### HEALTH WORKFORCE NEEDS ASSESSMENT 2023



# ACKNOWLEDGEMENT OF COUNTRY Northern Territory PHN acknowledges the Traditional Owners of the country on which we work and live, and recognises their continuing connection to land, waters and community. We pay our respects to Elders past, present and emerging, and to their cultures. ® Copyright NT PHN 2023 For enquiries about this report please contact communication@ntphn.org.au ntphn.org.au

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### CEO'S **MESSAGE**

I am pleased to present Northern Territory PHN's Health Workforce Needs Assessment (HWNA) for 2023. The HWNA is an important document to support NT PHN's understanding of workforce needs, challenges and opportunities in the Northern Territory's primary health care sector. The needs assessment process is undertaken annually and focusses on various strategic workforce priorities in the NT. Previous needs assessments have focused on remote health, allied health, GPs and mental health workforce.

> Whilst the Northern Territory has faced long-term health workforce challenges, the COVID-19 pandemic exacerbated many of these challenges and, as we see health workforce demand increasing at a national and international level, there is a need to ensure that primary health care in the NT is visible, competitive and maximising investment in the development of a local health workforce. There is also a priority need to support sustainable access to health workforce for our remote communities, where health needs and workforce barriers are greatest.

With these challenges in mind, it is important to note the opportunities that are emerging to support health workforce reform. Some of these opportunities include strengthening supported career pathways into and through careers in health. Whilst the NT will continue to rely on recruitment of health professionals from other locations,

there is a real opportunity to ensure that local training, education and career pathways in health are strong and competitive. This includes supporting access to training and education for remote communities and includes post-graduate placement opportunities in primary health care for GPs, nurses, allied health and Aboriginal health workers. Additionally, there are opportunities for the NT to embrace new workforce models that can improve the sustainability of primary health care services. Some examples of these models include shared employment models and the development of multi-disciplinary team approaches.

Finally, with an increasingly competitive national and international market for health workforce, it is critical that the NT primary health care sector is visible and, the unique opportunities of working and living in the NT are showcased and celebrated.

The HWNA 2023 will further detail some of the challenges and opportunities facing the NT at this time. The needs assessment process involves a literature review, data analysis and broad stakeholder engagement across the health sector. Needs assessment priorities and findings are oversighted by the Northern Territory Workforce Alliance, a strategic collaborative group comprising representation from key stakeholders in the NT including peak bodies, government departments and universities. This year, the HWNA adopts a regional, place-based approach as opposed to focusing on a specific discipline.

The document highlights needs across the NT, with a deep-dive into a particular region, NT PHN intends to take this approach for the next few years, highlighting the specific needs of a different priority region each year. The selected region this year is Barkly.

The HWNA assessment document informs NT PHN's activity work plan for 2023/24 including targeted allocation of existing resources and identification of priority needs that require advocacy for policy change or additional investment.

I encourage all stakeholders to engage with NT PHN on this needs assessment and I look forward to continued collaboration on addressing primary health care workforce reform in the Northern Territory.

Kind Regards, Gill Yearsley, CEO

### **EXECUTIVE SUMMARY**

The Rural Workforce Agency Northern Territory (RWA NT) conducts an annual assessment of the healthcare workforce needs in rural and remote areas of the Northern Territory (NT). The 2023 report provides an update on the current and emerging needs of the workforce, with a specific focus on the Barkly region. The assessment identifies gaps in the primary care workforce and services and aims to highlight a region with high needs.

> In the NT, the shortage of primary care workforce and services has been increasing rapidly. As a result, RWA NT has selected general practitioners (GPs), nursing, allied health and Aboriginal health practitioners as priority areas that require attention and development.

This year's assessment reveals that mental health support services, community-based rehabilitation services, early childhood and adolescent care have the most significant gaps in service delivery. The shortage of GPs is particularly critical and requires immediate attention.

Throughout the report, key factors such as funding reform, expanding the First Nations workforce, encouraging careers in remote and rural areas, and improving staff retention are emphasised.

Retaining personnel in primary care continues to pose difficulties, particularly in allied health, nursing, and midwifery. The scarcity of healthcare professionals is worsened by discrepancies in remuneration between private and public sectors, as well as intensified competition for an already limited workforce in remote communities.

The assessment examines workforce turnover from two perspectives. First, through quantitative analysis across all priority areas to gather data on how long staff stay. The second perspective is through consultations with individuals in the focus region to understand why health staff left remote practices in the previous year. Survey results highlight factors such as heavy workload/burnout, work-life balance, career progression, mental health and wellbeing and lack of support staff and social infrastructure as key reasons for staff departures.

The findings presented in this report provide a snapshot of the healthcare workforce needs in remote NT. Ongoing communication and collaboration with key stakeholders at the state and local level are essential to further understand and validate these needs.

While the assessment identifies deficiencies, it also recognises and appreciates new models of care and innovative approaches being implemented through collaboration in communities. Despite facing significant challenges, the resilience of the health workforce in the NT is evident.

The report discusses new and creative ways to provide healthcare, improve benefits for healthcare workers, support their needs, and involve them in decision-making. It also highlights the use of technology to deliver healthcare remotely and the importance of supporting healthcare professionals. These approaches aim to collaborate with the workforce and the communities they serve to create better healthcare services. The examination of healthcare and service requirements in the Barkly region reveals various challenges that require a multi-sector approach and collaboration with both the territory and federal governments.



### INTRODUCTION

### Who we are

Northern Territory Primary Health Network (NT PHN), incorporating Rural Workforce Agency Northern Territory (RWA NT) supports the rural and remote workforce in the NT through the delivery of the Rural Health Workforce Support Activity (RHWSA). The objective of the RHWSA is to address health workforce maldistribution, quality and shortages in rural and remote NT.

RWA NT works to improve equity and access to healthcare for rural and remote communities by delivering programs informed by evidence to attract, retain, support and build the capacity of the health workforce.

### How we do it

The NT covers one-sixth of Australia's land mass while being home to only 1% of the population. Despite the low population, the NT has the highest burden of chronic disease nationally. The huge land mass and intermittent seasonal access inhibits service provision, adding to the challenge of accessing appropriate and sustainable primary health care services.

Over 30% of the population in the NT is Aboriginal and Torres Strait Islander, 80% of whom live in remote regions. Overall, 40% of the population resides in remote areas classified as MMM6 and 7 locations under the Modified Monash Model. One of the challenges being tackled in the healthcare field is the improvement of access to healthcare and the development of culturally responsive models of care.

Department of Cabinet and Minister (<a href="https://dcm.nt.gov.au/\_\_data/assets/pdf\_file/0007/760255/people-of-the-northern-territory.pdf">https://dcm.nt.gov.au/\_\_data/assets/pdf\_file/0007/760255/people-of-the-northern-territory.pdf</a>)

De Vincentiis B, Guthridge, S., Spargo, J. C., Su, J.-Y and Nandakumara, S.,: Story of Our Children and Young People.: Northern Territory, Menzies School of Health Research.; 2019

Modified Monash Model [https://www.health.gov.au/health-workforce/health-workforce-classifications/modified-monash-model]

The annual Primary Health Workforce Needs Assessment (HWNA) report, prepared by RWA NT, aims to improve access, quality and sustainability across our priority areas. The HWNA informs and guides effective responses of the current NT primary health workforce by identifying needs in the following priority areas:

- · general practitioners
- · nursing workforce
- allied health professionals
- · Aboriginal health practitioners

The HWNA, historically focused on a different discipline each year. This year, we will have a regional focus instead, focusing on the Barkly/Tennant Creek region. The focus will rotate in coming years to different regions.

