# Respiratory medicine statewide health service strategy 2014

July 2014



#### Respiratory medicine statewide health service strategy 2014

Published by the State of Queensland (Queensland Health), July 2014



This document is licensed under a Creative Commons Attribution 3.0 Australia licence. To view a copy of this licence, visit creativecommons.org/licenses/by/3.0/au

© State of Queensland (Queensland Health) 2014

You are free to copy, communicate and adapt the work, as long as you attribute the State of Queensland (Queensland Health).

For more information contact:

health Commissioning Queensland, Department of Health, GPO Box 48, Brisbane QLD 4001, email Statewide.Planning@health.qld.gov.au, phone (07) 3234 1451.

An electronic version of this document is available at <a href="http://www.health.gld.gov.au/hsp/">http://www.health.gld.gov.au/hsp/</a>

#### Disclaimer:

The content presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations or warranties about the accuracy, completeness or reliability of any information contained in this publication. The State of Queensland disclaims all responsibility and all liability (including without limitation for liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason reliance was placed on such information.

## **Contents**

Ackr	nowle	edgments	۰۷		
Sum	ımary	<sup>/</sup>	vi		
Part	A: Th	ne strategy	1		
1.	Intro	oduction	1		
2.	Hea	Ith service needs and issues	1		
3.	Service directions for respiratory medicine services				
	3.1	Service direction 1			
	3.2	Service direction 2	6		
	3.3	Service direction 3	9		
	3.4	Service direction 4	11		
	3.5	Respiratory medicine service capability	12		
4.	Impl	lementation, monitoring and review	. 14		
	4.1	Implementation of the strategy			
		4.1.1 Hospital and Health Service responsibilities			
	4.2	Monitoring and review			
		4.2.1 Tracking and monitoring	15		
		4.2.2 Reporting and review4.2.3 Evaluation			
Part	B: Sı	upporting information			
1.	Background to the strategy				
	1.1	Purpose			
	1.2	Scope	16		
	1.3	Methodology	17		
2.	Que	ensland profile	. 18		
	2.1	Overview of Queensland's population and health status	18		
	2.2	Overview of the impact of respiratory conditions	19		
3.	Utilis	sation of respiratory medicine services in Queensland	. 21		
	3.1	Specialist outpatient clinics	21		
	3.2	Inpatients	21		
4.	Res	piratory medicine services in Queensland	. 22		
	4.1	Public sector	22		
	4.2	Private sector			
	4.3	Non-government organisations	23		
5.		cy and practice environment			
	5.1	International oversight			
	5.2	National agenda5.2.1 National Health Reform Agreement			
	5.3	Queensland agenda			
	0.0	5.3.1 Queensland Health reform			

	5.3.2 Blueprint for better nealth care in Queensland	25
	5.3.3 Department of Health Strategic Plan 2012-2016 (2013 update)	25
Abbreviat	ions	. 31
Glossary.		. 32
Reference	9S	. 34
Figure	es e	
Figure 1	Clinical Services Capability Framework v3.1 Levels	. 27
Tables	5	
Table 2	Guide for respiratory medicine service provision	. 29

## **Acknowledgments**

This statewide health service strategy was prepared by the Statewide Health Service Strategy and Planning Unit, Health Commissioning Queensland, Department of Health in collaboration with the Statewide Respiratory Clinical Network. Health Commissioning Queensland would like to acknowledge the assistance of stakeholders from respiratory medicine services across Queensland, Department of Health branches and others who contributed in the development of the strategy.

## **Summary**

Respiratory system disease constitutes a significant health problem in Queensland with more than 1.2 million Queenslanders reporting they suffer from a respiratory condition. Respiratory diseases are a diverse group of acute and chronic illnesses affecting the process of breathing and oxygen delivery. Respiratory conditions span genetic disorders such as cystic fibrosis, acute respiratory infections such as influenza and pneumonia, infectious diseases such as tuberculosis, long-term chronic conditions such as asthma and chronic obstructive pulmonary disease, life limiting conditions such as lung cancer, and sleep related breathing disorders including obstructive sleep apnoea. These conditions place a significant health burden on individuals as well as a financial burden on the community.

The Respiratory medicine statewide health service strategy 2014 (the strategy) articulates a 10-year vision for Queensland public sector respiratory medicine services. This vision encompasses the development of evidence-based respiratory medicine services addressing the needs of individuals through provision of a coordinated, integrated and sustainable statewide service using innovative models of care, and a skilled workforce to deliver high quality respiratory medicine services.

It is envisioned that within the next 10 years, people with a respiratory condition will receive respiratory medicine services in the most appropriate clinical setting as close as possible to where they live. All health system sectors will collaborate and meet the respiratory health needs of individuals through cost effective preventative and early intervention measures, timely access to specialist care if required, support for life-limiting and/or chronic respiratory conditions, and active encouragement of self-management.

The strategy was prepared following comprehensive planning in close collaboration with members of the Statewide Respiratory Clinical Network and key industry stakeholders. The planning process included background research and analysis of Queenslanders' respiratory health needs, broad stakeholder consultation on current and future respiratory medicine services, identification of service demand, factors impacting upon service delivery and emerging service models.

The service directions were developed directly from the service needs, issues and key priority areas identified through the planning process and aligned with the principal themes of the *Blueprint for better healthcare in Queensland*<sup>2</sup> and strategic objectives detailed in the *Department of Health Strategic Plan 2012–2016* (2013 update).<sup>3</sup> Four service directions were identified to support the 10 year vision of the delivery of respiratory medicine services in Queensland. The service directions are:

- 1. People with a respiratory condition receive care that is planned and organised through a network of respiratory medicine services linked to form an integrated, coordinated service, partnering with key stakeholders where practicable.
- 2. People with a respiratory condition receive care that is delivered using innovative, location-applicable models of care and service delivery and are well informed of the care and treatment options available.
- 3. People with a respiratory condition have access to safe and sustainable services closer to where they live.

4. People with a respiratory condition receive services that are continuously improving in clinical quality, supported by clinical research and provided by health professionals who are well-trained and credentialed.

In accordance with the *Hospital and Health Boards Act 2011*<sup>4</sup> responsibility will rest with Hospital and Health Boards and Health Service Chief Executives to work collaboratively with the Statewide Respiratory Clinical Network and Department of Health, as well as other providers of respiratory medicine services to develop and implement local service plans aligning with this strategy. The Department of Health will adopt a monitoring and evaluating role of Hospital and Health Service progress towards implementation of this strategy, including reporting on and reviewing progress towards achieving the identified objectives.

## Part A: The strategy

## 1. Introduction

More than 1.2 million people in Queensland suffer from diseases of the respiratory system. Respiratory diseases are a diverse group of acute and chronic illnesses affecting the process of breathing and oxygen delivery. As a group, they involve many and varied causative pathways, symptoms and outcomes. Because they are highly prevalent in the community, they constitute a significant health problem in Australia.

Recent respiratory disease research has showed:

- respiratory diseases were the third largest cause of death in Queensland in 2010, with chronic obstructive pulmonary disease (COPD) listed in the top ten leading causes of death
- lung cancer was the leading cause of cancer death in Australia in 2011 in both men and women
- acute respiratory infections such as influenza remain highly prevalent and claim a substantial number of lives in Australia each year
- asthma is Australia's most widespread chronic (long-term and persistent) health problem
- it has been estimated more than 1.2 million Australians suffer from a sleep disorder
- the incidence of cystic fibrosis (CF) in Australia is approaching 1 in 3000 births. 6-9

The service directions in this strategy outline a 10-year approach to future respiratory medicine services delivery for Hospital and Health Boards (HHBs) and Health Service Chief Executives (HSCEs), as well as clinicians. The directions address the diversity of respiratory conditions and identified service needs, issues and priorities. The major themes focus on linkages and communication across services and sectors, future arrangement of the delivery of respiratory medicine services, support for patients through increasing patient literacy and self-management, development of a skilled workforce and provision of a quality service that is always seeking to improve through education and research.

## 2. Health service needs and issues

The Queensland Health Guide to Health Service Planning <sup>2</sup> defines health service needs as 'the gap between what services are currently provided to a given population and what will be required in the future'. <sup>10</sup>

Needs, issues and priorities identified through stakeholder consultation and supported by evaluation of the service environment are themed. The broad themes relative to respiratory medicine services are summarised below:

#### Leadership

 Develop clinical leadership skills within Hospital and Health Services (HHSs) to advocate for and drive improvement in respiratory medicine services.

#### Communication between respiratory services

- Improve respiratory medicine service communication interface between specialist and generalist services.
- · Lower capability and higher capability services.
- Hospital and primary care sector and public and private sectors including nongovernment organisations and peak bodies—focus on solutions that would improve the capacity to share patient information.

#### Service networking

- Strong commitment and cooperation between service providers at local (HHS) and statewide (specialised service) levels.
- Improve the communication interface.
- Improve the integration and coordination of services between hospital and community care which is vital when trying to address barriers that limit ease of patient movement and decrease the success of hospital avoidance strategies.
- Build on synergies provided through networks and partnerships and support the development of collaborative health service planning.

