POPULATION HEALTH SERIES REPORT

phn MURRAY
An Australian Government Initiative

PALLIATIVE CARE

Leadership Collaboration Respect Accountability Innovation

Murray PHN acknowledges its catchment crosses over many unceded First Nations Countries following the Dhelkunya Yaluk (Healing River).

We pay our respects and give thanks to the Ancestors, Elders and Young People for their nurturing, protection and caregiving of these sacred lands and waterways, acknowledging their continuation of cultural, spiritual and educational practices.

We are grateful for the sharing of Country and the renewal that Country gives us.

We acknowledge and express our sorrow that this sharing has come at a personal, spiritual and cultural cost to the wellbeing of First Nations Peoples.

We commit to addressing the injustices of colonisation across our catchment, and to listening to the wisdom of First Nations communities who hold the knowledge to enable healing.

We extend that respect to all Aboriginal and Torres Strait Islander Peoples.

Recognition of lived experience

We recognise the individual and collective contributions of people with a lived and/or living experience of health issues, and their families, loved ones and supporters.

It is through listening to and acting on the voices of people with lived experience, those who provide services, those who fund services, and most importantly, those who use services that we will find the expertise we need to move towards the health system that Australia needs.

Every person’s story we hear, and every experience shared, helps to develop our understanding of the system that is required to best meet the needs of people who live with or care for someone with palliative care or end of life needs.

Contributors and attribution

Murray PHN would like to extend sincere thanks to the many contributors to this population health series report, including local healthcare consumers, professionals, community members and other stakeholders. We also acknowledge the contributions of Murray PHN staff who were involved in the planning, data collection, analysis and reporting.

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Disclaimer

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Aboriginal and Torres Strait Islander people should be warned that this document refers to the sensitive issue of death and dying.

Executive summary

This report explores the palliative and end-of-life care needs across the Murray PHN region, identifying key challenges and opportunities for improvement. Demand for these services is rising both locally and nationally, driven by an ageing population and the growing prevalence of multimorbidity, including cancer and chronic conditions, such as diabetes, respiratory illness and cardiac disease. High rates of preventable hospitalisations for chronic conditions highlight gaps in proactive care coordination, after-hours support and self-management capacity.

The Murray PHN catchment is geographically diverse, with access to care constrained by rurality, workforce shortages, particularly in specialist palliative care, and fragmented service pathways. Uneven distribution of primary health services, including general practice and hospice facilities, further limits accessibility and person-centred approaches to managing life-limiting conditions.

Community engagement indicates strong experiential knowledge but limited factual understanding, highlighting the need for targeted education and earlier planning. Palliative care systems must respond to diverse lived experiences, particularly those of culturally and linguistically diverse populations and First Nations communities. Digital health offers significant potential to improve access, education and care coordination; however, adoption remains hindered by workflow and interoperability challenges rather than technology itself.

Murray PHN has received funding as part of the Greater Choices at Home Palliative Care Program to address the following four program objectives:

- Improve access to palliative care at home and support end-of-life care systems and services (in primary health care and community care)
- To enable the right care at the right time and in the right place (to reduce unnecessary hospitalisation)
- Generate and use data to support continuous improvement of services across sectors
- Use available technologies to support flexible and responsive palliative care at home, including in the afterhours.

Key insights

Insights	Implications
Domain: Priority populations	
Insight 1: Murray PHN's rapidly ageing population (projected 27% aged 65+ by 2030) will drive increased demand for palliative and end-of-life care services, requiring expanded capacity and integrated models of care.	The ageing trend in Murray PHN means palliative and end-of-life care services will face growing pressure, requiring proactive planning for workforce capacity, service integration, and community-based models to ensure timely, person-centred care for older populations.
Insight 2: Certain CALD communities in the Murray PHN region experience higher rates of chronic conditions, such as diabetes and arthritis, highlighting the need for culturally sensitive primary care, specialist primary services and palliative care approaches that address language, health literacy and unique cultural practices around death and grieving.	Higher chronic disease rates and unique cultural practices among CALD and refugee populations in the Murray PHN region create a need for culturally sensitive, language-accessible palliative and end-of-life care models, alongside strategies to overcome health and death literacy barriers and service eligibility challenges.
Insight 3: First Nations communities in the Murray PHN region face significant barriers to accessing culturally safe healthcare, particularly mainstream services where racism and lack of cultural safety persist. ACCHOs play a critical role in delivering holistic, culturally centred care, yet there is a strong need for their involvement in decision-making, improved health literacy resources, and culturally safe aged, palliative, and end-of-life care options for Elders.	Without culturally safe environments and meaningful involvement of ACCHOs in planning, First Nations people will continue to face barriers to accessing healthcare, leading to poorer health outcomes and limited uptake of palliative and end-of-life care. Addressing these gaps requires co-design with communities, culturally appropriate care models, and targeted health literacy initiatives.
Domain: Access to services	
Insight 4: Community based primary care services are fundamental to providing healthcare in regional and remote areas, however access to rural generalists and general practitioners who are trained in advanced palliative care remains limited and unequally distributed across the catchment area.	People living in rural areas have poorer access to palliative care because of inequitable service distribution, systemic workforce shortages and funded models that do not support multidisciplinary care options.
Domain: Community awareness and understanding	
Insight 5: While targeted promotion of community engagement has proved effective, it primarily attracts individuals who are already closely connected to the experience of death or dying.	This focus may potentially limit broader public involvement and reduce the diversity of perspectives in palliative care discussions, underscoring the need for strategies that reach beyond those with direct experience.

Insights	Implications
Insight 6: Post program surveys demonstrated high death literacy (confidence and comfort in engaging with conversations about death) but scored low on factual knowledge about end-of-life issues. This contrast indicates that while they feel capable of discussing death, their actual understanding of key concepts remains limited.	This reveals a disconnect between perceived confidence and understanding. While people feel capable of engaging in conversations about death, factual knowledge is limited. Highlighting the need for educational initiatives that not only foster openness and attitudes toward death but also strengthen accurate knowledge to ensure meaningful, informed discussions.
Insight 7: Participants have strong practical experience, likely due to caregiving roles or prior exposure to end-of-life care.	Participants' strong practical experience, likely from caregiving or prior exposure to end-of-life care suggests they have hands-on skills but may lack formal training or theoretical knowledge, creating a gap between practice and evidence-based approaches.
Domain: Digital health	
Insight 8: System and workflow barriers – not technology – limit the outcomes of digital health use.	Even with secure telehealth platforms and emerging tools, if interoperability is poor, after-hours protocols are unclear and clinicians resist hybrid models, so the promise of digital health cannot translate into timely, compassionate care. For palliative patients, these gaps can mean unmanaged pain, missed medication windows and loss of continuity at critical moments.
Domain: Care coordination and chronic conditions	
Insight 9: Potentially preventable hospitalisations (PPHs) for chronic conditions compounded by limited local access to (specialised) medical palliative care and primary care continuity, especially for non-malignant life-limiting illnesses.	Without proactive enhancement of palliative care pathways, particularly after-hours, patients and carers will continue to default to emergency departments for urgent symptom relief. This drives preventable hospitalisations, strains emergency services and undermines quality of life by limiting choice about preferred care settings and place of death.
Insight 10: Chronic burden and PPHs are concentrated in older adults and specific LGAs, therefore targeted place-based interventions and/or education and training are likely to yield greatest impact on avoidable admissions.	This signals gaps in proactive, community-based management and care coordination. Thes patterns suggest that current models are reactive and hospital-centric, leading to avoidable admissions and increased system strain. Without targeted interventions in high-burden LGAs and improved chronic disease management, the region will continue to experience escalating demand on acute services, poorer patient outcomes and higher costs.

