New South Wales

Special Commission of Inquiry into Healthcare Funding

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Name: Western NSW Local Health District

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Special Commission of Inquiry into Healthcare Funding in NSW

Western NSW Local Health District Submission

October 2023

NSW GOVERNMENT

Acknowledgement of Country

Western NSW Local Health District acknowledges the Traditional Custodians of the lands where we work and live. We celebrate the diversity of First Nations peoples and their ongoing cultures and connections to the lands and waters of NSW.

We pay our respects to Elders past, present and emerging and acknowledge the First Nations people that contributed to the development of this submission.

1 Executive Summary

For many years governments, clinicians and communities have been wrestling with how to 'fix' the rural health 'problem'.[1] However, the fragility of health systems in remote, rural and regional NSW, and particularly the fragility of the health workforce, has never been greater than it is today.

The Western NSW Local Health District (LHD) submission aims to highlight the uniqueness, vulnerability and significant reform opportunities for rural health care in NSW. It draws on the collective lived experience of our organisation, our staff and our communities. The submission describes the mega trends and structural barriers which have influenced healthcare in Western NSW over many years, as well as several reform priorities for the future.

Our goal in doing so is simple – to ensure that health services can meet the needs of rural communities into the future.

There are several observed mega trends and structural barriers within the system which are detailed within the submission from the Western NSW LHD perspective. These include:

- The generally shorter life expectancy, higher mortality rate and poorer health of people living in Western NSW compared with the rest of NSW.
- Demographic change and migration – the Western NSW LHD population is projected to increase by 10% by 2041, however, change is not predicted to be even across the district. Some areas will continue to increase, and some will continue to decline.
- Market failure and decline of primary care, aged care and disability services. Primary health care, general practice and aged care in our small communities has reached a critical point.
- Historically based funding and financing models that do not reflect the reality of rural healthcare, including the high cost of locum and agency staffing necessary to continue service operation.
- Increasing demand on emergency departments, particularly in rural referral hospitals and by First Nations people. Demand is projected to increase significantly over the next 10 years.
- Increasing demand for acute care in rural referral and procedural hospitals and increasing demand for residential aged care coupled with low acute care occupancy in Multi-Purpose Services (MPSs).
- Inequitable and inadequate specialist outpatient services and an absence of a whole of system planning for specialist services coming into the district.
- Workforce decline, attraction and retention of healthcare staff and hyperinflation of the medical locum and agency nurse market.
- Maintaining and improving an extensive infrastructure portfolio across a large region in the context of increasing costs, workforce shortages and inability to fully leverage state-wide procurement initiatives due to remoteness.
- The impact of a changing climate on the health of rural communities coupled with the need to improve the sustainability of services and infrastructure.

Amongst these challenges, there are also significant opportunities for reform. The submission details opportunities and priorities for change to improve health services, access, funding and ultimately, health outcomes for rural communities. These reforms are targeted at the macro-system level and include:

- Funding mechanisms for rural and regional services.
- Shifting from historical patterns of delivery (and advocacy to retain them at all costs) as the predictor of current and future health care services, to a system that is needs based, with well-planned, strategic investment.

- Cross-government and cross-agency planning for comprehensive primary, community, secondary and aged care.
- Removing structural barriers to workforce attraction and retention, within and outside of the health system.
- Urgently reducing hyper-inflation in the supply of the contingent workforce.
- Reconsidering the microsystem implications of current system governance.
- Investing in prevention and a social-determinants approach to improve the health and wellbeing of rural people and communities.

There is an opportunity for the NSW and Commonwealth governments, LHDs, communities, health agencies and providers to work cohesively and collaboratively to improve the health and health care services for people living in rural and regional NSW.

The need for action is clear. We hope our submission can contribute towards all of us making the best of the opportunity. It is the public interest of our elder citizens, our young people, our generations yet to be born, and the communities across all of NSW that we do so.

2 Introduction

The NSW Health system is generally regarded nationally and internationally as a high performing, efficient health system, caring for 8 million people across 228 hospitals and a wide range of aged care, disability and community-based services. NSW Health and its network of institutions is blessed with some of the most committed, well educated, and passionate public servants - whether they be administrators, doctors, nurses, allied health staff, Aboriginal health workers, support staff or system leaders - that any health system has to offer. Nevertheless, there is a clear opportunity for their collective efforts to achieve even better outcomes for the people of NSW. It is the contention of Western NSW Local Health District (LHD) that the opportunity will be best realised through a more intensive and systemic focus on addressing the stark inequality in health outcomes that sections of the NSW community experience.

Health care is well recognised as a complex, adaptive system[2] - a coming together of multiple parts that adapt to the external environment and, when interconnected, fulfil an overall purpose. It can be described as three levels: a microsystem - a group of professionals who work together to provide care to specific populations of patients; a mesosystem - that which links the clinical microsystems together to support patients along their continuum of care; and a macrosystem – the container that holds the meso and microsystems.[3] A system is as good as the strength of interconnections between its elements and levels.[4]

The Western NSW LHD submission highlights the mega trends that are influencing the microsystems of rural health care and makes suggestions as to where the macrosystem would benefit from change to achieve better outcomes for the population it serves. It does not seek to address the entire scope of the Inquiry. Rather, the submission aims to highlight the uniqueness, vulnerability and significant reform opportunities for rural health care in NSW. Our goal in doing so is to ensure that health services can meet the needs of rural communities into the future.

As one of 15 Local Health Districts in NSW, Western NSW LHD provides health, disability and aged care services to one of the most isolated and the most vulnerable populations in the state. Western NSW LHD has actively embraced opportunities, innovations and partnerships to improve health care services over many years. The LHD values very strongly engagement with our communities, the experiences of our patients and their feedback, and our committed and highly capable health workforce.

Whilst imperfect, the Western NSW LHD is, and has consistently been, a high performer against the key metrics with which the NSW Health system is measured. At the same time our population experiences some of the worst health outcomes and is exposed to some of the greatest fragility in the health delivery system of anywhere in New South Wales. This dichotomy suggests that insights garnered from our LHD may be helpful to the work of the Special Commission of Inquiry. The dichotomy has been inter-generational. It has spanned multiple periods of stewardship by governments of all political persuasions. However, the fragility of health systems in remote, rural and regional Australia, and particularly the fragility of the health workforce at all levels, has never been greater than it is today.

Ours is not the full story of the NSW Health or Commonwealth health systems, but it is the lived experience of our organisation, our staff and our communities. It is our genuine aspiration that our story can assist the NSW Health system, and governments at multiple levels, to make the sensible and well considered adaptations that will be needed if it is to address the significant maldistribution of resources, system fragility and inequity of health outcomes that people living in remote, rural, and regional NSW experience daily.

For many years governments, clinicians and communities have been wrestling with how to ‘fix’ the rural health ‘problem’.[5] In the two-tiered model of health system governance in Australia, the State is focused primarily on its role as the provider and system manager of tertiary and secondary care. However, NSW Health also provides an extensive range of public health, mental health, drug and alcohol, community based, aged care and disability services. In more recent

years the State system has increasingly undertaken roles traditionally thought to be the province of primary care (most often in response to market failure), particularly amongst those who cannot afford or are otherwise unable to fully participate in the Commonwealth health and disability systems. The hospital centric and activity-based focus of the macro-system runs the risk of diminishing the importance of community-based interventions, aged care and population health (including efforts to promote and sustain wellness) that are essential if the lagging health outcomes for regional populations are to improve.

We seek to highlight the need for strategic reform of the macro-system in key areas:

- funding mechanisms for rural services;
- shifting from historical patterns of delivery (and advocacy to retain them at all costs) as the predictor of current and future health care services, to a system that is needs based, with well-planned strategic investment;
- cross-government and cross-agency planning for comprehensive primary, community, secondary and aged care;
- removing structural barriers to workforce attraction and retention;
- the urgent need for an intensive focus to reduce hyper-inflation in the supply of the contingent workforce;
- reconsidering the microsystem implications of current system governance, and
- investing in prevention and a social-determinants approach to improve the health and wellbeing of rural people and communities.

The macro system enablers of policy, federal and state agreements and community readiness must align with high levels of micro level system performance for sustainable rural health care into the future

Rural health in NSW has been in focus in recent years, and the NSW Regional Health Strategic Plan (2022-2033) [6] outlines a roadmap for an equitable and integrated health system delivering the outcomes that matter most to patients. While there may be some commonality in themes between this submission and the Regional Health Strategy, this submission seeks to provide the technical and operational perspective of rural health care, especially in the Western NSW context. It emphasises the implications of market failure in primary care and aged care, where the LHD is already underwriting significant service delivery. It uses examples of service models and local initiatives which seek to respond to trends or challenges within the region.

LHD planning documents, health outcome and performance analysis, program evaluations, financial review, senior clinician advice and information gathered from communities in many different forms have shaped this submission. We value their contribution.

Our organisation and its people do not have all the answers, but collectively we do have an immense depth and breadth of lived experience, a deep understanding of the systems and communities within which we work, and a profound passion to do the best we can to serve our communities and the people who come to us for care. It is with that in mind that we thank the Special Commission of Inquiry for this opportunity for our voice to be heard.

3 Western NSW Local Health District

The Western NSW LHD population is geographically dispersed across a large region, with regional centres, medium and small rural towns and remote communities. There are c. 284,285 people living in Western NSW LHD across 246,676 square kilometres, including 22 local government areas (LGAs) of which 7 are classified as remote or very remote. 41,339 people (14.5%) identify as First Nations people. Western NSW LHD has 38 inpatient facilities including 3 rural referral hospitals, 4 procedural hospitals, 6 community hospitals, and 25 multipurpose services (MPS), in addition to 50 community health centres, 23 community mental health services and 14 inpatient mental health, drug and alcohol units. The geographic constituency covered by the Western NSW LHD is larger than the entire state of Victoria and is equivalent to about one-third of the NSW land mass.

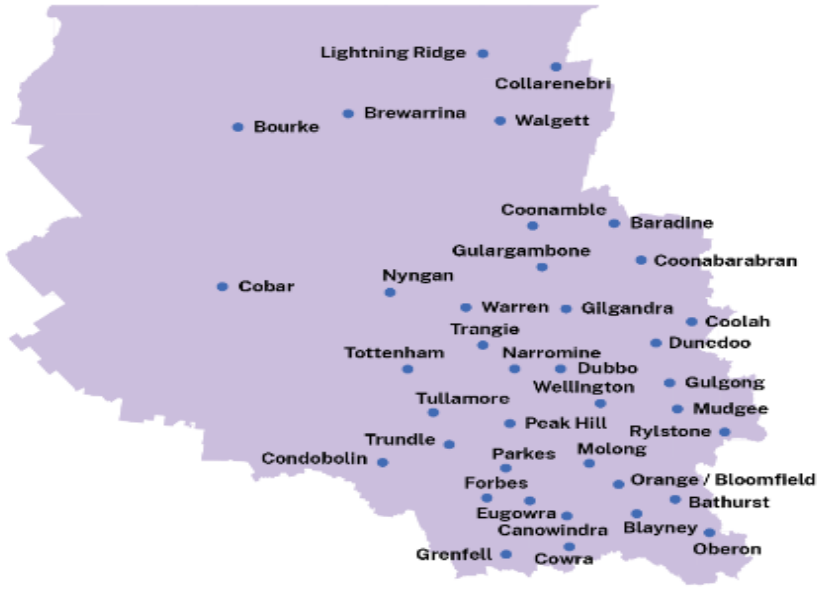


Figure 1. Western NSW Local Health District facility map

The LHD has well-formed links to metropolitan facilities for highly specialised (tertiary-level) healthcare services. The strength of these links, and the organisation of NSW Health as a single coherent system, is crucial to the care of people who are seriously unwell. Over many years Western NSW LHD has developed a strong capability in virtual-based health services, ranging from critical care advisory services for small rural hospitals, remote monitoring at home and in-facility, and outpatient allied health consultations. Many of these virtual services are not new and, prior to the COVID-19 pandemic, Western NSW LHD was regarded as being one of the top twenty providers of sustained virtual care world-wide.

> Western NSW has a partnership with Sydney LHD that provides virtual geriatrician services into the homes of older people across the region that has been operating for over ten years. The Western NSW LHD virtual critical-care advisory service and virtual mental health emergency care teams have many years of experience to contribute to the wider spread adoption of virtual care.

Community and primary health services operate across 50 centres, the majority of which are co-located with hospital services. The services provided include nursing and allied health, maternal and child and family health services, liver/hepatitis services, violence prevention and response services and programs aimed at meeting the needs of priority populations including Aboriginal health, those with chronic disease, children and older people. The LHD also provides a broad range of community and inpatient mental health services, including some state-wide, highly specialised mental health services. Specialist alcohol and drug services are also delivered by the LHD and its non-government organisation (NGO) partners.

The Western NSW LHD Strategic Plan 2020 – 2025[7] is the overarching strategy for the LHD, with a vision of *healthier rural people and thriving communities* [Appendix A]. For the last five years the

Western NSW LHD has met its financial objectives, maintained the highest level of performance against the key performance measures set for the NSW Health system, and has the second highest ranking of all LHDs across a range of consumer satisfaction measures.

In the 2022/23 financial year, there were 203,195 presentations to an Emergency Department in Western NSW LHD (an average of 557 people each day, a 1.2% increase on the previous year), with 48% of all presentations occurring at Dubbo, Orange and Bathurst. Of these presentations, more than 8 in 10 were seen within benchmark time and 1 in 4 were admitted to a hospital bed and stayed an average of 3.1 days.

Across the 2022/23 financial year there were 84,079 admitted patient separations, with 74% of these occurring at the rural referral hospitals, 16% at procedural hospitals, 6% at MPS's and 3% at small community hospitals. One in twenty patients were readmitted within 28 days. 10% of the readmissions were due to respiratory conditions such as chronic obstructive airways disease and respiratory infections and inflammation.

Western NSW LHD undertook 25,759 surgeries during 2022/23 with an 8% increase in elective surgeries on the previous year and an average of 22 emergency surgeries per day. 909,173 outpatient occasions of service were provided. Each day the LHD commenced caring for an additional 260 patients. 17% of outpatient consultations were virtual. LHD dental clinics experienced an average of 65 visits per day and more than 9 in 10 people said they would recommend the clinics to friends or family. There were 3,420 births in the district during 2022/23.

The Bureau of Health Information (BHI) patient survey results indicate that 95% of admitted patient respondents rated the care they received as 'very good' or 'good'. This is higher than the NSW average of 92% and places Western NSW LHD as the second highest in overall care ratings in NSW.

Our staff are committed, innovative and connected to their communities. Around 8,635 staff are employed across the LHD in approximately 5,161 full time equivalent (FTE) positions. 595 staff identify as Aboriginal and / or Torres Strait Islander. Most of our workforce is made of nursing staff, with around 3,642 people working in nursing roles. Western NSW LHD also employs around 991 doctors, 611 allied health professionals and 3,460 enabling staff – these staff support our clinical and corporate services and include cleaning, catering, information technology, maintenance, engineers as well as finance, data, communication, planning and program roles. Our corporate workforce numbers benchmark favourably when compared to other similar organisations. On average, our staff work for Western NSW LHD for 15 years. Our retention rate is 88.6%.

The Western NSW LHD budget is c. $1.187 Billion annually. Major expenses for the LHD are employee related.

