to the Terms of Reference for the group and the first meetings held.

People with lived experience of CAD are a critically important stakeholder group, and members of the Lung Learning Partnership have extensive experience and depth relationships with relevant consumers. This experience has informed the understanding of the perspectives of people with lived experience and these have been documented in forms such as publications, patient journey maps and personas.

Additional clinical expert and/or end-user working groups will be assembled for specific program activities.

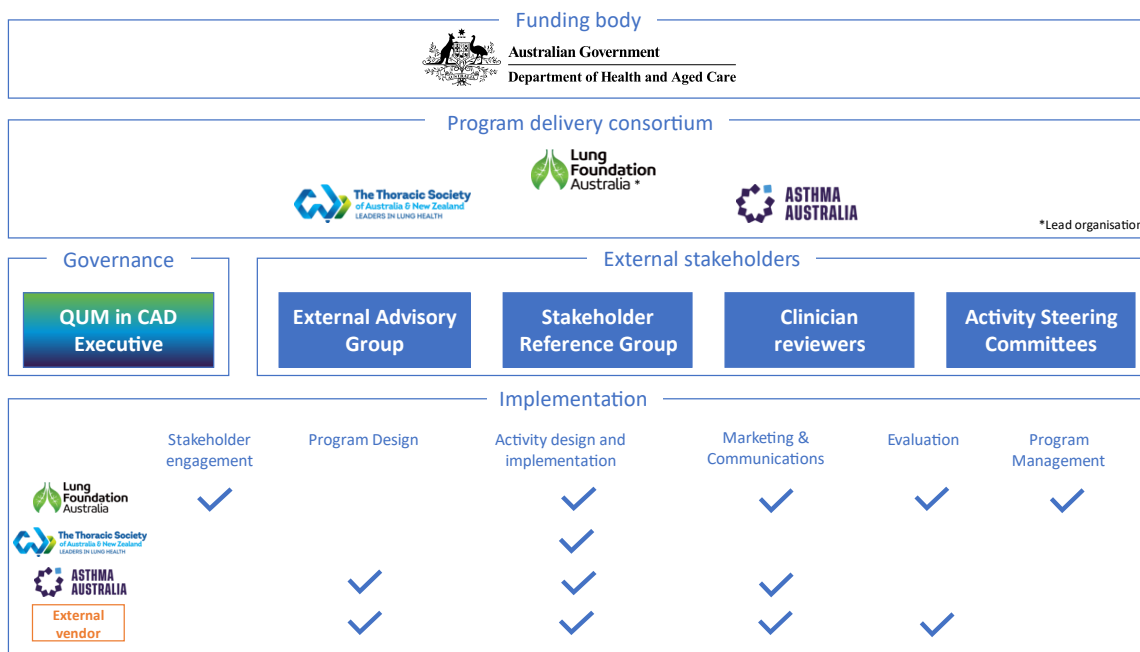


Figure 11: External stakeholder engagement within the context of the QUM in CAD Program

Expert Advisory Group – meeting one, 6 March 2024¹¹

In early 2024, the Lung Learning Partnership convened the QUM in CAD Expert Advisory Group (EAG). Individuals were invited to join the EAG to represent a range of expertise relevant to the diagnosis and management of CAD, and the first meeting was held on 6 March 2024. At this meeting, one of the objectives was to update the EAG on progress to date with the QUM in CAD Program, and to seek feedback for the Program Design. We asked the members specifically to consider the implementation of educational initiatives and engagement with HCPs.

We learnt that there is a need for improved therapeutic practices, better access to healthcare services and diagnostics, enhanced communication between healthcare providers and patients, and a shift towards long-term management strategies for chronic airways diseases. A number of the members were also present at the Design Thinking Workshop (Design Thinking Workshop) and they provided additional feedback on the process and outcomes.

Input on existing and/or planned activities known about in the community are summarised below (

¹¹ The Lung Learning Partnership. 2024. *QUM in CAD Expert Advisory Group Meeting One Minutes*.

Existing and planned activities which may overlap with the QUM in CAD Program). The themes of discussion on QUM issues are summarised here.

What are the quality use of diagnostics, therapeutics and pathology issues relating to chronic airways disease?

Therapeutic Quality and Appropriateness: There was a focus on ensuring that medications are prescribed and used appropriately, considering the right patient and condition. This involves deprescribing unnecessary medications and promoting phenotype-driven treatment.

Access and Affordability: Concerns were raised about the accessibility and affordability of medical tests and medications, particularly for economically disadvantaged individuals. Participants emphasised the importance of addressing these barriers to ensure optimal care for all patients.

Communication and Awareness: Effective communication of risks associated with medication overuse, especially with short-acting beta agonists (SABAs), was highlighted as crucial. There was also a call for greater community awareness about the importance of proper diagnosis for respiratory symptoms, similar to other medical issues like chest pain.

Long-Term Management: Participants discussed the importance of shifting patient perspectives towards understanding chronic airways diseases as long-term conditions requiring consistent management rather than relying solely on short-term symptom relief. This perspective was particularly relevant for asthma but also applied to COPD, with considerations for different patient phenotypes and their responses to various interventions.

Overall, in terms of Program Design the EAG advised the Lung Learning Partnership to develop scalable Education Packages. At this stage it was also recommended to keep the target audience broad for all of primary care, rather than digging into specific educational needs for different groups.

Stakeholder Reference Group – meeting one, 7 March 2024¹²

In early 2024, the Lung Learning Partnership convened the QUM in CAD Stakeholder Reference Group (SRG). Organisations representing the multi-disciplinary expertise relevant to the diagnosis and management of chronic airways disease were contacted to seek interest in sending a representative to join the SRG. Six organisations were represented at the first meeting convened on 7 March 2024, and one of the objectives of the meeting was to update the SRG on progress to date on the QUM in CAD Program, and to seek feedback for the Program Design. We asked the representatives to consider the implementation of educational initiatives and engagement with the membership of their respective organisations. Three main topics were discussed at the meeting – input on existing and/or planned activities known about in the community are summarised below (

¹² The Lung Learning Partnership. 2024. *QUM in CAD Stakeholder Reference Group Meeting One Minutes*.

Existing and planned activities which may overlap with the QUM in CAD Program).

What are the quality use of diagnostics, therapeutics and pathology issues relating to chronic airways disease?

- Lack of adherence to guidelines by prescribers, leading to suboptimal treatment approaches.
- Challenges with patient adherence to therapy and proper inhaler technique.
- Reluctance in primary care to diagnose lung conditions, resulting in missed opportunities for preventative care and education.
- Issues with transitions of care, particularly from hospital to primary care, leading to gaps in treatment and follow-up.
- Sustainability concerns regarding the environmental impact of certain inhalers, highlighting the need for greener alternatives.
- Complexity and confusion surrounding different inhaler devices and therapy steps, particularly in remote and indigenous communities.
- Emerging rates of vaccine hesitancy, affecting preventative health measures and exacerbating respiratory conditions.
- Challenges for paramedics in managing lower acuity presentations of respiratory conditions, including patient education and compliance with management plans.

How can we engage with members of their respective organisations in order to reach target of 5,000 HCPs?

1. **Create a clear and succinct message.** There are numerous organisations trying to engage with the same target audience. There are many calls on the attention of HCPs in primary care, and it will be critical that the QUM in CAD Program has a consolidated and consistent messaging platform which succinctly communicates the value of enrolling in the program.
2. **Engage with nurse practitioners** and acknowledge their role in healthcare through newsletters and membership platforms. This could lead to significant engagement as they may respond well to being recognised.
3. **Utilise professional societies and conferences** to promote the resources and activities, as these events provide opportunities for face-to-face engagement and networking. Highlighting the Learning Hub and its offerings at such events can attract attention from healthcare workers.
4. **Leverage existing platforms and publications** within healthcare networks to advertise and promote the resources. This could include emails, publications, and conferences hosted by different organisations.
5. Incorporate **links to the resources into existing e-learning offerings and platforms.** This can provide easy access to the resources for HCPs who are already engaging with online learning materials.
6. **Collaborate with organisations** to reach a wider audience. Utilising their networks and platforms can help in promoting the resources and activities to a broader audience.

Existing and planned activities which may overlap with the QUM in CAD Program

We asked the EAG and SRG to share any current and planned activities which may overlap with the planned interventions. For example, it was noted that a new version of the Australian Asthma Handbook is likely to be published at end of 2024; the group suggested that there is a potential synergy with the release of the interventions and the handbook update.

- Quality Use of Diagnostic and Therapeutic Products (QUDTP) program with the **Australasian Sleep Association**
- Five-year research project led by **Natasha Smallwood** aimed at developing education modules for primary care practitioners focusing on **breathlessness**.
- **Ongoing studies related to digital tools for managing breathlessness,**
- **Various research projects and initiatives related to breathlessness** interventions
- Respiratory **auditing TSANZ**
- **Adam Jaffe** Macquarie University, **care closer to home** for chronic airways disease: N-PARTi - translational health services research hubs focusing on paediatric asthma, diabetes and antibiotic use.
- Revision of resources such as the Asthma and COPD resources by PSA (essential CPE)
- **North Queensland Prescribing Trial**, allowing pharmacists to prescribe for certain conditions, including asthma and COPD.
- Initiatives by the Safety and Quality Commission to develop **clinical care standards for COPD**.
- Likely **Drug Utilisation Subcommittee's** examination of prescribing practices following changes to guidelines.
- Task forces exploring the **scope of practice** for non-medical prescribers and implications for healthcare.
- Maintenance of **online learning modules and the National Prescribing Curriculum** by the University of Tasmania.
- Re-consenting of **Medicine Insight practices** for pharmacovigilance and quality improvement purposes.
- Discussions **around deprescribing practices**, including concerns about inappropriate deprescribing and the need for cautious evaluation.

Lung Foundation Australia, Thoracic Society of Australia and New Zealand and Asthma Australia also all have current and planned activities which need to be considered in the context of the Program Design and its marketing and promotion.

Lived experience with CAD

Lung Foundation Australia commissioned research to gain an in-depth understanding of the lived experiences of those who have lung disease, their carers and families, *The Lived Experience. Market Research Report*.¹³

What is it like to live with a lung condition?

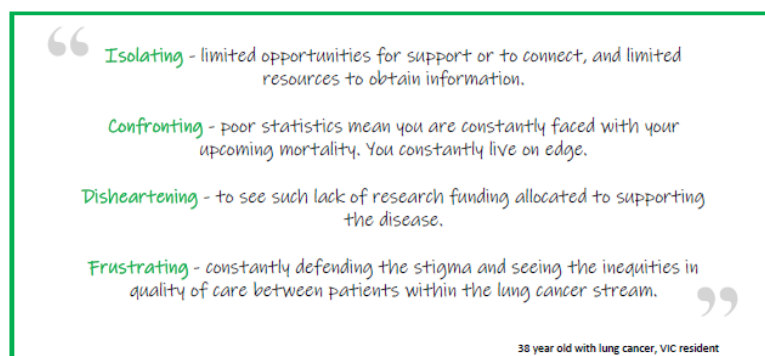


Figure 12: What is it like to live with a lung condition? Verbatims from Lived Experience Research

- People with lung disease or a chronic lung condition not only experience **a range of negative physical impacts**, they also experience **social isolation** from not being able to fully participate in activities, or when contact from family and friends diminishes. This in turn can affect mental health, leading to feelings of worthlessness, anxiety and depression.
- **Having a lung condition can impact every facet of someone’s life.** It can be all consuming (if they let it). Often anxiety increases with a lack of knowledge and/or understanding. Not knowing what’s wrong with them and why it’s taking so long to be diagnosed. Not knowing the medical jargon and the scary name of the condition they are diagnosed with. Not knowing what this diagnosis is going to mean for their livelihoods, their quality of life and that of their family. Not knowing if, or how, the disease may progress, whether they will recover or what their prognosis is. Not knowing where to start. Now what? How do they start getting on living the rest of their lives with a diagnosis of lung disease?
- One in two people **lack knowledge about their own lung condition.** Two out of three do not fully understand their lung condition. In many cases, patients visit their GPs multiple times before being referred to a specialist. Those who are yet to be referred are less likely to not only understand their condition but how to manage it.
- The **earlier a person is referred to a specialist**, the sooner the diagnosis and the sooner they can start the journey to better manage their condition. This includes making connections with support groups to help with the mental and emotional strain that comes with living with lung disease.
- Compounding the emotional and mental impacts is **the stigma associated with lung disease.** People with lung disease often experience judgement from others because of their condition and the assumption that they have brought it on themselves due to smoking. This judgement comes not only from strangers in the community, but from their friends, family and even sometimes from those in the medical profession.

¹³ Lung Foundation Australia. 2020. *The Lived Experience. Market Research Report*.

Breathlessness

Anthony Sunjaya, et al published *“It’s like a forgotten issue sometimes ...”: Qualitative study of individuals living and caring for people with chronic breathlessness* in 2023¹⁴. In-depth semi-structured interviews were conducted with 13 patients living with chronic breathlessness and 2 carers. Four main themes were identified: (1) living with breathlessness, (2) diagnosis delays, misdiagnosis, and knowledge gaps, (3) beyond curing disease: symptom relief and improving quality of life, and (4) self-management and limited support for it.

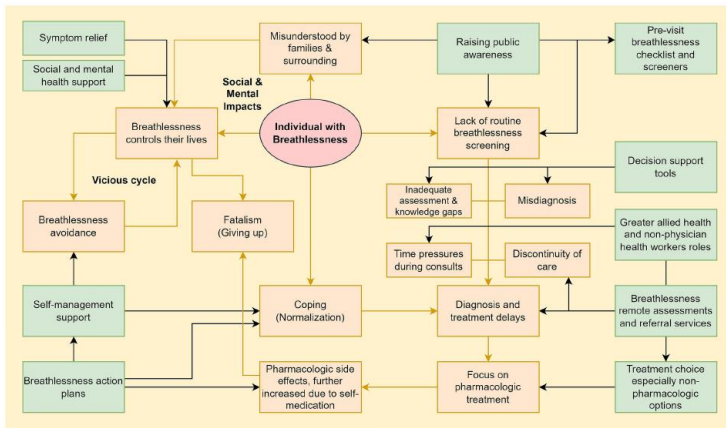


Figure 13: Reproduction of Figure 1: Summary of participants' identified gaps and their suggested solutions. Yellow lines show the linkages between the identified gaps, and black lines identify possible points of intervention for suggested solutions

Conclusion: Breathlessness has a high personal impact but remains a neglected condition in Australia. Patients suffer from lack of personal, community, and provider awareness, discontinuity of care, and too few clinical and self-management options.

Additionally, Anthony Sunjaya et al published *Management of chronic breathlessness in primary care: what do GPs, non-GP specialists, and allied health professionals think?*¹⁵ A qualitative study involving focus group discussions that included 35 GPs, non-GP specialists, and allied health professionals. Topics explored included: (1) views on the role of primary care in diagnosing and managing chronic breathlessness; (2) barriers to optimal assessment in primary care; and (3) facilitators to further optimise the care of patients with chronic breathlessness.

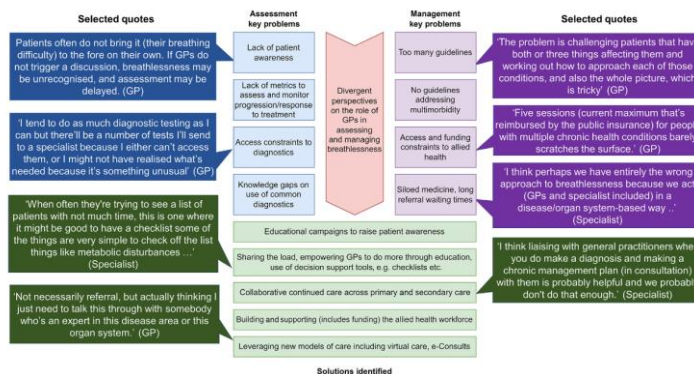


Figure 14: Reproduction of Figure 1. Summary of key themes, solutions, and selected quotes

Conclusion: GPs are crucial to achieving optimal care for breathless patients, especially given the multifactorial and multimorbid nature of breathlessness; however, there are significant gaps in services and resources at present that limit their ability to perform this role.

¹⁴ Sunjaya A, Martin A, Arnott C, Marks G, Jenkins C. *“It’s like a forgotten issue sometimes ...”: Qualitative study of individuals living and caring for people with chronic breathlessness*. Clin Respir J. 2023; 17(7): 694-700.

¹⁵ Sunjaya Anthony, Martin Allison, Arnott Clare, Jenkins Christine (2023) *Management of chronic breathlessness in primary care: what do GPs, non-GP specialists, and allied health professionals think?* Australian Journal of Primary Health 2023;29: 375-384.

COPD

COPD patient journey



Figure 15: COPD patient journey

Persona: person with COPD

Individuals with Chronic Obstructive Pulmonary Disease (COPD)

"It is scary not being able to breathe. No one really understands."

Over 80% of people with COPD in Australia are between 55-84 years old.

- Of those diagnosed, 60% are women
- The average age of receiving a diagnosis is 55 years old
- 51% live in a regional area
- 26% also live with a heart condition, and 13% with a thyroid condition

Lung Foundation Australia

TOP PAIN POINTS	Why does COPD receive so little attention?	I'm tired and exhausted, and my family don't understand	How do I manage and live with this? What do I do as it gets worse?	Stigma and misunderstanding of COPD and its severity
TOP GAIN POINTS	Information I can use, trust and understand	Peer support from others with COPD	Help in developing an action plan for self-management	Being listened to and sharing my story
VALUE PROPOSITION & MESSAGING	<p>LFA is here to listen to your story, connect you with others with COPD & provide evidence-based information you can trust.</p> <p>A whole-of-person approach to support you, and your lungs.</p> <p>We're here for you as dedicated lung experts who understand your journey.</p> <p>Customised care and support to help you feel in control of your health plan and decisions.</p>			
MOST VALUED LFA SERVICES	<p>Respiratory Care Nurses</p> <p>Nurses are a trusted resource for guidance on how to manage symptoms</p>		<p>Online information</p> <p>Content provided is seen to be high quality and expert</p>	
CHANNELS	<p>Website & search Email Phone Facebook YouTube Traditional media Direct Mail</p> <p>← Most used</p>			

POINTS OF GREATEST NEED

Prevention: Low need

Symptoms: Low need

Diagnosis: Low need

Treatment: Low need

Self-management: Low need

Flare-up/prevention: Low need

Palliation: Low need

Low need High need

Patients often interact with LFA long after first diagnosis and seek long-term support in managing ongoing symptoms and changes

Figure 16: Persona for person with COPD

Asthma in children

Asthma through my eyes - poster presentation at TSANZ 2024¹⁶

Whilst much is understood about the clinical triggers that lead to flare-ups, symptom burden and hospitalisation, little research has been previously conducted into the young patient perspective and experiences that inform their self-management behaviours. Asthma Australia commissioned research to understand these underlying beliefs, attitudes and assumptions from the perspective of the child and their carer.

Interviews were conducted with 13 child-parent dyads and 6 teens online and in-person. Based on their stories and behaviours participants were categorised by levels of control, and attitudes, beliefs and behaviours were compared to create the model and validate our assumptive journey maps.

Key takeaways

1. Asthma is seen as common, every-day, and not particularly dangerous.
2. The current mental model for asthma is reactive rather than preventative, hindering actions that lead to better control.
3. Asthma Action Plans should be a single point of reference for conversation, learning and action to stay in control, but they aren't understood or used this way.
4. The primary care doctor should be the lynchpin between ignorance and knowledge/control, but doctors aren't consistent or up to date, nor have the time to explain.
5. Because children with asthma and their carers don't understand asthma, they don't see the value of a preventer and therefore don't use them.
6. Easy access to blue puffer and assumptions about asthma contribute to lack of control.

Living with asthma is a journey that involves multiple touchpoints that determine how to manage a person's asthma. People who live well with asthma seem to take a whole of life approach. People who are at risk, seem to manage it in the moment and do minimal preventative management. Touch points identified in the journey map indicate opportunities to better influence outcomes within the healthcare sector.

A SYSTEMS APPROACH ALONG THE BACKBONE OF THE PATIENT EXPERIENCE

MOMENTS THAT MATTER WITHIN PWA LIFETIME WHICH IMPACT THEIR EXPERIENCE AND ABILITY TO LIVE FREELY

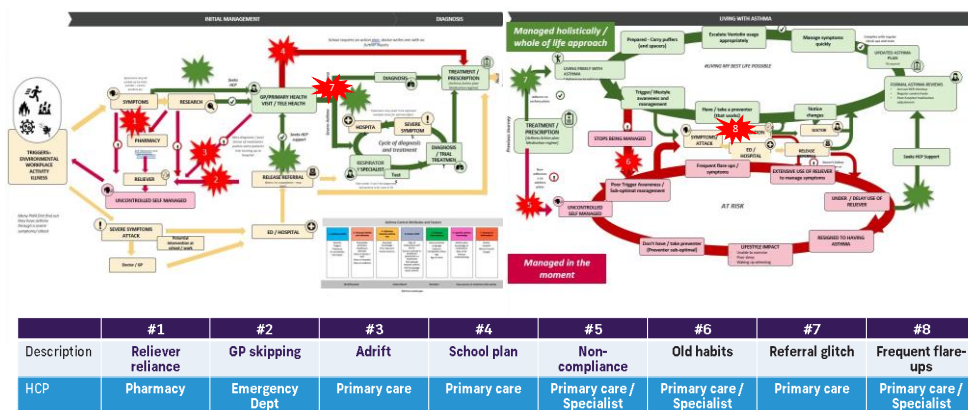


Figure 17: Asthma Australia Asthma Patient Journey Blueprint

¹⁶ Zeederberg S, Zeederberg M, Bell R, Flynn A. *Asthma through my eyes: a child and carer view of managing asthma*. 2024, TSANZ Abstracts. *Respirology*, 29: 133.