Recommendations

Priority	Description	Relevant insights
1	**Workforce capacity building (general practice, aged care, allied health)** Explore and expand workforce capacity building through training and education, inclusive of general practice, aged care and allied health to address the ageing population trend in the Murray PHN catchment.	1, 9, 4
2	**GP in-the-home models and training in anticipatory prescribing / end-of-life communication / medication reviews** Identify gaps in training on anticipatory prescribing, end-of-life communication and medications reviews to facilitate an increase in community-based at home palliative care support.	1, 4, 9
3	**Culturally responsive palliative care resources for CALD / refugee communities** Develop and implement culturally responsive palliative and end-of-life care resources for CALD and refugee populations in targeted Murray PHN regions to include language-accessible resources and interpreter support for health and death literacy, workforce training on cultural practices around death, dying and grieving, and community engagement initiatives to build trust and awareness of available care options.	1, 2, 10
4	**Community programs for practical information (Advanced Care Planning)** Develop community programs focused on practical information, such as advanced care planning, to address gaps in the Knowledge Scale to build community confidence in managing death related processes	2, 3, 5, 6, 7
5	**Leverage experiential knowledge (peer support / community ambassadors)** Strengthen networks to sustain knowledge beyond formal education sessions by considering the identification, support, creation and maintenance of peer-support or community ambassador programs, engagement sessions and community managed escalations.	2, 3, 5, 6, 7
6	**Codesign culturally safe palliative models with ACCHOs / First Nations Communities** Co-design and implement culturally safe palliative and end-of-life care models and resources in partnership with ACCHOs and First Nations communities to include: embedding ACCHOs in decision-making for place-based palliative care and end-of-life planning to ensure self-determination, develop health literacy resources and initiatives tailored for First Nations communities, and expanding local culturally safe aged care and palliative care options for Elders and older people.	1, 3, 10

Priority	Description	Relevant insights
7	**Normalise death/dying with chronic and aged care strategies** Enable earlier preparation and understanding by integrating these programs within the broader chronic disease management and aged care strategies and position death literacy as part of holistic health and wellbeing initiatives.	1, 2, 3, 5
8	**Targeted place-based interventions** Embed palliative care in chronic disease pathways in targeted areas of need aligned to areas with high rates of PPHs, working with tertiary providers on care pathways and community-based services.	7, 9, 10
9	**Enhance after hours community care pathways** Enhance after hours community care pathways to reduce preventable emergency presentations. This includes upskilling GPs, nursing and pharmacists in palliative and symptom management with the aim to shift care from hospital to home, improve patient and carer confidence, and reduce reliance on emergency departments for after-hours escalation.	1, 4, 9, 10
10	**Shift digital health focus to workflow redesign, change management and cultural engagement** Ensure digital tools simplify, not complicate "more technology" to workflow redesign, change management and cultural engagement, including shared care plans, assisted digital pathways for older adults and First Nations co-design.	1, 3, 4, 8

Contents

Abbreviations

ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
AIHW	Australian Institute of Health and Welfare
ASR	Age-standardised rate
COPD	Chronic Obstructive Pulmonary Disease
CV	Central Victoria sub-region
DHDA	Department of Health, Disability and Ageing
ED	Emergency Department
ERP	Estimated Resident Population
FTE	Full time equivalent
GP	General Practitioner
GV	Goulburn Valley sub-region
LGA	Local Government Area
MBS	Medicare Benefits Schedule
MMM	Monash Modified Model
NDIS	National Disability Insurance Scheme
NE	North East sub-region
NHSD	National Health Service Directory
NW	North West sub-region
PHIDU	Public Health Information Department Unit
PHN	Primary Health Network
PPH	Potentially Preventable Hospitalisations
RACH	Residential aged care home
RWAV	Rural Workforce Agency Victoria
SA	Statistical Area (for example, SA2)
SEIFA	Socio-economic Indexes for Areas
SEIFA IRSD	Socio-economic Indexes for Areas Index of Relative Socio-Disadvantage
SEWB	Social and Emotional Wellbeing
UCC	Rural Urgent Care Centre

Section 1: Narrative

Background

Palliative care and end-of-life care in Australia are essential components of the healthcare system, aimed at improving the quality of life for individuals with life-limiting or life-threatening illnesses, focusing on symptom management, emotional, psychological, spiritual and social support, advanced care planning and support for families and carers.

Palliative care is not limited to the final days or weeks of life, it can be provided alongside curative treatments and is relevant across a range of conditions. Australia's ageing population and increasing prevalence of chronic illnesses make palliative care more critical than ever. The last year of life often involves complex interactions with the healthcare system, and ensuring quality care during this time is a public health priority.

Despite its importance, access to palliative and end-of-life care in Australia is uneven and inequitable. Key barriers include geographic disparities, cultural and linguistic barriers, awareness and misconceptions. Without addressing these barriers many Australians will continue to die in discomfort, without adequate symptom control or emotional support and the health systems may face inefficiencies due to avoidable hospital admissions and emergency care use.

Palliative and end-of-life care are vital to ensuring that people live and die with dignity, comfort and support. While Australia has made strides in recognising its importance, significant barriers remain. Addressing these through policy reform, workforce development, cultural competence and community engagement will not only improve individual outcomes but strengthen the healthcare system as a whole.

Murray PHN population overview

The Murray PHN catchment encompasses 100,406 square kilometres and 22 local government areas (LGAs) across northern Victoria and is home to 644,577 people (by PHN Catchment; ABS, 2022). The catchment crosses over many unceded First Nations Countries following the Murray River in the north and extending into the Kulin Nation in the south. It includes regional cities of Mildura (Latji Latji Country), Albury-Wodonga (Wiradjuri Country) and Bendigo (Dja Dja Wurrung Country). Given this scale, Murray PHN has divided the catchment into four sub-regions: North West (NW), Central Victoria (CV), Goulburn Valley (GV) and North East (NE).

Communities in this catchment are diverse, ranging from rural agricultural communities to rapidly growing rural centres, small rural communities and major tourism destinations, including snowfields in the Alpine region. The catchment is susceptible to severe weather and emergency disasters events relating to climate change, including floods and bushfires.

Role of Murray PHN in addressing palliative and end-of-life care

Murray PHN plays a key role in improving palliative and end-of-life care through the Greater Choices for At Home Care program (GCfAHC), which is funded by the Department of Health, Disability and Ageing (DHDA). The work focuses on enabling people with life-limiting illnesses to live well and die with dignity, in a place of their choice, by enhancing community-based care and support systems.

Murray PHN's localised program, 'The Caring Circle' aligns with the broader goals of the Greater Choices program, which include reducing unnecessary hospital visits, improving access to care and supporting families and carers through culturally safe and responsive service. The program aims to:

- improve the health and end-of-life journey for people in rural and remote Victoria living with conditions like dementia, diabetes and heart failure
- support carers by providing resources and facilitating community conversations about end-of-life wishes
- encourage early advance care planning and documentation of individual preferences
- enhance professional development opportunities for health service providers in palliative care
- promote early identification of individuals with life-limiting illnesses in general practice settings
- bring communities together to discuss culturally respectful end-of-life planning
- focus on holistic care, addressing physical, emotional, spiritual and social needs
- work to improve coordination between health services and community supports
- strengthen the ability of primary care providers to deliver quality palliative care at home.

Key considerations in regional palliative and end-of-life care planning

Understanding the diverse needs of a population is essential for delivering equitable, effective and compassionate palliative and end-of-life care.

Palliative care needs are shaped by diverse factors, including age, chronic disease, cultural background, socioeconomic status and geographic location. Chronic illnesses such as cancer, chronic respiratory diseases and heart failure demand long-term symptom management and early integration of palliative care to improve outcomes. Cultural and linguistic diversity, including the unique needs of First Nations peoples, necessitates culturally safe and responsive care. Socioeconomic disadvantage and rural isolation create barriers to access, compounded by low health literacy and fragmented service coordination. Carer wellbeing is critical, as stress and burnout impact both patient and family outcomes, while psychosocial support remains essential for holistic care. These factors represent key considerations for regional palliative and end-of-life care planning, as they directly influence service accessibility, quality and the ability to deliver person-centred, culturally appropriate care across diverse communities.

Section 2: Outcomes of health and service needs analysis

Method

The palliative and end-of-life care health and service need analysis was completed by recognising the experiences of people with lived experience and approaches needed to improve primary healthcare access and outcomes, and carer support and wellbeing. The stakeholder consultation process was undertaken to inform planning for palliative care services across the Murray PHN catchment within the scope of the Greater Choices for At Home Care funded program. The primary objectives were to:

- understand current service provision and identify gaps
- capture perspectives from a diverse range of stakeholders and consumers
- generate evidence-based insights to guide recommendations.

Consultations covered the entire Murray PHN region, with a total of 13 stakeholder interviews conducted with representatives from:

- hospices
- tertiary health centres
- Aboriginal community controlled health organisations (ACCHOs)
- palliative care support services
- national palliative care organisations
- regional health services
- palliative care consortiums.

In addition, consumer feedback was gathered to ensure the voices of service users were incorporated into the analysis.

