



04.

World-class services and infrastructure

The NSW Government delivers and commissions services and infrastructure to make New South Wales a great place to live, work and invest.

Access to healthcare and schooling, affordable and quality housing, and a safe and convenient transport network allow individuals to live healthy lives and engage in work that they value. Low crime rates, green space and other community amenities contribute to quality of life. Rail lines, roads, utilities and ports make it possible for businesses to efficiently produce and transport goods and services.

Together, and with the right regulatory environment, these services and infrastructure help to achieve overall wellbeing for the people of New South Wales and secure a strong economic future.

Over the next 40 years, technology will continue to advance and people's needs and preferences will evolve. Geopolitical shifts, climate change and other external events will continue to present challenges to the economy.

A world-class government will adapt to rapidly evolving societal changes, advances in technology and a changing climate, to support the liveability of New South Wales in a fiscally sustainable way.

This requires embracing new and innovative ways of thinking and delivering services and infrastructure that best support the economy and achieve outcomes that matter to people.

A focus on affordable and innovative service delivery will also reduce the need for government to borrow from future generations to deliver services for the people of today.

Total government expenditure

Sum of recurrent expenses and net capital expenditure



4.5 PER CENT

average annual growth to 2060-61

In the next 40 years



Average annual recurrent expenses are projected to grow at

4.7 PER CENT

This is faster than projected nominal economic growth



Recurrent expenses per person are projected to increase by

80 PER CENT

between 2018-19 and 2060-61, in today's dollars



Health spending is expected to contribute almost

40 PER CENT

of the growth in recurrent expenses to 2060-61



Gross capital expenditure growth is expected to slow, following record levels of infrastructure investment.

As a share of GSP, this will be

1.8 PER CENT

in 2060-61 compared to 2.6 per cent in 2018-19

4.1 Total government spending is projected to grow faster than the economy

Recurrent expenses growth is expected to be higher than economic growth

Government recurrent spending funds the non-capital expenses required to deliver, maintain and improve services. Examples include; salaries for teachers, doctors, nurses and our emergency services; grants and subsidies to local government, community groups and non-profit organisations for service delivery and infrastructure projects; and other day-to-day costs incurred in delivering services and programs.

In 2018-19, total government recurrent spending represented 12.5 per cent of Gross State Product (GSP). Assuming no changes to government policies, this is projected to rise at an average rate of 4.7 per cent a year — faster than nominal growth of the economy at 4.3 per cent — to 14.5 per cent of GSP in 2060-61. This translates to an increase of over 80 per cent in government recurrent spending per person from around \$10,000 in 2018-19 to \$18,000 in 2060-61, in today's dollars.

The projected growth accounts for inflation, population growth and rising incomes. It also reflects pressures on government to

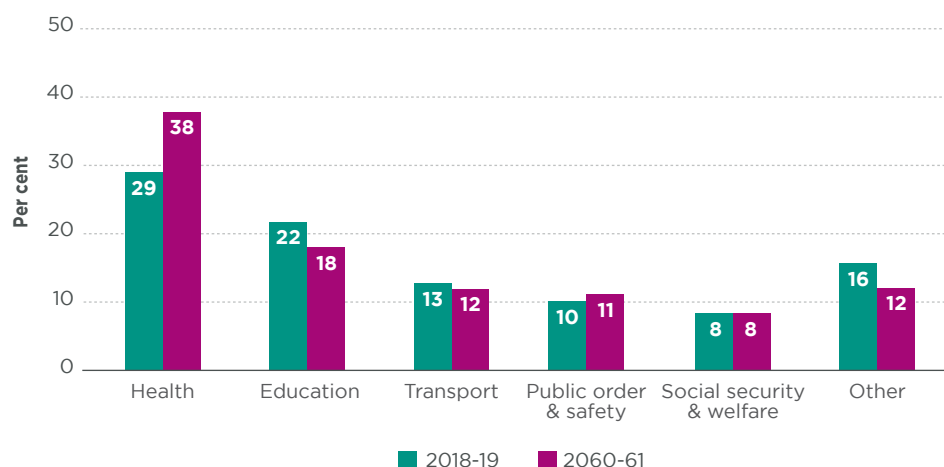
deliver better services and infrastructure, that support a higher quality of life and keep up with continually evolving societal changes and technological advancements. Without efficiency improvements, an increasing rate of expense growth means that services will need to compete against each other to maintain the same standards as today.

Health, education and transport services comprise the bulk of recurrent spending (see Chart 4.1). By 2060-61, they will represent a 69 per cent share of total recurrent spending, up from about 65 per cent in 2018-19.