A RWA NT designed survey and tailored consultations with health services and stakeholders that have informed the HWNA report. The report is an important resource in the design and execution of projects and activities at RWA NT, and is designed to foster sustainable access to essential primary health care in rural and remote communities.

RWA NT strives for outcomes and interventions that encompass the principles of:

- · culturally responsive care
- · multi-disciplinary workforce model
- · improved health outcomes
- · sustainable and capable workforce

Consultations with service providers and broader stakeholders combined with extensive evidence-based research results are presented in the HWNA. The HWNA determines workforce needs across our four priority areas while upholding the principles outlined above.

There are multiple levels of information exchange and knowledge sharing that lead to innovative workforce measures. The ability to collaborate and engage with services and stakeholders has helped develop a comprehensive HWNA. This approach aims to support the development of regional workforce plans in priority areas.



### RESEARCH METHODS



The RWA NT HWNA 2023 employed the following mixed methods approach:

### 1. Online survey:

- targeted rural and remote healthcare professionals, including GPs, rural generalists, GP registrars, allied health professionals, nursing and midwifery professionals, and the Aboriginal and Torres Strait Islander workforce
- gathered data on workforce needs and primary care service gaps through online platforms
- conducted between November 2023 and March 2024

### 2. Review secondary data sources:

- analysis of findings from previous RWA NT needs assessments
- reviewed rural workforce strategies, frameworks and relevant policy documents
- audited key policy documents, evaluation reports and health workforce context documents
- conducted a desktop audit of territory and federal sector reports, reviews and policy documents

### 3. Data analysis:

 utilised data from RWA NTs workforce database and the National Health Workforce (NHW) data set to provide additional insights into the primary care health workforce

### 4. Stakeholder engagement:

- in-person consultations with Aboriginal community controlled health services (ACCHS), private and other service providers
- gathered information through consultations with key stakeholders, communities and health professionals throughout 2023

By employing this comprehensive method, the RWA NT HWNA 2023 gathered extensive and contextual data and insights to inform future interventions and strategies in primary care health workforce planning.



FIGURE 1 RWA NT's HWNA Approach

### AT A **GLANCE**

### **Current health workforce professional development** needs according to survey respondents



### **GPs**

- · mental health
- · drug and alcohol services
- renal health
- business management
- social support
- oral health
- emergency rural generalist training
- women's and children's health



### NURSING

- chronic disease management
- leadership and management
- · maternity nursing
- palliative care and wound care
- emergency training
- child and adolescent mental health
- nurse practitioner

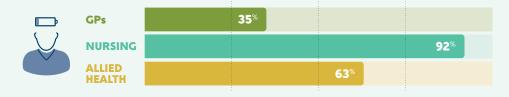


### ALLIED HEALTH

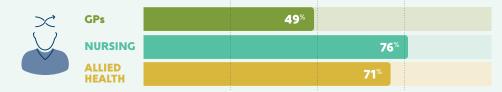
- · remote and rural health
- cultural responsiveness training
- · chronic disease education
- mental health
- wound care
- maternity and paediatric care

### Rates of burnout and retention according to survey respondents

1. Burnout (high-very high)



2. Leaving their current practice in next 1-5 years



### Common themes:

- · staffing
- · administrative burden
- · lack of allied health staff
- · remote and isolated settings
- · lack of support and resources
- · work-life balance
- · cultural and social challenges.

#### 3. Areas of need for future workforce

- partner's employment
- recreation
- · cultural belonging
- · safe, affordable and more housing
- supported job pathways
- · placed-based training

### 4. Barkly regional community needs

- · Service gaps:
  - mental health and alcohol and other drugs support
  - outreach services
  - community based rehabilitation services
  - early childhood and adolescent care

#### · Workforce needs:

- supervision
- buddy/mentorship programs
- innovative models of care (MoC)
- succession planning
- access to continuing professional development and professional development opportunities
- › culturally responsive care

#### 5. Future focus:

- · innovative models of care:
  - multi-disciplinary MoC
  - single employer MoC
  - coordinated multi-agency approach for co-designing MoC
  - flexible and adaptable funding models

### Enhanced workforce benefits and advocacy:

portability of leave entitlements

### Building capacity in professionals:

- expanded professional education opportunities and upskilling
- increased access to culturally appropriate professional development
- Utilising technological advances for remote healthcare delivery and professional support:
  - , telehealth
  - , remote supervision

The word 'challenging' was mentioned often, however the challenging work is what many GPs love about their work. Variety, community, flexible or controlled hours and breadth of practice whilst working with wonderful patients featured highly in our survey responses.

Teamwork is also an important element for many GPs as well as working with remote Aboriginal and Torres Strait Islander people in a service that is supportive and sustainable.



### **HEALTH**WORKFORCE NEEDS

Research from 2022 and 2023 are categorised into current workforce needs for the sector, future workforce needs, and a focus on emerging concepts for the future of the workforce. Results have been further supplemented by needs that must be addressed through inter-sectorial advocacy and collaboration such as access to safe and affordable housing and infrastructure.

It is important to note the survey respondents represent only a portion of the workforce, and while efforts have been made to validate the data with qualitative information, it may not fully reflect the current practices and sentiments of the entire workforce. Specifically, the survey included responses from 100 completed GP surveys and 134 completed nursing and allied health surveys.

### Workforce data

The Australian Government Department of Health and Aged Care publishes the National Health Workforce Dataset (NHWD)iv draws information from the national registration database and data from a workforce survey that is voluntarily completed at the time of registration. The NHWD is categorised based on Local Government Area (LGA), and appendix B shows the relationship between each LGA and its corresponding region to fulfill our requirements for the needs assessment. The data is limited in the context of the NT, because of the highly transient workforce and locum and agency workforce. Therefore, the data remains unsubstantiated.

RWA NT is collaborating with the Commonwealth Government's HeaDS UPP team to build an NT minimum dataset to address the unique requirements of remote and rural health in the region. This collaborative effort aims to provide valuable insights for workforce planning and resource allocation to enable evidence-based decision making in the NT.

\* Health Workforce Data - Table View 2020, Health gov.au, viewed 1 June 2023, <a href="https://www.nbmilis">https://www.nbmilis</a>.

\* Health Workforce Data - Table View 2020, Health gov.au, viewed 1 June 2023, <a href="https://www.nbmilis">https://www.nbmilis</a>.

\* To Needs Assessment 2023

Profession	Central Desert	Barkly	East Arnhem	Big Rivers	Top End	Unincorporated NT	Headcount - NT	Headcount - Australia
ATSI health practitioners	36	6	17	35	54	3	147	639
Chinese medicine practitioners	5				5		11	3952
Chiropractors	5			3	11		20	5226
Dental practitioners	21		3	9	111		141	22039
Medical practitioners	302	21	43	64	902	6	1,339	108501
Medical radiation practitioners	25		3	5	421		127	16088
Nurses and midwives	1063	111	196	305	2517	25	4,540	366696
Occupational therapists	40		3	6	158	3	206	23346
Optometrists	4				23		31	5686
Osteopaths					4		6	2721
Paramedicine practitioners	34	5	5	17	108	4	171	18718
Pharmacists	43	3	10	7	134		209	27744
Physiotherapists	31		14	10	141		217	33376
Podiatrists	11				17		30	5253
Psychologists	34		3	5	139	3	198	31431
Total	1654	146	297	466	4427	41	7,393	670416

TABLE 1: Workforce Data in the NT and Australia [obtained from NHWD]