The consultation process employed a structured interview framework using open-ended questions to allow participants to share detailed perspectives while maintaining consistency across interviews. Key steps included:

- **Interview design:** questions were developed to explore service delivery, workforce capacity, cultural appropriateness, integration and future needs.
- **Data collection:** interviews were conducted across all regions, supplemented by consumer input.
- **Thematic analysis:** responses were analysed to identify recurring themes and emerging issues.
- **Cross-referencing:** qualitative findings were triangulated with quantitative data to validate insights and strengthen recommendations.
- **Reporting:** themes and evidence were synthesised into actionable recommendations aligned with the funding requirements of the program.

Population health data were retrieved from a range of sources for the quantitative descriptive and prioritisation analyses, including from the recently completed Multicultural Populations Population Health Series Reportand The First Nations Health and Healing report A detailed list of the data indicators, definitions and sources that were analysed and presented in this report are in Section 3.

The outcomes of the health and service need analysis are presented in domains with reference to evidence, gaps and limitations of the insights and findings. The insights presented in this section have been generated primarily from the stakeholder consultations to prioritise the themes and future focus.

Data gaps and limitations

Limitations of the health needs assessment include the sample size, while diverse may not capture all perspectives and consumer feedback was limited in comparison to stakeholder input and time constraints restricting the depth of some interviews.

Data on palliative care is collected across multiple systems (hospital, community, aged care) with inconsistent definitions and reporting standards, making comparisons difficult. Variability in data collection protocols across services leads to gaps in national datasets like Palliative Care Outcomes Collaborative (PCOC) and patient-reported outcomes are often incomplete or unreliable. Most data focuses on specialist palliative care in hospitals, while primary care and aged care settings lack robust reporting which underrepresents the majority of patients who receive palliative care outside hospitals.

Data on some priority populations is also sparse or incomplete which can limit understanding of equity gaps and cultural needs, and current systems rarely capture real-time patient trajectories or link data across episodes of care. Advance care planning and patient preferences are often documented late or not at all, and digital systems for sharing this information, such as My Health Record, are underused.

Questions posed throughout consultations, focused on the following areas:

- current challenges or needs faced by palliative care supporters or carers in the region
- technologies being used locally or nationally to support palliative care provision
- priority populations within the region and specific needs relating to palliative care
- workforce and community death and grief literacy
- ongoing support to improve access to palliative care at home.

Table 1. Data needs and gaps

Data need or gap	Description
Aboriginal and/or Torres Strait Islander Peoples - data gaps and deficit data, and impacts of systemic racism	Data collected from Aboriginal and/or Torres Strait Islander Peoples that requires self-identification can lead to under-reporting because First Nations People may not self-identify in unsafe contexts where there is a real risk of harm from racism. This leads to data gaps which need to be considered when reading and interpreting this report. Where data is collected and reported by Western institutions, this is often done in ways that communicate and perpetuate deficit portrayals of Aboriginal and/or Torres Strait Islander People which contributes to unsafe healthcare planning and program delivery. For example, there is evidence to demonstrate how systemic racism impacts on healthcare outcomes for Aboriginal and Torres Strait Islander Peoples in emergency departments (McMahon (Yorta Yorta) et al. 2024), but it is not known how this impacts on data collection and quality.
Age groups	Although this needs assessment seeks to understand the population health and service needs in the Murray PHN catchment regardless of age the quantitative data was generally skewed towards those aged 18 years and older. Similarly, stakeholder consultations were all conducted with adults.
COVID-19 pandemic	Where the Victorian 2021 hospital data was used in the current report, generalisation beyond that time period and context is limited because of the COVID-19 pandemic and subsequent restrictions imposed in Victoria.

Data need or gap	Description
Data suppression for small populations	There is no data available for smaller geographies (e.g. LGA) about groups with small populations in the Murray PHN catchment because of data suppression and sensitivity reasons, which includes data for refugee populations and workforce data in small rural towns.
Geographic filters	There are a range of geofilters that are used for population health analysis and some datasets only have specific filters available. In this report we have included the relevant geofilters as part of the in-text citations for data sources to make it clear which have been applied for each data point. Noting that when PHN catchment is used only a sub-section of the Macedon Ranges, Mitchell and Murrindindi LGAs are included. However, where LGA geofilter is used these LGAs are included in total. Albury, NSW is included in the Murray PHN catchment; however, where Victorian data sets are used, Albury is often not included.
High-risk groups	Stakeholder consultations were conducted with service providers who were able to provide consent for themselves and had capacity to engage in a consultation with no risk above minor inconvenience. Consultations were not conducted specifically with groups that might have experienced harm or discomfort from participating in a consultation, which means that children, people who were acutely unwell or were in crisis were not consulted.
Population socio-demographics	The ABS census is a primary source of population health information for this needs assessment. This report is limited therefore by the reporting period (2021) and socio-demographics collected and reported from this survey, for example no information was collected on sexuality and gender in the 2021 census, so the health needs specific to LGBTQIA+ populations cannot be determined.
Statistical analysis	Only descriptive statistics have been used for the analyses that informed this report, however future years are recommended to include statistical analysis to understand the most significant need and to determine changes over time with comparisons between data sets where available and appropriate.
Victorian Public Hospital Data and data sharing agreements	Murray PHN has now established a data sharing agreement and data governance processes for incorporation of data from Victorian public hospitals. This new data has been included as part of the 2025 annual update. The PPH rates are all based on LGA totals including the Murray PHN catchment rate. The calculations are crude rates based on total population by LGA totals. The data is from Victorian public hospitals and therefore does not include PPH by people living in the Murray PHN catchment who presented at a hospital in NSW, except for Albury Wodonga Health. Data sharing agreements also need to be formed with NSW Health to improve reporting on needs of people living along the NSW border.
Potentially Preventable Hospitalisations (PPH)	A limitation of the Victorian PPH data, "is that not all of the hospitalisations captured by the indicator could have been prevented, at least not in the short-term. While some of these admissions could have been prevented by more effective management in the period leading up to hospitalisation, other admissions may reflect chronically ill or elderly patients who have received optimum management in primary care. While the chronic conditions leading to hospitalisations may have been prevented through primary prevention initiatives (such as quit smoking interventions or physical activity programs), the long-term lag between disease onset and complications leading to hospital admissions means that such initiatives may take many years to impact on admission rates". (Falster & Jorm, 2017).

Domain: Priority populations

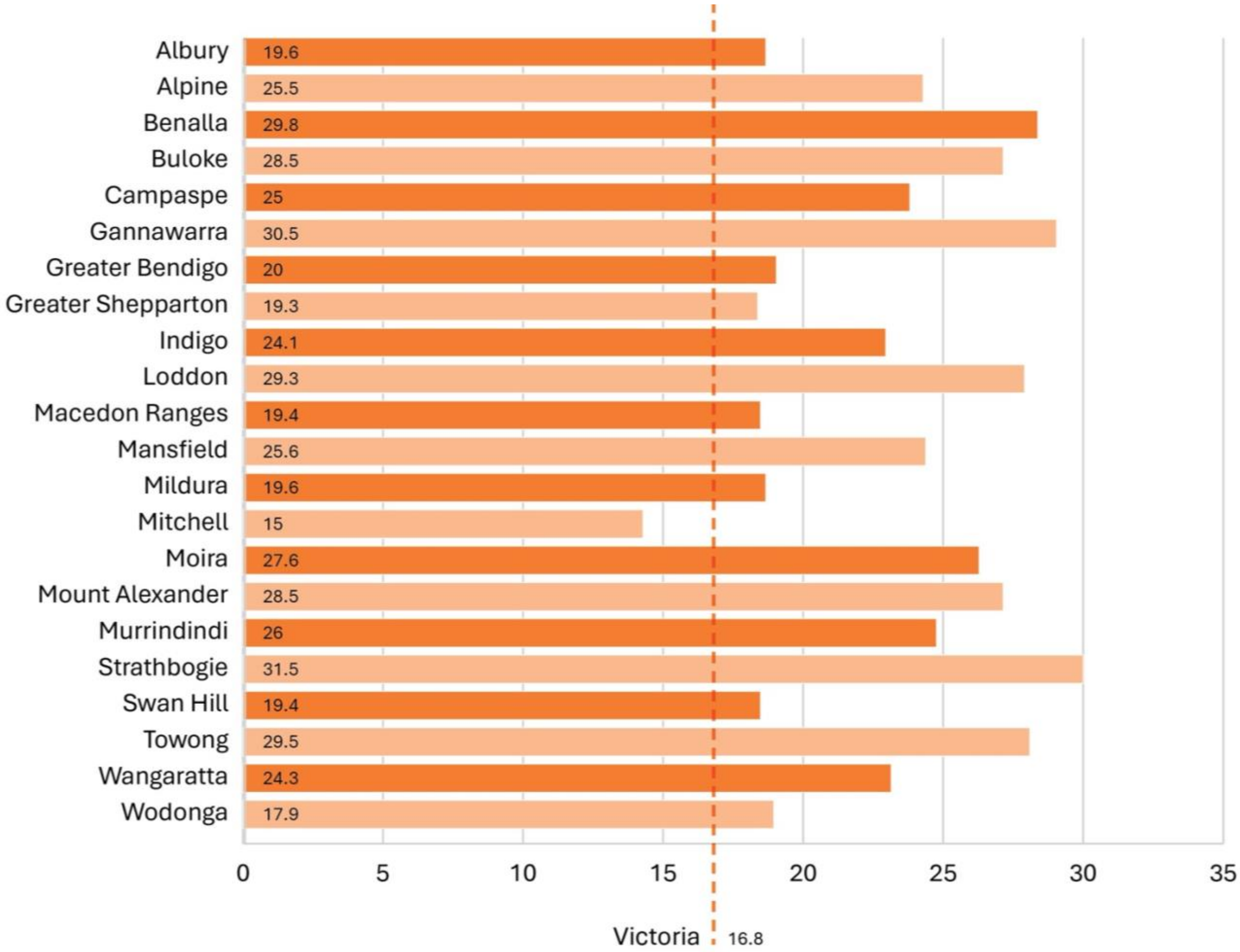
Specialist palliative care resources, teams, medications and support services are finite. Identifying priority groups ensures those with the greatest need (e.g. advanced illness, complex symptoms, social vulnerability) receive timely and appropriate care. Without prioritisation, services risk being spread too thin, reducing quality and equity of care. Older adults, Indigenous and culturally and linguistically diverse groups, children and young people and those living with or experiencing homelessness, chronic conditions or disability, often face barriers to accessing palliative care. Priority groups may have unique physical, psychosocial, spiritual and cultural needs. Considering these helps address inequities and ensures culturally safe, inclusive care. A health needs assessment that accounts for these enables care models that respect individual values, goals, family circumstances, improving quality of life and satisfaction.