Spending on health is the largest single driver of projected growth in recurrent spending

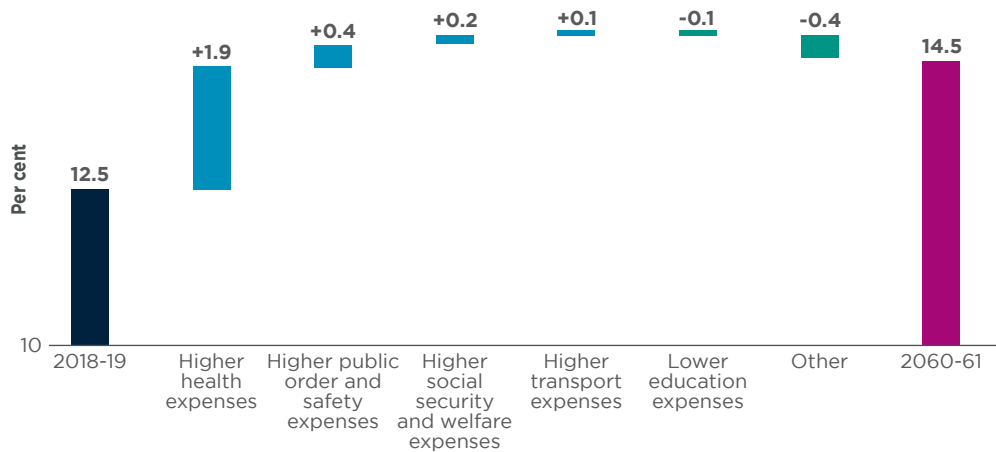
Not only is health spending the largest component of expenses, but it is also projected to grow faster than any other service area, at an average rate of 5.4 per cent per year. This projected rate of growth means that health spending is expected to contribute almost 40 per cent of the projected overall growth in recurrent spending to 2060-61. (Chart 4.2).

CHART 4.1: RECURRENT EXPENSES BY SERVICE AREA AS A SHARE OF TOTAL RECURRENT EXPENSES



Source: NSW Treasury.

CHART 4.2: RECURRENT EXPENSES AS A SHARE OF NOMINAL GSP



Source: NSW Treasury.

Capital expenditure growth is projected to return to lower levels of investment

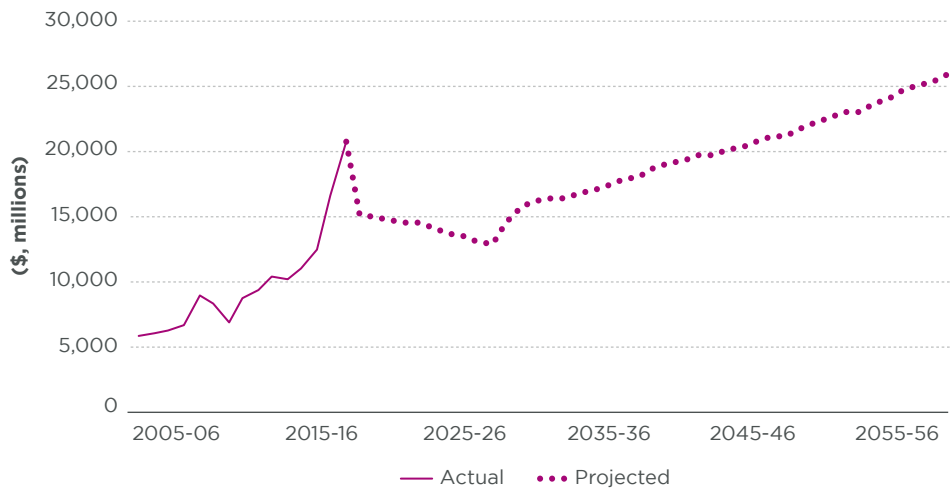
Gross capital expenditure refers to infrastructure investments in schools, hospitals, public transport, roads and other infrastructure. Infrastructure investments create jobs, enable the effective and efficient delivery of public services and support economic activity.

Over the ten years to 2019-20, New South Wales has seen a period of record infrastructure investments, which has significantly expanded the capacity and improved the condition of the State's infrastructure. This has been driven by investments into transport and road projects, representing 63 per cent of the government's capital spend in 2018-19. These large-scale transport infrastructure

investments — enabled by the State's asset recycling strategy — will help shape the city and support the State's growing population and productivity for decades to come.