DESIGN THINKING WORKSHOP

The aim of the QUM in CAD Program Design Thinking Workshop was to co-design a suite of multi-modal education and behaviour change activities for HCPs. These activities would support HCPs to deliver best-practice and person-centred care that aligns with the objectives of the National Medicines Policy and National Strategy for Quality Use of Medicines.

Workshop participants were recruited by the Lung Learning Partnership's own contacts through an Expression of Interest process. Contact database mailings and social media were used to guide EOIs into a final registration process, and to identify HCPs and consumers who were ideally placed to participate in the workshop.

Held on 26th February 2024 in Brisbane and hosted and facilitated by Prof Sharyn Rundle-Thiele and her team from Social Marketing @ Griffith, 54 HCPs and people with lived experience of CAD gathered for a five-stage participatory design thinking process: empathise, define, ideate, prototype and test.

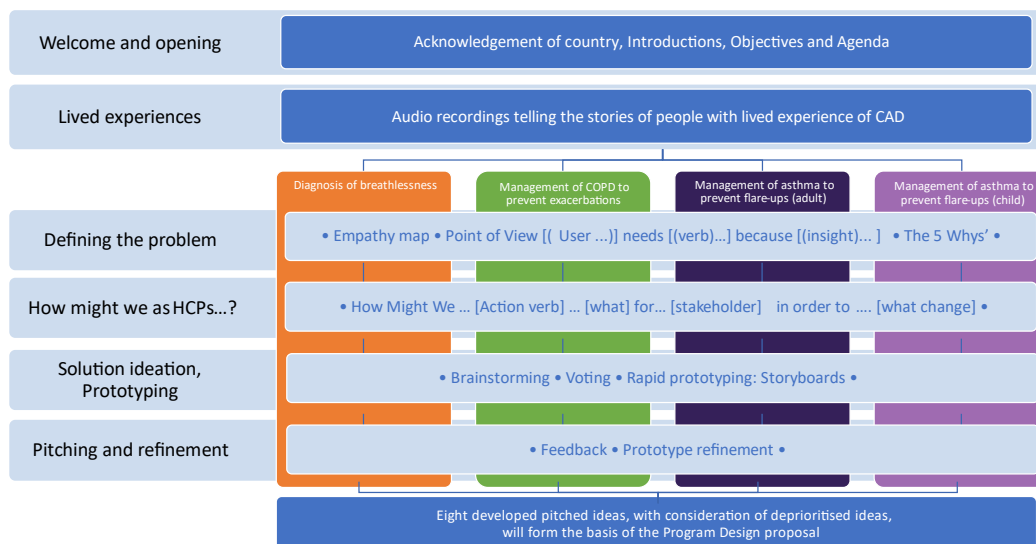


Figure 18: Design Thinking Workshop - agenda flow

Design Thinking Exercises

Empathise

We began the workshop listening to recordings of **Lived Experience Narratives** from a selection of five people with CAD. The narratives were created from interviews with people with different CAD conditions, adapted to create stories of suitable length and recorded by actors.

1. Young adult with recently-diagnosed COPD
2. Adult who has struggled with breathlessness for years
3. Adult with long-term poorly-controlled asthma and co-morbidities
4. Older adult with life-long silent asthma
5. Adult and children with asthma

Participants were asked to complete Empathy Maps for each of the people we heard from to set the foundation of the thinking in the lived experience, and consider what is important to the people who shared their stories. The Empathy Map prompts the participant to consider what the person with lived experience "said, did, thought and felt".

Define the problem

The next step was to develop **Point of view (POV) statements** to frame insights gathered about the people with lived experience. This is based on a template **[(User ...)] needs [(verb)...] because [(insight)...]**. A thematic analysis was conducted on the POV statements from each Lived Experience Narrative.

Sample POV statements from participants.

- A person with asthma needs regular check-ups to feel supported.
- The person with breathlessness needs to maintain or reduce weight and exercise to feel fit and healthy.
- The person with asthma needs to pre-book GP appointments at peak times to manage medications during flare-ups.
- The person with COPD needs to increase their understanding of their condition to be reassured of their own management regimen.
- The adult with asthma needs to have a proactive medication regimen to maintain and encourage kids to do things they love.

Table 7: Themes identified in POV statements created by Design Thinking Workshop participants

	This patient needs....	because...
1. Young adult with recently-diagnosed COPD	<ul style="list-style-type: none"> - education on disease and treatment - supports - access to pulmonary rehab after hours / at home - others to understand 	<ul style="list-style-type: none"> - they are angry - current health services don't meet needs - life is dominated by COPD - they feel alone - knowledge enables self-management.
2. Adult who has struggled with breathlessness for years	<ul style="list-style-type: none"> - connection with peers - practical advice and resources - lifestyle changes - HCPs to ask the right questions - education on disease and treatments 	<ul style="list-style-type: none"> - their life is limited - knowledge enables self-management - activity is limited by breathlessness - they feel alone - they rely on HCPs to guide decision making
3. Adult with long-term poorly-controlled asthma and co-morbidities	<ul style="list-style-type: none"> - tools to self-manage - greater access to GPs - management plan reassessed - education on disease and treatment 	<ul style="list-style-type: none"> - they feel overwhelmed - asthma is poorly controlled - health services are limited
4. Older adult with life-long silent asthma	<ul style="list-style-type: none"> - ability to differentiate symptoms of breathlessness - others to understand their condition - education on disease and treatments 	<ul style="list-style-type: none"> - they life with fear - panic over asthma vs heart condition - they want others to learn - they feel misunderstood / dismissed.
5. Adult and children with asthma	<ul style="list-style-type: none"> - HCPs to ask the right questions - to streamline asthma management 	<ul style="list-style-type: none"> - they are a warrior - they don't want to be limited by asthma

	- support to organise family asthma management	- they feel overwhelmed - asthma is poorly controlled
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The last activity in this section was **The Five 'Whys'**. Beginning with the Point of view Statements, the groups of participants were challenged to ask 'why' five times to identify the root cause of the problem we are trying to address. Problems relating to self-management, healthcare professional intervention and healthcare system were all identified in this exercise. For the scope of this report, we focus on healthcare professionals. All of the work by participants is documented in the appendix.

Table 8: Summary of 'The Five Whys' exercise per lived experience narrative relating to HCPs

	1. Young adult with recently-diagnosed COPD	2. Adult who has struggled with breathlessness for years	3. Adult with long-term poorly-controlled asthma and co-morbidities	5. Adult and children with asthma
Define the problem	The patient needs to be holistically assessed and managed	HCPs are not able to diagnose breathlessness	Consumer feels like they are not being heard throughout the asthma journey	Good quality, person-centred care is compromised when multiple family members have asthma
Why is it happening	Stigma associated with being a smoker	She is old, had lung disease since childhood – symptoms not taken seriously	Lack of confidence and self-advocacy in communications with HCP	PHC providers assess and treat one person at a time
Why is that?	Lack of knowledge of other factors that can contribute to COPD	Absence of the necessary knowledge and skill on part of HCPs to deeply understand	Power dynamic / perceived knowledge of condition	PHC providers can't obtain best knowledge to consider all components of family, all ages, all diseases
Why is that?	New knowledge not being disseminated to clinicians in a timely and effective manner	Attitudes / perspectives towards breathlessness	Lack of acknowledgement of lived experience	PHC operates in an episodic / acute presentation business model
Why is that?	Competing educational priorities and other practice administrative burdens	Lack of experience in supporting patients with breathlessness, inherent bias	Reactive in the PHC environment / solutionising	PHC structure doesn't naturally support a family-centred model of care
Why is that?	System and resource constraints	Lack of tools for HCPs translating recommendations to clinical care.		

Note: Story 4, Older adult with life-long silent asthma, was not addressed in this exercise.

How might we...?

Next, each participant was asked individually to draft '**How might we.. ' Questions** to prepare for the ideation phase. "How might we..." questions are used to frame challenges or opportunities in a way that inspires creative problem-solving and innovation.

Also based on a template: **How Might We ... [Action verb] ... [what] for... [stakeholder] in order to ... [what change]**. A thematic analysis was conducted on the POV statements from each Lived Experience Narrative.

Sample 'How Might We...?' questions from participants.

- How might we develop multidisciplinary plans that encompass holistic care for the patient in order to improve education and management for the patient's condition?
- How might we create an environment for HCPs in order to provide patient-centred care?
- How might we build an education package for primary care clinicians in order to reduce stigma associated with risk factors for COPD?

Table 9: Most highly prevalent terms used in the 'How might we...?' questions' generated by participants, highlighted in bold the terms relating to healthcare professional interventions

How might we...	<ul style="list-style-type: none"> • empower patients • raise priority and awareness of asthma • train and empower healthcare professionals • improve quality of care and services • take a multidisciplinary & systems approach
to...	<ul style="list-style-type: none"> • prioritise asthma • leverage existing tools such as integrated care plans • breathlessness management • professional education • patient-centred care and a holistic approach
for...	<ul style="list-style-type: none"> • general practitioners • consumers with asthma • families with multiple asthma patients • people with breathlessness • people with COPD • pharmacists • physiotherapists • Aboriginal remote communities
in order to...	<ul style="list-style-type: none"> • reduce and prevent asthma flare-ups • deliver patient-centred care and empowerment • improve healthcare access and equitable care • support sustainable behaviour change and multidisciplinary collaboration.

Overall, you could summarise our overarching challenge as follows.

How might we design Education Packages to inform and equip healthcare professionals with the knowledge, attitude and skills in order to deliver patient-centred care and empowerment?

Ideation

A series of brainstorming activities amongst participants both individually and in groups generated 427 unique responses to the “How might we...?” Questions. After individual brainstorming of ideas on sticky notes, participants worked in groups to group ideas based on common themes on an affinity map and then vote for the priority ideas to further develop

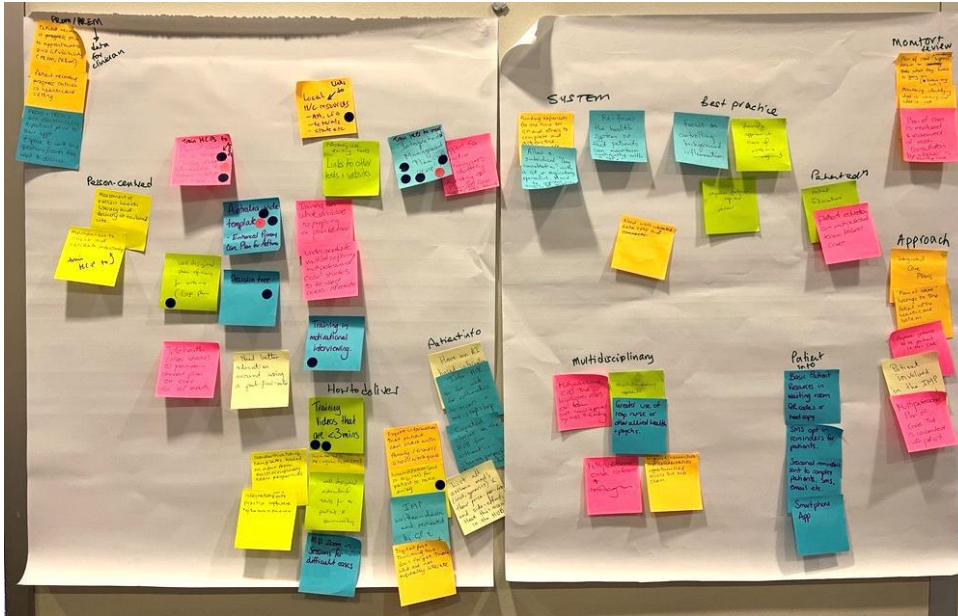


Figure 19: Sample Affinity map at the end of the ideation session

Upon analysis of the responses, these could be categorised in several ways, including by the HITS domains and subdomains by the Griffith team in their report.¹⁷ For more information on HITS see Appendix 4. HITS social marketing theory.¹⁸ Alternatively, we looked at categorisation to inform Education Package design in Table 10: Sample of participant ideas from the ideation process.

Table 10: Sample of participant ideas from the ideation process

<p>Healthcare professional education</p> <ul style="list-style-type: none"> • Lived experience simulations – what matters to me • Webinar series – interviewing patients and GPs about what works well and what doesn't • Curated stories from patients • Decision tree, check-lists • Educate pharmacists about breathlessness 	<p>Facilitators of delivery of education</p> <ul style="list-style-type: none"> • Make it easy and simple • Training for GPs on resource that can be accessed • Include ‘teach-back’ style questions in consults • Train the trainer model, develop advocates • A bootcamp to introduce resources to providers
<p>Health services or systems-level solutions</p> <ul style="list-style-type: none"> • Employ asthma educators in GP clinics • Funding expansion for the time for GP and others to complete the Asthma Action Plan • Integrate the tools of the ‘plan of care’ into practice software • Improve accessibility to GP • Equity to access for lung health 	<p>Consumer activities</p> <ul style="list-style-type: none"> • Online tools to empower patients in their own knowledge • Patient questionnaire in waiting room, or prior to appointment on PROM/PREM • Increase online pulmonary rehabilitation • Centralised website of information about access to healthcare

¹⁷ Social Marketing @ Griffith. 2024. QUM in CAD Program Design Workshop Report.

¹⁸ Rundle-Thiele, SR & Cairns J 2024. HITS: A theory for social marketers. North American Social Marketing Conference, Florida, USA.

The eight pitches

Participants worked in small groups which culminated in the pitching of the ideas generated as prototypes which had been tested and refined with feedback from other groups. The eight resulting pitches are summarised in the table below, in the order of presentation at the workshop.

Podcast series based around the AAH and connected to patient experience

A 12 episode-podcast based on sections of the AAH supported by patient experience. Extension activities include Guided reflections, Online learning, Supplementary resources and Behaviour change reflections. (Group focus: asthma in children)

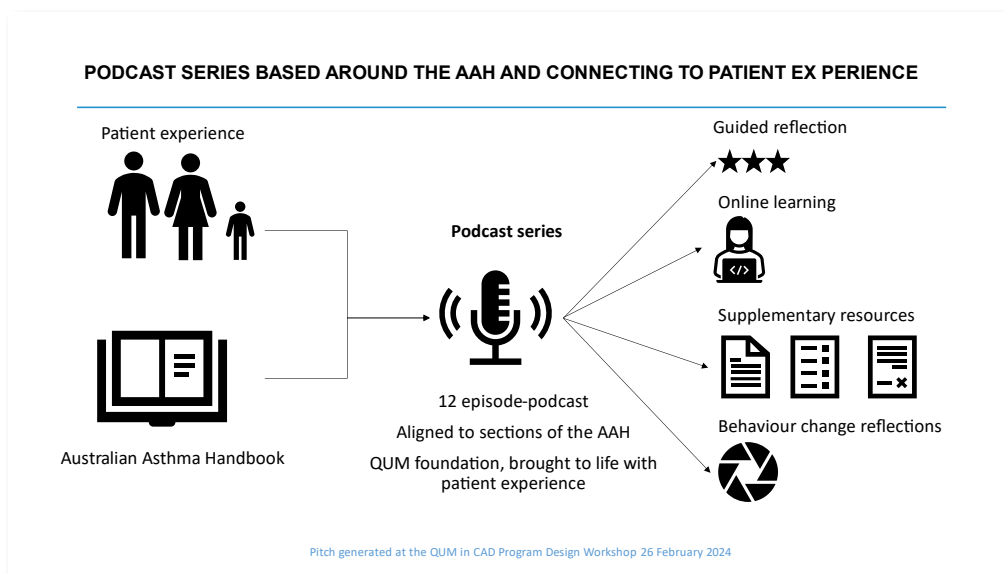


Figure 20: Visualisation of: Podcast series based around AAH and connected to patient experience

Asthma certification program plus community of practice

Asthma certification after completion of in-person training, Online training and an Assessment. Extension activities include an immersive experience at a respiratory clinic and Community of practice. (Group focus: asthma in adults)

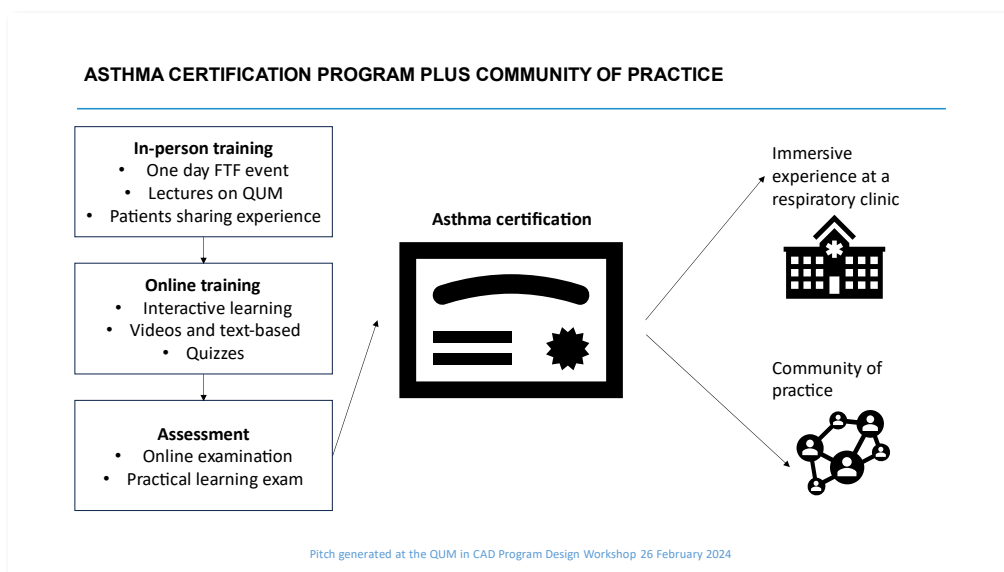


Figure 21: Visualisation of: Asthma certification program & community of practice

Asthma Compass: checklist to create integrated care plan for all patients

With the goal of supporting primary healthcare professionals to create and use an Integrated Plan of Care a checklist to build a plan pulling together existing resources. Considerations include tapping into existing MBS-funded items, CPD accreditation for reflective practice. (Group focus: asthma in adults)

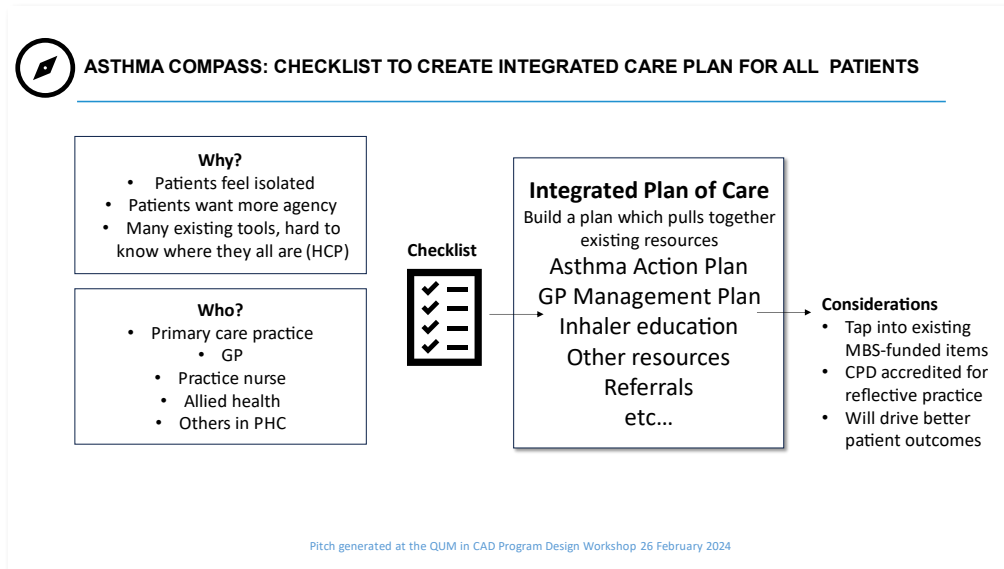


Figure 22: Visualisation of: Asthma Compass: checklist to create integrated care plan

Breathlessness pie: a model to organise diagnosis and interventions in breathlessness

A biopsychosocial cultural model for organising thinking about how to manage the patient experience of breathlessness. Each slice of the pie represents a different aspect that is potentially treatable to impact a person's experience of breathlessness. (Group focus: breathlessness)

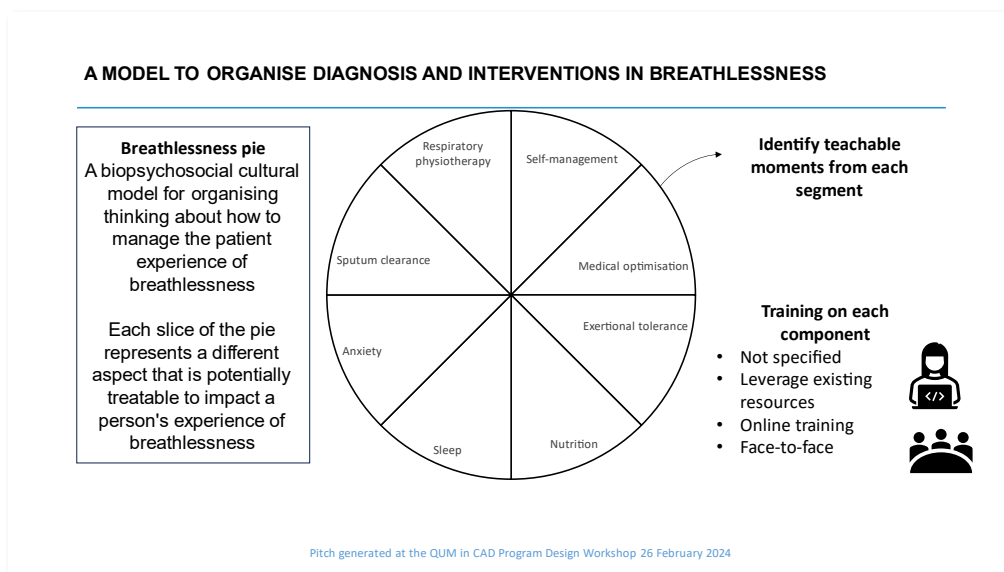


Figure 23: Visualisation of: Breathlessness pie: a model to organise diagnosis and interventions