#### Models of care

- Consistently implement respiratory medicine service models of care across Queensland.
- Develop standard treatment guidelines informed by evidence-based research where available.
- Improve the implementation of hospital substitution models, such as hospital in the home (HITH), currently delivered in an inconsistent manner due to skillmix, patient mass, flexibility of service and patient eligibility.
- Increase use of coordinated shared care protocols in regional areas for patients with complex care needs.
- Further develop the use of advanced/expanded practice roles; improve local support and involvement in outreach services by providing a planned and coordinated statewide program.
- Use tele-monitoring to provide outpatient support for people who have difficulties travelling to a specialist.
- Discuss the impacts on palliative care, end of life services.
- Establish new models of care for ambulatory and primary care diagnosis and management of sleep disorders.

#### Reducing unnecessary care

- Improve the implementation of hospital avoidance programs in the community through education of patients and primary health care workers.
- Increase engagement with the primary care sector to provide support.

• Education to patients with chronic disease to encourage self-management practices.

#### **Community empowerment**

- Support and implement programs to increase health literacy among patients and carers.
- Provide greater advocacy for the use of management plans for patients with chronic disease.
- Promote Health Contact Centre (confidential telephone health assessment and information services to the people of Queensland 24 hours a day, seven days a week) programs which provide early intervention and prevention services e.g. Quitline and COACH Program.
- Demonstrated capability to improve patient self-management knowledge and skills.

#### Workforce

 Improve recruitment and retention of appropriately trained respiratory medicine staff including physicians, sleep/respiratory scientists, and allied health professionals, and support staff such as chronic care coordinators.

#### Service improvement and sustainability

- Support the development of cohesive multidisciplinary teams including cross discipline allied health services outside tertiary centres.
- Seek opportunities to improve respiratory medicine services through enhanced access to specialised support services, equipment and skilled staff.
- Redesign services to deliver care closer to home e.g. increase uptake of HITH for CF patients.
- Improve IT infrastructure across services to improve statewide access to patient information e.g. improve capture of sleep services including clinical measurement.

#### Research

- Provide evidence-based care.
- Strengthen the connection between funding, research initiatives and outcomes.
- Further research to improve respiratory health care.

#### Training and development

- Consider the development of formal pathways to upskill existing generalist staff including nursing, allied health and medical officers, particularly in the areas of paediatrics and adolescent transition.
- Provide greater level of clinical measurement training including spirometry and lung function testing to allied health workers, Aboriginal and Torres Strait Islander health workers and primary care providers.
- Provide solutions to the limited development of training or teaching programs for regional or remote locations.

## 3. Service directions for respiratory medicine services

The service directions are broad statements about the future state of respiratory medicine services delivered by HHSs with the support of the Department of Health and Statewide Respiratory Clinical Network (SRCN). Service directions reflect the areas where solutions, supported by evidence-based practice, are needed in order to reach the desired future state for respiratory medicine services in Queensland.

Each of the service directions include:

- Objectives: Statements of achievement or specific statements about what the service system needs to do to attain the future state as articulated in the service directions.
- **Service actions**: Statements of action or 'how' the service system may work toward meeting the statements of achievement set out in the objectives. Each HHS may choose to implement these actions—or to identify and implement other actions—to achieve the objectives detailed in this section.
- Signs of success: Performance indicators to monitor the success of accomplishing
  the service direction or meet the intent of the planning. They provide a measure on
  which to assess the extent the objectives have been achieved.
- **Timeframes**: Service actions identified for implementation in the short to medium term (1–5 years) are designed to be completed within existing resources. Some of the service actions identified for implementation in the long-term (6–10 years) require additional resources and placement of these actions in the outer years allows for HHSs and the Department of Health to explore options for resourcing these prior to implementation.
- **Responsibility**: Organisations with lead responsibility for implementing service actions are identified for each action. Other organisations may participate, assist or guide the lead organisation as necessary to implement and complete the action. The lead organisations with prime responsibility are:
  - Department of Health, Health Service and Clinical Innovation (HSCI)
  - Department of Health, Health Services Information Agency (HSIA)
  - Hospital and Health Services

Although four overarching service directions have been developed, these are not mutually exclusive. Actions within individual service directions may contribute to the achievement of multiple objectives within other service directions.

#### 3.1 Service direction 1

People with a respiratory condition receive care that is planned and organised through a network of respiratory medicine services linked to form an integrated, coordinated service, partnering with key stakeholders where practicable.

### **Objectives**

- 1. Enhance service networks so they are clearly defined, encompass both public and private sector services and provide formal links between respiratory medicine service levels as defined in the *Clinical Services Capability Framework for Public and Licensed Private 654 Health Facilities version 3.1* (CSCFv3.1).
- 2. Improve continuity of care through the development of better service linkages and coordination.
- 3. Enhance effective communication between respiratory medicine service providers across all sectors of the health system to support consistent care that corresponds with the patient's own goals.
- 4. Improve planning of care for people with a respiratory condition transitioning across levels of care and/or moving between sectors of the health system.
- 5. Increase patient literacy and involvement by combining public hospital and community resources to support self-management strategies including action planning and goal setting for people with complex chronic respiratory conditions.

#### Signs of success

- Each public sector respiratory medicine service has established service networks and/or partnerships relevant to local service needs.
- Potentially preventable hospitalisations for respiratory conditions are reduced by a minimum of 10 per cent.

Shor	t-term (1–2 years)	Responsibility
1.1	Explore and implement options for collaborative service structures between rural, regional, private providers and specialised services, including diagnostic and support services, to further develop service networks.	HHS
1.2	Ensure respiratory medicine services are delivered at the highest appropriate CSCFv3.1 level to meet the needs of the community (see respiratory medicine service provision—Section 3.5).	HHS
1.3	Develop clinical leadership skills to advocate for improvements in respiratory medicine services.	HHS
1.4	Expand use of communication mediums (telephone, email, SMS, video conferencing), enterprise applications (The Viewer, ieMR) and other methodologies for patient information sharing between service providers, communication of coordinated health plans and/or patient follow up between specialist appointments.	HHS
1.5	Support people with a respiratory condition to participate in effective lifestyle improvement and self-management programs.	HHS
1.6	Maintain a collaborative approach to the provision of infection	HHS

	prevention and control interventions, for example in the provision of tuberculosis services.	
1.7	Explore the options for a statewide computerised system to record and share clinical information for bronchoscopy, respiratory function testing and sleep services, and provide recommendations to HHSs.	DoH (HSCI- SRCN)
Medi	um-term (3-5 years)	Responsibility
1.8	Work with local primary healthcare organisations, other non- government service providers and professional associations to improve linkages and provision of respiratory services across the care continuum.	HHS
1.9	Establish multidisciplinary teams where roles and responsibilities are clearly defined and tasks are distributed accordingly among team member's e.g. joint radiology and respiratory physician meetings and multidisciplinary lung cancer meetings.	HHS
1.10	Implement hospital avoidance activities such as action plans and pulmonary rehabilitation programs either directly or through industry partnerships.	HHS
1.11	Coordinate respiratory outpatient appointments through a centralised scheduling process.	HHS
Long	-term (6-10 years)	Responsibility
1.12	Evaluate the effectiveness of service networking and care delivery models implemented by HHS (in response to service action 1.1).	HHS, DoH (HSCI-SRCN)
1.13	Promote improved scheduling of respiratory services across care settings for improved clinical outcomes and patient flow.	DoH (HSCI- SRCN)

## 3.2 Service direction 2

People with a respiratory condition receive care that is delivered using innovative, location-applicable models of care and service delivery and are well informed of the care and treatment options available.

#### **Objectives**

- 1. Improve respiratory medicine services through integration of evidence-based models of care that deliver person-orientated treatment across the care continuum and are supportive of self-management.
- 2. Improve service delivery options by considering service provider availability, support service requirements, service need and sustainability as well as community factors such as critical (patient) mass and community receptiveness.
- 3. Improve access to services that seek to accommodate unique and individualised care requirements of people with long-term respiratory conditions.
- 4. Improve access to culturally appropriate respiratory medicine services for people from Aboriginal, Torres Strait Islander and culturally and linguistically diverse populations.

#### Signs of success

- Patients are seen at outpatient specialist clinics within clinically appropriate timeframes.
- Increased hospital in the home services provided to patients with a respiratory condition.
- Reduced emergency department treatment and readmission rates related to respiratory medicine conditions by a minimum of 10 per cent.
- A minimum of 75 per cent of all respiratory related admissions have an average length of stay that is within (plus or minus) 20 per cent of the state average.
- Improved uptake of smoking cessation services by patients and staff.
- Increased use of telehealth and telephone services in delivery of respiratory medicine services.