Infrastructure investments are projected to return to a lower growth trajectory over the next 40 years, averaging 3.4 per cent a year (Chart 4.3). As New South Wales increasingly benefits from returns on record infrastructure investment over the coming decades, with the completion of major projects, capital expenditure as a share of GSP is projected to fall gradually from 2.6 per cent in 2018-19, to 1.8 per cent by 2060-61. Robust project planning, selection and delivery processes informed by appraisals and evaluations will help to prioritise the right infrastructure investments that maximise benefits to the State.

CHART 4.3: GROSS CAPITAL EXPENDITURE IN REAL TERMS, 2005 TO 2061



Source: NSW Treasury.

4.2 Projected expenditure by service area



Health expense growth to average

5.4%

a year to 2060-61

38 per cent of total recurrent expenses in 2060-61

Health: Keeping people healthy and out of hospital

Good physical and mental health is integral to wellbeing. It enables people to participate in education and employment, thus contributing to the State's productivity.

Health will remain the biggest category of recurrent government spending and is projected to grow at 5.4 per cent a year on average until 2060-61. As a share of all recurrent spending, health is projected to increase from 29 per cent in 2018-19 to 38 per cent by 2060-61.



As the economy grows and incomes rise, the community expects higher levels of health care.⁵⁰ At the same time, advances in treatment, technological changes and the shifting disease profile are changing how care is provided, including towards more types of care being delivered outside hospitals. In particular, the pandemic has accelerated the adoption and

demonstrated the benefits of digital health technologies that complement in-person care. The government will need to keep up with how patients and clinicians interact, the services that people want and need, and the skills and infrastructure needed to deliver them. Investments will need to be targeted towards those that deliver the most value to health outcomes.

The ageing profile of the population puts pressure on our health system, as people tend to require more complex and costly health services as they age. Without an ageing population, the projected average long-term health growth rate would be lower at 4.9 per cent. Government policies to keep people healthy can help to alleviate the pressures from an ageing population (see Box 4.1). A healthier population also brings social and wellbeing benefits, and economic dividends as people have the choice to remain in the workforce for longer.

⁵⁰ Oxley, H and MacFarlan, M, "Health Care Reform: Controlling Spending and Increasing Efficiency", Economics Department Working Papers No. 149, (1994), Organisation for Economic Co-operation and Development OCDE/GD(94)101.

BOX 4.1: HEALTHY AGEING CAN EASE PRESSURE ON THE STATE BUDGET CAUSED BY THE AGEING POPULATION

Good health	Chronic disease
If people live more of their older years in good health, the projected long-term growth in annual health spending will:	If people live more of their older years with chronic disease, the projected long-term growth in annual health spending will:
Fall by	Increase by
	
0.13 PERCENTAGE POINTS	0.22 PERCENTAGE POINTS
reducing the fiscal gap by 0.20 percentage points	increasing the fiscal gap by 0.38 percentage points

Source: NSW Treasury modelling.⁵¹

Central to this is tackling one of Australia’s biggest health challenges — the increasing rate of chronic disease. Almost half of Australians are estimated to have one or more of the 10 most common chronic conditions in 2017-18, with this percentage increasing to 80 per cent for Australians aged 65 and over.⁵² In 2018-19, 84,281 hospitalisation in New South Wales could potentially have been avoided if appropriate and timely preventative care and early management of chronic conditions had been provided.⁵³

More prevention, early intervention and effective ongoing management of chronic diseases require coordinated reforms across governments and beyond the health system. Reforms should support a skilled health workforce and a health system that focuses on keeping people healthy and supporting access to effective primary care so that conditions are detected and

managed before they become acute and require hospital admission. Targeted policies that address cohorts with higher rates of chronic disease — for example those experiencing socioeconomic disadvantage and those living in remote areas — can bring significant gains.

Mental health is another critical health challenge. Of the eight million people living in New South Wales in 2017-18, approximately 1.3 million will have experienced a mental health challenge and an additional 1.8 million are at risk.⁵⁴ Supporting people to recognise and manage their mental health requires different parts and levels of government to work together. This includes the health system, schools, emergency services and homelessness services, to enable a holistic management of social and environmental determinants and each individual’s clinical needs.

⁵¹ NSW Treasury, *Ageing and health expenses in New South Wales – revisiting the long-term modelling approach*, 2021 Intergenerational Report Treasury Technical Research Paper Series TTRP21-03, 2021.

⁵² AIHW, 2020, *Chronic conditions and multimorbidity*, <https://www.aihw.gov.au/reports/australias-health/chronic-conditions-and-multimorbidity>.

