2018 Health Workforce Needs Assessment

Summary Report

Our Vision

To ensure optimal health workforce to enhance the health of Queensland communities.

Our Mission

Creating sustainable health workforce solutions that meet the needs of remote, rural and regional and Aboriginal and Torres Strait Islander communities.

Our Values

Integrity

We behave in an ethical and professional manner at all times showing respect and empathy.

Commitment

We enhance health services in rural and remote Queensland communities.

Equity

We provide equal access to services based on prioritised need.

Table of Contents

Strategic Plan 5
Introduction 6
- Introduction and Purpose 7
- Scope 8
- Eligible Professions 9
- Guiding Principles 10

Methodology 11
- Health Workforce Needs Assessment Process 12
- Desktop Audit 13
- Quantitative Methodology 14
- Limitations of SA2 Prioritisation Approach 15
- Online Survey 15
- Triangulation and Analysis of Data 16
- Validation of Findings 16
- Stakeholder Engagement 16

Findings – Workforce & Service Gap Ratings 17
- Online Survey Findings 18
- State-wide Workforce Gap Ratings 19
- State-wide Service Gap Ratings 18

Findings - Access 20
- Key Workforce Issues 21

Findings - Quality 25
- Key Workforce Issues 26

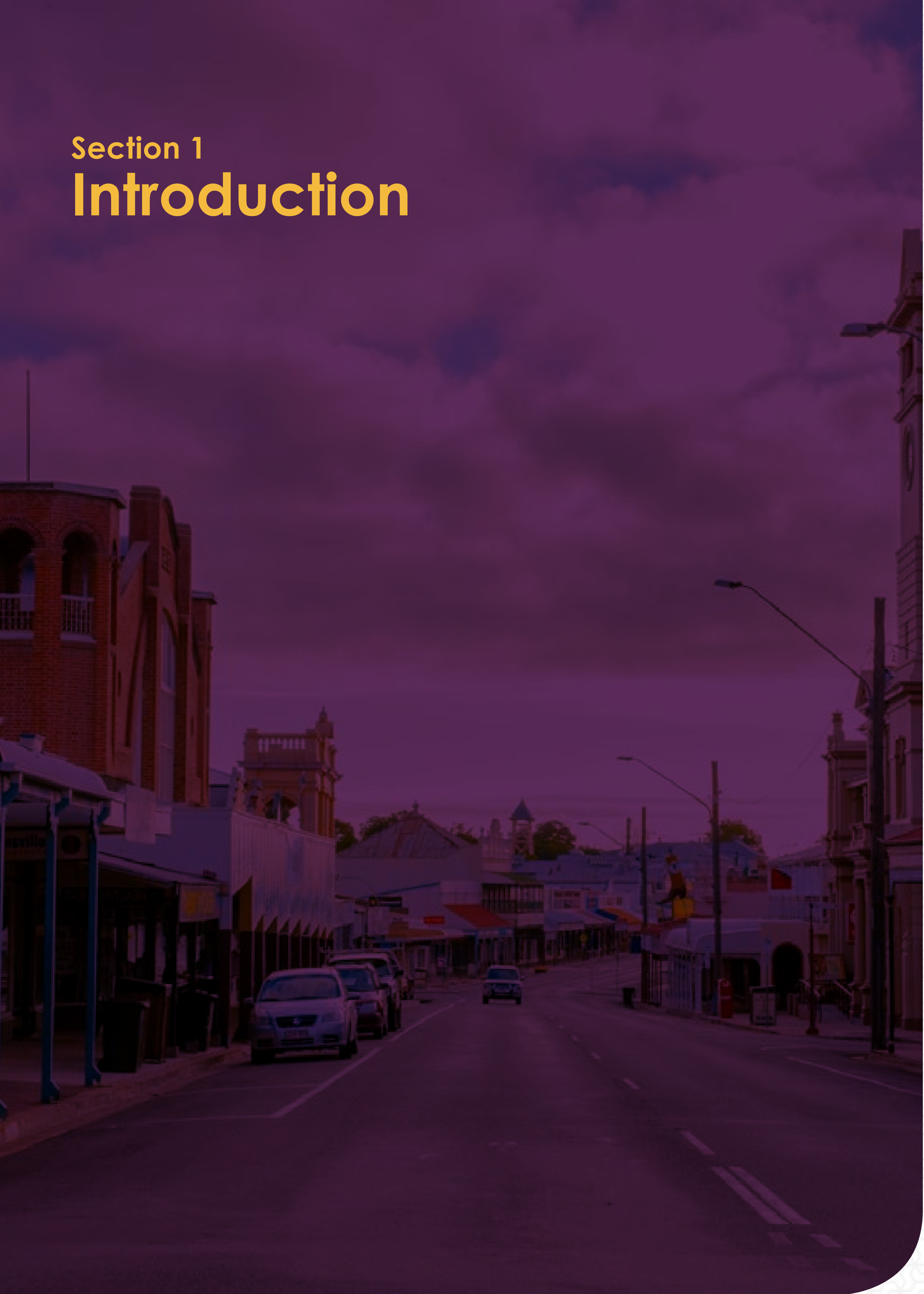
Findings - Sustainability 27
- Key Workforce Issues - Sustainability 28

Appendices 30
- Appendix 1: Priority SA2s by PHN Region 31
- Appendix 2: Mean Workforce and Service Gap Ratings by PHN 35

Strategic Plan

Our Goals	Our Objectives
Identify health workforce needs of remote and rural communities that need it the most	Increase the health workforce evidence base
	Prioritise health workforce needs
	Validate health workforce needs
Increase access to health professionals for Aboriginal and Torres Strait Islander communities	Supply highly skilled, culturally competent health professionals when and where they are needed
	Support the Indigenous health workforce
	Develop a 'locally grown' health workforce
Deliver evidence-based and locally responsive health workforce solutions	Use a planned and collaborative approach to develop health workforce solutions
	Deliver services to improve access, quality and sustainability of primary health care workforce
The Agency fosters high quality service delivery	Develop our people and culture
	Improve our Agency capability and systems

Section 1
Introduction



Introduction and Purpose

As part of a new funding agreement in 2017/2018 with the Australian Government Department of Health, (referred to as 'the Department'), Health Workforce Queensland was asked to undertake an annual state-wide 'all of health' workforce needs assessment for remote and rural Queensland, leveraging off the comprehensive health and service needs assessments undertaken at regional levels through the Primary Health Networks (PHNs) and others.

With a focus on the primary health care landscape, the Health Workforce Needs Assessment (HWNA) identifies high priority locations, professions and workforce requirements to develop and support evidence-based and effective models of service delivery in remote and rural Queensland.

The purpose of the HWNA is three-fold. It will:

1. Identify priority Statistical Areas Level 2 (SA2) locations across Queensland with regards to health workforce;
2. Inform and prioritise the utilisation of Health Workforce Queensland resources; and
3. Inform outcomes to the Department for program planning and policy development.

The HWNA contributes to the development and implementation of an evidence-based Activity Work Plan (AWP), to address national and specific priorities relating to localised health workforce needs and service gaps. Information used to inform the HWNA was sourced from available data sources and from consultations with communities, health professionals and stakeholders. As a key part of the process, a formal jurisdictional Health Workforce Stakeholder Group (HWSG) was also created to provide strategic advice and expertise to inform planning, analysis and strategy development.