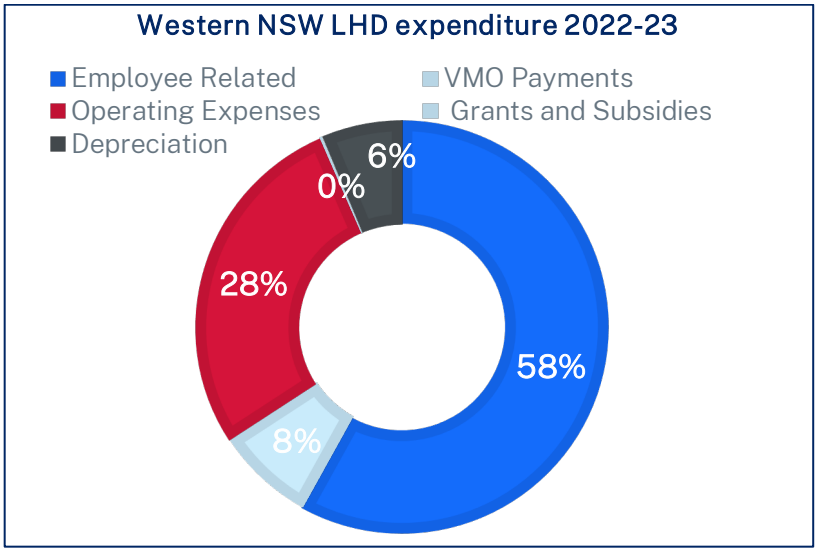


Figure 2. Western NSW LHD expenditure breakdown 2022-23 budget

The LHD has produced an excellent financial result for many years. In 2023 the variation to budget was $270,000 unfavourable and of the own source revenue budget of $0.139B, the variation was $5.94M favourable.

Western NSW LHD was one of only two in the NSW Health system to deliver a positive next cost of service in the 2022/23 financial year.

Health of Western NSW People

The Western LHD serves one of the most rural and most vulnerable populations in NSW. That vulnerability is seen in part in the poorer health and social outcomes experienced by our communities when compared to their urban counterparts. People living in Western NSW generally have a shorter life expectancy, a higher mortality rate and poorer health than people in the rest of NSW.

People living in Western NSW are more likely to have at least one of the risk factors that contribute to poorer health and chronic disease conditions, including smoking, harmful use of alcohol, obesity and low levels of physical activity. Cardiovascular disease, diabetes mellitus, chronic obstructive pulmonary disease (COPD), and cancer contribute significantly to the burden of disease in Western NSW people. Many First Nations people living in Western NSW have poorer health than non-First Nations people.

While there have been improvements over the last 10 years in some areas - death rates from cardiovascular disease, injury and poisoning, smoking rates and vaccination rates - there remains a significant health disparity for Western NSW residents. Potentially avoidable deaths[i] are 48% higher in Western NSW than for NSW as a whole and suicide rates are higher in Western NSW than NSW overall and are increasing.

Annual average death rates (age-standardised) from all causes by Local Government Area (LGA) compared to NSW from 2013-2014 to 2017-2018 are shown in Figure 3. This highlights the inequity in outcomes across the region, with communities in the northwest of the district (Brewarrina, Walgett, Bourke and Warren) experiencing the highest age-standardised death rates.

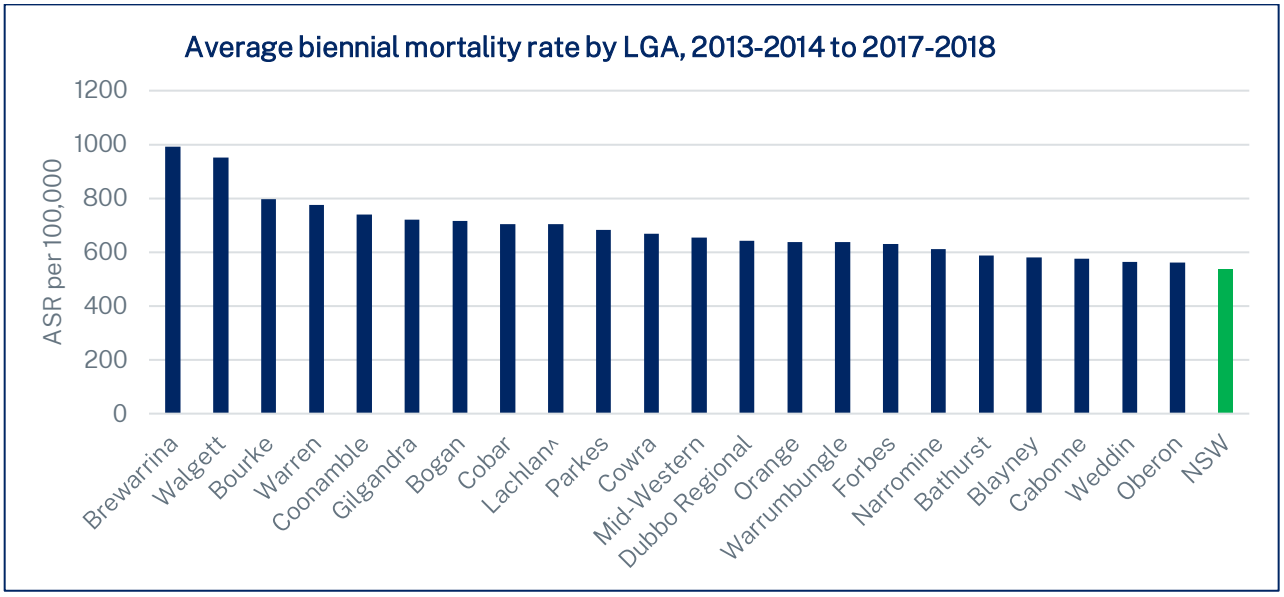


Figure 3. Annual average death rates (age-standardised) from all causes by LGA compared to NSW, 2013-2014 to 2017-2018[ii] . *ASR=Age-standardised rate*

^includes all Lachlan LGA.

Health is impacted heavily by poor health related behaviours, and although there have been some improvements, 18% of the Western NSW LHD adult population smoke daily compared to NSW at 12%, only 57% partake in sufficient physical activity, and 38% partake in risky alcohol behaviour compared to NSW at 34%.[8]

Our population experiences higher rates of substance abuse and domestic violence than NSW overall. Presentations to Western NSW LHD Emergency Departments because of illicit drug use

[i] Potentially avoidable deaths are those attributed to conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care and which occur before age 75 years.

or mental health disorders are both significantly higher than the average for the State. Rates of alcohol-attributable deaths were 32% higher for Western NSW LHD than the NSW average between 2014-15 and 2018-19.[9]

Children living in Western NSW LHD are more likely to be considered developmentally vulnerable on 2 or more domains (14% compared to NSW at 10%). [10] The rate of perinatal deaths[iii] is also higher in Western NSW, and between 2016 and 2020, the average annual perinatal death rate in Western NSW LHD was 25% higher than that in NSW.[11] These disparities in the health outcomes for children are more pronounced for First Nations communities.

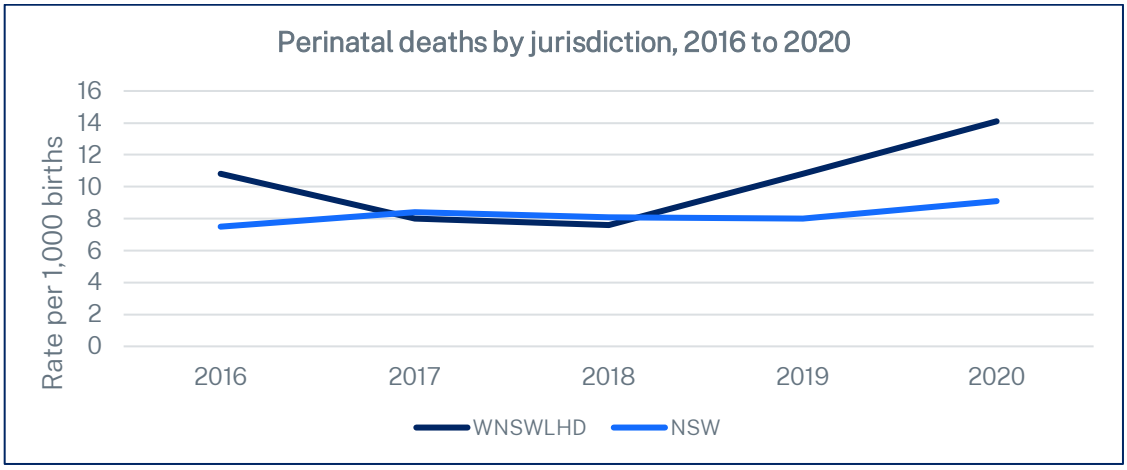


Figure 4. Perinatal deaths for Western NSW LHD compared to NSW, 2013-2014 to 2017-2018

These differences in basic indicators of the health and wellbeing of our community compared to people elsewhere in NSW is an indicator of:

- the greater prevalence of risk factors
- greater vulnerability across multiple social determinants
- the embedded disparity that many in rural communities experience, and
- the profound inequality of access to crucial health care services at all levels - from primary to specialist care.

These are all embedded features of life in regional NSW and especially of life in inland rural and remote communities.

It is Western NSW LHD's contention that the intensive focus on the performance of hospital processes that characterises the NSW Health system needs to be complemented by an equally intensive focus on the health outcomes being experienced by the people who live in the most marginalised communities in NSW. Not all these communities are found in remote, rural and regional NSW, but the vast majority are. A systemic and deliberate realignment of focus will be a prerequisite for ensuring that the health outcomes for the whole population of NSW are improved. This will require effort at all levels of Government, supported within Commonwealth-State agreements.

[iii] Perinatal deaths include stillbirths and deaths occurring within 28 days of birth.

4 Social determinants of health care: prevention, health promotion and early intervention

Many factors contribute to determining the health outcomes of a population. Health determinants are attributes that positively or negatively influence the health of individuals and populations, while risk factors are attributes that negatively influence health thereby increasing the likelihood of poor health outcomes. A variety of health determinants and risk factors contribute to the burden of disease within a population. These determinants and factors can be grouped into categories and include:

a) environmental factors (e.g. air and water quality, weather events, occupational exposure, neighbourhood and built environment)

b) genetic factors (e.g. specific cancer gene, familial hypercholesterolaemia, cystic fibrosis)

c) socioeconomic factors (e.g. education, employment, income, housing, social support, health literacy)

d) health behaviours (e.g. tobacco smoking, alcohol consumption, illicit drug use, poor diet, physical inactivity, unsafe sex)

e) biomedical risk factors (e.g. overweight/obesity, blood glucose levels, blood cholesterol levels, blood pressure), and

f) healthcare service factors (e.g. quality, availability, user access issues such as remoteness and cost, transport options).[12 13 14 15]

Studies have estimated that of the environmental, socioeconomic, behavioural and healthcare factors, socioeconomic and behavioural risk factors make the largest contribution to morbidity and/or mortality at 46% and 29%, respectively.[16]

The five factors of overweight and obesity, poor nutrition, physical inactivity, tobacco and alcohol use represent a significant health burden for the Australian population, causing tens of thousands of premature deaths per year and many years lived by people in poor health.[17] This represents significant costs to the health system, such as hospitalisations and Medicare costs, as well as broader economic or societal costs from reduced employment, absenteeism and presenteeism.

Regional, rural and remote communities experience poorer public and population health outcomes than their counterparts. These poorer health outcomes are linked to an inherently closer relationship with agriculture and extractive industries; the highly dispersed nature of the communities which makes these sorts of health interventions more difficult to mount and sustain; the higher prevalence of biomedical risk factors; riskier health behaviours, and environmental factors.

Australia has been a pioneer of effective tobacco control and smoking prevention has largely been a success story. Australia has some of the lowest rates in the OECD.[18] These improvements can be attributed to sustained public health campaigns at the macro level over several decades, and more recent policy measures such as plain packaging laws, tobacco taxes and smoking bans. Support from the micro-system through public health and health promotion activities has been important.

While smoking remains higher in Western NSW than the NSW average, there are learnings from the public health approach that could be applied to obesity as a public health priority, particularly in regional and rural areas. There are many cost-effective options for tackling obesity, including efforts to change behaviour by individuals as well as by food companies.[19] This is an enormous macro and micro system challenge that needs to be addressed.

The evidence suggests that even small changes in the prevalence of these risk factors are likely to lead to a significant reduction in the health burden for individuals and the healthcare system, as well as a reduction in economic and societal costs for communities, businesses and governments.[20] For 'every kilogram of weight lost there is a 16% reduction in risk of developing type 2 diabetes'[21] and if specific healthy lifestyle targets could be achieved (including diet, exercise, alcohol consumption and body weight) up to '31.5% of all bowel cancers in men and 18.4% of bowel cancers in women could be avoided'.[22]

Collaborative planning between local government and other community agencies provides opportunities to address the health determinants of communities by improving the built environment, increasing options for physical activity and social interaction, and improving access to healthy food. This will, however, require a degree of resourcing and commitment to population health initiatives that are above and beyond what is currently evident in the system.

An an example, the rates of rheumatic heart disease within Western NSW occur at fourth world levels and are associated with undiagnosed and undertreated infections. This entirely avoidable disease burden is disproportionately borne by First Nations children and their families. The Western NSW LHD is currently undertaking a point prevalence study through its Public Health team, in conjunction with other partners, to definitively understand the extent of this problem. Given the seriousness of the condition, rheumatic heart diseases demand immediate attention, yet with many competing priorities, it is unclear how these imperatives will be resourced by the LHD and NSW Health system overall.

Another example in Western NSW is in drinking water quality and fluoridation. This is primarily the remit of other government departments and local government, but it has a profound impact on the long-term health of communities. Across the 22 LGAs in Western NSW LHD, only half of the local government drinking water supplies are fully fluoridated, two (including two large regional cities) are partially fluoridated, and the drinking water supplies in six LGA areas have no fluoridation at all. The long-term impact of a lack of fluoridated public drinking water supply on oral health in those communities, and the consequential impact on the prevalence of cardiac disease, will be substantial. Challenges in attracting a skilled workforce in rural areas confound this issue as fluoridisation can only occur if the operators are skilled. Individual Shire Councils often lack the ability to afford and maintain that skilled workforce. As a result, a focus on safe drinking water often takes precedence. This kind of public health initiative requires much greater attention.

In the context of a changing climate, the ecological determinants of health (the impact of natural disasters, drought, biodiversity loss, water quality and quantity and food insecurity) are more likely to impact those living in rural and remote areas.[23] Extreme weather events and rising temperatures affect both the physical and mental health as well as the health workforce and infrastructure in communities. This will require a stronger emphasis to ensure that the existing health inequalities experienced in rural communities are not further amplified.

A greater focus on public and population health within the overall NSW health system is essential. This will require a broader orientation to population health than is currently evident. The NSW health system is arguably skewed towards initiatives that address communicable disease rather than lifestyle diseases, perhaps because the benefits are more immediate and obvious and therefore the investment is easier to justify. It may also be, however, that communicable diseases have fewer lobby groups close to the heart of all sides and levels of the political system, unlike the food, tobacco and gambling industries.

5 Mega Trends and Significant Shifts

Demographic change

The population of Western NSW LHD is projected to increase by 10% over the next 20 years, from 284,285 in 2021 to 312,544 in 2041. In comparison, the NSW population is expected to increase by 21%. The population is more heavily concentrated in the south of the LHD, and this trend will continue over coming years. Projected population change is not predicted to be even across the district. Growth will be particularly concentrated in the large regional centres, with LGAs such as Forbes (+32%), Bathurst (+29%), Orange (+19%) and Dubbo (+16.9%) expected to see the greatest increase. This comes on the back of continued growth over the last 10-20 years.

Some communities / towns will see their population numbers stabilise and/or decline over this time. LGAs expected to show the greatest population declines include Cobar (-41%), Bourke (-40%) and Brewarrina (-39%). This follows a continued trend over the last 20 years of declining populations in small rural and remote towns, where an average decline of around 660 people per year has been experienced.