⁵³ Centre for Epidemiology and Evidence, “*Potentially preventable hospitalisations by sex and category*”, NSW Ministry of Health.

⁵⁴ NSW Government, 2019, *NSW submission to the Productivity Commission Inquiry into Mental Health*.



Education expense growth to average

4.2%
a year to 2060-61

18 per cent of total recurrent expenses in 2060-61

Education: Fostering lifelong learning habits for the future

Our education system equips individuals with the knowledge, tools and habits to upskill and reskill throughout their lifetime. Along with a healthy population, a strong education system — across the full spectrum of early childhood education, primary and secondary education, and vocational education and training — is critical to building a skilled workforce for the future.

Education recurrent expenses are projected to grow at an average long-run rate of 4.2 per cent annually, reflecting the spending required to keep up with growing school enrolments as the population grows. Investments in education ensure that school services continue to be delivered in quality, fit-for-purpose, modern environments with appropriate student-teacher ratios and skilled teaching and support staff.

Children who participate in quality early childhood education programs are more likely to develop the social, cognitive and emotional skills that will allow them to engage in meaningful learning during their school years.⁵⁵ Under the National Partnership on Universal Access to Early Childhood Education, all states and territories are committed to ensure all children have access to at least 600 hours of high-quality early childhood education in the year before school. Current NSW policy extends this commitment by funding preschool education for children in the two years before school in community preschools.

Primary and secondary schooling provides children with the essential foundational skills for life, such as numeracy and literacy, that lay the foundation for lifelong learning. The NSW Government is the primary funder of government schools, while the Commonwealth is the primary funder of non-government schools. Quality education relies on quality teachers. Yet the attractiveness of teaching as a career has declined, particularly in science, technology, engineering and mathematics. Investing in our teachers is important for building a successful learning experience for all our students. This is complemented by ensuring individuals have a positive home environment that supports their learning.

Investing in our teachers is important for building a successful learning experience for all our students.

Learning is not always a linear progression. With a rapidly changing and globally competitive job market, flexible and relevant vocational education and training (VET) will allow people to adapt and respond to emerging job opportunities. School leavers will increasingly need a blend of theoretical and practical knowledge which will be delivered by a more integrated secondary school approach. An agile, effective and sustainable VET sector will equip the people of New South Wales, increase choice and opportunity, and create a solid foundation for a modern economy.

⁵⁵ NSW Department of Education, 2020, *Early education matters*, viewed 9 March 2021, <https://education.nsw.gov.au/early-childhood-education/whats-happening-in-the-early-childhood-education-sector/early-education-matters>



Transport expense growth to average

4.4%
a year to 2060-61

12 per cent of total recurrent expenses in 2060-61

Transport: Designing a flexible and sustainable transport system to support shorter commutes and liveability

A well-functioning transport system that efficiently connects people, goods and services is integral to increasing productivity in our economy. Recurrent transport expenses are projected to grow at an average annual rate of 4.4 per cent. This growth is partly driven by operational and maintenance costs for infrastructure such as roads and rail.

New South Wales has seen a period of rapid growth of investments in transport infrastructure, at 16.5 per cent a year over the last decade. This report projects a return to lower levels of investment in the future, falling from 1.7 per cent of GSP in 2018-19 to 1.0 per cent of GSP by 2060-61.

A holistic approach to planning and transport can help to optimise overall transport capacity.

There is an opportunity to optimise the use and capacity of our transport infrastructure for decades to come. A holistic approach to planning and transport can help to optimise overall transport capacity. For example, more homes closer to jobs and existing transport corridors means shorter commutes and less congestion on roads and in the public transport system. This can be complemented by agile solutions like intelligent management systems that address congestion bottlenecks and increase service capacity of public transport.

Furthermore, infrastructure that encourages alternative modes of travel such as walking or cycling can contribute to the city's liveability, reduce the cost of living and generate health benefits. These all serve to alleviate the need for more large-scale road and transport infrastructure, minimising community disruption and allowing government to redirect funds to services.

The rapidly changing environment means there needs to be flexibility in our transport network. Technological advances have facilitated innovations in how we travel including rideshare and driverless trains. These offer opportunities for safer, flexible and personalised services. For example, digitisation of the train signalling system under the More Trains More Services program means that people can expect more reliable services and fewer delays on public transport.

The uptake of electric vehicles (EVs) is expected to increase. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) projects that around 40 percent of the vehicle fleet could be electric by 2050.⁵⁶ Greater use of public and active transport and transitioning to low-carbon fuels or renewable sources will support a more sustainable transport system. The impacts of this transition, including reduced fuel excise receipts and requirements for electric vehicle charging stations, will need to be managed. (See Box 5.5 in Chapter 5).