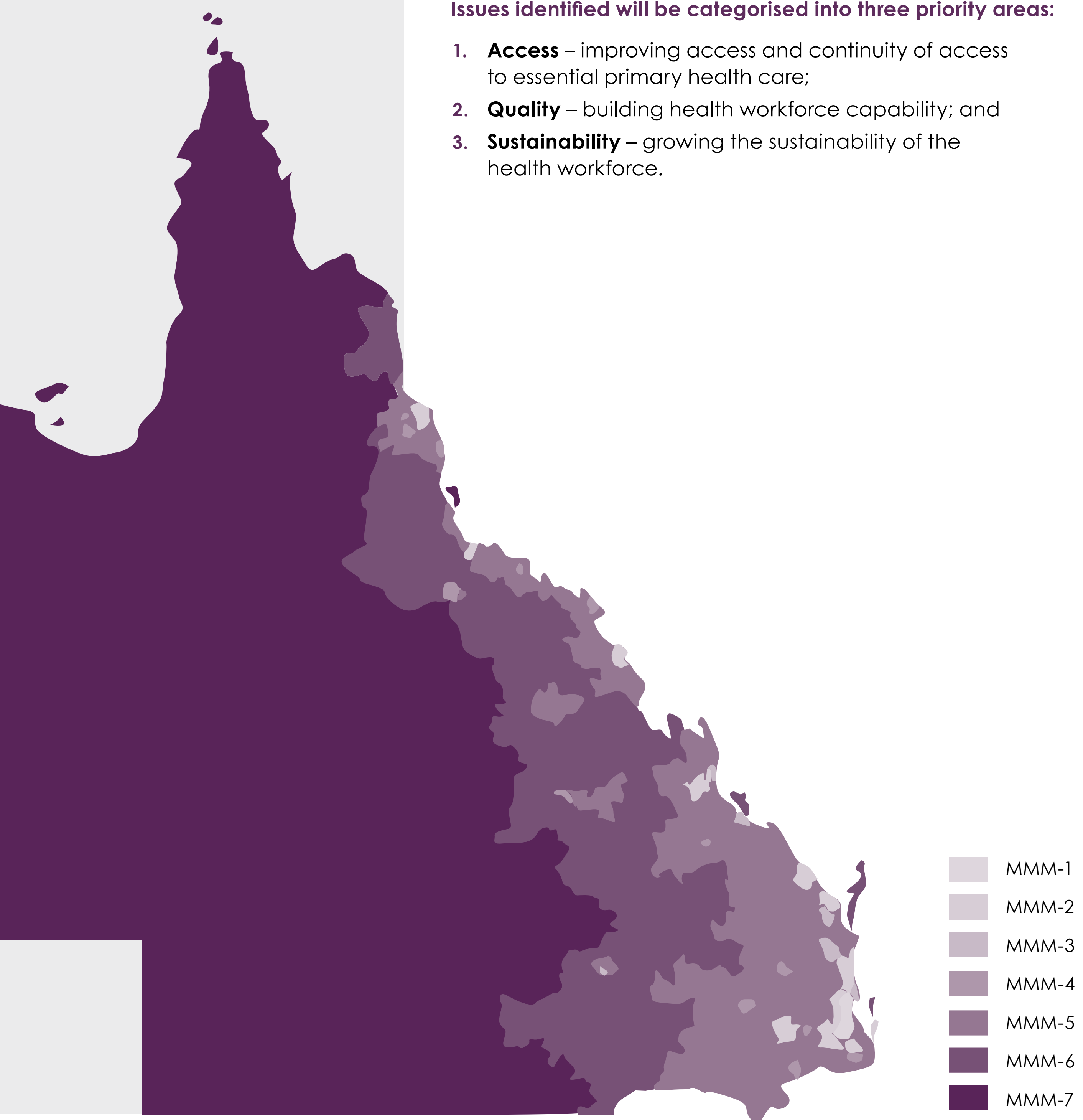
Scope

The inaugural HWNA developed a baseline understanding of the primary health care workforce needs of populations and communities in Modified Monash Model (MMM) areas 2-7 in Queensland.

It integrated demographic, population health and workforce data alongside structured consultations and considered populations with special needs and those at risk of poorer health outcomes.

Issues identified will be categorised into three priority areas:

1. **Access** – improving access and continuity of access to essential primary health care;
2. **Quality** – building health workforce capability; and
3. **Sustainability** – growing the sustainability of the health workforce.



Eligible Professions

The list of eligible professions for support, as agreed upon by the HWSG, included in the HWNA and the AWP are:

- Aboriginal and Torres Strait Islander Health Worker
- Allied Health Assistant
- Alcohol and Other Drugs Worker
- Audiology
- Dental Hygiene
- Dentistry
- Diabetes Education
- Dietetics
- Exercise Physiology
- Family Support Worker
- Health Promotion
- Medical Imaging (Radiography, Sonography)
- Medical Receptionist
- Medicine
- Nursing and Midwifery
- Nutrition
- Occupational Therapy
- Optometry
- Paramedic
- Pharmacy
- Physician Assistant
- Physiotherapy
- Podiatry
- Practice Manager
- Psychology and other Mental Health Professions
- Social Work
- Speech Pathology

Health professionals involved in education, supervision and mentoring in priority locations were also included.

Guiding Principles

The identification of "hot spot" locations forms part of the reporting requirements for the HWNA. The "hot spot" locations developed through data analysis was presented to the HWSG as part of the HWNA endorsement process. Although there was no particular disagreement on the SA2s identified, there was a reluctance to endorse a static list of locations as it was acknowledged that based on workforce variables, this list could change at any time.

After deliberations with the HWSG, it was agreed that rather than endorsing a list of "hot spot" locations, the HWSG preferred a longer list of SA2s (less exclusionary) and proposed that Health Workforce Queensland develop a set of principles to guide the prioritisation of SA2s to be assisted (not only based on ranking) and suggest actions (if any) that could potentially be undertaken in these regions.

An extended list of priority SA2s by PHN region, as determined by the methodology, was developed and is provided in Appendix 1. There was also a recognition that there can be emerging critical workforce situations at any given time, outside of the listed SA2s. These critical workforce situations will also be measured against the set of principles below to determine if they should be prioritised and if so, what course of activities should be taken by Health Workforce Queensland.

Principles to Underpin Prioritising Locations

- A list of priority locations (SA2s) by PHN region, identified through an evidence-based methodology incorporating key measures of remoteness, socioeconomic disadvantage, GP Workforce, Indigenous status and age, will be a guide in the first instance;
- Collaboration with key stakeholders verifies that a locality has a critical workforce need. Determination of workforce need will consider not only the quantity of workforce, but also dimensions of health service accessibility, cultural appropriateness and alignment with community need; and
- Aboriginal and Torres Strait Islander communities with critical workforce need are the highest priority.

Principles to Underpin Health Workforce Queensland Activities in Prioritised Locations

Once a location is identified, an assessment will be made as to whether any Health Workforce Queensland activities will be undertaken based on the following principles.