Resources for HCPs to support better lung health in Aboriginal people

With the goal of empowering healthcare workers to understand the questions they need to ask so they're culturally appropriate for that community, how that needs to be framed, how they need to talk to their patient about their condition, this proposal sets out to engage and partner with community in APY Lands to co-design and develop a toolkit for health professionals. (Group focus: COPD)

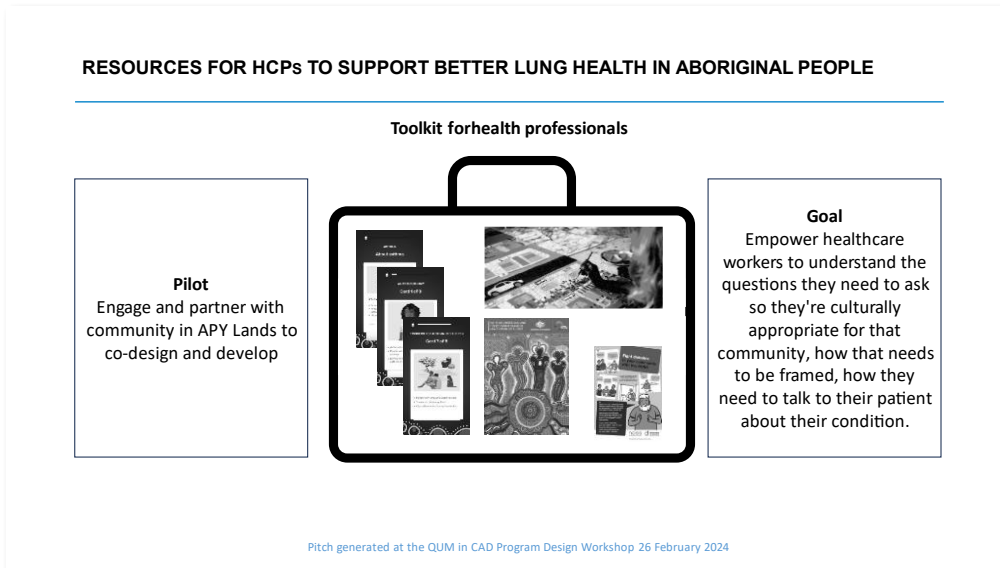


Figure 24: Visualisation of: Resources for HCPs to support better lung health in Aboriginal people

A digital destination on breathlessness for HCPs

A centralised digital space where information is available at a click as a quick resource for doctors within their consultation. The goal is to make information available at a click as a quick resource for doctors within their consultation. To help GPs how to assess, diagnose, investigate and manage. Supplemented by a Learning Module on how to use, and key principles. (Group focus: breathlessness)

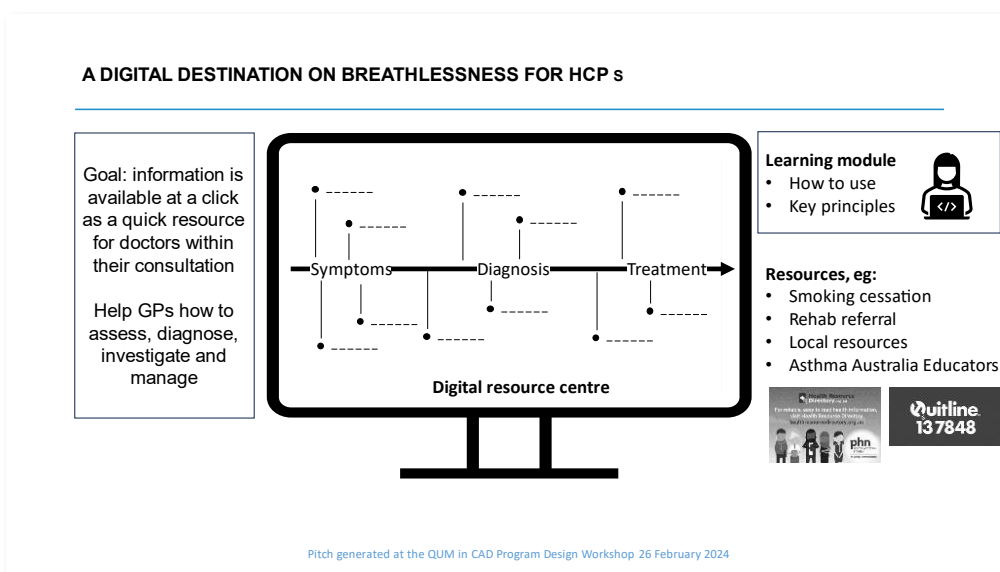


Figure 25: Visualisation of: A digital destination on breathlessness for HCPs

Choose your own asthma adventure

An AI assisted platform to direct the user through a learning pathway based on a family with children or adolescents with asthma. Scenario-based learning combining real-life stories and messages around the quality use of medications, inhaler technique, prescription and deciding if an inhaler is correct for that person. (Group focus: asthma in children)

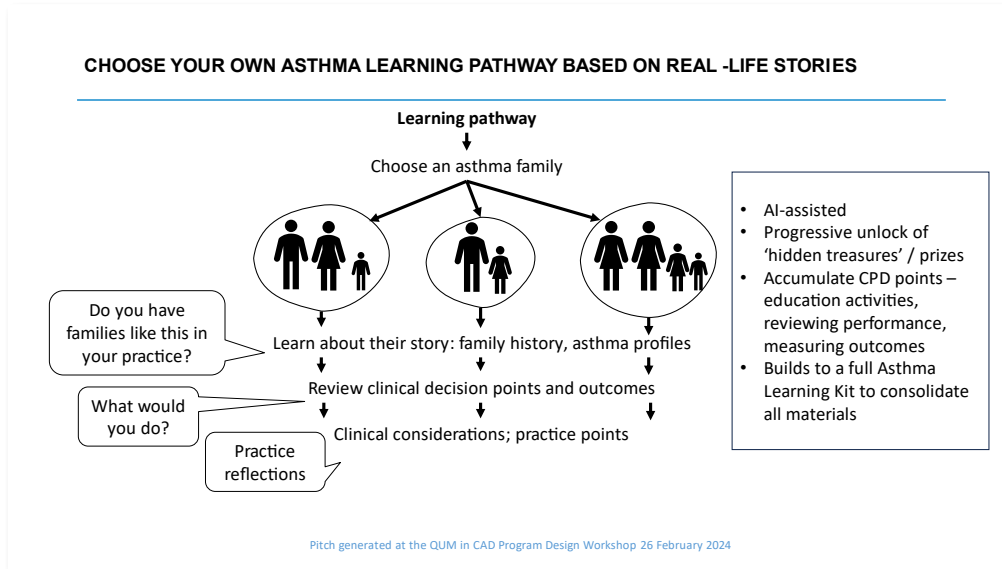


Figure 26: Visualisation of: Choose your own asthma adventure

COPD checklist for GPs

A tool to facilitate standardised, patient-centred COPD care and training resources on how to use it. the checklist is at the GP fingertips to prompt appropriate diagnosis and managements steps. Integrate existing assets. Supported by training on how to use. (Group focus: COPD)

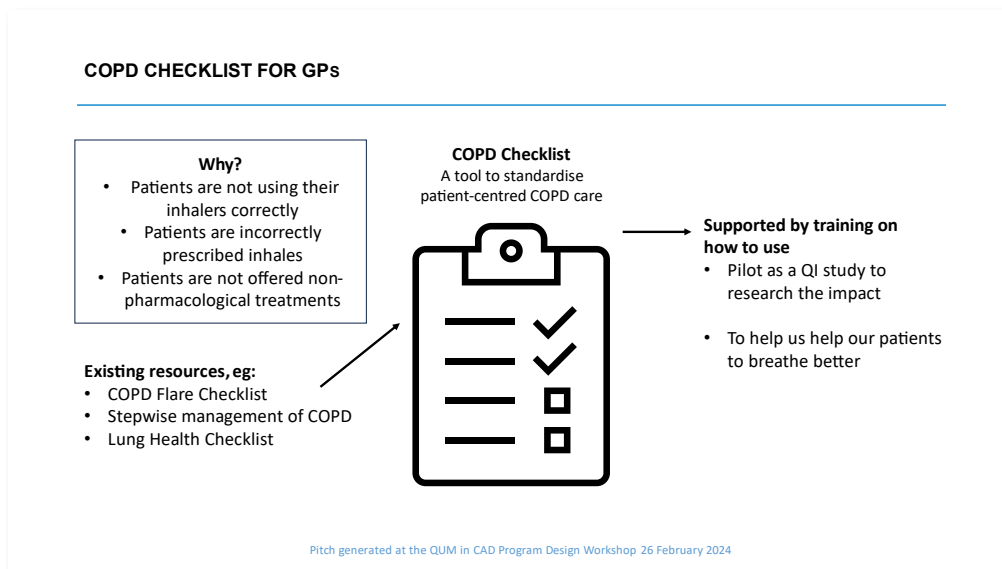


Figure 27: Visualisation of: COPD checklist for GPs

Lightly edited transcripts from the presentations and simple visualisation are available here [Appendix 5. Design Thinking Workshop outcome: 8 pitches.](#)

Feedback and review of the eight pitches

At the workshop participants were provided with fake money to invest in the idea they wanted to see come to life. The results are represented in the 'Workshop votes' column.¹⁷ We also sought feedback and reflections from the Lung Learning Partnership Project Team around four key considerations.

- Feasible – could it be designed and delivered within a 6-month window? Scored out of 5.
- Reach – will it help achieve our goal of reaching 5000 HCPs? Scored out of 5.
- Impact – does it support our outcomes? Scored based on potential to impact 5 outcomes.
- Success – will it deliver on our critical success factors? Scored based on potential to impact 4 critical success factors.

Table 11: Summary of assessment of the eight concepts pitched at the Design Thinking Workshop

Concept name (Group focus)	Workshop votes	Feasibility	Reach	Impact	Success	Overall rank
Podcast series based around the AAH and connected to patient experience	\$2.11m	4	3	5	3	3
Asthma certification program plus community of practice	\$1.78m	3	2	4	4	6
Asthma Compass: checklist to create integrated care plan for all patients	\$1.05m	4	3	5	3	6
Breathlessness pie: a model to organise diagnosis and interventions in breathlessness	\$1.98m	3	2	5	2	6
Resources for HCPs to support better lung health in Aboriginal people	\$3.88m	2	1	5	3	4
A digital destination on breathlessness for HCPs	\$1.71m	4	3	5	3	5
Choose your own asthma adventure	\$2.65m	3	4	5	4	2
COPD checklist for GPs	\$3.2m	5	4	5	4	1

Key: the darker the colour, the higher the score.

Outcome

Considering the votes at the workshop and the post-event feedback, the highest-ranking concept is the **COPD Checklist for GPs**. This was probably the best presented of the concepts at the workshop, demonstrating great clarity of the idea, and the group nicely connected the identified need that patients are not using inhalers correctly and may be prescribed the incorrect devices, with the design. Recognising the fact that GPs are time poor, and leveraging existing resources spoke to the desire to collaborate, seek and amplify existing materials as well.

Reflections

Each of the pitched education programs aim to empower HCPs with the knowledge, skills, and resources needed to deliver high-quality, patient-centred care and improve health outcomes in their respective fields of practice. Elements of each pitch will be used in the Education Package and Activity Design.¹⁷

- Many of the programs emphasise the importance of understanding patient experiences and integrating them into healthcare practices. This includes using patient stories, scenarios, and real-life experiences to guide HCPs in providing better care
- There is a focus on utilising innovative educational methods such as podcasts, online modules, interactive quizzes, and digital platforms to deliver education and training to HCPs. These methods aim to make learning accessible, engaging, and convenient for busy professionals.
- All programs emphasise the importance of adhering to evidence-based practice guidelines.
- Also all look to providing opportunities for reflection and self-assessment.
- Several programs highlight the importance of community engagement, collaboration, and partnership in healthcare delivery.
- Others look to providing practical tools, checklists, and resources that can be easily implemented into clinical practice. They aim to address common challenges and barriers faced by HCPs in managing specific health conditions effectively.
- There is an emphasis on cultural sensitivity, diversity, and inclusion in healthcare education and practice.



Figure 28: Summary of the pitches present at the conclusion of the Design Thinking Workshop

Insights from the workshop community

What drives a desire to participate?

As part of the recruitment process, an expression of interest was sought from contacts of the Lung Learning Partnership. When signing up for more information, we also asked **“Why are you interested in participating in the QUM in CAD Program Design Workshop?”**. We heard from them a shared commitment to enhancing patient outcomes by equipping HCPs through engagement, education and empowering interventions.

- Contribute expertise and insights to improving patient care, outcomes and quality of life: helping design better education, resources and support for self-management
- Enhance knowledge and skills through collaboration and learning from other experts in the Workshop
- Address issues like behaviour change, adherence and health literacy in people with CAD by innovating evidence-based programs and resources
- Improve care in specific populations like Aboriginal and Torres Strait Islander Peoples, Culturally and Linguistically Diverse groups and in regional/rural areas by providing culturally informed, tailored interventions.
- Upskill healthcare teams on appropriate use of inhalers, respiratory medications, spirometry, etc. through training and shared decision-making models.
- Advance preventative care through smoking cessation initiatives, early diagnosis, etc. and reducing hospitalisations.
- Work in multidisciplinary teams of nurses, doctors, psychologists, pharmacists, etc. to provide well-rounded perspectives.

What would you like to see?

During registration for the workshop, three further questions were asked. The first question **“What is the ‘coolest’ idea for training HCPs that you’d like to see?”** generated responses that called to adopt both high-tech and humanistic strategies to create training that is current, easily accessible, collaborative and truly conveys the patient experience for optimal skilling of healthcare teams.

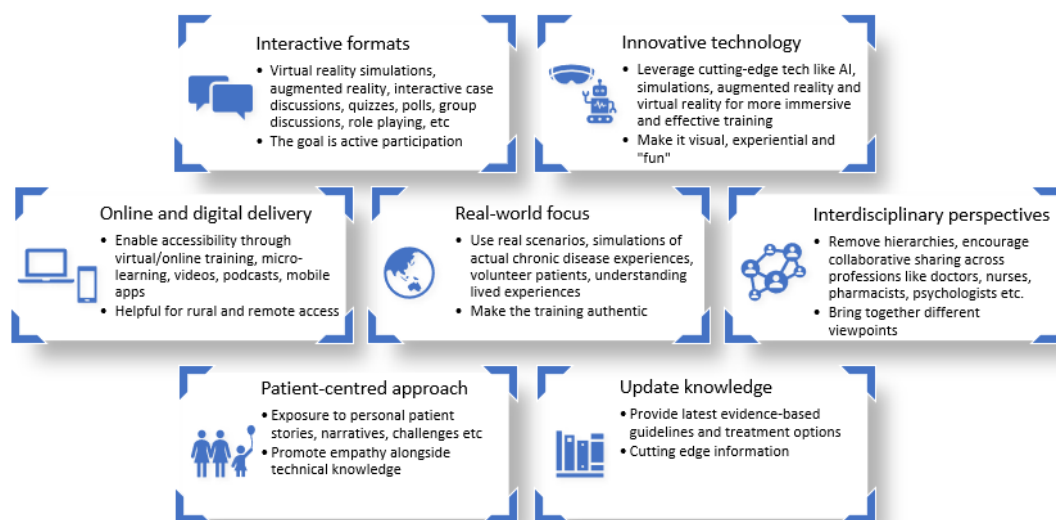


Figure 29: "What's the coolest idea for HCP training that you'd like to see?": summary of responses

What does an ideal training program look like?

The second question asked “**What would your ideal training program that aims to help HCPs to improve quality use of medicines for chronic airways disease include?**”. Our participants told us that an ideal program would make receiving latest evidence fun through humanistic, experiential learning that carries through via healthcare teams embracing patient priorities.

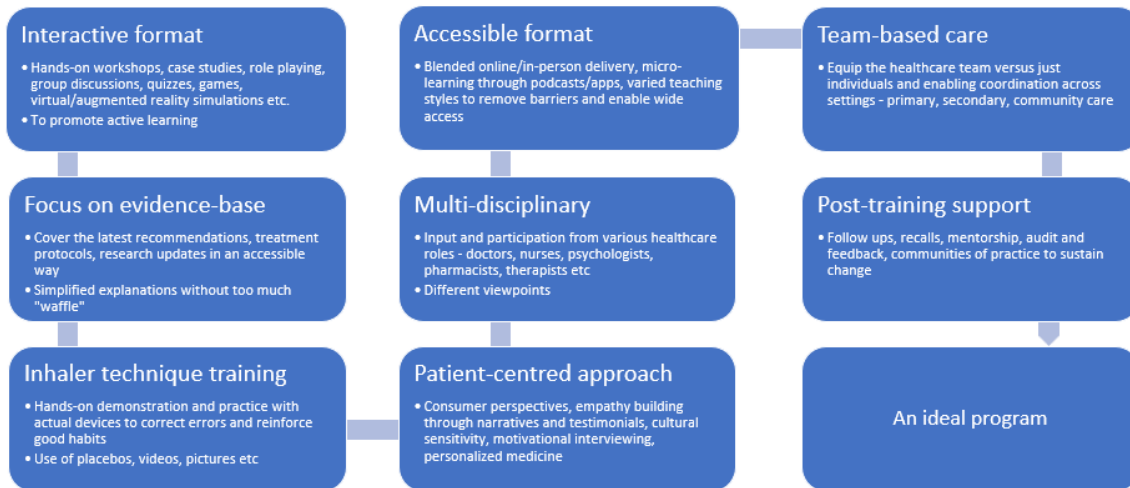


Figure 30: "What would your ideal training program that aims to help HCPs to improve the quality use of medicines for chronic airways disease include?": summary of responses

What is missing?

The third question “**Is there any type of training you feel like you can’t find elsewhere that you’d like to see?**” told us that participants want convenient, patient-centred training that takes a team-based approach in reinforcing optimal use of respiratory medications through experiential learning.

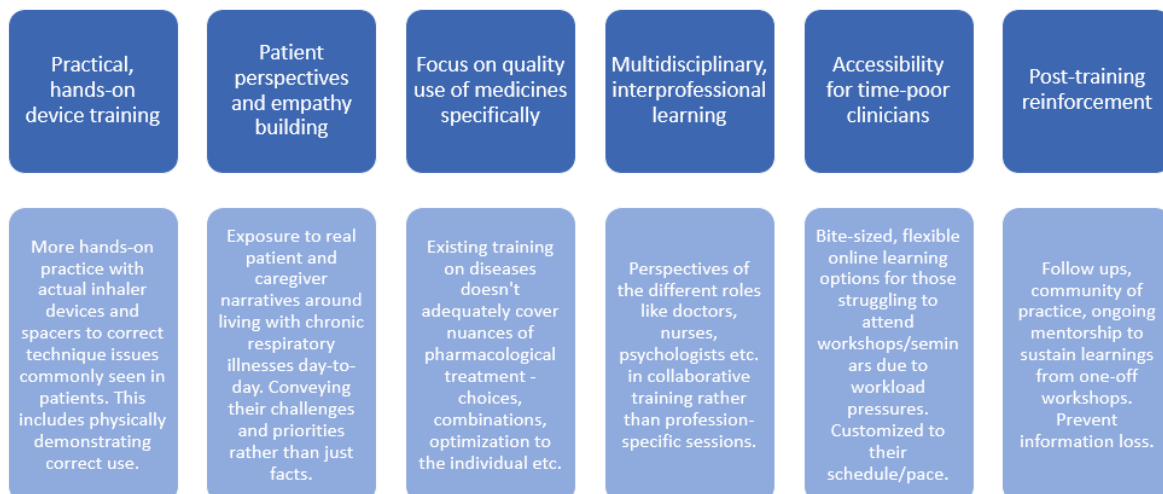


Figure 31: "Is there any type of training you feel like you can't find elsewhere that you'd like to see? : summary of responses

DEFINE: CONSOLIDATE INSIGHTS TO INFORM EFFECTIVE SOLUTIONS

Prioritised findings and rich insights around challenges are translated into opportunity areas for innovation

The DEFINE phase of human-centred design allows an opportunity to bring together the volume of findings and insights from the DISCOVER phase and organise them. Keeping the people we are delivering the Education Packages to, and the ultimate beneficiaries of the people living with chronic airways disease as our focus, in this section we have organised the findings in a way to point to optimal solution design.

The QUM in CAD Program will deliver three Education Packages that target HCP clinical practice gaps, capabilities and competencies. Critical to the success of the Program Design is to deliver **three Education Packages that:**

- reflect priority QUM issues for people with CAD and promote patient empowerment as key to optimal management.
- facilitate HCPs to self-appraise their knowledge and skills against the capabilities of the Lung Learning Framework.
- include multi-modal education and behaviour change activities that support HCPs to deliver evidence-based care at critical points in the patient journey - differential diagnosis of breathlessness and personalised treatment planning to prevent flare-ups/exacerbations.

Reflect priority QUM issues for people with CAD and promote patient empowerment as key to optimal management

- According to the NSQUM, QUM means: Selecting management options wisely, Choosing suitable medicines and Using medicines safely and effectively. There is some guidance from the RACGP QI module on a set of indicators relating to the Safe and quality use of medicines for General Practice. While the delivery of optimised health outcomes is the goal, priority QUM issues for patients are not widely documented.
- In addition to the deep understanding of the lived experience of people with CAD from the respective organisations, the Design Thinking Workshop built on audio narratives from people with lived experience to embed this perspective in the foundation of Program Design.
 - **Breathlessness** has a high personal impact but remains a neglected condition in Australia. Patients suffer from lack of personal, community, and provider awareness, discontinuity of care, and too few clinical and self-management options.
 - **COPD** is a progressive and lifelong condition. Fragmented care coordination of COPD and comorbidities causes additional stress from navigating the health system. Individuals with COPD feel that “It is scary not being able to breathe. No one really understands.”
 - **Asthma** is seen as common, every-day, and not particularly dangerous. The mindset of people with asthma is reactive rather than preventative, and this hinders actions that lead to better control. Lack of understanding of the disease, undervaluing of medications and easy access to relivers contribute to cyclic lack of control.

