Submission No 630

INQUIRY INTO HEALTH OUTCOMES AND ACCESS TO HEALTH AND HOSPITAL SERVICES IN RURAL, REGIONAL AND REMOTE NEW SOUTH WALES

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Inquiry into health outcomes and access to health and hospital services in rural, regional and remote NSW

Portfolio Committee No. 2 – Health

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Contents

Acronyms

Phrase	Abbreviation
Aboriginal Community Controlled Health Services	ACCHS
Agency for Clinical Innovation	ACI
Cancer Institute NSW	CINSW
Clinical Excellence Commission	CEC
Culturally and linguistically diverse	CALD
Elective surgery access performance	ESAP
Electronic Medical Records	eMR
Emergency department	ED
Full-time equivalent	FTE
General practitioner	GP
Hospital acquired complications	HAC
Local Health District	LHD
Medicare Benefits Schedule	MBS
Multipurpose Services	MPS
Non-government organisation	NGO
NSW Ambulance	NSWA
NSW Health Pathology	NSWP
Primary Health Network	PHN
Rural Ambulance Infrastructure Reconfiguration	RAIR
Residential Aged Care Facilities	RACFs
Specialty Health Networks	Networks
Sydney Children's Hospitals Network	SCHN
Statewide Workforce Enhancement Program	SWEP

Introduction

NSW Health welcomes the opportunity to provide a submission to this inquiry into health outcomes and access to health and hospital services in rural, regional and remote NSW.

NSW Health continuously works to ensure that people living in rural, regional and remote areas of NSW can access the best clinical care and experience optimal health outcomes. This submission provides examples of the significant progress and the work undertaken towards achieving these goals.

Commonwealth / state responsibilities

Firstly, addressing the challenges and needs of rural communities requires acknowledgment that responsibility for different elements of the health system is split between Commonwealth and state governments. Within Australia, one of the greatest challenges that confronts rural, regional and remote health care delivery is the split accountabilities between Commonwealth, and the states and territories. The Commonwealth funds Rural General Practitioners (GPs) through the Medicare Benefits Schedule (MBS) as well as the Pharmaceutical Benefits Scheme, while the states and territories provide public hospital services and some community-based services.

Most medical services in rural and remote areas are delivered by GPs. The number of GPs with procedural skills in these same locations has declined significantly over the last 15 years. In the same way, the number of GPs providing hospital services in smaller communities (sometimes known as Visiting Medical Officers) has also declined. Many rural services have also needed to rely on locums to provide emergency and in-hospital services. As a career choice, General Practice has been overtaken by specialty training in terms of preferences of medical graduates. This changes both the model of medical care and services provided in rural and regional hospitals.

In 2019-20, more than 1.5 million people attended emergency departments (EDs) of rural, regional and remote hospitals in NSW, compared to almost 1.4 million attendances at metropolitan EDs. The reduction in the number of GPs in rural areas often means that the public hospital ED becomes the default primary care provider when a GP is not available, often after hours and on weekends. As a result, care provision becomes the responsibility of NSW-funded services, this brings an additional impact to the NSW Health services.

The NSW and Australian governments are working together to improve health outcomes and access to services for rural communities. In 2019, the Bilateral Regional Health Forum was established to discuss rural health issues and monitor progress of Commonwealth and NSW governments' commitments to ensure a collaborative approach to improving regional health outcomes in NSW. The forum is jointly supported by the NSW Minister for Health and Medical Research and the Commonwealth Minister for Regional Services, Decentralisation and Local Government. It includes representation from the Commonwealth and NSW governments, rural local health districts (LHDs), Primary Health Networks (Networks), and senior leaders in the NSW Ministry of Health and Commonwealth Department of Health.

NSW Health governance and networking

The NSW Ministry of Health is the state health system manager responsible for ensuring all the people of NSW are provided with the best possible health care. The 15 LHDs are geographically based across the state, and each LHD has strong governance with a district Board and Chief Executive. The devolved governance structure with geographic LHDs is critical in assessing health needs and engaging with local communities.

All LHDs are supported by NSW Health Pillars and other Health Support Organisations within NSW Health, and patient care is provided as part of an effective integrated network of

clinical services across the state. All these elements work together to deliver seamless, high quality care for NSW residents regardless of location.

NSW Health is responding to the challenges of rural and regional health care through the adoption of contemporary models of care. We have developed services at the forefront of innovative health care provisions for rural, regional and remote residents of NSW, and our outcomes are comparable to international best-practice standards. Examples of our ground-breaking models of care include:

- The NSW Telestroke Service which has provided more than 250 people in rural NSW with access to world-class, life-saving stroke diagnosis and treatment since it began in March 2020. This service will support up to 23 rural and regional hospitals across NSW by the end of 2021-22.
- Multipurpose Services (MPS) which were presented to the 2019 Royal Commission into Aged Care as an exemplar residential aged care model. MPS bring together health and aged care services under one management structure to provide a more flexible, cost-effective, and coordinated approach to service delivery. NSW Health has provided more than $400 million in capital funding for the redevelopment of 63 facilities. This increases access to local health care services that provide sustainable health services in small, rural communities to meet the needs of local communities.
- The Remote Medical Consultation Service in Murrumbidgee LHD and the Virtual Rural Generalist Service in Western NSW LHD support emergency consultation and acute medical care through virtual care consultation provided by a remote Medical Officer. The service does not replace onsite doctors but is used as a safe alternative when one is not available locally.

The unique requirements of rural and regional communities were recognised in the development of the *NSW Rural Health Plan: Towards 2021*. Improved access to health care does not simply mean increasing the number or services available. It requires a coordinated effort between NSW Health, LHDs, Networks, clinicians, patients and local communities.

Rural / regional health employees

NSW has the largest population and largest percentage of people living in rural and regional areas within Australia. Living in rural NSW has many benefits such as higher levels of cohesiveness, higher rates of community engagement and participation in volunteer work, and a stronger sense of security.[1]

One of the advantages of living in rural and regional areas is that health employees are also usually members of the local community. These are highly committed, hardworking people who bring a sense of passion and ownership while doing the best they can to serve their community. Their contributions often span decades and the feeling of continuity and cohesion that this brings to rural and regional areas should not be underestimated. However, these health workers may also disproportionately bear the weight of community expectation of the services they provide, which may lead to high levels of stress. Therefore, if local services are unfairly criticised, these individuals, who are the public face, suffer.

This submission demonstrates significant progress in the delivery of healthcare in rural, regional and remote areas of NSW. Our commitment, investment and focus will remain on enhancing the health outcomes and access to health and hospital services for the people and communities of rural, regional and remote NSW.

1 Bureau of Health Information, Healthcare in Rural, Regional and Remote NSW, 2016.

1. Health outcomes for people living in rural, regional and remote NSW

Information on health outcomes for NSW residents is publicly available on the HealthStats NSW website, which provides insights into a wide range of health determinants and outcomes of the NSW population. The data on HealthStats NSW covers a range of health risk factors, diseases, locations, and specific populations.

In Section 1, the indicators of health outcomes selected to demonstrate health outcomes for people living in rural, regional and remote NSW include: life expectancy, mortality rates, low birthweight, infant mortality rates, suicide rates, hospitalisations and cancer.

For each indicator, data is compared to outcomes of NSW residents in metropolitan areas. Overall, positive outcomes for people living in rural NSW were reported across several indicators. Rural areas experienced better outcomes than their metropolitan counterparts for indicators such as low birthweight, child immunisation rates and hospitalisations for vaccine preventable diseases. For other health outcome indicators such as death rates, hospitalisations and suicide, there is an overall pattern of lesser outcomes as rurality and remoteness increases. This pattern is consistent with other states and territories across Australia.

Life expectancy

Life expectancy is the most common measure to describe population health and is often expressed as the number of years of life, from birth, a person is expected to live.[2]

Between 2001 and 2018, there was a consistent pattern of increasing life expectancy over time across all remote areas in NSW (Table 1). However, life expectancy was lower with increasing levels of rurality and remoteness.

In 2018, people living in non-metropolitan LHDs in NSW could expect to live, on average, 2.2 years less than those living in metropolitan LHDs (81.4 years compared with 83.6 years).[3]

Table 1: Life expectancy

Region	Life expectancy (years)		
	2001	2018	Change
Major cities	81.0	83.7	+2.7
Inner regional	79.9	82.0	+2.1
Outer regional	79.3	82.0	+2.7
Remote and very remote	77.8	79.3	+1.5

2 Australian Institute of Health and Welfare, 'Deaths in Australia', August 2020, available at: 'https://www.aihw.gov.au/reports/life-expectancy-death/deaths-in-australia/contents/life-expectancy'.

3 HealthStats NSW, 'Life Expectancy by Local Health District, NSW 2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_lexbth/bod_lexbth_lhn_snap'; HealthStats NSW, 'Life Expectancy by Remoteness, NSW 2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_lexbth/bod_lexbth_aria_snap'.

Mortality rates

Total mortality rates and potentially avoidable deaths decreased across NSW over the 18 years to 2018 for all remote areas. However, there is a consistent pattern of higher mortality rates with increasing rurality and remoteness.[4]

Low birth weight

Since 2016, the percentage of babies with a low birth weight has been higher in major cities than in inner regional and outer regional and remote areas. However, this difference is decreasing over time. In 2019, the percentage of babies with low birth weight was 4.8 per cent in metropolitan LHDs compared to 4.6 per cent in non-metropolitan LHDs.[5]

Infant mortality rates

Total infant mortality rates decreased across NSW over the 18 years to 2018 across NSW, with a particularly significant decrease for remote areas from 2001 to 2018.[6]

In 2018, infant mortality rates remained higher in non-metropolitan LHDs compared with metropolitan LHDs (Table 2).[7]

Table 2: Infant mortality rates

Region	Infant mortality rate (deaths per 1,000 births)
	2016-18
Major cities	2.8 (207 deaths)
Inner regional	3.8 (55 deaths)
Outer regional	5.0 (22 deaths)
Remote and very remote	5.2 (2 deaths)

[4] HealthStats NSW, 'Deaths from all Causes by Local Health District, NSW 2018', June 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_projdth/bod_dth_lhn_snap'; HealthStats NSW, 'Deaths from all Causes by Remoteness from Service Centres, NSW 2018', June 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_projdth/bod_dth_aria_snap'.

[5] HealthStats NSW, 'Low birth weight babies by Local Health District, Liveborn singleton babies, NSW 2019', September 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/mab_lbw/mab_lbw_lhn_snap'; HealthStats NSW, 'Low birth weight babies by Remoteness from Service Centres, Liveborn singleton babies, NSW 2019', September 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/mab_lbw/mab_lbw_aria_snap'.

[6] HealthStats NSW, 'Infant mortality by Remoteness from Service Centres, NSW 2001-2003 to 2016-2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_infdth/bod_infdth_aria'.

[7] HealthStats NSW, 'Infant mortality by Local Health District, NSW 2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_infdth/bod_infdth_lhn_snap'; HealthStats NSW, 'Infant mortality by Remoteness from Service Centres, NSW 2016-2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_infdth/bod_infdth_aria_snap'.

Suicide rates

After experiencing a decline from 2001 to 2006, suicide rates steadily increased in rural, regional and remote areas between 2007 and 2018.[8] Suicide rates in major cities have remained relatively stable. In 2018, rates per 100,000 were higher for non-metropolitan LHDs compared with metropolitan LHDs (Table 3).[9]

Table 3: Suicide rates

Region	Suicide rate (deaths per 100,000)
	2018
Major cities	9.9 (607 deaths)
Inner regional	14.4 (208 deaths)
Outer regional, remote and very remote	16.7 (79 deaths)

Hospitalisations

There is significant data available on hospitalisations, presented by diagnosis in this section.

Coronary heart disease

In the 15 years from 2004-05 to 2018-19, hospitalisation rates for coronary heart disease decreased across NSW, with rates remaining stable in the last five years. The rate was relatively stable in remote and very remote areas.[10]

While hospitalisations have decreased for both metropolitan and non-metropolitan LHDs, rates have started to converge over the five years to 2018-19. Death rates from coronary heart disease were higher overall in non-metropolitan LHDs compared with metropolitan LHDs.

Chronic kidney disease

In the 15 years from 2004-05 to 2018-19, hospitalisation rates for chronic kidney disease (including dialysis) increased for all remoteness areas, except remote and very remote areas which were relatively stable. There was a consistent pattern of lower rates in outer regional areas, with the highest rates in major cities.

Death rates from chronic kidney disease over a similar period (2003-05 to 2016-18) showed higher rates in remote and very remote areas followed by outer regional and inner regional areas, the lowest rates were in major cities. [11]

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8 HealthStats NSW, 'Suicide by Local Health District, NSW 2017-2018', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/men_suidth/men_suidth_lhn'; HealthStats NSW, 'Suicide by Remoteness from Service Centres, NSW 2018', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/men_suidth/men_suidth_aria'.

9 In 2020, the NSW Government introduced the NSW Suicide Monitoring System. Suspected and confirmed suicide data from 2019 and 2020 is available at: 'https://www.health.nsw.gov.au/mentalhealth/Pages/sucide-monitoring-system.aspx'.

10 HealthStats NSW, 'Coronary heart disease hospitalisations by sex and persons of all ages and 75 years and over, Major Cities, NSW 2001-02 to 2018-19', March 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/cvd_chdhos/cvd_chdhos_aria_trend'.

11 HealthStats NSW, 'Hospitalisations for Chronic kidney disease (excluding dialysis) by Local Health District, NSW 2018-19', June 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_ckdhos/bod_ckdhos_lhn_snap'; HealthStats NSW, 'Hospitalisations for Chronic kidney disease (excluding dialysis) by remoteness from service centres and sex, NSW 2018-19', June 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_ckdhos/bod_ckdhos_aria_snap'; HealthStats NSW, 'Chronic kidney disease deaths by Local Health District and sex, NSW 2016-

Stroke

In the five years from 2014-15 to 2018-19, hospitalisation rates for stroke increased for all remoteness areas. However, the rate of increase was highest for outer regional and remote areas followed by inner regional areas, compared with major cities.

Death rates from stroke declined over the period, and there was a similar decline in all remoteness areas. However, death rates from stroke were overall higher in non-metropolitan LHDs than metropolitan LHDs.[12]

Self-harm hospitalisations

Collectively, non-metropolitan LHDs have consistently higher rates of self-harm hospitalisations than metropolitan LHDs. Self-harm hospitalisations were stable in inner regional areas between 2001-02 and 2011-12, but increased in the eight years to 2018-19.

Before 2011-12, self-harm hospitalisation rates were higher in outer regional, remote and very remote areas compared with inner regional areas, but were eclipsed by rates in less remote regional areas from this time.[13]

This difference is driven by steep increases from 2010-11 in the Hunter New England, Mid North Coast and Northern NSW LHDs. In 2018-19 the rate was twice as high in non-metropolitan LHDs compared to metropolitan LHDs.

Alcohol attributable hospitalisations

There is a pattern of increasing rates of alcohol attributable hospitalisations[14] with increasing remoteness from inner regional to very remote areas.

Rates of alcohol-attributable hospitalisations were lower in non-metropolitan LHDs than metropolitan LHDs between 2005-06 and 2018-19. Rates increased in both groups across

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2018', June 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_ckddth/bod_ckddth_lhn_snap'; HealthStats NSW, 'Chronic kidney disease deaths by remoteness from service centres and sex, NSW 2016-2018', June 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_ckddth/bod_ckddth_aria_snap'.

12 HealthStats NSW, 'Stroke hospitalisations by Local Health District and sex, persons aged: all ages, NSW 2018-19', March 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/cvd_strhos/cvd_strhos_lhn_snap'; HealthStats NSW, 'Stroke hospitalisations by remoteness from service centres and sex, persons aged: All ages, NSW 2018-19', March 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/cvd_strhos/cvd_strhos_aria_snap'; HealthStats NSW, 'Circulatory disease deaths by remoteness from service centres, All Circulatory diseases, NSW 2017-2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/cvd_typedth/cvd_typedth_aria_snap'; HealthStats NSW, 'Circulatory disease deaths by Local Health District, All Circulatory diseases, NSW 2017-2018', July 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/cvd_typedth/cvd_typedth_lhn_snap'.

13 HealthStats NSW, 'Intentional self-harm hospitalisations by Local Health District, persons of all ages and 15-24 years, NSW 2018-19', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/men_suihos/men_suihos_lhn'; HealthStats NSW, 'Intentional self-harm hospitalisations by remoteness from service centres, persons of all ages and 15-24 years, NSW 2018-19', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/men_suihos/men_suihos_aria'.

14 Hospitalisations and deaths attributable to alcohol are the proportion of cases where it is likely that alcohol played a significant role. Conditions include mental health problems associated with alcohol use, liver diseases, cardiovascular diseases, cancers and injuries.

the period, but more slowly in non-metropolitan LHDs. In contrast, non-metropolitan LHDs had higher rates of alcohol attributable deaths than metropolitan LHDs.[15]

Opioid-related hospitalisations

In 2018-19, opioid-related hospitalisations were slightly lower in outer regional and remote areas (138 per 100,000 population) compared with major cities and inner regional areas (both with 168 opioid-related hospitalisations per 100,000 population).

However, opioid-related deaths were slightly higher in regional and remote areas (6.4 per 100,000 population) compared with major cities (5.0 per 100,000 population).

Psychostimulant-related hospitalisations and deaths

The rate of psychostimulant-related hospitalisations and deaths has increased significantly across all areas of NSW between 2010 and 2019 (Table 4). The latest data shows the rate is higher in rural and remote areas.