- Collaboration with key stakeholders validates that there is potential for Health Workforce Queensland to play a role in addressing identified workforce issues;
- Mechanisms already in place to address workforce issues are considered in the first instance;
- Workforce solution elements identified to be the role of Health Workforce Queensland align with its funding parameters and available resources;
- The impact of workforce gaps in each locality are considered and prioritised accordingly;
- Potential workforce solutions are developed in collaboration with key stakeholders within the locality;
- The workforce needs of Aboriginal and Torres Strait Islander Community Controlled Health Services are an embedded priority;
- Potential workforce solutions are viable, sustainable and in alignment with community need; and
- Workforce solutions requiring Health Workforce Queensland's involvement over the long term are given equal consideration to those where workforce needs can be addressed in the short term.

Section 2
Methodology

Health Workforce Needs Assessment Process

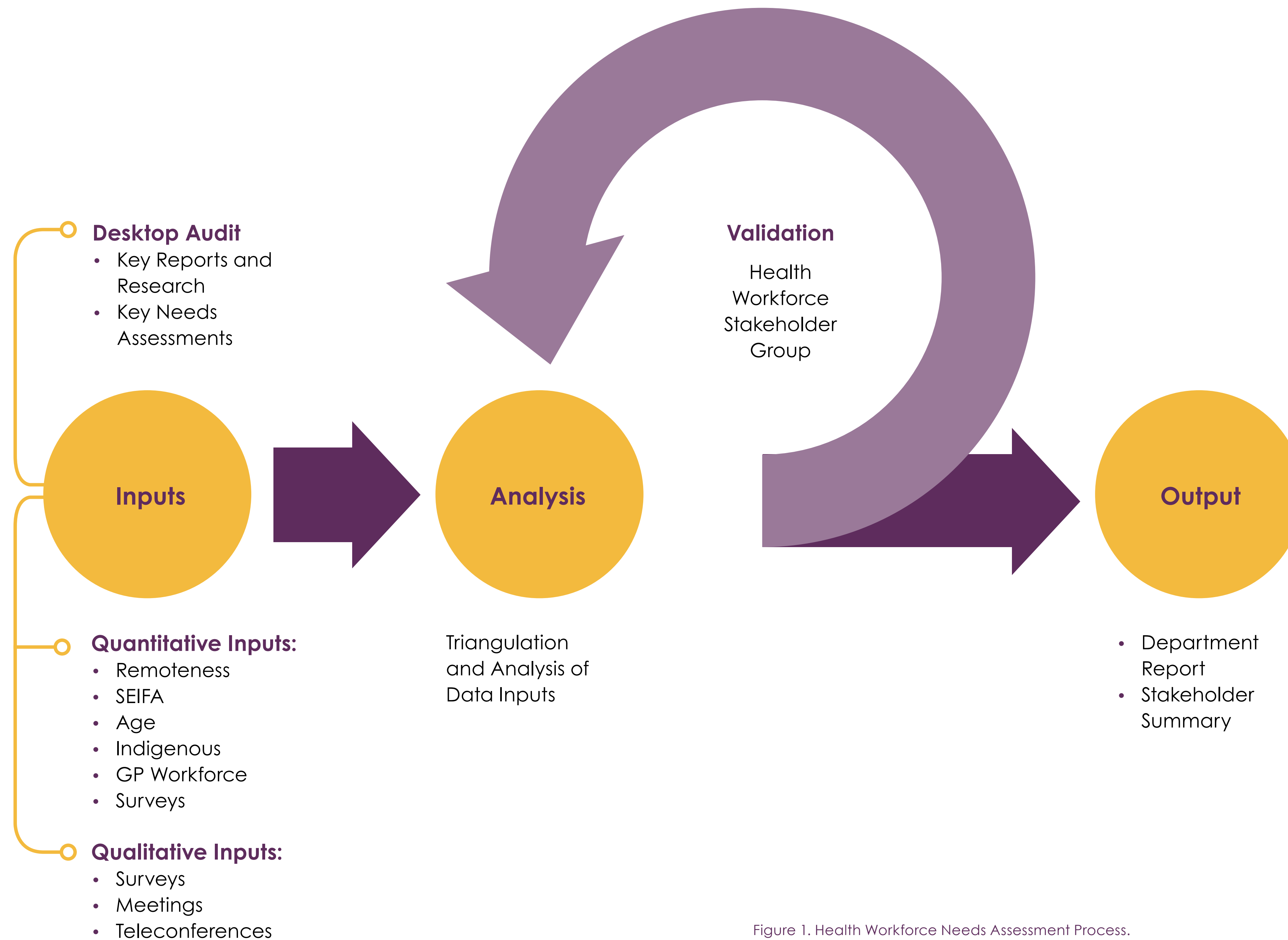


Figure 1. Health Workforce Needs Assessment Process.

The HWNA Process is comprised of several phases (Figure 1) including:

1. Desktop audit;
2. Determine and stratify the relative health workforce risk of Queensland communities by SA2 using quantitative and qualitative data;
3. Triangulation and analysis of data;
4. Validation of findings;
5. HWNA final reports.

Desktop Audit

A desktop audit was undertaken through a search of grey literature, journal publications and website searches such as published reports, frameworks, needs assessments, projects and policy documents.

All PHNs within the HWSG provided Health Workforce Queensland with their latest needs assessment reports. Literature was reviewed with specific attention to the three key themes: Quality, Access, and Sustainability. Data was entered into a thematic spreadsheet to be drawn upon in the analysis phase.

Quantitative Methodology

A quantitative methodology was developed across Australia with other state and jurisdiction Rural Workforce Agencies so that there was a nationally consistent approach.

Data from a number of sources was stratified to SA2 in MMM 2-7 Queensland. These included:

Population level data obtained from the Australian Bureau of Statistics:

- **a.** Index of Relative Socio-economic Advantage and Disadvantage (IRSAD)
- **b.** Estimated resident population (2016)
- **c.** Population aged < 5 or > 65 years
- **d.** Aboriginal and Torres Strait Islander status

The Australian Government Department of Health – DoctorConnect website was accessed to determine the MMM geographic coding(s) for each community in the state; and General Practitioner (GP) Full Time Equivalent (FTE) data was extracted from Health Workforce Queensland's own database.

Firstly, SA2s were categorised according to their health need by remoteness (MMM 2-7) and SEIFA index and filtered into Extreme, High, Medium and Low risk quadrants (Figure 2).

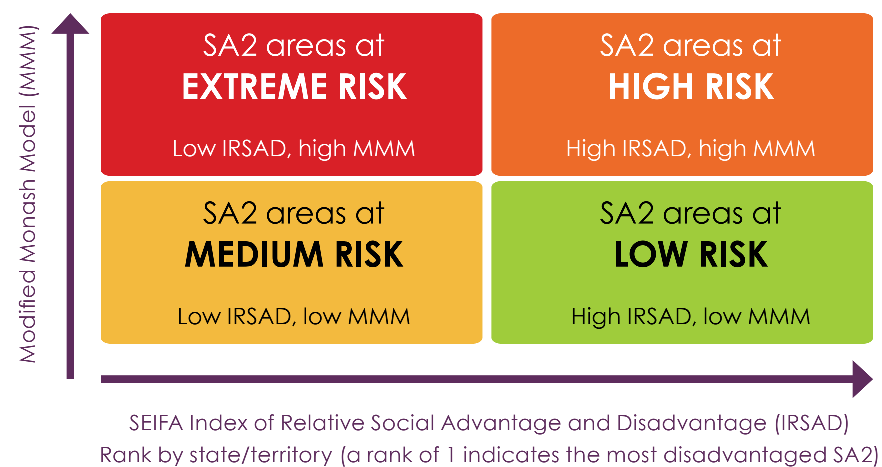


Figure 2. Categorisation of SA2 areas in quadrants based on remoteness and socio-economic disadvantage.