- POV statements from Design Thinking Workshop observed that people with CAD need:

<ul style="list-style-type: none"> - education on disease and treatment - HCPs to ask the right questions - connection with peers - greater access to GPs, 	because... <ul style="list-style-type: none"> - they feel overwhelmed - CAD is poorly controlled - knowledge enables self-management - they feel alone.
--	---
- Further insights from the Design Thinking Workshop The Five Whys exercise highlighted that a “Lack of acknowledgement of lived experience” by healthcare professionals was identified as a root cause of a person with CAD feeling that they are not being heard.
- The pitches presented at the conclusion of the Design Thinking Workshop emphasise the importance of understanding patient experiences and integrating them into healthcare practices. This is achieved by using patient stories, scenarios, and real-life experiences to guide HCPs in providing better care. (Education Package design, Solution Blueprint).

Facilitate HCPs to self-appraise their knowledge and skills against the capabilities of the Lung Learning Framework

The Lung Learning Framework specifies the capabilities and competencies of HCPs who care for people with lung conditions including CAD from the *Promotion of health lungs, Early detection and diagnosis, through Initial planning and care to Self-management and ongoing care.*

- Activities created within Education packages should be built around the identified gaps in current content, where recommendations have been made to further support the capabilities and competencies. Consideration should also be given to the data from current HCP self-appraisal which identifies HCP training needs. (Content considerations)
- The design and build of the Education Packages must include planning of Customer Journeys to connect the user with the self-appraisal, and re-appraisal of capabilities within the Framework. (A technical solution)
- The pitches presented at the conclusion of the Design Thinking Workshop emphasise the importance of adhering to evidence-based practice guidelines and look to providing opportunities for reflection and self-assessment. (Education Package design, Solution Blueprint)

Include multi-modal education and behaviour change activities that support HCPs to deliver evidence-based care

A great deal of educational content relevant to QUM in CAD currently available for Australian HCPs. However, accessibility can be restricted and not all is pre-accredited for CPD.

- Most identified content is available as online learning and predominantly covers only Educational Activities hours for the RACGP CPD. In creating our Education Packages, it is important to include activities that provide Reviewing Performance and Measuring Outcomes time for the doctors who consume the content. (Solution Blueprint, Activity design)
- Design of contemporary CPD requires consideration of suitable format and HCP preferences. Online delivery is a given within our Program Design, but considerations about how, when and where that content will be consumed should be included in the Solution Blueprints. (Solution Blueprint, Activity design)
 - The RACGP QI Standards: QI2.2: Safe and quality use of medicines indicators will be useful in determining the learning outcomes in the Education Packages for GPs.
- Our external stakeholders identified a number of issues relating to the quality use of diagnostics, therapeutics and pathology issues relating to chronic airways disease. Mapping to the relevant

points in the patient journey and thinking about intervention design to tackle these concerns will drive a needs-based approach. (Content considerations)

- The Ideation session at the Design Thinking Workshop provided not only solutions to our identified problems, but participants also shared facilitators of the delivery of effective HCP education. For example,
 - Make it easy and simple
 - Training for GPs on resource that can be accessed
 - Include ‘teach-back’ style questions in consults
 - Train the trainer model, develop advocates
 - A bootcamp to introduce resources to providers.
- The “winning” idea from the Design Thinking Workshop was the COPD Checklist for GPs. Presenting great clarity of the idea, the group connected the identified need for people with CAD, recognised the challenges for GPs and identified the importance of leveraging existing resources.
- The pitches presented at the conclusion of the Design Thinking Workshop incorporated a range of ideas, with a focus on utilising innovative educational methods such as podcasts, online modules, interactive quizzes, and digital platforms to deliver education and training to HCPs. These methods aim to make learning accessible, engaging, and convenient for busy professionals. (Education Package design, Solution Blueprint)
 - Practical tools, checklists, and resources that can be easily implemented into clinical practice were favoured. They aim to address common challenges and barriers faced by HCPs in managing specific health conditions effectively.
- We need to be mindful of the existing and planned activities which may overlap with the QUM in CAD Program, including those within the Lung Learning Partnership member organisations. Optimal design will incorporate these and stay in touch with the EAG and SRG members who can connect us with other providers so we can amplify rather than duplicate effort. (Education Package design, Stakeholder Engagement)

DESIGN: A STRATEGIC PROCESS TO SYNTHESISE AND SET DIRECTION

The more energy, creativity, and hard work that goes into program design, the greater the chances that a program will succeed







Taking a human-centered design approach to the development of the QUM in CAD Program Design builds on four principles: focus on people and their context; seek to understand and solve the right problems; think about the system of interconnected parts; and build small, simple interventions that truly meet the needs of the people in focus.

In the DESIGN phase we have integrated the findings and insights and made decisions about the build of a cross-linked set of Education Packages to deliver the QUM in CAD Program objectives and outcomes.

This section of the document sets out the schema for the QUM in CAD Program “home” and its constituent Education Packages, separate from, but related to, the Lung Learning Program and its components. It also outlines high-level plans for the Education Package design by topic, mapping the lived experience needs, target audience, priority gaps in the Lung Learning Framework and identified QUDTP issues alongside a suite of activities to deliver to educational need of HCPs.

For full version refer to **Table 3: QUM in CAD Program Overview**

Table 3: QUM in CAD Program Overview

	Lung Learning Program 		“Chronic Airways Disease Education Program for HCPs” <small>(Identity TBA)</small>		
DISCRIPTOR	The Lung Learning Program represents the culmination of the work from the Lung Learning Partnership to set standards for lung health education and training. The program is delivered through the Lung Learning Framework and Lung Learning Hub		The “QUM in CAD Program” is a national program of education for healthcare professionals in primary care that aims to improve the quality of use of medicines and medical tests in the diagnosis and management of chronic airways disease. Three topics are covered in a set of “Education Packages” focusing on breathlessness, COPD, and asthma, featuring activities that respond to identified needs. Each “Education Package” is aligned to the Lung Learning Framework and can be accessed via the Lung Learning Hub.		
DESCRIPTION	Lung Learning Framework  A structured competency-based model that captures the knowledge and skills which enable primary HCPs to provide best-practice care across lung conditions	Lung Learning Hub  The online host of the Lung Learning Framework and self-assessment tool. A marketplace for a collection of continuing professional development activities.	Diagnosis of breathlessness  An Education Package that focuses on the diagnosis of breathlessness and treatment initiation in CAD	Management of COPD to prevent exacerbations  An Education Package that focuses on a step-wise approach to the management of COPD to prevent exacerbations	Management of asthma to prevent flare-ups  An Education Package that focuses on personalised management of asthma to prevent flare-ups
OUTCOMES	Increase collaboration between organisations with an interest in CAD and distribution of high-quality information, tools and resources via the Lung Learning Hub Enhance reporting capability of the Lung Learning Hub to provide longitudinal data on learning outcomes from training providers, in addition to data on HCP training and development needs		Improved HCP identification of symptoms of CAD, such as breathlessness, and activation of clinically appropriate diagnostic and referral pathways	Increased awareness and initiation of evidence-based, clinically appropriate pharmacological & non-pharmacological treatments	Increased HCP use of guideline-recommended approaches to selecting and demonstrating inhaler devices for patients
OBJECTIVES	On completion of the enhancement work to the Lung Learning Hub, the following objectives will be met: <ul style="list-style-type: none"> Enhance the user experience of the Hub based on industry feedback, aiming to scale-up functionality, interactivity, and aesthetic appeal. Upgrade the Hub’s reporting capabilities, offering enhanced analytics and impact metrics (including visualisation) to LFA, our training partners and funders. Increase site traffic to the Hub and self-appraisal completions. This will generate more data around the training needs of the workforce. Strengthen the Lung Learning monitoring and evaluation framework. A new digital evaluation tool will allow us to measure users’ achievement of learning outcomes and intention to change practice. 		On completion of the Education Package, participants will: <ul style="list-style-type: none"> be aware of breathlessness as an important presenting symptom for CAD and other conditions feel able to identify where breathlessness is a symptom of CAD activate clinically appropriate diagnostic and referral pathways, eg spirometry, imaging, sputum examination, blood tests. Other <ul style="list-style-type: none"> Reflective practice audit 	On completion of the Education Package, participants will: <ul style="list-style-type: none"> be familiar with the key evidence-based recommendations from The COPD-X Plan recognise the impact of fragmented care coordination and empathise with patients in this situation develop a plan of care for their patients with COPD which supports optimal management towards minimisation of exacerbations. Other <ul style="list-style-type: none"> Reflective practice audit Community of practice 	On completion of the Education Package, participants will: <ul style="list-style-type: none"> be up-to-date with the current guidelines for managing asthma in children feel driven to ensure parents can independently manage their child’s asthma ensure that all children with asthma in their practice have an up-to-date Asthma Action Plan, have been educated on the plan including inhaler technique and they understand the need for preventative medication to avoid flare ups. Other <ul style="list-style-type: none"> Reflective practice audit Community of practice
ACTIVITIES	Enhanced reporting capabilities <ul style="list-style-type: none"> Heat maps Trackable click-throughs Data export Improvement to Hub’s training provider portal <ul style="list-style-type: none"> Collateral download area Application form update Improvement to Hub’s HCP portal <ul style="list-style-type: none"> Microlearning zone Learner dashboard QUM in CAD ‘sub hub’ 		Educational activities <ul style="list-style-type: none"> Online learning module Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit 	Educational activities <ul style="list-style-type: none"> Webinar series Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit Community of practice 	Educational activities <ul style="list-style-type: none"> Webinar series Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit Community of practice

QUM in CAD Program “home”

Implementation considerations to fulfill the Program Objectives

The Program Objectives set out the requirements for the delivery by the Lung Learning Partnership of the QUM in CAD Program Education Packages, and the upgrades to the Lung Learning Program components. Based on the findings from the DISCOVER phase, the following considerations must be applied to implementation.

Table 12: Implementation considerations based on the Program Objectives

Program Objectives: requirements	Implementation considerations
Deliver three Education Packages that:	
<ul style="list-style-type: none"> reflect priority QUM-issues for people with CAD and promote patient empowerment as key to optimal management 	<ul style="list-style-type: none"> Apply findings and insights from understanding of the lived experience of people with CAD in the development of the needs analysis for each respective Education Package.
<ul style="list-style-type: none"> facilitate HCPs to self-appraise their knowledge and skills against the capabilities of the Lung Learning Framework 	<ul style="list-style-type: none"> Three Education Packages will be created and promoted on the Lung Learning Hub within a QUM in CAD “Home” via a section of the Lung Learning Hub, or “sub hub”. A program identity to reflect the specific nature of the initiative as a standalone from LFA, TSANZ, AA and Lung Learning branding, will be created and a communications platform built for promotion.
<ul style="list-style-type: none"> include multi-modal education and behaviour change activities that support HCPs to deliver evidence-based care at critical points in the patient journey. 	<ul style="list-style-type: none"> Identify formats as proposed and supported by the HCPs from our Stakeholder Engagement activities and Design Thinking Workshop. Recognise that a mix of methods of delivery is required to drive behaviour change, use the HITS social marketing theory as a model. Identify where collaboration can make the creation of overlapping content more efficient and effective for the delivery of education.
Identify, assess, and increase the reach of evidence-based existing information , tools, resources and education initiatives focused on CAD which align with the intended Project outcomes and those of the Grant Opportunity.	<ul style="list-style-type: none"> The Lung Learning Program, including the Lung Learning Framework and Lung Learning Hub will benefit from functionality and data analytics updates. There will be a co-ordinated marketing strategy and implementation plan to promote the availability of the Hub to training providers and HCPs

Connection of the program deliverables to achieve the Program Outcomes

Considering the Program Outcomes the defined HCP behavioural outcomes naturally align to the three topics – breathlessness, COPD and asthma. *Improved HCP identification of symptoms...* will be covered by the breathlessness topic, while *Increased awareness and initiation of... appropriate treatments*, plus *Increased HCP use of guideline-recommended approaches...* will be the focus on the asthma and COPD packages. *Increased HCP awareness and initiation of multi-disciplinary care...* will sit as a content theme across all of our CAD topics.

Mapping based on the framework gap analysis and self-analysis results to create content that is responsive to the needs of the Hub community

Increase **collaboration between organisations** with an interest in CAD and distribution of high-quality information, tools and resources via the Lung Learning Hub

Deliver learning within each organisation's learning environment, but maintain consistency of approach across each topic stream

Person-centred philosophy behind the content creation. Reflect the priorities of people with lived experience of CAD; why the standards are important.

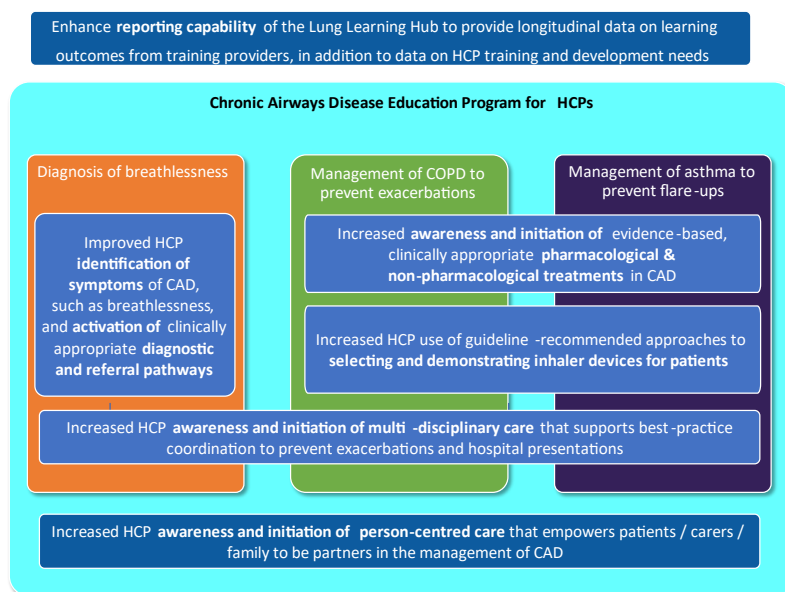


Figure 32: QUM in CAD Program Schema focused on delivery of defined outcomes

We will deliver on the patient centred care outcome, *Increased HCP awareness and initiation of person-centred care...*, in the approach taken to the development of the educational content, building on the suggestions from the Design Thinking Workshop in the implementation phase.

The Education Activities are to be delivered within the Lung Foundation Australia or Asthma Australia respective learning environment. Aligning under a single “Chronic Airways Disease Education Program for HCPs” identity will make the most of collaboration and follow through the spirit of removing duplication, supporting and amplifying each other’s efforts. Thereby achieving the outcome *Increase collaboration... via the Lung Learning Hub*.

Working in this way will feed into to the outcome *Enhance reporting capability of the Lung Learning Hub...*, as well as capturing addition to data on HCP training and development needs. We will benefit from mapping data with the framework self-analysis, pending data capabilities, to support both the initial and future development. Delivering the program outcomes through a collaborative approach means the user will benefit from an integrated learning experience which directs them to additional content of interest across each of the Education Packages.

QUM in CAD Program Schema

The CAD Education Program for HCPs will be presented in a single, at-a-glance view from the QUM in CAD “home” on the Lung Learning Hub. The user can browse through an overview of each Education Package as well as individual activities, via the same marketplace functionality in the rest of the Hub, linking out to the separately hosted locations.

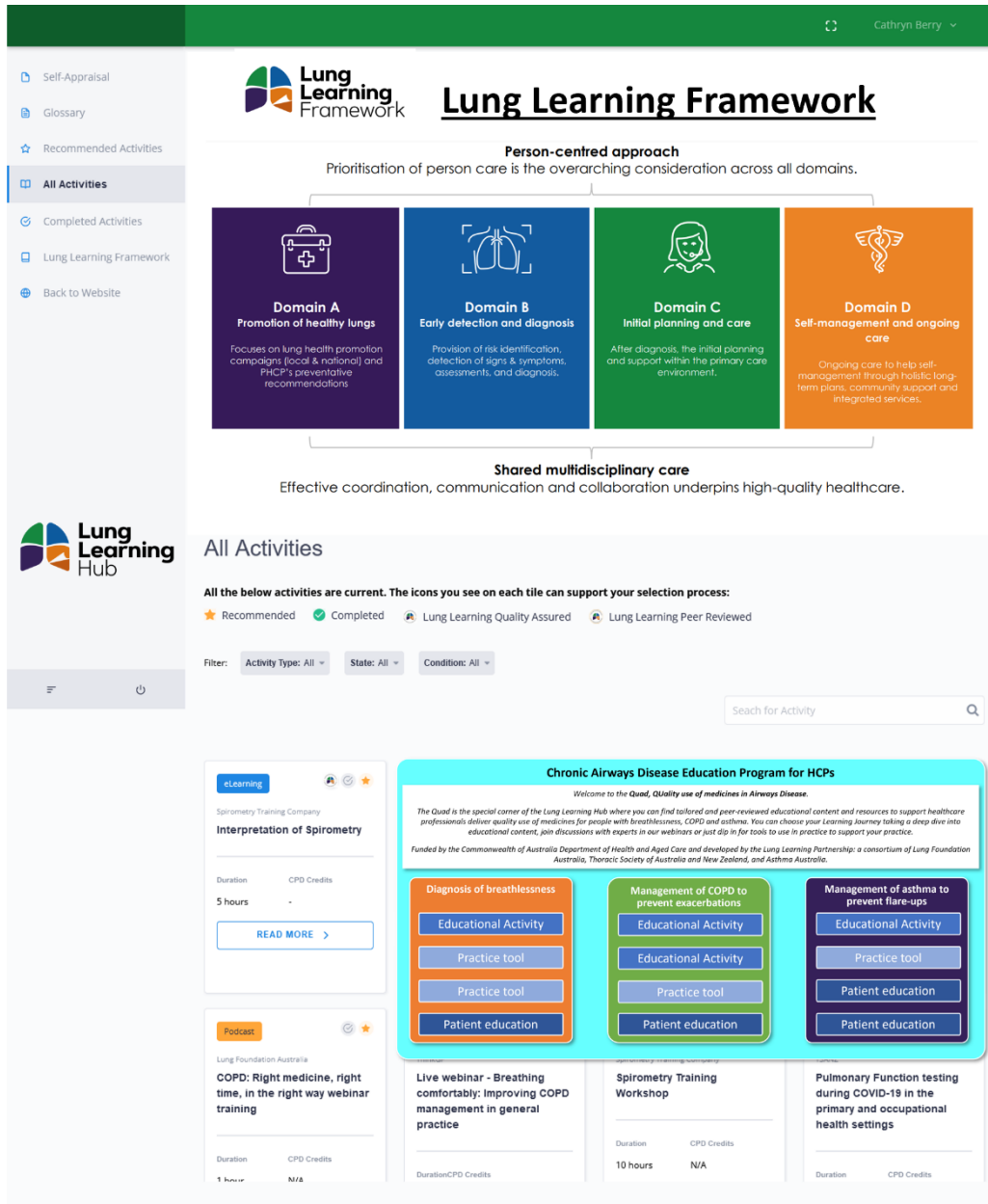


Figure 33: QUM in CAD Program Schema illustrated within the context of the Lung Learning Hub

Embarking on, or continuing, a Learning Journey, the user will be recommended to connect to self-assessment within the Hub based on the Lung Learning Framework, and also cross-referred to content within the partner topic streams. For example, a user might want to extend learning after completing components on Breathlessness by stepping into content on asthma or COPD management.

The Chronic Airways Disease Education Program for HCPs will have an independent identity to reflect the specific nature of the initiative that stands alone from LFA, TSANZ, AA and Lung Learning branding. The QUM in CAD Program will be promoted as part of the Lung Learning Program.

Education Package design

The needs of people with CAD expressed through their lived experience

People with CAD share some common traits, for example living with a lung disease or chronic condition can not only bring physical challenges but may also lead to social isolation due to limited participation in activities and reduced contact with loved ones. This isolation can trigger feelings of worthlessness, anxiety, and depression.

Lack of knowledge and understanding about their condition can intensify anxiety and uncertainty, including fears about the impact on their lives, families, and futures. Many patients struggle to comprehend their condition and face delays in specialist referrals, exacerbating their difficulties in managing their health.

Early specialist referrals are crucial for timely diagnosis and effective management, including accessing support groups to address the mental and emotional toll of living with lung disease.

Table 13: The Lived experience of people with CAD impacts many areas of health and well-being

POV from the Design Thinking Workshop observed that people with CAD need:		
<ul style="list-style-type: none"> - education on disease and treatment - HCPs to ask the right questions - connection with peers - greater access to GPs, 	because...	<ul style="list-style-type: none"> - they feel overwhelmed - CAD is poorly controlled - knowledge enables self-management - they feel alone.
<p>Breathlessness has a high personal impact but remains a neglected condition in Australia. Patients suffer from lack of personal, community, and provider awareness, discontinuity of care, and too few clinical and self-management options.</p>	<p>COPD is a progressive and lifelong condition. Fragmented care coordination of COPD and comorbidities causes additional stress from navigating the health system. Individuals with COPD feel that “It is scary not being able to breathe. No one really understands.”</p>	<p>Asthma is seen as common, every-day, and not particularly dangerous. The mindset of people with asthma is reactive rather than preventative, and this hinders actions that lead to better control. Lack of understanding of the disease, undervaluing of medications and easy access to relievers contribute to cyclic lack of control.</p>

A broad range of primary healthcare professionals make up our target audience

Without any specific detailed insight into the target audience behaviours, we will design the content to be suitable for any HCP within the primary care environment. As we get further into work on the solution blueprints and more depth thinking about the audiences we can plan more closely and establish the CPD homes for accreditation.