Table 4: Methamphetamine hospital admissions

Region	Methamphetamine hospital admissions (per 100,000 population)	
	2010-11	2018-19
Major cities	12.3	127.8
Inner regional	7.7	144.1
Outer regional, remote and very remote	8.4	154.4

Vaccine preventable disease

There is a consistent pattern of lower rates of vaccine preventable disease[16] hospitalisations in increasingly remote areas. In 2018-19, there were more than 16,600 hospitalisations for vaccine preventable conditions in NSW.

From 2010-11 to 2018-19, rates increased in all areas and there was a consistent pattern of lower rates in increasingly remote areas, with the highest rates in major cities and inner regional areas. This pattern is consistent with data on childhood immunisation rates, which

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15 HealthStats NSW, 'Alcohol attributable hospitalisations by Local Health District, NSW 2018-19', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/beh_alcafhos/beh_alcafhos_lhn_snap'; HealthStats NSW, 'Alcohol attributable hospitalisations by remoteness from service centres, NSW 2018-19', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/beh_alcafhos/beh_alcafhos_aria_snap'; HealthStats NSW, 'Alcohol attributable deaths by Local Health District, NSW 2017-2018', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/beh_alcafdth/beh_alcafdth_lhn_snap'; HealthStats NSW, 'Alcohol attributable deaths by remoteness from service centres, NSW 2017-18', August 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/beh_alcafdth/beh_alcafdth_aria_snap'.

16 Vaccine preventable conditions are diseases that occur and result in hospitalisation for conditions that are potentially preventable through timely and appropriate vaccination. They relate to vaccines generally available through the national program for children, school students and adults.

shows generally higher immunisation rates in rural and remote areas. A similar pattern is found when metropolitan LHDs and non-metropolitan LHDs were compared.[17]

Cancer

In 2014-2016, rates of new cases and deaths from all cancers were lower in major cities compared with inner and outer regional and remote areas of NSW.[18] Rates of new cases were similar in inner and outer regional and remote areas of NSW. Death rates in remote and very remote areas were higher from cancer than in other regions.

Survival from cancer is a key indicator of cancer prognosis, control and treatment. It refers to the probability of being alive for a certain amount of time after diagnosis and reflects several aspects of cancer control.

Major cities and inner regional areas had similar five-year survival rates for all cancer cases diagnosed between 2005 to 2009, whereas outer regional, remote and very remote areas had lower survival rates than less remote areas.

Rates of both new cases and deaths from all cancers were higher overall in non-metropolitan LHDs.

[17] HealthStats NSW, 'Potentially preventable hospitalisations by sex and Local Health District, Vaccine-preventable conditions, NSW 2018-19', March 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_acshos/bod_acshos_lhn_snap'; HealthStats NSW, 'Potentially preventable hospitalisations by sex and remoteness from service centres, Vaccine-preventable conditions, NSW 2018-19', March 2020, available at: 'http://www.healthstats.nsw.gov.au/Indicator/bod_acshos/bod_acshos_aria_snap'.

[18] Cancer Institute NSW, 'Cancer Statistics NSW', available at: 'https://www.cancer.nsw.gov.au/research-and-data/cancer-data-and-statistics/cancer-statistics-nsw#//'.

2. Oncology treatment in rural, regional and remote NSW

NSW Health provides significant investment in cancer initiatives and programs to support residents and patients in rural, regional and remote NSW. This section provides an overview of a selection of NSW cancer services and initiatives for NSW residents living outside of metropolitan areas.

As a result of NSW Health's investment in oncology services, more than 95 per cent of NSW residents now live within 100 kilometres of a radiation oncology treatment centre, improving access to cancer treatments closer to home.

The Cancer Institute NSW (CINSW) funds the strategic positions of Directors of Cancer Services or Cancer System Innovation Managers across each LHD, including all non-metropolitan LHDs.

The CINSW leads the *Reporting for Better Cancer Outcomes Program*, which reports on key areas of cancer control and identifies key results for geographical areas and population groups. This information is used to make improvements to local health services and improve cancer outcomes.

Online resources managed by the CINSW, such as *Canrefer*, support referral pathways for rural, regional and remote GPs and consumers. It locates cancer specialists that work as part of a multidisciplinary cancer care team to facilitate the best practice management of people with cancer.

NSW Cancer Plan

The *NSW Cancer Plan* sets out a coordinated and collaborative approach to cancer control.

Prioritised actions in the *NSW Cancer Plan* include implementation of key initiatives under the *NSW Rural Health Plan: Towards 2021* as it relates to the provision of cancer prevention, screening, early detection and treatment in rural, regional and remote NSW.

The CINSW has started to develop the fifth *NSW Cancer Plan*, which at its core, will include the perspectives of people affected by cancer, including people from rural, regional and remote NSW.

Oncology treatment

People who live in rural, regional and remote NSW can access cancer services through networks of public and private service providers (Table 5). This includes prevention, screening, diagnosis, treatment, rehabilitation and palliative care services.

There are eight publicly funded rural and regional cancer care centres and three private centres in NSW.

Table 5: Rural and regional cancer centres by LHD

LHD	Centre	Public / Private
Mid North Coast	North Coast Cancer Institute – Port Macquarie North Coast Cancer Institute – Coffs Harbour	Public
Northern NSW	North Coast Cancer Institute – Lismore	Public
Hunter New England	North West Cancer Centre – Tamworth	Public
Illawarra Shoalhaven	Illawarra Cancer Care Centre – Wollongong Shoalhaven Cancer Care Centre – Nowra	Public

Western NSW	Central West Cancer Care Centre – Orange	Public
Central Coast	Central Coast Cancer Centre – Gosford Cancer Centre – Gosford	Public Private
Murrumbidgee	Riverina Cancer Care Centre – Wagga Wagga Cancer Centre Albury - Wodonga	Private

Additionally, the NSW Government is building the new $35 million Western Cancer Centre in Dubbo, which includes a $25 million contribution from the Federal Government, due to be completed in 2021.

These centres provide services such as radiotherapy, medical oncology, clinical haematology, palliative care and rehabilitation. They also refer to other essential services such as diagnostic imaging, nuclear medicine, pathology, intensive care and pharmacy services.

Key benefits of rural and regional cancer centres include:

- improving quality of life for patients by reducing family life disruptions, reducing distress and disability associated with having cancer, and improving access to treatment services
- enhancing delivery of and improving access to multi-disciplinary cancer care teams.

NSW continues to follow the nationally supported planning approach that radiotherapy services are best delivered through an integrated and multidisciplinary model, with clear links to several sub-specialties, delivered by health professionals including medical, technical, nursing and allied health professionals.

NSW recognises that high quality care requires concentration into specialised, high volume centres of excellence. Radiotherapy centres must also be able to attract, recruit and retain high quality specialised staff.

Cancer services for Aboriginal people in NSW

CINSW is working with the Aboriginal Health and Medical Research Council of NSW to provide better cancer services for Aboriginal people. The *Aboriginal Reporting for Better Cancer Outcomes Report* is being developed to monitor and report on cancer health system performance, specific to Aboriginal people across NSW.

Some initiatives specifically relevant to Aboriginal people in NSW include:

- the lung cancer optimal care pathway
- the Commonwealth sponsored *Bowel Cancer Screening Program* – testing direct provision of bowel screening kits with selected Aboriginal Medical Services.

Cancer screening and prevention initiatives targeting rural and regional areas

Prevention and screening are essential to improving cancer outcomes. There are a range of cancer screening and prevention initiatives that are targeted specifically at rural and regional areas, including:

- **Tobacco control campaigns** – aimed to increase intentions and attempts to quit among people who smoke. More than $1.2 million was invested in campaigns in regional areas in 2019-20.
- **BreastScreen NSW** – participation rates in breast, cervical and bowel cancer screening programs are generally the highest in rural and regional areas. In 2018-19 for example, participation rates in BreastScreen NSW in remote and very remote areas

were equivalent to those in major cities (50.8 per cent and 51.0 per cent respectively), and higher in inner and outer regional areas (59.1 per cent).

Planning has started for a remote radiology assessment model for *BreastScreen NSW* across regional services. The model allows for members of the multidisciplinary team to undertake breast imaging assessment remotely, minimising the requirement for women to travel significant distances.

- **Bowel screening** – from 2014 to 2019, the CINSW awarded $1.2 million in grants through a competitive grants program aimed at improving access to colonoscopy services and implementing health pathways, 70 per cent of which was awarded to rural and regional areas.
- **NSW Cervical Screening Program** – maintains strong partnerships with rural and remote services and provides funding to enhance, strengthen and improve the skills and knowledge of the rural, regional and remote health workforce.

  The program also provides funding to cover the pathology costs for cervical screening tests that are not funded under the MBS rebate. These tests are provided by women's health nurses across NSW. This funding supports public clinics providing access to women in priority groups including Aboriginal women, women from culturally and linguistically diverse (CALD) backgrounds, and women from low socio-economic backgrounds.

Research and clinical trials

Clinical trials provide an additional treatment option for some people with cancer and are an integral part of a high performing health system. Of the $20 million invested in clinical trials by the NSW Government since 1 July 2016, $7 million went to trials conducted in rural and regional areas of NSW.

All regional cancer services in the public system – in Tamworth, Orange, Nowra, Coffs Harbour, Port Macquarie, Lismore, Gosford and Wollongong – have active clinical trials available to patients attending their centres.

The 2019 *Rural, Regional and Remote Clinical Trial Enabling Infrastructure* grant opportunity was announced as part of the Medical Research Future Fund and part of the *National Critical Infrastructure Initiative*. The NSW Ministry of Health and its partners, including CINSW and ACT Health, were awarded $30.6 million in October 2020 over five years to deliver increased and more equitable access to clinical trials for patients in rural, regional and remote NSW and ACT.

3. Mental health services in regional, rural and remote NSW

The NSW Government is undertaking a decade-long whole-of-government enhancement of mental health care. Section 3 discusses the significant reform underway for mental health care in NSW.

People who live in rural areas experience mental health problems at about the same rate as those in metropolitan areas. However, they face greater challenges because of difficulties accessing support and overcoming greater visibility of mental illness in a smaller community, which may lead to stigma and the fear or reality of discrimination.

The whole-of-government enhancement of mental health care comes in response to the *Mental Health Commission of NSW's Living Well report*, a framework for reform which puts people – not processes – at the centre of the mental health care system.

Social isolation can also have a disproportionate effect for rural residents, who may be less able to reach out for companionship, and may struggle to find meaningful work in the context of higher unemployment and longer travel distances. There is evidence of links between mental illness and prolonged drought and other adverse environmental factors, changes in markets for rural produce, economic hardship, climate change and de-population.

Aboriginal people living in rural areas may also experience difficulties in accessing culturally appropriate mental health support services.

Primary mental health care

The primary care component of mental healthcare is provided by GP and some private practitioners. Rural LHDs work collaboratively with these sectors to address the need to upskill GPs in mental health service provision, including their role in specialised services, such as eating disorders.

Primary Health Networks (PHNs) commission a range of services in a stepped care model to provide for the range of needs of people who experience less complex forms of mental illness.

Private practitioners such as psychologists and social workers are in limited supply in the rural, regional and remote areas. To address this issue, Western NSW LHD is starting work to provide a virtual based service in six communities with limited access to primary care.

Access, intake and triage services

All rural LHDs use the NSW *Mental Health Line*, a statewide service that links callers to each LHD's mental health Intake and Triage services to provide a brief assessment and determine risk and urgency of response. It then refers the individual to the most appropriate service to meet the individual's mental health needs. The NSW Government is investing $16.4 million in the *Mental Health Line* to improve its performance and responsiveness to ensure more people are answered promptly and more people receive the help they need, when they reach out.

EDs are a key access point to care for people in a mental health emergency. EDs are local, open 24/7, and people living in rural areas are familiar with seeking assistance in an emergency through their local ED. Rural LHDs also have access to Mental Health Emergency Consultation Services. These services provide virtual in-reach to EDs via telehealth, providing another access point for specialist assessment and assistance with developing a care plan. Larger EDs across rural NSW are declared mental health facilities under the *Mental Health Act 2007* and consumers who have been detained under the Act

can be taken to these EDs for the purposes of a mental health assessment and immediate care. Consumers who need specialist inpatient care are transferred to an acute mental health inpatient unit.

Community mental health services

Rural community mental health services are the backbone of keeping people with acute or severe and complex mental health conditions well in the community, reducing ED presentations and inpatient admissions. Community mental health provides services for people with a wide range of mental health conditions, including more severe anxiety and depression, mood disorders, psychotic disorders, eating disorders, and people experiencing self-harm or suicidal ideation. Community psychiatry clinics are also provided, including child and adolescent, adult and older persons' specialists.

Community mental health services are typically made up of staff specialising in child and adolescent mental health such as *Got It!*, a school-based intervention for Kindergarten to Year 2 students. Other services include youth mental health, adult mental health, older persons' mental health, consumer peer workers, and Aboriginal mental health. In some sites, there will also be Farmgate Counsellors, Rural Adversity Mental Health workers and Family and Carer Support workers. The impact of rural adversity (including drought, floods and fires) has affected communities, however additional specialised counsellors are supporting those communities.

In April 2020, the NSW Government announced $21 million to strengthen mental health support for people impacted by the COVID-19 pandemic. This enhancement focused on increasing the community mental health workforce and improving access to specialist mental health clinicians and peer support workers. The additional funding significantly enhances the capacity of community mental health services across NSW to appropriately manage mental health clients in the community in their homes, rather than in EDs and inpatient mental health units. It also enables additional support for vulnerable populations, such as young people, people experiencing or at risk of homelessness, older people and Aboriginal communities.

The NSW Government's 2020-21 Budget also committed $66.2 million over three year, beginning in 2021-22, to continue the additional specialist mental health clinicians recruited in response to COVID-19.

As part of the COVID-19 mental health package announced in April 2020, the NSW Government's investment of $20 million for virtual mental health services is also providing benefits for people accessing community mental health services. Virtual care, also known as telehealth, enhances access to health services, particularly specialist services, and allows patients to safely connect with health professionals to deliver care when and where it is needed. Telephone, video conferencing, and remote monitoring are examples of virtual care.

Community mental health teams have also adapted to servicing large geographical areas by moving to working virtually. LHD mental health services in rural and regional NSW have been using technology to deliver care to mental health consumers for many years. With advances in technology, the support for mental health professionals and benefits for mental health consumers and their carers is even greater. This is balanced at a consumer level with face to face engagement, noting the need for connectivity.

Commonwealth-funded *Headspace* services provide care to young people with mild to moderate mental health difficulties across NSW. Recent enhancements have focused on increasing the number of sites in regional and remote NSW.

Inpatient mental health services

Acute mental health units are complex specialty units requiring psychiatry, medical, nursing and allied health workforce to deliver an effective therapeutic program.

All rural LHDs have access to adult acute mental health beds within their region. Work is being undertaken in all regions to improve the therapeutic environments and provide better experiences for consumers. Reduction of the rates of seclusion is a key focus, and units are implementing initiatives such as the *Creating Positive Cultures and the Safe Wards Program.*

The NSW Government's investment of over $6 million in response to COVID-19 is enhancing access to therapeutic activity in inpatient mental health services across NSW. The funding enables LHDs to expand mental health recovery and rehabilitation programs such as art therapy, occupational therapy and psychological services.

Child and Adolescent Mental Health Units operate on a statewide basis, with all units providing services for multiple LHDs. Some LHDs have specialist Older Persons Acute units, and in other LHDs, older people are admitted to adult acute beds.

There is a small number of Transitional Behavioural Assessment and Intervention Service units in NSW, providing a transitional inpatient service to develop management strategies for people with severe behavioural disturbance associated with dementia. For example, Bloomfield in Orange has a forensic medium secure rehabilitation unit, a transition unit, and an involuntary drug and alcohol treatment unit, which operates as a statewide service.

Several rural, regional and remote LHDs have non-acute/sub-acute units, with extended stay and rehabilitation functions. Murrumbidgee LHD has a 20 bed sub-acute unit called the *Recovery Unit*. This is an innovative eight-week program focused on multi-disciplinary therapeutic interventions, with a strong feature of consumer-led goal setting and activities.

Collaboration with the non-government sector

State contracted non-government organisations (NGOs) provide a range of *Housing and Accommodation Support Initiatives*, *Community Living Supports* (including some refugee specific services) and psychosocial support services. Local programs include the following:

- In Western NSW LHD, the *Resolve Program* social impact investment has been designed to keep people out of hospital and provide better patient experience with the service, delivered by people with a lived experience of mental illness.
- In Northern NSW LHD, initiatives such as the shared ***Non-Government Organisation (NGO) Governance frameworks*** has improved patient flow, patient outcomes and satisfaction. This includes having NGO services as active members of the multi-disciplinary clinical care teams attending inpatient and community clinical care and planning meetings.
- A **Homeless Outreach Team** to reduce homelessness and rough sleeping in the Byron Shire has been initiated. Priorities include increasing co-location opportunities, improving communication and collaboration between LHDs and the NGO sector, and improving efficiency through joint NGO and mental health service visits in community.
- ***Likemind*** centres in several LHDs are a consortium-based approach to co-location of services for people with mental health conditions. In Murrumbidgee LHD, the Alliance of Mental Health and Drug and Alcohol providers (17 member organisations) has improved service integration across agencies. For example, the alliance has developed an innovative application that can be loaded onto a consumer's phone or device, and contains the consumer's story, goals, and safety strategies. It provides service providers with one story, one set of goals, and one care plan for the consumer.