The next step involved applying GP FTE numbers to the estimated resident population (2016) by SA2 to provide a ratio for each SA2. This ratio was used for ranking purposes.

Separate GP FTE ratios were then developed for two vulnerable population characteristics (aged < 5 or > 65 years and people who identified as Aboriginal and/or Torres Strait Islander). These ratios were used for ranking purposes.

Finally, all SA2s that fell in the extreme quadrant were ranked based on MMM, SEIFA (IRSAD), GP FTE to population ratio, GP FTE to vulnerable population by age (aged < 5 or > 65 years) ratio, and GP FTE to Indigenous population ratio. An overall rank for SA2s was then calculated based on the sum of all five rankings. SA2s ranked most highly for each PHN were treated as an indicator of possible ongoing workforce need (see Appendix 1 for prioritised lists by PHN).

Limitations of SA2 Prioritisation Approach

There are some important limitations of the methodology that are acknowledged by Health Workforce Queensland.

This approach does not take into account other factors such as visiting workforce, prevalence of disease, or service demand. In addition, only GP workforce data was used and does not include workforce data relating to other health professions. Workforce numbers were based on Health Workforce Queensland's own database only and may not reflect the full extent of GP workforce within each region. Furthermore, some SA2s had no available GP workforce data that eliminated them from the ranking process. Further investigation and stakeholder engagement will be needed to identify current workforce needs or issues within priority SA2s within each PHN. Subsequent needs assessments could build on this approach by incorporating a broader range of indicators of workforce need.

Online Survey

An online survey was conducted targeted at GPs, practice managers, primary health care nurses, Aboriginal and Torres Strait Islander health workers and allied health professionals working in MMM 2-7 locations.
Survey items were developed to gauge health practitioner and health service manager beliefs about workforce and primary care service gaps in their community(s) of practise.

The survey items were phrased as statements (e.g. 'There is a serious gap in the physiotherapy workforce in my community') and participants were asked to rate their level of agreement. Ratings were from '0 = Strongly Disagree', to '100 = Strongly Agree'.

Higher scores therefore reflected greater agreement that there was a serious workforce gap. There were statements for 18 workforce disciplines (e.g. general practice, pharmacy) and eight primary care services that aligned with identified priorities for the PHNs (e.g. alcohol and other drug services; mental health services).

As part of the online survey, participants were given the opportunity to provide qualitative comments regarding the health workforce and primary care service gaps as well as the collaboration of health services in their community(s) of practise. These were summarised and major themes were drawn out to contribute to the development of key priorities and issues.

Stakeholder Engagement

Consultations and stakeholder engagement meetings were undertaken with regional groups, local councils, PHNs, Aboriginal Community Controlled Heath Services and Hospital and Health Services (HHSs) to determine workforce needs in their relevant regions and where they identified as priority areas. Feedback from these meetings were entered into a thematic spreadsheet alongside the reports to draw out key issues and themes in the analysis stage.

Triangulation and Analysis of Data

Data and information from the quantitative methodology, surveys, and consultations were reviewed and triangulated with external data, including information sourced from the desktop audit as well as integrating relevant research to inform the findings in this assessment. A state-wide summary of needs, key issues and evidence, based on these findings has been developed under the three priority areas Access, Quality and Sustainability.

Strategies were developed in collaboration with the HWSG to ensure the needs and issues are being addressed. It should be noted that not all strategies identified and discussed can be carried out by Health Workforce Queensland but many have been included to reflect the feedback from the HWSG.

Strategies undertaken by Health Workforce Queensland will be in collaboration with various key stakeholders where relevant including:

- Primary Health Care Service Providers
- Outreach Service Providers
- Aboriginal Community Controlled Health Services
- PHNs
- Hospital and Health Services
- Universities
- Colleges
- Registered Training Organisations

Validation of Findings

The HWSG provided an external validation mechanism to ensure that the assessment was a fair and accurate representation of the current workforce challenges and opportunities for remote, rural and regional Queensland. The 2018 HWNA provides a baseline of priorities that will underpin the development of Health Workforce Queensland's Activity Work Plan for 2018-2019.

Section 3

Findings -Workforce & Service Gap Ratings

Online Survey Findings

From a sample size of 495 participants that completed at least one question in the survey (Nurses, Allied Health Practitioners and Allied Health Service Managers survey participants = 58; Practice Managers = 100; Medical Practitioners = 337), overall state-wide workforce and service gap rating means are listed below. For localised findings, PHN workforce and service gap ratings by single and combined SA2s can be found in Appendix 2.

State-wide Service Gap Ratings

Survey items were developed to gauge health practitioner and health service manager beliefs about primary care service gaps in their community(s) of practice (Figure 3). The highest overall primary care service gap ratings were for Alcohol and Other Drug Services (*M* = 58), Mental Health Services (*M* = 58), and Disability Services (*M* = 53).

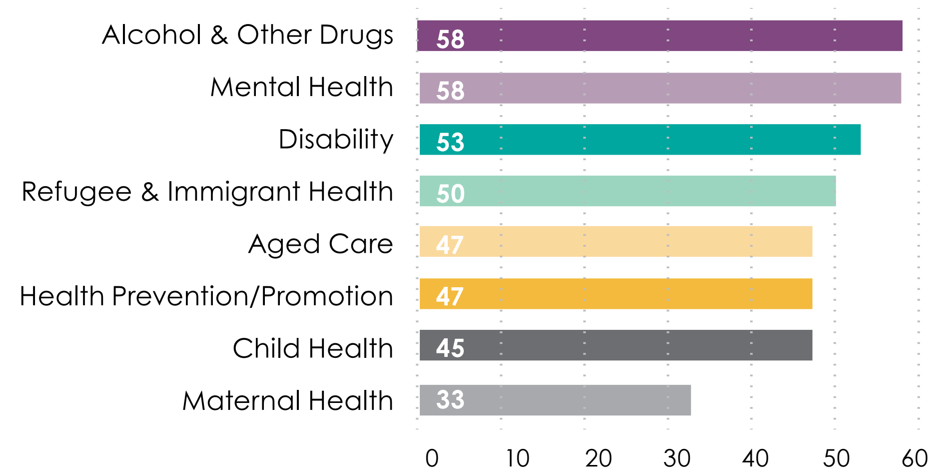


Figure 3. State-wide primary health care service gap mean ratings.

State-wide Workforce Gap Ratings

Survey items were developed to gauge health practitioner and health service manager beliefs about primary health care workforce gaps in their community(s) of practise (Figure 4). The highest overall primary health care workforce gap ratings were for Social Work (*M* = 50), Palliative Care (*M* = 50), Occupational Therapy (*M* = 49) and Psychology (*M* = 47). GP, Nursing and Aboriginal and Torres Strait Islander Health Worker workforce all had similar gap ratings across the state (*M* = 39).