# CURRENT HEALTH WORKFORCE NEEDS

### **GP WORKFORCE**

Needs	Evidence
Rural and remote workforce	According to the HWNA survey, 65% of GP respondents want to work in rural and remote settings. 89% of GP locums do not intend to stop serving remote communities in the next 12 months. 68% of respondents were trained in rural and remote practice.
Recruitment, enrolments perceptions and supervision	Recruitment challenges and lack of staffing for GPs, nurses and allied health are concerning. On top of a stretched system, there are declining enrolments in GP training in the NT, and the rest of Australia. There is also a widespread negative perception that general practice in rural and remote locations is not lifestyle friendly. Building a locally trained workforce will take some time.
	According to survey data, 52% of GPs work in educational supervisory roles, but on average 9% of their weekly time is spent training and supervising trainees and medical students. Some GPs felt that stepping away from supervisory roles was the best option in terms of time and remuneration.
	Strong supervisory roles are essential for growing the rural and remote health workforce. More work is needed to understand and address the declining number of supervisors.
<ul> <li>Ageing workforce and decreased pipeline for GP registrars</li> </ul>	10% of survey respondents were aged 56-65 and 18% were over 65; this is a sizable part of the workforce nearing retirement. There is increasing demand for experienced GPs to replace those who will leave the workforce in the future.
	The survey showed that 49% of GPs are planning to leave their current practice within the next 5 years while 14% are planning to leave in the next 6-10 years.
<ul> <li>Access to secure social infrastructure</li> <li>Access to housing and internet</li> </ul>	When asked to identify obstacles for GPs, responses included social infrastructure such as safety and accommodation, personal and professional isolation, bureaucracy in billing and paperwork, underfunding of services, a shortage of staff and no allowance for continuous professional development (CPD).
<ul> <li>Access to training in remote settings and professional networks</li> </ul>	Rural and remote practice requires specialised abilities in clinical efficiency, communication, resilience and the capacity to transition between clinical and non-clinical roles. Access to appropriate CPD provides GPs with the clinical proficiency and assurance to provide optimal care.
	According to the survey, areas of interest include mental health, drug and alcohol services, renal health, business management, social support, oral health, emergency rural generalist training and women's and children's health.
Access to technology – telehealth	The survey results showed the importance of technology, connectivity and the impact of IT systems on healthcare practices in remote areas. Respondents suggest that technology, remote access to medical services and digital connectivity are crucial for healthcare professionals in these settings.
Shortage of support workforce and accessorial staff	The substantial workload and significant administrative tasks involved in running a remote practice in the NT were reflected in the survey data, with 35% of respondents reporting high to very high levels of burnout while 37% experiencing moderate burnout.
Increased red tape and administration	Consultations revealed an increased administrative burden from a lack of support staff and exhaustion from navigating red tape.



Challenging, rewarding, well supported, good organisational systems.

The desire to contribute to the well-being of the communities they service aligns with GPs' altruistic motives with 91% of survey respondents believing their practice has a meaningful impact on the community they serve.

### **NURSING WORKFORCE**

Needs	Evidence
<ul> <li>Availability of a reliable and supportive social framework</li> </ul>	According to survey data, 75% of the nursing workforce believe they have the necessary training to work in rural and remote areas, and 95% of nurses and nurse practitioners want to continue working in these settings.
	Despite this, only 24% of survey respondents plan to continue their employment for 5-10 years or longer.
	Remote area nurses (RAN) are crucial to providing a robust primary healthcare service in rural and remote areas. Through consultations and survey insights, we understand social and professional isolation is one factor in the high turnover rates.
	Instability impacts the effectiveness of care. Short-term and agency staffing is increasingly relied upon, resulting in concerns over cost and continuity of care.
<ul> <li>Access to CPD and upskilling opportunities</li> </ul>	The survey results revealed that general nursing upskilling is needed, but nurses also want to pursue business management and social support options.
	Survey data emphasised the limited scope of practice and the urgent need for child health nursing specialists and chronic disease educators.
	A lack of place-based specialists was identified as another critical factor in the departure of nurses over the preceding two years due to abnormally high levels of burnout.
Support staff shortages and heightened	In select remote health settings, nurses encounter various challenges with management and leadership that impact career satisfaction.
administrative burdens	According to the survey findings, 33% of nurses expressed a desire for more support in their work environment, and this percentage increases for those working in remote areas.
	Increased workload and a lack of support staff have led to their colleagues leaving in the past two years.
<ul> <li>Limited supervision and infrastructure to support placement of nursing students</li> </ul>	Undergraduate nursing schools may not adequately prepare students for primary care nursing. Including primary care practice assignments and implementing supportive supervision models are vital to address this issue and promote primary care nursing as a career option.
	Challenges such as the availability of suitable supervisors, excessive paperwork and demanding outcome requirements impact the capacity to provide student placements.
Long-standing issues with accessing healthcare	General practices and ACCHS in remote communities provide diverse medical care, including emergency services.
in rural and remote communities in NT due to shortage of GPs	A significant barrier for sustaining GP services is the lack of work-life balance, resulting in burnout and workforce attrition.
	To address this challenge, and meet the healthcare needs of underserved areas, the after-hours nurse practitioner-led service offers a unique and innovative solution $^{\text{v}}$ .

Gardner, G, Gardner, A, Middleton, S, Della, P, Kain, V & Doubrovsky, A 2010, 'The work of nurse practitioners', *Journal of Advanced Nursing*, vol. 66, no. 10, pp. 2160–2169, viewed 19 January 2023, <a href="https://pubmed.ncbi.nlm.nih.gov/20636472/">https://pubmed.ncbi.nlm.nih.gov/20636472/</a>.

The positive impact I'm trying to make on the community and the ability to advance and use my nursing skills entirely.

I love it when people can get some enjoyment out of life. When they are healthy and mobile enough to have some quality of life and if possible, back home on Country, that's what I like most about my work. I love healing and helping.



### **ALLIED HEALTH WORKFORCE**

### Needs Evidence

 Opportunities for professional upskilling, continued education and additional training specifically tailored towards remote and Aboriginal and Torres Strait Islander health service delivery Only 40% of surveyed allied health professionals have received training in rural and remote health, 90% of respondents expressed a desire to work in rural and remote areas. 29% of respondents want to maintain their current practice for at least the next 5-10 years.

Training needs for allied health:

- · remote and rural health
- · cultural responsiveness training
- · chronic disease education
- mental health
- wound care
- · maternity and paediatric care
- Availability of secure social infrastructure and supervisory assistance

Social drivers of isolation, high levels of burnout related to overwork in specific specialities such as chronic condition management and mental health and a lack of management and peer support are all issues now confronting allied health workers.

Lack of supervision and career advancement prospects were prominent themes among allied health professionals who left their professions or sought employment elsewhere in the last two years.

 Burden of responsibilities leading to burnout According to the survey, 43% of allied health professionals are experiencing high to very high levels of burnout, even before considering the resource requirements for supervision and support for early health career professionals.

65% of respondents said they had received no professional or personal help from anyone, and 39% said they felt under supported at work.



a great allied health team of like-minded people. The exposure to the beautiful Yolngu Aboriginal

culture is a wonderful experience.

When allied health employees were asked what they liked most about their work, many aspects stood out. Mentoring, sharing skills, the challenge, variety, autonomy, flexibility and growth. The ability to walk with and learn from patients as well as upskill clients and their families, travelling through the NT and working in a well-supported team environment were also listed as being work positives.