While all of NSW has an ageing population, the Western NSW population is ageing at a greater rate. The greatest increase in population across Western NSW LHD is expected to occur in the 70+ age group, while all other age groups are expected to decline or remain relatively stable. The 70+ age group is projected to be higher by 44% in 2041 compared 2021. The 0-14 year age group is projected to increase only marginally overall (0.3%), but there are some cities and towns where there will be a much greater increase in the local population of children.

These large shifts in migration, population decline, and ageing create significant implications for service delivery, and funding models in Western NSW. The region is experiencing and will continue experience a prolonged period of increasing demand on health and aged care services over the next 15 – 20 years. Beyond that period the demand in the more remote communities is likely to dramatically reduce as our older citizens pass away and much smaller communities remain. Conversely, the increase in demand for services in the south of the district, particularly in Mudgee, Forbes/Parkes, Dubbo, Orange and Bathurst, is expected to be sustained into the long term.

There are 19 health services (MPS' or hospitals) servicing around 48,000 people in the northern and western part of the district compared with 19 other health services for around 235,000 people in the central and southern part of the LHD. This pattern of infrastructure investment reflects the very different distribution of populations that was evident historically than is the case today.

The increasingly rapid pace of demographic change in remote and rural Australia, and the inherent rigidity in how the health system adapts to changes in demography and models of service delivery presents an ever-growing challenge. In Western NSW the resulting maldistribution of capital, service and workforce investment to meet the needs of future populations will increase significantly over next fifteen years given the rapid change in population distribution that is anticipated over that period. Table 1 shows the projected change in population across the LGAs in Western NSW LHD.

LOCALGOVERNMENT AREA	POPULATION Census, 2021	POPULATION Projected, 2021	POPULATION Projected, 2041	% change from 2021
Forbes	9,319	10,023	13,231	32.0%
Bathurst Regional	43,567	44,370	57,060	28.6%
Orange	43,512	42,976	51,161	19.0%
Dubbo Regional	54,922	54,411	63,599	16.9%
Mid-Western Regional	25,713	25,445	29,649	16.5%
Cabonne	13,766	13,783	15,657	13.6%
Cowra	12,724	12,838	14,265	11.1%
Parkes	14,361	14,683	15,847	7.9%
Blayney	7,497	7,327	7,861	7.3%
Oberon	5,580	5,421	5,432	0.2%
Weddin	3,608	3,640	3,292	-9.6%
Warrumbungle Shire	9,225	9,092	7,598	-16.4%
Gilgandra	4,295	4,187	3,353	-19.9%
Lachlan*	6,094	6,041	4,769	-21.1%
Coonamble	3,732	3,888	2,965	-23.7%
Narromine	6,360	6,304	4,695	-25.5%
Warren	2,550	2,667	1,755	-34.2%
Walgett	5,253	5,747	3,732	-35.1%
Bogan	2,467	2,500	1,581	-36.7%
Brewarrina	1,356	1,522	931	-38.8%
Bourke	2,340	2,578	1,556	-39.6%
Cobar	4,059	4,329	2,555	-41.0%
WNSWLHD	**282,300**	**283,772**	**312,544**	**10.1%**
NSW	**8,072,163**	**8,166,757**	**9,872,934**	**20.9%**

Table 1. Estimated resident population and projected population by local government area, 2021 and 2041[iv]

These macro-trends in population have been evident for over half a century. Today they are combining with other macro-trends to amplify the significant disadvantages faced by rural communities when it comes to enjoying the same level of health and wellness as those who live in metropolitan NSW. Other macro-trends include the rapidly reducing access to timely and affordable primary care, the fragility of private aged care services, and the increasing maldistribution of the clinical workforce.

Less rigidity in the health care system to enable sensible and proactive responses to these mega-trends is long overdue. The changes in population alone will be truly challenging for communities, health organisations and governments to respond to. Without an adequate and proactive response that enables the investment in the health workforce and health infrastructure to be better tailored to meet current and future community need, the rural health system will struggle to serve its communities well.

The type and scale of micro-level change required in the LHD's service delivery system will present enormous challenges for rural communities, but it is increasingly obvious the alternative to conscious planning and decision-making will eventually mean systemic service failure across multiple rural communities. Our communities, our staff, and our leaders deserve better than that.

[iv] *Data sources: Estimated Residential Population: ABS Census 2021 and Projected Population: Department of Planning & Environment, 2022*

The LHD's vision for change is one that actively considers the health services that are essential for wellness and healthcare – relative to the distinct needs of a particular community - supported by a network of broader and more specialised services. This must be underpinned by stronger, more accessible primary health care. The disparity of health outcomes experienced by people in the district will not be reduced by maintaining its current distribution of acute inpatient and emergency services. That does not mean, however, that reinvestment in a more coherent approach to services that will have increased benefit in those communities is not clearly justified. For example, a well-resourced community mental health and drug and alcohol service on the ground in a community, or a regular and well planned cycle of clinics to prevent or manage chronic health conditions (involving rural generalist practitioners, skilled nurses and allied health staff, specialist medical clinicians and Aboriginal health workers) will inevitably produce greater overall benefit for a community and the individuals who live in them than a well-staffed, but largely empty, hospital ward will ever be capable of doing. We can look to learnings from 'just transitions' in the fossil fuel industry to inform inclusive, well designed and respectful change.

Within Western NSW the Collaborative Care pilots undertaken in partnership with the Rural Doctors Network (RDN), and the LHD led pilot of joined-up general practice and hospital/MPS service delivery across the 4Ts (the towns of Tottenham, Tullamore, Trundle and Trangie) are examples of significant system reform that can be achieved whilst simultaneously minimising the impact of that reform on local communities.

There are other examples and indications that the system can learn how to collaborate, succeed, fail and recover together, when the macro-system's incentives and policy frameworks allow for collaborative local solutions to emerge. The collaborations now emerging between multiple providers of allied health and community support services in the district; the LHD's aged care community of practice that draws together multiple residential aged care providers to discuss matters of mutual interest; the well established relationships with Regional Assemblies and ACCHO sector; and the longstanding Western Health Collaboration (formalised between the Chief Executives of the Far West and Western NSW LHDs, the Western Primary Health Network and the Rural Doctors Network) are all examples of regional collaboration.

Primary Care: inequity of access, decline and market failure

Comprehensive primary health care is the cornerstone of healthcare in a community. General Practitioners (GPs) are often the sole medical workforce for small rural communities, providing family medicine, aged care, palliative care and emergency care in small rural towns and health services.

With the exception of diagnostic imaging, people living in Western NSW access primary health care and specialist care at much lower rates than other regional and metropolitan centres, despite a more significant profile of chronic disease and biomedical risk factors.

Services per 100 people (age standardised): 2021-22				
	National	Metropolitan	Regional	Western NSW
Allied Health attendances (total)	92.6	97.3	83.6	70.4
Diagnostic Imaging (total)	95.0	97.0	92.1	98.0
GP attendances (total)	691.4	725.6	628.7	582.6
GP subtotal - After-hours	29.6	37.2	15.0	10.1
Specialist attendances (total)	90.8	98.4	77.9	76.0

Table 2. Medicare-subsidised GP, allied health and specialist health care across local areas: 2021–22 [24]

There is a direct interdependency between a general practice in a small rural town and the state-funded health services (typically an MPS). The strength of primary care across communities in the district has a significant impact on the health of communities, the workforce and the LHD's health services (acute and community services, mental health and residential aged care).

Primary health care and general practice in our small communities has reached a critical point. There is large scale market failure of general practice across the region. In 2019, the Western NSW Primary Health Network identified up to 41 towns that are at significant risk of not having a GP within the next ten years. This projection is not futuristic - it is increasingly the lived experience of our rural constituents. Many towns in Western NSW have been left without a permanent GP in their community, and the availability of timely and affordable access to primary health care has declined for residents across Western NSW, including in the larger regional cities. Medicare data also shows that allied health, specialist, diagnostic imaging and after-hours GP attendances have all declined across Western NSW between 2018-19 and 2021-21.[25]

Historically, rural health services have been well served by local GPs who maintained a local practice and provided Visiting Medical Officer (VMO) services to the local hospital or MPS. There has been a large scale exit and retirement of GP VMOs, combined with a reluctance of many local GPs to work in the local hospital / MPS where they do remain in the town. In 2018, one third of practices in the region were operated by sole practitioners – highlighting the scale of vulnerability in primary care in rural towns.[26] Changing societal, industrial and cultural expectations around work, family and lifestyle through intergenerational change means the past models of 1 or 2 GPs who service a community and the local hospital are no longer either realistic or sustainable.

Many communities report that general practices in the region have been unable to continue traditional bulk billing models as Medicare rebates become increasingly unviable for private practice. This has substantial implications for rural communities who rely more on general practitioners to provide health care services,[27] as well as the local hospital or MPS emergency department.

In Western NSW, the LHD is essentially underwriting primary care in many towns via contracts with organisations to deliver VMO services to the local hospital, thereby also supporting a primary care service in the town. There is a very high cost to maintain this historical model of service delivery, which, in some locations, may not best meet the health needs of the community or deliver the holistic primary care required.

The Western NSW LHD has actively developed innovative services in response to this need – including the Virtual Rural Generalist Service, which continues to evolve to meet not only the LHD's service needs but also those of General Practices and other LHDs. The Virtual Rural Generalist Service is an innovative hybrid medical model providing 24/7 support for healthcare provision to MPS and small hospitals across the rural Western NSW LHD and Southern NSW LHD catchments.

The service provides both virtual and in-person medical support to local facilities where local doctors need support or are unavailable. The service is not solely a replacement service for in-person doctors – all of the participating doctors commit to providing 25% of their shifts in person in the LHD. The service primarily supports lower acuity emergency presentations and daily ward rounds for inpatients. It enables doctors in these communities to achieve an essential work life balance that would otherwise be impossible by providing after hours cover. Preliminary evaluations have demonstrated that the service can provide high quality medical care that is largely accepted and positively viewed by patients and clinicians. Where there are no permanent doctors, the service can be provided more consistently and at lower cost than intermittent locum services.

Emergency Department Demand

The drivers of increasing demand on emergency departments across NSW, and across Western NSW LHD footprint, are multifactorial. Increasing demand on emergency departments is associated with decreasing availability of timely GP appointments, increasing out of pocket expenses in primary care as well as the ageing, disease and socioeconomic profile of communities.

Using linear regression analysis over the five-year period to account for fluctuation within that time, demand for emergency care (excluding fever clinic activity during COVID, other clinics, planned visits and disasters) has increased across Western NSW LHD in all triage categories, and all time periods, with an 11% increase overall since 2018/19. Presentations to LHD emergency departments by First Nations people have increased by 28% across the five years and represent a much greater percentage of presentations (23%) than the First Nations population of the region (14%).

The increase in Emergency Department presentations by First Nations people is double that of non-First Nations people. For First Nations people it is highest in triage categories one to three (i.e., higher acuity) and is higher on weekdays between 9am and 5pm than on weekends or out of hours. This suggests a strong correlation with the disproportionate disease burden as well as the relative disadvantage faced by First Nations people in accessing affordable and timely health care in other settings.

Western NSW LHD Emergency Care	2018/19	2019/20	2020/21	2021/22	2022/23	Sparkline	Trend % change
All Presentations	179,151	174,648	188,747	187,392	196,268		11%
Triage 1 & 2	19,627	18,656	19,838	19,937	20,868		8%
Triage 3	49,343	49,569	52,034	52,944	57,508		16%
Triage 4 & 5	109,758	106,137	116,700	114,311	117,678		9%
Mon-Fri, 9-5	65,062	65,464	75,107	74,372	78,081		22%
Sat-Sun	54,074	50,841	52,536	52,231	54,091		1%
Out of hours Mon-Fri	60,015	58,343	61,104	60,789	64,096		7%
First Nations Presentations	34,768	37,172	39,422	40,746	45,111		28%

Table 3. Western NSW LHD Emergency Department Activity 2018-19 to 2022-23 linear trend analysis (excluding fever clinics, planned visits and disasters)

Key

Increasing with strong correlation

Increasing with low correlation

Bourke, Condobolin, Warren, Narromine, Cowra, Dunedoo and Lightning Ridge have experienced the greatest percentage increase in presentations, while the increase in the number of presentations was greatest for Dubbo, followed by Mudgee, Orange, Cowra, Bourke, Condobolin, Parkes, Narromine, Warren and Lightning Ridge.

In 2022/23, the rural referral hospitals of Bathurst, Orange and Dubbo saw, on average, 72 to 106 patients per day, while the procedural hospitals of Cowra, Parkes, Forbes and Mudgee saw on average, 21 to 41 patients per day.[28]

There is nuance in the LHD trends, however, with some rural MPS sites experiencing a decrease in presentations over the 5-year period, with Trangie and Tullamore[v] experiencing the largest reduction followed by Collarenebri and Peak Hill, Tottenham, Baradine, Nyngan, Oberon, Brewarrina and Canowindra.

In 2022/23 Collarenebri, Baradine and Peak Hill MPS emergency departments saw, on average, 1 to 2 patients per day, while Tullamore and Tottenham MPS emergency departments saw, on average, 1 patient or less per day. These trends in activity and health conditions are important for the design of services into the future – particularly primary and community-based care of all types.

[v] Introduction of the 4T's model is likely to have impacted emergency presentations in these locations, lowering the rates of unplanned ED presentations.

Mental health

The rate at which people with a mental health condition present to Western NSW LHD emergency departments is 54% higher than in NSW, [29] and the same is true for illicit drug use, where people in Western NSW present at far greater rates. The disproportionate rate of mental health and drug and alcohol presentations increases the further north in the district the emergency Department is located.

These statistics suggest there is a fundamental lack of strength in community based mental health and drug and alcohol services on the ground in the district, which is particularly pronounced in smaller more remote towns. Through the LHD's community engagement strategy, communities in the northwest of the LHD frequently report mental health, particularly youth mental health, and the lack of access to mental health and drug and alcohol services as one of their biggest concerns. This is often less an issue of overall investment than a reflection of the extreme difficulty of attracting and retaining skilled clinicians with the appropriate expertise to work in more remote and rural areas. The disaggregation of these services, which is the result of multiple State and Commonwealth departments funding services in fragile markets in a mal-aligned way, often makes the health system extremely complex for communities and consumers to navigate, especially in regional, rural and remote settings.

Acute care demand

Occupancy rate varies across the LHD's facilities, with the rural referral sites experiencing the greatest demand and occupancy against the bed base. While residential aged care occupancy is high, acute care occupancy in MPSs ranges from 45% – 55% over the five-year period. This means that there are staffed beds that are not being used by patients in these facilities and, in addition, most MPS facilities have 'acute' bed capacity that is no longer staffed. (The LHD staffs these beds to reflect average annual patterns of demand.)

The LHD actively manages the bed base across the entire region daily to ensure timely, quality care to those who need it in the most appropriate location. However, because the location and size of facilities reflects the historical rather than the contemporary distribution of the population, the LHD's smaller facilities are often needed to provide 'step down' or sub-acute care for people well away from where they, or their family, live. In simple terms, the LHD has a reasonable capacity of hospital beds across the footprint, however they are not distributed in a way that matches the needs of communities or contemporary models of health care delivery. While best efforts to utilise available capacity are made, this situation is not ideal for patients, families, staff or communities into the future.

This maldistribution of emergency department and inpatient facilities frequently results in the overloading of facilities and staff in larger population centres while the equivalent services may be staffed, but considerably underutilised, in the more remote locations. This is not to say that the more remote services don't play a vital role for the local community, but it does suggest that rural and remote services will be vastly more expensive to deliver per patient because of the inherent cost of maintaining 24/7 stand-by capacity relative to activity. Interventions that reduce the need to resource unplanned acute care in small and more remote communities (such as effective chronic disease management, community care and hospital avoidance programs) are likely to generate a higher return for the community for every dollar invested in them.