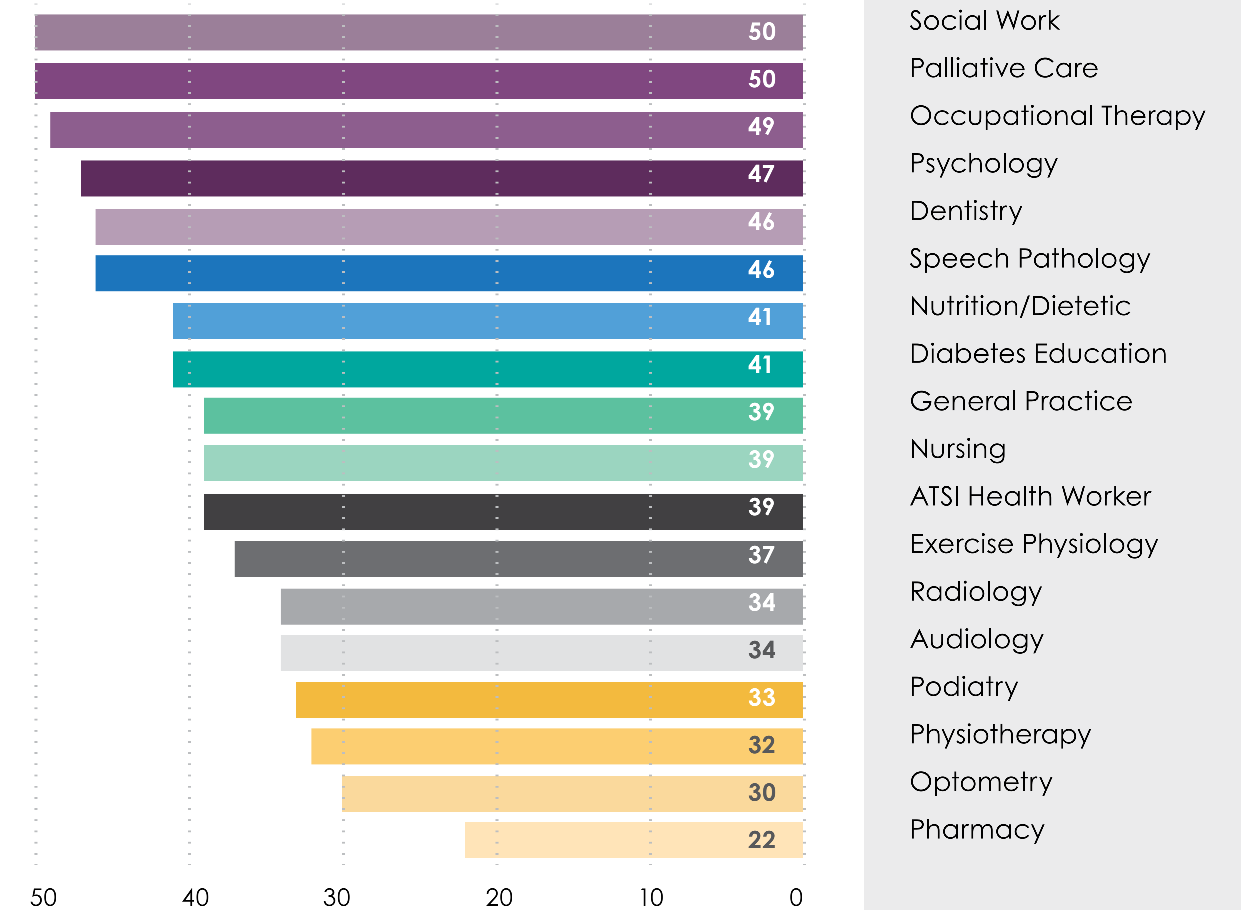


Figure 4. State-wide primary health care workforce gap mean ratings.

Section 4

Findings - Access

As part of the online survey, participants could also provide comments regarding workforce and service gaps. These were summarised and major themes were drawn out to contribute to the development of key priorities and issues. Data from the quantitative methodology, and stakeholder consultations were also reviewed and triangulated with external data, including information sourced from the desktop audit, to inform the key workforce issues. A state-wide summary of needs, key issues, evidence and strategies based on these findings has been developed under three priority areas of Access, Quality and Sustainability in the sections to follow.

Key Workforce Issues

Access to Local Health Workforce

Key Issue

Shortage of GP, nursing, allied health and Aboriginal and Torres Strait Islander health worker workforce in remote, rural and regional Queensland

Evidence	Strategy
• SA2s found to have the lowest number of GPs relative to population size were: Herberton (5738 or 1 GP FTE per 5738), Carpentaria (5065), Torres Strait Islands (4785), Charleville (4391) and Burdekin (4002). • Access to primary health care nursing, allied health and Aboriginal and Torres Strait Islander health worker workforce decreases by remoteness.	• Prioritised communities receive recruitment support including the provision of locums in areas of need. • In collaboration with others, develop methods to monitor the stability of the health workforce and agree upon "next steps" to tackle critical workforce situations. • Provide workforce and service planning support to priority communities. • Employ targeted recruitment and retention packages to priority communities.

Maldistribution of GP Workforce

Key Issue

Inequitable distribution of health workforce in rural areas

Evidence	Strategy
• There remains GP vacancies. Although there are overseas trained doctors willing to accept these positions, they often do not have general registration or vocational registration and cannot be placed in these towns due to their supervision requirements. • Attracting Australian trained graduates to remote and rural positions remains a great challenge.	• Develop mechanisms to attract Australian trained doctors and other health professionals to remote and rural areas.

There is a poor distribution of doctors in Australia so we in rural centres are again having to recruit from overseas.

Access to Comprehensive Primary Health Care Services

Key Issue	
Care available is episodic rather than comprehensive, continuous and person-centred care	
Evidence	**Strategy**
• Poor access to primary health care services may be represented by the percentage of presentations in emergency departments classified as triage category 4 and 5 (low acuity). Based on Queensland Health emergency presentation data from August 2017, all hospitals in MMM locations 4-7 were well above the average for Queensland (43.3%). The lowest MMM 4-7 hospital was 57.2% and the highest was 89.8%. There was also a strong, significant positive correlation between the percentage of triage category 4 and 5 presentations and increasing remoteness.	• Promote the development of workforce models that provide GP led, person centred care with multidisciplinary services to support.

Remoteness/ Distance to Travel

Key Issue	
Lack of affordable and appropriate transport to access health services	
Evidence	**Strategy**
• Lack of public transport to attend local appointments, particularly for the elderly and disabled. • Increasing centralisation of health services in major centres leading to longer journeys that often disrupt home and work life significantly increasing costs in accessing health services.	• Encourage place-based solutions (working with councils and others) to local transportation issues. • Explore viability of mobile primary health care service delivery models to enhance access.

Key Issue	
Cost of travel for health professionals for rural outreach/hub and spoke arrangements	
Evidence	**Strategy**
• Cost of travel both in time and dollars makes many services unviable in remote regions without considerable support.	• Promote the increased use of Information, Communication and Technology (ICT) where possible as an adjunct to face to face appointments.

The available workforce covers a wide area and there can be inefficiencies in travel time to meet clients by servicing a number of communities. For some clients, if health professionals did not attend within their community, they may not be able to access the service.