Consumers are the ultimate beneficiaries of the QUM in CAD Program. The impact of improving quality use of medicines for people with CAD can be quite significant. This can include: symptom control, prevention of exacerbations, lung function maintenance, improved physical activity, reduced healthcare costs, enhanced adherence to treatment plans and psychological well-being. Families, carers, and others provide critical social and emotional support for people with CAD. In children and young people in particular, they influence treatment decisions, maintenance, and health care system navigation.

A multidisciplinary care team can be involved in the diagnosis and ongoing management of people with CAD. As this program focuses on quality use of medicines in the primary care setting, our target audiences are also focused on GPs, nurses, community pharmacists and Aboriginal and Torres Strait Islander (A&TSI) Health Workers & Practitioners.

Role in delivering quality use of medicines in chronic airways disease in primary care												
HCP	Preventive Care	Diagnosis and Screening	Treatment and Management	Medication Management	Medication Adherence	Medication Reviews	Patient Education	Lifestyle Counselling	Care Coordination	Support and Empowerment	Monitoring	Referrals
GPs	■	■	■				■	■			■	■
Nurses	■			■			■	■	■	■	■	
Pharmacists				■	■	■	■	■				
A&TSI Health Workers and Practitioners*	■			■			■	■	■	■		

*Create culturally safe healthcare environments where Indigenous patients feel respected, heard, and valued.

For a full list of audiences and the rationale for targeting them see [Appendix 6. Target audiences.](#)

Priority capability gaps identified from mapping of combined analyses of the Lung Learning Framework, QUM in CAD Program Outcomes to the three topic areas

Much of the insights from the discovery process have informed us about gaps and needs in education for HCPs based on the capabilities and competencies of the Lung Learning Framework, as well as those relating to the quality use of medicines. Further analysis of the Lung Learning Framework Gap Analysis and Recommendations 2023 and the HCP Self-appraisal Gap Analysis allows us to prioritise capabilities for focus.

Considering the prioritised capabilities from this extended analysis of the Lung Learning Framework, and mapping these against the QUM in CAD Program Outcomes, and the topics of the three Education Packages, we can begin to see an outline of the content for each Education Package.

Table 14: Program Outcomes mapped to prioritised capabilities of the Lung Learning Framework

PROGRAM OUTCOMES	PRIORITY CAPABILITIES		
	Diagnosis of breathlessness	Management of COPD to prevent exacerbations	Management of asthma to prevent flare-ups
Improved HCPs identification of symptoms of CAD, such as breathlessness, and activation of clinically appropriate diagnostic and referral pathways.	9: Radiological lung tests and findings 10: Lung function tests 11: Diagnosis		
Increased awareness and initiation of evidence-based, clinically appropriate pharmacological and non-pharmacological treatments in CAD.		15: Empowering self-management and providing ongoing care	15: Empowering self-management and providing ongoing care
Increased HCPs use of guideline-recommended approaches to selecting and demonstrating inhaler devices for patients.	12: Educating individuals, families & carers, and communities about lung condition/s	12: Educating individuals, families & carers, and communities about lung condition/s	12: Educating individuals, families & carers, and communities about lung condition/s
Increased HCPs awareness and initiation of person-centred care that empowers patients/carers/family to be partners in the management of CAD.	7: Patient/client interviews	7: Patient/client interviews	7: Patient/client interviews
Increased HCPs awareness and initiation of shared multi-disciplinary care that supports best-practice coordination particularly as it relates to preventing exacerbations and hospital presentations/admissions.	4. Encourage smoking and vaping cessation	4. Encourage smoking and vaping cessation	6: Supporting lung health during public health crises

QUDTP issues relating to CAD inform specific points of intervention in the lung disease continuum

The EAG and SRG both responded to the enquiry: *What are the quality use of diagnostics, therapeutics and pathology issues relating to chronic airways disease?* In this table their responses have been categorised along a generic patient journey which aligns with the Lung Learning Framework. This allows us to further inform the content priorities for the relevant Education Packages within the Solution Blueprint.

Table 15: Categorisation of insight from our EAG and SRG relating to QUDTP issues according to the domains of the Lung Learning Framework

Domain A	Domain B	Domain C	Domain D		
Original presentation of symptoms	Diagnosis	Treatment initiation	Ongoing care	Self-management	Exacerbation
Emerging rates of vaccine hesitancy, affect preventative health measures and exacerbate respiratory conditions	Lack of proper diagnosis for respiratory symptoms can mean over- or under-diagnosis	Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches	Ineffective communication of risks associated with medication overuse leads to over-reliance on SABA and/or OCS	Over-reliance solely on short-term symptom relief rather than chronic disease thinking	Issues with transitions of care, particularly from hospital to primary care, leading to gaps in treatment and follow-up
	Reluctance in primary care to diagnose lung conditions	Medications are not prescribed and used appropriately	Challenges with patient adherence to therapy	Lack of patient compliance with management plans	Challenges for paramedics in managing lower acuity presentations
		Complexity and confusion surrounding different inhaler devices	Confusion about therapy steps	Incorrect inhaler technique	
	Accessibility and affordability of medical tests limits uptake	Accessibility and affordability of medications limits uptake	Missed opportunity to deprescribe unnecessary medications		

For a detailed plan of the proposed content for each of the Education Packages, see [Appendix 7. Detailed Content for the Education Packages.](#)

A suite of activities based around a clinical standard, designed to drive behaviour change and deliver outcomes, that recognise different learning styles and level of competency

Building on elements of each of the pitched ideas from the Design Thinking Workshop, our Education Packages will connect the identified need of the person with CAD, recognise limitations on HCP capacity and leverage existing resources.

Learning Journeys will be created for each Education Package, curating a collection of existing and newly developed content to form the Package.

Our Education Packages will be delivered based on a content atomisation approach; each topic has at its foundation a **clinical standard** and a **checklist** for best practice which incorporates person-centred, multi-disciplinary team-based and guideline driven care.

A selection of different activities based on that core content, pending on what’s considered the best delivery format, content suitability for the audience need. *For example, we know there is no online learning module for breathlessness so that would be an ideal place to start and will cover foundational needs within the framework. Whereas in asthma and COPD, these assets already exist and we will be able to build the existing content into learning journeys.*

For asthma and COPD, therefore, it might be better to focus on an educational webinar series. Additional activities will be developed across different content formats: a slide set, short-form content (eg a blog), materials for patient education, bite-size and long-form content.

We have heard that it’s attractive for the GPs that we include the full range of CPD elements required for their annual accreditation, and so we will build a reflective practice audit model that can be used by individuals.

Finally, there was a lot of interest in Community of practice at the Design Thinking Workshop, so we will explore inclusion of a way for peer connection within each topic ‘home’.

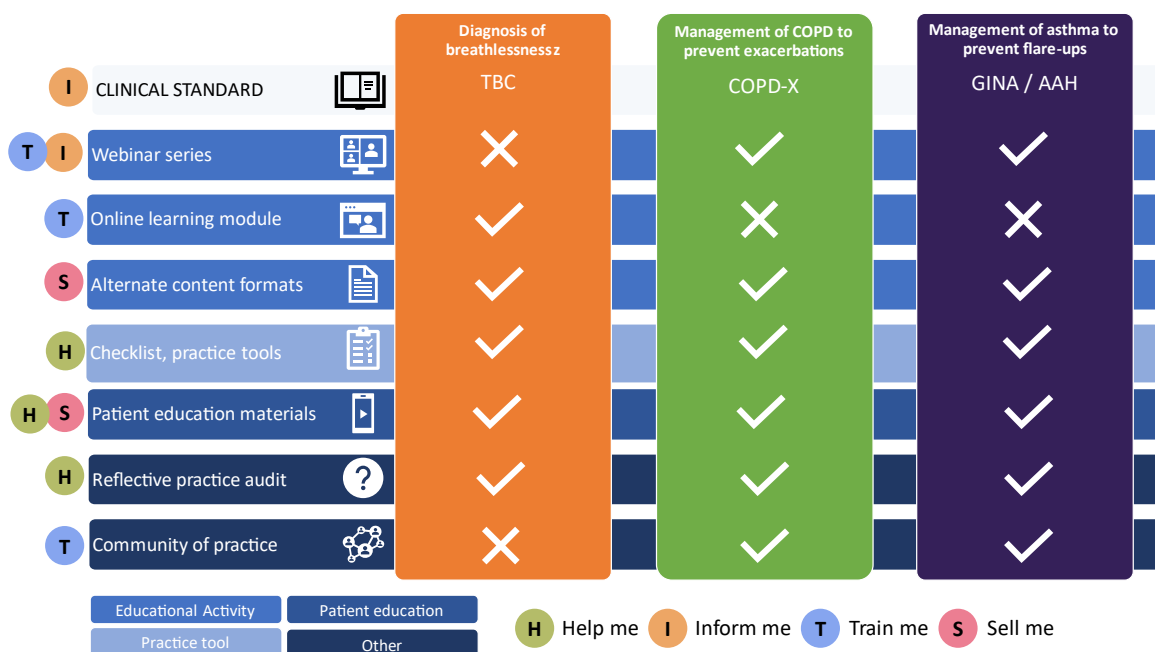


Figure 34: Suggested Educational Package components categorised with the HITS model

Education Packages - design overview

Table 16: Key design components of the three Education Packages

	EDUCATION PACKAGES		
	Diagnosis of breathlessness	Management of COPD to prevent exacerbations	Management of asthma to prevent flare-ups
Lived experience need	Patients suffer from lack of personal, community, and provider awareness, discontinuity of care, and too few clinical and self-management options.	Fragmented care coordination of COPD and comorbidities causes additional stress from navigating the health system.	Lack of understanding of the disease, undervaluing of medications and easy access to relievers contribute to cyclic lack of control.
Target audience	<ul style="list-style-type: none"> • GP • ATSI Health Workers & Practitioners 	<ul style="list-style-type: none"> • GP • Practice nurse • Nurse practitioner • Pharmacist • ATSI Health Workers & Practitioners 	<ul style="list-style-type: none"> • GP • Practice nurse • Nurse practitioner • Pharmacist • ATSI Health Workers & Practitioners
HCP capability gap	<ul style="list-style-type: none"> • 9: Radiological lung tests and findings • 10: Lung function tests • 11: Diagnosis • 12: Educating individuals, families & carers, and communities about lung condition/s • 7: Patient/client interviews • 4: Encourage smoking and vaping cessation 	<ul style="list-style-type: none"> • 15: Empowering self-management and providing ongoing care • 12: Educating individuals, families & carers, and communities about lung condition/s • 7: Patient/client interviews • 4: Encourage smoking and vaping cessation 	<ul style="list-style-type: none"> • 15: Empowering self-management and providing ongoing care • 12: Educating individuals, families & carers, and communities about lung condition/s • 7: Patient/client interviews • 6: Supporting lung health during public health crises
QUM issues	<ul style="list-style-type: none"> • Emerging rates of vaccine hesitancy, affect preventative health measures and exacerbate respiratory conditions • Lack of proper diagnosis for respiratory symptoms can mean over- or under-diagnosis • Reluctance in primary care to diagnose lung conditions • Accessibility and affordability of medical tests limits uptake 	<ul style="list-style-type: none"> • Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches • Medications are not prescribed and used appropriately • Complexity and confusion surrounding different inhaler devices • Accessibility and affordability of medications limits uptake • Ineffective communication of risks associated with medication overuse leads to over-reliance on SABA and/or OCS • Challenges with patient adherence to therapy 	<ul style="list-style-type: none"> • Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches • Medications are not prescribed and used appropriately • Complexity and confusion surrounding different inhaler devices • Accessibility and affordability of medications limits uptake • Ineffective communication of risks associated with medication overuse leads to over-reliance on SABA and/or OCS • Challenges with patient adherence to therapy

EDUCATION PACKAGES			
	Diagnosis of breathlessness	Management of COPD to prevent exacerbations	Management of asthma to prevent flare-ups
		<ul style="list-style-type: none"> • Confusion about therapy steps • Incorrect inhaler technique • Missed opportunity to deprescribe unnecessary medications • Over-reliance solely on short-term symptom relief rather than chronic disease thinking • Lack of patient compliance with management plans • Issues with transitions of care, particularly from hospital to primary care, leading to gaps in treatment and follow-up • Challenges for paramedics in managing lower acuity presentations 	<ul style="list-style-type: none"> • Confusion about therapy steps • Incorrect inhaler technique • Missed opportunity to deprescribe unnecessary medications • Over-reliance solely on short-term symptom relief rather than chronic disease thinking • Lack of patient compliance with management plans • Issues with transitions of care, particularly from hospital to primary care, leading to gaps in treatment and follow-up • Challenges for paramedics in managing lower acuity presentations
Program outcome	<p>Improved HCPs identification of symptoms of CAD, such as breathlessness, and activation of clinically appropriate diagnostic and referral pathways.</p> <p>Increased HCPs awareness and initiation of person-centred care that empowers patients/carers/family to be partners in the management of CAD.</p> <p>Increased HCPs awareness and initiation of shared multi-disciplinary care that supports best-practice coordination particularly as it relates to preventing exacerbations and hospital presentations/admissions.</p>	<p>Increased awareness and initiation of evidence-based, clinically appropriate pharmacological and non-pharmacological treatments in CAD.</p> <p>Increased HCPs use of guideline-recommended approaches to selecting and demonstrating inhaler devices for patients.</p> <p>Increased HCPs awareness and initiation of person-centred care that empowers patients/carers/family to be partners in the management of CAD.</p> <p>Increased HCPs awareness and initiation of shared multi-disciplinary care that supports best-practice coordination particularly as it relates to preventing exacerbations and hospital presentations/admissions.</p>	<p>Increased awareness and initiation of evidence-based, clinically appropriate pharmacological and non-pharmacological treatments in CAD.</p> <p>Increased HCPs use of guideline-recommended approaches to selecting and demonstrating inhaler devices for patients.</p> <p>Increased HCPs awareness and initiation of person-centred care that empowers patients/carers/family to be partners in the management of CAD.</p> <p>Increased HCPs awareness and initiation of shared multi-disciplinary care that supports best-practice coordination particularly as it relates to preventing exacerbations and hospital presentations/admissions.</p>
Learning objectives	On completion of the Education Package, participants will:	On completion of the Education Package, participants will:	On completion of the Education Package, participants will:

EDUCATION PACKAGES			
	Diagnosis of breathlessness	Management of COPD to prevent exacerbations	Management of asthma to prevent flare-ups
	<ul style="list-style-type: none"> be aware breathlessness as an important presenting symptom for CAD and other conditions feel able to identify where breathlessness is a symptom of CAD activate clinically appropriate diagnostic and referral pathways, eg spirometry, imaging, sputum examination, blood tests. 	<ul style="list-style-type: none"> be familiar with the key evidence-based recommendations from The COPD-X Plan recognise the impact of fragmented care coordination and empathise with patients in this situation develop a plan of care for their patients with COPD which supports optimal management towards minimisation of exacerbations. 	<ul style="list-style-type: none"> be up-to-date with the current guidelines for managing asthma in children feel driven to ensure parents can independently manage their child’s asthma ensure that all children with asthma in their practice have an up-to-date Asthma Action Plan, have been educated on the plan including inhaler technique and they understand the need for preventative medication to avoid flare ups.
Activities (suggested)	Educational activities <ul style="list-style-type: none"> Online learning module Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit 	Educational activities <ul style="list-style-type: none"> Webinar series Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit Community of practice 	Educational activities <ul style="list-style-type: none"> Webinar series Mix of short-form content formats Practice tools <ul style="list-style-type: none"> Checklist Patient education <ul style="list-style-type: none"> Materials for patient education Other <ul style="list-style-type: none"> Reflective practice audit Community of practice

DEVELOP: A PLAN OF ACTION, THE SOLUTION BLUEPRINT

A living document, the Solution Blueprint is a detailed plan that outlines the steps required to implement a specific solution or project

Following the Program Design the workflow now separates with a Solution Blueprint to be created for each of the Education Packages. Additional clinical expert and/or end-user working groups will be assembled to advise us on the development and implementation of these plans.

Documenting Activity Design for each Education Package

The Solution Blueprint provides a structured approach to designing, implementing, and evaluating behaviour change interventions tailored to improving the QUM in CAD among HCPs.

Table 17: Solution Blueprint content outline

Section	Description
1. Needs Assessment	Define the target audience, identify the current gaps and challenges in the QUM specific to the topic, engage with external experts to prioritise existing behaviours, attitudes, and barriers.
2. Learning Outcomes	Establish specific, measurable, achievable, relevant, and time-bound (SMART) goals for the intervention, and the learning outcomes expected for the participants.
3. Behaviour Change Techniques	Identify behaviour change techniques such as education, training, feedback, goal setting, and self-monitoring.
4. Intervention Design	Develop evidence-based education activities – material, interactive workshops, webinars, or seminars and digital tools and resources – tailored for the target audience to facilitate learning and intended behaviour change.
5. Measurement and Evaluation	Define evaluation methodology to measure the impact of the intervention and build data collection tools within the intervention to gather feedback and insights from participants regarding their experience and perceived changes in behaviour.
6. Stakeholder and audience engagement	Outline plans on how to leverage organisational relationships to promote the availability of the Educational Package, as well as direct audience activation activities.

In parallel with the Program Design, the Marketing and Communications Strategy and accompanying Implementation Plan have been in development, to support the reach of the Education Activities to the target number of HCPs.

Meanwhile, updates are being made to the functionality of the Lung Learning Hub to facilitate the development of the QUM in CAD Program “home” and connect users more effectively on Learning Journeys.

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Jeremy Kuiper	The Australasian College of Paramedicine
Primna Kenneth	The Royal Australian College of General Practitioners
Sandra Chuang	Thoracic Society Australia and New Zealand
Vacant	Australian College of Rural and Remote Medicine
	Australian Primary Health Care Nurses Association
	National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners
	The Royal Australasian College of Physicians

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REFERENCES

1. Australian Commission on Safety and Quality in Healthcare. *Person-centred care*. <https://www.safetyandquality.gov.au/our-work/partnering-consumers/person-centred-care> Accessed April 2024.
2. Australian Commission on Safety and Quality in Healthcare. *Quality Use of Medicines*. <https://www.safetyandquality.gov.au/our-work/medication-safety/quality-use-medicines> Accessed April 2024.
3. IDEO.org. 2015. The Field Guide to Human-Centered Design. Available at: <https://www.designkit.org/resources/1.html>
4. Lung Foundation Australia. 2022. *The Lung Learning Framework for Primary Healthcare professionals*. https://uploads.prod01.sydney.platformos.com/instances/549/assets/files/Lung-Learning_Capability-Framework.pdf?updated=1692676794
5. Thoracic Society of Australia and New Zealand. 2023. *Lung Learning gap analysis and recommendations paper*. Data on file.
6. Thoracic Society of Australia and New Zealand. 2023. *Healthcare Professionals' Lung Learning Framework Self-Appraisal Gap Analysis*. Data on file.
7. Lung Foundation Australia. 2024. *Lung Learning Hub Survey Export Data*. Data on file.
8. Lung Learning Partnership. 2024. *Content Audit*. Data on file.
9. Magwenya, R. H., Ross, A. J., & Ngatiane, L. S. 2023. *Continuing professional development in the last decade – A scoping review*. *Journal of Adult and Continuing Education*, 29(2), 408-437. <https://journals.sagepub.com/doi/full/10.1177/14779714221147297>
10. RACGP. Criterion QI2.2 Safe and quality use of medicines. Available at: <https://www.racgp.org.au/running-a-practice/practice-standards/standards-5th-edition/standards-for-general-practices-5th-ed/qi-standards/qi-standard-2/criterion-qi2-2-safe-and-quality-use-of-medicines> Accessed April 2024
11. The Lung Learning Partnership. 2024. *QUM in CAD Expert Advisory Group Meeting One Minutes*. Data on file.
12. The Lung Learning Partnership. 2024. *QUM in CAD Stakeholder Reference Group Meeting One Minutes*. Data on file.
13. Lung Foundation Australia. 2020. *The Lived Experience. Market Research Report*. Data on file.
14. Sunjaya A, Martin A, Arnott C, Marks G, Jenkins C. "It's like a forgotten issue sometimes ...": Qualitative study of individuals living and caring for people with chronic breathlessness. *Clin Respir J*. 2023; 17: 694-700. <https://doi.org/10.1111/crj.13652>
15. Sunjaya A, Martin A, Arnott C, Jenkins C. 2023 Management of chronic breathlessness in primary care: what do GPs, non-GP specialists, and allied health professionals think? *Australian Journal of Primary Health* 2023; 29: 375-384. <https://doi.org/10.1071/PY22018>
16. Zeederberg S, Zeederberg M, Bell R, Flynn A. Asthma through my eyes: a child and carer view of managing asthma. 2024, TSANZ Abstracts. *Respirology*, 29: 133. <https://doi.org/10.1111/resp.14673>
17. Social Marketing @ Griffith. 2024. *QUM in CAD Program Design Workshop Report*.
18. Rundle-Thiele, SR & Cairns J 2024. *HITS: A theory for social marketers*. North American Social Marketing Conference, Florida, USA.
19. Australian Health Practitioner Regulation Agency. 2021. *Professional Performance Framework*. <https://www.medicalboard.gov.au/Professional-Performance-Framework.aspx>. Accessed April 2024.