Short	t-term (1–2 years)	Responsibility
2.1	<ul> <li>Implement customised models of care to meet the unique requirements of different cohorts of respiratory patients for example:</li> <li>integrated hospital/community respiratory nursing and allied health service</li> <li>coordinated case management for people with complex needs</li> <li>allied health-led or nurse-led case management of COPD</li> <li>non-laboratory (or home-based/ambulatory) investigation and management of obstructive sleep apnoea</li> <li>standardised transition arrangements for adolescents transferring to an adult service.</li> </ul>	HHS
2.2	Implement appropriate alternative models of care to inpatient intervention and treatment such as telephone based services, hospital in the home, and ambulatory delivery of programs for people experiencing a respiratory condition, including children.	HHS
2.3	Establish and implement integrated service models that provide access to palliative care specialists and promote the role of all health professionals (across settings) in supporting timely access to high quality end of life care to:  • identify needs as early as possible (considering families and carers)  • accommodate active medical and supportive management as appropriate  • promote the sensitive delivery of high quality information to support planning for end of life  • increase capture of individual preferences within plans of care (including advanced care directives)  • deliver care in adherence wherever possible with individual choices and preferences.	HHS
2.4	Increase visibility of programs, commonwealth or state based, that focus on addressing lifestyle risks in the community such as tobacco smoking and obesity e.g. Quit Smokingfor Life, Queensland Healthier.Happier campaign, Shape Up Australia.	HHS
2.5	Advocate for the adoption of the <i>Smoking Cessation Clinical Pathway</i> ensuring the correct identification of patients with a smoking addiction and establish evidence-based dedicated	HHS, DoH (HSCI- Preventative

smoking cessation clinics to reduce tobacco smoking among patients and staff (10 per cent by 2024).  Promote and advocate for the provision of immunisation services, guided by the National Immunisation Program, for specific populations such as children, adults with chronic lung disease and older Australians.  Undertake strategic planning to develop a cost effective diagnostic and management pathway for patients with obstructive sleep apnoea in response to the increased obesity rates in the community.  Establish clear pathways and referral mechanisms to facilitate timely access to specialist services, including specialist diagnostic services, considering options such as prioritising access to public services and private providers. Specialist services may include:  • cystic fibrosis services  • psychology and psychiatry services  • sleep medicine services (both diagnostic and interventional)  • histopathology and cytology services.  Improve access to, and coordination of, thoracic surgical services to facilitate consultation and definitive care in clinically appropriate timeframes.  2.10 Improve coordination of specialist outpatient appointments for people with a respiratory condition to reduce the burden of multiple specialist outpatient appointments and facilitate appropriate general practitioner (GP) acute care referral.  2.11 Review outpatient lists for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  Medium-term (3–5 years)  Responsibility  HHS  HHS  HHS  HHS, DoH  HHS arvices such as sleep medicine services and lung function testing.  Long-t			
guided by the National Immunisation Program, for specific populations such as children, adults with chronic lung disease and older Australians.  2.7 Undertake strategic planning to develop a cost effective diagnostic and management pathway for patients with obstructive sleep apnoea in response to the increased obesity rates in the community.  2.8 Establish clear pathways and referral mechanisms to facilitate timely access to specialist services, including specialist diagnostic services and private providers. Specialist services may include:  • cystic fibrosis services • sleep medicine services • psychology and psychiatry services • non-invasive ventilation for chronic conditions • radiology services (both diagnostic and interventional) • histopathology and cytology services.  2.9 Improve access to, and coordination of, thoracic surgical services to facilitate consultation and definitive care in clinically appropriate timeframes.  2.10 Improve coordination of specialist outpatient appointments for people with a respiratory condition to reduce the burden of multiple specialist outpatient appointments and facilitate appropriate general practitioner (GP) acute care referral.  2.11 Review outpatient lists for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  Responsibility  Mork collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  HHS  1.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services			Health Unit)
and management pathway for patients with obstructive sleep apnoea in response to the increased obesity rates in the community.  2.8 Establish clear pathways and referral mechanisms to facilitate timely access to specialist services, including specialist diagnostic services, considering options such as prioritising access to public services and private providers. Specialist services may include:  • cystic fibrosis services  • sleep medicine services  • psychology and psychiatry services  • non-invasive ventilation for chronic conditions  • radiology services (both diagnostic and interventional)  • histopathology and cytology services.  2.9 Improve access to, and coordination of, thoracic surgical services to facilitate consultation and definitive care in clinically appropriate timeframes.  2.10 Improve access to, and coordination to reduce the burden of multiple specialist outpatient appointments for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.11 Review outpatient lists for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  2.13 Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Responsibility  Long-term (6–10 years)  Evaluate customised respiratory medicine service models of car	2.6	guided by the National Immunisation Program, for specific populations such as children, adults with chronic lung disease and	HHS
timely access to specialist services, including specialist diagnostic services, considering options such as prioritising access to public services and private providers. Specialist services may include:  • cystic fibrosis services  • sleep medicine services  • psychology and psychiatry services  • non-invasive ventilation for chronic conditions  • radiology services (both diagnostic and interventional)  • histopathology and cytology services.  2.9 Improve access to, and coordination of, thoracic surgical services to facilitate consultation and definitive care in clinically appropriate timeframes.  2.10 Improve coordination of specialist outpatient appointments for people with a respiratory condition to reduce the burden of multiple specialist outpatient appointments and facilitate appropriate general practitioner (GP) acute care referral.  2.11 Review outpatient lists for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  Responsibility  HHS  Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  1.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  1.15 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital  1.16 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.7	and management pathway for patients with obstructive sleep apnoea in response to the increased obesity rates in the	
2.9 Improve access to, and coordination of, thoracic surgical services to facilitate consultation and definitive care in clinically appropriate timeframes.  2.10 Improve coordination of specialist outpatient appointments for people with a respiratory condition to reduce the burden of multiple specialist outpatient appointments and facilitate appropriate general practitioner (GP) acute care referral.  2.11 Review outpatient lists for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  2.13 Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.8	timely access to specialist services, including specialist diagnostic services, considering options such as prioritising access to public services and private providers. Specialist services may include:  • cystic fibrosis services  • sleep medicine services  • psychology and psychiatry services  • non-invasive ventilation for chronic conditions  • radiology services (both diagnostic and interventional)	HHS
people with a respiratory condition to reduce the burden of multiple specialist outpatient appointments and facilitate appropriate general practitioner (GP) acute care referral.  2.11 Review outpatient lists for people with a respiratory condition, specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  2.13 Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  Responsibility  Responsibility  HHS  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.9	Improve access to, and coordination of, thoracic surgical services to facilitate consultation and definitive care in clinically appropriate	HHS
specifically the frequent attenders, to identify those who can be redirected to primary care.  2.12 Explore and advise on the establishment of standardised data collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  2.13 Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  Responsibility  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.10	people with a respiratory condition to reduce the burden of multiple specialist outpatient appointments and facilitate appropriate general	HHS
collection requirements within Queensland Health Respiratory and sleep centers.  Medium-term (3–5 years)  2.13 Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.11	specifically the frequent attenders, to identify those who can be re-	HHS
2.13 Work collaboratively, maximise effectiveness and prevent duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.12	collection requirements within Queensland Health Respiratory and	
duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the Indigenous Respiratory Outreach Care Program.  2.14 Implement protocols and pathways to support the timely diagnosis, treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.16 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	Medi	um-term (3–5 years)	Responsibility
treatment and management of a respiratory disease, specifically for high complexity respiratory patients.  2.15 Consider contestability models of respiratory medicine for specialist services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.13	duplication, to support the provision of respiratory medicine services that fit with people's cultural background, for example the	HHS
Services such as sleep medicine services and lung function testing.  Long-term (6–10 years)  Responsibility  2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital  DoH (HSCI)	2.14	treatment and management of a respiratory disease, specifically for	HHS
2.16 Evaluate customised respiratory medicine service models of care implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.15		HHS
implemented by HHSs.  2.17 Report the uptake and efficacy of smoking cessation programs among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital  DoH (HSCI)	Long	-term (6–10 years)	Responsibility
among patients and staff in each HHS.  2.18 Provide capabilities (processes and systems) that enhance the ability to deliver respiratory medicine services in non-hospital	2.16		HHS
ability to deliver respiratory medicine services in non-hospital	2.17		HHS
	2.18	ability to deliver respiratory medicine services in non-hospital	DoH (HSCI)

### 3.3 Service direction 3

People with a respiratory condition have access to safe and sustainable services closer to where they live.

#### **Objectives**

- 1. Improve the capability and access to public sector general medical and respiratory medicine service provision to diagnose, treat and manage people with a respiratory condition as appropriate.
- 2. Improve the structure, integration and coordination of outreach services to deliver safe and sustainable shared care and/or complex care in regional, rural and remote communities.
- 3. Expand the use of telehealth services, particularly from rural and remote locations, to access specialist respiratory services for patient consultation and learning opportunities.
- 4. Improve the transfer of knowledge and skills to the primary care sector through collaboration between HHSs and key external stakeholders.
- 5. Reduce variations in respiratory medicine clinical outcomes between metropolitan, regional and rural areas, as well as between socio-economic groups.

### Signs of success

- Hospital and Health Service localised planning is inclusive of strategies to deliver respiratory medicine services that meet patient need.
- Increased diversity of respiratory medicine service workforce, particularly in rural and remote areas.
- Enhanced delivery of appropriate services including those provided by an outreach service delivery model.