Lack of Appropriate Infrastructure

Key Issue	
ICT infrastructure – Telehealth and internet access	
Evidence	**Strategy**
• Underutilisation of Telehealth is cited state-wide and is required to increase access to specialists as well as GPs and some allied health. • Feedback on unreliable internet access is also regularly cited as a major impediment.	• Promote the increased use of ICT including Telehealth and inter-professional teams to increase productivity and reduce professional isolations.

Key Issue	
Physical infrastructure – staff accommodation, clinical space	
Evidence	**Strategy**
• Spaces to host registrars and visiting allied health and specialists. • Affordable and appropriate accommodation for permanent and visiting health professionals. • Safe and updated clinical spaces to support procedural work. • Private and culturally safe consultation spaces.	• Support general practices to apply for relevant infrastructure grants to increase capacity. • Collaborate to identify opportunities to utilise/develop existing infrastructure for primary health care i.e. University space, unused government buildings.

Barriers to Accessing Health Care

Key Issue	
After Hours Services	
Evidence	**Strategy**
• Accessing after hours services is a challenge, especially amongst many communities in the remote and rural areas because of inadequate GP and allied health workforce.	• Promote workforce models that support after hours service provision.

Key Issue	
Cost of services	
Evidence	**Strategy**
• Cost was repeatedly mentioned as an important limitation on accessing primary health care services, in particular lack of bulk billing for GP and allied health services.	• Promote workforce models that provide affordable access to medical and allied health services

Key Issue	
Culturally appropriate health services	
Evidence	**Strategy**
• The lack of access to, culturally appropriate health services was cited in all PHN reports. Access to refugee and immigrant health services was also recognised as a gap.	• Encourage workplace cultural training of health professionals and other staff to support cultural safety.

Key Issue	
Service awareness/service understanding	
Evidence	**Strategy**
• Communities lack of knowledge of what services are available within their area (including after hours). • Lack of awareness of what practitioners do can. • Lack of knowledge about referral pathways within the region. • Health professionals lack of knowledge of other service providers in their region.	• Promote activities to expand health literacy within communities to encourage appropriate service access. • Build awareness of existing services such as the National Health Service Directory and My Community Diary to better link customers with available health services.

The closest radiology service is 90 km away. Podiatry, physiotherapy, occupational services not enough for population and there is long waiting periods to see allied health.

Section 5

Findings - Quality

Adequately Skilled Workforce

Whilst we do get visiting services, these are usually first year graduates, who are simply not equipped for the level of complexity for the rural population that they are servicing.

Key Issue

Building a capable workforce that is responsive to local needs

Evidence	Strategy
• Need for increased access to quality continuing professional development for all health workforce. • Strategies needed to develop the health workforce locally including supporting youth to commence vocational training in health-related studies. • Mentoring and leadership training, particularly in the Aboriginal Community Controlled Health Organisations. • Need to expand existing scopes of practise and creation of new roles in all professions.	• Provide grants to support health professionals to become vocationally qualified and up-skilled. • Facilitate and coordinate professional development to ensure a knowledgeable, confident and competent workforce. • Provide organisational support to improve supervision and mentoring and providing education and training for supervisors and mentors. • Provide organisational support for staff to undertake leadership training. • Offer support for role development and enhancing scope of practice. • Encourage collaboration between organisations with respect to career pathways and professional development.

Culturally Appropriate Care

Key Issue

Capability to deliver culturally appropriate health care

Evidence	Strategy
• Need for a health workforce that is able deliver culturally appropriate care.	• Targeted recruiting of Indigenous health professionals to promote culturally safe service delivery. • Cultural orientation for health professionals recruited to rural and remote communities. • Location specific orientation for health professionals doing outreach to discrete communities. • Develop capacity for local cultural mentors.

Section 6

Findings - Sustainability

Growing the Health Workforce Pipeline

Key Issue	
Training the future workforce with a view to address maldistribution and local need	
Evidence	**Strategy**
• Poor distribution of doctors in Australia with some providers in rural centres having to recruit from overseas. • Nursing workforce is ageing very rapidly. • Nurses in private practice are paid less than in state health jobs which makes attracting and retaining nurses in some areas difficult.	• Promote rural health career opportunities for medical, nursing, allied health and Aboriginal and Torres Strait Islander health workers. • Provide career management support to future workforce. • Offer rural immersion opportunities to attract students into rural generalist careers.

Service Provider Collaboration

Key Issue	
Inefficient and fragmented care	
Evidence	**Strategy**
• Lack of clear pathways for care. Better system integration, coordination and collaboration is needed.	• Support navigator and liaison roles to promote better system integration, coordination and collaboration.

Achieving Sustainable Workforce Models

Key Issue	
Vulnerable and non-viable workforce models	
Evidence	**Strategy**
• Challenges to the viability of private health services in remote and rural areas including cost of living, distances to travel, income of clients, access to workforce and economies of scale. • Look for more "Easy Entrance, Gracious Exit" models with financial, administrative and work/life balance burdens being lessened.	• Work within priority communities to assess and develop innovative workforce models that expand scope of practice and considers emerging health workforce roles (i.e. rural generalist roles, allied health assistants). • Promote public/private employment models for skills retention and increased viability. • Investigate blended funding models (particularly for allied health) to support financial viability of service provision. • Build clinical leadership, support, and mentoring. • Develop models that support multi-disciplinary teams rather than sole professionals.

Attracting Health Workforce

Key Issue	
Attracting future workforce to health careers and rural health **Attracting current workforce to general practice and rural health**	
Evidence	**Strategy**
• Remote and rural communities continue to experience problems attracting and recruiting health workforce.	• Undertake rural immersion programs such as GROW Rural and John Flynn Placement Program (JFPP). • Rural high school visits promoting careers in health. • Work with organisations to develop attractive incentives as 'add ons' to entice workforce to hard to recruit areas. • Provide reimbursement for relocation costs and support for temporary accommodation. • Flexible models of employment – private/public joint appointments to enhance scope and variety.

Retaining Health Workforce

Key Issue	
Provision of incentives and other supports	
Evidence	**Strategy**
• Lack of access to continuing professional development (CPD). • Professional isolation. • Burnout due to lack of relief. • Poor accommodation and high cost of living. • Spouse/family considerations.	• Provision of grants to health professionals working in remote and rural locations. • Provide comprehensive and tailored case management to support health professionals. • Provide family support opportunities. • Provide locums for CPD or personal leave to priority areas.

Rural and remote communities continue to experience problems with recruitment and retainment of all staff levels. High turnover is the norm and agency staff take a while to settle in and usually are on their way before they are able to contribute to wider team dynamics.