Towards Zero Suicides

The NSW Government is investing $87 million over three years for 15 new suicide prevention initiatives that will contribute to the Premier's Priority to reduce the suicide rate by 20 per cent by 2023.

The 15 initiatives have been developed for implementation throughout NSW, and rural, regional and remote communities will directly benefit from the enhancements to help reduce the suicide rate in NSW.

Examples of the initiatives being specifically implemented within the rural LHDs are:

- **Zero Suicides in Care** – an initiative to strengthen practices within the mental health system to eliminate suicide and suicide attempts by people in care, both inpatient and community.
- **Safe Havens** – provides up to 20 new lived experience peer-led facilities across NSW as alternatives to ED presentations for people experiencing suicidal ideation.
- **Suicide Prevention Outreach Teams**, dedicated clinical and lived experience peer workers to increase the amount of intensive, community-based support for people experiencing or recovering from a suicidal crisis.
- 15 additional **Rural Counselling** positions to increase the number of counsellors available for people experiencing hardship in rural and remote areas.

In addition, Far West LHD has implemented *Connections*, an after-hours peer led program connecting mental health consumers to the community. Moreover, the *We got your back* project involves drought ambassadors connecting with people on the land experiencing drought distress and hardship.

Access to drug and alcohol services

LHDs and NSW Health-funded NGOs provide a range of alcohol and other drug services in regional areas. This includes withdrawal management, drug counselling and case management, medicated-assisted treatment, opioid agonist treatment, hospital-based drug and alcohol consultation liaison services, substance use in pregnancy and parenting programs, outpatient programs, criminal justice diversion programs, outreach, ongoing care services and residential rehabilitation treatment programs.

LHDs statewide provide drug and alcohol intake telephone lines, which are a key access point for people seeking treatment services in their communities. The *Alcohol and Drug Information Service* provides a 24/7 telephone and web-based chat service linking callers from across the state, regardless of postcode, with local alcohol and other drug services.

The *Drug and Alcohol Specialist Advisory Service* provides general advice to health professionals across NSW who require assistance with the clinical diagnosis and management of patients with alcohol and other drug related concerns. This service supports all health professionals, especially those working in rural, regional and remote areas in NSW.

In the 2020-21 Budget, the NSW Government committed $7.5 million for a drug and alcohol treatment centre in Dubbo. The Australian Government has contributed an additional $3 million towards the centre. This investment will improve access to withdrawal management and rehabilitation services closer to home for people living in rural NSW.

NSW Health will enhance access to specialist alcohol and other drug support by expanding telemedicine alcohol and other drug specialist outreach in 2020-21 through improving the specialist advisory service and implementing a new telemedicine hub in Hunter New England LHD and the St Vincent's Health Network. In addition, NSW Health is supporting

improved access to opioid treatment in regional NSW through funding for nurse practitioners in Northern, Hunter New England and Murrumbidgee LHDs.

NSW Health has published the *Clinical Care Standards for Alcohol and Other Drug Treatment* services, which articulate the core elements of quality care regardless of geography. The standards are consistent with the principles of value-based healthcare in NSW. It ensures that people who experience harm from alcohol and other drug-related use are not marginalised within the health care system.

38,839 consumers accessed NSW-funded alcohol and other drug treatment services in 2018-19. Of these, 17,848 consumers (46 per cent) were from regional LHDs.

Access to health services for regional youth

Increased access to quality mental health services is needed for regional youth, including Aboriginal young people, as regional youth experience higher rates of mental illness, suicide, and greater battles with alcohol and illicit drugs.

The *Regional Youth Framework* outlines strategic whole-of-government priorities, including priorities to improve the physical and mental wellbeing of regional young people.

4. Palliative care services in rural, regional and remote NSW

The *NSW End of Life and Palliative Care Framework (2019-2024)* includes a focus on people in rural, regional and remote NSW. It seeks to identify the use of alternative care models, including telehealth and workforce enhancements targeting non-metropolitan areas. Section 4 outlines the investment that has been made by the NSW Government to provide accessible palliative care for people living in rural, regional and remote areas.

Funding enhancements announced in 2017 ($100 million) and 2019 ($45 million) have focused on increasing the palliative care workforce and improving access to specialist palliative care across NSW.

Funding for new positions

In 2017, funding was committed for two specialist palliative care nurses per LHD, and for nine new medical officer positions, and an additional two relief medical officer positions for rural and regional LHDs. Every LHD in NSW also received funding for one full-time equivalent (FTE) Aboriginal health worker for palliative care and one FTE allied health professional for palliative care.

In 2019, a further 100 new palliative care nursing positions were committed for NSW for 2019-20 to 2022-23, with two thirds for rural and regional LHDs.

The government has committed $10 million to refurbish palliative care facilities to create more home-like environments. 17 projects in rural and regional NSW have been funded so far, with further funding to be allocated in 2021-22 and 2022-23.

Innovation for local solutions

A digital solutions initiative will improve access to palliative care specialists for people in rural areas ($2 million over four years from 2019-20). These funds will be used to implement activities to support patients, their carers and families, and the palliative care workforce to use telehealth as part of usual practice.

Other initiatives providing benefits across NSW include $4.5 million in 2019-20 and $1.5 million in 2020-21 to provide LHDs, Networks and NSW Ambulance with the opportunity to develop and implement innovative and localised solutions for identified palliative care service needs. This has funded 37 projects across NSW. Furthermore, $450,000 was available in 2018-19 to develop palliative care support for priority populations, and $900,000 ($300,000 per year 2019-19 to 2020-21) is available to improve support for carers of palliative care patients.

Education and training funding for nurses and allied health workers provided from 2017-18 to 2020-21 is also strengthening palliative care skills and knowledge in the workforce.

Funding to enhance palliative care services

In June 2020, NSW executed the *Comprehensive Palliative Care in Aged Care Measure* with the Australian Government. The measure will provide $10 million in matched funds from the Australian Government to enhance specialist palliative care in residential aged care facilities (RACFs). NSW will also direct $10 million of funding to support aged care focused initiatives. Under the measure, all LHDs will receive funding to address locally identified needs.

Rural and regional LHDs have identified opportunities to use funding to increase telehealth use in RACFs, build the capacity of staff to respond to palliative care needs, and enhance their specialist palliative care workforce. The measure will support goals to improve end of

life planning, reduce avoidable hospital admissions, and support preferred place of care in rural and regional NSW.

In November 2020, the NSW Government announced an additional $55.9 million enhancement to end of life and palliative care over four years (2020-21 to 2023-24). Under this announcement, $30.4 million will be provided to support multi-disciplinary approaches for end of life and palliative care for patients and their families/carers, including up to 35 allied health professionals across NSW. This will support increased positions such as occupational therapists, speech pathologists, dietitians and physiotherapists. Rural and regional LHDs will receive funding for two FTE positions, which will help address patients' physical health needs and support safe discharge from hospitals so that people can choose to be cared for at home.

As part of the $30.4 million additional funding, $1.2 million per year from 2021-22 has been allocated to implement education and training to develop and grow the specialist palliative care workforce and enhance capability across the whole of health workforce to meet people's end of life and palliative care needs. In 2020-2021 alone, this has funded almost 500 training places across the state. $2 million per year is committed to enhance bereavement and psychosocial support services, including support for LHD services and partnerships with NGOs.

$25.6 million over four years has been dedicated to supplement the End of Life Packages in the *Out of Hospital Care* program. This means that from 1 July 2021, an extra 5,000 packages will be available across NSW to support more people to achieve their goal of being cared for at home.

5. Other health and hospital services in rural, regional and remote NSW

Section 5 describes how other health and hospital services in NSW not already discussed in this submission, are delivered across NSW Health to support equity and access for rural, regional and remote residents.

Renal health services

Between 2015-16 and 2018-19, NSW Health invested an additional $6.8 million for more renal health services in rural and regional areas. This included new renal dialysis services, enhancements to existing renal dialysis services, and new home dialysis services and training centres. People requiring dialysis in NSW can access services in hospital, satellite units, or at home, depending on their diagnosis, stage of disease, and requirement for services. Satellite dialysis units in NSW provide dialysis for less acute patients not requiring maximum supervision in hospital.

While not all people will choose, or be able to undertake home dialysis, in 2015 the Agency for Clinical Innovation (ACI) published the *Home First Dialysis model*. This offers a self-management choice for those patients who can dialyse at home, and for whom it is medically appropriate.

The benefits of home dialysis are well-recognised, with outcomes for patients including increased dialysis dose, improved clinical outcomes, improved greater freedom and flexibility[19], improved quality of life[20] and reduced depression rates.[21] There are also significant benefits to the health system, including significant cost differences between hospital based, satellite and home-based dialysis, and lower resource use with home dialysis. Other substantial benefits for patients include not having to fit into arduous health service schedules, and a reduction in travel time and costs. In their model for home dialysis, Kidney Health Australia describes home dialysis and kidney transplant as *"the most economically viable options with positive health outcomes*".[22]

In 2018, the ACI Renal Network developed a guideline called *Water for dialysis: A guide for in-centre, satellite and home haemodialysis in NSW* to ensure the purest water is used for dialysis. This is particularly crucial in drought-affected rural and regional areas in NSW.

In 2020, the ACI provided input to the Australian Health Facility Guideline Advisory Group to update the guideline for dialysis units to include *Green Nephrology* initiatives, particularly the minimisation of water wastage from dialysis. Tamworth Hospital provides a great example of water re-purposing.

Cardiac healthcare

Between 2016-17 and 2018-19, NSW Health also invested an additional $4.8 million in cardiac health services for rural and regional areas. This included expanding and enhancing existing services, and investment in new rural catheterisation laboratories so people can

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19 NSW Department of Health, 2007, 'NSW Renal Dialysis Service Plan to 2011', Statewide Services Development Branch, NDW Department of Health.

20 Fortnum, D., & Ludlow, M. 2014. Improving the uptake of home dialysis in Australia and New Zealand. Renal Society of Australasia Journal, 10(2), 75-80.

21 Kidney Health Australia, 2012, 'A model for home dialysis, Australia', available at: 'http://www.kidney.org.au/ForPatients/Treatmentoptions/HomeDialysis/tabid/811/Default.aspx June 2014'; Fortnum D et al, 2014, 'Renal unit characteristics and patient education practices that predict a high prevalence of home-based dialysis in Australia', *Nephrology*, 19, 587-593.

22 Kidney Health Australia 2012. A model for home dialysis, Australia.

access their treatment closer to home. A new cardiac catheterisation laboratory is also expected to open at Dubbo in 2021, which will expand services in Western NSW LHD.

The ACI supports best practice healthcare in rural, regional and remote NSW through developing clinical guidelines that consider the rural, regional and remote context. Some examples include:

- *Pathway for Acute Coronary Syndrome Assessment* – a suite of documents to support evidence-based management, particularly for staff working in small, rural hospitals. It outlines how to assess and manage patients with suspected acute coronary syndrome.
- The *NSW Guidelines for Deactivation of Implantable Cardioverter Defibrillators* (ICD) – designed to assist clinicians to manage ICD deactivation and facilitate a peaceful death for patients at the end of life. The document was revised at the end of 2020.
- A guideline on *Cardiac Monitoring of Adult Cardiac Patients in NSW Public Hospitals* – developed to improve patient outcomes and timely discharge through the appropriate use of cardiac monitoring in public hospitals in NSW. This document was revised at the end of 2020.

Maternity services

Birthing services across NSW are planned and provided according to local needs, birth numbers, and availability of staff. Birthing services are 'networked' to enable consultation, referral, and transfer of women who develop complications during pregnancy. This ensures pregnant women receive the right care, in the right place, at the right time, as close to home as possible.

Providing a safe, low-risk birthing model for small towns with low birth rates requires relevant maternity staff and support services 24/7, 365 days per year. The safety and wellbeing of mothers and babies is paramount, so in cases where it is not possible to recruit and retain staff with relevant skills, such as GP obstetricians, some facilities provide only antenatal and postnatal care, without a birthing service.

The Tiered Maternity and Neonatal Networks, which are detailed in the *NSW Maternity and Neonatal Service Capability Framework* provide an integrated range of services within and across LHDs and Networks, to meet the choices and needs of families. The networks ensure women and their newborns can move seamlessly between services when the care they require is not available locally.

Rural and regional paediatric healthcare

In 2015, the Sydney Children's Hospitals Network (SCHN) established the *Kids Guided Personalised Services* (GPS) and *Rural Paediatric Care Coordination* service. Kids GPS uses the circle of coordination for children with medical complexity, which ensures the child is at the centre of the system for integrated care. SCHN has a strategy to use virtual care to deliver consultations to children in their homes, with their GPs and at their local hospital.

Families are guided by the Kids GPS Care Coordinators, who are responsible for establishing the circle of coordination formed by leaders from the hospital, community and family setting. The Care Coordinators work with families to understand their goals and develop a care plan. They also work with treating teams to identify opportunities to integrate and share care with local teams, streamline appointments, avoid unnecessary hospitalisations, and prevent ED attendances.

An evaluation of the Kids GPS service showed:

- a decrease in ED presentations by 40 per cent and day-only admissions by 42 per cent

- an estimated $4.9 million saved over two years due to prevented hospital encounters
- of 84 children who had no regular GP, 58 were linked with one
- 10 per cent of families were linked to the 24-hour hotline to enable remote access to support and advice.

The Kids GPS model has been further adapted by Murrumbidgee LHD and the Southern NSW LHD to support children in their regions who have medical complexities. As part of this scale and spread, a monthly *Paediatric Care Coordinators Collaborative* has been established where the paediatric care coordinators across NSW come together to foster collaboration and communication, celebrate successes and consider challenges or issues.

Primary health services

NSW Health works with LHDs and the Australian Government to provide cohesive primary care services to rural, regional and remote residents. These include funding MPS (see Section 14) and community health centres, provision of outreach services and early childhood health services, and provision of community transport.[23]

The Australian Government funds many primary health services, including GP and other primary health organisations delivering services in rural communities. The NSW and Australian governments are working closely together to improve health outcomes and access to primary services for rural communities.

Through the Bilateral Regional Health Forum, NSW and the Commonwealth are collaborating to:

- develop regional collaborative funding models to ensure GPs, nurses and allied health staff are attracted to work and stay in rural and regional areas
- further develop training programs to support GPs and rural generalists into rural practice
- build resilience and mental health support in the regions
- develop attractive funding and employment models for doctors in training to work across hospitals and GPs
- share and scale successful regional workforce and service initiatives.

The Australian Government also recognises that many patients in small, rural and remote towns have limited access to primary health care services. In response to a lack of private practices, many small, rural hospitals have employed medical officers to make traditional GP services available. *Section 19(2) Exemptions Initiative – Improving Access to Primary Care in Rural and Remote Areas Initiative* provides for exemptions under section 19(2) of the *Health Insurance Act 1973* to allow eligible NSW Health facilities to claim against the MBS for certain services provided in EDs and outpatient clinic settings. This income is reinvested by the LHD to enhance access to primary care services for that local community.

[23] NSW Health, 'NSW Rural Health Plan: Towards 2021', 2014, available at: 'https://www.health.nsw.gov.au/rural/Publications/rural-health-plan.pdf'.

6. Networks supporting appropriate care

Section 6 discusses the systems and processes NSW Health has established to support NSW residents in accessing world-class clinical care. NSW Health services are underpinned by robust clinical service planning that ensures patient safety is maximised, while providing access to care as close to home as possible. This is supported by a network of strong collaborative relationships between rural and metropolitan health services to ensure consistent standards of healthcare across all of NSW.

Supporting the right healthcare in the right location

The NSW approach to planning is coordinated, transparent and includes:

- LHDs and Networks undertaking local planning to ensure the basic needs of their local populations are met
- collaboration between LHDs and Networks to establish networked services that facilitate access to higher level specialty care and services when required
- statewide planning for highly specialised, low volume therapies to ensure equitable access for all patients in NSW.

Examples of NSW Health initiatives that support networked services are the:

- highly specialised Supra LHD services which are provided on behalf of the state, across LHD/Network boundaries. Examples of Supra LHDs include, adult, paediatric and neonatal intensive care services, heart transplant, endovascular clot retrieval and Car T-cell therapy. Supra LHDs are characterised by a combination of the following factors:
    - services provided from limited sites across NSW
    - services are high cost with low-volume activity
    - individual clinicians or teams in supra LHD services have specialised skills
    - provision of the service is dependent on highly specialised equipment and/or support services
    - significant investment in infrastructure is required.
- *Tiered Maternity and Neonatal Networks* which are detailed in the *NSW Maternity and Neonatal Service Capability Framework* (see **Maternity Services** on page 23 for further detail).
- *NSW Paediatric Service Capability Framework* that describes the planned activity and clinical complexity for each paediatric service capability level and provides a mechanism for LHDs to assess the planned service capability of their facilities.
- *Critical Care Tertiary Referral Networks* and *Transfer of Care Adult and Paediatric Policy Directives*, which defines the responsibilities of LHDs and tertiary referral hospitals to transfer critically ill or injured patients across NSW to a higher-level facility.

NSW Health is continuing to build and strengthen networked service arrangements across the state. Virtual care modalities are providing new opportunities to evolve networked models and support collaboration between clinicians across metropolitan, rural and regional services.