Shor	t-term (1–2 years)	Responsibility
3.1	Establish a baseline of respiratory medicine service provision for all public sector health facilities (further develop Appendix 1 as needed).	HHS, DoH (HSCI-SRCN)
3.2	Review programs of respiratory medicine outreach services including:  composition of outreach teams and impact on local services sites visited and frequency of visits  services delivered including paediatric respiratory services.	HHS
3.3	Increase opportunities for local health professionals to engage in training with respiratory specialists in conjunction with outreach clinics to enable the needs of patients with respiratory conditions to be met closer to where they live.	HHS

3.4	Support staffing arrangements that enable engagement, networking, clinical innovation, cross-discipline training, exchange programs, and/or flexibility to deliver efficient and effective clinical practices.	HHS
3.5	<ul> <li>Network to advise or recommend use of advanced/expanded practice roles such as:</li> <li>allied health generalist model for respiratory medicine services in rural and remote communities</li> <li>allied health-led, respiratory nurse or nurse practitioner-led respiratory/sleep outpatient services</li> <li>Aboriginal and Torres Strait Islander Health Practitioners for Aboriginal and Torres Strait Islander people with chronic respiratory conditions</li> <li>psychosocial support services for patients with chronic respiratory conditions</li> <li>pharmacist medication reviews for inpatients and outpatients</li> <li>placement of physiotherapist service within the emergency department.</li> </ul>	DoH (HSCI- SRCN)
Medi	um-term (3–5 years)	Responsibility
3.6	Conduct local health service planning to identify strategies to improve capability and access to general medical and respiratory medicine service provision (guided by Appendix 1).	HHS
3.7	Structure local workforce to deliver innovative respiratory services such as complex care coordinators and/or multidisciplinary support staff roles.	HHS
3.8	Advise on mechanisms that will address the lack of allied health professionals within the respiratory medicine service workforce.	DoH (HSCI- SRCN)
3.9	Expand use of telehealth for respiratory medicine services to incorporate:  case conferencing  outpatient review service liaison staff development and/or mentoring.	HHS
Long	-term (6–10 years)	Responsibility
3.11	Implement actions to improve capability and access to general medical and respiratory medicine service provision at each local health facility as required (guided by Appendix 1).	HHS
3.12	Implement multidisciplinary respiratory teams with a skill-mix suited to local service demand, ensuring all team members are supported to develop and maintain clinical competence.	HHS
3.13	Leverage efforts that promote remote access and monitoring of respiratory measurements and alerts to promote targeted care.	DoH (HSCI- SRCN)

### 3.4 Service direction 4

People with a respiratory condition receive services that are continuously improving in clinical quality, supported by clinical research and provided by health professionals who are well-trained and credentialed.

### **Objectives**

- 1. Improve the capacity and capability of the respiratory workforce to meet service need.
- 2. Improve training and professional development opportunities to promote clinical competency, and ensure capability and flexibility in meeting changing service requirements.
- 3. Improve standard practice of respiratory medicine services through the development and use of appropriate clinical guidelines and standards.

#### Signs of success

- Published clinical guidelines and standards are accessible by all health professionals who provide respiratory medicine services.
- Increased number of advanced training posts at regional and tertiary centres including advanced training for respiratory registrars.
- · Clinical outcome measures are collected and analysed.

Shor	t-term (1–2 years)	Responsibility
4.1	Identify and provide advice on learning pathways and succession planning that will enable the development of clinical competency and capability in employees engaged in respiratory medicine services including support services such as pathology and radiology.	HHS, DoH (HSCI-SRCN)
4.2	Expand opportunities for local health professionals to engage in training with respiratory specialists.	HHS
4.3	Review and strengthen the clinical skills of the respiratory medicine workforce with a focus on improving regional and rural services to manage and treat patients closer to where they live, including supporting services such as radiology and pathology.	HHS
4.4	Provide scheduled education, research and training opportunities delivered by identified respiratory medicine industry partners external to the public sector, including the training of health professional students.	HHS
4.5	Develop web-based standardised information, guidelines or procedures for respiratory conditions in consultation with key stakeholders.	DoH (HSCI- SRCN)
4.6	Support the widespread implementation of existing spirometry training programs, including that provided to Aboriginal and Torres Strait Islander Health Workers, particularly in rural and remote locations.	HHS

4.7	Provide access to smoking cessation education, including access to the <i>Quit Smokingfor Life</i> program, for patients and staff.	HHS
Medi	um-term (3-5 years)	Responsibility
4.8	Provide standard training programs/refreshers on specialist respiratory conditions such as CF to facilitate knowledge and skill maintenance.	HHS
4.9	Support the development of web-based healthcare workers and patient education material to support promotion of skills outside higher level capability services, as well as patient self-management capacity.	DoH (HSCI- SRCN)
4.10	<ul> <li>Identify, define and standardise clinical outcome measures relevant to unique respiratory conditions to enable monitoring and evaluation of patient outcomes, those presently identified include:</li> <li>decrease re-presentation to emergency departments and readmission with asthma by 10 per cent annually</li> <li>provide patients with COPD with access to a dedicated pulmonary rehabilitation program within three months of referral</li> <li>decrease the number of hospitalisations from pneumonia annually</li> <li>ensure all lung cancer patients receive definitive investigative services (e.g. CXR, CT, PET and further diagnostic procedures) within six weeks of referral</li> <li>ensure all patients with potentially curable disease begin therapy within 10 weeks of referral and/or four weeks of diagnosis</li> <li>provide CF patients with serial change in Forced Expiratory Volume in one second (FEV1)</li> <li>ensure sleep services category one and two sleep patients start appropriate therapy within two and four months of referral, respectively.</li> </ul>	DoH (HSCI- SRCN)
Long	-term (6–10 years)	Responsibility
4.11	Expand advanced training posts at regional and tertiary centres including the development of regional advanced training for respiratory registrars and general medicine advanced trainees, with opportunities to rotate through tertiary hospitals for subspecialty experience where appropriate.	HHS
4.12	Facilitate the undertaking of research (including translational, clinical, public health and health services) in respiratory medicine by all health disciplines.	HHS
4.13	Explore the development of a data collection system to capture and track clinical outcome measures relevant to unique respiratory conditions.	HHS

## 3.5 Respiratory medicine service capability

Respiratory medicine services in the Queensland public sector are delivered through 16 HHSs and the Mater Misericordiae Public Hospital. Some respiratory medicine services are provided across the state while some need to be concentrated at specialist facilities due to clinical expertise and infrastructure requirements.

Respiratory medicine services in the Queensland public sector are delivered according to the CSCFv3.1. The CSCFv3.1 was developed in a modular form, with each module describing the requirements for a specific service speciality. A dedicated module for respiratory medicine services does not exist. Instead, capability requirements for

respiratory medicine services are currently addressed within the Medical Services and Children's Medical Services Clinical Services modules (available at www.health.gld.gov.au/cscf).

Queensland respiratory medicine services are classified as:

Levels 1, 2 and 3

For adults or children, these services are typically provided in community clinics, rural/community hospitals or district hospitals where services are geared toward managing lower-acuity respiratory disorders consistent with available services and workforce, as well as accessible support services.

Level 4

For adults or children, these services are typically provided in smaller regional hospitals, providing definitive care for most respiratory medicine patients, usually under the care of a registered medical specialist (consultant physician), with links to other services and may have a combination of lower level services or services provided on an outreach/consultative basis.

Level 5 and 6

These services are usually located in larger regional hospitals and major tertiary centres and provide a more specialised, multidisciplinary service to manage higher-acuity respiratory disorders with associated comorbidities. Level 5 and 6 services may provide outreach/consultative services, as well as other support, to lower level services along networked lines.

A guide to respiratory medicine service provision is at Appendix 1. This guide can be used to inform the establishment of respiratory medicine service networks and/or partnerships, and guide progress toward the desired future vision for public sector respiratory medicine services in Queensland.

## 4. Implementation, monitoring and review

## 4.1 Implementation of the strategy

This strategy outlines the statewide service directions for public sector respiratory medicine services. Further local HHS planning and action is required to convert these service directions into service enhancements.

## 4.1.1 Hospital and Health Service responsibilities

In accordance with the *Hospital and Health Boards Act 2011*, once the Department of Health endorses the strategy, responsibility rests with HHSs to 'undertake further service planning that aligns with the statewide plans'.

Health service planning at the local level will assist HHSs to respond to local health service needs in their communities, as well as establish a platform for negotiation with the Department of Health around local level issues not addressed within the strategy.

Local health service plans should align with the service directions and objectives in the strategy. Each HHS will need to consider the suitability of the service actions for their local population and make decisions regarding whether to adopt the actions or develop others designed to meet the service directions and objectives.

Subsequent to the development of local health service plans, each HHS should prepare a detailed implementation plan that operationalizes the local health service plan and monitors achievements against the statewide service directions, service objectives and signs of success.

## 4.1.2 Risks to successful implementation

The key risks to HHSs if they do not have a local respiratory medicine services health service plan include inability to:

- ensure HHS capability to meet health service demand for patients with a respiratory condition
- accurately inform local operational health service planning and related frameworks for current and future service enablers including but not limited to workforce, support services and information technology requirements
- plan for resource allocation for respiratory medicine services.

## 4.2 Monitoring and review

Monitoring, reporting, reviewing and evaluating implementation of this strategy—including reporting on and reviewing progress towards achieving the identified objectives—completes the cycle of health service planning. These processes also enable the opportunity for changes in direction during implementation of the strategy to ensure ongoing relevance and provide information upon which future service planning may be based.