APPENDIX 1. CONTINUING PROFESSIONAL DEVELOPMENT FOR HEALTHCARE PROFESSIONALS

Continuing Professional Development requirements

In 2023, the structure of required continuing professional development (CPD) changed for doctors. Driven by the Medical Board of Australia, the new *Professional Performance Framework*¹⁹ sets out that doctors can no longer self-manage their CPD and must join an Australian Medical Council (AMC) approved “CPD home”. The CPD homes provide or co-ordinate CPD programs and ensure quality activities and help doctors keep track of their CPD hours with a system for CPD record-keeping. Examples of CPD homes are the Specialist medical colleges such as the [Royal Australian College of General Practitioners](#) (RACGP) and [Australian College of Rural and Remote Medicine](#) (ACRRM), or non-college homes like [Osler](#) or the [AMA’s CPD Home](#).

Other HCP boards set out similar CPD standards. The [Nursing and Midwifery Board of Australia](#) (NMBA) requires nurses and midwives to complete a minimum number of CPD hours directly relevant to a nurse or midwife’s context of practice. For example, registered nurses might be required to complete a minimum of 20 hours of CPD per year. For nurses CPD remains self-directed and templates are provided to document CPD activities and reflections. The [Australian Primary Health Care Nurses Association](#) (APNA), for example, provides a CPD Portal for members to record activities, as well as endorsing CPD activities after peer review and validation against a set of quality standards.

Designing contemporary CPD

Continuing professional development in the last decade – A scoping review, authored by Magwenya, R. H., et al 2023, provides an excellent overview of considerations in designing a contemporary continuing professional development or medical education program⁹. The review includes consideration of legislation and regulation for accrediting CPD activities and different credit systems, standards and funding, as well as content format and attitudes of healthcare professionals towards CPD.

Content delivery (choice of format)

- Especially in a post-pandemic work, clinicians are accustomed to embracing online education opportunities. But attention spans are short, and there are multiple distractions and calls on the time of a healthcare professional. Use a variety of formats to convey information at different levels, allowing a skim read of bite-size content and the option of deep dive.
- Think mobile-first delivery to allow the user to engage on-the-go and at time that suits them, rather than being tied to a desktop or laptop computer.
- Online delivery can be both synchronous and asynchronous and is a convenient way to deliver content to busy clinicians who can catch up with the content later if unable to attend live events.
- Potential distractions are well documented barriers to learner engagement with material in online learning.
- Overcome these by clearly defining expected conduct before each interactive session (e.g. turning off push notifications and placing phones on silent mode).

¹⁹ Australian Health Practitioner Regulation Agency. 2021. *Professional Performance Framework*.

- Limit the amount of information into smaller chunks that can be well understood and applied.
- Ensure that the session involves significant interaction among participants.

Views and attitudes of medical practitioners towards CPD

- Fundamental to good CPD design is the involvement of peers in the development, from needs identification through to content development and peer review.
 - Content must be based on relevant peer reviewed evidence and evidence-based medicine.
 - Ongoing and regular needs assessments can keep it relevant to its target group, and create capacity to develop additional content.
- The article from Magwenya, R. H., *et al* highlights feedback from healthcare professionals on positive features, including:
 - use of multiple methods that encourage interaction and feedback
 - blended learning is an ideal format, allowing both private study and group discussion
 - face-to-face seminars, or hybrid events that allow live streaming, remote participation or recording of events and viewing it later.
- Interaction between facilitators / presenters and participants is highly valued, and can be designed in line with adult learning theories.
- The cost of CPD can be significant and affects its accessibility.

These findings will be explored in more depth in the design of the Solution Blueprints for each topic.

APPENDIX 2. QUALITY USE OF MEDICINES IN PRIMARY CARE

Achievement of [The National Strategy for Quality Use of Medicines](#) depends on responsibility from a number of partners: healthcare consumers, their carers, and the general community; health practitioners and health educators; health and aged-care facilities; medicines industries; media; healthcare funders and purchasers; and Commonwealth, State, Territory and local governments. A number of “building blocks” are identified that support QUM, and the scope of this project aligns with the evidence that HCPs require access to information, education and training that supports best practice. This distinguishes this program from those targeted at policy, health systems and services, direct to consumer, or evaluation.

From 1 January 2023, the Australian Commission on Safety and Quality in Health Care (the Commission) became the custodian of a range of QUM functions. This follows the redesign of the QUDTP Program outlined in the 2022–23 Federal Budget.

There is not a standardised set of indicators of quality use of medicines in primary care, while these do exist for other settings, for example [Guiding principles for medication management in residential aged care facilities](#), and [National Indicators for Quality Use of Medicines in Australian Hospitals](#). The Commission is currently working on the national baseline report on Quality Use of Medicines and Medicine Safety to inform new best practice models, new national standards and better medication management, as well as [Clinical Care Standards](#) in development across a number of different areas, with the goal of reducing variation in the delivery of appropriate care.

Quality use of medicines is described in the National Strategy for Quality Use of Medicines as the key jigsaw piece needed to deliver optimised health outcomes, locking in components of quality safety and efficacy; equity of access; and a viable pharmaceutical industry.

APPENDIX 3. DESIGN THINKING WORKSHOP: EXERCISE OUTCOMES

Lived Experience Narratives

1. Young adult with recently-diagnosed COPD

"I was diagnosed 4 years ago in 2019. Before my diagnosis, I'd only ever heard of late-stage COPD. I spoke to a doctor after having six lung infections in the year and not being able to stop coughing.

"I actually think that I started getting symptoms when I was in my late 30s and I was diagnosed with asthma, but so it took a long time for me to be diagnosed.

"OK, what does it feel like to have COPD? For me, it feels like having to be constantly aware and vigilant. COPD has changed my life by having to live with constant medication. I had a bucket list where I wanted to go scuba diving, so things that I am no longer being able to do.

"What I missed the most from before I was diagnosed? Breathing! Since being diagnosed with COPD, I miss being able to climb up a hill or run upstairs.

"COPD has impacted my life due to my family and friends having a lack of awareness. They just don't understand because I look fine, they think I am fine. They don't understand my limitations.

"The feeling of breathlessness connected to a COPD flare up? I feel like my chest is tight and I just can't catch my breath like I'm suffocating. I faced many challenges with my diagnosis and due to the fact that I was a smoker. So, before I quit, no one ever ... even offered me to be tested for COPD.

"I had other attributing factors to the COPD, but nothing was ever looked at. I had trouble accessing specialist services. I would generally have 10 minutes with a GP. I didn't know what questions to ask. Apart from a lung specialist appointment and the diagnosis, I was pretty much told to just come back if I think that it's necessary, if my symptoms worsen. So, I have the things that are helpful or they have helped me manage my COPD, the supports given through the Lung Foundation. Because the diagnosis itself scared me and I was stressed, which was only worsening my symptoms. The Lung Foundation gave me the tools to be able to help myself.

"As a younger working parent with a young family, I can't access any of the pulmonary rehabilitation services that are offered during the day, during the week. There is nothing after hours. Anything that could be done from home would be gratefully appreciated. Especially as COPD is now becoming a younger person problem, we need services tailored to the younger generation.

"I have experienced stigma, from many areas. I have experienced stigma due to my diagnosis of COPD. As a former smoker, I may get the responses such as "Oh well, it's your fault, you did it to yourself. Or of course you have it." But without knowing that I also had childhood lung issues, which could have also been the cause. I had foetal distress syndrome, which is like a baby lung disease, and I had no idea.

"I had trauma growing up! And the first thing I did to combat that was grab a cigarette, which was right on the table. And that's what I used as my crutch. Who is to say how I got it? The point is we have it. We all need to live and work and deal with it. So, we need to find a way."

2. Adult who has struggled with breathlessness for years

"I have struggled with breathlessness for years, but it has gotten progressively worse over time. I'm constantly out of breath. I've got to think about everything I do. Even daily chores around the house can leave me gasping for air and needing to sit down and use my oxygen tank. Just turning over in bed or walking to the kitchen can make me feel like I need more air.

"I used to be a singing teacher. I loved sharing my passion for music with eager students. But now, even holding a note feels like an impossible task.

"I used to be extremely active and fit, with no problems at all. Now I have difficulty just going to the shops and carrying bags. I can't walk far distances because my legs hurt and I lose my breath so quickly.

"Breathlessness controls my life."

"It took over 2 years to get properly diagnosed, as I kept seeing different doctors who didn't know my full history. I wish doctors would ask more about how my breathing is rather than just focusing on my other health issues.

"I'm wary of all the medications doctors prescribe because of the side effects. I'd prefer to try lifestyle changes first. I've lost 10kg recently which has really helped my breathing. I also use breathing exercises and yoga techniques to help manage my symptoms.

"What I really want is more practical advice and resources on symptom management, information on support services available, and to hear other patients' experiences with this condition. I don't want to let breathlessness define me."

3. Adult with long-term poorly-controlled asthma and co-morbidities

"At the age of 43, approximately 18 years ago, I relocated to Tasmania from the mainland. Over the next 14 years, I experienced breathing difficulties from around March, progressively worsening through to October, coinciding with the onset of the annual big winds.

"The symptoms manifested as sinus congestion, wheeziness, and slight breathlessness, followed by chest colds, bronchitis, and a barking cough. This cycle would repeat several times before the weather warmed. The bitter cold days meant I couldn't spend any time outside without facing consequences. During this period, being medically diagnosed with depression and anxiety compounded my struggles, especially as I recognized all this as a yearly pattern. Because of this, I sought help from several specialists simultaneously, including a lung nurse I consulted to explore ways of preventing sinus inflammation. I also underwent allergy testing and am now receiving desensitization injections for house dust and mould.

"I'm using two puffs of Symbicort through a spacer twice daily, along with Dymista. I've also had to resort to Ventolin several times a day since the end of February. I don't feel that my asthma is properly under control at present and am dreading having to resort to Prednisolone again because I feel all sped up on the inside when I'm on it.

"One positive outcome of being more proactive about managing my asthma is that I've learned not to ignore changes in my breathing. In the past, I would wait until after a reasonable period of recovery from a cold before seeking help, usually resorting to Prednisolone way too long after things weren't right. I had to unlearn this, cos after 40-50 years of being an asthmatic, I had just been told

repeatedly 'its just a cold, take more Ventolin - alongside the preventer - and you'll be right', not realising there are a lot of different meds and new approaches now.

"It's hard also, when I know I should be looking after myself better and I'm not doing everything I could be doing to be well. But because of just overwhelming life-changes and circumstances, I'm just not on top of myself. Knowing already by my breathing I know it's not going to be such a healthy time with autumn only just now starting.

"My regular GP appointments are already stretched out to at least a month away before I can get in and there are other issues needing her attention."

4. Older adult with life-long silent asthma

"From my "almost" 80 years of being an asthma sufferer.

"I was born nine weeks premature and so have never known life without asthma.

"My childhood was terrifying as all we had then was Aspaxadrine, which was a red liquid which you put into a little glass container which had a rubber tube attached, with a bulb on the end which you squeezed when you breathed in.

"It worked for about a minute but even a minute's relief was something!

"How did I survive when I had a terrifying attack and the Aspaxadrine didn't work?"

"I used to kneel on the floor and put my head on the seat of the couch. I would fling myself over the back of the front seat of the car.

"In desperation to keep me upright my mother would lie a chair on its back on my bed, and I would sit in between the legs propped up with cushions.

"I have what I would term the "silent" asthma which hits suddenly. For example, a whiff of diesel fumes or cigarette smoke can be a trigger, but it can also be caused by exertion. It is "life threatening", but thankfully the new drugs today ease that fear, but they must be taken religiously.

"When I finally found an Asthma Specialist, he didn't know how I had walked in the door. I had a severe baseline airflow obstruction with an FEV1 of 0.9L.

"Today I am on three puffers and cortisone (if struggling to breathe too much). As I head towards 80, I can see my breathlessness getting worse and this is concerning as when feeling breathless you do not know if it's asthma or if it's your heart?"

"I would love to know how to tell the difference without panicking! It is so easy for breathlessness today to be shrugged off as an old age complaint!

"I have always wanted to help people with asthma to try and ease their fears and to make them realise that the medications have to be taken regularly.

"I would love to know how many types of asthma there are, as the bronchial asthma is very different to my type of asthma. Bronchial asthma is easy to recognise.

"Silent asthma is not, as the person usually cannot talk, and the gasping could mean anything. I would love to see more emphasis placed on the "silent asthma" and how to diagnose it and thus save a life."

5. Adult and children with asthma

“When I was three years old, I caught the Measles from a bad cold.

“This was 43 years ago and medical attention to such diseases was extremely limited. I ended up with internal scarring on my lungs which left me with chronic asthma.

“As a little girl, there was no such thing as Ventolin. Hospitalisation was frequent, including many trips to the emergency department near death from asthma attacks. By the time I was 9 years old, they had developed Ventolin in liquid form. This was obviously helpful but would take much longer to calm my lung muscles than our Ventolin puffer of today. In those days during an attack, it was “keep warm, drink warm water and try to relax” – a bit hard to do when you feel like the world is getting darker and your lungs are collapsing.

“Growing up was hard as many people did not really understand asthma and would try to cocoon me in a bubble – wrap me in plastic to protect me from an episode. I am now 46 years old, a mum of five, and a businesswoman with four businesses. Life is crazy hectic, but I would not have it any other way. I have suffered pneumonia and bronchial pneumonia many, many times, the worst when I was pregnant which was totally exhausting.

“When I was 25 years old, I got pleurisy, which was so hard for me. I was sick for six weeks, seeing so many different specialists but they would all put it down to asthma. I knew my body and knew the fire and pain in my chest was not asthma, nor pneumonia – I guess as we get older, we need to stand up and tell the doctors what we know about our body (lungs especially) and help them get it right!

“It took me another two months after diagnosis to get better. For years after I continued to feel this pain in my ribs when it got cold, so I just wish they had listened to me earlier. But hey, I love my life. I go to the gym three times a week, love to walk, and run long distances in the early mornings down at the beach.

“My hubby and I have travelled so many places both before kids and with our kids. They’re generally summer holidays filled with lots of adventure and activities as I am not a big fan of the cold – I blame that on asthma!

“My five children all have asthma, which is unfortunate. I have had many an emergency run in, they have all been in an ambulance, and had hospital stays with an asthma flare-up, croup or pneumonia – all stemming from asthma.

“Monitoring their coughs and their medicine is a daily chore as I have found that being proactive is much more effective than being reactive – the hospital visits have mostly been from them not following through on their medication! But we live and learn!

“They all sing, dance, and swim. I am so big on them being active as much as possible – I don’t want them to ever use asthma as an excuse to hold them back from life! There is a Ventolin in every car, in every bag, in every school office, at every sleep-over or in every holiday suitcase – so as far as I see it, we’re covered!

“For me, asthma has taught me tenacity. To learn to fight to breathe to live, has taught me to fight for what I want to achieve in life. My life is full, it’s crazy, it’s not easy.

“Some people call me Wonder Woman. I just call myself a Life Warrior – I did not choose to have asthma, but I make a choice about what asthma means to my life and my children’s lives. I won’t ever let it beat me.”

Point of view (POV) statements

To frame insights gathered from listening to the Lived Experience Narratives, the participants generated POV statements, following the template [(User ...)] needs [(verb)...] because [(insight)...].

1. Young adult with recently-diagnosed COPD

- Needs to feel supported because they want to go back to what they love.
- Needs to access pulmonary rehabilitation after hours so COPD doesn't dominate or restrict her.
- Needs to learn how to explain her condition to her family because they think she looks fine when she doesn't.
- Needs services for COPD in young people.
- Needs accessibility to services relevant to young people.
- Needs shorter time to diagnosis.
- Need others to understand their condition and needs.
- Needs to be able to connect with other younger people to enable her to feel less isolated and alone.
- Needs to receive more awareness and support to find a way to lessen the impact and reduce fear/stress.
- Needs to have more services designed for younger people because it would make her feel more engaged in her healthcare.
- Needs to access help from home because of their lifestyle needs.
- Needs to be aware / vigilant because it feels like their chest is tight all the time.
- Needs to learn more about condition so she can help herself and others.
- Needs to identify causes of dyspnoea to target treatment.
- Needs to be shown where to find relevant information such as LFA website so she doesn't feel isolated.
- A person with asthma needs regular check-ups to feel supported.
- Needs to access support through LFA to process the grief / impact of COPD on life.
- Needs to have access to support because it is not available.
- Needs pulmonary rehabilitation and services that can be done at home because younger, working people are unable to access existing services.
- Needs to feel safe because she feels unhelped, scared and stressed which exacerbates the entire health situation and life.
- Needs to know where to find & have access to more resources because she is looking for ways out of being defined by COPD.

This patient needs....	because...
<ul style="list-style-type: none"> - education on disease and treatment - supports - access to pulmonary rehab after hours / at home - others to understand 	<ul style="list-style-type: none"> - they are angry - current health services don't meet needs - life is dominated by COPD - they feel alone - knowledge enables self-management.

2. Adult who has struggled with breathlessness for years

- Needs reassurance that they are not alone and it can be controlled
- Needs doctors to ask more / the right questions so she could get diagnosed quicker
- Needs practical advice and resources to reduce anxiety/fear, help her manage breathless
- Needs to connect with peers to share experience without feeling embarrassed, and feel understood.
- Needs to be educated on medications because she is scared of side effects
- Needs to feel more connected and supported.
- Needs practical advice and resources to enable her.
- Needs to manage her breathlessness as she doesn't want to be embarrassed.
- Needs to develop a deeper understanding of own triggers, symptoms and management
- Needs holistic support as breathlessness impacts so many parts of her life
- Needs to connect with others and have access to practical advise to feel less alone, scared and feel more informed.
- Needs to connect with others of same age, to hear other's experiences.
- Needs to connect with others to help manage her life with her condition.
- Needs to have more information on medication side effects because it could ally her fears on side effects of medications.
- Needs to have healthcare workers proactively ask about breathing because they don't know what to ask, or what is wrong.
- Needs to make lifestyle changes because I feel really unfit.
- Needs to connect with others to gain support network, learn about medications and feel confident.
- Needs to make lifestyle changes because she can become more active again.
- Needs to connect with others with COPD to help lessen the burden of being embarrassed.
- Needs to assess causes to inform treatment and self-management
- Needs to be asked important questions
- Needs access to more information because she is keen to self-manage.
- Needs to know how to be appropriately investigates because she is unsure of the causes of her symptoms.
- Needs help with living a healthy lifestyle cause they're frustrated they are not on top of the health and sees the impact.
- Needs support to access pulmonary rehab and managing breathlessness resources because she has to return to her level of fitness and activities.
- The person with breathlessness needs to maintain or reduce weight and exercise to feel fit and healthy.
- Nees to make lifestyle changes and eat better to feel that she has control over breathlessness.
- Needs to have practical advice because it will help her manage her condition.
- Needs assistance taking medications regularly because it's important
- Needs GPs to listen to her and not dismiss concerns because she has been written off as an 'old age complainer'
- Needs resources / practical advice to improve breathlessness so that they can do activities.

This patient needs....	because...
- connection with peers	- their life is limited
- practical advice and resources	- knowledge enables self-management
- lifestyle changes	- activity is limited by breathlessness
- HCPs to ask the right questions	- they feel alone
- education on disease and treatments	- they rely on HCPs to guide decision making

3. Adult with long-term poorly-controlled asthma and co-morbidities

- Need to have their management plan reassessed because their symptoms are out of control
- Needs better access to longer appointments with GP to attend to all issues
- Needs strategies / tools to be more proactive, look after myself better, avoid cycle of uncontrolled asthma
- Needs to understand when to start prednisolone because he waits too long
- Needs more accessibility to a GP and referral to specialists and allied health professionals.
- Needs to be prepared for seasonal changes so he feels on top of his symptoms.
- Needs greater availability of GP services.
- Needs to feel confident managing asthma because the multiple medications and triggers are causing feelings of overwhelm.
- Needs support to unlearn some outdated thinking about learn to renarrative his self-talk away from 'should, would, could' to a more compassionate, kind mind to reduce overwhelm.
- Needs to have practical ways to intervene early to get on top of his symptoms and facilitate a complete life change.
- Needs to manage multiple medications to go outside.
- Needs to develop an active management plan to stay on top of her needs.
- Needs more specific support to get a tailored plan.
- Needs to have a medication action plan and active exacerbation medication access because it would prevent care being delayed to aid a faster recovery and ease anxiety.
- Needs access to services because they have difficulty accessing GP.
- Needs to seek regular GP review because they want to manage their condition better
- Needs to organise priorities, support network and medical review to get better and get on top of themselves.
- Needs to respond early to symptoms to get better control of their breathlessness.
- Need to use tools to prompt better self-management of COPD to prevent infections.
- Needs to see GP monthly because there are other issue to support other than asthma.
- Needs to review and diagnose exacerbation symptoms because they have no plan.
- Needs to learn self-management skills because symptoms are overwhelming.
- Needs this information that demystifies medications because it's confusing how many there are and what is best.
- Needs resources or directions to appropriate clinicians because he wants more effective control.
- The person with asthma needs to pre-book GP appointments at peak times to manage medications during flare-ups.
- Needs to act on early symptom changes to manage guilt that he doesn't look after himself as he 'should' and to stay well.
- Needs to have additional GP visits because it will help manage medications.
- Needs access to information that demystifies medications because its confusing how many there are and to know what is best.
- Needs help with living a healthy lifestyle because they're frustrated they're not on top of their heath and sees the impact.
- Needs to act more quickly on changes in symptoms because leaving it too long results in hospitalisations.