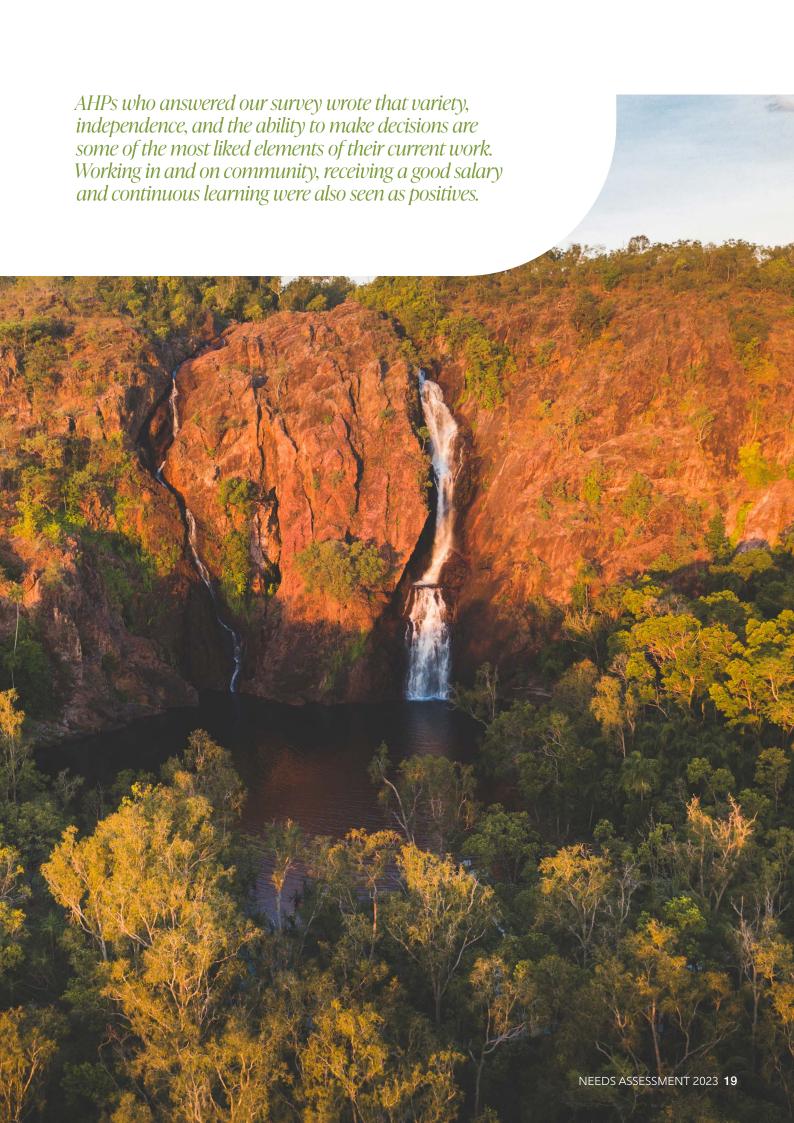
The survey results demonstrated that 90% of allied health employees experienced a strong sense of making a positive impact and enhancing the well-being of the community they served. This feeling of creating meaningful change and improving the lives of individuals and communities served as a significant source of satisfaction and inspiration in their current roles.

### **ABORIGINAL HEALTH WORKFORCE**

Needs	Evidence
Decreasing Aboriginal health workforce	In 2021, 147 Aboriginal health practitioners (AHPs) were employed in the NT, down from 181 in 2018. The NT has experienced a decline of AHPs of minus 6.57% between 2018 and 2020. These data include all health workforce that identify as Aboriginal and Torres Strait Islander. Out of the 147 AHP's in the Territory, 130 are clinical practitioners and 17 are non-clinical.
<ul> <li>Lack of understanding amongst other professional</li> </ul>	It is widely acknowledged that Aboriginal health worker (AHW) and AHP roles have varied responsibilities and are both a way of life and a career choice.
of the role of AHP	There is very little downtime because of a constant perception of availability for family, friends, and business.
	According to stakeholders, non-Aboriginal workers sometimes lack understanding of AHP and AHW responsibilities, leading to cultural and professional misunderstanding.
Instilling the importance of AHPs role in the workforce	The stakeholders involved in decision-making understand that simply copying policies from one place to another may not work well.
	They believe that it's important to create healthcare approaches specific to each community to better meet unique needs. This requires working together and involving the Aboriginal health workforce in designing and implementing care models that focus on patient needs. The leadership of the Aboriginal health workforce is crucial in this process.
<ul> <li>Adaptable and progressive training pathways, with</li> </ul>	Stakeholders consistently stressed the importance of the role Aboriginal workers have in prevention and treatment of primary health.
opportunities to train on country	Given the scarcity of AHPs, support workers are especially important because they act as a vital link between health professionals and the community.
	A systematic and coordinated approach to continued support, professional development and career progression planning for both clinical and non-clinical Aboriginal and Torres Strait Islander employees is needed. According to stakeholders, these elements are typically some of the missing pieces in the growth of Aboriginal health careers.
Progressive professional development, research design and delivery	More remote professional development for Aboriginal health workers such as mentorships, programs, community driven research projects and Indigenous knowledge workshops is needed.
	AHPs and AHWs said upskilling and micro credentialing methods should involve close collaboration and consultation with Aboriginal and Torres Strait Islander communities, leaders and stakeholders for cultural responsiveness, relevance and effectiveness.
<ul> <li>Access to social infrastructure that is both safe and culturally</li> </ul>	Stakeholders emphasised the importance of improving and expanding the local Aboriginal health workforce, while recognising the need for access to safe and culturally responsive social infrastructure – services, spaces and facilities.
responsive	Social infrastructure must recognise the unique needs, values, and cultural practices of Aboriginal and Torres Strait Islander communities and create an environment where AHPs can deliver care that respects cultural traditions, promotes trust and fosters community engagement, and ultimately leads to improved health outcomes <sup>vii</sup> .

vi https://hwd.health.gov.au/contactus 2023, *Allied Health factsheets*, Health.gov.au, viewed 12 May 2023, <a href="https://hwd.health.gov.au/alld-dashboards/">https://hwd.health.gov.au/alld-dashboards/</a>>.

Taylor, EA, Lyford, M, Parsons, L, Mason, T, Sabe Sabesan & Thompson, SC 2020, "We're very much part of the team here": A culture of respect for Indigenous health workforce transforms Indigenous health care', vol. 15, no. 9, pp. e0239207–e0239207, viewed 5 June 2023, <a href="https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0239207#:~:text=Research%20has%20demonstrated%20that%20">https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0239207#:~:text=Research%20has%20demonstrated%20that%20</a> Indigenous,care%20%5B22%E2%80%9324%5D.>.



### SNAPSHOT



### 1 **SPECIALISED RURAL TRAINING**

GPs eager to work in rural and remote areas, equipped with specialised training.

### 4 **FUTURE-READY WORKFORCE**

Strategically addressing retiring GPs and nurturing a pipeline of skilled practitioners.

### **TECHNOLOGICAL ADVANCEMENT**

Harnessing telehealth and digital connectivity for efficient healthcare delivery.

### 2 **ENHANCED SUPERVISION SUPPORT**

Strengthening recruitment and dedicating more time to training and supervision which is remunerated appropriately.

### 6 **SECURE SOCIAL INFRASTRUCTURE**

Providing housing, internet access, and supportive community settings.

### 8 **STRONG SUPPORT** WORKFORCE

Addressing staff shortages and streamlining administrative processes for improved work-life balance.

### 3 **INNOVATIVE MODELS TO ADDRESS PATHWAYS AND SUPERVISION**

Investing in remote models of supervision to boost training capacity for registrars.

### **EMPOWERED PROFESSIONAL NETWORKS**

Access to training and networks for continuous growth and optimal care.