To facilitate monitoring and review of this strategy, as well as translating it into a more user-friendly and visible document, the proposed service directions, objectives, priority actions, and signs of success for statewide respiratory medicine services over the next 10 years will be captured as a 'plan on a page'. Revisiting and/or updating will be undertaken at points in time throughout the life of the strategy to ensure the strategy remains a 'working document'.

## 4.2.1 Tracking and monitoring

Under the *Hospital and Health Boards Act 2011*, the Department of Health is responsible for the monitoring of service performance and HHSs are required to provide service performance data to the Department of Health.

Tracking progress of implementation will be the responsibility of Health Commissioning Queensland Department of Health. It will involve collection and analysis of quantitative and qualitative data on the signs of success (performance indicators) at a number of points in time—before, during and after implementation.

## 4.2.2 Reporting and review

Reporting on the implementation progress (i.e. reporting on the outcomes of the monitoring process outlined above) is required on an annual basis. Policy and Planning Branch, Department of Health will prepare annual progress reports in collaboration with SRCN and HHSs, if necessary. These reports will be prepared for Executive Management Team consideration, with the intent to publish outcomes on electronic media to enable wider communication of strategy progress and results.

In addition to the annual progress reporting noted above, there will be three formal review points following executive management team endorsement of the strategy, conducted as a collaborative exercise between Policy and Planning Branch and SRCN. The review points will constitute strategy evaluation and will be in the second year (2015), fifth year (2018) and tenth year (2023).

#### 4.2.3 Evaluation

Evaluation will consider both the process of implementation (i.e. progress towards service direction achievement) and the impact of implementation (i.e. progress towards achieving service objectives within local HHSs).

Evaluation will take into consideration not only the progress to date with implementation of the strategy but also any changes to the key elements informing the development of the original strategy—including any significant changes in health needs, health services and the service environment. Based on the evaluation outcomes, a revision of this strategy may be considered to ensure the service directions remain current and continue to provide for the identified needs, and the actions being implemented are achieving the objectives.

## **Part B: Supporting information**

## 1. Background to the strategy

Queensland Department of Health Executive Management Team (EMT) identified respiratory medicine services as requiring statewide health service planning based on current service demand, projected service growth, and opportunities to change service delivery models. A health service planning project for respiratory medicine services was requested to be undertaken during 2013.

## 1.1 Purpose

The purpose of the planning project was to produce a respiratory medicine services statewide health service strategy (the strategy) for Queensland public sector health services. The strategy is intended to support HHSs to plan and implement service enhancements (either directly or through partnerships) over the next 10 years to support access for people with a respiratory condition to a range of respiratory medicine services.

For the purposes of this planning project, respiratory medicine services refer to dedicated clinical services for either children/young people and/or adults with a specific respiratory condition, as well as generic health service delivery either in the hospital or community setting, to diagnose, treat or manage people with respiratory conditions.

## 1.2 Scope

The respiratory condition groups, by either Enhanced Service Related Group or International Classification of Disease code, included within the scope of this planning project were:

- · asthma and bronchitis
- bronchoscopy (procedure)
- COPD
- · lung cancer
- respiratory infections and/or inflammatory conditions (including laryngotracheitis, whooping cough and bronchiolitis)
- other respiratory conditions (including cystic fibrosis, pulmonary embolism, pneumothorax, pleural effusion, interstitial lung disease, respiratory tuberculosis and other respiratory system diagnosis)
- sleep related breathing disorders (as per the International Classification of Sleep Disorders Version 2), specifically obstructive sleep apnoea and hypoventilation.

## 1.3 Methodology

The Queensland Health Guide to Health Service Planning (2012) was used to inform this health service planning exercise. A series of milestones were progressively addressed including:

- project start-up which included initial meetings with the SRCN Chair and other key stakeholders, and establishment of key planning project committees and / or working groups
- · completion of the project plan
- project research which included determining background paper requirements, data collection, literature review, preparation of consultation questions and completion of Phase 1 consultation, followed by determining emerging themes (from identified service needs, issues and priorities)
- drafting of service directions for respiratory medicine to address emerging themes
  as well as development of objectives, actions and signs of success, and submission
  to the Project Steering Committee (PSC) for ratification
- compilation of a proposed strategy to inform Phase 2 consultation and strategy submission for PSC ratification
- project completion which included strategy submission for EMT endorsement and publishing of the endorsed strategy.

Five background papers were developed to guide the development of this strategy including:

- Background Paper 1: Queensland population profile—compiled through the use of data from the Health Statistics Unit (HSU), Government Statistician, Australian Bureau of Statistics (ABS), and Australian Institute of Health and Welfare (AIHW) to provide an overview of the demography of the Queensland population.
- Background Paper 2: Health profile—compiled through the use of data from HSU
  and Office of the Chief Health Officer Queensland, and research from organisations
  including ABS, AIHW and National Health and Medical Research Council, providing
  an overview of the health of Queenslanders and the impact of respiratory conditions
  on health.
- Background Paper 3: Activity profile—compiled from several data sources including QHAPDC, Panorama (decision support system), Monthly Activity Collection (MAC), AIHW and HSU, providing an overview of the changing demand for inpatient service activity and the supply of inpatient and non-admitted activity. The overview primarily concentrated on public activity for patients with a respiratory condition, including an analysis of rates of health service utilisation by the Queensland population, the leading causes of admission, an analysis of referral patterns, and future requirements of respiratory medicine services (projected activity).
- Background Paper 4: Service profile—compiled from stakeholder surveys
  undertaken in May and June 2013 seeking information including service coverage,
  scope of clinical services and clinical measurement, self-reported skillmix, and
  service networks, as well as information available from select organisational
  websites.

• **Background Paper 5**: Policy and practice review—compiled from a review of state, national and global respiratory initiatives and their drivers providing an overview of relevant policy and practice themes, including those for selected populations.

Initial consultation occurred during August 2013 involving stakeholders from across public and private sectors to identify respiratory medicine service needs, issues and priorities to inform development of service directions for respiratory medicine services in Queensland. Follow up consultation was undertaken in October and November 2013 to finalise the strategy.

## 2. Queensland profile

## 2.1 Overview of Queensland's population and health status

A detailed overview of the population and health status of Queenslanders was outlined in Background Paper 1: Queensland population profile, and Background Paper 2: Health profile.

**Population profile**: The preliminary estimated resident population of Queensland at 30 June 2012 was 4,560,059 persons, representing 20.1 per cent of the Australian population. This was an increase of 85,961 people (1.9 per cent) from the previous 12 months, a rate slightly greater than the national average at 1.6 per cent. The Queensland population is projected to grow by 19.6 per cent (approximately 100,800 people per annum) to almost 6.1 million people in the 10 years to 2026. 11

Regional growth: Four of the five HHSs in south east Queensland—Sunshine Coast, Metro North, West Moreton and Gold Coast grew by more than 2.7 per cent per annum in the ten years to 2011, making them the fastest growing HHSs in the state. Including Metro South, these five HHSs account for 68.3 per cent of Queensland's population as at 30 June 2011. Those HHSs outside south east Queensland which had a (2011) population of greater than 50,000 people—Cairns and Hinterland, Townsville, Mackay, Central Queensland, Wide Bay and Darling Downs—accounted for 29.6 per cent of the Queensland population. The remaining 2.1 per cent of the Queensland population, located in the HHSs of Torres Strait-Northern Peninsula, Cape York, North West, South West and Central West, represents the sparsely populated areas of the far northern and western regions of Queensland.<sup>12</sup>

**Ageing population**: From 2016 onwards the largest population increase is projected to be among older people, especially those aged 65 years or more as the baby boomer generation moves towards retirement. The number of people aged 85 years and older is projected to almost double (to 153,094) by 2026, and those aged 100 years or older to treble to 4,900 people.<sup>12, 13</sup>

**Population cohorts**: Based on 2011 census data, Aboriginal and Torres Strait Islander peoples are estimated to account for 3.6 per cent (155,826) of the Queensland population. Whilst 56.2 per cent of the Aboriginal and Torres Strait Islander population reside in the southern areas of the State, they proportionally represent greater numbers of the overall population in the northern regions of the state. Culturally diverse groups are represented by those populations who were born overseas (888,700 people).

speak a language other than English at home (318,994 people) or those not able to speak English well or not at all (46,000 people). Refugee groups, though a relatively small percentage of the overall Queensland population (2,200 people in the 2011-12 financial years), are steadily increasing.<sup>14</sup>

**Health profile**: The first results of the Australian Health Survey–Queensland, released in 2012, identified 83 per cent of Queenslanders over the age of 18 years described their health as 'excellent', 'very good' or 'good'. Supporting these results is the median age at death which was 77.2 years for males and 84.0 years for females in 2011, and has been consistently increasing since. Median age at death of Aboriginal and Torres Strait Islander populations was 57.3 for males and 59.0 for females, in 2011, representing a significant gap. Chronic respiratory disease is one of the leading contributors to the health gap, estimated to contribute to 11 per cent of the health gap. However compared to rates from 2001, the gap is decreasing between Aboriginal and Torres Strait Islander populations and non-Indigenous populations. <sup>15</sup>

**Burden of disease**: In 2007, it was estimated over half a million years of healthy life were lost due to the burden of disease and injury in Queensland. The vast majority of the burden was caused by non-communicable or chronic disease (88.1 per cent). Cancers, cardiovascular disease and mental disorders were the three leading broad causes of disease and injury for both males and females, together accounting for almost half of the total burden (48.5 per cent). Chronic respiratory disease contributed 7.1 per cent to the total burden of disease with two respiratory conditions, asthma and COPD, accounting for the majority of the burden, however this is projected to decrease to 6.9 per cent of the total burden in 2016. In Aboriginal and Torres Strait Islander populations 9.3 per cent of the total burden of disease and injury was caused by chronic respiratory disease.