This patient needs....	because...
<ul style="list-style-type: none"> - tools to self-manage - greater access to GPs - management plan reassessed - education on disease and treatment 	<ul style="list-style-type: none"> - they feel overwhelmed - asthma is poorly controlled - health services are limited

4. Older adult with life-long silent asthma

- Needs breathing techniques to help calm her asthma and anxiety because she feels overwhelmed
- Needs people to understand and recognise that breathlessness is asthma, so is not dismissed
- Needs a way to ascertain if breathlessness is asthma or heart to reduce sense of panic and enable her to address appropriately.
- Needs to learn the difference between asthma or heart symptoms because she wants to know how to manage her symptoms.
- Needs more information to be shared about the different types of asthma.
- Needs education.
- Needs to get 'on top' of medication and recognising symptoms because it is easy to feel panic when breathless.
- Needs to move on from the past and embrace modern medications because there is trauma from asthma in their past.
- Needs to see some action and useful resources developed because she has spent her life advocating for silent asthma. This will help her feel like her struggles have not been in vain.
- Needs to be able to tell the difference between asthma and heart conditions to reduce fear.
- Needs access to home monitoring devices to aid her to understand the difference between a respiratory or cardiac exacerbation because it would help decrease her anxiety and give access to appropriate treatment.
- Needs to be able to work out if symptoms are aging or asthma because they need to advocate for their care as they get older.
- Needs to understand more about other forms of asthma because diagnosis can be life-threatening.
- Needs to learn about silent asthma in order to educate others and gain support.
- Needs to have further investigation to clarify any issues because they are worried about whether heart is contributing to symptoms.
- Needs to join advocacy groups because she wants to help others learn about silent asthma.
- Needs to be aware of her triggers because an attack can cause panic and raise fears from previous experiences.
- Needs to have emotional support because she feels unheard at times.

This patient needs....	because...
<ul style="list-style-type: none"> - ability to differentiate symptoms of breathlessness - others to understand their condition - education on disease and treatments 	<ul style="list-style-type: none"> - they live with fear - panic over asthma vs heart condition - they want others to learn - they feel misunderstood / dismissed.

5. Adult and children with asthma

- Needs to have regular up-to-date action plans and medication to try to control asthma first
- Needs doctors to listen to her experience to get to the crux of the problem so asthma doesn't define her life
- Needs to learn what words to say to her doctor regarding change in symptoms because she wasn't listened to previously.
- Needs to be able to have conversations with her GP to describe what is happening to her body.
- Needs easily available medication and proactive options so her children can live active lives and not suffer as she did.
- Needs a way to monitor medications
- Needs tools to support her and her family's asthma because it is a lot to take care of.
- Needs the asthma management to be easier / streamlined because asthma on this scale can be overwhelming.
- Needs to feel empowered because she refuses to be defined by her asthma.
- Needs to monitor self and children's signs and medications because she doesn't want asthma to be the excuse for her family to miss out and not do stuff.
- Needs support to advocate for herself so she can choose how it impacts her life.
- Needs to have access to HCP who listens because this would minimise her anxiety, increase her access to appropriate care and decrease long term deterioration.
- Need healthcare professionals to listen to them because they know their own body.
- Needs to participate in healthy activities because she doesn't let her condition define her.
- Needs to organise herself and kids, learn about asthma and conditions to help herself and kids.
- Needs to join a mentoring group because she wants to encourage people to be...
- The adult with asthma needs to have a proactive medication regimen to maintain and encourage kids to do things they love.
- Needs to be proactive to enable her to live the lifestyle she wants.
- Needs to be heard by health professionals because no-one knows their own bodies like we do.

This patient needs....	because...
<ul style="list-style-type: none"> - HCPs to ask the right questions - to streamline asthma management - support to organise family asthma management 	<ul style="list-style-type: none"> - they are a warrior - they don't want to be limited by asthma - they feel overwhelmed - asthma is poorly controlled

The Five ‘Whys’

In groups, the participants were challenged to ask ‘why’ five times to identify the root cause of the problem we are trying to address.

1. Young adult with recently-diagnosed COPD

Define the problem	Not being aware of the cause of their breathlessness
Why is it happening	Not being told or don’t understand, the cause has not been defined adequately
Why is that?	Heavy focus on disease state as a label and following a preconceived set of steps in approach to management – skipping over symptom management
Why is that?	Access to correct diagnostic investigations, eg spirometry Understanding results / misinterpretation leading to under- or mis-diagnosis
Why is that?	Access to the tests, barriers: - Location - Cost - Time

Define the problem	Patient needs to be holistically assessed and managed; an accurate diagnosis and management is required
Why is it happening	Because of assumptions / stigma associated with being a smoker
Why is that?	Lack of knowledge of other factors that can contribute to COPD
Why is that?	New knowledge not being disseminated to clinicians in a timely and effective manner
Why is that?	Because of competing educational priorities and other practice administrative burdens
Why is that?	Because of system and resource constraints

2. Adult who has struggled with breathlessness for years

Define the problem	Breathlessness is getting worse, what’s the cause? How capable are HCPS at distinguishing between symptoms of heart and lung conditions with respect to breathlessness? And then relaying that information to patients.
Why is it happening	HCP perspective – she is old, had lung disease since childhood – symptoms not taken seriously
Why is that?	Absence of the necessary knowledge and skill on part of HCPs to understand 1) The complexities of the presentation of breathlessness 2) What the patient needs / experiences 3) Knowledge of developmental change
Why is that?	Attitudes / perspectives towards breathlessness
Why is that?	Lack of experience in supporting patients with breathlessness, inherent bias
Why is that?	Lack of tools / guides for HCPs translating best practice recommendations to facilitate conversation and patient care in the clinic.
	Note: Where tools exist: not multi-conditions, not accessible to HCP (eg in GP software)

3. Adult with long-term poorly-controlled asthma and co-morbidities

Define the problem	Feels overwhelmed by the “should, would, could” means asthma is not well controlled
Why is it happening	World turned upside down
Why is that?	Moved to Tasmania
Why is that?	Lots of triggers, revert to old ways
Why is that?	Unlearn what he learnt
Why is that?	Look after himself, better control

Define the problem	Consumer feels like they are not being heard throughout the asthma journey
Why is it happening	Confidence and self-advocacy in communications with HCP
Why is that?	Power dynamic / perceived knowledge of condition
Why is that?	Lack of acknowledgement of lived experience
Why is that?	Reactive in the PHC environment / solutionising
Why is that?	Missing the opportunity as HCP share the decision-making, assessment and management

Define the problem	Difficulty accessing healthcare professionals
Why is it happening	Cost to access services <ul style="list-style-type: none"> - Appointment - Transport - Tests
Why is that?	Lack of knowledge of available services
Why is that?	Lack of centralised resource that’s kept up-to-date
Why is that?	Healthcare providers aren’t aware
Why is that?	Constant changes in information (eg PBS, services)

5. Adult and children with asthma

Define the problem	Good quality, person-centred care is compromised when multiple family members have asthma. Patients’ needs are missed, patients can’t afford cost of accessing care for all
Why is it happening	PHC providers assess and treat one person at a time
Why is that?	PHC providers can’t obtain best / requisite knowledge to consider all components of family, all ages, all diseases
Why is that?	PHC operates in an episodic / acute presentation business model
Why is that?	PHC structure doesn’t naturally support a family-centred model of care

Define the problem	When multiple family members have asthma, quality person-centred care is complicated / compromised
Why is it happening	The system cannot manage complex large family asthma management
Why is that?	Who is involved in care? Multidisciplinary → right services involved?

‘How Might We...?’ Questions

Each participant was asked individually to draft ‘How might we.. ‘ Questions to prepare for the ideation phase. “How might we...” questions are used to frame challenges or opportunities in a way that inspires creative problem-solving and innovation, based on a template: **How Might We ... [Action verb] ... [what] for... [stakeholder] in order to [what change].**

How might we....	What	for	Stakeholder	in order to	what change?
empower patients	prioritising asthma	for	all practice staff	in order to	prevent flare-ups of adult asthma engage and better understand their patient needs to prescribe the right treatments and education supports
get asthma seen as a priority	to encourage greater interest in asthma	for	GPs in primary care	in order to	reduce the frequency of asthma flare-ups for our patients
develop awareness through train HCPS to follow	an educational and patient-centred care module	for	primary health professionals	in order to	reduce flare-ups in their patients
provide education	best practice guidelines	for	GPs	in order to	improved self-management of asthma
make effective use of train HCPS to make more effective use of the tools	for HCPS	for	consumers with asthma	in order to	improve personalised care
improve quality use of medicines	existing tools "plan of care"	for	GPs and patients to co-create	in order to	empower patients to be partners in the management of CAD
embrace	to create integrated care plans	for	HCPs	in order to	
empower patients	the need	for	patient-centric care	in order to	ensure they are heard
see asthma as a priority	do more and have more input	for	HCPS	in order to	let them do more
build support	to increase awareness and self-management	for	health team	in order to	prevent flare-ups
create	privileging the lived experience	for	HCPs	in order to	improve outcomes for children with asthma
improve the consultation process	an environment	for	HCPs	in order to	provide patient-centred care
change	Require a nurse's interaction in the	for	RCP can so better treatment and cessation of recurrence	in order to	effective disease management
provide relevant information	the focus of the assessment	for	consumers	in order to	be more person-centred
	in appropriate ways based on self-management	for	HCPs	in order to	support "sustainable" behaviour change

How might we....	What	for	Stakeholder	in order to	what change?
increase	motivation	for	everyday field HCP	in order to	listen to patient
design a tool, service or resource interested in lung health	on quality- and person-centred prescription of medicines improve assessment of dyspnoea	for for	families with multiple asthma primary care practitioners general practice / pharmacy / physiotherapist	in order to in order to	enable HCP practice for families improve outcomes
empower / encourage teach many causes of breathlessness	uptake of spirometry performance	for for	GP / physio / pharmacist	in order to in order to	improved diagnosis improve understanding / identification of symptoms
empower	further understanding of and interest in breathlessness as a symptom of CAD	for	primary healthcare professionals	in order to	promote optimal patient communication in diagnosis and management of breathlessness
empower HCPs	to determine the cause of breathlessness to promote health professional lung health awareness	for for	primary care their patients ability to self-manage their lung condition	in order to in order to	engage patients action better health outcome appropriately investigate to inform diagnosis and management
create a primary health program incorporate into clinical management systems	breathlessness algorithm education & behaviour change programs	for	GPs	in order to	improve diagnosis of breathlessness
design & implement increase awareness and initiation of evidence-based clinically appropriate pharmacological management and non-pharmaceutical treatment for CAD build a training program to aid in the assessment	educate primary health clinicians on pulmonary rehabilitation / interventions /lung specialists and treatment of breathlessness	for for	PHCs and allied health providers HCPs involved in diagnosis and treatment programs the health professional working in multidisciplinary team	in order to in order to	foster multidisciplinary training and collaboration assist clients manage the symptoms of breathlessness and improve QoL
increase trauma-informed practice	by developing practical behaviour-change education resources	for	team	in order to	encourage behaviour change in client / patients struggling with breathlessness that will get the diagnosis to support medication
improve access to services	the available resources	for	GPs	in order to	medication

How might we....	What	for	Stakeholder	in order to	what change?
promote empower	availability of supports	for for	primary healthcare professionals	in order to in order to	improve access for patients to specialist healthcare professionals to empower the patient by building their knowledge of choices available improve access to services
improve	HCP	for	alignment with COPD guidelines	in order to	allow patients to manage disease themselves
empower build awareness	HCPs to provider of how to access services	for for	services to patients HCPs	in order to in order to	alleviate concerns about costs empower patients and engage
increase	awareness of evidence-based knowledge and patient-centred care	for	clinicians Aboriginal remote communities	in order to in order to	improve COPD diagnosis and treatment plan improve and offer equitable healthcare for all Australia
initiate patient-centred care deliver	to enable equitable access to care emerging evidence and clinical guidelines	for	HCPs	in order to	provide evidence-based care reduce stigma associated with risk factors for COPD
build improve education	an education package prevention to HCPS to share the load between services	for for	primary care clinicians patients	in order to in order to	manage improved change
provide education provide seamless, planned care		for for	people with breathlessness patients with COPD / asthma the patient / carer / family /	in order to in order to	achieve holistic care improve acute care of pulmonary conditions improve education and management for the patient's condition
develop multidisciplinary plans	that encompasses the holistic care	for	health professionals	in order to	

APPENDIX 4. HITS SOCIAL MARKETING THEORY

Mix education formats and engagement methodologies to drive behaviour change

One of the structural ideas which came from the work with Sharyn and the Social Marketing @Griffith team is this HITS Social Marketing Theory. In creating the content for the learning, we can't rely on use of the same, single focused methods, we need to mix methods of delivery in order to drive behaviour change.



Figure 35: HITS social marketing theory from Social Marketing @Griffith

Change doesn't happen by policy, guidelines and education alone. When provided with facts only 8% will perform the desired behaviour as we inherently resist change. As intervention designers, we need to engage other domains and sub domains that outline the actions that motivate and support behaviour change.

For example, Train me. Depending on the individual, train me is about developing and refining skills to perform and maintain a pattern of behaviour. For others social support is more valuable, and a positive role model can support them to change behaviour.

While we might think Sell me isn't relevant, this category is more broadly about incentives and persuasion, the ways social marketing can be used to encourage trial of new behaviours. This is where emotional appeals come in, based on deeper understanding of people's needs and wants and focusing on what concerns them.

Help me are often physical interventions that make it easier for a person to do something. That might be offering funding, a product or services, place or space.

APPENDIX 5. DESIGN THINKING WORKSHOP OUTCOME: 8 PITCHES

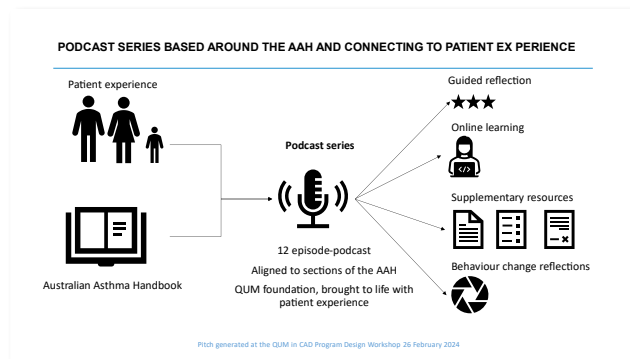
Participants worked in groups of 6-8 people through the process which culminated in the pitching of the ideas generated as prototypes which had been tested and refined with feedback from other groups. Below are lightly edited transcripts from the presentations and simple visualisation of the concepts presented.

Podcast series based around the AAH and connecting to patient experience

The Australian Asthma Handbook (AAH) provides evidence-based practice guidelines for HCPs. They are under-utilised. Time-poor HCPs require innovative, accessible asthma education.

To engage HCPs in quality use of medications, we will develop a 12-episode podcast. The podcast will be presented to guide the learner firstly by presenting a patient-centred experience in plain

language relating directly to the section of the Asthma Handbook. The patient experience will then be discussed with a high-profile clinical expert. Then the podcasts will discuss best-practice management in accordance with the Asthma Handbook.



Learners can simply listen to the podcast and leave it there. Or they can further develop their knowledge by completing the guided reflection, and online learning. As the learner moves through the 12 guided reflections, the learner is asked to reflect on how their practice has been impacted by the previous podcast.

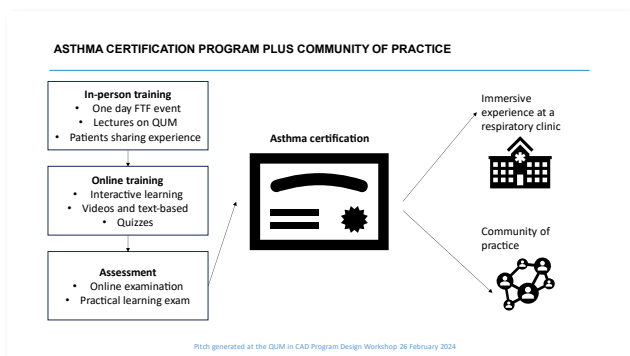
How do we know the podcast has made a difference? The numbers of HCPs on the Asthma Australia website and the Lung Learning Hub. Practice behavioural change as measured by responses to subsequent reflections. That's how we will increase the use of practice guidelines.

Asthma certification program plus community of practice

Today I'm going to talk to you about an innovative new medical certification that we're going to be presenting today. This programme will be utilising a hybrid model of both in-person learning, and also online training modules.

The in-person training will be a one day event where doctors and nursing prescribers will be able to come in and see real life patients talking about the

individual experiences of what they wish their doctor knew, and what they wish their doctor told them, in order to be able to facilitate doctors being able to explain to the patients the things that patients want to hear. But not only that, the doctors will also be taught best-practice guidelines during this event.

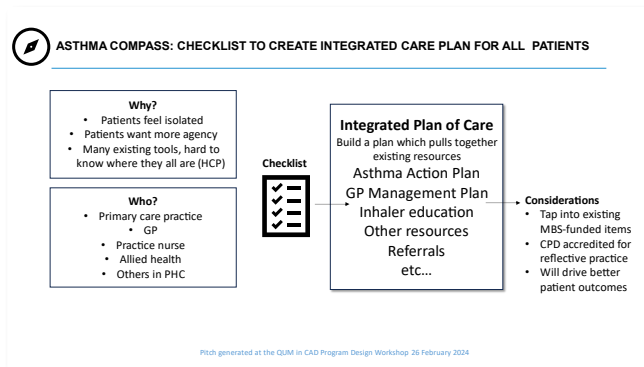


Now, one thing that's really important to know is that the online modules are also interactive in nature, they will utilise many different ways of interacting with the doctor as they're learning. There'll be a coverage of range of topics. The online modules can be video-based, also written format, as well as also being interactive quizzes. Following that there'll be a respiratory quiz, and the exam and also a practical-based learning examination.

All this is followed by an immersive experience at a respiratory clinic. This is where doctors will be able to see best what other doctors do in the clinical setting, and what's best practice. This will be followed by a community of practice that is invitation only. Once they've completed all of the sections there'll be invited into close groups where people will be able to communicate with each other to find out what's best practice in the latest available guidelines, and also some new techniques. This will be targeted to through a distribution through the Primary Health Networks and in areas of high prevalence of asthma.

Asthma Compass: checklist to create integrated care plan for all patients

We took inspiration from the patient vignette that that we heard this morning. What became clear was that many of the patients felt isolated, and they needed to have more agency in their care. So, we decided that we were going to target primary care practices, predominantly GPs and the practice nurses and other staff that work within those primary care practices. We want to literally help them make an integrated plan of care.



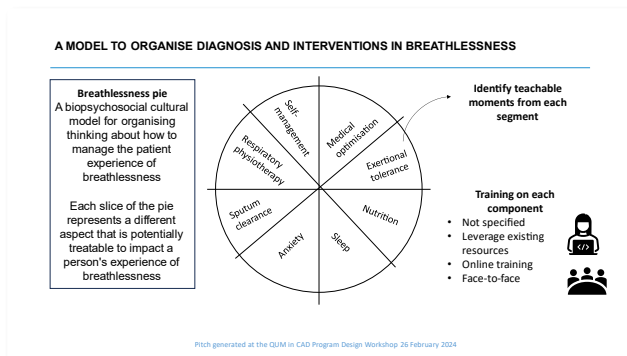
We will provide a decision tree / checklist, a bit of a roadmap to follow if you if you prefer. So no matter which GP or which primary care practice you go to throughout Australia, the same questions will be asked of you and you'll get the same level of care. For example, some of the questions that the GP might ask you relate to your prescribed medications, maybe get you to demonstrate use of your puffer in the rooms, and also to check the patient's understanding of their disease management, and how they're doing that.

We will aim to actually streamline what they're doing, not add to their workflow. It will be aligned with MDS funding, and it will have a sections in there to connect to localised resources as well as nationally available resources to support the practitioner. Of course, remind the GP to check that patient understanding the feedback loop and also work on and check barriers for patient self management.

Of course, that will help with GPs do their CPD for reflective practice. But in more importantly, the impact that will have will be to provide GPs and other staff within the primary care practices to identify those patients who might fall through the cracks with a greater use of the checklists.

A model to organise diagnosis and interventions in breathlessness

We're presenting on a model to organise training or intervention focused on breathlessness. Breathlessness is a common disabling symptom. And it's a multifactorial symptom. There are many different factors that contribute to a client experience of breathlessness, but often as HCPs, we just focus on one aspect.



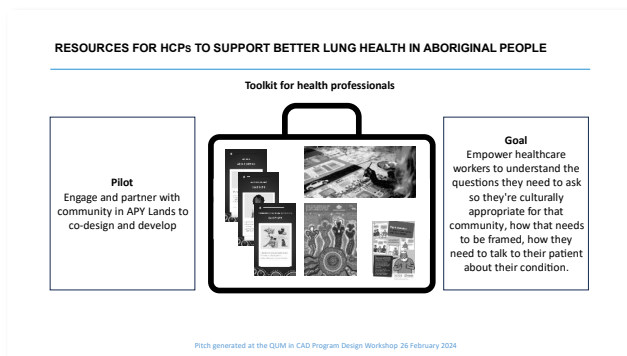
We're proposing a biopsychosocial cultural model of breathlessness where we can picture breathlessness as a pie, and each slice of the pie represents a different aspect that is potentially treatable to impact a person's experience of breathlessness. This training will be presented with adult learning principles in mind and would be consistent with trauma informed care. We're not looking at how the training is presented, we assume it could be presented aligned with current trainings, but what we're really trying to do is get people to picture breathlessness as a multifactorial condition. Each segment of the pie would represent a different area of training. So maybe nutrition and breathlessness, or medical optimisation. We'd be looking for about two teachable moments was in each of those segments.

Some of the training might already exist and we could link to Asthma Australia's inhaler technique videos, for example, and others we would need to develop across a could be web face, face to face depending on the intervention required at the time for training.

Resources for HCPs to support better lung health in Aboriginal people

Lung health in Aboriginal people is catastrophic. There is a significant disparity that exists for our Aboriginal people, particularly in remote areas.

There are currently no resources available to healthcare practitioners to teach us how to learn from our patients, how to talk to our patients about their lung health.