Western NSW LHD occupancy rates by hospital group are shown in Figure 5 below, noting this reflects all bed types and includes the impact of service changes to respond to the COVID-19 pandemic across 2021-2022. For much of the pandemic (which impacted regional and rural hospitals much later than those in Sydney) the Western NSW LHD invested heavily in virtual and community-based service responses that were intentionally designed to drive hospital avoidance and reduce the demand for inpatient beds. Elective surgery was paused for a period. After the pandemic the LHD has no longer had the financial capacity to underwrite these alternative models of non-hospital care. Post pandemic the occupancy of emergency department accessible beds in the three rural referral hospitals is frequently in excess of 90% and it is common for

patients to spend many hours waiting in the emergency department before being admitted. It is generally well recognised that hospital productivity declines beyond an 85% occupancy rate. Declining performance in emergency department metrics for access and timeliness of care is likely in these scenarios, and considerable effort is required daily to manage hospital flow, patient safety and ensure high quality care can be provided to all who need it. Future demand will only accentuate this problem without system change.

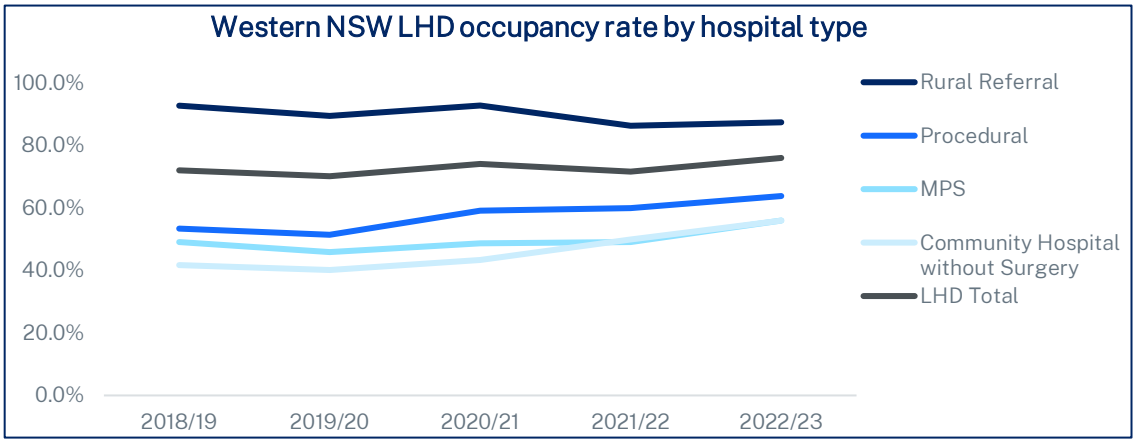


Figure 5 Western NSW LHD occupancy rate (for all bed types) 2018/19 – 2022/23.

In 2022/23 74% of all LHD admitted acute / sub-acute activity was undertaken in the district's three rural referral sites (Bathurst, Dubbo, and Orange), with 16% in the procedural hospitals, 6% in MPS facilities and 3% in small community hospitals.

The critical learning of the pandemic period experienced by the Western NSW LHD is that when the system allows for local innovation and response, there is a deliberate investment in comprehensive services to drive hospital avoidance and care for people in the community, and when the normal constraints on system agility are relaxed (whilst maintaining effective overall system governance), innovative and effective local solutions to wicked problems are very likely to emerge. Furthermore, when those local solutions intentionally break down the traditional siloes that exist between speciality services, far more holistic solutions that fit the real world contexts within which patients and their families actually live, become evident. This more connected, generalist and agile approach stands in contrast to the disease specific focus of much of the highly prescriptive programmatic funding that is most likely to be made available for new investment in both the Commonwealth and State systems.

> The response to the COVID-19 Delta outbreak in Western NSW LHD helped to protect highly vulnerable populations and minimise the impact of the outbreak. People were supported with high quality care at home, supported by local Aboriginal Health staff and virtual care resulting in a lower hospitalisation rate for the Western NSW population compared to NSW overall (47.6/100,000 population compared with 97.7/100,000 crude hospitalisation rate).

There has been a small increase in self-sufficiency (the proportion of Western NSW LHD residents treated within a Western NSW LHD facility) over time, noting highly specialised health care interventions will always need to be provided by a larger tertiary or quaternary centre.

This shift towards self-sufficiency in Western NSW has been particularly marked for cancer and interventional cardiology services. In 2014/15 49% of people living with cancer in the district received their acute admitted cancer care within the district. [vi] By 2021/22 that had risen to 54%. However, this does not include the significant ambulatory cancer care services (including chemotherapy and radiotherapy), which has increased greatly in recent years. Nowadays, with the comprehensive cancer centres that have been developed in Dubbo, Orange and Bathurst, the multiple outreach clinics to more rural towns, and assisted chemotherapy in ambulatory settings

[vi] Data Source: CasPA FlowInfo V 19. Inclusions: Cancer Flag, WNSWLHD residents, All ages, Acute Patients, All facilities / All LHDs. Exclusions: Cancer Flag = non-cancer separations, unknown, not recorded and benign neoplasms; ED only; HiTH Only.

in procedural hospitals, that percentage of overall cancer care (acute and ambulatory / outpatient) is higher again. This shift to provide specialised services closer to home has had a demonstrably beneficial effect on early diagnosis and the uptake of treatment by rural people and ultimately, on their health outcomes. This is not inferior care –the regional radiation oncology service provided in Western NSW is recognised as being world class - but it is more effective care because it better meets the needs of the people who live here.

The shift towards greater self-sufficiency in regional settings where care can be delivered at high quality will be essential if the larger hospitals in metropolitan Sydney are to cope with the demands of their more immediate, and rapidly growing, local populations. This will need to be considered alongside continuing advancements in virtual care services which can further support rural populations to receive care closer to where they live. The opportunity that this presents to improve the overall design of the system should not be ignored. However, the potential to achieve greater overall system benefit by altering the distribution of services between metropolitan and regional settings is arguably under-incentivised in the current processes that underpin whole-of-system planning and funding.

Future Demand: Emergency, Admitted and Community Care

Modelling should not be considered a foretelling of the future; however, it does provide some indication of anticipated trends in activity and service demand. Projections indicate that without any changes to models of care, emergency department (ED) activity in Western NSW will increase by 18% to 2036.[vii] All facility types are expected to see growth in ED presentations; however, the biggest impact is on the rural referral hospitals, with a projected 25% increase projected, a 20% increase at procedural sites and 6% increase at community hospitals and MPSs.

Rural referral hospital ED projections suggest that there will be slightly more Triage 1/2s (sicker patients); an increase from 12% to 13% of total; and less Triage 4/5s (a decrease from 57% to 54% of total). This modelling is most likely to be an underestimate, particularly in the Triage 4 and 5 categories given the fragility of primary care across the region and the more recent trends in ED demand.

Retrieval

Access to retrieval services is also an issue in rural and regional areas, including placement and location of retrieval assets. The time to treatment is a critical factor for determining outcomes for trauma patients. Impacted by distance, overall, patients who were injured in a metropolitan region arrived at a designated trauma service faster (88mins) than those injured in a rural location (175mins).[30] Maintaining accepted standards for patient transfers for interventions (such as thrombolysis) in the future will be important as the standards of care are often determined on best metropolitan practice. The challenges in retrieval are of most concern in the northwest of the LHD, exacerbated by workforce availability and geography. Access to an expanded breadth and depth of retrieval options - road, fixed wing and helicopter - will be necessary to meet demand over the next 10-20 years, especially in the context of changing models of care. Retrieval services in regional NSW have previously been raised in other Government Inquiries.

Acute inpatient care

Rapid advances in health technology have dramatically improved patient outcomes and brought faster recovery times than before, but they also require greater specialisation and a need for more services to be provided in larger and better equipped facilities.[31] Combined with internal migration and workforce patterns, this trend can be observed in Western NSW.

[vii] NSW Ministry of Health, HealthApp and EDAA V21, and FirstNet via HIU Portal. Baseline = average of 2017/18-2021/22 activity, grown by historical HealthAPP CAGR except where for those facilities where this is significantly different to the 2016/17-2020/21 growth rate (where 1%, 2% or 2.5% was used depending on whether the facility was a small rural/MPS, procedural or base hospital). Exclusions: Fever Clinic Activity

Modelling shows that, even with a shift of inpatient care to out-of-hospital settings, the demand on inpatient acute services is projected to increase, although these projections are nuanced by variation between health services. Projections indicate that the LHD's acute inpatient activity (separations) will increase by 28% from 2020/21 to 2036. This projected growth equates to an additional 23,957 admissions or around 145 acute beds in Western NSW LHD.[viii] The highest growth will be seen in the rural referral hospitals (33%), and by 2036 it is projected that 87% of the district's acute inpatient activity will occur in these facilities. In part, this reflects the increasing specialisation of medicine as well as demographic change.

Note that these projections are very likely to underestimate activity associated with an increasing length of stay for older people. The impact of ageing on the consumption of health services, and the complexity of care is profound,[32] as shown in Table 4.

Indicator	65-74 age group	75-84 age group	85+ age group
Annual ED presentations per 100,000 population	37,000	58,000	85,000
Annual hospitalisations per 100,000 population	46,000	79,000	93,000
Average length of stay (days)	3.7	4.6	7.0
Admitted patients with incontinence	1.6%	3.2%	7.5%
Admitted patients with dementia	2.3%	6.0%	14.7%
Unplanned readmission rate within 28 days	5.6%	7.1%	10.9%

Table 4. Analysis of indicators relative to age in NSW Health System (2011-2021) for Value Based Care Initiative [33].

These profound shifts in how older people consume hospital services are arguably not adequately incorporated in the models that underpin infrastructure development. The common wisdom of significant and sustained reductions in lengths of stay that have been seen in hospitals internationally over many years are unlikely to adequately reflect the ongoing trend. Almost certainly, hospitals that will provide care to a higher proportion and greater number of older community members as time goes on will experience significant increases in average lengths of stay. In a hospital system that is planned and funded on a methodology that prioritises separations, and discounts length of stay, this disconnect between system funding and the real-world experience on the ground will be increasingly problematic.

These changes in how older people experience disease, and particularly comorbid complex disease, are already very clear. They are currently being amplified by the considerable barriers hospitals face when transferring older people to other parts of the health care system, such as residential or community based aged care. There is ample evidence that the inability of Commonwealth systems to respond to this problem at the scale or pace required is disproportionately being carried by the acute hospital system.

With the assumption that there are no changes to models of care or service delivery, subacute activity is also projected to increase (overall by 34%, 33% at the district's rural referral hospitals, 29% at the procedurals and 44% at the community hospitals / MPSs). Most of the demand is by people aged 65+ years, growing from 77% of total activity in 2020/21 to a projected 80% in 2036. This projected growth equates to an additional 661 admissions or around 25 additional sub-acute beds in Western NSW LHD.[ix]

Demand for primary and community health services is projected to grow in line with demand trends and strategic directions around out of hospital care. Community based health care has a significant role to play in providing improved health care for communities and reducing demand

[viii] Source: NSW Ministry of Health, HealthApp and FlowInfo V21. Baseline = average of 2016/17-2020/21 activity with 5% redirected to out-of-hospital care, grown by historical HealthAPP CAGR except where for those facilities where this is significantly different to the 2016/17-2020/21 growth rate (where 1%, 2% or 2.5% was used depending on whether the facility was a small rural/MPS, procedural or base hospital). Exclusions: ED only and HiTH only activity. Includes: all ages, all SRGs, DO and ON activity, Medical and Interventional activity. Patient type = Acute, Psych and Unqualified Neonates

[ix] Source: NSW Ministry of Health, HealthApp and FlowInfo V21. Baseline = average of 2016/17-2020/21 activity grown by historical HealthAPP CAGR. Exclusions: ED only and HiTH only activity. Includes: all ages, all ESRGs. Patient type = Sub-Acute and Non-Acute

on acute care services. Catering for this growth will require investment in existing and new community health facilities, ambulatory, outpatient services, hospital in home and virtual models of care. Better integration with primary care will be essential. The shift in service delivery from acute episodic care to out of hospital care within ambulatory and community-based settings as new treatments become available (including co-locating acute, primary and community health services) will need to be a focus.

There is a broad consensus that to achieve high-quality, sustainable health and care services that can meet the changing needs of the population, there will need to be a radical shift in the focus of care from hospital to ambulatory and community based settings.

Forward projections have significant infrastructure, workforce and financial implications for the region across multiple locations. It highlights further the need to develop, imbed and finance models of acute community care, hospital in the home and other technology enabled improvements to acute care delivery, as well as to ensure future planning matches the needs of the community as they change.

Outpatient and Community Care

The design of the health system financing models and programs of investment both place more focus on acute and emergency activity than non-admitted health care services. Analysis of outpatient clinics in the LHD's three rural referral centres (Bathurst, Dubbo and Orange) suggests there are several outpatient medical services where demand far exceeds capacity.[34] Demand significantly outweighs capacity in paediatric services across the region, where children with behavioural issues can wait extended or infinite periods to access specialist care. Demand and capacity mismatch is demonstrated across a number of other specialities, including endocrinology, neurology, geriatrics, cardiology and gynaecology.

Poor access to specialist outpatient services has a profound impact on primary care. There is a symbiotic relationship between the two. Specialists need referrals from primary care practitioners. Primary care practitioners need specialists to refer to. An inability for a GP to refer a patient to necessary specialist care that they can afford and receive in a timely way diminishes some of the effectiveness of primary care. This is a commonly voiced source of frustration amongst those GPs who remain working in the district and has been reported as a factor in their retention decisions. The alternative available, when clinical concern is high and immediate, is to send patients to the local emergency department as a more reliable way of promptly accessing a specialist's opinion or intervention. That can only be described as sub-optimal design and operation of the health system overall.

Access to publicly funded specialist outpatient services is unequal, even between the regional towns of Bathurst, Dubbo and Orange. This lesser access to public outpatients occurs in the context of the generally lower access to specialists in rural and regional communities. The historical development of outpatient services has not necessarily matched the disease or demographic profile of communities, rather, it has most often been clinician dependent.

Outpatient services sit at the complex nexus between State and Commonwealth funded systems. They are primarily Medicare funded (which is designed to subsidise the consumers of private clinical services) but the symbiosis between both systems is heavily entrenched. In regional NSW there are very limited private outpatient options compared to metropolitan areas. The State funded health system would generate greater social and health benefits for its population if it provided publicly funded outpatients services for those members of the community who cannot either afford or access private solutions. That would enable the NSW health system to introduce a greater degree of coordination and planning to meet community need. Matching supply to demand based on community demographics, disease profiles and need across the region will be a significant future challenge. It will require specific consideration in funding models to address historical inadequacies and reduce demand on acute and admitted care.

There are number of funding sources for visiting (fly in fly out or drive in drive out) outpatient services in some rural communities, which are often historical, clinician specific or targeted

program dependent. This may include services commissioned by the Rural Doctors Network, Primary Health Network (PHN), Royal Flying Doctor Service, Aboriginal Medical Services or non-government organisations. Currently it is almost impossible for the LHD, the PHN and ACCHO sector providers to cogently plan for outpatient specialist services. It is very difficult to understand a whole of region view. No single agency has an overview of what services are available where and when. The split Commonwealth/ state and public/private funding models deployed in Australia currently make it almost impossible to plan for an adequate supply and distribution of specialist clinics in any given community, let alone monitor them or accurately inform local communities and GPs of the full range of services that will be available and when.

There is an urgent need for reform in this area if the combined resources of the entire health system, both Commonwealth and State, are to generate the best outcomes for local communities.