**Leading cause of death**: In 2010, the leading causes of death in Queensland were cancer (leading cause of cancer death is lung cancer in both men and women) and coronary heart disease, the same two leading causes since 2001. Also included in the top 10 leading causes of death in Queensland in 2010 were two chronic respiratory diseases, asthma and COPD.<sup>15</sup>

**Risk factors**: A number of risk factors have been identified as contributing to the development or exacerbation of an existing respiratory condition. These risk factors fall into three categories—environmental (e.g. allergens and pollutants), lifestyle (e.g. tobacco smoking and obesity) and inherent (e.g. predisposition). Of these risk factors, tobacco smoking and obesity, are seen as two of the major precursors to respiratory disease in 2007. Tobacco smoking was responsible for 7.2 per cent of burden of disease in Queensland resulting in 1 in 7 of all deaths, and 1 in 6 of premature deaths. Furthermore there is evidence that obesity (now the leading cause of premature death and disability in Queensland) affects breathing through changing upper airway structure and function.<sup>7</sup>

## 2.2 Overview of the impact of respiratory conditions

According to the Australian Health Survey—Queensland, released in October 2012 and relating to the 12 month period ending 30 June 2012, it was estimated more than 1.2 million Queenslanders suffered from diseases of the respiratory system.<sup>1</sup> A detailed

overview of the impact of respiratory conditions in Queensland was outlined in Background Paper 2: Health profile.

**Prevalence**: Chronic respiratory diseases such as asthma and COPD are increasing in prevalence in 2007–2008. Asthma was reported as a long-term condition by 11.8 per cent of all Queenslanders, with a prevalence of 12 per cent in children, and COPD by 1 per cent or 77,205 persons increasing most prominently and consistently for males 65-79 years of age.<sup>16</sup>

Notifications of respiratory infections and inflammatory conditions such as influenza and pneumonia increased to 1028 during early 2013, 1.7 times the five year average. The prevalence of bronchiectasis and interstitial lung disease is difficult to measure; however, anecdotally both conditions are reported to be increasing.

Lung cancer, representing eight to ten per cent of all new cancers, has increased in prevalence in recent years due to earlier diagnosis, improvements in prognosis, and growth in the ageing population. A similar trend is emerging with CF where early diagnosis, through the Australia-wide newborn screening program, has resulted in better care and transition to adulthood with the Queensland CF population consisting of 400 children or young adults, and 389 adults. <sup>6, 9, 17</sup>

**Mortality**: In 2011, COPD and asthma resulted in 1046 and 73 deaths respectively, as a result of progressive decline in lung function. The majority of deaths caused by asthma occurred in females (62 per cent or 45 deaths).<sup>18</sup>

Similar to asthma, bronchiectasis was the underlying cause in 73 deaths in 2011, an increase of 21 deaths from 2006, of these, 83.6 per cent (61) deaths occurred in females. Other progressive lung diseases such as interstitial lung disease that lead to a poor health-related quality of life accounted for 172 deaths in 2011, with male deaths accounting for 60 per cent (or 104 deaths).<sup>18</sup>

In 2008, lung cancer was the most common cause of cancer death in both men and women, accounting for 23 per cent of deaths in males and 16 per cent of deaths in females. In 2011 lung cancer accounted for 19 per cent (1 559) of all cancer death. Of these, 63 per cent (975) occurred in males. Opposite to this the majority of deaths, of the 10 reported CF deaths, occurred in females in Queensland in 2011.<sup>18</sup>

**Hospitalisations**: In the 12 month period to 30 June 2011, 44 per cent of children aged 0 to 9 years were hospitalised for asthma in Queensland. In contrast, COPD and respiratory infections and inflammatory conditions predominantly affect the older age groups (60+ years) despite being the top two leading cause of overnight admission. <sup>16</sup>

Respiratory illness is the second most common cause of hospitalisation for Aboriginal and Torres Strait Islander people nation-wide, 4 to 5 times higher for pneumonia, COPD and bronchiectasis. It is also the most common reason for hospitalisation of Aboriginal and Torres Strait Islander infants and children aged 1 to 14 years.

In 2011–2012 lung cancer and CF patients accounted for 4557 and 1007 hospitalisations respectively. The average length of stay, for hospitalisations in both CF and lung cancer, increased with increasing age. The average length of stay per hospital separation for lung cancer was 10.2 days whilst almost half (49 per cent) of CF hospitalisations resulted in an average length of stay of 14 days. 16, 19

## 3. Utilisation of respiratory medicine services in Queensland

A summary of respiratory medicine outpatient and inpatient service activity in Queensland from 2007-2008 to 2011-2012 is provided below. A comprehensive summary of respiratory medicine service utilisation in Queensland was outlined in Background Paper 3: Activity profile.

## 3.1 Specialist outpatient clinics

Public sector specialist respiratory medicine outpatient service is delivered in the hospital setting. The occasions of service (OOS) may include examinations, consultations, and performance of clinical measurements (e.g. spirometry or lung function testing) or other services for patients requiring management or maintenance of a respiratory condition.

A review of the outpatient clinic activity in 2011-2012 showed:

- respiratory clinics provided 87,074 OOS, an increase of 6 per cent (4602 OOS) from the previous five year period. Repeat patient clinic consults increased by 9 per cent (5006) to 60,077 OOS
- **CF clinics** provided 9527 OOS, an increase of 119 per cent (5174) in the period from 2009-10 to 2011-12. However these figures may underestimate actual activity as only nine of the seventeen HHSs plus Mater Public Hospitals reported repeat patients, and only three reported new patient activity
- **sleep disorder clinics** provided 7377 OOS, an increase of 55 per cent (2616) in the five year period from 2007-2008 to 2011-2012 however these figures may underestimate actual activity as only four of the seven sleep disorder centres supplied data.

## 3.2 Inpatients

A review of the public inpatient activity for the 2007-2008 to 2011-2012 showed:

- same day and overnight separations increased by 19 per cent (8519 separations)
- same day separations increased by 43 per cent (or 3724 separations) while overnight separations increased by 14 per cent (or 4795 separations)
- same day lung cancer separations decreased by 43 per cent (231 separations) and overnight by 25 per cent (331 separations)
- the three leading causes of overnight admission were respiratory infections and inflammations (66,596 separations), COPD (57,296 separations) and bronchitis and asthma (30,254 separations)
- greater than 1.5 million bed days were provided for patients with respiratory conditions with overnight bed days accounting for 95.8 per cent or 1,477,053 bed days
- the statewide average length of stay in public facilities for patients admitted for the Service Related Group–Respiratory Medicine (excluding sleep apnoea) reduced

from 4.4 days to 3.7 days, compared to a reduction of 0.3 days (down to 6.4 days) in private facilities.

## 4. Respiratory medicine services in Queensland

Respiratory medicine services include diagnosis, treatment and management planning (which may start in the primary care sector), treatment in both ambulatory and inpatient settings, and transition to community care for management, including by allied health services such as physiotherapy, dietetics and psychology. A comprehensive summary of respiratory medicine services in Queensland was outlined in Background Paper 4: Service profile.

#### 4.1 Public sector

A snapshot of Queensland public sector respiratory medicine services reported that as at May 2013, respiratory medicine services were provided across both hospital and community settings and generally available to people over 15 years, with support available for target groups such as children and Aboriginal and Torres Strait Islanders where needed. Fewer specialist respiratory services were available to children and young people.

A range of service options, depending on the type and acuity of the respiratory condition are available across the public sector and may include access to specialist outpatient clinics, inpatient care, medical oncology, specialised sleep or CF centres, pulmonary rehabilitation, bronchoscopy and patient education and support. Whilst all these options are available the extent of capability to provide services at individual facilities differs.

In 2013, six public sector hospitals reported having dedicated respiratory beds. Of these dedicated respiratory beds, The Prince Charles Hospital had the largest capacity at 53, followed by Princess Alexandra Hospital (28), and the Gold Coast Hospital (20).

#### 4.2 Private sector

Respiratory medicine services are delivered in a range of health settings beyond the public sector by general practitioners and practice nurses, various private health care consultants and/or Medicare Locals. These health service providers deliver a diverse range of preventative, primary and ambulatory care, acute services, education, and/or maintenance services for people at risk of, or diagnosed with, a respiratory condition.

In 2013, 18 private hospitals reported having dedicated respiratory beds. Of these dedicated respiratory beds, Metro South HHS had the largest capacity at 55 beds, followed by Metro North HHS (34 beds) and Darling Downs (19 beds).

## 4.3 Non-government organisations

Non-government organisations and peak bodies such as the Lung Foundation Australia and Asthma Foundation Queensland provide advocacy, information and support to patients and clinicians, and deliver a range of respiratory services across different health settings. Key patient support initiatives include:

- Lungs in Action, a community-based, self-managed pulmonary rehabilitation program for COPD patients
- community support programs providing training in best practice asthma management
- Asthma Child and Adolescent Program delivering training to schools and preschools in emergency response protocols.