Transport and emergency retrieval

When residents in rural, regional and remote areas need to travel to access a higher level of networked care, this is facilitated by:

- **Aeromedical Control Centre** – provides adult medical retrieval services for critically ill or injured patients in collaboration with the Regional Retrieval Services.
- **NSW Ambulance aeromedical operations** – includes both helicopter and fixed-wing aircraft that provide treatment and transport for pre-hospital incidents, medical retrievals, long distance medical transports, search and rescues, and major incidents across the state.
- ***Newborn and Paediatric Emergency Transport Service*** – provides 24/7 advice and retrieval services for critically ill or injured babies and children.
- **Neonatal and paediatric retrieval services** – in Sydney, Canberra and Newcastle to provide non-emergency transport for babies and children and support care as close to home as possible.
- ***Isolated Patients Travel and Accommodation Assistance Scheme*** **(IPTAAS)** – provides travel and accommodation subsidies to patients and their escorts or carers when travelling long distances, to their nearest medical specialist for treatment that is not available locally.

  Many hospitals have links with third party organisations to provide affordable accommodation if needed. This is often at the IPTAAS subsidy rate, meaning that there are limited or no out-of-pocket accommodation costs for patients and their carers or escorts during their stay. Registered IPTAAS accommodation providers can bill IPTAAS directly, so these patients are not out of pocket while waiting for reimbursement.

Promoting innovative practice: The Rural Health Network

The *Agency for Clinical Innovation (ACI)* has established the Rural Health Network to identify, review and monitor innovative practice in rural communities. The network has more than 700 members who participate in special interest groups to progress 'ground up' priorities as identified by the rural LHD chief executives.

In 2018, the Rural Health Network implemented the *Improving Rural Patient Journey Initiative* which aims to:

- develop a consistent approach to meeting the social, emotional and practical needs of rural patients, carers and families when they need to receive hospital care in an unfamiliar city, far from home
- improve early identification of rurality to enable rural sensitivities to be factored into care planning and transfer of care back home to the rural community
- create a 'go to' place for rural patients, their carers and families, to access information and resources so that a traumatic and trying time becomes easier.

7. A digitally enabled health system for rural, regional and remote communities

The benefits of a digitally enabled health system for rural, regional and remote communities and the new and existing initiatives in this frontier of healthcare provision are described in Section 7.

Virtual health care

Virtual health care includes telehealth, telemedicine, eHealth technologies, artificial intelligence and digital health. It is considered a safe, effective and reliable alternative to many conventional methods of delivering health care. It is being expanded in NSW both in metropolitan areas and rural and regional areas.

Patient-centred, clinician-led virtual care provides an efficient and effective model of care that may complement, or supplement face-to face consultation. Alternatively, it may increase access to care by providing patients the option to have care delivered at a distance, where it is clinically appropriate. Rather than replacing face to face care, virtual care is one of several options for healthcare delivery that safely connects patients with health professionals to deliver care when and where it is needed.

Well-designed virtual care can be life changing for all healthcare consumers, rural and remote consumers, and clinicians. It is an ideal mechanism to overcome barriers of distance, reduce professional isolation and foster multi-disciplinary teamwork, particularly between primary and hospital-based care. There is clear evidence to support use in mental health, oncology, geriatrics, wound care management, paediatric services, and Aboriginal health services.

Virtual health care provides benefits throughout the health system:

- for patients and their families:
    - reduced travel time and costs
    - improved timely access to services and group interventions
    - improved continuity of care
    - rapid identification and management of changes in a patient's condition
- for health care workers:
    - improved access to skilled colleagues
    - improved communication and collaboration
    - support for isolated rural practitioners
    - addresses workforce shortages
    - increases professional development opportunities
    - reduces loneliness and isolation
- for the health system:
    - improved clinical outcomes
    - efficiencies
    - reduced transfers and length of stay
    - reduced demand on emergency services
    - more collaborative ways of working.

In rural and regional settings, virtual care supports the provision of emergency and critical care (through 24/7 access to specialist clinicians using critical care cameras and phones), and outpatient clinics in rural settings.

Virtual Care Accelerator

The *NSW Health Virtual Care Accelerator* is building on the momentum of work taking place to support virtual care.

In response to COVID-19, eHealth NSW has established a new multi-agency business unit called the *Virtual Care Accelerator*, in partnership with the ACI and other key stakeholders.

Throughout the pandemic, virtual care and telehealth has allowed people to access essential health services in their home and supported self-isolation and quarantine policies to reduce the risk of COVID-19 transmission in the community. They have also limited unnecessary exposure of patients and health professionals wherever treatment can be safely delivered by phone or videoconferencing.

Use of videoconferencing for clinical and general communication purposes has significantly increased during the COVID-19 pandemic. This was driven by a shift to work from home, but also by the Federal Government's announcement of expansion of telehealth item numbers through Medicare.

Virtually-enabled healthcare continues to be on the rise with NSW Health recording an increased uptake of virtual meetings by 641 per cent, and peer-to-peer calls by 1,060 per cent between February and April 2020, compared to the same period last year.

Examples of virtual health care in rural, regional and remote settings

Examples of virtual health care innovations that have been successfully implemented across rural health settings include:

- The ***NSW Telestroke Service*** which offers people living in rural and regional areas access to world-class and life-saving stroke diagnosis and treatment. *Telestroke*, hosted by the Prince of Wales Hospital, connects local doctors to specialist stroke physicians via video consultation in the ED. The service is already supporting patient care at Port Macquarie Base Hospital, Coffs Harbour Health Campus, Lismore Base Hospital, Orange Health Service, Dubbo Base Hospital and Bathurst Hospital. By the end of 2021-22, the service will support 23 rural and regional hospitals across NSW.
- **Virtual Care Centre** (VCC) is a collaboration between the Illawarra Shoalhaven LHD, Southern LHD and South Eastern PHN to support COVID-19 positive people recovering at home. Patient feedback has been very positive and indicates the support and care that VCCs allow during their illness. Staff also reported positive experiences in developing their telehealth skills to enable support to people in isolation, and in participating in the development of a new model of care. The VCC modality allows a clinician to see almost three times the number of patients than with face-to-face interactions. The VCC COVID-19 model will now be used to support people with chronic disease.
- ***The Northern Mental Health Emergency Care-Rural Access Program*** in the Hunter New England, Mid North Coast and Northern NSW LHDs commenced in August 2016. The service provides specialist mental health assessment and care via telehealth to EDs across the northern part of NSW. The service is staffed 24/7 by mental health clinicians and operates from a hub in Newcastle supporting 30 rural ED sites across the three LHDs. The service completed 1,317 specialist mental health assessments for people presenting in crisis at their local ED in 2019. This service replicates Mental Health Emergency Consultation services operating in Murrumbidgee LHD, Southern NSW LHD, Western NSW LHD and Far West LHD.

- ***vCare*** in Western NSW LHD (Coordination, Access, Retrieval, Escalation) is an LHD-wide model where a multi-disciplinary team of clinicians provide high quality and patient-centered care for critically unwell patients. It is an extension of the local treating team and has been operating since 2006. *vCare* is staffed 24/7 by critical care nurses, supported by specialist emergency physicians and hospital transfers. Calls to vCare from remote GPs or nurses are prioritised based on clinical acuity, and emergency clinical consultations occur through telehealth. Every LHD hospital and MPS in the Western NSW LHD is fully equipped with over bed digital cameras and secure telephony systems to support virtual clinical care in the remote EDs.
- **Virtual Clinical Pharmacy Service (VCPS)** in Western NSW and Far West LHDs began in April 2020 to address the gap in clinical pharmacy services across rural NSW. VCPS pharmacists also collaborate with the broader multidisciplinary team and consult by virtual care to provide services such as:
    - medication, reconciliation and review
    - antimicrobial stewardship
    - smoking cessation assessment
    - patient counselling
    - drug information and medication education for clinical staff.

  Before implementation, pharmacy services were available onsite in eight of 46 facilities in the Western NSW and Far West LHDs. The provision of clinical pharmacy services has significantly increased through the launch of the service at Bourke, Canowindra, Cobar, Gilgandra, Narromine, Warren (Western NSW LHD), Balranald and Wentworth (Far West LHD).
- **Virtual Rural Generalist Service** in Western NSW LHD uses a dedicated team of 20 generalist doctors to provide comprehensive inpatient medical care to patients in rural hospitals in Western NSW LHD. The service provides care to communities without a local doctor, or where local medical staff requires additional support (such as leave relief or out of hours cover). Key features of the service include:
    - virtual care consultations directly with low acuity (GP level) patients presenting to small rural hospital EDs
    - medical management of acute inpatients admitted under the service
    - virtual ward rounds for inpatients
    - clinical support for residents in RACFs
    - contemporaneous clinical documentation in electronic medical records (eMR) and eMR-eMeds.

  Virtual Rural Generalist Service doctors have contributed more than 17,000 patient consultations over the six months from 1 February to 5 August 2020. This service was reported as being either ‘excellent’ or ‘good’ for 97 per cent of admitted patients and patients attending the multipurpose service. Feedback from other clinical staff working in the multipurpose service has also been positive.
- **Pain management services** are for people living with pain and is delivered by telehealth and outreach multi-disciplinary services. It brings the expertise of the St Vincent’s Pain Clinic to Southern NSW LHD and Greenwich Pain Clinic to support Broken Hill Hospital to provide direct support to GPs and primary care clinicians. LHDs also offer support to manage opioid prescribing and de-prescribing, and complex pain. The multidisciplinary specialist team provides education and upskilling to clinicians working in hospitals and communities.

- **The Critical Care Advisory Service** enables access to expert critical care advice via teleconferencing and videoconferencing facilities to support the clinical management of patients. These services support many sites across NSW Health in both smaller and larger centres.
- The CINSW, in consultation with LHDs, is in the final stages of developing a ***Cancer Services Telehealth Framework.***

  The Australian Government introduction the COVID-19 temporary MBS has significantly expanded telehealth and allowed cancer services to continue high quality clinical care to people affected by cancer. Ongoing support for these item numbers will ensure telehealth remains a preferred and sustainable model.
- **Virtual Kids Network**, established by the SCHN, has been exploring how a virtual care centre can help deliver the next generation of children's care, to support care anywhere. The vision for the virtual care centre – Australia's first Virtual Kids Hospital Network – will transform the next generation of children and young people's care through choice, access and digital health care. The Virtual Kids Hospital is in the development phase, with a Steering Committee overseeing its progress, and funding opportunities being sought to support its implementation.

  In the interim, SCHN is exploring virtual care technologies and models to deliver care closer to home until the virtual care centre is operational. As an example, high levels of telehealth have been maintained across SCHN since the start of COVID-19, with some face-to-face activity resuming. Moreover, the SCHN Respiratory Departments have been conducting lung function assessments with patients at home over telehealth, and the COVID-19 Positive Outpatients Response Team have been using virtual care for COVID-19 positive children in the community, avoiding hospital presentations and further transmission in the community.

  Core elements of virtual care will be used, including remote monitoring, virtual and augmented reality, data analytics and artificial intelligence, telehealth, and sophisticated scheduling systems. Delivering care virtually is expected to:
  - improve support for primary and secondary care teams to deliver care closer to home
  - improve health system efficiency
  - decrease travel and significant disruptions to work, schooling and family life
  - improve experiences for children and families navigating the health system
  - improve health outcomes and greater access to clinical trials and novel therapies for patients located in rural, regional and remote areas.

  Ongoing access to virtual care for families has enabled SCHN to provide care closer to home. Delivering virtual care has saved families from traveling 3,811,428 kilometres (January to September 2020).[24]

The digital backbone: supporting health infrastructure

Advances in technology-enabled healthcare are maintained by the development of a robust technical backbone that supports all NSW Health services.

Remote access is a foundation to the provision of virtual services. It enables access to LHD-wide systems such as eMR to facilitate remote consultations and reporting. It also offers access to LHD systems (both clinical and corporate) to staff working remotely. It also facilitates provision of LHD support services remotely or centrally, such as clinical coding.

[24] This includes both metropolitan and rural locations.

Formal governance structures link rural LHD chief executives, eHealth and rural chief information officers to develop, agree to, and oversee a shared investment program to support implementation and improvements to information, communication and technology infrastructure.

Results of this investment include:

- a consistent eMR spanning almost all rural LHDs
- a rural drug formulary – eMeds (the first of its kind in NSW)
- shared information systems including intensive care systems, oral health records, eMaternity systems and radiology information and picture archiving systems
- telecommunications technology with increased functionality such as modern call centre capabilities for services including aged care, oral health, mental health, and virtual care
- clinic appointment reminders to be sent via an SMS message to patients.

There are several communications platforms and tools available across the rural LHDs. This inclues traditional video conference infrastructure located through health facilities, as well as newer technologies such as PEXIP, Skype for Business and Microsoft Teams. These platforms enable the provision of patient care in regional sites with the ability for clinicians to provide services to patients in rural facilities, remotely from other LHD sites, their practices, offices or home. This has revolutionised, for example, the clinical assessment of older citizens by specialist geriatricians using digital devices to connect with the individual, their family, and aged care nurses in the patient's own home (provided that mobile phone coverage is available).

Health pathology integration and digitisation

NSW Health Pathology's (NSWP) statewide operational model has been designed to ensure all patients receive the answers they need, when they need them, particularly in rural, regional and remote locations.

Each rural laboratory is supported by a regional hub laboratory offering additional sub-disciplines, and a broader test menu. Supervision of testing can be provided from referral sites for clinical chemistry, haematology, transfusion and some microbiology services.

Availability of onsite doctors is often a challenge for rural and regional laboratories. However, NSWP's model ensures access to urgent testing at public hospitals with ED services and pathways for clinical escalation for complex patients.

Further investment in the establishment of an agile, efficient, and modern logistics and courier system is underway to ensure the safety and integrity of each sample being transported.

Digitalisation of pathology services will transform NSWP and improve patient care, outcomes and experience. It will also improve equity of access to highly specialised clinical diagnostic expertise, especially for rural and regional communities, and make statewide public pathology quicker, safer and more specialised. Digital transfer of images will protect regional sites from the shortage of scientists and pathologists with specialist expertise and underpin training for the achievement and maintenance of competence. This will make working in rural, regional and remote sites more attractive because of increased remote support and stronger links between sites.

8. Patient experience, rural, regional and remote NSW

Section 8 discusses the investment in NSW Health's strategic vision for patient and staff experience across the state.

In September 2020, the NSW Ministry of Health released *Elevating the Human Experience: Our guide to action internally to NSW Health*. Putting the customer at the centre is a priority in NSW government policy. At NSW Health, this means putting the patient at the centre and delivering health outcomes that matter to them. NSW Health also recognises that providing patients and carers with safe, compassionate and kind care is as important as achieving good clinical outcomes. Better health outcomes are achieved when healthcare professionals work in partnership with patients, carers and communities.

The guide defines the NSW Health vision for the patient, family, carer and caregiver (staff) experience. It provides an overview of the key outcomes NSW Health wants to achieve, principles to guide priority initiatives, and the enablers used to effect system change.

As an example, in 2020 it was announced that NSW Health's award-winning[25] *Patient Experience Program* would benefit from an additional investment of $8.6 million to expand the program from 1 April 2020 to 30 June 2021. Furthermore, an additional 86 Patient Experience Officers will be recruited to 50 hospitals across NSW, with 42 of these officers in rural and regional hospitals.

Patient experience: how have patients rated their care?

Data from the Bureau of Health Information shows patients in rural districts rating their care similarly to, or better than those in metropolitan areas.

In the 2019 *Bureau of Health Information Rural Hospital Emergency Care Patient Survey*:[26]

- 94 per cent of patients rated their care in small, rural hospitals as 'very good' or 'good'
- 76 per cent of patients said the care and treatment 'definitely' helped them
- eight per cent said they experienced a problem or complication related to their visit.

In the 2018-19 *Emergency Department Patient Survey:*

- 88 per cent of patients rated their overall care in larger rural EDs as 'very good' or 'good' compared with 86 per cent who attended EDs in metropolitan LHDs
- seven out of nine rural LHDs met the benchmark for the overall patient experience index for ED care, compared to six out of eight metropolitan LHDs (October to December 2019)
- 67 per cent of rural LHD patients that attended EDs said the care and treatment 'definitely' helped them, compared with 66 per cent of metropolitan LHD patients

25 2019 NSW Premier's Award for world-class customer service.

26 The 2019 Rural Hospital Emergency Care Patient Survey was restricted to hospitals in peer groups D and F3. Hospitals located within a major city were ineligible. Hospitals must also have had more than 200 eligible patients in the period from 16 January to 15 April 2019 inclusive. No hospitals in Central Coast LHD or Illawarra Shoalhaven LHD fit this criteria and are therefore not included in these results.

- 10 per cent of patients in both metropolitan and rural LHDs that attended EDs said they experienced a problem or complication related to their visit.

In the 2019 *Adult Admitted Patient Survey*:

- 94 per cent of patients admitted to hospitals in rural LHDs rated their overall care as 'very good' or 'good' compared with 92 per cent admitted to hospitals in metropolitan LHDs
- all nine rural LHDs met the benchmark for the overall patient experience index for admitted patient care compared to five out of seven metropolitan LHDs, and seven out of nine rural LHDs met the benchmark for the patient engagement index compare to three out of seven metropolitan LHDs
- 77 per cent of patients admitted to hospitals in rural LHDs and metropolitan LHD hospitals said the care and treatment 'definitely' helped them
- 15 percent of rural and 17 per cent of metropolitan patients who were admitted to hospitals said they experienced a problem or complication related to their admission.