Aged Care and Disability Care: market failure in small towns

Older people living in Western NSW are experiencing challenges across the continuum – from accessing GPs and Geriatricians, to home support packages and residential aged care. Significant reform activities across the aged care sector, following the Royal Commission into Aged Care Quality and Safety, have also impacted aged care services across the region. There is considerable concern about the rapid increase in inequality that is being driven by the inability to access affordable care in a timely manner. This problem is now endemic across Western NSW. People living in many of the district's smaller towns have no access to even entry level community-based home support services that are intended to enable older people to remain living at home.

The number of older people requiring residential aged care is growing. By 2041, an additional 47 residential aged care places will be required in the LHD's MPSs to meet projected demand.[35x] The LHD's MPSs are often the only residential aged care option in many rural and remote communities. Challenges to the viability of small residential aged care providers, and community aged care providers across the region also impact the LHD's health and MPSs. Providers looking to consolidate operations or beds creates inherent risk for the LHD, particularly in small towns. While the Western NSW region between 2019 to 2023 has so far only experienced a net loss of 3 residential aged care facilities overall, the impact on specific small communities when a local provider closes, such as Peak Hill (10 beds) or Walgett (8 beds), is significant. There has been a reduction in operational bed capacity in other facilities for a variety of reasons including difficulties with registered nurse recruitment.

The Royal Commission into Aged care noted that in the main, the MPS model was a sound model of aged care service provision and recommended its expansion. However, the model has not continued to evolve with changing demographics and health care delivery trends. As increasingly more health care (that would have previously been delivered in an inpatient setting) can be delivered safely in a community or ambulatory setting, and as specialised health care is increasing at regional referral hospitals, acute care capacity in MPSs operates at low occupancy. In contrast, residential aged care, palliative care and respite demand in MPSs remains high.

Analysis of Commonwealth funding models relative to the cost of operating MPS residential aged care has identified a substantial financial gap created by the current MPS funding model. For the Western NSW LHD this is c. $100 a day, which is fully subsided by the LHD. Extrapolated across the number of residential aged beds it operates, the Western NSW LHD (or the State of NSW) is subsidising aged care in this district to an estimated value of circa $16M annually. The increasing premium labour costs being incurred to maintain service provision will only exacerbate this deficit.

The Aged Care Royal Commission also received evidence that the Australian Government's funding for the MPS Program has failed to keep pace with need.[36] There is no acknowledgement within the NSW funding model of the subsidisation inherent in the MPS model. This affects the

[x] Using the methodology of 75 years and over against projected population.

ability of LHD's who provide residential aged care services to use growth funding for much needed other services. (This deficit explains, in part, the relative underinvestment in publicly funded specialist outpatient clinics and other services in the district.) The true cost of providing aged care in rural communities through the MPS model requires recognition from both levels to Government to allow health service funding to be directed more appropriately.

The Western NSW LHD is aware that the Senior Officials Group (SOG) MPS Working Group is exploring alternative MPS funding models to ensure that Commonwealth funding aligns with the real cost of providing residential aged care in an MPS. The Deputy Secretary, Regional Health, represents NSW Health on the MPS Working Group and the group aims to address the recommendations of the Royal Commission into Aged Care Quality and Safety in relation to MPSs. These issues will be important considerations in this work and future service design.

Much of the MPS infrastructure in Western NSW LHD needs refurbishment (and / or replacement), creating challenges in delivering contemporary models of residential aged care. Many MPSs are not environmentally designed to care for high care needs as people are living longer with slow deterioration, especially those with specific needs (such as a person with amputation, and / or disability as they age). Whilst five MPSs[xi] in the Western NSW LHD region have been redeveloped as part of the NSW Government MPS stage 5 program, there remains a substantial number that require upgrade or enhancement to meet contemporary models of care or the needs of the community into the future.

Community Aged Care – Home Care Packages

Community aged care is another example where an over-reliance on the market to solve issues of maldistribution can increase inequity for rural populations. Home Care Packages (HCP) are Commonwealth funded aged care services that are designed to support older people with complex care needs to live independently in their own homes. The support is provided through a Home Care Package – a coordinated mix of services that can include: household tasks; equipment; minor home modifications; personal care, and clinical care such as nursing, allied health and physiotherapy services. There are four levels of Home Care Packages – from level 1 for basic care needs to level 4 for high care needs.

Rural home care package recipients frequently pay a larger proportion of their package in provider travel fees. Additionally, in recent months the LHD has become aware of towns where there is no entry level home care (CHSP) and limited capacity to offer the level of service required for people receiving a home care package. While home care package fees are capped, the incursion of travel fees is not. For a recipient of a rural package, in real terms, this means that a higher proportion of their package is utilised on provider travel fees instead of care needs. On occasion the proportion of an older person's package that is spent in care coordination and travel can appear to be exorbitant. The lack of competition among providers creates mini-monopoly markets. That can give rise to increased prices with very little consumer protection. As the community's 'provider of last resort', the LHD has frequently stepped in to undertake this work without remuneration when a private provider has not been able to meet requirements.

The LHD, in partnership with the Ministry, recently commenced a new initiative in response to this market failure. The goal was to improve the timeliness of delivery of home care services for people waiting for their package to be assigned. Over the course of a 12 month trial there were 189 clients, 17 providers and 35 locations offered single services with a $244,000 reduction in cost when compared with the cost for a package of services. This experience has implications for future program design. It is the LHD's view that a number of consumers (and LHDs) might benefit if these sorts of more innovative responses by LHDs to rural market failure in Commonwealth funded services were to be scaled up across NSW Health.

[xi] Cobar Health Service was also redeveloped under the MPS 5 program, constructing a new Health Service co-located with the existing Lilliane Brady Village which provides residential aged care.

Disability services

Analysis of National Disability Insurance Scheme (NDIS) utilisation shows that Western NSW participants reported the second lowest budget utilisation in NSW across all NDIS participants. For the 2022/23 period 69% of approved budget was utilised, compared with the state average of 76.5% of budget. [37]

Overall, the Western NSW region has the second lowest budget utilisation across all ages, disabilities and all participants both within and outside supported independent living. This suggest that either rural people face greater barriers in being assessed for NDIS eligibility, or that NDIS clients are unable or unwilling to access providers, or that the State-funded health system is stepping in to support these individuals through programmes that are not funded by NDIS.

Workforce

The geographic maldistribution of the health workforce has been well documented, as the majority of health professionals work in major cities, with the number of practitioners decreasing steadily by remoteness area.[38] For all registered professions, the number of employed full time equivalent (FTE) clinicians working in their registered professions has decreased with increasing remoteness, a trend seen each year since 2015. [39]

The COVID-19 pandemic has exposed and exacerbated significant vulnerabilities within the health system. Although this is not a new issue, nor is unique to NSW, pre-pandemic projected workforce shortfalls have been exacerbated by the COVID-19 pandemic. [40] The pandemic highlighted the unprecedented pressure on the health system and the anticipated long-term impact this may have. [41] Rural health is often referred to as the 'canary in the coalmine' for health workforce and system challenges. This has been especially true of Western NSW over the last half decade or more.

While there are different challenges between larger regional centres and small towns in terms of workforce, there are commonalities in ensuring the attraction, support and retention of a skilled and capable workforce across the LHD footprint.

In larger regional towns, health services are at a major recruitment disadvantage in attracting medical specialists when compared with metropolitan services who have access to doctorate opportunities, clinical fellow positions and clinical superintendent/private practice opportunities. Metropolitan services have the advantage of incumbency due to the relative lack of specialist training positions regionally.

Often health services are reliant upon recruiting specialists with either a passion for regional healthcare, those with familial ties to the region, or doctors who trained overseas. The planning and funding of services based on historical activity and staff/VMO establishments exacerbates this problem. Instead, planning and investment should be based on projections of community health need, supported by a vision for increasing self-sufficiency of health care delivery in regional settings.

A mix of VMO and staff specialist positions will need to continue to be part of the rural health care environment to attract and retain specialist services in the region.

Locum Medical Staff

Medical staff costs have increased by 50% for Western NSW LHD overall over the preceding seven years, with the most significant increases occurring over the last three.

Locums now make up a much greater proportion of the regional medical workforce. This is true across all sites in Western NSW but is particularly true in small rural health services (now 24% of the workforce expenditure). A full-time locum position has become increasingly more lucrative, with travel and accommodation paid for, an opportunity to travel, and no additional administrative responsibilities when compared with a traditional GP VMO or specialist arrangement.

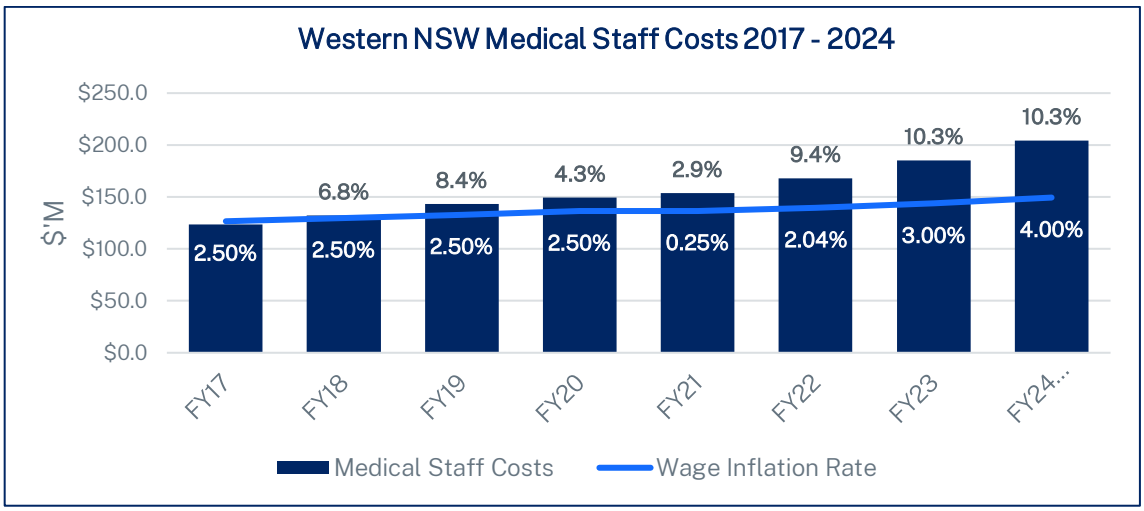


Figure 6. Western NSW LHD medical staff costs 2017 FY to 2024 FY (extrapolated)

Within the last three years the medical career pipeline has fundamentally altered, with many doctors now embarking on locum work for several 'gap years' once they qualify but prior to entering into College training programmes. This trend now appears to be an embedded feature across subspecialty and general medicine in larger hospitals, as well as anaesthetics, intensive care and emergency medicine. It is endemic in General Practice and Rural Generalist settings.

It is almost impossible for rural and regional LHDs to offer newly emerging medical staff an attractive enough option to counter the locum model.

Market failure in primary care has increased the dependency on locums for rural facilities. Many rural hospital inpatient units and MPSs are now run entirely by locums. The increasing demand for locums across NSW has directly impacted the market for these services, with excessive locum rates putting genuine pressure on the sustainability of LHD resources. These high costs detract from the ability to fund actual growth in demand or service enhancement in other locations. The high market rates are also acting as a disincentive for doctors to take up salaried Medical Officer positions or quinquennial VMO appointments.

The discrepancy in the engagement and award structure for medical officers, including inconsistency of contracts and incentives (such as accommodation) confounds this issue. On-boarding, training and support, including support for the wellbeing of medical officers, remains a challenge, alongside the ability to self-generate a local rural workforce. These factors are putting further downward pressure on medical workforce supply.

This is national problem and collaborative solutions that span State jurisdictional boundaries are urgently needed.

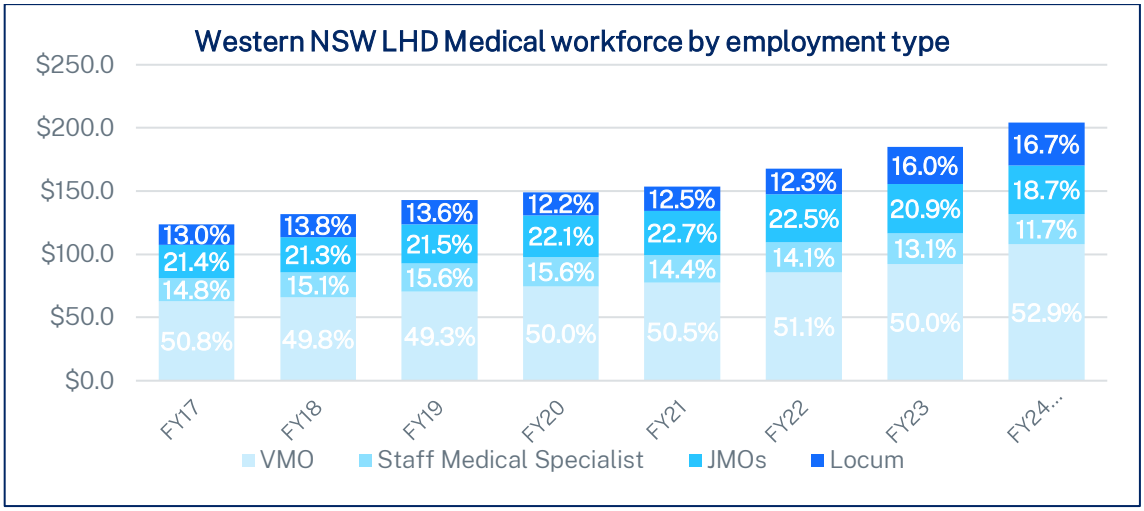


Figure 7. Western NSW LHD medical workforce by employment type FY 2017 – FY 2024

Agency Nurse Staffing

The attraction and retention of registered nurses in many small towns is requiring unprecedented effort. In Western NSW nursing staff are relocated from across the district on a week-to-week basis to ensure that individual MPSs remain operational. The use of agency nursing staff has increased significantly. In addition, the price of those agency engagements has exponentially increased, particularly in the wake of the various natural disasters experienced across regional NSW.

The annualised equivalent salary that some agency nurses can attract in Australia far exceeds any historical trends, with accommodation and travel benefits being paid in addition. Competition between states is fuelling this hyper-inflation. The agency nursing costs (excluding travel) incurred by the Western NSW LHD have increased to from $6 to $37 million [xii] over the last seven years and have increased 238% in the last three years alone. The locum medical cost has increased from $18m to $34m in the same period.

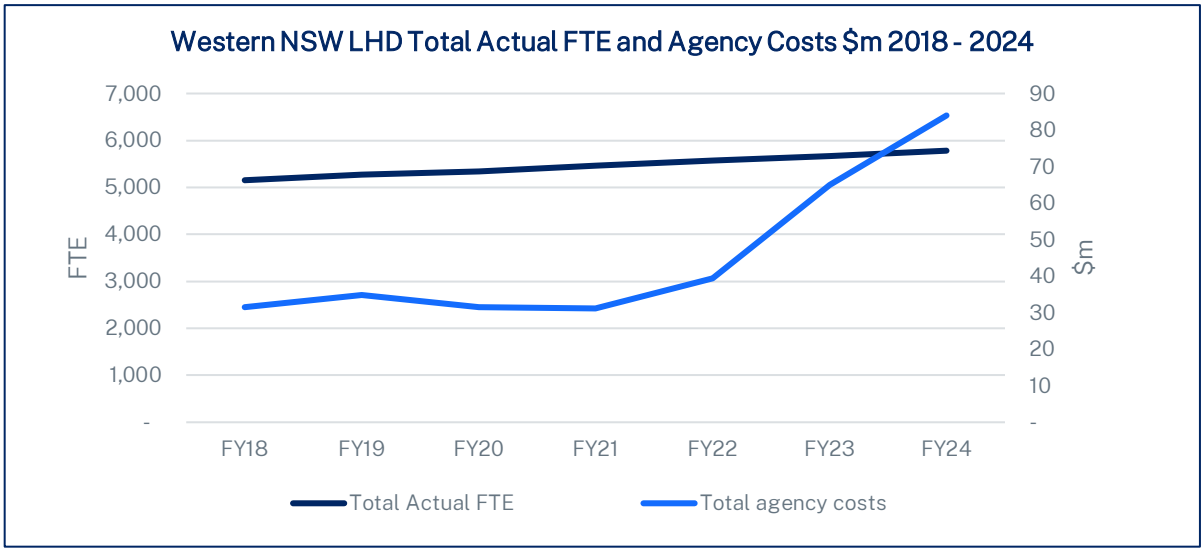


Figure 8. Western NSW LHD agency costs and actual FTE FY 2018- FY 2024

There is little contingency in a small health service with low bed numbers, where staff numbers are small, and unplanned vacancies or unexpected leave can have a large impact. The burden of roster deficits that would fall on the remaining staff would be unsustainable without agency nursing support. This creates a self-perpetuating spiral towards the non-sustainability of services in rural and remote locations. Severe staff shortages create a reliance on locum and agency staff to operate health services across the region. This demand for agency staff increases the agency or locum rate, which in turn, further increases the attractiveness of locum or agency work. That further increases the number of vacancies and the reliance on locums, which further inflates the price. This self-perpetuating cycle is completely unsustainable.