Key findings: priority populations

Age distribution

- The Murray PHN region has an ageing population, with 22 per cent of the population aged 65 years or older, which is higher than the Victorian state and national rates (both 17 per cent) (by LGA; ABS, 2021). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 11*.
- Older First Nations People are a small population group in the catchment with 6.2 per cent or 1167 people of the total Aboriginal and/or Torres Strait Islander People aged 65 years and older, and 16.8 per cent or 3138 people aged between 45 to 64 years. With the highest total number of people living in CV and highest proportion per population in the NE and GV regions (by LGA; PHIDU, 2021). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 22*.
- There are ageing populations in the Murray PHN catchment with increasing complex care needs (by LGA; ABS, 2021). It is estimated that the proportion of population aged 65 years and older in the catchment will increase from 22 per cent to 27 per cent by the year 2030 (by SA2; PHIDU, 2021). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 46*.
- The population in the Murray PHN catchment is older than average, and this is reflected in the number of residential aged care places, which is 75.1 per 1000 population aged 70 years and older, which is higher than the national rate of 71.9 and the Victorian non-metropolitan areas rate 72.9 (by PHN catchment; PHIDU, 2023). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 26*.

Graph 1. Percentage of age 65+ per LGA



Source ABS 2021

No.	Insight	Implication
1	Murray PHN's rapidly ageing population (projected 27% aged 65+ by 2030) will drive increased demand for palliative and end-of-life care services, requiring expanded capacity and integrated models of care.	The ageing trend in Murray PHN means palliative and end-of-life care services will face growing pressure, requiring proactive planning for workforce capacity, service integration and community-based models to ensure timely, person-centred care for older populations.

Multicultural populations

- People who speak Italian and Greek languages had higher rates of most chronic conditions and should be prioritised for primary care initiatives (ABS, 2021). *Murray PHN Multicultural Populations Population Health Series Report 2024 Page 3.*
- Diabetes is a priority chronic condition for CALD populations of Italian, Greek, Tongan, Turkish, Tagalog, Nepali, German and Arabic language groups with rates higher than the PHN population average (ABS, 2021). *Murray PHN Multicultural Populations Population Health Series Report 2024 Page 3.*
- The most reported long-term health conditions within multicultural populations were arthritis and diabetes. *Murray PHN Multicultural Populations Population Health Series Report 2024 Page 3.*

- The LGAs with the greatest proportion of the population born in predominantly non-English speaking countries are Swan Hill (14.4%), Greater Shepparton (14.2%), Mildura (10.8%) and Mitchell (9.5%). *Murray PHN Multicultural Populations Population Health Series Report 2024 Page 5.*
- Top five predominantly non-English speaking countries of birth are India, Philippines, Malaysia, Italy and Germany. *Murray PHN Multicultural Populations Population Health Series Report 2024 Page 5.*
- Murray PHN has large areas of refugee populations who often do not qualify for services, have language, health and death literacy challenges, in addition to unique cultural death and grieving practices which require culturally sensitive care.

Multicultural needs identified in stakeholder consultations

Murray PHN Multicultural Populations Population Health Series Report 2024

- Certain groups of older CALD people were said to sometimes 'fall through the cracks' of health and other support systems, especially where language was a barrier. For example, stakeholders reported the lack of bilingual workers in aged care homes and aged care support services in rural and regional areas makes communication about even basic needs very difficult for some older CALD people.
- Service providers reported that some cohorts – people seeking asylum, temporary and bridging visa holders, and unlawful or undocumented residents (e.g. migrants living in Australia on cancelled or expired visas etc) - are especially vulnerable to poor health access. Particularly those ineligible for government support, such as Medicare. Stakeholders noted that the "fear of being found out" was impacting on health access and willingness to seek out healthcare, compounded by a lack of health service awareness and low health literacy to manage the needs of themselves and their families.
- Stakeholder consultations identified the key chronic conditions within the CALD population were stroke, heart disease, diabetes, kidney disease and dementia.

No.	Insight	Implication
2	Certain CALD communities in the Murray PHN region experience higher rates of chronic conditions such as diabetes and arthritis, highlighting the need for culturally sensitive primary care, specialist primary services and palliative care approaches that address language, health literacy, and unique cultural practices around death and grieving.	Higher chronic disease rates and unique cultural practices among CALD and refugee populations in the Murray PHN catchment create a need for culturally sensitive, language-accessible palliative and end-of-life care models, alongside strategies to overcome health and death literacy barriers and service eligibility challenges.

First Nations

- ACCHOs play a vital role in their communities. They are integral in providing best practice holistic primary healthcare that centres First Nations cultures, Communities and social and emotional wellbeing. *Murray PHN First Nations Population Health Series Report 2024 Page 4.*
- The most significant barrier to accessing healthcare for First Nations Peoples is the experience of racism and culturally unsafe environments in mainstream services. These experiences contribute to adverse health outcomes and discourage First Nations People from seeking care. *Murray PHN First Nations Population Health Series Report 2024 Page 4.*

- There is a strong need for ACCHOs and community to be involved in decision-making processes for place-based healthcare planning enabling self-determination and which overcomes the data gaps and limitations. *Murray PHN First Nations Population Health Series Report 2024 Page 5*.
- Additional resources and education are required to enhance health literacy in First Nations communities. This includes increased information on the service options available, how to access different services and ways to access low/no-cost services where available. *Murray PHN First Nations Population Health Series Report 2024 Page 6*.
- First Nations Elders and older people provide an integral contribution to the wellness and health of their communities; however, there is a misalignment with the support provided and available to them. Elders and older people should have opportunities to access local culturally safe aged care, including residential, palliative and end-of-life care. *Murray PHN First Nations Population Health Series Report 2024 Pages 7-8*.

No.	Insight	Implication
3	First Nations communities in the Murray PHN region face significant barriers to accessing culturally safe healthcare, particularly mainstream services where racism and lack of cultural safety persist. ACCHOs play a critical role in delivering holistic, culturally centred care, yet there is a strong need for their involvement in decision-making, improved health literacy resources, and culturally safe aged, palliative and end-of-life care options for Elders.	Without culturally safe environments and meaningful involvement of ACCHOs in planning, First Nations people will continue to face barriers to accessing healthcare, leading to poorer health outcomes and limited uptake of palliative and end-of-life care. Addressing these gaps requires co-design with communities, culturally appropriate care models, and targeted health literacy initiatives.