Patient experience in emergency departments

NSW Health's award-winning *Improving Patient Experience in Emergency Departments Program* has expanded with a further investment of $8.6 million. An additional 86 staff have been recruited to 50 EDs across NSW as Patient Experience Officers. 42 of these officers are in rural and regional hospitals.

Patient experience officers provide up-to-date information, care and comfort for patients, families and carers in the ED waiting room.

The principles of care and communication highlighted in the program can easily be transferred to other settings that patients can interact with, for example outpatient clinics.

Timely diagnostic analysis and reporting for pathology

NSWP's compliance with *Australian Council on Healthcare Standards Guidelines* for urgent testing turnaround times in rural and regional public hospitals is generally consistent or better than metropolitan hospitals.

For non-urgent tests, NSWP's compliance *with Australian Council on Healthcare Standard Guidelines* for turnaround times in rural and regional labs is approximately six per cent lower than metropolitan hospitals. This is due to the travel times in transporting non-urgent tests to a hub or specialised laboratory.

NSWP has designed its referral pathways for non-urgent and specialised testing to be consistent with the referral pathways for patient transfers wherever possible, thereby supporting continuity of patient care.

9. Indigenous and culturally and linguistically diverse (CALD) communities in rural, regional and remote NSW

NSW Health is committed to supporting CALD communities to access culturally safe and appropriate care, as close to home as possible. Aboriginal people and CALD communities experience additional barriers to accessing health care, particularly in rural areas.

NSW Health supports Aboriginal Community Controlled Health Services (ACCHS) to provide culturally safe and holistic care for Aboriginal people, including in rural areas. Other services such as phone and video interpreter services and increasing funding for specialised refugee health services in rural, regional and remote NSW also support the diverse needs of the CALD communities.

Commitment to Aboriginal people

NSW Health is committed to closing the gap in health outcomes for all Aboriginal people throughout NSW and continues to support health service reform through the *NSW Aboriginal Health Plan 2013-2023*.

The *Aboriginal Health Plan*, developed in partnership with the Aboriginal Health and Medical Research Council of NSW, sets the vision and strategic directions for health services in NSW to achieve health equity and deliver culturally respectful and responsive services which better meet the needs of Aboriginal people.

NSW Health supports ACCHS to provide culturally safe and holistic care for Aboriginal people. In 2020-21, direct funding of $28 million was provided to 41 organisations, an increase of $8.8 million since 2014-15.

The Aboriginal health workforce contributes to cultural safety across the health system and is fundamental to Aboriginal patients achieving improved health and wellbeing outcomes.

Health outcomes for Aboriginal people

Across a range of key health indicators, Aboriginal people in rural, regional and remote NSW tend to have worse outcomes than their metropolitan counterparts.

- In 2016, **all-cause mortality rates** were similar for Aboriginal and non-Aboriginal people in major cities and inner regional areas in NSW. However, rates were higher among Aboriginal than non-Aboriginal people in outer regional, remote and very remote areas. There was a pattern of increasing death rates with increasing remoteness for both Aboriginal and non-Aboriginal people, but this was more pronounced for Aboriginal people.
- In 2016-17, **stroke hospitalisations** were higher among Aboriginal people compared with non-Aboriginal people in NSW across all remoteness areas. Rates were higher in rural and remote areas compared with major cities for both Aboriginal and non-Aboriginal people.
- The percentage of **babies with low birth weight** is higher among Aboriginal people compared with non-Aboriginal babies across all remoteness areas, but this gap is closing over time.
- The gap in **infant mortality rates** between Aboriginal and non-Aboriginal babies has declined in NSW, and since 2008, rates for Aboriginal babies have only been slightly higher compared with non-Aboriginal babies.

- The gap in **suicide rates** between Aboriginal and non-Aboriginal people in NSW is increasing. In the period of 2015-19, suicides rates among Aboriginal people were almost twice as high as for non-Aboriginal people in NSW.
- In 2018-19, **self-harm hospitalisation rates** among Aboriginal people were three times those of non-Aboriginal people.
- Aboriginal people in inner regional, outer regional, remote and very remote areas had lower rates of **vaccine preventable disease** than those living in major cities. However, rates were higher among Aboriginal people living in rural and remote areas than non-Aboriginal people living in rural and remote areas.

Strengthening cultural safety across the health system

Enabling a more culturally safe and inclusive organisational culture across NSW Health, which is free of racism, discrimination and bias is essential to improving health and wellbeing outcomes for all Aboriginal people using public health services. NSW Health is leading high-level strategic reforms to achieve this objective.

Examples of progress include the recent release of the *Aboriginal Cultural Engagement Self-Assessment (Audit) Tool* to improve Aboriginal health outcomes. This embeds elements of culturally safe and inclusive organisational culture across NSW Health. The engagement tool supports accreditation of facilities across NSW Health organisations and embeds cultural safety within existing reporting mechanisms across LHDs and Networks.

Supporting culturally and linguistically diverse communities

NSW Health and Multicultural NSW work together to address service gaps for CALD communities through the *Multicultural Policies and Services Program*. The *NSW Plan for Healthy Culturally and Linguistically Diverse Communities* aims to improve systems and services to achieve better health outcomes for NSW residents from CALD backgrounds, including those in rural, regional and remote areas. This plan is complemented by the *NSW Refugee Health Plan* that sets out NSW Health's commitment to the health of people from refugee backgrounds.

There is a diversity of people from CALD backgrounds who live in rural, regional and remote NSW. This may include citizens and permanent residents, overseas students, skilled migrants who speak English well, dependents of skilled migrants often with lower English proficiency, refugees with varying levels of English proficiency, and temporary residents with limited English proficiency.

NSW Health understands the challenges people from CALD backgrounds in rural, regional and remote NSW may face in accessing health services, including dispersed services and limited availability of public transport. Some people from CALD backgrounds may not have access to a driver's licence or private vehicle and find it more difficult to navigate public transport with limited English proficiency. Another challenge can be the small size of some CALD populations, which sometimes makes it unfeasible to sustain local language specific programs and services.

Patients, their families and carers who do not speak English as a first language or who are hearing-impaired have the right to free, confidential and professional interpreters when they use public health services. To meet these communication needs, NSW Health Care Interpreting Services provides access to professional interpreting services onsite, by telephone and video call in more than 120 languages, including Auslan.

Examples of local initiatives to improve access to services include:

- Hunter New England LHD, which has increased the use of **phone and video interpreting services** to meet COVID-19 physical distancing requirements and

minimise the risks of community transmission. In June 2020, the proportion of phone interpreting in the LHD reached almost 90 per cent, increasing from approximately 40 per cent in June 2019. Video interpreting also increased from less than one per cent in 2019 to seven per cent in 2020.

- The ***Drug and Alcohol Service Cultural Responsiveness Project*** in Illawarra Shoalhaven LHD aims to improve access and health outcomes for people from CALD backgrounds in rural, regional and remote areas. The LHD's Multicultural Health Service has worked with a range of partners to develop promotional videos and professional training on cultural responsiveness in healthcare and effective use of interpreters. 85 per cent of Drug and Alcohol Service personnel across the LHD have participated in the training.

Multicultural NSW

Multicultural NSW is the lead agency for implementing the policy and legislative framework to support multicultural principles in NSW.

Multicultural NSW works across the NSW Government to provide interpreting and translation services for citizens of CALD communities to access government services. The use of appropriately qualified interpreters and translators ensures that citizens across NSW can expect equitable access to government services.

Multicultural NSW maintains a network of Regional Advisory Councils across NSW. These government and non-government stakeholders raise issues including those relating to health outcomes for people in regional NSW. These issues are then escalated to the relevant areas of the NSW Government. Examples of issues raised include access to interpreting services for allied health services, such as speech therapy and physiotherapy in regional areas.

Multicultural NSW is also aware that transport between metropolitan and regional areas, particularly for specialist services, is often complicated and expensive. These factors are further compounded for newly arrived persons in regional areas. The NSW Government has some schemes, such as Gold Opal cards and the *Driver Licencing Access Program* for eligible refugees and asylum seekers, to mitigate the transport costs for refugees/asylum seekers and other new arrivals.

People from refugee backgrounds in rural and regional locations

In rural NSW, key centres for refugee settlement include Coffs Harbour, Newcastle, Wollongong, Armidale, Wagga Wagga and Albury. NSW Health is responding to increased resettlement in these areas by increasing funding for specialised refugee health services in rural, regional and remote NSW from approximately $300,000 in 2015-16 to approximately $1.9 million in 2020-21.

LHDs in rural and regional areas operate refugee health programs, services and clinics. Specifically, on-arrival health screening, assessment and support programs are offered. This includes a free comprehensive medical assessment, investigations, follow-up treatment, immunisations, oral health education, hearing and optometry screening and referral.

An example of improving access and health outcomes for refugees has been the Mid North Coast LHD Refugee Health Assessment Clinic. During COVID-19, the Clinical Nurse Consultant liaised regularly with NGO and migrant organisations to ensure that correct information about COVID-19 was disseminated within CALD communities.

10. Performance of regional, rural and remote health services

The mechanisms and indicators in place to monitor rural, regional and remote service performance are described in Section 10.

Performance monitoring for safety and quality

All LHDs and Networks have an annually agreed Service Agreement, which outlines the number and broad mix of services which will be purchased and/or funded. It also includes volume and price of Activity Based Funding services, and/or block funding as appropriate for some services. Service agreements articulate which health strategies, targets and goals are to be pursued to achieve local and statewide initiatives, as well as what measures will be used to monitor performance at a state and national level. These are monitored in accordance with the *NSW Health Performance Framework*.

The *NSW Health Safety and Quality Program* provides guidance to all NSW Health organisations in metropolitan, rural, regional and remote NSW on the key components required to support the wide range of activities for continuous improvement in safety and quality.

Mechanisms which support the implementation of the framework include:

- Monthly reporting to the LHD/Network executive and the NSW Ministry of Health senior executive on the performance of each health service. Quarterly 'deep-dive' reports also occur on specific topic areas, for example mental health.
- Annual planning processes are used to identify and communicate progress on key objectives and priorities for the year.
- All metropolitan and rural LHDs, Networks and NSW Health services submit an annual safety and quality account.

To protect patients from harm and improve the quality of health services, hospitals, dental services and oral health clinics within hospitals are assessed against the *National Safety and Quality Health Service (NSQHS) Standards*, in accordance with the *Australian Health Services Safety and Quality Accreditation Scheme*.

Emergency department representations

In 2019-20, the results for the rate of unplanned ED representations were lower at sites in metropolitan LHDs, except for tertiary hospitals which were lower for rural, regional and remote LHDs.

Although they have higher rates of representations, most rural, regional and remote LHDs achieved a reduction in the rate of representations compared to 2018-19.

Emergency Treatment Performance (ETP)

The expectation for ETP is that 81 per cent of all patients presenting to a public hospital ED within four hours, will physically leave the ED for admission to hospital, be referred to another hospital for treatment, or be discharged. In 2019-20, all but two rural LHDs achieved an ETP above the state result.

A comparison of performance between metropolitan and rural, regional, remote facilities is at Table 6.

Table 6: Emergency treatment performance

ETP performance 2019-20 (average across all hospitals)	
Metropolitan	69.1%
Rural/ regional/ remote	74.2%

Triage performance[27]

Over the past six financial years, metropolitan and rural, regional and remote LHDs have achieved a **triage category 1 performance of 100 per cent.**

Triage category 2 performance for rural, regional and remote tertiary sites has been better than metropolitan tertiary sites for the past six financial years. In 2019-20, all rural, regional and remote LHDs except one achieved a triage 2 performance that was above the statewide result.

For **triage category 3** performance, only three rural or regional LHDs performed below the statewide result.

In 2019-20, most rural, regional and remote LHDs achieved a **triage category 4** result above the statewide result.

While metropolitan **triage category 5** results were higher than rural, regional and remote facilities in 2019-20, most rural, regional and remote results improved compared to the previous financial year.

Table 7: Triage performance

Triage performance by location						
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
Triage category 1 – Immediately life threatening						
Metropolitan	100%	100%	100%	100%	100%	100%
Rural/ regional/ remote	100%	100%	100%	100%	100%	100%
Triage category 2 – Imminently life threatening						
Metropolitan	80%	79%	78%	79%	76%	78%
Rural/ regional/ remote	85%	85%	85%	84%	82%	82%
Triage category 3 – Potentially life threatening						
Metropolitan	74%	75%	75%	75%	73%	76%
Rural/ regional/ remote	77%	76%	78%	77%	75%	76%
Triage category 4 – Potentially serious						
Metropolitan	80%	80%	80%	79%	78%	81%
Rural/ regional/ remote	81%	81%	82%	81%	80%	80%

[27] Most NSW public hospitals use a triage scale for patients presenting to emergency.

- Triage category 1 – Treat immediately or within two minutes; immediately life-threatening condition
- Triage category 2 – Treat within 10 minutes; imminently life-threatening condition.
- Triage category 3 – Treat within 30 minutes; potentially life-threatening condition
- Triage category 4 – Treat within 1 hour; potentially serious condition
- Triage category 5 – Treat within 2 hours; less urgent condition.

Triage category 5 – Less urgent						
Metropolitan	94%	94%	94%	94%	93%	96%
Rural/ regional/ remote	94%	94%	95%	94%	94%	94%

Elective Surgery Access Performance (ESAP)

NSW has consistently been the top performing Australian jurisdiction ESAP. Performance was comparable across metropolitan and rural, regional and remote hospitals across all surgery categories.[28] (Table 8).

Table 8: Elective surgery access performance

Elective surgery access performance by category and location						
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
Clinical urgency category 1 – Urgent (admission within 30 Days)						
Metropolitan	100%	100%	100%	100%	100%	100%
Rural/ regional/ remote	100%	100%	100%	100%	100%	100%
Clinical urgency category 2 – Semi-urgent (admission within 90 days)						
Metropolitan	96%	93%	96%	96%	96%	92%
Rural/ regional/ remote	97%	98%	98%	98%	97%	92%
Clinical urgency category 3 – Non-urgent (admission within 365 Days)						
Metropolitan	95%	92%	93%	94%	94%	90%
Rural/ regional/ remote	95%	96%	97%	96%	95%	90%

Elective surgery activity and performance in 2019-20 and into 2020-21 has been heavily impacted by the COVID-19 pandemic. This was particularly due to national measures undertaken, which resulted in the cessation of all non-urgent and most semi-urgent elective surgery from late March 2020. While activity has now returned to usual levels, the impacts on performance will continue to be seen for some time as hospitals work to admit those patients who had their procedure deferred due to the pandemic.

Quality of Care: mortality following admission and readmission

Most hospitals in rural LHDs had risk adjusted mortality rates following hospitalisation that were lower or within expected ranges for seven clinical conditions[29] from July 2015 to June 2018. Most hospitals in rural LHDs had risk adjusted rates of readmission, and returns

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[28] ESAP refers to the proportion of patients who are admitted for their elective surgery within clinically recommended timeframes. Patients requiring elective surgery are assigned a clinical priority category by their treating clinician. There are three categories which are nationally recognised:

- Category 1 – Urgent – requiring surgery within 30 days
- Category 2 – Semi-urgent – requiring surgery within 90 days
- Category 3 – Non-urgent – requiring surgery within 365 days.

All NSW public health services have targets associated with these clinically categories:

- Category 1 target = 100 per cent admitted within clinically recommended timeframe
- Category 2 target = 97 per cent admitted within clinically recommended timeframe
- Category 3 target = 97 per cent admitted within clinically recommended timeframe.

[29] Heart attack, ischaemic stroke, haemorrhagic stroke, congestive heart failure, pneumonia, chronic obstructive pulmonary disease and hip fracture surgery.

to acute care following hospitalisation for eight clinical conditions[30] that were lower or within the expected range from July 2015 to June 2018.

Hospital acquired complications (HAC)

HAC rates[31] for rural LHDs over the 1 January 2015 to 30 June 2020 period were **lower across all HAC types** than metropolitan LHDs, as seen in the table below (Table 9). Direct comparison between rural and overall NSW rates are problematic as NSW rates will be weighted towards metropolitan LHDs due to greater number of separations.

Table 9: Hospital acquired complications

Rates per 1,000 separations (1 January 2015 – 30 June 2020)			
	Rural	**Metro**	**NSW**
Episodes with one or more HACs	19.02	25.42	23.25
01. Pressure injury	0.69	0.79	0.75
02. Falls	0.41	0.51	0.48
03. Healthcare associated infections	8.40	11.95	10.18
06. Respiratory complications	1.98	3.00	2.66
07. VTE	0.51	0.74	0.66
08. Renal failure	0.07	0.20	0.16
09. GI bleed	0.88	1.23	1.11
10. Medication complications	2.32	3.71	3.24
11. Delirium	3.57	4.77	4.37
12. Persistent incontinence	0.33	0.56	0.48
13. Malnutrition	0.36	0.90	0.71
14. Cardiac complications	3.74	4.54	4.27
15. 3rd/4th degree perineal laceration	34.04	37.08	36.21
16. Neonatal birth trauma	8.09	9.87	9.36

Incident reporting – Severity Assessment Code (SAC)/Harm Score 1

During 2015-19, rural LHDs reported approximately a third of all SAC/Harm Score 1 incidents[32] to the NSW Ministry of Health.

The table below provides a breakdown of SAC/Harm Score 1 incidents reported by rural LHDs and the corresponding NSW total for each reporting period (Table 10).[33]

[30] Acute myocardial infarction (AMI), ischaemic stroke, congestive heart failure (CHF), pneumonia, chronic obstructive pulmonary disease (COPD), hip fracture surgery, total hip replacement total knee replacement.