### **RELIABLE AND SUPPORTIVE SOCIAL FRAMEWORK**

Nurses express interest and desire to work in rural and remote areas with potential for long-term commitment.

### 3 **STRENGTHENING SUPPORT** WORKFORCE

Increasing support staff and addressing administrative burdens leads to improved work environments and enhanced retention rates.

### 2 **CONTINUOUS PROFESSIONAL DEVELOPMENT** (CPD)

Opportunities for upskilling in areas such as business management, social support and enhancing their expertise.

### **ENHANCED PLACEMENT SUPPORT**

Developing infrastructure and supervision systems for nursing students in remote areas improves their educational experience and fosters a skilled future workforce.



# WHAT ABORIGINAL HEALTH WORKFORCE NEED

### **O**UPSKILLING AND EDUCATION

Tailored training for remote and Aboriginal health services.

### SUPPORTIVE SOCIAL INFRASTRUCTURE

Combating isolation and burnout.

### INFRASTRUCTURE AND SUPERVISION

Supporting early-career professionals.

### AND NETWORKING AND MENTORSHIP

Access to supportive professional connections.

### APPRECIATING JOB ASPECTS

Mentoring, variety, flexibility and growth.

### JOB SATISFACTION AND TEAMWORK

Positive work environment and growth opportunities.

### EMPOWERED ABORIGINAL HEALTH WORKFORCE

Recognised and supported AHPs.

### COMMUNITY CENTRED CARE MODELS

Collaborative and culturally sensitive healthcare approaches.

### S REMOTE ACCESS CPD

Accessible and relevant professional development for AHPs in remote areas.

### **2 ENHANCED PROFESSIONAL UNDERSTANDING**

Increased awareness, understanding and appreciation of the AHP roles.

### NURTURED CAREER PROGRESSION

Opportunities for growth and development for AHPs.

### © CULTURALLY APPROPRIATE INFRASTRUCTURE

Safe and inclusive work environments for AHPs.

# FUTURE HEALTH WORKFORCE NEEDS

### **GP WORKFORCE**

Needs/Issue	Evidence
<ul> <li>Factors influencing: decision to work in a rural location</li> </ul>	Partner employment is the most important factor for GPs and their family when deciding to work in a rural and remote location.
	This is followed closely by recreation and a sense of belonging in the community they service.
<ul> <li>Addressing financial disparity</li> </ul>	Medicare can play a crucial role in addressing the gap in financial earnings between GPs and specialists.
	By ensuring equitable compensation for GPs, especially in rural areas, Medicare can provide a favourable incentive for GPs to choose rural practice and help bridge the financial disparity.
	This would support the availability of comprehensive healthcare services in rural communities.
<ul> <li>Increased medical student exposure to</li> </ul>	Medical students who have increased exposure to primary healthcare during their education are more likely to consider working in rural locations.
primary healthcare	Experiencing the importance and impact of primary care in underserviced areas motivates them to contribute to rural communities.
Need for capacity	The survey revealed the following criteria are most important to GP's sense of capability:
building	<ul> <li>clinical proficiency and assurance (84)</li> <li>positive workplace relationships (76)</li> <li>continuing professional development opportunities (72)</li> <li>altruistic need (64)</li> <li>psychological, physical, spiritual, and cultural well-being (60)</li> </ul>
Strengthening GP community connections	78% of survey respondents said they felt a sense of community belonging with the Aboriginal and Torres Strait Islander communities they served.
promotes retention	Recognising the importance of GPs' connection, service and sense of belonging with local communities can contribute to their retention.
Transition to college-led training for GP registrars from regional training organisations (RTOs)	The NT faces challenges in attracting and retaining GP registrars to rural and remote communities.
	Concerningly GP training numbers have significantly declined from 60 in 2013 to 10 in 2023.
	While individual incentives are used for recruitment and retention, it is important to balance them with a supportive team-based environment.
	A holistic approach and collaboration between sectors are essential to address these interlinked factors.

### NURSING AND ALLIED HEALTH WORKFORCE

Needs/Issue	Evidence
Pathways for early career nurses to enter remote	RANs possess significant potential to enhance general practice service delivery, although their numbers in the NT are limited.
area nursing	Nurses working in practice might experience feelings of isolation in their careers, leading to typically low retention rates.
	The presence of experienced RANs is crucial for providing guidance, mentorship and effective orientation, support and development of new nurses.
Workforce and service gaps	The following gaps were identified in the primary care workforce:  • Aboriginal and Torres Strait Islander health workers  • speech pathologist  • social workers  • allied health assistants  • mental health workers  The following service gaps were identified:  • mental health  • community based rehabilitation services  • early childhood and adolescent care
Capacity and capability building	Priorities for enhancing a sense of capability of nursing and allied health workforce are:  clinical proficiency and assurance psychological, physical, spiritual and cultural well-being family stability and security working on a purpose that matters to them safe and productive workplace with positive relationships autonomous work in a culturally competent and sensitive environment versatility and resilience in health workforce roles ability to improve rural health and contribute to community well-being

### ABORIGINAL HEALTH PRACTITIONERS

#### Needs/Issue

### Evidence

Policies to address
 Aboriginal and Torres
 Strait Islander workforce
 will assist in increasing
 employment and building
 multiple entry pathways
 with transferable job skills

The National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021–2031 has an ambitious target of increasing the Aboriginal health workforce to 3.34% by 2031.

Strategic direction priorities are:

- · culturally safe and responsive workplaces
- representation across all health disciplines, roles and functions
- skills, capacity and leadership; successful career transitions for Aboriginal and Torres Strait Islander students
- information and data across systems to support health workforce planning, policy development, monitoring and evaluation, and continuous improvement

 Supporting Aboriginal and Torres Strait Islander individuals in completing qualifications through on-country training and necessary assistance Supporting the pathways and development of the Aboriginal health workforce through:

- enhancing social infrastructure to facilitate the successful completion of qualifications by Aboriginal and Torres Strait Islanders
- recognising the importance of developing and supporting Aboriginal health workers to provide services in their communities, improving local access to care
- exploring funding options to improve coordination, continuity of care and access for Aboriginal and Torres Strait Islander communities
- promoting the integration of on-country training as a valuable component of qualifications for Aboriginal and Torres Strait Islander individuals

### **ALL PRIORITIES**

#### Needs/Issue

#### Evidence

 Social isolation while on remote placements, networking opportunities for the workforce are required. Isolation amongst remote based workforce, especially individuals originally from urban areas, has been acknowledged as an issue.

Engaging in local events and networking opportunities can serve as an effective method to connect with others and alleviate this sense of isolation.



### FUTURE FOCUS – THE WAY FORWARD

Consultations with services about health workforce models for rural and remote communities highlighted the following themes:

- supported career pathways to generate a sustainable pipeline
- · increased access to housing
- it is crucial to involve the communities as partners
- need for combining a community-based development approach with service expertise
- implementing deliberate team-based care approaches enables effective management of patients with chronic illnesses, particularly those at substantial risk of significant health deterioration
- enhancing health workforce literacy builds capability within both the community and the sector

The RWA NT at NT PHN is exploring long term proposals for the future that can change and adapt according to the ever-changing needs of the Territory.