## 5. Policy and practice environment

The section outlines the relevant policies, frameworks, guidelines and standards from a global, national and local perspective, influencing the design of the statewide respiratory medicine service directions. A comprehensive summary of the respiratory medicine policy and practice environment was outlined in Background Paper 5: Policy and practice review.

## 5.1 International oversight

The World Health Organisation (WHO) Global Alliance against Chronic Respiratory Disease (GARD) <sup>20</sup>, a voluntary alliance of national and international organisations, institutions and agencies, articulates a commitment to reduce the global burden of respiratory diseases through advocacy, partnership, support and prevention.

In 2007, GARD developed the stepwise framework to prevent and control chronic respiratory disease. The framework provides an approach that guides action to achieve better health outcomes for people with respiratory conditions through estimating population need and advocating for action, formulating and adopting policy, and identifying and supporting implementation processes.

## 5.2 National agenda

Respiratory medicine services have experienced an increased profile in the previous two decades due in part to asthma being identified as a National Health Priority Area in 1999. The national health priority status enhanced the profile of respiratory medicine services and resulted in the establishment of the Australian Centre for Asthma Monitoring (ACAM) to assist in reducing the burden of asthma in Australia by developing, collating and interpreting data relevant to asthma prevention, management and health policy.

ACAM, in collaboration with AIHW, produces a number of focussed publications highlighting key messages relating to asthma, and recently COPD, to advocate for, and focus attention on, the significant burden to the community of respiratory diseases.<sup>5,16,</sup> <sup>21</sup>

In line with this advocacy role at the national level is the delivery of Australia-wide programs which act to limit the prevalence of respiratory disease. The Australian National Preventive Health Agency (Promoting a Healthy Australia), established on 1 January 2011, focuses on the minimisation of risk factors that contribute to the development of respiratory diseases or the exacerbation of an existing respiratory condition with a hope to deliver 'a healthy Australian society, where the promotion of health is embraced by every sector, valued by every individual, and includes everybody'.<sup>23</sup> Such initiatives include:

- Tobacco Plain Packaging Act 2011<sup>22</sup> and the associated Trade Marks Amendment (Tobacco Plain Packaging) Act 2011<sup>23</sup>, acting to prohibit the use of logos, brand imagery, symbols, other images, colours and promotional text on tobacco packaging and products
- Shape up Australia<sup>24</sup>
- Immunise Australia Program.<sup>25</sup>

## **5.2.1 National Health Reform Agreement**

The objective of the National Health Reform Agreement is to improve health outcomes for all Australians, and ensure a responsive and enduring Australian health system. For Queensland, being party to this agreement ensures the Queensland Government will:

- · secure funding for health care services well into the future
- receive funding to tackle health issues such as access to emergency departments, elective surgery and more hospital beds
- collaborate on policy and planning for preventative and primary health care services.

The reforms will deliver significant benefits to healthcare in Queensland. The most important of these are increasing the use of primary health care, a stronger patient-centred focus, engaged clinicians, consumers and community, and a stronger emphasis on coordinated services.

## 5.3 Queensland agenda

#### 5.3.1 Queensland Health reform

In Queensland, the *Hospital and Health Boards Act 2011*<sup>4</sup> preserves national health reform to deliver stronger local control and decision-making, better governance and stronger engagement with clinicians for better health outcomes. This will be achieved by:

- strengthening local decision-making and accountability, local consumer and community engagement and local clinician engagement
- providing for statewide health system management including health system planning, coordination and standard setting
- balancing the benefits of local and system-wide approaches.

The overall management of the public health care sector is the responsibility of Department of Health. These responsibilities include:

- · statewide planning
- · managing statewide industrial relations
- · managing major capital works
- · monitoring service performance
- issuing binding health service directives to services.

HHSs as statutory bodies are the principal providers of public sector health services. Each HHS is independently and locally controlled by a HHB. The functions of HHSs and the responsibilities of the boards, as they relate to respiratory medicine services, are to:

- deliver the service, including teaching and research
- ensure operations of the service are carried out efficiently, effectively and economically by monitoring and improving the quality of the service
- cooperate with other providers, including other services, and the department, in planning for, and delivering, the service including arranging the provision of the service to public patients in private health facilities
- manage the performance of the service against performance measures and provide performance data and other data to Department of Health.

## 5.3.2 Blueprint for better health care in Queensland

Released in February 2013, the *Blueprint for better healthcare in Queensland* is described as the action plan to move the Queensland healthcare system into the future, providing the best services, at the best time and in the best place. To achieve this outcome the *Blueprint for better health care in Queensland* has four principal themes:

- health services focused on patients and people
- empowering the community and our health workforce
- providing Queenslanders with value in health services
- investing, innovating and planning for the future.

## 5.3.3 Department of Health Strategic Plan 2012-2016 (2013 update)

The Department of Health Strategic Plan 2012-2016 (2013 update)<sup>3</sup> is a core planning document for the department articulating the vision of 'quality healthcare that Queenslanders value' and identifying four health system outcomes. These outcomes are:

- Queenslanders live longer, healthier and more independent lives
- health equity is improving
- Queenslanders have confidence that their health system responds well to their needs
- the health system is affordable sustainable and continually improving.

## **Appendices**

## Appendix 1 Guide for respiratory medicine service provision

Respiratory medicine services are a specialised area of medicine and healthcare involved in the diagnosis, treatment and management of patients with a respiratory condition. Some respiratory medicine services can be provided widely across the state while some need to be concentrated at specific facilities due to clinical expertise and infrastructure requirements. Service networks and/or partnerships, configured to meet local need, provide essential service links that support the delivery of safe and sustainable respiratory medicine services.

The care offered by respiratory medicine services should conform as far as possible to clinical protocols and/or guidelines established locally or by authoritative, external, professional organisations. Minimising treatment variation reduces the risk of error and facilitates the provision of consistent high quality care.

The CSCFv3.1 provides a standard set of minimum capability criteria for service delivery and planning. Within the CSCFv3.1, clinical services are categorised into six capability levels with Level 1 managing the least complex patients and Level 6 managing the highest level of patient complexity (Figure 1).

As a general rule, service levels build on previous service level capability. For instance, service Level 6 should have all the capabilities of services up to Level 5 plus additional capabilities resourcing the most highly complex service.

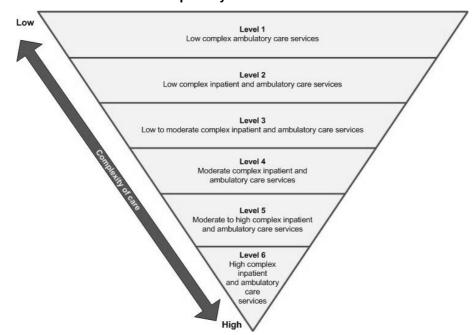


Figure 1 Clinical Services Capability Framework v3.1 Levels

Source: Clinical Services Capability Framework v3.1

The CSCFv3.1 was developed in a modular form, each module describing the requirements for a specific service speciality. A dedicated CSCFv3.1module for respiratory medicine services does not exist. Instead, capability requirements for respiratory medicine services are currently addressed within the Medical Services and Children's Medical Services Clinical Services modules (available at <a href="https://www.health.gld.gov.au/cscf">www.health.gld.gov.au/cscf</a>).

As an indicative tool to influence future development of respiratory medicine services, a guide to respiratory medicine service provision (using the medical services modules, both adult and children, as the foundation) is provided in Table 1.

Table 2 Guide for respiratory medicine service provision

CSCFv3.1 Level <sup>+</sup>	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Health facility <sup>++</sup>	Community MPHS	Rural MPHS/ community hospital	Medium / district hospital	Large regional / metropolitan hospital	Major regional / metropolitan hospital	Major metropolitan hospital / Specialist service
Medical Services						
lung transplantation service						statewide
cystic fibrosis service					(✓)	statewide
specialist tuberculosis service					(✓)	statewide
specialist respiratory medicine service					✓	✓
sleep medicine service with a sleep laboratory					(✓)	✓
sleep medicine service without a sleep laboratory				(✓)	✓	✓
thoracic surgical services					access to	✓
pulmonary hypertension service						✓
non-invasive ventilation service			access to	✓	✓	✓
inpatient medical services for adults and children		✓	✓	✓	✓	✓
outpatient services	✓	✓	✓	✓	✓	✓
management of chronic disease	✓	✓	✓	✓	✓	✓
population health service e.g. immunisation	✓	✓	✓	✓	✓	✓
Clinical and support services						
allied health services including physiotherapy	access to	access to	✓	✓	✓	✓
pulmonary rehabilitation service	access to	access to	(✓)	✓	✓	✓
patient education service	✓	✓	✓	✓	✓	✓
smoking cessation service	<b>√</b>	✓	✓	✓	<b>√</b>	✓
generic exercise program	access to	access to	✓			
bronchoscopy service				access to	✓	✓
complex procedures e.g. Thorascopy, EBUS						✓