[31] The HAC rate data was extracted from the QIDs system using HAC v2.0 definitions. The period extract was from 1 January 2015 to 30 June 2020.

[32] The Rural LHDs included are Far West, Hunter New England, Mid North Coast, Murrumbidgee, Northern NSW, Southern NSW, and Western NSW.

[33] SAC 1 data obtained from CEC Patient Safety Database (PSD), SAC2-4 obtained from IIMS/ IMS+ St Vincent's Health Network Riskman; Total SAC1 figures include Community Mental Health Services within the LHD.

Table 10: Incident reporting severity assessment

Actual SAC/HARM Score 1 Rating	2015		2016		2017		2018		2019	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Rural LHDs	70	74	83	71	77	85	81	96	79	88
% rural LHD	29%	31%	37%	27%	31%	37%	32%	34%	29%	31%
NSW total	238	238	224	261	248	232	255	279	272	283

In addition, the reporting of SAC/Harm Score 1 clinical incidents can also be viewed as a rate per 1,000 acute care bed days. The rate of SAC/Harm Score 1 incidents from 2015 to 2019 has remained stable (Table 11). The rural LHD average over this time was 0.02 SAC/Harm Score 1 incidents per 1,000 acute care bed days with the NSW average being 0.07. This demonstrates that NSW hospitals have a robust reporting culture and high reliability.

The table below provides an overview of SAC/Harm Score1 incidents per 1,000 acute care bed days for rural LHDs and NSW.

Table 11: SAC/Harm Score 1 clinical incidents[34]

SAC/HARM Score 1 incidents per 1,000 acute care bed days	2015		2016		2017		2018		2019	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Rural LHDs	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
NSW total	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**

Examples of safety and quality improvement activities for rural, regional and remote areas are provided in the **Appendix.**

[34] Acute bed day data has been provided to the CEC from the Health System Information and Performance Reporting Branch at NSW Health. The following exclusions have been applied for the reports:

1. Care type is 0 (Hospital Boarder).
2. Bed types are 25 (Hospital in Home - General), 66 (Delivery Suite), or 67 (Operating Theatre/Recovery).

(reference for bed types can be found in PD2012_054 Appendix 2).

11. Funding, planning and projection for the provision of rural, regional and remote health services

NSW Health uses a comprehensive and consultative service planning framework to ensure health services are developed based on population need, and in a way that delivers the best health outcomes. Section 11 provides information on service planning, projected activity and how services are funded to match their projected activity.

Service planning in NSW Health is based on the principle of providing safe and effective healthcare to meet the identified health needs of the community. Under the *Health Services Act 1997,* service planning in NSW Health is a devolved responsibility. This means it is managed by LHDs with a requirement to consult and plan jointly with the NSW Ministry of Health, and other appropriate organisations. Other health organisations typically include PHNs, local aged care and private health sector providers, and other NSW Health entities.

Planning starts with an assessment of the health needs of the local population and profile of existing services. The assessment will capture any needs specific to the local area which may be affected by the rural, regional or remote nature of the community. The service profile may include:

- primary care (GPs)
- hospital-based services by clinical stream
- clinical support
- community health
- population health
- non-clinical support
- services provided by other service providers.

NSW Health has several resources and planning tools to assist LHDs and Networks to plan their clinical services, including role delineation and activity projections.

Clinical Services Planning Analytics

The NSW Ministry of Health provides health service planners across the system with access to a secure online portal that houses a range of NSW Health endorsed planning tools, guidelines, methodologies, and key information sources to support evidence based and consistent health service planning. These include:

- the *NSW Health Guide to the Role Delineation of Clinical Services*
- data tools that provide a statewide view of historical service activity
- *Health Activity Projections Platform and Analytics* that enables planners to view and scenario model activity projections.

NSW Health Guide to the Role Delineation of Clinical Services

To support LHDs and Networks in their role as planners, and to promote consistent planning, the NSW Ministry of Health provides a range of service planning tools and guides, including the *NSW Health Guide to the Role Delineation of Clinical Services*. This is a web-based framework that describes the minimum support services, workforce and other requirements

for clinical services to be delivered safely, thereby providing a consistent language applicable to rural and metropolitan health services across NSW.

A major revision of the guide was undertaken in 2016, through a series of stakeholder workshops attended by rural and metropolitan clinicians and managers. The process was also informed by extensive consultation and commentary from LHDs, Networks, and health service providers.

Previously, the *Rural Companion Guide (2004)* also existed but stakeholders indicated the guides should be combined to improve utility. As a result, the requirements for rural health services are integrated into each service standard in the guide.

Role delineation recognises the constraints faced by rural health services in NSW, particularly with the recruitment of specialised health workforce. It includes networking between low and higher-level services for clinical advice, education and quality review, as well as on call and virtual care provisions to address these issues (see **Section 6: Networks Supporting Appropriate Care** for details). Formal networking arrangements should be documented and may include criteria for patient transfer and back transfer, clinical review requirements and processes for patient referral and transfer, defined communication pathways, and safety and quality indicators.

The guide applies to each clinical service provided, so that a hospital may have a range of role delineation levels across its services. Service levels range from 'No Planned Service' to Level 6, with increasing complexity. The interdependence of role delineation levels between clinical services underpins their safe delivery. As an example, a hospital offering Level 6 orthopaedic surgery also needs to provide Level 4 anaesthesia, operating suite, intensive care, nuclear medicine, radiology, pathology, and pharmacy services. NSWP are also working to align the planning framework for laboratory services to the guide, as well as a soon to be launched statewide test catalogue for consideration in the planning process.

Funding of activity in rural, regional and remote services

NSW Health has a range of approaches to purchasing services and activity to best suit the needs of the community. While the same overall purchasing methodology is used across rural and metropolitan health services, a range of adjusters and grants apply to ensure equity.

In 2018-19, rural and regional LHDs were allocated funded activity growth of 3.1 per cent, in line with the overall NSW allocation, which was also 3.1 per cent. While rural and regional LHDs typically have lower population growth than metropolitan LHDs, they have a higher proportion of older residents. This means that their need for health services is growing faster than their population, which is why their activity growth allocation is similar to the state average.

Activity projections

The NSW Ministry of Health also supports health service planning by providing activity projections based on previous trends in activity and adjusted for recent technological innovations and clinical practice changes.

In 2017, the NSW Ministry of Health commissioned a review to ensure methodologies are best practice and consistent with processes used across the NSW Health system. The review was guided by an expert advisory panel to validate the methodology. It confirmed that the methodology is in line with international best practice, including modelling trends in utilisation rates and applying these to population projections.

Activity projections also consider statewide and LHD level networking of services, the role of individual facilities within clinical networks, and the impact of service distribution on quality and safe health service provision for low volume or high complexity services. LHDs also

apply their detailed understanding of the local community to establish the best way to service those health needs.

When translating activity projections into a comprehensive service response, LHDs consider a range of service delivery options. It is primarily at this stage of the planning process that local context such as location, geography, distance to supporting services and the impact on access to services is applied in considering what services can be safely and effectively provided locally or through networking. This includes hospital based and non-hospital based services, community health, virtual care, and networking with other providers. Consideration of options and development of the comprehensive service response are also informed by NSW Health strategic directions, emerging technology and models of care, changing patient and community expectations, workforce considerations, support services, partnerships, other service enablers, and overall system efficiency.

Through this process, some areas where additional capital capacity is needed to support future service delivery may be identified. A thorough analysis of all potential service delivery options and factors is required to develop a balanced investment proposal for capital funding. The proposal will also be supported by assessment of the functionality and condition of the existing health infrastructure, alignment with policy, safety and quality standards, and consideration of opportunities for innovation and partnership. This process considers the best way to ensure access to quality and safe health services, which includes a combination of local provisions, networking and support across geographic areas. However, it should be acknowledged that a full range of services cannot be provided safely in every service location.

Capital expenditure in rural, regional and remote NSW

Investment in capital infrastructure is an important enabler for access to health care for people in rural NSW, and recurrent expenditure is essential to support the delivery of healthcare.

The NSW Government has invested in health infrastructure across rural NSW as a mechanism for improving access to quality health care. It integrates health and social services, creating local jobs and attracting health staff to the regions.

Relative to its population and activity growth, the rural and regional sector has received significant capital investment. Since 2011-12:

- about a third of the overall capital expenditure has been allocated to rural and regional NSW
- more than 60 per cent of the 130 capital works projects that have been completed across NSW were in rural and regional NSW.

2020-21 Budget Allocation

In the 2020-21 budget, the NSW Government allocated more than **$900 million** for health capital works in rural and regional communities throughout NSW. Of the 40 NSW hospital redevelopments or upgrades underway or commenced in 2019-20, more than 65 per cent are in rural and regional parts of NSW.

Major milestones achieved in 2019-20 on hospital and health facility capital works projects in rural and regional areas included eight hospital redevelopment projects:

1. Muswellbrook Hospital Redevelopment - Stage 2 ($20.08 million) – construction completed and facility operational (July 2019).
2. Lismore Base Hospital Redevelopment ($312.7 million) - Stage 3 – Northern Tower completed and fully operational (April 2020). Refurbishment works to the existing hospital are underway.

3. Inverell Hospital Redevelopment ($60 million) - Stage 1A – works completed and operational (May 2020). Stage 1B works underway.
4. Macksville Hospital Redevelopment ($73 million) – construction completed and facility operational (May 2020).
5. Mudgee Hospital Redevelopment ($70.7 million) – new facility construction completed and operational (May 2020). Demolition of redundant hospital buildings underway.
6. Bulli Hospital & Aged Care Centre of Excellence ($37.1 million) – construction completed (operational August 2020).
7. Manning Hospital Redevelopment – Stage 1 ($40 million) – completed (operational August 2020).

Rural and regional areas have benefited from specific programs including the *Multipurpose Services Strategy* and the *Rural Ambulance Infrastructure Reconfiguration* (RAIR) program.

- Eight ambulance stations, delivered as part of the $122 million Stage 1 RAIR Program (Birmingham Gardens, Bungendore, Cowra, Goulburn, Grenfell, Pottsville, Rutherford, Yass).
- Three MPS, delivered as part of the $297 million Stage 5 *Multipurpose Service Program* (Barham MPS, Cobar Health Service, Tumbarumba MPS).
- Three HealthOne facilities were delivered as part of the $100 million *HealthOne Strategy* to facilitate community health care in metropolitan and regional areas (Evans Head, Port Stephens Tomaree and Tibooburra).

Recurrent expenditure

The growth in expense per capita for metropolitan LHDs was 26.6 per cent compared to 35.6 per cent in rural and regional NSW LHDs.

Year-on-year budget growth incorporates population growth, consumer price index and other escalations (for example award increases on salaries and wages), and other specifically funded initiatives.

Despite the population growth rate of rural and regional LHDs (7.1 per cent) being less than half of metropolitan LHDs (15.2 per cent), growth in recurrent expenditure from 2011-12 to 2019-20 was almost the same for metropolitan LHDs (45.2 per cent) and rural and regional LHDs (45.9 per cent).

Similarly, although 25 per cent of the NSW population live in rural, regional or remote areas of NSW, in general, about a third of the overall capital expenditure is currently allocated to rural and regional NSW.

12. Rural, regional and remote health workforce challenges and opportunities

NSW Health's highly skilled and varied health workforce are essential to the delivery of world-class care in rural NSW. Section 12 discusses existing challenges with recruitment and retention of the health workforce in rural, regional and remote regions of NSW, and the innovative initiatives in place to address these challenges.

There has been significant investment in the rural health workforce, which has increased by 20.6 per cent between 2012 and 2020 (compared to an overall NSW Health increase of 15 per cent). However, distribution of workforce and workforce recruitment and retention are two key challenges impacting rural, regional and remote NSW.

There are fewer medical practitioners per 100,000 population in rural and remote areas than in the major cities.[35] There is evidence that having a rural background as well as training in a rural location are key factors in recruitment and retention of a rural medical workforce. Significant work is in progress to continue attracting and retaining high-quality clinicians, as well as ensuring a pipeline of new professionals into the future.

Medical workforce

The number of medical practitioners working in NSW public hospitals in rural and regional NSW increased by 1,438, or 43 per cent, between 2012 and 2020 to 4,773 FTE.

However, over the last three years there has been a decrease in the number of GP trainees in the rural pathway. GP trainees are appointed to rural hospitals as GP Visiting Medical Officers. Therefore, the decrease in trainees has reduced the availability of GP trainees to provide services in rural hospitals. It has also resulted in some GPs withdrawing from their hospital appointments to cover the loss of a GP trainee in their practice.

Services such as the *Remote Medical Consultation Service* in Murrumbidgee LHD and the *Virtual Rural Generalist Service* in Western NSW LHD support emergency consultation and acute medical care through virtual care consultation provided by a remote Medical Officer. The service does not replace onsite doctors but is used as a safe alternative when one is not available locally.

Rural medical workforce recruitment and retention

There are many challenges in attracting medical workforce to rural and particularly remote areas. These include:

- high workload and hours worked due to a lack of critical mass of medical practitioners in rural areas to maintain a sustainable after hours and on call service
- an expectation that practitioners will have a wider scope of practice in rural and regional areas than when working in metropolitan locations
- limited supporting health care infrastructure, including diagnostic equipment and other advanced technologies and professional isolation for some rural areas compared to metropolitan areas can limit professional opportunities
- less availability of career opportunities for partners and spouses.

[35] Australian Institute of Health and Welfare, 'AIHW Health Workforce - Rural and Remote Areas', July 2020, available at: 'https://www.aihw.gov.au/reports/australias-health/health-workforce', Figure 2.

There are also many advantages for medical practitioners working in these areas. NSW Health has highlighted these advantages for medical students, junior doctors and more generally through the following programs:

- ***JMO Recruitment Campaign*** – promoting rural and regional opportunities.
- ***Map My Health Career*** – a career planning website for medical and allied health professionals that features interviews with rural practitioners about their work, career, and experiences to encourage others to have rural careers.
- Funding of $1.6 million annually and collaboration with the ***NSW Rural Doctors Network*** – to support rural practitioners to maintain currency of practice, support recruitment to rural areas, assist medical students to undertake rural placements, and run the *GP Orientation* program for international medical graduates.

A range of Australian Government programs also support distribution of the medical workforce.

Rural medical workforce training

NSW has responsibility for providing public health services and employing specialist and non-specialist medical practitioners to deliver services.

The Commonwealth has responsibility for funding and distribution of Commonwealth Supported Places for medical graduates. The Commonwealth also has responsibility for funding of GP training. However, most of the medical postgraduate training (excluding GPs) occurs in public health facilities and is funded by the public health system. The NSW Government has invested in several initiatives to support training in rural locations.

- The NSW ***Rural Medical Officer Cadetship Program*** – up to 16 scholarships are funded each year, two of which are offered to Aboriginal students. In return, students must work two of their first three postgraduate years in a rural hospital.
- The ***Rural Preferential Recruitment Program*** – supports junior doctors working their first two years in a rural location. In 2020, 145 interns were recruited to rural positions, an increase from 75 in 2012.
- ***Training Networks*** – metropolitan and rural hospitals are linked through training networks for intern and specialty medical training in emergency medicine, medical administration, physician training, psychiatry, paediatrics, and radiology. This supports trainees rotating to rural hospitals and experiencing working and living in a rural environment.
- The ***Rural Generalist Training Program*** – trains GPs with advanced skills to deliver services such as anaesthetics, obstetrics, mental health, palliative care, emergency medicine, and paediatrics to rural communities. The program started in 2013 and has grown to 50 training positions across rural NSW in 2020.
- ***NSW Rural General Practice Procedural Training*** **Program** – provides 15 FTE positions each year for rural GPs to acquire additional procedural skills in a range of specialties.
- ***Metropolitan Access Scholarship Scheme*** – supports rural based junior doctors undertaking metropolitan rotations. Since 2016, 85 scholarships have been awarded.

A range of Australian Government programs also support rural training and experience.

Nursing and midwifery workforce

Between 2012 and 2020, the number of nurses and midwives employed in rural and regional locations increased by 3,315 (or 17.9 per cent) to 21,848 FTE.

A range of scholarship opportunities were available during 2019-20:

- more than 700 scholarships were awarded to NSW Health nurses and midwives to support their postgraduate education across a broad range of specialties, with more than a quarter of these awarded to nurses and midwives in rural areas
- 37 scholarships were awarded to rural undergraduate nursing and midwifery students.

More than 600 clinical placement grants were awarded to NSW nursing and midwifery students to support placements undertaken at locations more than 150 kilometres from home.

NSW Health, through the Nursing and Midwifery Office, is funding a pilot *Transition to Rural and Remote Nursing* program, supporting supernumerary time for graduate nurses in small rural sites. Four graduate nurses will commence this program in 2021. The aim is to support nursing workforce sustainability in these small sites.

Allied health workforce

NSW Health recognises 23 different professions under the collective banner of allied health. These professions are heterogeneous with unique scopes of practice and are essential to providing integrated care. Although there may be some overlap with the clinical care each profession provides, the different allied health professions cannot be replaced.

Between 2012 and 2020, the allied health workforce in rural areas increased by 1,146 FTE or 29 per cent to 5,061 FTE. However, the allied health workforce is unevenly distributed and harder to maintain in rural areas. Key challenges affecting rural allied health workforce include:

- recruitment and retention
- 23 allied health professions that require individual consideration for the mix and number of professionals required to make a sustainable workforce model for each location
- access to professional development
- inconsistent workforce profiles including the absence of the smaller professions in rural LHDs or allied health professionals being employed as a sole practitioner for the whole LHD.