Domain: Access to services

Access determines whether patients can benefit from palliative care. Without equitable access, vulnerable groups and priority populations may experience unmet needs and poorer quality of life, so addressing access ensures fairness and reduces health disparities. Palliative care is most effective when provided early and consistently. Barriers like geographic distance, transportation issues and fragmented referral systems delay care, leading to unmanaged symptoms and unnecessary hospitalisations. Patients often move between hospitals, hospices and home care, so poor coordination and limited-service availability can result in gaps in care. Evaluating access during needs assessment ensures integrated pathways and continuity of care across all settings.

The whole Murray PHN catchment is classified as regional and rural, which are communities more at risk of market failure due to insufficient population sizes to sustain private competitive markets. There are rural communities with declining populations which also contributes to challenges with community sustainability. This is made worse due to increasing workforce shortages across-sectors, reducing the number of private providers and market competition. Servicing rural regions is more expensive which is a disincentive to private providers. The catchment is also affected by the workforce maldistribution, meaning workforce shortages increase with remoteness (PHN Cooperative 2023). *Murray PHN Needs Assessment 2025-26 to 2027-28.*

The Commonwealth Government's Health Workforce Data showed there were approximately 4300 health professionals (including specialists, GPs, allied health and primary care nurses) who have capacity to provide Chronic Care Management (CCM) in the Murray PHN catchment (2021). Albury had the highest CCM workforce relative to population size at 102 per 10,000 population, which was higher than the national rate (58.1). This was followed by Wangaratta (80.7), Greater Bendigo (77.4) and Wodonga (68.5). In contrast, more than half of the LGAs in the catchment (14 out of 22) had rates below the national average, with the lowest observed in Loddon (13.0), Murrindindi (25.1) and Strathbogie (29.9), (By LGA; Commonwealth Health Workforce Data, 2021). *Murray PHN Needs Assessment 2025-26 to 2027-28.*

GP workforce

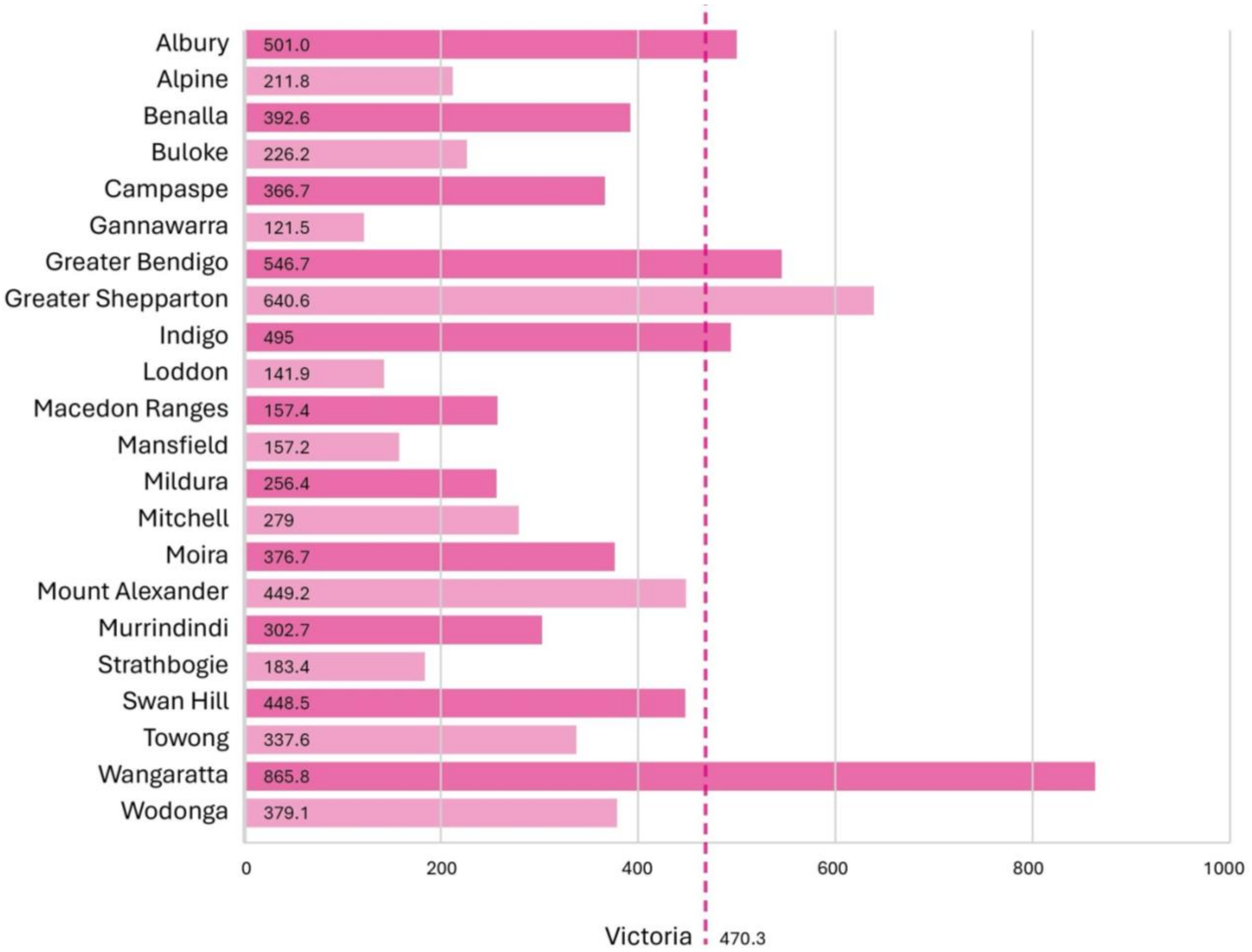
The Victorian Workforce Planning and Prioritisation July report (2024) examined GP catchments in the Murray PHN region and identified 33 (66%) as having high workforce need in comparison with other GP catchments across the state. This has significant impacts on rural community access to primary healthcare in a range of settings including residential aged care (Murray Primary Health Network and Victorian PHN Consortium 2024). *Murray PHN Needs Assessment 2025-26 to 2027-28.*

Nursing and palliative medicine specialist workforce

Murray PHN has five LGAs with a rate of registered and enrolled nurses above the state rate (470.3 per 100,000 people), which are Wangaratta (865.8 per 100,000 people), Greater Shepparton (640.6 per 100,000 people), Greater Bendigo (546.7 per 100,000), Albury (501.0 per 100,000 people) and Indigo (495.0 per 100,000 people), (by LGA; Commonwealth Government Health Workforce Data 2023).

The five LGAs with the lowest rates of registered and enrolled nurses in the Murray PHN catchment are Gannawarra (121.5 per 100,000 people), Loddon (141.9 per 100,000 people), Mansfield (157.2 per 100,000 people), Macedon Ranges (157.4 per 100,000 people) and Strathbogie (183.4 per 100,000 people), (by LGA; Commonwealth Government Health Workforce Data 2023).