The cost of the resulting hyperinflation that is now firmly evidenced across NSW (and Australia more generally) is ultimately borne by communities, who are deprived of investment in the other clinical services they need, and by the permanent staff who carry the burden of their commitment to maintain local services.

NSW operates in a broader Australian market. LHDs are limited in their ability to influence the prices for locum medical officers due to the operation of market factors and competition law in Australia.

The hyperinflation in locum and agency staff costs that is evident in Western NSW, and across all rural LHDs, is generally regarded as the one of the most significant risks in their operating environments. It has exposed weakness in the design of the overall system and how it collectively

[xii] Forecasted expenditure

responds to critical emergent risks. The health eco-system creates far greater incentives for LHDs to fill vacancies at exorbitant rates than it does to provide a planned, well managed and sensible rationalisation of services that have low utilisation and are proximate to similar services elsewhere.

A far greater whole of system response, executed at a far greater pace, will be essential if this iterative cycle of hyperinflation is to be tamed. Legislative and system design that enables deliberate market intervention will be necessary while a more sustained investment in creating the future permanent workforce occurs in parallel.

Allied Health and other workforces

The mismatch between workforce demand and supply in rural and regional Australia is often characterised solely in terms of medical, nursing, and sometimes, paramedic roles. That is far from a complete picture. Most health professions face similar challenges, including allied health.

The 2022 Skills Priority List (National Skills Commission) has identified the professions of Psychology, Speech Pathology, Hospital Pharmacy, Occupational Therapy and Physiotherapy as areas of current shortage and with moderate to strong demand for these roles into the future. Recruiting to these professions is challenging in the Western NSW region, and most remote communities have experienced sustained vacancies for allied health staff for over a decade although the quantum of that deficit is now markedly greater. Similarly, 65% of oral health positions in regional NSW are currently vacant. In some towns the ability to recruit even tradespeople and office staff can be just as challenging.

In response to some of these challenges in Allied Health the Western NSW LHD has formed collaborative partnerships with the larger NGO providers in the district who face similar difficulties. Our shared intent is to enter into 'single employer' models with them in small towns through which either an NGO or the LHD will be the employer of a health professional who will then provide service across the collaborative.

This is a sensible response to the needs of small communities which could ameliorate the dis-aggregation of part-time specialised health worker roles that has been the traditional alternative. By pooling the myriad component portions of work in small communities to create full time work opportunities, more attractive jobs may be able to be developed.

The widespread challenges in recruiting and sustaining a regional health workforce across most staff categories reflects a much bigger reality. Remote and rural Australia has been changing for decades, but the pace of change is accelerating. Healthcare workers do not exist in isolation – they have partners, children, families who need employment, childcare, education and social opportunities. Healthcare workers in rural areas have both a need for social integration but also an ability to have anonymity and respect amongst community members who they may see at their most vulnerable when at work.

All these factors are important and as very remote communities become more fragile, so will the supply of health care professionals who are willing to work in them.

Addressing workforce challenges at the microsystem level

In November 2022, the Western NSW LHD committed to an ambitious People Strategy as a local solution to act on significant workforce challenges, with agreement from the NSW Ministry of Health on resourcing for the programme. The People Strategy is made up of 45 initiatives, aiming to address workforce shortage, improve wellbeing and culture, reduce burnout, develop leadership and allow our staff to flourish through innovation and creativity.

One of the immediate strategies enacted by the LHD was the local implementation of recruitment and retention incentives for hard to fill roles. NSW Health introduced the Rural Health Workforce Incentives Scheme (RHWIS) in July 2022. The RHWIS is a comprehensive incentive package that aims to attract, recruit, and retain key health workers in rural and regional locations employed in positions that are hard-to-fill or critically vacant.

As of the end of June 2023, 263 roles have been identified as 'hard to fill' with 876 staff receiving attraction and retention payments (a total of $3.8 million in incentive payments to staff across the latter part of the financial year). From August 2023 until June 2026 staff who take up new roles with NSW Health in regional and rural locations can receive incentive packages up to $20,000. So far, these incentives have supported the attraction of over 46 internationally qualified nurses to the district.

Accommodation for staff is a key factor for recruitment and retention in rural areas. Key health worker accommodation has been established in locations of high need, including Warren, Collarenebri, Walgett, Condobolin, Baradine, Mudgee, Trundle, Tullamore and Wellington. Further assessment for additional locations is being undertaken in 2023-24. Inevitably, more will be needed to continue to support the attraction and retention of a rural health workforce across the district.

As part of the LHD's commitment to training and supporting the new graduate and overseas qualified nursing workforce, the Centre for Rural Education, Simulation and Training- Simulation Centre (CREST-Sim) was established in Wellington. CREST-Sim supports nurses who may not immediately have the skills to practice in a rural and remote facility, to attain the requisite skills and confidence through high quality simulation-based education incorporating Virtual Reality and Augmented Reality training programs.

To help secure the future workforce pipeline, clinical nurses educators and new graduate programs intakes have been increased (a 64.6 FTE uplift), as well as increasing Enrolled Nursing cadetships and AIN (Assistant in Nursing) scholarships. The LHD launched a two year programme for new graduates across the range of Allied Health disciplines, which was a first in regional NSW. That programme was oversubscribed and an annual intake will be established from 2024 onwards. Additional staff well- being and leadership programs have been delivered to several staff across the region as part of the LHD's People Strategy.

Through the investment in LHD staff there has already been an overall growth of 178 FTE and a subsequent 3% reduction in the number of staff with excess leave. The People Strategy has been in place for less than a year. The benefits of the initiatives were only demonstrated in the latter part of 2022-23 and are expected to increase over time, working towards a reduction in both premium labour- agency utilisation and overtime to ensure a sustainable and productive workforce into the future.

While these micro and mesosystem initiatives are of great importance, their effectiveness will be hampered without structural change in the macrosystem.

Community Engagement

Over time, there has been a changing involvement of patients in healthcare, who are no longer passive recipients of the care provided to them, but intrinsically involved in its co-production. [42] Strong patient and community engagement is a core attribute of a high performing health system.[43] Community engagement can contribute to improved health outcomes, better financial performance and improved community identity.[44]

Historically, regional and rural health services have had the foundations for connections with communities – hospital axillaries, hospital boards, health councils, 'pink ladies', volunteers and fundraising activities in many different capacities.[45] However, in the context of changing health care delivery, changing communities and societal expectations, these foundations do not always ensure representative and diverse community engagement for strong co-design of health services. To achieve stronger engagement, there is a need to create, strengthen and maintain social licence with our rural communities.

In response to this, in 2022- 2023 the Western NSW LHD embarked on a new approach to community engagement that is contemporary and aligns with current policy. Guided by the Public Participation Spectrum,[46] the community engagement model considers how to engage the many communities across the region in the co-design and delivery of services, and ultimately, encourage communities to partner with the LHD to take ownership of health outcomes.[xiii]

Meaningful Engagement in Western NSW LHD aims to build and maintain strong and reliable social licence with communities to ultimately improve the health and wellbeing of rural people. Meaningful Engagement involves a three-tiered model of community engagement, supported by investment in the technical, capability building or other infrastructure required to undertake meaningful engagement in a contemporary way. The three tiers include:

1. Placed -based approach within local communities.

There are many components of the place-based model, which needs to be tailored to meet the needs of the community. It may include (but is not limited to): regular engagement with local council; committees; other health advisory groups or networks and local emergency management committees. It includes local approaches to vulnerable groups, often led by local staff, including Aboriginal Health Workers. Place based approaches include supporting volunteers to participate in health service activity as well as other strategies within a community engagement toolkit that has been developed for staff. A number of co-design projects have been initiated over 2023.

2. Sub-regional health planning consultative committees, with linkages to the Three Rivers and Murdi Parki Regional Assemblies.

Two sub-regional health planning and consultative committees have been established to reflect the diversity of communities within a sub-region, service delivery relationships or special interests that are important to improve health and wellbeing of communities. The committees will have a key role in co-design of solutions to challenges for health services into the future, and ways to improve the health of the community. These two committees have been established as proof-of-concept groups to learn and refine the model before remaining groups are established across the region. While the committees will be formally evaluated in 2024, there is evidence of early success.

3. Organisation level relationships, partnerships, public trust and accountability.

This component of the model focuses on building and maintaining trust between Western NSW LHD as an organisation and communities across the region, and embedding strong community and consumer engagement in LHD process. In 2023, the LHD launched *Engage Western*, an online space for the community to provide feedback as we plan, design and deliver services and other health projects. It is one of the tools the LHD now uses use to engage with more people across our footprint. The LHD also held its inaugural Community Conference alongside the Annual Public Meeting in October 2023. These activities provide the initial platform to build more organisation level engagement.

[xiii] The *Engage Western* platform is available at: https://engage.wnswlhd.health.nsw.gov.au/

Infrastructure

The Western NSW LHD has substantial building portfolio of 417 buildings to manage, spread across 47 towns. Even though some hospitals may rank well in terms of physical performance, they may not rank well in terms of functional suitability. Almost half of the LHD's buildings have low functional suitability resulting in high maintenance costs and challenges to implementing contemporary models of care.

There is currently no clear funding path to support the redevelopment of ageing Community Hospital infrastructure. The Western NSW LHD operates six of these facilities.

The LHD also manages a large medical and non-medical equipment portfolio, including major and minor medical equipment, service equipment, fleet, and site infrastructure, ICT and digital assets including software, security equipment, telecommunications, and information technologies across the footprint.

The upgrade, redevelopment and maintenance of such an extensive infrastructure portfolio across a large region is a structural challenge for rural LHDs, particularly in the context of changing workforce availability and skills shortages. The additional costs incurred to transport staff, equipment and infrastructure supplies to rural and remote sites, and the reduced daily productivity that results, is an additional burden that rural LHDs bear compared to their metropolitan counterparts.

There is an increasing disparity between private and public sector rates of pay for skilled trade labour, creating significant challenges in recruiting many maintenance and engineering positions. In the past two years 42% of recruitment episodes for biomedical engineering and asset management staff undertaken by the LHD failed to secure a suitably qualified applicant.

The costs of installing and maintaining infrastructure have been further compounded through the necessary engagement of external contractors to undertake the essential maintenance and repair works. This has driven dramatic increases in cost for individual sites and the LHD more broadly. The unavailability of local trades within many communities has resulted in transport costs being incurred on top of high contractor labour rates for quite routine services. For example, the cost of landscape maintenance for one MPS has increased by 100% over a 12-month period.

Given these issues it is hardly surprising that the finances available to support maintenance activities has not kept pace with the increasing costs of labour, parts and materials over a number of years. Over time the balance of activity has shifted between preventative maintenance and reactionary repair.

More recently the NSW 20 Year Health Infrastructure Strategy, NSW Health Investment and Prioritisation Framework, updated processes of facility planning, combined with the Strategic Asset Management Plans have significantly improved the infrastructure planning process across the NSW Health system. However, the drivers for infrastructure investment in rural health services, such as poor asset functionality or clinical and patient safety, are not particularly well reflected in cost benefit or other economic value tools in the absence of significantly increasing activity (compared to metropolitan services). This potentially disadvantages rural health services and reinforces a hospital centric model of planning based on historic patterns of service delivery.

The substantial improvements that have already been made in infrastructure planning by NSW Health could be enhanced in rural and regional settings by closer collaboration with Commonwealth partners (who fund the development of Aboriginal Medical Service facilities for example) to support the development of broader health precincts. Currently both levels of government support capital investment in rural towns entirely independently of each other.

Environment

People in Western NSW have witnessed firsthand how climate change can devastate communities through unprecedented rain events, floods, droughts and bushfires, and their associated illness, disease, and injury. Current projections show that temperatures will keep rising, rainfall patterns will continue to change, and fire weather will increase. [47] "*There is an inextricable relationship between climate change and human health, with important implications for the delivery of health services. Climate change will affect health service demand, and the resources, workforce and infrastructure of health services.*" [48]

Climate change may exacerbate the rate of population decline in more remote communities and amplify the existing health inequalities in rural communities. Health care is now recognised as a significant contributor to climate change,[49] [50] contributing 7% of all greenhouse gas emissions to Australia's carbon footprint.[51]

Taking action to reduce the impact of health services emissions on the climate and prepare NSW Health for the future impacts of climate, including disasters, is both a challenge and an opportunity. Considerable work has already commenced, with hospitals in Hunter New England and more recently Western NSW hosting some of the largest solar power installations of any government buildings in the State. Energy efficiency, waste reduction and water harvesting programmes are variously well underway or in the final stages of planning. Changes in the use of particular therapeutic goods, and particularly anaesthetic drugs, are being introduced given the inordinate impact that pharmaceuticals and other medical supplies have on the industry's carbon footprint.

The Western NSW LHD committed to an Environmental Strategy Plan to progress environmentally sustainable activities and initiatives to reduce our carbon footprint while delivering sustainable rural healthcare ready to adapt to climate challenges. This includes work to improve and maintain health in a changing climate as well as minimise emissions from the health service and provide low carbon and climate resilient health care. Sustainable procurement with regard to pharmaceuticals and consumables, sustainable building practices, water harvesting, waste management and sustainable travel form some of the practical strategies to achieve this.

Future government priorities and funding mechanisms should support, and incentivise, capital investment and behavioural change programmes that ameliorate the impacts of climate change across the entire health industry. This needs to include both the supply chain(s) and the providers of medical consumables and equipment. Appropriate legislation may be an enabler of this change.

Research

Health organisations that engage in research experience visible benefits, including reduced patient mortality, [52] [53] [54] higher patient confidence and satisfaction, [55] [56] improved staff satisfaction, recruitment and retention and increased organisational efficiency.[57] [58] Research is therefore a powerful platform upon which to implement more effective and efficient treatments via implementation of the current evidence and development of healthier communities.[59] [60]

These same inequalities that affect rural communities impact the distribution of research funding in Australia, with the system structured in a way that it disproportionally favours metropolitan centres. Consideration should be given to needs and differences in capability and capacity between metropolitan and rural, regional and remote (R3) areas and mechanisms for funding for rural LHDs to address deficits in research capability and capacity.

Areas of focus to enhance rural research include: decentralisation of funding to rural LHDs, specifically to build clinical trials (for example the R3 clinical trials program); opportunities to develop innovative co-funded models of research, and more rurally focussed clinician researcher PhDs or Masters programs. Clinician researchers are well placed to identify issues and research opportunities related to patients and health care delivery, and to promote the translation of findings.