Section 8
Appendices

Appendix 1: Priority SA2s by PHN Region

Appendix 1.1: Northern Queensland PHN Priority SA2s

Rank	SA2 Name	Main Townships Within SA2	
1	Torres Strait Islands	Badu Island Boigu Island	Mabuiag Island Saibai Island
2	Herberton	Herberton Mount Garnett	Ravenshoe
3	Collinsville	Collinsville	Mount Coolon
4	Aurukun	Aurukun	Wallaby Island
5	Cape York	Coen Hope Vale	Laura Mapoon
6	Northern Peninsula	Bamaga Injinoo	New Mapoon
7	Burdekin	Home Hill	Russell Island
8	Kowanyama – Pormpuraaw	Kowanyama	Pormpuraaw
9	Mareeba	Mareeba	
10	Babinda	Babinda Bellenden Ker	Garradunga Mirriwinni

Appendix 1.2: Darling Downs and West Moreton PHN Priority SA2s

Rank	SA2 Name	Main Townships Within SA2	
1	Tara	Glenmorgan Meandarra Moonie	Tara Westmar
2	Kingaroy Region – North	Cherbourg Murgon	Proston Wondai
3	Millmerran	Cecil Plains	Millmerran
4	Nanango	Benarkin Blackbutt	Nanango
5	Crows Nest – Rosalie	Crows Nest	Yarraman
6	Inglewood – Waggamba	Inglewood	Texas
7	Jondaryan	Jondaryan	Oakey
8	Lockyer Valley – East	Hatton Vale Laidley	Plainland
9	Southern Downs – West	Allora	Wheatvale
10	Warwick	Warwick	

Appendix 1.3: Western Queensland PHN Priority SA2s

Rank	SA2 Name	Main Townships Within SA2	
1	Carpentaria	Burketown Carpentaria Mornington Island	Normanton Karumba
2	Charleville	Charleville Murweh	Morven Auguthella
3	Far Central West	Birdsville Bedourie Boulia	Windorah Jundah Winton
4	Mount Isa Region	Camooweal Dajarra	Cloncurry
5	Far South West	Thargomindah Cunnamulla	Quilpie
6	Balonne	Bollon Dirranbandi	St George Mungindi

Appendix 1.4: Central Queensland, Wide Bay and Sunshine Coast PHN Priority SA2s

Rank	SA2 Name	Main Townships Within SA2	
1	Kilkivan	Goomeri	Kilkivan
2	Maryborough Region – South	Brooweena Mungar	Tiaro
3	Cooloola	Cooloola Rainbow Beach	Tin Can Bay
4	Agnes Water – Miriam Vale	Agnes Water Miriam Vale	Seventeen Seventy
5	Gympie Region	Imbil	
6	Burrum – Fraser	Burrum Heads	Fraser Island
7	Mount Morgan	Mount Morgan	
8	Gin Gin	Gin Gin	
9	Central Highlands - East	Blackwater	Woorabinda
10	Gayndah – Mundubbera	Biggenden Gayndah	Mundubbera

Appendix 2:
Mean Workforce and Service Gap Ratings by PHN

Appendix 2.1: Northern Queensland PHN by Combined or Single SA2

	Townsville	Cairns	Mackay	Cape	Coastal	Inland	Atherton	Ayr	Ingham	Innisfail	Mareeba	Proserpine
General Practice	35.3	35.4	46.8	51.1	43.8	27.5	26.7	56.8	32.3	60.3	37.4	59.2
Aboriginal and Torres Strait Islander Health Worker	32.2	43.6	54.1	70.2	29.0	32.2	29.2	52.5	43.5	49.7	52.1	43.3
Audiology	25.4	34.4	25.3	61.7	16.3	38.0	13.3	22.7	18.8	40.3	50.0	74.5
Dentistry	32.3	46.3	16.8	63.6	46.2	50.8	52.3	30.7	33.2	16.7	38.1	62.4
Diabetes Education	32.4	48.7	40.4	61.0	30.8	34.5	22.0	24.2	37.0	46.7	57.2	43.0
Nursing	21.8	56.9	43.8	47.8	24.6	29.8	33.0	54.2	69.0	23.0	56.9	72.2
Nutrition	28.7	51.3	34.7	54.0	54.5	35.5	32.3	70.5	53.6	36.0	61.6	80.8
Optometry	13.1	37.6	33.3	65.5	19.3	35.8	15.8	20.3	16.8	6.0	32.3	36.5
Palliative Care	28.5	50.3	62.4	54.7	38.2	56.8	47.5	58.0	43.3	67.3	65.4	74.4
Pharmacy	8.7	21.9	25.4	42.0	18.1	28.0	6.5	10.7	21.0	29.0	33.0	38.3
Physiotherapy	19.3	35.1	30.6	43.3	25.1	29.1	30.3	19.0	31.3	50.7	31.9	34.3
Podiatry	22.7	33.0	27.3	36.3	25.2	39.6	25.7	28.8	65.0	48.0	37.1	73.5
Radiology	22.2	30.2	24.3	57.2	27.9	51.3	23.5	37.5	27.0	31.7	44.1	44.0
Speech Pathology	24.3	54.5	52.6	52.6	49.2	37.7	52.6	61.4	68.5	55.0	63.5	60.0
Exercise Physiology	17.5	43.9	36.3	79.1	27.5	45.1	17.0	28.8	45.5	32.7	41.8	36.2
Psychology	31.6	40.3	57.6	67.9	34.5	38.0	40.5	50.5	76.6	58.0	40.2	71.5
Social Work	40.3	51.3	65.7	69.2	40.3	41.9	29.3	53.8	60.0	50.3	54.8	74.6
Occupational Therapy	35.1	53.3	54.7	70.3	40.2	41.1	45.8	56.0	40.7	44.7	59.3	89.0
Aged Care	39.0	60.7	54.5	38.4	28.4	58.0	43.0	39.2	44.0	38.0	58.1	56.8
Alcohol, Tobacco and Other Drugs	50.4	70.2	60.6	43.8	56.3	46.3	63.5	63.8	58.3	50.0	59.2	74.0
Child Health	39.9	49.9	48.0	45.0	34.7	37.6	43.3	37.7	33.0	35.5	46.2	67.3
Disability	43.8	64.6	61.3	52.9	35.0	55.8	51.0	47.5	45.5	64.3	62.3	71.4
Health Promotion	37.6	56.9	50.9	60.1	33.8	46.4	41.0	26.2	35.0	36.0	62.4	85.7
Mental Health	49.7	66.5	69.1	47.9	39.8	59.6	54.6	60.5	61.8	65.3	58.2	77.8
Refugee and Immigrant Health	50.4	55.5	64.0	14.8	55.9	43.0	54.5	21.8	56.0	12.0	47.8	81.0
Maternal Health	25.7	36.0	27.2	31.7	22.9	44.3	49.0	27.0	19.3	27.7	32.8	36.0