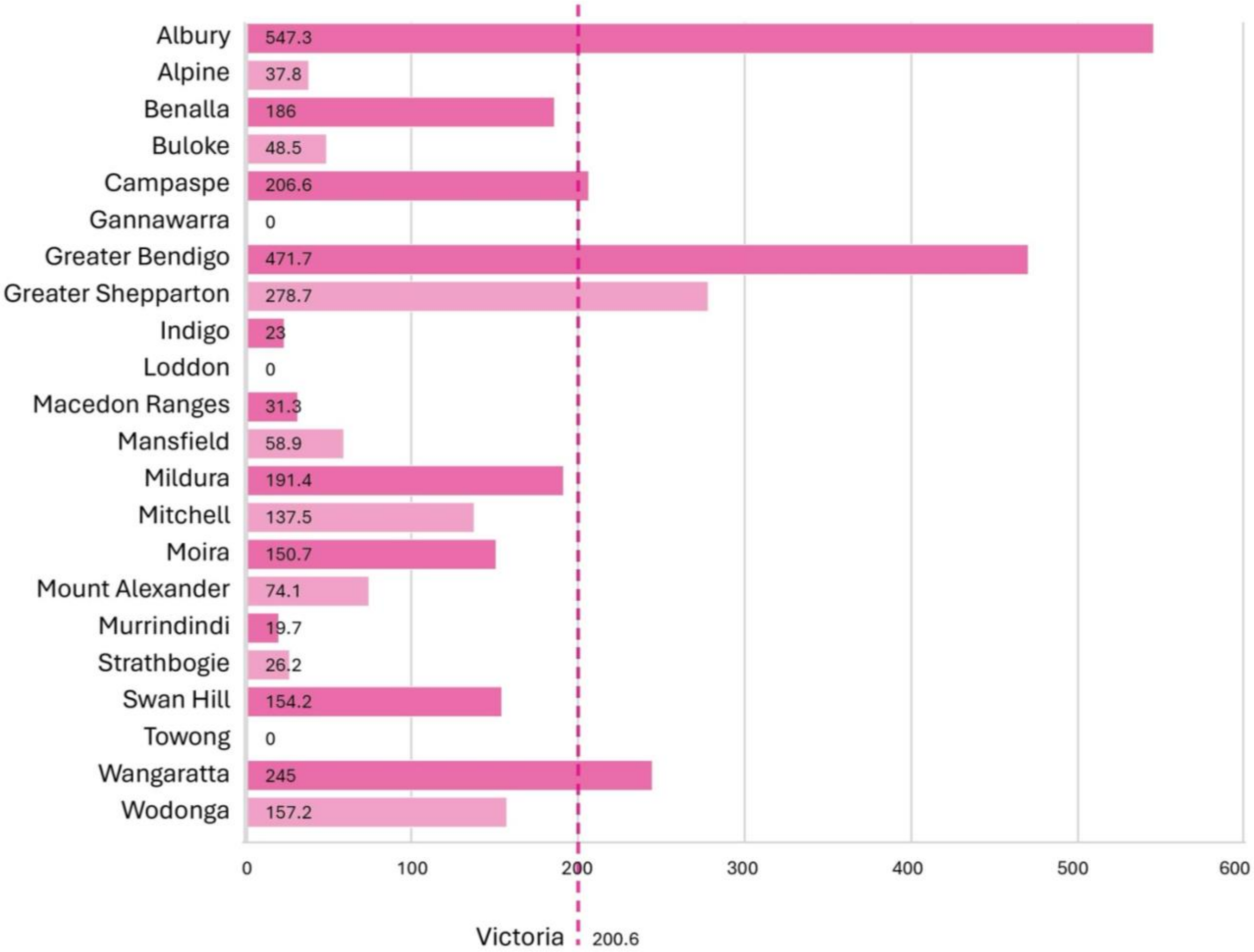
Graph 2: Rate of registered and enrolled nurses per 100,000 people



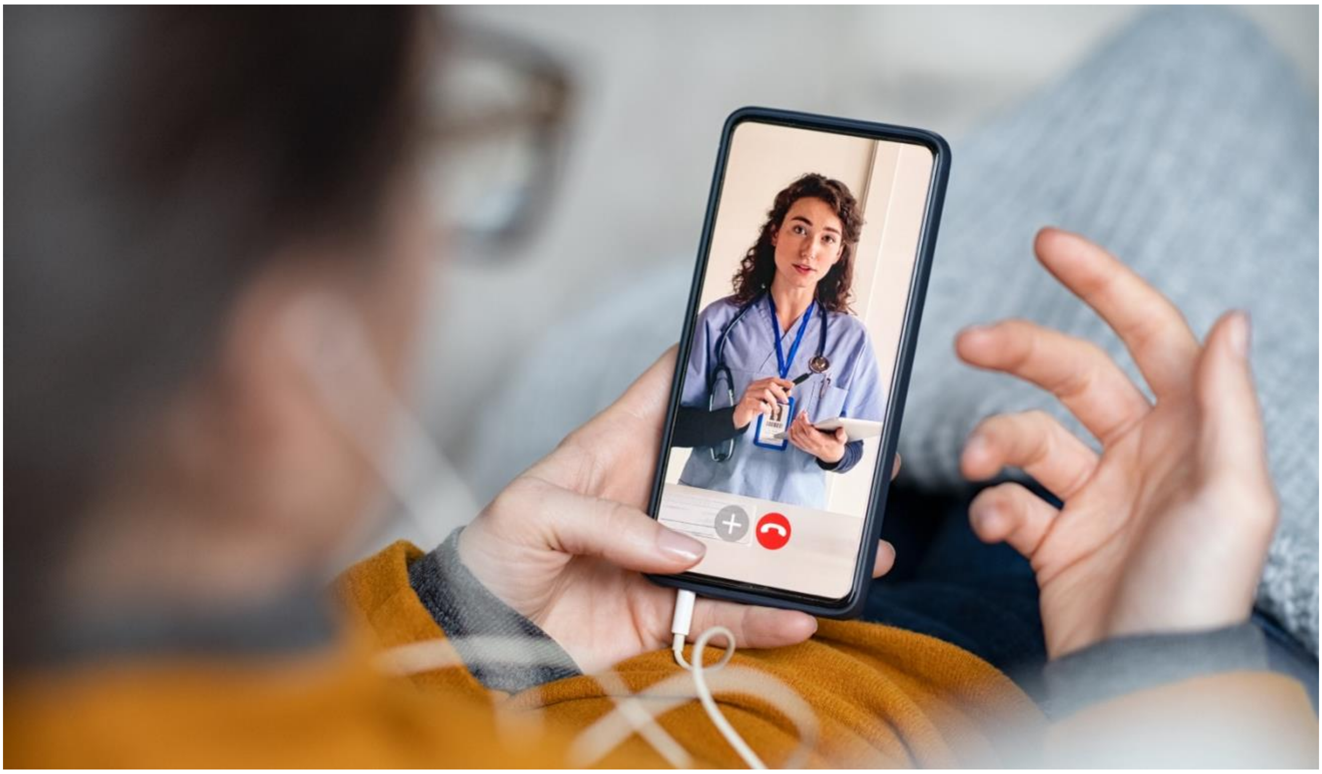
The Commonwealth Government's Health Workforce Data 2023 showed there are palliative medicine specialists in the following Murray PHN LGAs: Albury (nine palliative medicine specialists), Bendigo (28 palliative medicine specialists), Greater Shepparton (nine palliative medicine specialists) and Wodonga (six palliative medicine specialists).

Four LGAs in the Murray PHN catchment have a rate of palliative care nurses above the state rate (200.6 per 100,000 people) and are Albury (547.3 per 100,000 people), Greater Bendigo (471.7 per 100,000), Greater Shepparton (278.7 per 100,000 people) and Wangaratta (245.0 per 100,000 people), (by LGA; Commonwealth Government Health Workforce Data 2023).

Graph 3. Rate of palliative care nurse per 100,000 population



Source: Commonwealth Government Health Workforce Data 2023



Key findings: access to services

- High rates of PPHs can reflect barriers to care shaped by poor healthcare access and social determinants of health in low socioeconomic and disadvantaged communities which supports the need for equity-based approaches. *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 25*.
- Access and equity challenges in palliative care are visible for patients and carers, particularly in rural and remote areas where long travel times, isolation and transport difficulties limit service availability. Variability in after-hours support, admission criteria and telehealth access creates a “postcode lottery,” while poor internet connectivity and high costs further restrict digital solutions (stakeholder consultations 2025).
- Systemic barriers include shortages of palliative care beds, GP capacity constraints, medication delays, and workforce limitations, while emotional and social factors such as fear of institutionalisation, grief and loneliness remain prevalent (stakeholder consultations 2025).
- Cultural diversity and socioeconomic disadvantage add complexity, with lower-income communities experiencing higher chronic illness rates and fewer resources (stakeholder consultations 2025).
- Medication delays, workforce shortages and the growing complexity of care - now encompassing patients undergoing active treatment - compound these challenges, making navigation difficult for both carers and clinicians (stakeholder consultations 2025).
- Proactive outreach and community-based models are viewed as essential to improving palliative care access and reducing late-stage crisis referrals. Strategies such as mobile multidisciplinary clinics and early referral clinics can bring care closer to vulnerable populations (stakeholder consultations 2025).
- Referral processes into palliative care services remain complex and time-consuming for GPs, with practice nurses often filling this gap informally (stakeholder consultations 2025).
- Strengthening GP involvement through anticipatory prescribing, home-based care models and targeted education is critical, alongside funding locum palliative care GPs for rural areas (stakeholder consultations 2025).
- Residential aged care homes (RACHs) play a critical role in palliative care delivery and are accountable for implementing robust internal processes aligned with the Aged Care Quality Standards. Key priorities include ensuring timely access to medications and establishing advance care directives early.