6 Reform priorities

Piecemeal changes, pilot programs and iterative changes to existing models of service delivery will not achieve the level of reform that is required to improve health outcomes for the regional, rural and remote communities of NSW. Such improvement will require strong transformational leadership, a clear and multi-partisan commitment across multiple levels of government, and active collaboration with communities, health service providers, unions, workforces and other government agencies for the long term.

Planning for the future with urgency

The historical model of planning and investment in state-funded health services, which is often based on local advocacy to retain historical hospitals, will not serve the communities of our district well into the future. Nor will that approach improve health outcomes or deliver value for money. Rigidity in the system currently does not enable historical patterns of service delivery to evolve as communities evolve, and it dis-incentivises rural LHDs from redirecting resources to where they would generate a greater return for the community overall.

No hospital is an island. Hospital planning needs to consider both the local place and the networks it is part of to succeed. Purely place-based planning in isolation from the referral networks for higher level and tertiary care will not serve the holistic needs of the community. The current process in NSW for Strategic Asset Management encourages a facility-based approach, rather than developing networks of services, each of which may require service evolution or change, to best service the community overall. (For example, the network of health services across Dubbo, Narromine and Wellington would more sensibly be planned and operated as an integrated whole rather than being considered as discrete facilities.)

There is an urgent need for strategic, coordinated planning across the rural health care landscape – in partnership with communities – supported by strong leadership at the macro level.

Planning will need to consider individual communities and the core health and aged services required in a town (for example, primary care, community and allied health, ambulatory care, mental health, aged care, palliative care and respite) as well as the emergency care, obstetric services, surgery, renal and chemotherapy services and the more specialised services provided by larger hospitals within a network and region overall. These principles and core services need macro-system support and agreement.

The high fixed costs, severe workforce shortages, low activity, changing models of healthcare and demographics will only continue to exacerbate the existing challenges. Without early, proactive cross-government bipartisan leadership and multi-agency planning, in partnership with communities, unions and other key stakeholders, the risk of service failure in small communities will remain extremely high. The process by which this occurs will be crucial if a just transition is to be achieved.

There are three key elements to the detailed planning required:

1. Small town comprehensive primary care, community care (including ambulatory and outpatient services) and evolution of MPS model in small communities to match community need.
2. Identifying natural hubs within smaller catchments to maintain and provide needs-based services to several communities, and where communities can work together to maintain the viability of services across broader networks.
3. Increasing the self-sufficiency of the Western NSW region by providing more specialised health care in the larger urban centres across regional NSW (both facility-based services as well as enhanced specialist outpatient services), reducing the dependence on metropolitan services, thereby enabling them to focus on the meeting the needs of the growing

metropolitan population and at the same time reducing the significant travel burden for rural residents.

The development of Health Precincts in larger regional cities that draw together a broad range of public and private health services, education and research institutions has a great deal of merit.

Planning and working in partnership

Partnerships are essential to effective planning and service delivery in the health sector. Both the Commonwealth and the State government need to incentivise collaborative models of planning and investment that draw together the lead agencies on the ground in local communities. This is much easier said than done. The Western NSW region has a long history of partnership and collaboration between health agencies – the Far West and Western LHDs, the Western NSW Primary Health Network, the Rural Doctors Network and various Aboriginal Medical Services – who all realise the strength of partnership and co-commissioning to improve outcomes in rural communities. However, there is a natural tendency for each organisation to plan mostly for their own services or responsibilities in isolation of their other partners across the healthcare system. The experiences of the Western Collaborative can offer invaluable insights to that journey.

Going forward the Western NSW LHD Board and the Western PHN Board have already agreed to establish a joint-Boards subcommittee to oversee the maturation of shared planning and commissioning processes such as this.

Reliable, shared information is the bedrock of co-design and co-commissioning. In NSW the Lumos data system is now used to bring together de-identified data related to patient care across both the Commonwealth and State health systems. Contribution of data by GP practices into this system is currently voluntary. Only 27.9% of the 2,502 GP practices in NSW contribute data to the system. Corporate GP chains are less likely to contribute that owner operated practices are.

In the Western NSW PHN area 28 of 113 practices (24.7%) contribute data to Lumos. If place based planning across the whole of the health system is to succeed then both the Commonwealth and State governments need to require this level of data sharing. This may well require legislative reform but it is imperative if both levels of government are going to get the best return from their respective investments in health services. Planning in a vacuum of information is not in the public interest.

While many agencies may look to undertake this planning work (particularly under a place-based approach), consideration must be given to the capacity, capability, longevity of agency resources and the depth of understanding regarding the network of services required to provide health care to a rural population. Not all local partners are able to contribute equally to the planning and delivery of services. Not all organisations have the staff capacity, skilled capability, stability of workforce or longevity of funding to play an equal role in the process, particularly in rural areas. Mature partnerships can develop mechanisms to address these issues of imbalance. Mature partnerships can also learn how to navigate disinvestment from initiatives that are failing to deliver the return for the community that was originally envisaged. What is vital is that there is conscious macro-system support of the need to plan and commission services together and that both the Commonwealth and State level agencies respect and work through, rather than act in competition with or parallel to, these more regional models of collaboration if they are to succeed.

Small town primary care and evolution of the MPS model

The need to strengthen the primary health care system in regional NSW is urgent and indisputable. While this has not traditionally been the remit of State health services, the interdependence between primary and secondary care in rural and remote towns means that the system can no longer afford for the sustainability of primary care not to be a core consideration.

In the early 1990s, the MPS program was designed as a national health service delivery strategy to address the specific health and aged care needs of certain rural and remote communities. It was intended to integrate health and aged care services away from a predominantly hospital

services-based model. It sought to address drivers of ageing infrastructure, closing hospitals, limited health and aged care services and workforce shortages. Overall, the model has been very successful, but past success should not lead to the assumption that it will continue to be so. The culmination of demographic change over the last 10 years, including migration of working age people and ageing communities, and advancements in health care has left many small health services in a perpetual state of crisis response. Not unlike the early 1990s, many small rural MPS' now find themselves again at a tipping point.

Novel, local, integrated primary care solutions have been developed and tested in Western NSW LHD. The '4 T's model' is an example of this. While such models maintain essential services to the community, they further highlight the extent to which the LHD is subsidising Commonwealth-funded services to address service failure in rural, regional and remote Australia. This must be addressed going forward.

The '4 T's' model is a novel healthcare workforce planning model established in Trangie, Tottenham, Tullamore and Trundle since July 2019. It is a single-employer, central administrator (Western NSW LHD) model to deliver primary care via networked primary care clinics and virtual health services across the four communities, co-located with the MPS in each town. The model was developed in response to primary health care market failure in the subregion, which made it financially unviable to operate private general practice and the closure of all private GP clinics in the four communities. The underpinning premise, with partnership and strong community involvement, was that the individual communities would be stronger together.

Although LHDs have not traditionally engaged in primary care delivery, the transfer of governance and operation of the primacy care medical centres to the LHD has allowed the maintenance of primary care and medical support for the MPS' in these communities (supported by virtual health where required). The model draws on Section 19 (2) Exemption of the Health Insurance Act 1973 to permit state renumerated health services to claim Medicare Benefits, contributions from the Western NSW LHD, Rural Doctors Network and Western Primary Health Network, as well as other resources and in-kind contribution from community stakeholders. An independent evaluation is currently underway; however, this work is significant for many other rural areas where blended- jurisdiction funding and single employer models could be used to sustain high quality primary health care in the face of market failure.

The success of the 4-Ts model in sustaining services to small towns is inarguable. It offers a prototype for the future. However, it cannot, and should not, be expected that the LHD (and NSW Health) continue to finance their necessary involvement in strengthening primary care without a clear agreement between the State and Commonwealth, including how the efforts of all providers are to be fairly remunerated.

Other existing models which could be considered include: further development and evolution of the Health One model with a single workforce employer and more integration of services; a rural pilot of an Urgent Care Centre (adapted to include primary and secondary care alongside urgent care; learnings from the US Health Centers[61]; and the Single Employer model to support the training of Rural Generalists that has been piloted by the Murrumbidgee LHD. The concept of one-stop shops in smaller towns are particularly attractive.

The HealthOne model in NSW commenced in 2006/7 and aims to create a stronger and more efficient primary health care system by bringing Commonwealth-funded general practice and state-funded primary and community health care services together. Other health and social care providers may also be involved in the HealthOne NSW model, for example pharmacists, public dental services, private allied health professionals, other government agencies and non-government organisations.

A future focused strategy focused on the sustainability of health and aged care services in small communities, most likely through further forms of horizontal integration, is needed. This must be designed with community, all levels of government and other services in communities with a long-term view and commitment. It cannot be considered is isolation from the network of services required to provide higher level emergency, acute and specialist care to a population.

Successful models of rural and remote primary health care have been described in the literature as requiring macro-scale environmental enablers (supportive health policy, federal–state relations, and community readiness) and micro-level essential service requirements (workforce organisation and supply; funding; governance, management and leadership; linkages; and infrastructure).[62] Both the macro policy environment and micro level service detail are needed for success.

As has been previously noted, the principles of a 'just transition' used in the transition to low carbon economies and societies could be considered in the evolution of health services, albeit on a more localised scale. Broadly defined as ensuring that no one is left behind, just transitions are focused on processes that are as fair and inclusive as possible to everyone concerned and reflect the needs, priorities and realities of the community. This includes strong social dialogue and consensus and the creation of decent work opportunities.[63] [64] While various models are described in the literature,[65] all have a common intent to balance the interests of workers, unions, communities, service providers, system managers and governments at multiple levels whilst not recoiling from the undeniable need to do things differently.

Well designed, inclusive and respectful processes of reform are essential. The leadership required to support that transition will not be those characterised by positional thinking, blame, denial and short termism. Rather, this is a period that requires transformational leadership characterised by an intense recognition of the need to serve vulnerable communities well, to recognise and adapt to the current and future realities facing remote and rural Australia. It requires an absolute commitment to collaboration, whole of system thinking, trust building and solution finding, and an ability to bring disparate communities of interest together during what will be a very difficult period of transition.

To date Australia has taken a less mature approach to these sorts of social transitions than several other countries, but there is evidence that meaningful engagement and inclusive change are not mutually exclusive to achieving significant reform in how health system resources are organised and deployed.

Funding and Financing Models

The NSW health funding model transitioned to an activity-based funding model over 10 years ago. The methodology applied meant that in practical terms, the starting point for LHDs was historical service delivery and cost rather than any more objective consideration of the health services that a community needed from a health outcome and social equity perspective. All subsequent changes to the funding model have been made from that original (imbalanced) foundation.

The current funding model is largely cost based and based on the law of averages. That construct does not play out well in rural settings that have so much inherent variation in the costs of servicing communities over vast geographies, significant variation between service models, different challenges in funding and patient flow across interstate jurisdictions, and different workforce drivers and needs. If we separate out these issues and simply use cost as a starting point, with no direct alignment to significant differences in fixed costs, (such as staffing models), the misalignment grows.

There is a significant danger in the application of cost averages across a region experiencing both growth and decline. The fixed costs for communities with declining populations remain, even if activity growth is not as significant, with workforce costs increasing in line with workforce shortages and the increasing reliance on a contingent workforce. The existing funding model makes no consideration for increasing emergency or acute care activity in some rural locations (generally assumed to be reflective of declining primary care, in addition to the social and demographic profiles of community), or the significant increasing demand on larger hospitals in the region.

The current funding model is single hospital or facility centred, and there is little to no recognition for sub-regional or district wide service responses that may offer a more efficient or outcome-based solution.

There is a timing issue with costing processes lagging 12 to 24 months behind. Therefore, any service expansion associated with new infrastructure or commissioning of new services in a region, or an increasing reliance on expensive contingent staffing doesn't reflect or inform any cost recognition or funding change for an extended period of time. This can create signals that are easily misinterpreted at both the micro and macro system level. For example, the Western NSW LHD is considered an efficient performer against cost benchmarking when measured against in-year comparisons. Given the time lag, however, the LHD's financial forecast for the current year shows a significant deficit.

The current funding methodology doesn't adequately recognise key cost drivers. The drivers are usually single episode based (for example an ED presentation) rather than case mix based, and this is built into the assumptions for the funding model. The working example of this is seen in the emergency activity across the Western NSW LHD Within the current methodology, the Western NSW LHD is considered technically inefficient in all emergency department locations. in a cost against NWAU comparison to metropolitan peers. However, against an episodic cost comparison the LHD's major emergency departments are efficient or consistent. This is because the true drivers of cost are structural, for example contingent labour or award rates, mandated staffing requirements and other whole of system generated factors rather than volume in many regional settings. It is often these fixed or unavoidable costs that drive the results of efficiency comparisons across the State's hospitals.

The current funding model does not allow for adequate consideration of fixed versus variable cost. Fixed cost is a significant component in delivering rural health services where the cost of maintaining stand-by capacity is typically significantly greater. Regardless of any patient activity a service will require a baseline of fixed cost and staffing availability to operate. For the Western NSW LHD, which must maintain 35 rural and remote facilities and 3 regional hospitals, this is not an insignificant consideration.

Block funded programs such as population or preventative health provide little acknowledgement of regional trends or drivers and typically do not allow for growth in services. This shows a significant disconnect between a focus on system performance (and associated process metrics) rather than population health outcomes. The investment in transitioning care more towards the community and tackling the upstream causes of ill health has been largely programme specific. While integrated care and other similar pilot programs have shown to be effective for patients, and decrease the need for acute care admissions, the size and scale of investment in this type of care has been insufficient to reduce future demand for acute care in any meaningful way. (In Western NSW the pandemic period was an exception.) To be successful this type of investment requires a large, intentional and long-term commitment at the macro level and a move away from discrete 'programmes', with a focus on the outcomes of the community care microsystems that is as strong as the focus on hospital care.

There must be an alignment of the significant clinical service planning, performance information capture undertaken across the State against the funding model and the financial model. The LHD contributes to the Treasury forward estimates process every year, however, has no visibility of how this information is used and how it interacts with future funding risks.

Procurement, purchasing and efficiency

NSW Health's procurement reforms should provide significant financial benefits. The Western NSW LHD has been a leader in adopting procurement reforms to improve efficiency of operations, such as DeliverEase, Telematics, pharmaceutical and other pricing, contracting and utilisation reforms. These initiatives have yet to reach peak maturity but the work is already well underway. Further procurement efficiency opportunities exist to be explored in the areas of statutory planned testing and maintenance.

While there are significant advantages across a state health system for negotiated whole of government contracts, these can be metropolitan- centric, with limited opportunity for the savings achieved through these to be realised in the regions that the contractors choose not to

service. A key local example is the centralised metropolitan warehouse model which results in significant freight costs in direct stock to Western NSW LHD facilities.

The distances between health facilities in the LHD results in additional charges relating to travel and accommodation for a majority of the State led procurement initiatives. For example, Western NSW LHD paid almost double the price per treatment than Western Sydney LHD for renal dialysis patients. This was due to distances that technicians needed to travel to service equipment plus the cost of freight for consumables. These differences may be unavoidable but, if they are, then rural districts need to be compensated for them.

Many vendors cannot service our vast geography, or alternatively are required to enter into subcontractor arrangements which become time consuming to contract manage. Waste and security contracts are examples of contracts where additional costs have been incurred by regional LHDs in comparison to metropolitan areas. There are unique challenges for rural and remote facilities in service sequencing for clinical waste.

Commercial Partnerships

The Western NSW LHD has longstanding commercial partnerships. These range from the different public/private partnerships (PPPs) in Bathurst and Orange hospitals to contracting of medical services across the six most northern towns in the LHD's district. The LHD has considerable experience with the risks and benefits, strengths and weaknesses of these types of commercial relationships. As such arrangements are commercially sensitive, it is not appropriate that further commentary is made in this submission.