### Innovative models of care (MoC):

### 1. Multi-disciplinary MoC

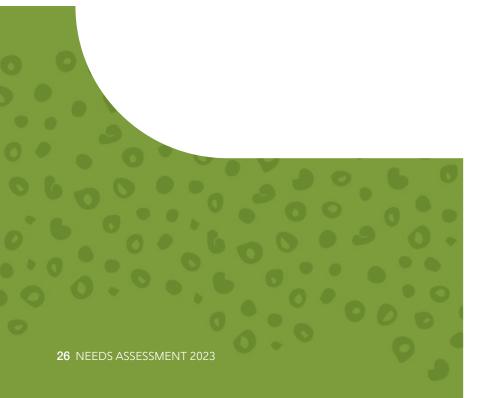
Multidisciplinary MoCs maximise the scope of practice for local clinical and non-clinical health professionals by adopting a team-based, job-sharing approach which improves access to resources and a more efficient delivery of care.

Additionally, this approach optimises the utilisation of funding resources by leveraging the diverse skills and expertise of the healthcare team. Team-based job-sharing models contribute to enhanced patient care outcomes while ensuring the efficient allocation of resources within the healthcare system.

The Boosting Local Care Workforce Program (BLCWP) and the NT PHN convened a key advisory committee to investigate the introduction of Certificate IV in Trained Allied Health Assistant workforce for the NT private sector workforce. Effectively utilising the position of a health professional is linked to:

- within the MoC, roles are precisely defined
- unambiguous, precisely articulated, and easily understood delegatory MoC
- establishing appropriate delegating, collaboration, and referring procedures requires trust, which comes with experience and exposure to the new MoC
- practitioners who delegate have confidence in their delegation because they are aware of the roles, qualifications, and skill sets of the professionals to whom they are delegating to
- enabling practitioners to operate within the limits of their training and establishing structures to support this

This not only results in better patient outcomes due to enhanced engagement and patient centered MoC, but also greater staff satisfaction related to understanding the value and impact of the role. This also permits allied health assistants (AHA) to offer care or services where the alternative, especially in the NT, is no care or a long waiting list.



#### 2. Single employer MoC

Based on previous analysis and consultations, the need for a shared employment model in the NT PHN region was identified.

In January 2021, the NT PHN CEO organised a working group to explore innovative employment models for GPs. In February 2021, a conference was held by Katherine District Hospital, bringing together key stakeholders after the closure of the only private GP service in Katherine.

The traditional rural general practice model was found inadequate, discouraging recruitment and hindering participation in reform initiatives. Stakeholders recommended the aggregation of practices to enable various care models and sustain change management.

The successful Central West Single Practice Model in Queensland served as an example. Caution is advised when adopting single practice/service approaches, and patient-centred models of care should be prioritised. In May 2021, NT PHN commissioned a project to establish a single employer model in Katherine, aiming to sustain the region's medical workforce based on compelling evidence.

Through consultations with health services and the survey respondents, it has become clear these recommendations can only be achieved through supporting inter-sectorial collaboration and co-designing with local health services place-based models of care.

### Coordinated multi-agency approach for co-designing MoC

New approaches to workforce models are crucial in tackling workforce shortages and offering creative solutions. Services in the NT are actively developing multiple models across various services to address health workforce requirements. The RWA NT plays a vital role in facilitating a collaborative design process to aid the implementation of these models.

When developing care models, RWA NT emphasises the importance of adhering to evidence-based practices, enhancing capabilities, conducting evaluations, ensuring culturally responsive care and promoting the widespread sharing of knowledge and innovation within the sector.

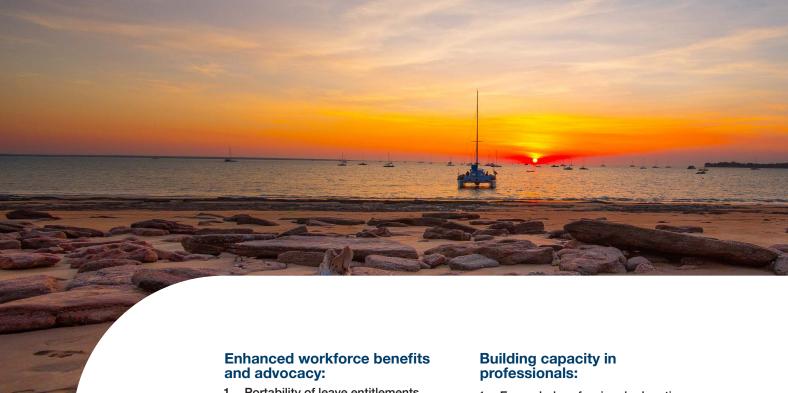
Supporting the professional development and career progression of Aboriginal and Torres Strait Islander health professionals and establishing a defined scope of practice in primary care are crucial.

### 4. Flexible and adaptable funding models

In the NT, flexible and adaptable funding models are particularly important due to the significant burden of chronic diseases experienced by Aboriginal and Torres Strait Islander people, especially in remote communities.

These funding models play a vital role in addressing the complex healthcare needs associated with chronic diseases such as diabetes, cardiovascular conditions and respiratory illnesses. By allocating health workforce resources in a flexible and adaptable manner, the NT can support initiatives that focus on prevention, early detection and comprehensive management of chronic diseases within remote communities.

Flexible funding models enable the implementation of culturally responsive programs, community-driven interventions and effective healthcare strategies tailored to the specific challenges faced by Aboriginal and Torres Strait Islander people. Through such investments, the aim is to reduce the prevalence and impact of chronic diseases and improve the overall health outcomes and quality of life for Aboriginal and Torres Strait Islander people in remote areas.



1. Portability of leave entitlements

When GP registrars were asked which additional leave would improve their capacity, 81% of registrars preferred portable leave benefits.

The following question asked registrars to choose which benefits they would like included in their employment package. More than half of respondents said they want additional exam and study leave (56%), while more than a third of all registrars chose annual leave (39%) and portable leave (36%).

Various proposals have been identified for further exploration if a national portability scheme is prioritised. These include:

- a. the transfer of employee entitlements to future employers
- b. the establishment of a portability scheme by the Commonwealth
  - the continuation of GP registrars as employees of state and territory governments
  - the management of employment terms and conditions for GP registrars by the respective GP college's industrial relations process.

1. Expanded professional education opportunities and upskilling

Enhancing professional education across priority areas can enhance professionals' ability to manage workloads. To achieve this, it is essential to increase availability of culturally suitable professional development opportunities.

A collaborative approach involving multiple agencies is necessary to support upskilling and educational initiatives for healthcare professionals in rural areas. It is crucial that this support is accessible, affordable, and suitable for their needs.

2. Increased access to culturally responsive professional development

Supporting professional development and career progression of Aboriginal and Torres Strait Islander health professionals and establishing a defined scope of practice in primary care is crucial. Culturally responsive services benefit all healthcare professionals and improve care for Aboriginal and Torres Strait Islander populations.



### Utilising technological advances for remote healthcare delivery and professional support:

### Telehealth in remote Aboriginal and Torres Strait Islander communities

Telehealth greatly improves access to healthcare services in remote areas of the NT, including Aboriginal and Torres Strait Islander communities. It enables healthcare professionals to remotely provide consultations, monitor patients, and offers support to local providers, and bridges the gap between patients and specialists, allowing for timely and efficient healthcare delivery.

Telehealth eliminates the need for extensive travel, reducing distance and cost barriers. Aboriginal and Torres Strait Islander patients can consult with specialists in urban centers ensuring appropriate care for complex health issues without being limited by location.

To maximise the impact of telehealth in remote Aboriginal and Torres Strait Islander communities, efforts should be made to enhance digital health capabilities among the remote rural primary health workforce. Training programs can be implemented to upskill healthcare professionals in telehealth technologies and ensure culturally responsive frameworks are in place.

Additionally, ensuring reliable and high-speed internet connectivity is crucial for seamless telehealth services.