No.	Insight	Implication
4	Community based primary care services are fundamental to providing healthcare in regional and remote areas; however, access to rural generalists and general practitioners who are trained in advanced palliative care remains limited and unequally distributed across the catchment area.	People living in rural areas have poorer access to palliative care because of inequitable service distribution, systemic workforce shortages and funded models that do not support multidisciplinary care options.

Domain: Community awareness and understanding

Many people equate palliative care solely with end-of-life care, which can create fear and resistance. Misunderstanding its role in improving quality of life throughout serious illness often delays referrals and uptake. Increasing awareness helps normalise palliative care and promotes early integration. If communities are unaware of available services or their benefits, patients and families may not seek support until crises occur. Understanding palliative care empowers patients and families to make choices aligned with their values and goals and cultural needs. Assessing community knowledge and attitudes during a needs assessment identifies gaps in understanding and informs targeted education strategies.

The Death Literacy Index (DLI) is a population-based tool designed to measure people's knowledge, skills and confidence in dealing with death, dying and end-of-life care. It reflects how well individuals and communities can understand, navigate and act on death-related systems and choices.

The DLI was created in response to growing recognition that many people feel ill-equipped to handle end-of-life situations. It emerged from over a decade of community-informed research led by Western Sydney University and The GroundSwell Project. The goal was to support a public health approach to palliative care, where communities are empowered to participate actively in end-of-life care.

The DLI measures six domains of death literacy.

1. **Practical knowledge**: skills in providing hands-on care.
2. **Experiential knowledge**: insights gained from personal experiences with death and grief.
3. **Factual knowledge**: understanding of legal, medical, and procedural aspects.
4. **Community knowledge**: awareness of local resources and support systems.
5. **Talking support**: comfort and ability to discuss death and dying.
6. **Hands-on support**: ability to physically care for someone at the end-of-life.

Murray PHN integrates the DLI to:

- **assess community knowledge and confidence** around death, dying, and end-of-life care
- **identify gaps** in death literacy across different regions and demographics
- **inform targeted education and engagement strategies** to improve public understanding and planning for end-of-life care
- **support early advance care planning** by helping individuals and families feel more equipped to discuss and document their wishes.

Key findings: community awareness and understanding

- Participants in Murray PHN-funded palliative care programs and services demonstrated consistently higher scores across all scales and subscales of the Death Literacy Index (DLI) compared to the Australian general population. This outcome aligns with existing research indicating that death literacy increases with direct experience of death (Lenoard etc al, 2019).
- Murray PHN's targeted promotional strategies, which focused on individuals experiencing grief, death and dying likely contributed to attracting participants with greater exposure to end-of-life contexts.
- Post-session DLI assessments suggest that program attendance further enhanced participants' knowledge and skills, reinforcing the value of ongoing community education initiatives.
- While the highest scores were recorded on the Experiential Knowledge Scale, reflecting strong practical experience in end-of-life care, the Knowledge Scale yielded the lowest results, highlighting a need for continued emphasis on programs that improve understanding of the death system and planning for dying, caregiving and bereavement.

- Carers face significant challenges across multiple domains, including limited time for self-care, psychological strain, financial stress and complex navigation of support systems, all contributing to burnout.
- Younger carers experience unique pressures such as dependent children and mortgage obligations.
- Children who require palliative care support often present with complex needs with many accessing NDIS support. Paediatric palliative care services across the region are limited and compounded by workforce shortages and limited expertise in the care of children with life limiting illnesses.
- Sustainable models require community empowerment, early resource provision and collaborative approaches to shift from passive to active care models.

No.	Insight	Implication
5	While targeted promotion of community engagement has proved effective, it primarily attracts individuals who are already closely connected to the experience of death or dying.	This focus may potentially limit broader public involvement and reduce the diversity of perspectives in palliative care discussions, underscoring the need for strategies that reach beyond those with direct experience.
6	Post program surveys demonstrated high death literacy (confidence and comfort in engaging with conversations about death) but scored low on factual knowledge about end-of-life issues. This contrast indicates that while they feel capable of discussing death, their actual understanding of key concepts remains limited.	This reveals a disconnect between perceived confidence and actual understanding. While people feel capable of engaging in conversations about death, their factual knowledge is limited. This highlights the need for educational initiatives that not only foster openness and attitudes toward death but also strengthen accurate knowledge to ensure meaningful, informed discussions.
7	Participants have strong practical experience, likely due to caregiving roles or prior exposure to end-of-life care.	Participants’ strong practical experience, likely from caregiving or prior exposure to end-of-life care and suggests they have hands-on skills but may lack formal training or theoretical knowledge, creating a gap between practice and evidence-based approaches.

These findings validate the effectiveness of Murray PHN’s outreach and support the continuation and expansion of initiatives aimed at increasing community death literacy.

Domain: Digital health

Digital health refers to the use of digital technologies to improve health, healthcare services and wellness. It encompasses a wide range of tools and solutions that leverage information and communication technologies to enhance the delivery of care, empower patients and optimise health systems.

The adoption of digital health offers significant advantages. It improves access to healthcare, particularly for rural and underserved populations, and enhances efficiency by streamlining workflows and reducing administrative burdens. Patients gain greater empowerment through self-management tools and real-time health data.

Key findings: digital health

Telehealth continues to play a central role in palliative care by enabling remote consultations and specialist access; however, its implementation remains uneven with emerging technologies such as remote monitoring, dictation tools and virtual presence show promise but remain underused.

Rural communities face significant barriers, including poor internet connectivity and low digital literacy among older populations. Cost constraints and inconsistent funding further limit uptake, while cultural considerations, such as inadequate First Nations engagement highlight equity gaps.

Workforce uptake and use of digital technologies is influenced by face-to-face care being viewed as the gold standard, underscoring the need for change management. Electronic Medical Records such as PalCare, which is used across Victoria (excluding Loddon Mallee) support encrypted telehealth and shared care coordination, yet interoperability issues create fragmentation across regions.

- Additional challenges include after-hours service gaps, accessibility for diverse populations and reluctance toward other digital health initiatives such as e-prescribing, which delays medication access leading to avoidable hospital admissions.
- There is a perception that older populations still lack internet/email access and rely on GP or nurse facilitation for telehealth and other digital health support

No.	Insight	Implication
8	System and workflow barriers, not technology, limit the outcomes of digital health use.	Even with secure telehealth platforms and emerging tools, if interoperability is poor, after-hours protocols are unclear, and clinicians resist hybrid models, the promise of digital health cannot translate into timely, compassionate care. For palliative patients, these gaps can mean unmanaged pain, missed medication windows and loss of continuity at critical moments.

Domain: Care coordination and chronic conditions

Chronic illnesses such as chronic obstructive pulmonary disease (COPD), heart failure, dementia, diabetes, Parkinson's disease and kidney disease contribute significantly to the demand for palliative care due to their long-term symptom burden and emotional impact. Early integration of palliative care in these conditions has been shown to reduce acute healthcare use, alleviate symptoms, enhance care coordination and support emotional wellbeing. Understanding distinct disease trajectories, such as the predictable decline in cancer or the fluctuating course of organ failure enables timely, person-centred care planning. For individuals with multimorbidity, palliative care offers a holistic approach that addresses complex physical, emotional and spiritual needs. However, barriers like misconceptions about palliative care, lack of assessment tools for non-cancer conditions and limited rural access highlight the need for policy reform and interdisciplinary models to embed palliative care more effectively into chronic disease management (Johns Hopkins Medicine, 2025).