Structural Workforce Reform

There is no easy answer or quick fix to addressing workforce challenges in regional health services. It will require reform and change across industry, legislation, government and community. The technical craft of workforce planning could be much stronger across the system, particularly so in rural LHDs. Longer term workforce planning must be undertaken in the context of future clinical service delivery, encompassing demographic projections, disease profiles, contemporary models of service provision and emerging technologies. Workforce planning and investment in line with service development, including addressing historical inadequacies, (particularly outpatient speciality services), is important.

Short term tactical workforce planning is essential for daily operation of facilities, but it will not address the significant challenges outlined in this submission without structural reform. While hyper-inflation is not sustainable, the uplift in overall medical and nursing contingent labour costs needs formal acknowledgement in the funding models by both the Commonwealth and State. The smaller activity volumes in rural areas need different funding mechanisms, including for medical officers, which target both improvement of health outcomes of rural populations and reflect the reality of different models needed to support on-call staffing if staff wellbeing is to be given serious consideration.

State-wide strategies to attract and retain staff for the regions and to negotiate more sustainable financial arrangements with agencies and the contingent labour force are essential. This will require active leadership by NSW, the Commonwealth and other States.

Supporting a rural health workforce to work at the top of their scope – in medicine, nursing and allied health - requires re-consideration of historical policies and guidelines, which no longer fit the current situation. There is no obvious rationale to support the more limited scope of practice for rural nurses in NSW relative to other States. The current reality of rural health care will require re-consideration of where enhanced scopes of practice can be undertaken, with appropriate support and training. This is true for allied health staff as well, particularly pharmacy, as well as in specialised services such as palliative care. The rural generalist nurse practitioner model[66] has been supported in NSW and is worthy of expansion. Nurse Practitioners work within a broader scope of practice than a registered nurse (RN) and in most circumstances can

independently manage entire episodes of care. This enables earlier access to care and reduces delays to treatment particularly in areas of small or dispersed populations.

Development of a rural specialist pathway (similar to the Allied Health Rural Generalist pathway in Queensland) for Allied Health that reflects specialist knowledge and expertise and the health and care needs of rural communities, is also an opportunity that warrants investigation.

Paramedics and Rural Health Service Staff – One Health Service

There is opportunity for much greater integration of paramedics as part of multidisciplinary teams in rural health services. Paramedics working in rural community settings could have broader scope to allow for diversified care delivery models that support a more integrated approach to patient care. While the role may vary in response to the profile of community and the services provided by the health facility, there is a significant opportunity for paramedics to work with LHD community health staff in community care, including palliative care as well as within health services in small towns assisting with Emergency Department care. The role of paramedics in supporting remote renal dialysis could also be explored.

Work has already been conducted by NSW Ambulance through the clinical practice committee to increase the scope of paramedic practice specifically in relation to palliative care and end-of-life care in NSW (paramedic connect). These initiatives should continue and be embedded with potential for expansion, with the aim of providing increased support for end-of-life, medication administration and wound dressing care in the community setting.

Stronger integration will be essential for sustainable services in small communities.

Training pathways

Specialist clinicians frequently raise the challenges associated with advanced training and placements in regional and rural areas. As one example, in the field of endocrinology, within NSW and ACT, the largest metropolitan centres where training can be undertaken are Newcastle, Canberra and Wollongong. For this reason, advanced trainees are often only exposed to metropolitan endocrinology practice. This can result in increased exposure to mentors and supervisors practising in metropolitan areas, and those who have at least a portion of their practice in the public system. This means that trainees are potentially more likely to be guided to pursue academia and subspecialised endocrinology areas in metropolitan public hospitals. There is an opportunity for a more collaborative roadmap and pathway between regional LHDs and metropolitan LHD partners to either deliver that presence locally (including training pathways), or to access that presence via rotational networks or virtual health. This would help to better align the metropolitan LHDs with their regional partners and provide professional networks and support to regional specialists.

This sort of change in medical training pathways will require macro-level support and is unlikely to evolve at the requisite pace if left to the deliberation of the medical Colleges alone.

There is also an opportunity for increased collaboration with medical Colleges to shift from time-based training to competency-based training if registrars are to be able to make full use of the teaching and learning opportunities which exist in rural centres. By way of a specific example, most rural palliative care services are not sufficiently large to employ separate inpatient, outpatient, and consultant liaison teams. Rural palliative care teams work across all settings. Specialist palliative care training currently requires registrars to complete six-month terms in the inpatient, consultant liaison, and community setting. In rural services that are not designed to operate in these silos, it is often not feasible to have a registrar working in this manner. There is also often not the volume of work to employ a full-time registrar in only one component of the service. However, over the course of 18-24 months working in a comprehensive rural service, the registrar will achieve appropriate levels of exposure to inpatient, consultant liaison, and community-based work to reach an equivalent standard as would be achieved by six-month rotations through each of these different settings.

A transition to competency-based training would create enormous scope for specialty training in rural centres which currently remains untapped due to the rigidity of training programme structures.

The Colleges should be encouraged to consider all opportunities for supervision and training of registrars. This may include supervision of registrars by Nurse Practitioners, or training in a registrar's areas of subspecialty interest by competent Rural Generalists in a manner which can be accredited by the relevant specialist College (RACP, RACS, etc).

Liveability

Predictors for rural recruitment and retention have been well researched in international literature over many years. The person having been born or educated in a rural location; exposure to rural healthcare during training; access to professional education; adoption of a rural 'lifestyle'; good relationships with peers; spousal / partner / family contentedness; successful integration into local communities; and educational opportunities for children[67] are all factors of importance for the rural workforce.

While some of these factors can be addressed by LHDs and individual health services, many are related to the liveability of rural communities. Studies in Queensland identified that the attraction of workers was linked with perceptions of rural/regional lifestyle, liveability, choice and career pathways. Availability of what was considered 'good services' such as schools, healthcare, childcare and other lifestyle services were essential, as well as welcoming communities which valued diversity of people.[68] It was recognised that the efforts of individual employers are much less likely to be successful otherwise. A whole of region collaborative approach was considered necessary – including developing comprehensive attraction and retention packages (information about industry, positive attributes, welcome initiative and community ambassadors).[69]

This requires stronger and faster leadership - from agencies such as Regional NSW in partnership with local government and communities. Attraction of essential workers in rural communities in not just a Health problem. This approach would benefit a variety of workforces rural NSW, such as teachers, police and emergency services. The opportunity for a coordinated approach is clear and we note the early steps being taken in this area by Regional NSW within the Western NSW area and further afield.

Childcare

Further work to develop better access to early childcare in regional towns is desperately needed. Research by Victoria University found that people in regional and remote areas are more likely to live in a childcare desert[70]. While schools may benefit from central planning to ensure universal access, the current Australian policy settings means that many towns with a population under 1,500 lack childcare services[71]. Not unlike primary care and aged care, policy approach results in very thin markets, or a complete absence of provision. This is a significant barrier to attracting and retaining a rural health workforce.

Regional area	Population living in a childcare desert	Proportion of regional area as childcare desert
Major cities	5,360,550	28.80%
Inner regional	2,028,950	44.60%
Outer regional	1,264,270	61.30%
Remote	248,450	85.30%
Very Remote	152,740	77.80%
All of Australia	9,054,960	35.30%

Table 4. Composition of the population living in a childcare desert by remoteness area[72]

There is a great deal of evidence across the Western NSW LHD catchment that childcare is a barrier to qualified health professionals returning to work, working the hours they would like to, or migrating to the district. Concentrated attention to a comprehensive set of government interventions to establish the requisite policy settings in this area is warranted.

Accommodation

Providing access to health worker accommodation that is affordable, safe and secure is an essential way to attract and retain a permanent workforce, and short-term locum and agency staff. It supports student placements, staff rotations and staff safety and security and decreases costs associated with leasing / rental arrangements in tight rental markets.

A program of work has delivered key health worker accommodation in some rural towns across the Western NSW LHD footprint, although more accommodation in more locations is required to help address long-term structural issue of recruitment and retention, particularly across the smaller facilities. The Regional Health Division of NSW Health has undertaken a comprehensive stocktake of this issue state-wide.

Governance, programs, initiatives and local needs: reducing noise in the system

All health systems are complex and require a sensible balance to be struck between centralisation, standardisation, overall system coordination and local adaptation and innovation to local community needs. The relatively high level of performance by all levels of the NSW Health system during the recent pandemic suggests that the balance between all of these things may be near optimal. Nevertheless, there are remaining opportunities for further reform and NSW Health has a sensible programme of centralisation and standardisation underway to realise those opportunities over the next few years.

There is clear evidence, both in NSW and internationally, that the scale and span of system governance matters. If health systems become too distant from their communities and consumers they can suffer a loss of social licence. If health systems become too disaggregated they fail to achieve benefits for their communities that can be derived from economies of scale and coordination of process.

Overall, the current disaggregation of the component parts of the NSW Health system appears to be reasonably well suited to achieve its purpose, albeit simplification between some of the central pillars would be sensible, and further centralisation of supporting and back office functions could deliver greater benefits to the system as a whole.

The LHD Board structures allow a governance model that is both geographically diverse and skills focused. In Western NSW LHD, the Board structure has served a useful purpose of governance across the region, with a ‘view from the balcony’ that allows appreciation of the network of services and the health system that more localised or further devolved governance does not.

The most obvious need across the entire Australasian health system is for the component parts of the system, divided as they are into Commonwealth and State responsibilities, to work more cohesively together. The need for more effectiveness and alignment of purpose between these systems is evident at both the macro and micro level. In our view effective models to address this issue are most likely to emerge in the regional, rural and remote setting simply because the local consequences of not doing so are more profound. Priority should be given to fostering the development of models of more effective and comprehensive Commonwealth and State service integration in that setting.

Activity within the NSW Health System itself is such that multiple agencies identify opportunities for improvement in the microsystems of health care. This includes the Ministry of Health, Agency for Clinical Innovation, Clinical Excellence Commission (with other system inputs being received from the Bureau of Health Information and the Health Education and Training Institute), as well

as Commonwealth agencies and other NSW government departments. Albeit well-intentioned, the sheer volume of internally generated initiatives, programs, policy, pathways and guidelines designed to deliver better health care all filter down to the micro-system level and at times can create an overwhelming amount of service change and process improvements to initiate simultaneously.

This occurs in addition to priorities that the LHD might identify relative to the needs of local communities, and the local health service may initiate to achieve the practice improvements that they have identified a local need for. System noise and change fatigue is a genuine issue for health service staff.

While each of these individual activities has merit, the combined effect of too many initiatives, too many time-limited programs, and too much simultaneous change dilutes what could otherwise have been effective change with a more prioritised and focused effort. Implementation resourcing and support is often limited. The COVID-19 pandemic response was an excellent example of what the NSW Health system, LHDs and individual services can achieve with more focused, better coordinated and better targeted effort.

If priority is to be given to fostering greater cohesion and integration between the Commonwealth and State Health systems in regional settings, then some of this other work within NSW Health may need to be deferentially curtailed for those working in the regional context. From a regional LHD's perspective, greater cohesion and integration is the pressing priority.

In our view, more could be achieved within the NSW Health system governance design with less – simple rules, a good vision and space for local innovation.[73] Health care delivery is a complex adaptive system. We should recognise it as such and manage change processes accordingly.

7 Concluding Remarks

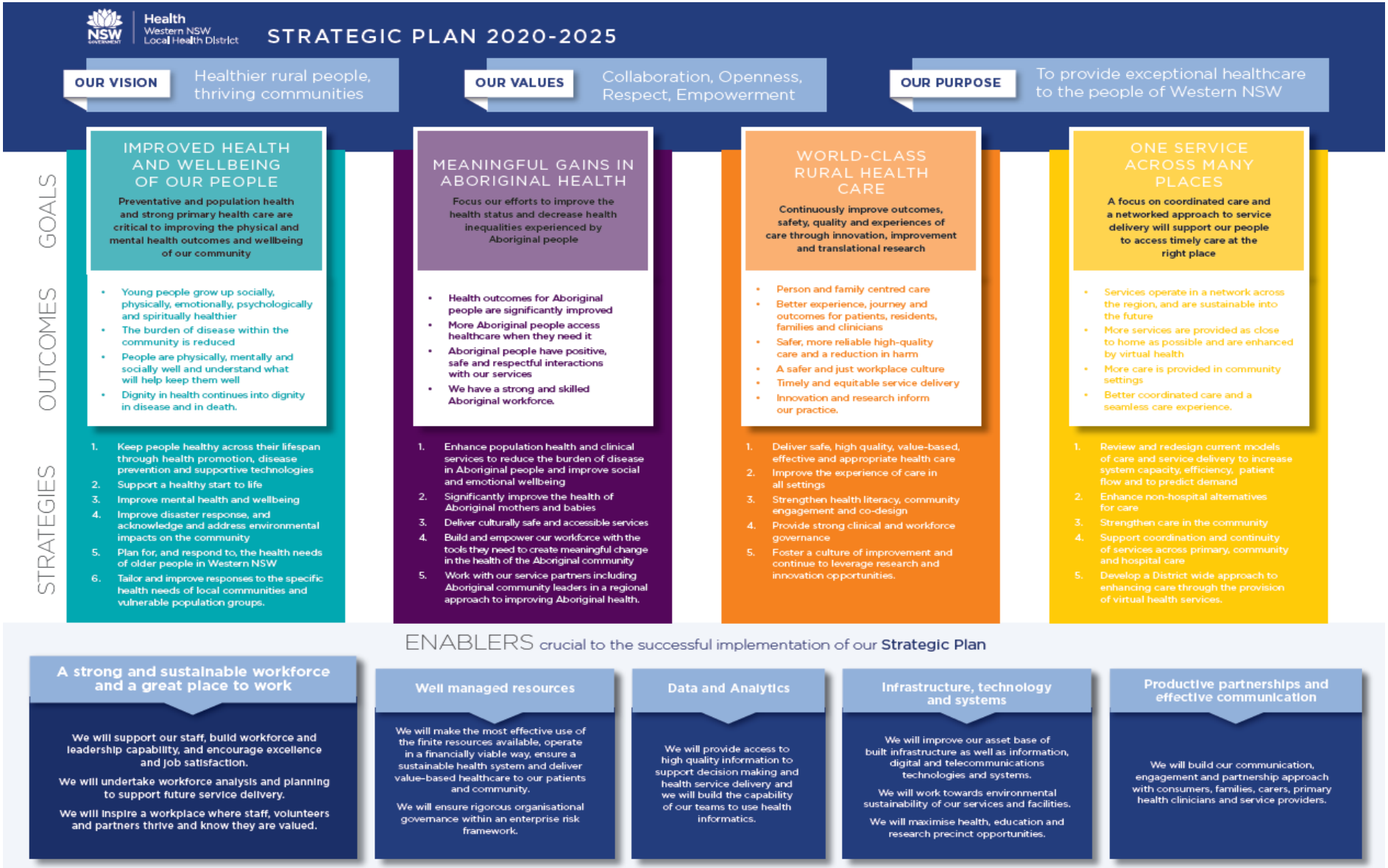
As the 'canary in the coalmine', rural health has never been more fragile than it is now. The opportunity for reform is real and necessary.

Our submission outlines the mega trends impacting on the people living in our region, the way that healthcare is delivered now, and into the future. It highlights opportunities for macro-system change and reform to better support the micro-systems of health care deliver for the communities they serve.

More of the same will not respond to the significant changes and structural barriers impacting rural health care nor the challenges that lie ahead. The Western NSW LHD experience provides one piece of the puzzle that is the complex, adaptive system of NSW Health. We believe that a more intensive and systemic focus on addressing the stark inequality in health outcomes will provide the fundamental platform for improvement.

We thank the Special Commission of Inquiry for the opportunity to provide a submission.

8 Appendix A: Western NSW LHD Strategic Plan on a page



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NSW GOVERNMENT

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