Strategies and initiatives to address rural allied health workforce challenges

NSW Health has conducted and commissioned research to better understand the factors that influence recruitment and retention of allied health professionals in rural, regional and remote NSW. In consultation with key partners and stakeholders, including LHDs and Indigenous Allied Health Australia, workforce planning projects are underway for 14 allied health professions.

Providing staff access supported professional development is a key workforce retention strategy. NSW Health has supported these following targeted programs:

- ***NSW Rural Allied Health Postgraduate Scholarships*** – provides scholarships of up to $10,000 for clinicians in rural health services to assist with postgraduate study expenses. Since 2011, 288 scholarships have been granted.
- ***Workplace Learning Grants*** – provides financial support to groups of allied health professionals and/or allied health assistants to develop their knowledge and skills. Rural LHDs are prioritised with allocation of grants.

Evidence shows that one of the most successful strategies for recruiting and retaining staff in rural locations is to develop a rural pipeline of talent. This involves recruiting students from rural backgrounds, delivering regional training, exposure during training to rural curriculum and placements, and building regional postgraduate training. NSW Health has funded the following scholarships and grants managed by the NSW Health Education and Training Institute to support the rural Allied Health pipeline:

- ***NSW Rural Allied Health Clinical Placement Grants*** – provides grants of up to $750 (or $1,000 for Broken Hill) to subsidise travel and accommodation costs associated with rural clinical placements.
- ***NSW Rural Allied Health Undergraduate* scholarships** – provides scholarships of up to $9,000 for students from rural backgrounds undertaking undergraduate studies in allied health leading.
- ***Rural Allied Health Locum Program*** – provides locum coverage to sole allied health practitioners so they can access professional development and leave, which is essential for staff wellbeing, without compromising patient care.
- ***Drought psychology positions*** – six new Senior Clinical Psychologist positions across drought affected areas as part of 2019 election commitment funding.
- ***Palliative Care Allied Health enhancements*** – 18 palliative care allied health positions (one per LHD/ Network) were funded in November 2018. These are permanent positions to address recruitment challenges in the rural LHDs for temporary contracts.

Aboriginal workforce

There is a need to increase the representation of Aboriginal staff in NSW Health to improve the delivery of respectful, responsive and culturally sensitive services to Aboriginal people living in NSW.

As at June 2017, Aboriginal employment in NSW Health was 2.5 per cent (3,103 employees) and included 93 doctors, 793 nurses and 376 Aboriginal health workers (including seven Aboriginal health practitioners).

NSW Health is committed to growing the Aboriginal workforce across all health services, including rural and regional NSW.

Strategies to support Aboriginal workforce development and growth

- ***Good Health – Great Jobs Aboriginal Workforce Strategic Framework*** – underpins all strategies and actions to grow the Aboriginal workforce to a minimum of 2.6 per cent or towards parity with the local community rate in regions where the Aboriginal population is more than 2.6 per cent (up until 2019-20) and three per cent (from 2020-21).
- The NSW Health *Aboriginal Nursing and Midwifery Strategy* – supports Aboriginal nursing and midwifery students through cadetship and scholarship programs, aiming to increase this workforce across NSW.

- In 2020, 74 students received undergraduate scholarships and 12 nurses and midwives were postgraduate scholarship recipients for 2020, across both metropolitan and rural environments.
- 92 students were enrolled in the *Cadetship Program*, with 48 of these cadets located in rural and remote areas.

- ***Aboriginal Allied Health Cadetships*** – aims to increase the number of Aboriginal people working in the allied health professions across NSW.
- ***Aboriginal Medical Pathways Program*** – facilitates Aboriginal doctors into rural areas by allocating Aboriginal and/or Torres Strait Islander medical graduates to prevocational training positions in NSW. In the 2020 clinical year, 11 Aboriginal applicants accepted positions, and 33 Aboriginal applicants accepted positions for the 2021 clinical year.
- ***Respecting the Difference: Aboriginal Cultural Training Framework*** – rolled out in 2011 and mandated staff training to support the development of cultural safety and highlights local community and service needs.

NSW Health Pathology (NSWP) workforce

NSWP is faced with the challenge of an ageing workforce and a shortage of pathologists and medical scientific workforce in Australia, particularly in rural and regional areas. In smaller rural laboratories, the requirement for trained, multi-skilled staff (or training across specialties within laboratories) creates additional challenges.

NSWP's *Clinical Services Plan* outlines how it will ensure its staff have the necessary skills and knowledge to adapt to changes in technology and medical science to ensure a sustainable public pathology service into the future.

NSWP is also exploring options to maintain operations in rural, regional and remote NSW through better recognition of the unique requirements and capabilities of the staff working in these laboratories.

Other NSW workforce development initiatives

- The 2016 NSW Health Education and Training Institute ***Rural Generalist Nurse* program** – in 2020, participants completed 854 modules with the highest completion in aged and palliative care modules.
- ***Rural Postgraduate Midwifery Student Scholarships*** – 101 scholarships have been provided to small rural maternity units since 2011 (approximately 10 per year) to support rural LHDs 'grow their own' midwifery workforce and improve viability and sustainability of maternity services in these communities.

Establishment of a ***Rural Health Network*** by the ACI, which aims to improve healthcare in rural health service providers and consumers.

- ***Mentoring program*** – collaboration with Western NSW LHD and the Rural Doctors Network to develop a suite of mentoring resources and tools to be hosted on the Rural Health Professionals website, which aims to address professional isolation.
- ***Secondments programs*** – which aim to increase the exposure of metropolitan based health professionals to rural areas, and upskill rural health professionals to succession plans for key clinical and leadership roles.

Local partnerships are vital to create sustainable rural services

Lower population numbers in rural areas may not support viable service models in the private and not for profit sector. Therefore, partnerships are a key enabler of the sustainable

delivery of rural health in NSW. In rural settings, partnerships ensure effective and sustainable service delivery, access to a greater range of services, promote harmonisation, and avoids duplication in effort and resource allocation.

Partnerships in rural areas have been effective at enhancing health service re-design and quality improvement, developing and sustaining the health workforce, promoting research and innovation, and ensuring the delivery of ongoing patient care. Examples of effective partnerships in rural settings include:

- ***Primary Health Care Schools Based Registered Nurse Program*** – co-designed in 2017 by Far West LHD and the Broken Hill University Department of Rural Health. It introduced school based primary health care nurses in Broken Hill and addresses unmet community needs. Evidence suggests this model is effective at addressing health inequities and disadvantages experienced by school aged children. The nurses undertake health promotion, care navigation and population needs screening to inform care delivery. More than 500 children are engaged in the service and the model is being maintained through a primary health care nursing workforce. The model will be expanded to the Dareton community in 2020.
- The ***Joint Medical Program*** – delivered jointly by the University of Newcastle and University of New England, and supported by Hunter New England LHD and the Central Coast LHD, has graduated more than half of Australia's Aboriginal and Torres Strait Islander doctors (more than 95 doctors) since 1985.
- The ***Allied Health in Outback Schools Program*** – delivered by Far West LHD in collaboration with Broken Hill University Department of Rural Health, aligns senior allied health student placements to provide speech pathology, occupational therapy and social work services to primary and secondary school students in Broken Hill and Menindee, under the supervision of allied health academics.
- The **Police Ambulance and Clinical Early Response** program, now being implemented in two regional police districts.

13. Ambulance services in rural, regional and remote NSW

NSW Ambulance (NSWA) provides an essential emergency health service to the people of NSW and is an integral part of the health system in NSW. Section 13 outlines how NSWA works in collaboration with the rest of the health system to provide the right care to patients, at the right time, in the right place, by the right provider.

Due to geographical isolation, rural areas have unique challenges in delivering emergency ambulance care, which require specialist responses. Investment in workforce, aeromedical coverage and innovative models of care have supported NSWA in delivering effective emergency care to rural NSW. NSWA is committed to improving health outcomes and ensuring access to quality out of hospital care for those living in rural and regional areas.

Paramedic workforce

The NSW Government has invested in additional paramedics for rural and regional NSW as part of the *Statewide Workforce Enhancement Program* (SWEP), over four years from 2018-19.

As at 30 September 2020, regional NSW has received 332 additional paramedics across 42 locations. Workforce enhancements implemented to date have included:

- Year 1 (2018-19) – Bay and Basin, Berry, Wagga Wagga, Evans Head, Dapto, Bulli, Toronto, Belmont and Ettalong
- Year 2 (2019-20) – Sawtell (located at Coffs Harbour), Woolgoolga, Macksville, Nambucca Heads, Pottsville, Hamlyn Terrace, Bungendore, Dubbo, Albury, Mullumbimby, Bomaderry, Hamilton, Oak Flats, Rutherford, Bathurst, Orange, Queanbeyan, Byron Bay, Kingscliff, Murwillumbah, Point Clare, Wollongong, Birmingham Gardens, Batemans Bay, Bega and Moruya
- Year 3 (2020-21) – Casino, Tweed Heads, Bermagui, Griffith, Leeton, Narrandera and Doyalson.

The remainder of Year 3 and Year 4 planned enhancements for SWEP include an additional 71 paramedics across eight locations. At the conclusion of the program, regional paramedic enhancements will total 403 paramedics across 50 locations.

A dedicated Director of Regional Operations appointed in September 2020, will also strengthen the NSWA strategic operational focus for rural, regional and remote NSW.

Aeromedical coverage

Regional and remote areas are serviced by the NSWA emergency response network, which may include transport by road, helicopter or fixed wing aircraft.

NSWA Aeromedical Operations provides statewide critical care telehealth support and the coordination of the State Retrieval Network. The Retrieval Network provides out-of-hospital and inter-hospital critical care and transport to metropolitan, regional and remote NSW. There is close liaison with counterparts in adjacent states and territories, facilitating cross-border responses when necessary.

Aeromedical bases are located to support timely responses to rural NSW:

- six of the seven State Retrieval Network medical helicopter bases in NSW are located outside of Sydney (Lismore, Tamworth, Belmont, Orange, Wollongong and Canberra)

- two of the three State Retrieval Network fixed wing Air Ambulance bases are located outside of Sydney (Dubbo and Broken Hill).

From 2023, the new Air Ambulance fleet will include options for jet transport, which enables faster access for specialist aeromedical teams of doctors, nurses and paramedics to stabilise and transport patients in rural and remote areas of NSW. The specialist aeromedical fleet and its staff support more equitable access to emerging clinical technologies and time-urgent treatments for increasing numbers of rural and remote patients.

New ambulance stations

As mentioned in Section 11, the NSW Government is investing $122 million in improving 24 ambulance stations across rural and regional NSW as part of the RAIR program. This is the biggest transformational program of rural and regional infrastructure in NSWA's history. Investment in purpose-built and modern ambulance stations is designed to support the clinical capability of paramedics and enhance services.

Rural and regional communities that have already benefited from new or upgraded stations are Ardlethan, Bathurst, Bay & Basin, Berry, Birmingham Gardens, Bungendore, Coolamon, Cowra, Goulburn, Grenfell, Griffith, Hamlyn Terrace, Harden, Kiama, Molong, Pottsville, Rutherford, Toukley, Wagga Wagga, Wauchope and Yass.

NSWA annually reviews priorities across the state to determine the current and future provision of ambulance services. Multiple factors inform prioritisation, including the number of emergency cases within a region, current emergency response times, travel times due to the distance from the nearest LHD facility, and support services such as a local *NSW Fire and Rescue Community First Responder* program.

In 2020-2021 an additional $100 million was allocated to commence RAIR Stage 2.

Communication

NSWA has increased critical communication coverage through both radio and mobile phone communications. This improves the safety of paramedics and their ability to request additional clinical assistance when required.

In 2019-20, NSWA completed a digital upgrade and expansion of the mission-critical radio communications network to the far west of NSW to improve coverage.

Fleet

Rural areas can have greater challenges associated with road conditions and road access compared to metropolitan areas. NSWA provides 66 four-wheel-drive specialty vehicles to regional and remote communities to ensure patients receive clinical care, regardless of road conditions. NSWA is working on further improvements to these speciality vehicles in the next year.

NSWA has invested significantly in its fleet in regional and remote communities. This has been funded from both SWEP and the COVID-19 response. Since 2018-19 and at the end of 2020, regional and remote communities received:

- 92 additional ambulances
- the upgrade of five ambulances to a specialist ambulance with upgraded life-saving defibrillators and laryngoscopes.

NSWA vehicles are allocated to stations based on a fleet allocation formula that ensures fair and equal distribution to ambulance stations.

Models of care

NSWA is implementing the following innovative models of care to deliver enhanced care to rural areas:

- ***Emergency Services Public Access Defibrillation Program*** – uses trained first responders in the community to respond to out-of-hospital cardiac arrests and hasten access to cardiopulmonary resuscitation and defibrillation, both of which significantly increase the chances of a person's survival. This program was expected to roll out across NSW in 2020, including in areas where there are greater distances for NSWA paramedics to travel for time-critical intervention. The State Emergency Service and the Volunteer Rescue Agency have confirmed their readiness to participate in the program, while other emergency service organisations are still working towards approval. NSW Ambulance is coordinating with these agencies.
- ***ST-elevation myocardial infarction*** – NSWA paramedics are world leaders in delivering early cardiac reperfusion to patients presenting with acute ST-elevation myocardial infarction, regardless of where they are across NSW. *Pre-Hospital Thrombolysis* is the model of out-of-hospital cardiac reperfusion for rural, regional and remote locations. Depending on the location of the patient and the response to treatment, the crew will transport to a cardiac hub or local hospital.
- ***Alternate Referral Destination*** – formalised referral pathways enabling paramedics to refer patients to a specific service or health care provider where appropriate, rather than transporting direct to the ED. NSWA continues to develop new collaborative Alternate Referral Destinations linked to integrated care initiatives in rural and regional areas. This supports residents able to receive care close to home. Examples of support include palliative care, falls and wound care.
- ***Paramedic Connect*** – a collaborative initiative between NSW Health, PHNs and NSWA that enables paramedics in low ambulance activity areas to provide community health services such as dressings, medications at home post discharge, treatment statistics, health promotion, and ED support. This enhances paramedic engagement with communities and increases access to health services in rural/remote areas.

Response times

The Service Agreement between NSW Health and NSWA sets out a median emergency response time target of within 10 minutes for the highest priority (Priority 1A) incident. NSWA achieved 100 per cent compliance to this target in 2018-19 and 2019-20, in both metropolitan and regional areas.

During 2019-20, total incident activity increased by 2.1 per cent in regional NSW compared with 2018-19. Priority 1A incidents had an improvement of 0.83 per cent in regional NSW, placing them in the 50th percentile response time (7.98 minutes) (Table 12). This achievement is irrespective of the significant challenges faced by NSWA associated with the bushfires and COVID-19 pandemic. The following table provides Priority 1A performance results for both metropolitan and regional operations for the past two financial years.

Table 12: Response times by region

	Priority 1A median response time	Change
Metropolitan 2018-19	7.22 minutes	+3.23%
Metropolitan 2019-20	7.45 minutes	
Regional 2018-19	8.05 minutes	-0.83%
Regional 2019-20	7.98 minutes	

14. Other related matters

Healthcare delivery is complex and multi-faceted. Section 14 addresses matters relevant to healthcare in rural NSW that have not been addressed in other sections.

Multipurpose Services (MPS)

MPS were presented to the Royal Commission into Aged Care (2019) as an example of a positive residential aged care model in NSW. MPS bring together health and aged care services under one management structure to provide a more flexible, cost-effective, and coordinated approach to service delivery.

The NSW Government has worked collaboratively with the Australian Government in the development of MPS. Informed by robust service planning and community support, NSW Health has provided more than $400 million in capital funding for the redevelopment of 63 facilities to increase access to local health care services.

The 63 MPS in NSW have facilities that provide sustainable health services in small rural communities to meet the needs of local communities. The MPS model provides opportunities to integrate a range of health and aged care services including acute care, subacute care (i.e. respite and palliative care), emergency, allied health, oral health, primary health, and community services. Alternative options include partnering with private and NGOs for some health and aged care services to further integrate and coordinate health services in small rural communities. Through co-location of complementary NSW and Australian Government funded services, MPS achieve economies of scale and increase the sustainability of rural health services.

The ACI has developed principles of care for *Living Well in Multipurpose Services* as a guide for rural LHDs to implement strategies which will improve the quality of life and homelike environment for residential aged care residents who call MPS. The guide was initially implemented as a collaboration with 25 MPS teams in 2017-18 and resulted in 350 small scale quality improvement strategies implemented across the MPS. The principles with the greatest reported benefits 12 months after the collaborative period were:

- *For Residents: Homelike Environment and Positive Dining Experience*, which improved by 11 percentage points on baseline. Changes included introducing communal condiments menu changes and environmental modifications (repurposing indoor areas and access to outside areas).
- *For Carers or Families: Positive Dining Experience and Informed and Involved,* which both improved by eight percentage points on baseline. Changes included introduction of multidisciplinary case conferencing with families, residents' meetings and social profiles for residents.

The toolkit and successful strategies have been adopted by the rural LHDs and are now available online for all NSW MPS teams and nationally, to assist in meeting the revised *National Safety and Quality Healthcare Guidelines NSQHS v2*.