- Northern 2017, Dr Jahde Dennis, placement at Gove District Hospital & Laynhapuy Homelands Aboriginal Corporation, YouTube, viewed 7 June 2023, <a href="https://www.youtube.com/">https://www.youtube.com/</a> watch?v=PMsrJMboyYM>.

#### 2. Remote supervision

The digitisation of healthcare services allows for the delivery of remote supervision through video conferencing and teleconsultations. Healthcare professionals in remote areas can seek guidance and collaborate with specialists, ensuring accurate diagnoses and treatment plans.

In a MMM 6 region, an Aboriginal Medical Service tackled workforce shortages through remote supervision. Two experienced supervisors guided a GPT3 registrar with shared responsibilities, despite a canceled on-site visit due to flooding. The registrar's positive experience led to continuing the same remote supervision model for their GPT4 term, highlighting the practical effectiveness of remote supervision in addressing crucial workforce needsviii. GP registrars are also being engaged in composite training models, working across multiple services. A part-time placement at Gove District Hospital and Laynhapuy Homelands Aboriginal Corporation provided registrars with a diverse range of experiences necessary for remote health practiceix.

In the NT, where access to professional support and mentorship can be limited, technology enables remote supervision and guidance from specialists. To fully leverage the benefits of technology for remote supervision, it is crucial that rural towns and health professionals have better access to reliable technological infrastructure. Adequate internet connectivity and technological resources are essential to facilitate seamless remote interactions and empower healthcare professionals to deliver high-quality care in geographically isolated regions.

# REGIONAL SPOTLIGHT: BARKLY REGIONAL / COMMUNITY NEEDS



### Barkly regional needs

Barkly has a usual resident population of 6316 people\*, about 3.7% of the Northern Territory's population. Tennant Creek is about 500kms north of Alice Springs, with a population of approximately 2,949 people with 55.3% identifying as Aboriginal and Torres Strait Islander\*i.

The region is served by one ACCHS; Anyingingi Health Aboriginal Corporation (AHAC), a public 20 bed Tennant Creek Hospital providing acute care and

GP services. Julalikari Council Aboriginal Corporation, provides accessorial aged and disability services and wrap around services to the town of Tennant Creek.

After each census, the Australian Bureau of Statistics (ABS) derives a series of indexes, known as Socioeconomic Indexes for Areas (SEIFA), to quantify aspects of disadvantage. The Index of Relative Socioeconomic Disadvantage (IRSD) is commonly used to describe the relative level of overall disadvantage in small areas. IRSD for Barkly region is 670 compared to Australia at 1000 and is the 29th most disadvantaged Local Government Area (LGA) in Australia according to the 2021 census data<sup>xii</sup>

#### Workforce data:

National Health Workforce Dataset identifies the workforce in the Barkly region as mentioned in Table 2. There is no data available for Chinese medicine practitioners, chiropractors, dental practitioners, medical radiation practitioners, occupational therapists, optometrists, osteopaths, physiotherapists, podiatrists and psychologists.

As mentioned before, this data is not a true reflection of the workforce in the Barkly and has caveats.

Profession	Barkly
ATSI health practitioners	6
Medical practitioners	21
Nurses and midwives	111
Paramedicine practitioners	5
Pharmacists	3
Total	146

### TABLE 2: Workforce in Barkly region

### Service gaps:

The following insights have been identified through in-person consultations with the healthcare services in the Tennant Creek region.

<sup>\* 2021</sup> Barkly, Census All persons QuickStats | Australian Bureau of Statistics 2021, Abs.gov.au, Australian Bureau of Statistics, viewed 10 May 2023, <a href="https://www.abs.gov.au/census/find-census-data/quickstats/2021/LGA70420">https://www.abs.gov.au/census/find-census-data/quickstats/2021/LGA70420</a>.

<sup>2016</sup> Tennant Creek, Census All persons QuickStats | Australian Bureau of Statistics 2016, Abs.gov.au, Australian Bureau of Statistics, viewed 8 May 2023, <a href="https://www.abs.gov.au/census/find-census-data/quickstats/2016/SSC70251">https://www.abs.gov.au/census/find-census-data/quickstats/2016/SSC70251</a>.

xii Socio-Economic Indexes for Areas (SEIFA), Australia, 2021 2023, Australian Bureau of Statistics, Australian Bureau of Statistics, viewed 9 May 2023, <a href="https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/2021">https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/2021</a>.

### **WORKFORCE ACCESS**

Issue/Needs	Evidence
<ul> <li>Planning for the health workforce requires the identification of service shortages.</li> <li>Large gaps in allied health workforce remain, especially in MH, AOD and social support</li> </ul>	During consultations, RWA NT asked services to identify workforce gaps in their local community.  Social support services including counsellors with a focus of foetal alcohol syndrome disease and parenting programs.  Entry level roles are more challenging to fill and requires upskilling in the local population and pathways for the same.  Lack of FTE GPs in the services and the burden of agency placements.
A wide variety of outreach services are needed across the community in very remote regions	AHAC delivers health care to very remote communities through a public health team. Presently, their capacity to do remote clinic work is restricted to half days. They would like to develop capacity to extend this service.  Australia's rural and remote residents have worse health condition and more healthcare requirements, and outreach services are important to meet these needs.  These communities also have less access to health care services, such as continuous care or specialised medical attention <sup>xiii</sup>
Access to safe and affordable housing and childcare	The Tennant Creek Hospital and the council have access to housing due to ownership whereas the ACCHS struggles with access to the same due to lack of ownership.  The lack of safe and secure housing to attract workforce is a substantial barrier in hiring a health workforce.  The lack of childcare and school services in the community is also a barrier for the workforce to carry out their roles if they have a family.

Pearse, J, Mazevska, D & Hachigo, A n.d., The impact of the Medical Specialist Outreach Assistance Program on improved access to specialist services for regional and remote Australia.

### **WORKFORCE QUALITY**

### Issue/Needs

#### **Evidence**

 Supervision/mentorship and buddy ship programs Supervision for the health sector in remote communities is essential to creating a robust and sustainable workforce. Conversations with ACCHS in the region highlighted an appetite for mentorship and buddy programs to encourage self-learning and a more efficient transfer of cultural knowledge.

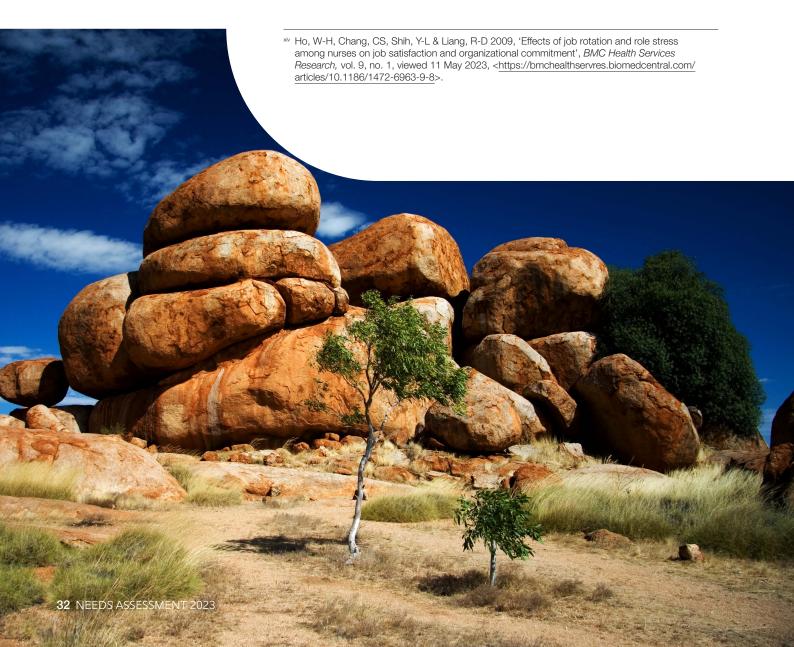
The caveat being that in an already stressed system, the capacity of workforce needs to be built to undertake accessorial duties.