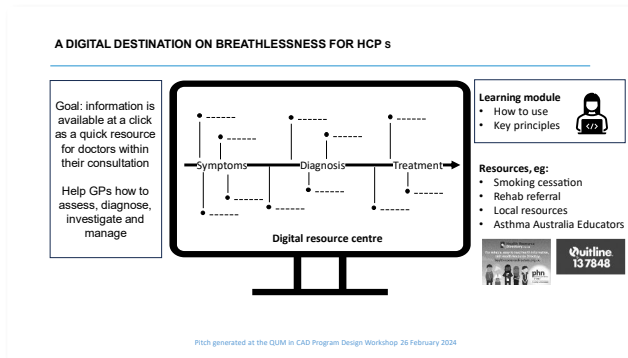


What we want to do is develop a pilot project, to engage and partner with our communities to work side by side with our Aboriginal healthcare workers and communities to co design and develop what we'd like to call a toolkit for healthcare providers. What we want to do is empower healthcare workers to understand the questions they need to ask so they're culturally appropriate for that community, how that needs to be framed, how they need to talk to their patient about their condition. This could be a toolkit in language, as many Aboriginal people do not speak English as a first language.

We would like to develop a programme or a toolkit that could potentially be used in other communities. But what we will focus on specifically to begin with is a pilot project in the APY Lands. The result will be a toolkit that healthcare providers can use to empower them to educate and work with community to solve the problems of lung health in Aboriginal people.

A digital destination on breathlessness for HCPs

There's many causes of breathlessness and we're all aware of that. The case studies presented this morning showed us there's a lot of potential causes, and we want to address this in a centralised digital space. We will develop a digital destination where information is available at a click as a quick resource for doctors within their consultation so they could look up what are the possible causes. But more than that, we want to look at how they can assess and diagnose how they can investigate and manage. We'd also have an option on the site for later which will be for consumer resources, and they could print that out and provide it to their patients.

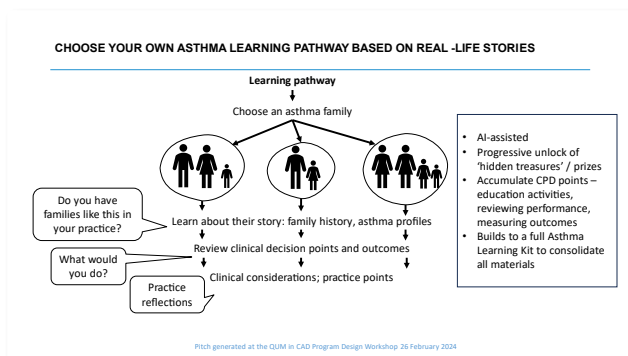


We want to also leverage off existing material. So not only would you go here to decide to look into how to investigate, but you'd also get training in the existing disease places. So you would be directed to COPD X, you could have the Asthma Australia resources. We would want to develop a learning module within these as well. So you could also get your CPD points.

It could address so many layers as well, for example smoking cessation in there. We also are aware that there's a lack of diagnosis as well so we'd like to support some of those investigations. How to connect to rehab, how to find resources in local areas. There are so many layers to this that we can build upon having a one stop shop but also leverage existing websites and training packages.

Choose your own asthma learning pathway based on real-life stories

We've decided that we would like to learn by a "choose your own adventure" pathway, it's an AI assisted platform. And it's to improve the quality use of medicines in adolescents, and children, which is our focus area. This is all engaged and is centred around the family. And that recognised lots of different types of families.



It will be scenario-based, using real life stories of asthma management within the family. Staged on a digital format, which will give you some scenarios and some problem trees to be able to unlock learning opportunities. The content will be centred around quality use of medications, inhaler technique, prescription and deciding if an inhaler is correct for that person.

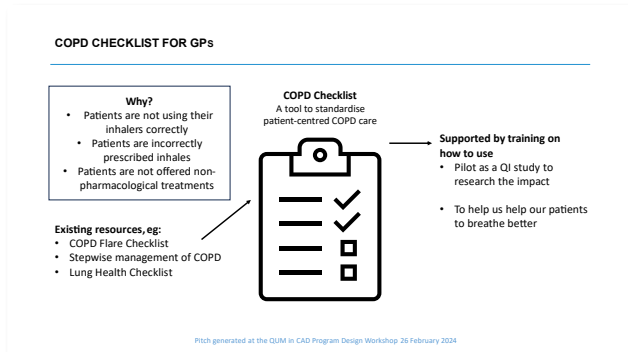
It will cover a multidisciplinary approach: on entry, members will be able to do put down their chosen profession. It's not limited to just nurses and doctors, it will also be open to allied health. You will access it via the lung Learning Hub.

The goals for this learning platform is to provide a family / person-centred care approach that is efficient, it accommodates for health literacy of the individual, and it's a trauma informed. We hope with the stages and unlocking the learning that there will be CPD at the end. Also, it will have lots of hidden treasures and prizes to get you through the courses.

You can come in for a small amount of time or a large amount of time. But in the end, we hope to have an asthma Learning Kit that can actually be physically sent out to learners. It will be a training opportunity in one place.

COPD checklist for GPs

Patients are not using their inhalers correctly. We know patients are prescribed inhalers when they don't have a chronic respiratory condition and we know patients are not being offered nonpharmacological treatments. If we don't make a change, we're going to miss that opportunity for early and correct diagnosis, that opportunity to start treatment early and potentially slow down the progression of these conditions.



But let's be honest, time. None of us have time. Our GPs don't have time. So, what we are proposing to improve the management of COPD to prevent exacerbations is to create a tool to facilitate standardised, patient-centred COPD care and training resources on how to use it. We are creating a checklist, a checklist that's integrated into the GP software already used. Checklist already exists. Let's make it easy. Let's make it at your fingertips. Those checklists will prompt to confirm diagnosis, to bring a call to action to check inhaler adherence techniques, side effects, utilisation of non-pharmacological tools, have links to resources, digital, printouts, who to refer on to and to book recalls for our clients.

It will be based upon the COPD Flare Checklist, the stepwise management of COPD, the Lung Foundation Australia's Lung Health Checklist. To ensure increased utilisation of that guideline recommended approaches. The training will be co-designed with GPs and with clients. It will be RACGP approved training. It might be webinars; it might be online. We'll see what our Co-design team creates. There will be a pilot study as a QI project to research its impact and will be promoted through Primary Health Networks and the Lung Learning Hub and have CPD points attached. It will help us help our patients to breathe better.

APPENDIX 6. TARGET AUDIENCES

Without any specific detailed insight into the target audience behaviours, we will design the content to be suitable for any HCP within the primary care environment. As we get further into work on the solution blueprints and more depth thinking about the audiences we can plan more closely and establish the CPD homes for accreditation.

Audience	Rationale
<p>Consumers</p> <ul style="list-style-type: none"> • People with breathlessness • People with COPD • People with asthma • Family and carers 	<p>Consumers are the ultimate beneficiaries of the QUM in CAD Program. The impact of quality use of medicines for people with CAD can be quite significant. Here are several key ways in which the implementation of quality use of diagnostics, therapeutics and pathology education can benefit individuals with these conditions.</p> <ul style="list-style-type: none"> • Symptom Control: Properly prescribed medications can help control symptoms like wheezing, shortness of breath, coughing, and chest tightness. This can lead to improved quality of life and reduced discomfort. • Prevention of Exacerbations: Medication adherence and appropriate use of medications can help prevent exacerbations or flare-ups of the disease. This is crucial as exacerbations can be severe and lead to hospitalisations or emergency room visits. • Lung Function Maintenance: Medications, such as bronchodilators and anti-inflammatory drugs, can help maintain lung function over time, slowing down the progression of the disease and preserving lung capacity. • Improved Physical Activity: Better control of symptoms and reduced risk of exacerbations can enable individuals to engage in physical activities more comfortably, leading to improved fitness and overall well-being. • Reduced Healthcare Costs: By effectively managing chronic airways disease with appropriate medications, the overall healthcare costs can be reduced. This includes fewer hospital admissions, emergency room visits, and outpatient appointments related to uncontrolled symptoms. • Enhanced Adherence to Treatment Plans: Quality use of medicines involves not only prescribing the right medications but also educating patients about their importance, how to use them correctly, and addressing any concerns or barriers to adherence. This can lead to better compliance with treatment plans and improved outcomes. • Psychological Well-being: Feeling in control of their condition and experiencing fewer symptoms can positively impact a person's mental health and overall outlook on life. <p>Families, carers, and others provide critical social and emotional support for people with CAD. In children and young people in particular they influence treatment decisions, maintenance, and health care system navigation.</p>

<p>General Practitioners (GPs) working in primary care</p>	<p>GPs play a crucial role in the care of people with chronic airways diseases such as asthma and COPD.</p> <ul style="list-style-type: none"> • Diagnosis and Screening: GPs are often the first point of contact for patients experiencing respiratory symptoms. • Treatment and Management: GPs are responsible for creating Action Plans for patients with chronic airways diseases. • Education and Counselling: GPs educate patients about their condition, including triggers, self-management techniques, lifestyle modifications and the importance of medication adherence. • Monitoring and Follow-Up: GPs monitor patients' progress regularly through follow-up appointments, spirometry tests, and symptom assessments. They adjust treatment plans as needed based on the patient's response and any changes in their condition. • Referrals: GPs coordinate care by referring patients to specialists such as pulmonologists, allergists, or respiratory therapists for further evaluation and management. • Preventive Care: GPs emphasise the importance of preventive care, such as annual flu vaccinations and pneumococcal vaccinations, to reduce the risk of respiratory infections and complications in patients with chronic airways diseases.
<p>Nurses working in primary care</p> <ul style="list-style-type: none"> • Practice nurses • Nurse practitioners 	<p>When available, primary care nurses play a critical role in delivering comprehensive, patient-centred care to individuals with CAD.</p> <ul style="list-style-type: none"> • Patient Education: Nurses educate patients about their condition, including proper inhaler technique, medication adherence, recognising and managing symptoms, and understanding triggers that can exacerbate their condition. • Assessment and Monitoring: Nurses conduct comprehensive assessments of patients with CAD, including taking medical histories, measuring vital signs, and assessing symptoms. • Medication Management: Nurses assist in medication management by ensuring patients understand their prescribed medications. They may also provide medication administration support and teach patients how to use various inhaler devices correctly. • Lifestyle Counselling: Nurses offer counselling and support to help patients make lifestyle modifications such as smoking cessation programs, exercise recommendations, and dietary advice. • Care Coordination: Nurses collaborate with primary care physicians, specialists, and other healthcare providers to coordinate comprehensive care for patients with chronic airways diseases. • Support and Empowerment: Nurses empower patients to set realistic goals, monitor their symptoms, and seek help when needed. • Preventive Care: Nurses promote preventive care measures such as annual flu vaccinations, pneumococcal vaccinations, and regular respiratory screenings to prevent infections and complications in patients with chronic airways diseases.

<p>Pharmacists working in primary care</p> <ul style="list-style-type: none"> • Community • Accredited 	<p>Pharmacists play a vital role in optimising medication therapy, promoting medication adherence, providing education and support, and contributing to the overall management of chronic airways diseases.</p> <ul style="list-style-type: none"> • Medication Management: Pharmacists review prescriptions, provide counselling on medication use, dosage instructions, potential side effects, and interactions with other medications. • Inhaler Technique Training: Pharmacists can educate patients on how to use different types of inhaler devices correctly through demonstration of proper inhaler technique. • Medication Adherence: Pharmacists can work with patients to address barriers to adherence, such as cost concerns, forgetfulness, or misconceptions about medications. Pharmacists may provide tools and strategies, such as medication organisers or reminder systems, to help patients stay on track with their treatment plans. • Smoking Cessation Support: Smoking is a significant risk factor for respiratory diseases. Pharmacists play a role in providing smoking cessation support to patients with chronic airways diseases. • Health Promotion and Education: Pharmacists engage in health promotion activities to raise awareness about respiratory conditions, triggers, and preventive measures. They provide educational materials, conduct outreach programs, and participate in community health initiatives to empower patients and promote respiratory wellness. • Collaborative Care: Pharmacists collaborate with primary care providers, pulmonologists, and other healthcare professionals involved in the care of patients with chronic airways diseases. • Medication Reviews: Accredited Pharmacists conduct medication reviews including Home Medicines Reviews to assess the appropriateness, effectiveness, and safety of patients' medications. They identify potential drug interactions, duplicate therapies, or medication-related issues that could impact patient outcomes.
<p>Aboriginal and Torres Strait Islander Health Workers and Health Practitioners</p>	<p>Aboriginal and Torres Strait Islander communities experience a higher burden of respiratory disease due to the social determinants of health and thus, exposure to conditions that predispose them to asthma or COPD. Aboriginal and Torres Strait Islander Health Workers and Health Practitioners play a crucial role in providing culturally sensitive and holistic care for Indigenous individuals with chronic airways diseases.</p> <ul style="list-style-type: none"> • Cultural Competence: Aboriginal and Torres Strait Islander Health Workers and Health Practitioners provide culturally appropriate care that respects and integrates cultural practices into healthcare delivery, which is essential for building trust and improving health outcomes among Indigenous populations. • Community Engagement: They actively engage with Indigenous communities to promote health education, awareness, and prevention strategies related to chronic airways diseases. • Health Assessments: They conduct comprehensive health assessments, including respiratory assessments, for Indigenous patients with chronic airways diseases. • Medication Management: Aboriginal and Torres Strait Islander Health Workers and Health Practitioners assist patients in managing their

	<p>medications effectively. They provide education on prescribed medications, inhaler techniques, and medication adherence strategies tailored to the individual's cultural and linguistic needs.</p> <ul style="list-style-type: none"> • Health Promotion: They deliver health promotion initiatives focused on respiratory wellness, smoking cessation, environmental factors (such as indoor air quality), and lifestyle modifications. • Care Coordination: They collaborate with primary care providers, specialists, allied health professionals, and community support services to coordinate holistic care plans for Indigenous patients with chronic airways diseases. This includes facilitating referrals, coordinating follow-up appointments, and ensuring continuity of care across healthcare settings. • Cultural Safety: Aboriginal and Torres Strait Islander Health Workers and Health Practitioners create culturally safe healthcare environments where Indigenous patients feel respected, heard, and valued. They address cultural barriers to healthcare access, promote self-determination, and incorporate Indigenous perspectives into healthcare delivery.
<p>Paramedics and other first responders</p>	<p>Paramedics are often the first healthcare professionals to respond to respiratory emergencies related to CAD. They assess the patient's condition, including vital signs, oxygen saturation levels, and respiratory distress.</p> <p>If assessment requires immediate interventions to stabilise the patient's breathing and manage acute symptoms then paramedics may administer appropriate medications.</p> <p>After assessment, paramedics can provide basic education to patients and their caregivers on managing chronic airways diseases, recognising early signs of exacerbations, using inhaler devices correctly, and seeking follow-up care with primary care providers or specialists after an emergency event.</p>

APPENDIX 7. DETAILED CONTENT FOR THE EDUCATION PACKAGES

Suggested content for the Education Packages based on the Lung Learning Framework analyses.

Diagnosis of breathlessness

QUOTP issues

- Emerging rates of vaccine hesitancy, affect preventative health measures and exacerbate respiratory conditions
- Lack of proper diagnosis for respiratory symptoms can mean over- or under-diagnosis
- Reluctance in primary care to diagnose lung conditions
- Accessibility and affordability of medical tests limits uptake

Lung Learning Framework capabilities

Capability 9: Radiological lung tests and findings

- A need was found paying particular focus for education and training at intermediate, advanced, and expert levels of the Framework.
- More education on managing risks associated with radiological investigations, interpreting findings from appropriate investigations and communication would aid the HCPs to reach the expert level of competency (unless restricted by scope of profession).

Capability 10: Lung function tests

- Special consideration to the audience should be thought of when developing education pertaining to this capability is being developed. Eg focus on spirometry training that is delivered to a given audience such as a nurse or aboriginal health practitioner should be given carefully-crafted this will further support the diagnosis and care of those with COPD and asthma.
- Training courses for lung tests would empower the HCPs to be confident in their knowledge of the tests and their ability to not only perform them but also interpret and discuss the results with individuals.

Capability 11: Diagnosis

- Diagnosis is an area that covers a range of competencies. Education was lacking in the intermediate, advanced, and expert levels of the Framework and should be focussed on this is particularly relevant in relation to COPD and asthma.
- Majority of the HCPs require further education to evaluate the findings/reports from different specialists and/or diagnostic services and use clinical reasoning to formulate an evidence-based diagnosis of lung condition/s.

Capability 12: Educating individuals, families & carers, and communities about lung condition/s

- The impact of which will be felt especially from those with asthma or a rare lung disease.
- With further education, those at foundational levels would be able to give brief advice and guidance for individuals, families and carers and recommend additional resources and/or services which may offer additional guidance and support (intermediate level).

Capability 7: Patient/client interviews

- This was very frequent among the National Frameworks and points to the importance of the therapeutic relationship in establishing trust, generating information, to make accurate

assessments, diagnosis and tailor treatment, in addition to counselling on relevant lifestyle changes and providing ongoing support and education.

- The HCPs require training on how best they can educate their teams about conducting patient interviews more effectively and confidently. Furthermore, providing training in effective communication would provide HCPs the ability to encourage the team to screen and monitor for co-morbidities, facilitate increased health literacy and support to individuals.

Capability 4: Encourage smoking and vaping cessation

- Nearly all data sources identified this a critically need in education and training. It is particularly relevant in the care of people living with lung cancer and COPD where education across all levels of competency is required
- With more education, HCPs would be able to explore the barriers to quit smoking, teach the benefits of smoking, be able to identify individuals who smoke/vape and discuss pharmacotherapy options with them.

Management of COPD to prevent exacerbations

QUDTP issues

- Treatment initiation
 - Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches
 - Medications are not prescribed and used appropriately
 - Complexity and confusion surrounding different inhaler devices
 - Accessibility and affordability of medications limits uptake
- Ongoing care
 - Ineffective communication of risks associated with medication overuse leads to over-reliance on SABA and/or OCS
 - Challenges with patient adherence to therapy
 - Confusion about therapy steps
 - Incorrect inhaler technique
 - Missed opportunity to deprescribe unnecessary medications
- Self-management
 - Over-reliance solely on short-term symptom relief rather than chronic disease thinking
 - Lack of patient compliance with management plans
- Exacerbation
 - Issues with transitions of care, particularly from hospital to primary care, leading to gaps in treatment and follow-up
 - Challenges for paramedics in managing lower acuity presentations

Lung Learning Framework capabilities

Capability 15: Empowering self-management and providing ongoing care

- This was a very common capability within the National Frameworks and indicates the critical mass of support across the range of experts around the potential and benefit of empowering health consumers to take control of their disease.
- With further education, the HCPs might be able to confidently identify individuals at risk of additional lung comorbidities, monitor measure and evaluate individual's response to lung practices, organise follow up appointments and give clear explanations of common lung condition/s.

Capability 12: Educating individuals, families & carers, and communities about lung condition/s

- The impact of which will be felt especially from those with asthma or a rare lung disease.
- With further education, those at foundational levels would be able to give brief advice and guidance for individuals, families and carers and recommend additional resources and/or services which may offer additional guidance and support (intermediate level).

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Capability 4: Encourage smoking and vaping cessation

- Nearly all data sources identified this a critically need in education and training. It is particularly relevant in the care of people living with lung cancer and COPD where education across all levels of competency is required
- With more education, HCPs would be able to explore the barriers to quit smoking, teach the benefits of smoking, be able to identify individuals who smoke/vape and discuss pharmacotherapy options with them.

Management of asthma to prevent flare-ups

QUDTP issues

- Treatment initiation
 - Lack of adherence to guidelines by prescribers leads to suboptimal treatment approaches
 - Medications are not prescribed and used appropriately
 - Complexity and confusion surrounding different inhaler devices
 - Accessibility and affordability of medications limits uptake
- Ongoing care
 - Ineffective communication of risks associated with medication overuse leads to over-reliance on SABA and/or OCS
 - Challenges with patient adherence to therapy
 - Confusion about therapy steps
 - Incorrect inhaler technique
 - Missed opportunity to deprescribe unnecessary medications
- Self-management
 - Over-reliance solely on short-term symptom relief rather than chronic disease thinking
 - Lack of patient compliance with management plans
- Exacerbation
 - Issues with transitions of care, particularly from hospital to primary care, leading to gaps in treatment and follow-up
 - Challenges for paramedics in managing lower acuity presentations

Lung Learning Framework capabilities

Capability 15: Empowering self-management and providing ongoing care

- This was a very common capability within the National Frameworks and indicates the critical mass of support across the range of experts around the potential and benefit of empowering health consumers to take control of their disease.
- With further education, the HCPs might be able to confidently identify individuals at risk of additional lung comorbidities, monitor measure and evaluate individual's response to lung practices, organise follow up appointments and give clear explanations of common lung condition/s.

Capability 12: Educating individuals, families & carers, and communities about lung condition/s

- The impact of which will be felt especially from those with asthma or a rare lung disease.
- With further education, those at foundational levels would be able to give brief advice and guidance for individuals, families and carers and recommend additional resources and/or services which may offer additional guidance and support (intermediate level).

Capability 7: Patient/client interviews

- This was very frequent among the National Frameworks and points to the importance of the therapeutic relationship in establishing trust, generating information, to make accurate assessments, diagnosis and tailor treatment, in addition to counselling on relevant lifestyle changes and providing ongoing support and education.
- The HCPs require training on how best they can educate their teams about conducting patient interviews more effectively and confidently. Furthermore, providing training in effective communication would provide HCPs the ability to encourage the team to screen and monitor for co-morbidities, facilitate increased health literacy and support to individuals.

Capability 6: Supporting lung health during public health crises

- It was noted that education in this capability was required across all levels of the Framework. It is especially relevant to the care of people living with asthma.
- In order to increase the confidence of HCPs to reach the expert levels, they would require further education to be able to develop customised resources based on reliable information for the most current advice help to facilitate and empower individuals to develop action plans to manage impacts of the lung health crises and teach their teams to do the same.

Note: as Capability 7: Patient/client interviews is associated with every topic area, consider a single solution to include within each package.



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