CSCFv3.1 Level <sup>+</sup>	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Health facility <sup>++</sup>	Community MPHS	Rural MPHS/ community hospital	Medium / district hospital	Large regional / metropolitan hospital	Major regional / metropolitan hospital	Major metropolitan hospital / Specialist service
medical imaging	access to	access to	✓	✓	✓	✓
telehealth	✓	✓	✓	✓	✓	✓
Clinical measurement						
spirometry	✓	<b>✓</b>	✓	✓	✓	✓
complex lung function test				access to	(✓)	✓
Workforce profile						
specialist respiratory physician			access to	access to	(✓)	✓
generalist medical practitioner	access to	✓	✓	✓	✓	✓
specialist respiratory nurse			(✓)	✓	✓	✓
nurse practitioner, non-specialised	(✓)	(✓)	✓	✓	✓	✓
allied health, specialised				(✓)	✓	✓
allied health non-specialised	access to	access to	✓	✓	✓	✓
sleep scientist				access to	(✓)	✓
respiratory scientist			access to	access to	✓	✓
clinical educator	(✓)	<b>√</b>	✓	✓	✓	✓
Aboriginal and Torres Strait Islander health worker	✓	✓	✓	✓	✓	✓

✓ expected service level(✓) desired service level

EBUS Endobronchial ultrasound biopsy

statewide statewide referral service—in some instances services provided at other levels (in collaboration with statewide specialist service).

access to ability to utilise the service or the skills of a suitably qualified person – without difficulty or delay – via a variety of referral pathways. Access may be provided by

community, non-government sector, outreach clinics or on-referral to larger hospitals within a formal service network.

\* source Rural and remote health service framework and National Health Performance Authority 2013, Hospital Performance: Length of stay in public hospitals in 2011-12,

Technical Supplement (for facilities not included in the Rural and Remote Health Services Framework).

Clinical Services Capability Framework for Public and Licensed Private Health Facilities version 3.1 (available from: www.health.qld.gov.au/cscf)

## **Abbreviations**

ABS	Australian Bureau of Statistics	
ACAM	Australian Centre for Asthma Monitoring	
AIHW	Australian Institute of Health and Welfare	
CF	Cystic Fibrosis	
CHQ	Children's Health Queensland	
COPD	Chronic Obstructive Pulmonary Disease	
CSCF	Clinical Services Capability Framework	
ED	Emergency Department	
GP	General Practitioner	
HHS	Hospital and Health Service	
ННВ	Hospital and Health Board	
HITH	Hospital in the Home	
HSCE	Health Service Chief Executive	
HSCI	Health Service and Clinical Innovation	
HSIA	Health Service Information Agency	
HSRaM	Health Services Research, Analysis and Modelling Unit	
HSU	Health Statistics Unit	
IROC	Indigenous Respiratory Outreach Care	
IT	Information Technology	
PPB	Policy and Performance Branch	
QHAPDC	Queensland Hospitals Admitted Patient Data Collection	
SPP	System Policy and Performance	
SRCN	Statewide Respiratory Clinical Network	
ТВ	Tuberculosis	

## Glossary

Admitted patient (inpatient)	A patient who undergoes a hospital's formal admission process to receive treatment and/or care. Care may
Burden of disease	occur in hospital or in the home.  Burden of disease analysis is a technique used to assess and compare the fatal and non-fatal effects of different diseases (such as asthma and lung cancer) among population groups and over time. It combines data around premature death, measured by the years of life lost, and non-fatal health outcomes, measured by years lost due to disability into a summary measure called the DALY (disability-adjusted life years).
Care coordination	Care coordination is a comprehensive approach to achieving continuity of care for patients. This approach seeks to ensure that care is delivered in a logical, connected and timely manner so that the medical and personal needs of the patient are met. In the context of respiratory medicine services, care coordination encompasses multiple aspects of care delivery including coordination between primary and acute care services, and a multidisciplinary team (including allied health services) interface.
Inpatient	Another term for an admitted patient.
Mortality (deaths)	The number of deaths in a defined population during a specified time period regardless of when the diagnosis was made.
Multidisciplinary team (MDT)	A multidisciplinary team should comprise the core disciplines integral to the provision of good care. Team membership will vary according to an individual respiratory condition but should reflect all appropriate aspects of care. Inclusion of a supportive care provider in the core team is essential—this may be a respiratory nurse, physiotherapist or care coordinator. The patient's general practitioner is also a member of the team. Additional expertise or specialist services may be required for some patients.
New patient	The first attendance under a new health professional's care would be classified as a 'new patient' occasion of service.
New to repeat (outpatient) ratio	Comparison of patient first attendances at an Outpatient Department Clinic to occurrence of patients returning for repeat services.
Occasions of service (OOS)	Occasions of service include any examination, consultation, treatment or other service provided to a non-admitted patient in each functional unit of a health service facility on each occasion such service is provided
Outpatient	Another term for a non-admitted patient who does not undergo a hospital's formal admission process to receive treatment and/or care.

Overnight	An overnight (or longer) stay patient is a patient who is admitted to and separated from the hospital on different dates.
Prevalence	Prevalence represents the number of people living with a chronic condition such as cancer and is a measure of the burden of the disease in the community.
Same day	A same day patient is a person who is admitted and separated on the same date.
Separation	The term used to refer to an episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation).
Telehealth / telemedicine	Consultations provided to patients using videoconferencing technology where consultations are reported as an occasion of service.
Same day	A same day patient is a person who is admitted and separated on the same date.

## References

- Australian Bureau of Statistics. 4364.0.55.001 Australian Health Survey: First Results, 2011-12: 2012 updated 29 October 2012; Accessed 25 March 2013; Available from: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4364.0.55.001main+features12011-12.
- 2. Queensland Health. Blueprint for better healthcare in Queensland: 2013 updated February 2013; Accessed 12 April 2013; Available from: www.health.qld.gov.au/blueprint.
- 3. Queensland Health. Queensland Health Strategic Plan 2012 2016: 2012 updated 4 June 2013; Accessed 5 June 2013; Available from: http://www.health.gld.gov.au/about\_ghealth/strat\_plan/12-16/.
- 4. Queensland Government Hospital and Health Boards Act 2011, Queensland Government. Brisbane 2011
- 5. Australian Institute of Health and Welfare. Asthma, chronic obstructive pulmonary disease and other respiratory diseases in Australia. Cat no. ACM 20. Report 2010.
- 6. Cystic Fibrosis Australia. Cystic Fibrosis in Australia 2011. 14th Annual Report Australian Cystic Fibrosis Data Registry. Report 2012.
- 7. Queensland Health. The health of Queenslanders 2012: advancing good health. Fourth report of the Chief Health Officer Queensland 2012
- 8. Access Economics. Re-awakening Australia: The economic cost of sleep disorders in Australia, 2010. Report 2011.
- Queensland Government. Cancer in Queensland: A statistical overview 2012.
   Report 2012.
- 10. Department of Health. Guide to Health Service Planning Version 2 (2012). Brisbane Queensland Government; 2012.
- 11. Government Statistician. Population Growth Highlights and Trends, Queensland February 2013, Queensland Treasury and Trade. Report 2013.
- 12. Office of Economic and Statistical Research. Queensland Government population projections to 2056: Queensland and Statistical Divisions 2011 edition. Queensland Government.2011
- 13. Office of Economic and Statistical Research. Queensland Government population projections to 2031: Local government areas 2011 edition. Queensland Government.2011
- 14. Government Statistician. Census 2011: Aboriginal and Torres Strait Islander Population in Queensland. Queensland Treasury and Trade. 2012. Report.
- 15. Australian Bureau of Statistics. 3302.0 Deaths, Australia 2011: 2012; Accessed 15 March 2013; Available from: http://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0.
- 16. Australian Institute of Health and Welfare. Asthma in Australia with a focus chapter on chronic obstructive pulonary disease. Cat no.ACM 22. Report 2011.
- 17. Bell S Bye P Cooper P Martin A McKay K Robinson P Ryan G Sims G. Cystic fibrosis in Australia, 2009: results from a data registry. Medical Journal of Australia. 3 October 2011;195(3):396-400.

- Australian Bureau of Statistics. 3303.0 Causes of Death, Australia, 2011. Underlying causes of death (Queensland): 2013 updated 15 March 2013; Accessed 25 March 2013; Available from: http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/3303.0/.
- 19. Department of Health. Queensland Hospital Admitted Patient Data Collection (QHAPDC), Data Version 1, 2012-13. Data Collections Unit; Extracted 10 April 2013: 2013.
- 20. World Health Organisation. Global Alliance Against Chronic Respiratory Disease: 2006 updated 2013; Accessed 27 May 2013; Available from: http://www.who.int/respiratory/gard/en/.
- 21. Australian Institute of Health and Welfare. Asthma among older people in Australia. Cat.no ACM.19. Report 2010.
- 22. Australian Government Tobacco Plain Packaging Act 2011. Rule No. 148, Australian Government2011
- 23. Australian Government Trade Marks Amendment (Tobacco Plain Packaging) Act 2011. Rule No. 149, Australian Government2011
- 24. Australian Government. Shape Up Australia: 2013 updated 24 May 2013; Accessed 26 May Available from: http://www.shapeup.gov.au/.
- 25. Australian Government. Immunise Australia Program: 2010 updated 15 January 2013; Accessed 15 May 2013; Available from: http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/ab out-the-program.