 Rotational model of workforce Rotational workforce models can help identify a practitioner's interests in various streams, and lead to the staff identifying interests in other areas of work.

Research has proven that specifically in nursing, job rotation when implemented periodically and fairly in a hospital setting has the following benefits<sup>xiv</sup>:

- · increased job satisfaction
- · increased organisational commitment

Many ACCHS in Alice Springs use job rotation models in their allied health spaces, which has helped reduce workforce burden and provided opportunity for greater scope of practice.



### **WORKFORCE SUSTAINABILITY**

Issue/Needs	Evidence
Culturally responsive	AHAC provides cultural training to all staff during onboarding. This is set up through Stronger Families and offers the opportunity for on country training.
	The organisation has also developed a cultural framework that is imbedded into everything they do and have two cultural advisors to direct the process. This initiative has benefited the organisation by promoting enhanced collaboration and teamwork, as well as facilitating effective succession planning.
Succession planning	AHAC have imbedded succession planning into their organisational processes. They believe in growing their own through identification and development process that ensures all positions including senior leadership positions are being successively filled by staff from the community.
	This also helps the organisation to have community leadership succession planning <sup>xv</sup> embedded into their systems which helps the dialogue between community and health service because of cultural buy in.
<ul> <li>Access to education and professional development opportunities</li> </ul>	Consultations reveal, the inaccessibility of training opportunities due to travel have been flagged as unfeasible.
	It brings to light issues with familial isolation and taking members away from community. The affordability of such education opportunities is also a barrier.

# WHAT DO THE BARKLY WORKFORCE NEED?

- professional development
- upskilling
- networking
- 4 childcare, schools, placements for partners
- career pathways
- access to housing and social infrastructure

### WHAT DO THE BARKLY **SERVICES NEED?**

- 1 succession planning
- 2 upskilling
- 3 multi-disciplinary MoCs
- 4 culturally responsive frameworks
- 5 access to mentorship/supervision

# WHAT DO BARKLY COMMUNITIES NEED?

- outreach services
- continuity of care
- expanded wraparound services
- culturally responsive MoCs

<sup>\*\*</sup> Buykx, P, Humphreys, JS, Tham, R, Kinsman, L, Wakerman, J, Asaid, A & Tuohey, K 2012, 'How do small rural primary health care services sustain themselves in a constantly changing health system environment?', BMC Health Services Research, vol. 12, no. 1, viewed 11 May 2023, <a href="https://link.springer.com/article/10.1186/1472-6963-12-81">https://link.springer.com/article/10.1186/1472-6963-12-81</a>.



# BARKLY REGION FOCUS CONCLUSION

The examination of healthcare and service requirements in the Barkly region revealed several challenges that are beyond the scope of RWA NTs remit.

The analysis highlighted significant socio-economic disadvantages, with the social determinants of health posing a major obstacle in the region. Matters concerning housing, education and employment fall outside the jurisdiction of the RWA NT.

Addressing housing challenges in the Barkly region requires a multisectoral approach and collaboration with both the territory and federal governments. The territory and federal governments play a significant role in housing policies and programs.

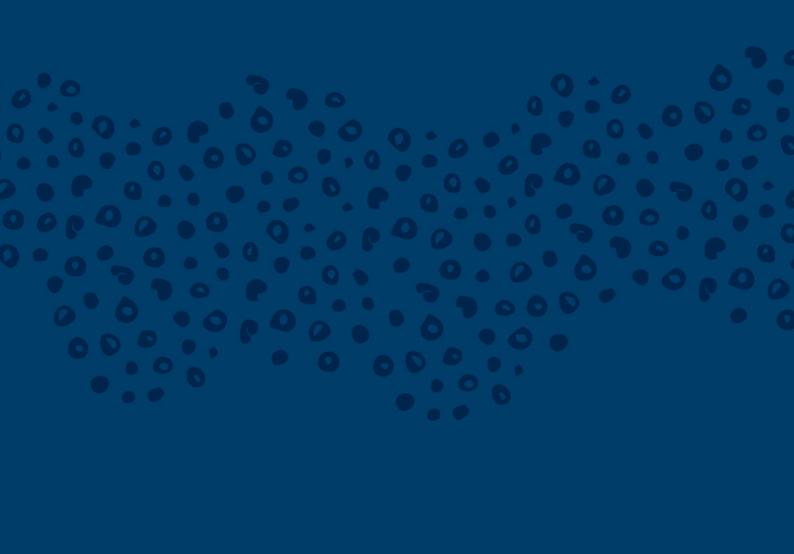
Collaborating with the Northern Territory Government allows for the coordination of efforts, sharing of resources, and leveraging existing initiatives to address housing challenges. This collaboration can help in formulating comprehensive housing strategies and implementing targeted interventions specific to the Barkly region's needs.

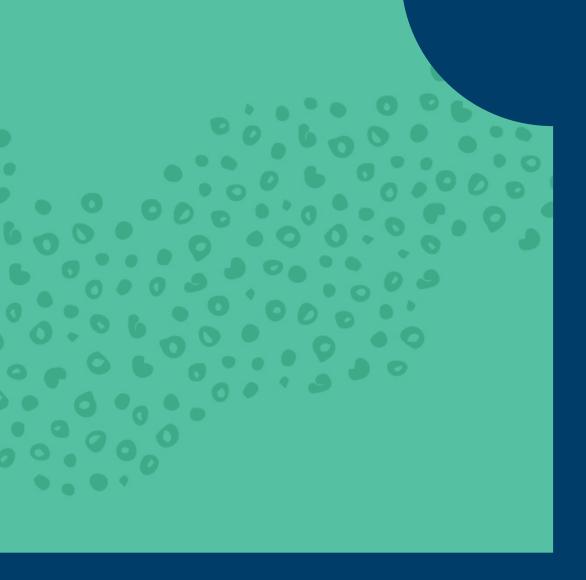
### **APPENDIX**

### Regional breakdown according to LGA's

Region	Incorporated LGA's	Region	Incorporated LGA's
Barkly Region	Barkly	Unincorporated	North and east of
Central Desert	Alice Springs Central Desert MacDonnell	NT (continued)	Litchfield Council Hotham Marrakai Mount Bundey
East Arnhem	East Arnhem		Point Stuart
Big Rivers	Katherine Roper Gulf Victoria Daly West Daly		Vernon Islands  Southeast of Adelaide River (town)  Burrundie (part)  Daly River (part)
Top End	Darwin (city) Coomallie Darwin		Douglas Daly (part)  Margaret River  Robin Falls
	Litchfield  Darwin (remote)  Belyuen  Palmerston  Tiwi Islands  Wagait  West Arnhem		West of Coomalie and Litchfield Councils Beagle Gulf Bynoe Bynoe Harbour Charlotte Cox Peninsula
Unincorporated NT East Arm Berrimah (part) Channel Island Charles Darwin Darwin Harbour East Arm			Dundee Beach Dundee Downs Dundee Forest Litchfield Park Rakula Darwin Waterfront
	Elrundie		Darwin Waterfront Corporation
	Hidden Valley Northcrest Tivendale Wickham Wishart		Towns Alyangula Nhulunbuy Yulara







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