Cross-border services: working towards seamless service delivery

Reasonable access to, and provision of, health services in cross-border regions continues to be a complex and challenging issue.

Six rural LHDs in NSW operate adjacent to a state border. Far West LHD uniquely shares borders with three states: South Australia, Victoria and Queensland. Challenges associated with cross-border services include interruptions in service delivery, lack of data sharing and workforce limitations.

The COVID-19 pandemic highlighted challenges associated with cross-border service delivery. Border restrictions caused community confusion, patient transfer and retrieval pressures, and workforce vacancies caused by NSW staff residing interstate.

Workforce on both sides of borders

Many LHDs have a border workforce that employ staff residing interstate. This is due to geographic proximity, but can also alleviate shortages and fill vacancies. For example:

- Broken Hill Hospital operates with a Fly-in-Fly-Out specialist workforce living in Sydney, Melbourne or Adelaide
- Murrumbidgee LHD has 230 front line workers who reside in Victoria and work in their 10 hospitals situated along the border.

Recent border closures and quarantining requirements due to COVID-19 have highlighted the associated challenges of cross border movement and the need to recognise the unique features of these communities.

Cross border service arrangements can provide greater access to higher complexity services, expand care networks and support natural patient flow to tertiary services. For example, critical patients such as neonatal intensive care patients, trauma and paediatrics are routinely retrieved and transferred from rural NSW to the Australian Capital Territory, Victoria, Queensland and South Australia.

The NSW Ministry of Health, in partnership with LHDs, navigates cross-jurisdictional arrangements including South Australia to Broken Hill Hospital, NSW patient flows to the Australian Capital Territory for elective surgery, critical care in Victoria, and patient flow patterns from NSW to Queensland.

Cross border service delivery is governed by formal and informal agreements that vary between jurisdictions. They are also a feature of cross border agreements for collaboration between NSW and Victoria, Queensland and the Australian Capital Territory, and is overseen by the NSW Cross-Border Commissioner. Negotiations for new formal cross border agreements should consider ways to reduce risk of fragmented care for cross border communities, including provisions for data sharing, measures to manage activity and funding variation, and ways to acknowledge service and retrieval capacity.

NSW has implemented innovative models of collaboration to improve access to health services for cross border residents. For example, Albury Wodonga Health is Australia's first cross border health service designed to provide seamless service delivery for residents in North-East Victoria and Southern NSW.

Moreover, some LHDs (such as Northern NSW LHD and Gold Coast Hospital, and Murrumbidgee LHD and Albury Hospital) have established cross border committees for local collaboration to improve continuity of care.

The *NSW Cross Border Commissioner* advocates on behalf of cross border communities and works with jurisdictions to raise issues and establish common understanding.

Community engagement

Rural health systems tend to serve smaller populations spread across distinct communities. These communities have a strong sense of identity, and community members are often highly engaged in health service delivery and governance of rural areas.

Across rural NSW, communities participate in local health councils, which provide leadership to ensure health services meet local health needs, as well as promote and enhance health in the community.

For example, Murrumbidgee LHD has 33 Local Health Advisory Committees affiliated with their local health service. The *Murrumbidgee LHD Community Engagement Framework* is founded on the principles of the International Association for Public Participation Spectrum on Engagement, which in turn is based on the premise that '*differing levels of participation are legitimate and depend on the goals, time frames, resources, and levels of concern in the decision to be made'*. The LHD, overseen by this board, works to adopt five levels of participation: inform, consult, involve, collaborate and empower. In addition, the framework sets out the '*promise to the public'* for each type of participation.

Notable community engagement strategies in rural NSW include health infrastructure partnerships with consumers in capital redevelopments, and engagement of consumers to co-design mental health models of care. Overall, the regions work to design services collaboratively in partnership with patients, carers, caregivers, and the wider community to deliver care that meets the needs, expectations and preferences of patients, families and carers. The work also focuses on the care for the whole person, considering their culture and educational background, social and economic circumstances, and support networks.

Every rural LHD is accredited as meeting the *National Safety and Quality Health Service Standard for Partnering with Consumers*. Due to the heterogeneous nature of rural communities, LHDs have bespoke ways to support community engagement.

Appendix – Safety and quality improvement initiatives in regional, rural and remote areas

Program / activity	Purpose and support for rural and regional health
Patient Safety Program	Rural and remoteness is a consideration in the Critical Response Unit's risk assessment when reviewing Therapeutic Goods Administration recall notices. Death Review database provides LHDs and Networks with a standardised best practice method of screening all inpatient deaths.
Mental Health Patient Safety Program (MHPSP)	*Mental Health Improvement Coach Program,* leading safety and quality improvement projects, support for mental health leadership with psychiatrists and registrars, and the Mental Health Local Leaders Forum.
Medication Safety and Quality (MSQ) program – supports the safe and quality use of medicines by identifying and addressing emerging medication safety risks	***Continuity of Medication Management*** program – the CEC provided support in the development of the *Rural Medicines Formulary* to ensure safe and appropriate access to medicines in rural facilities. The CEC ***Venous Thromboembolism (VTE) Program*** – assists health care facilities and clinical teams to implement robust processes for the prevention of hospital associated VTE. This initiative has program leads across most LHDs and Networks, including several rural and regional areas, and has rural representation on the VTE Prevention Program Expert Advisory Group.
Clinical Redesign	There has been a long history of rural staff involvement in the ACI course for Clinical Redesign. Since 2016, there have been 200 graduates from rural areas. Each rural LHD has one to two redesign managers, who are supported by the ACI to build 'internal consultancy' skills.
Living Well in Multipurpose Services (MPS)	Eight principles of care were developed and implemented across 63 NSW MPS in 2017 and 2018 to improve the quality of life and homelike environment for residents who live in residential aged care sections of MPS, not as patients in hospitals, but as people in their homes.
The Anaesthesia and Perioperative Care Network and Surgical Services Taskforce	The taskforce supports service planning activities and development of care models suitable to rural and regional hospitals, with onsite participation in Hunter New England, Southern NSW and Murrumbidgee LHDs in 2019.
Pain management webinars	The ACI works with PHNs (Far West and Coordinare) and the University of Sydney to provide remote education webinars in pain management for health professionals. These programs have been applied locally in the southern NSW region, particularly in Bega and Broken Hill.
Patient Flow Portal (PFP)	Hunter New England LHD use PFP and Electronic Patient Journey Board for Diet ordering and allied health referral management. Illawarra Shoalhaven LHD Wollongong Hospital implement targeted programs to use PFP for care co-ordination and improving patient length of stay.

	Southern NSW LHD and Murrumbidgee LHD also initiate PFP access for ACT Health to manage inter-hospital transfers between states.
Rostering best practice	Some examples of rostering best practice undertaken by rural LHDs are: • *Gosford and Wyong Hospital EDs – Comparative Review of Staffing (2018)* – provided preliminary information regarding ED workforces and staffing practices at Gosford and Wyong hospitals • The NSW Ministry of Health is conducting a Wollongong Hospital ED comparative review to identify staffing practices and worked patterns to reduce overtime, agency and causal utilisation • Southern NSW LHD *Medical Imaging High Level Diagnostic Review* (Moruya Radiology 2020) – to provide an independent high-level diagnostic assessment of payroll and rostering data overtime, and call backs for Moruya Radiology.
Whole of Health Program (WOHP) supports all rural, regional and remote hospitals and LHDs to improve patient flow and access to care throughout the patient journey	Central Coast LHD implemented a mobile X-ray service for RACFs to avoid unnecessary transfers to hospital. The LHD expanded their nurse practitioner support for RACFs, which avoided 268 transfers to hospitals in a five-month period. The LHD also built on the capacity of RACFs to better manage patient care and implement a demand and capacity escalation model for mental health services. Hunter New England LHD implemented the *Aged Care Emergency* (ACE) *Service* with telehealth support for RACFs that has reduced ED average length of stay by 45 minutes (75 per cent of calls to the ACE program resulted in hospital avoidance) and extended mental health liaison services into ED and improved assessment times for adolescent presenting with mental health issues after hours. Illawarra Shoalhaven LHD has implemented a multimedia messaging campaign for the Wollongong ED to raise awareness of alternatives to ED presentation. The Shellharbour Electronic Patient Journey Board Multidisciplinary Meetings have improved discharges by time of day and reduced average length of stay by 10.5 per cent. Southern NSW LHD has implemented referral pathways for Moruya Hospital (*Out of Emergency Department Program*) to reduce representations to EDs by building capability of staff to refer on to appropriate external services.
Towards Zero Suicides (TZS) The NSW Government has invested $87 million over three years in new suicide prevention initiatives that address priorities in the Strategic Framework for Suicide Prevention in NSW 2018-23 and contribute to the Premier's Priority to reduce the suicide rate by 20 per cent by 2023	***Enhancement to Rural Counselling*** initiative – has funded an additional 15 FTE positions across three financial years (up to June 2022) to provide additional counselling services to rural and remote LHDs. These positions have been recruited and onboarded. Total funding for the initiative is $6.75 million to nine rural and remote LHDs. ***Alternatives to Emergency Department Presentations*** – includes $25.1 million over three years to deliver 20 new services across the state to provide an alternative to presenting to EDs for people experiencing a suicidal crisis, especially outside core hours. LHDs are opening these services from January 2021 onwards. ***Suicide Prevention Outreach Teams –*** includes $21.35 million over three years to expand the local suicide prevention workforce in each LHD so more people receive support on time. Recruitment has occurred, with onboarding and training for the clinical and lived experienced peer workforce from January 2021 onwards. ***Zero Suicides in Care*** – has received $10.2 million over three years. This is a change management and quality improvement initiative that will support staff in the mental health system to redesign procedures, reduce risks and build

	skills to prevent suicide among people in acute and community-based mental health services. Training and workshops for all LHDs commenced from September 2020, with further training and roll-out occurring throughout 2021-22. **Improved collection and distribution of suicide data** – $1.95 million has been funded over three years to strengthen the quality, linkage and integration of suicide-related data in NSW, including the development of a suicide register. This initiative is allowing timely access to data about suspected suicides that will be used to inform local suicide prevention plans. The project is co-facilitated by NSW Health and the Department of Communities and Justice and was launched in October 2020. **Community gatekeeper training** – provides suicide awareness skills to members of the community who may encounter individuals experiencing suicidal crisis. Target populations include young people, Aboriginal communities, key industries such as construction workers, rural and regional areas and LGBT+ communities. This training commenced during 2020 and will continue throughout 2021-22.
Emergency Drought Relief Mental Health Package	The NSW Government has invested $26.5 million in mental health drought initiatives since 2018-19, including a commitment of $11.93 million to extend the *Emergency Drought Relief Mental Health Package* into 2020-21. The package is designed to support rural, regional and remote communities to cope with distress and build resilience. Key programs include: • **Farm Gate Counsellors and Drought Peer Workers –** 27 Farm Gate Counsellors or Drought Peer Workers have been employed across affected LHDs. • **Virtual mental health teams –** teams provide community mental health services by telephone and video to rural and remote communities, where face-to-face service options are limited. • **Social and emotional wellbeing support for Aboriginal communities** – from Aboriginal Community Controlled Health Organisations targeted to their local communities. • **Mental health training for pharmacists –** The Pharmacy Guild of Australia NSW has been engaged to design and deliver mental health training to more than 5,000 regional pharmacists and staff.
Rural Adversity Mental Health Program (RAMHP)	In 2020, NSW Health provided $4.06 million to the Centre for Rural and Remote Mental Health for education and research into rural and remote mental health, and 13.5 FTE RAMHP Coordinator positions. An additional six RAMHP Coordinators are currently funded across NSW through the *Emergency Drought Relief Mental Health Package*, bringing the total number of RAMHP Coordinator positions currently funded to 19.5 FTE.
Mental Health Community Living Supports for Refugees	*Mental Health Community Living Supports for Refugees* is a community-based program located in seven LHDs across NSW. This program is provided in Hunter New England, Mid North Coast, Murrumbidgee and Illawarra Shoalhaven LHDs.
Specialist mental health Bushfire Recovery Clinicians	The NSW Government has also committed to a recovery package that includes $14.8 million to recruit 30 new specialist mental health Bushfire Recovery Clinicians.
Housing and Accommodation Support Initiative (HASI) and Community Living Supports (CLS) program	The HASI and CLS programs provide statewide services in every LHD in NSW, including rural, regional and remote areas. These programs support people with a severe mental illness to live and participate in the community in the way

	that they want to, with tailored psychosocial and daily living supports aimed at improving mental health and wellbeing and increase social participation.
Housing and Accommodation Support Initiative (HASI) Plus	*HASI Plus* is a high-intensity residential support program for people with severe mental illness and complex needs located at eight sites across the state. Two sites are established in Hunter New England LHD (Tamworth and Newcastle) and a new site is being established to support a further 10 consumers in Mid North Coast LHD (Kempsey). Referrals are accepted from across the state.
LikeMind pilot	*LikeMind* is an innovative consortium model of integrated care for adults with moderate to severe mental illness. By co-locating clinical and psychosocial services, the *LikeMind* model aims to deliver seamless person-centred care by providing triage, assessment, treatment, care coordination and discharge planning through a single point of contact. The *LikeMind* pilot is operational at two rural and regional sites in Orange and Wagga Wagga.
Older people's mental health	Specialist older people's mental health community services are provided in all rural and regional LHDs as part of clinical mental health services, and most rural and regional LHDs also provide inpatient services.
Pathways to Community Living Initiative (PCLI) Rural Program Manager	In 2014, the NSW Government committed to transitioning 380 long-stay mental health inpatients, many of whom had been in hospital for over 30 years, to the community through the PCLI. This included providing clinical support in the rural and regional areas of Illawarra Shoalhaven, Hunter New England, Western NSW, Central Coast and Nepean Blue Mountains LHDs. A PCLI Rural Program Manager is hosted by Murrumbidgee LHD.
Statewide Mental Health Infrastructure Program (SWMHIP)	The 2018-19 NSW Budget included $700 million funding to develop a SWMHIP to support mental health reform and increase capacity in the NSW mental health system. This included improved spaces at the Tweed Hospital where families can comfortably visit their loved ones and have private conversations. Another example was an upgrade to internal consumer spaces, redevelopment of external courtyard areas and a sensory comfort room at Wagga Wagga Base Hospital. For rural and regional communities, the current program of infrastructure works includes the rebuilds and expansion of the Banksia Unit at Tamworth Hospital, and Nolan House in Albury. Additionally, the program will address statewide gaps in inpatient services including for mothers and babies, children and adolescents, older persons, and forensic patients.
Intellectual disability mental health initiatives	Mental health supports for people with an intellectual disability are increasing and include a focus on access for people living in rural, regional and remote areas. The NSW Government has committed $4.4 million over four years to deliver two statewide Tertiary Intellectual Disability and Mental Health Hubs, hosted by The Sydney Children's Hospitals Network and Sydney LHD. The hubs provide statewide access to people in rural and regional areas through a mix of high-quality video and telemedicine approaches. The availability of mental health supports for people with an intellectual disability has increased, with an additional $4.1 million funding committed in 2020-21. Of this, $1.33 million will support the programs in rural, regional and remote LHDs. These new projects and positions address needs identified by LHDs and Networks across NSW to improve access to mainstream mental health care for people with intellectual disability.

COVID-19 mental health initiatives	In response to COVID-19, the NSW Government is investing $80 million in a suite of measures to boost mental health services across NSW. The package includes initiatives that will benefit people in rural and regional areas: • support vulnerable populations by recruiting specialist, community-based mental health clinicians and peer support workers • expand virtual mental health services to connect clinical settings within and across LHDs to enhance capability to assess and treat mental health clients remotely; connect mental health clinicians to individual mental health clients in community settings; and connect mental health consumers to clinical information and resources • enhance the capacity and responsiveness of the 1800 NSW *Mental Health Line* • enhance therapeutic activities in acute inpatient units • establish a peer support line for people with mental illness • enable the training and certification of additional Psychiatric Assistance Dogs • boost the capacity of *Lifeline* to respond to the increased needs of the community.
Children and young people	***Perinatal and infants*** – in 2019-20, the NSW Government allocated $4.4 million for specialist *Perinatal and Infant Mental Health Services* across the state. This includes $385,000 for the *Statewide Outreach Perinatal Service* to provide expert perinatal consultation and supervision to staff supporting pregnant and new parents in rural and regional communities, and $1.1 million in new investment for *Perinatal and Infant Mental Health Services* under the *Parents Package* announced in 2018. The NSW Government provides funding to early parenting services such as Karitane and Tresillian, as well as organisations such as Gidget Foundation Australia to expand support services for families suffering emotional distress during pregnancy and early parenting. This includes $3 million over four years for the Gidget Foundation from 2020-21, on top of the $1 million previously committed. ***Youth Community Living Support Services*** – these services deliver community-based psychosocial support services to young people recovering from severe mental illness. They are delivered by community managed organisations in five locations, including Newcastle and Lismore. ***Got It! –*** aims to support children with emotional, social and behavioural concerns, and ultimately reduce the incidence of conduct disorders. It is delivered in schools by LHD *Got It!* Teams across metropolitan and rural NSW. ***School-Link*** – More than $3 million is funded annually for 21 School-Link Coordinators who support approximately 3,000 NSW schools and TAFEs. A dedicated fly-in fly-out and telepsychology service is being established to provide regular and timely access to psychology support in rural and remote NSW schools. **Kids Helpline** – There has been additional funding to *Kids Helpline* of $5.5 million over four years to enable an extra 18,400 calls to be answered per year from children and young people.