Appendix 2.2: Darling Downs and West Moreton PHN by Combined or Single SA2

	Chinchilla, Miles combined	Goondiwindi, Inglewood combined	Kingaroy combined	Lockyer Valley-East SA2	Lowood, Esk, combined	Nanango SA2	Stanthorpe SA2	Toowoomba & suburbs	Wambo SA2	Warwick, Sth Downs combined
General Practice	22.6	43.2	56.9	33.6	61.6	16.7	22.0	19.0	38.6	32.8
Aboriginal and Torres Strait Islander Health Worker	41.0	42.3	50.0	30.4	43.5	16.7	32.7	27.2	30.0	36.6
Audiology	32.6	30.0	40.6	32.0	59.0	16.7	29.0	29.8	48.1	25.3
Dentistry	50.0	21.7	66.0	29.2	57.9	76.7	43.0	34.0	67.1	58.3
Diabetes Education	64.0	21.5	56.0	38.7	58.2	36.7	58.0	22.4	54.8	44.3
Nursing	22.7	29.7	49.2	28.7	38.7	25.0	80.0	14.6	50.4	46.1
Nutrition	41.0	36.5	61.5	30.0	43.9	17.0	31.0	25.3	33.0	31.2
Optometry	53.2	23.3	48.2	26.7	47.3	53.3	80.7	12.8	40.2	28.4
Palliative Care	67.0	41.8	74.8	66.0	66.8	77.3	33.3	27.5	48.1	70.9
Pharmacy	34.8	19.0	35.0	20.3	15.8	16.7	22.0	15.0	20.1	30.6
Physiotherapy	34.6	35.5	64.9	29.3	38.7	77.3	25.0	21.1	28.2	40.9
Podiatry	36.0	40.0	60.0	33.0	27.7	16.7	19.7	27.8	23.9	47.2
Radiology	46.0	19.8	43.5	58.7	59.6	66.7	29.7	10.4	50.2	33.6
Speech Pathology	33.0	40.4	51.4	54.8	61.1	26.8	46.7	22.8	40.2	53.5
Exercise Physiology	20.3	16.3	39.9	37.3	42.0	16.7	31.3	13.6	30.9	46.4
Psychology	78.4	26.2	75.4	47.8	63.8	33.3	55.0	19.3	53.9	59.3
Social Work	56.5	27.5	71.4	40.2	66.7	66.7	54.0	24.9	37.4	60.3
Occupational Therapy	55.8	24.2	48.6	44.2	61.7	35.3	60.0	31.6	32.9	75.6
Aged Care	53.8	25.0	44.2	54.7	52.9	84.0	75.0	23.7	41.6	48.9
Alcohol, Tobacco and Other Drugs	71.5	38.3	77.0	67.5	67.4	66.0	51.7	39.7	58.0	56.2
Child Health	68.2	56.6	54.7	50.8	68.9	36.3	56.0	32.8	54.7	41.4
Disability	54.0	32.7	48.4	45.8	61.8	66.5	72.3	33.8	47.9	54.4
Health Promotion	53.8	46.6	44.2	43.5	54.8	63.8	76.7	32.0	51.5	50.8
Mental Health	81.8	41.7	60.7	71.7	73.2	46.3	51.7	41.7	64.3	54.1
Refugee and Immigrant Health	41.5	32.2	59.0	83.0	55.5	50.0	67.3	32.5	32.5	52.9
Maternal Health	61.5	6.0	31.5	47.1	54.6	60.0	42.0	23.1	37.4	27.6

Workforce Gap Ratings

Service Gap Ratings

Appendix 2.3: Western Queensland PHN by Combined or Single SA2

	Balonne, Charleville, Far South West	Longreach, Far Central West	Mt Isa, Mt Isa Region, Northern Highlands, Carpentaria	Roma, Roma Region
General Practice	68.4	26.8	68.6	56.5
Aboriginal and Torres Strait Islander Health Worker	38.2	64.2	29.8	30.1
Audiology	30.7	73.8	49.4	42.8
Dentistry	37.7	80.5	65.0	45.5
Diabetes Education	45.6	43.3	36.0	26.3
Nursing	44.5	59.3	44.2	33.3
Nutrition	25.6	34.2	48.9	28.0
Optometry	51.5	62.2	36.2	25.0
Palliative Care	57.0	32.6	47.3	54.6
Pharmacy	37.4	49.6	36.6	26.2
Physiotherapy	57.8	24.4	43.8	35.1
Podiatry	45.0	48.0	47.4	25.9
Radiology	48.3	19.6	61.7	30.9
Speech Pathology	41.2	46.4	61.3	27.1
Exercise Physiology	60.3	29.0	69.4	41.8
Psychology	49.8	68.2	76.5	67.4
Social Work	37.7	52.2	66.4	40.3
Occupational Therapy	38.5	25.0	65.4	40.9
Aged Care	47.5	36.0	64.5	30.4
Alcohol, Tobacco and Other Drugs	52.7	62.0	54.9	60.4
Child Health	33.7	43.4	38.8	38.9
Disability	63.2	64.0	66.4	42.6
Health Promotion	43.7	73.8	42.3	36.3
Mental Health	43.7	70.6	82.1	45.1
Refugee and Immigrant Health	53.6	50.5	53.5	45.0
Maternal Health	30.4	38.0	35.0	21.8

Workforce Gap Ratings

Service Gap Ratings

Appendix 2.4: Central Queensland, Wide Bay and Sunshine Coast PHN by Combined or Single SA2

	Bundaberg and surrounds	Gladstone and surrounds	Gympie and surrounds	Hervey Bay and surrounds	Maryborough SA2	Rockhampton and surrounds	Sunshine Coast hinterland	Inland communities	Coastal communities
General Practice	57.0	60.6	64.8	36.0	19.5	51.9	13.6	42.5	34.7
Aboriginal and Torres Strait Islander Health Worker	38.3	44.4	43.0	30.2	21.5	51.7	36.8	41.9	40.2
Audiology	27.0	45.0	72.5	22.9	22.8	42.2	19.4	48.1	16.3
Dentistry	40.3	69.0	76.3	48.6	71.9	46.9	34.4	56.4	21.0
Diabetes Education	29.5	43.6	51.8	63.1	48.9	36.2	34.5	46.4	20.3
Nursing	40.3	43.6	66.0	33.3	35.2	33.8	18.7	35.3	26.0
Nutrition	33.7	48.3	54.4	61.3	35.1	42.0	34.9	54.9	23.9
Optometry	23.0	41.4	38.3	18.3	20.9	37.8	22.6	38.7	22.1
Palliative Care	48.2	61.9	46.5	45.1	59.9	44.2	41.6	52.9	46.3
Pharmacy	18.6	27.4	30.2	20.7	25.8	30.7	9.9	26.3	6.4
Physiotherapy	23.0	31.1	36.0	25.8	34.0	38.3	12.1	46.1	19.0
Podiatry	27.6	38.8	34.2	18.4	30.5	33.4	17.5	47.8	14.1
Radiology	16.8	22.4	26.4	14.0	22.8	33.3	24.3	58.4	15.4
Speech Pathology	30.9	45.8	60.2	45.6	45.3	51.3	35.7	48.5	43.3
Exercise Physiology	21.6	42.8	45.0	38.3	31.8	39.3	29.3	74.1	20.3
Psychology	42.0	58.1	58.2	44.8	56.0	49.3	17.9	54.6	41.8
Social Work	38.1	44.7	83.8	50.3	45.8	53.1	47.2	60.1	61.4
Occupational Therapy	40.3	52.4	60.6	55.1	45.0	53.7	41.8	50.5	60.0
Aged Care	53.1	66.7	65.3	45.8	43.9	48.9	33.6	51.2	51.3
Alcohol, Tobacco and Other Drugs	62.3	63.5	85.0	71.7	69.3	57.5	54.3	53.5	53.6
Child Health	44.8	57.1	51.7	62.1	41.3	50.3	38.1	36.1	43.9
Disability	51.1	52.8	73.7	59.7	50.4	52.5	52.2	56.0	57.6
Health Promotion	46.2	41.4	54.3	43.3	54.5	47.8	38.6	43.1	33.1
Mental Health	64.1	75.7	57.5	57.6	71.1	58.3	44.3	52.7	50.4
Refugee and Immigrant Health	47.3	63.5	65.4	70.3	92.5	51.6	64.4	43.6	50.5
Maternal Health	33.0	30.3	31.8	33.3	38.5	30.5	29.5	42.1	23.1

Workforce Gap Ratings
Service Gap Ratings

Acknowledgements

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