Key findings: care coordination and chronic disease

- People aged 65 years and older in the Murray PHN catchment had higher PPHs than the state (1370 vs 1291 per 100,000 people (by LGA; Victorian Department of Health, 2023-2024). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 25*.
- Murray PHN region has a higher rate of potentially preventable hospitalisations (PPHs) for chronic conditions than the state (1509 vs 1192 per 100,000), (by LGA; Victorian Department of Health, 2023-2024). For chronic conditions, LGAs in the Murray PHN catchment with PPH rates per 100,000 people that were higher than the state rate were Campaspe, Gannawarra, Benalla, Moria, Greater Shepparton, Swan Hill, Strathbogie, Wangaratta, Mitchell, Mansfield, Buloke, Murrindindi and Mildura, (highest to lowest, by LGA; Victorian Department of Health, 2023-2024).
- The highest number of chronic PPHs for Aboriginal and/or Torres Strait Islander Peoples was for COPD, iron deficiency anaemia and diabetes complications, (by LGA; Victorian Department of Health, 2023-2024). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 23*.
- The conditions with the highest number of chronic potentially preventable hospitalisations (PPHs) in the catchment for people aged 65 and older were COPD, iron deficiency anaemia and congestive cardiac failure, (by LGA; Victorian Department of Health, 2023-2024). *Murray PHN Needs Assessment 2025-26 to 2027-28 Page 11*.
- There is a perception that non-malignant life-limiting illnesses (COPD, organ failure) are less supported than cancer as a life limiting illness, even though cancer patients usually have oncology and other cancer support services in place, (stakeholder consultation, 2025).
- On average, residents in the Murray PHN catchment were more likely to have two or more long-term health conditions compared to the state average (30.4 vs 26.4 per 100 people). The rate was highest in the GV sub-region at 33.3 per 100 people and in the LGAs of Moira (36.1 per 100 people), Wodonga (36.0 per 100 people, Murrindindi (35.1 per 100 people), Benalla (34.1 per 100 people), Greater Shepparton (33.9 per 100 people and Campaspe (32.8 per 100 people), (by LGA; VPHS, 2023).
- Murray PHN region has a higher rate (21.0 rate per 10,000 people) compared to the state (14.0 rate per 10,000 people) of primary palliative care hospitalisations, (by PHN catchment, AIHW, 2023-2024), which may represent fewer specialist palliative care teams, lack of training and/or confidence in delivering palliative care outside of hospital settings, workforce shortages and/or delayed referrals into specialist care, or impact of the ageing population.
- Murray PHN region has a lower rate (17.1 rate per 10,000 people) compared to the state (21.7 rate per 10,000 people) of medical consultations for palliative care (by PHN catchment, AIHW, 2022-2023), which may suggest that patients are finding it difficult to access services, including access to general practitioners and specialist services with transport a potential barrier to access in remote locations, which was also cited in the stakeholder consultations.

- Murray PHN region has a higher rate (639.2 rate per 10,000 people) compared to the state (426.9 rate per 10,000 people) of allied health and/or clinical nurse specialist interventions (by PHN catchment, AIHW, 2023-2024), which may reflect the lack of palliative care doctors and additional reliance on multi-disciplinary teams and/or nurses and allied health practitioners taking on work more broadly.
- There are perceived gaps in psychological and emotional support for patients and carers and within tertiary centres, there is often a perceived lack of holistic understanding of death and bereavement, with highly specialised wards not in a position to address emotional and cultural aspects of death and dying (stakeholder consultation 2025).
- There are opportunities for pharmacists and allied health to have key conversations with patients receiving palliative care (stakeholder consultation 2025).

No.	Insight	Implication
9	Potentially preventable hospitalisations for chronic conditions are compounded by limited local access to specialist palliative care and primary care continuity. This is especially for non-malignant life-limiting illnesses.	Without proactive enhancement of palliative care pathways, particularly after-hours, patients and carers will continue to default to emergency departments for urgent symptom relief. This reactive approach drives preventable hospitalisations, strains emergency services, and undermines quality of life by limiting choice about preferred care settings and place of death.
10	Chronic burden and PPHs are concentrated in older adults and specific LGAs, so targeted place-based interventions and/or education and training are likely to yield greatest impact on avoidable admissions.	This signals gaps in proactive, community-based management and care coordination. These patterns suggest that current models are reactive and hospital-centric, leading to avoidable admissions and increased system strain. Without targeted interventions in high-burden LGAs and improved chronic disease management, the region will continue to experience escalating demand on acute services, poorer patient outcomes and higher costs.

Section 3: Data sources and definitions

Table 3. Data sources and definitions

Source	Year	Indicator	Definition
ABS	2021	Diabetes in the CALD population (rate)	People who spoke a LOTE at home with self-reported diabetes (not including gestational diabetes)/people who spoke a LOTE*1000, by LGA, via Census Tablebuilder
ABS	2021	Heart disease in the CALD population (rate)	People who spoke a LOTE at home with self-reported heart disease (including heart attack or angina) /people who spoke a LOTE*1000, by LGA, via Census Tablebuilder
ABS	2021	Lung conditions in the CALD population (including COPD) (rate)	People who spoke a LOTE at home with self-reported lung condition (including COPD or emphysema)/ people who spoke a LOTE)*1000, by LGA, via Census Tablebuilder
ABS	2021	People born overseas	Number of people born in countries other than Australia, by LGA, via Census Tablebuilder
ABS	2021	People who speak a LOTE	Number of people who reported they speak a language other than English at home (excluding Australian Indigenous languages) by LGA and language spoken (ABS 4 digit language codes), via Census Tablebuilder
ABS	2021	People with low English proficiency	Number of people who reported they speak English 'not well' or 'not at all' by LGA and language group (ABS 4 digit language codes), via Census Tablebuilder
ABS	2021	Population	Estimated resident population, by LGA and age groups, Census
ABS	2021	Stroke in the CALD population (rate)	People who spoke a LOTE at home with self-reported stroke/ people who spoke a LOTE*1000, by LGA, via Census Tablebuilder
ABS	2022	Aboriginal and/or Torres Strait Islander population	Total Aboriginal and/or Torres Strait Islander population by PHN Catchment, ABS 2022
ABS	2022	Population	Total population by PHN catchment, ABS 2022
AIHW	2022-23	GP attendances in residential aged care facilities (rate)	GP attendances in RACH per patient who received at least one GP attendance in a facility, by PHN, MBS claims data

Source	**Year**	**Indicator**	**Definition**
AIHW	2022-23	Palliative care provided (rate)	Palliative care medical consultations and allied health and/or clinical nurse specialist interventions per 10,000 people by PHN catchment
AIHW	2022-23	Primary palliative care hospitalisations (rate)	Primary palliative care hospitalisations per 10,000 people by PHN catchment
Commonwealth Department of Health Workforce Data	2023	Nurses (rate)	Rate of registered and enrolled nurses per 100,000 people, by LGA
Commonwealth Department of Health Workforce Data	2023	Palliative medicine specialists (count)	Number of palliative medicine specialists, by LGA
Commonwealth Department of Health Workforce Data	2023	Palliative care nurses (rate)	Rate of Palliative Care Nurses per 100,000 people, by LGA
Commonwealth Department of Health Workforce Data	2021	CCM Health professionals (rate)	Number of health professionals with capacity to provide CCM services per 10,000 population, by LGA (health professionals included: GPs, specialists [pain medicine, rehabilitation medicine, cardiology, endocrinology, gastroenterology and hepatology, geriatric medicine, haematology, nephrology, respiratory and sleep medicine, rheumatology] allied health professionals, occupational therapists, osteopaths, pharmacists, physiotherapists, chiropractors, podiatrists, primary care nurses)
Department of Health and Aged Care	2020	Rurality	Modified Monash Model categories via https://www.health.gov.au/resources/apps-and-tools/health-workforce-locator
PHIDU	2021	Aboriginal and/or Torres Strait Islander adults with multimorbidity (rate)	ASR per 100 Aboriginal and/or Torres Strait Islander people that had three or more long-term health conditions, by IARE, Census
PHIDU	2021	Diabetes (rate)	ASR per 100 people who reported diabetes, by LGA, Census
PHIDU	2023	Residential aged care places (rate)	Residential aged care places per population aged 70 years and older by PHN catchment including LGA breakdown at 30 June 2023 (2022-2023)

Source	Year	Indicator	Definition
Victorian Department of Health**	2023-2024	PPHs (rate)	PPHs (count) by LGA, via VAED
Victorian Department of Health**	2023-2024	PPHs for age and sex (rate)	PPHs (rate) by LGA for age and sex, via VAED
Victorian Department of Health**	2023-2024	PPHs for chronic, acute and vaccine conditions (rate)	PPHs (rate) by LGA for chronic, acute and vaccine conditions, via VAED
Victorian Department of Health**	2023-2024	PPHs for Aboriginal and / or Torres Strait Islander People (rate)	PPHs (rate) by LGA for Aboriginal and / or Torres Strait Islander People, via VAED
Victorian Population Health Survey	2023	Multimorbidity (rate)	ASR per 100 people who have two or more long-term health conditions by LGA

**Murray PHN would like to acknowledge the Victorian Department of Health as the source of the Victorian Admitted Episodes Dataset (VAED) used for this assessment. The rates are all based on LGA totals including the Murray PHN catchment rate. The calculations are crude rates based on total population by LGA totals. The data is from Victorian public hospitals and therefore does not include PPH by people living in the Murray PHN catchment who presented at Victorian private hospitals or a hospital in NSW except for Albury Wodonga Health.

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