⁵⁶ Graham, P and Havas, L, 2020, "Projections for small-scale embedded technologies", CSIRO, Australia.



Public order and safety expense growth to average

4.9%
a year to 2060-61

11 per cent of total recurrent expenses in 2060-61

Public order and safety: Towards a modern and equitable justice system

Recurrent spending on police, law courts and legal and corrective services is projected to increase by 4.9 per cent on average per year over the next 40 years.

While crime rates have fallen for most offences in recent decades, New South Wales has seen growth in the number of people going through the courts and corrective services systems.⁵⁷ This growth reflects the use of advanced technology that significantly improves crime detection, as well as changes in law enforcement policies and practices; and a rise in complex crimes such as fraud.

Modernising the system can help improve efficiencies and reduce cost pressures on the justice system. This includes reforms to streamline processes that will help reduce delays (for example, digitisation of court processes) and innovative and targeted ways to address risks of reoffending, prevent crime and support the rehabilitation of offenders. Such reforms will support community safety by reducing future offending, improving lifelong outcomes for individuals and alleviating pressures on the correctives system.



Social security and welfare expense growth to average

4.7%
a year to 2060-61

8 per cent of total recurrent expenses in 2060-61

Social security and welfare: Providing stability and better outcomes for children and families

Recurrent spending to support the welfare of children, families, older people and people with disabilities is projected to increase by 4.7 per cent per year on average to 2060-61.

The costs of child protection services and support to those who are unable to live with their families have grown significantly in recent years.⁵⁸

Interaction with these systems can influence a child's future health and educational outcomes, their likelihood of involvement with the criminal justice system and their future employment opportunities. The NSW Their Futures Matter investment model estimates that 7 per cent of people under the age of 25 in New South Wales will account for half of the estimated cost of NSW government social services — across child protection, housing, health, mental health, alcohol and other drugs — by the time they reach the age of 40. Reforms to better identify and support at-risk children and young people early in life can improve lives and support the financial sustainability of NSW's social services systems.

⁵⁷ Between 1990 and 2019, crime rates per capita for seven offences related to theft, property damage and murder recorded falls between 54 and 88 per cent whilst three offences related to sexual assault and assault recorded increases between 61 and 184 per cent in that period. Source: BOSCAR, "An update of long-term trends in property and violent crime in New South Wales: 1990-2019", Issue paper no. 144 March 2020.

⁵⁸ i) Tune, D, 2016, "Independent Review of OOH." "

ii) Auditor General, 2020, "Their Futures Matter New South Wales Auditor-General's Report."



**Housing and community amenities
expense growth to average**

3.6%
a year to 2060-61

1 per cent of total recurrent
expenses in 2060-61



**Environmental services
expense growth to average**

4.8%
a year to 2060-61

2 per cent of total recurrent
expenses in 2060-61

**Housing and community amenities:
Meeting basic needs**

Spending on housing and community amenities — including social housing, short-term accommodation and community amenities such as water supply — is projected to grow at 3.6 per cent a year on average.

Social housing provides accommodation for people who need extended support, such as the elderly, people living with disabilities and people with mental health conditions. As noted in Chapter 3, if home ownership rates continue to decline in line with historical trends, this is projected to increase demand for social housing by an additional 68,000 households by 2060-61 for people over the age of 65 on top of the increase that will occur for remaining age groups.

To ease pressures, government can build more social housing and consider options to reduce demand. This could include supporting social housing tenants to transition into the private housing sector (including providing support and preventative strategies around mental health) and more flexible planning and regulations to help increase the availability of affordable housing at the lowest end of the private market. The property tax reform discussed in Chapter 3, would help to improve housing affordability and reduce barriers to private housing.

By 2061, the projected population of New South Wales will be 11.5 million (up from 8.1 million today). The need to serve more people, higher average temperatures and more frequent extreme weather events will create uncertainty around water supply. Planning for this will be crucial.

**Environmental services: Liveability
for future generations**

Clean air and biodiversity contribute to the liveability of New South Wales. To maintain them, the government funds activities such as biodiversity and landscape protection, pollution abatement, wastewater management and disaster relief.

Environmental recurrent expense growth is projected to average 4.8 per cent a year, reflecting the exposure of people and assets to bushfires, floods, storms and other extreme weather events. Such events have become more frequent and intense in recent years and this is expected to continue into the future.⁵⁹ This means that governments will need to spend more money to keep the power on, water flowing, roads open and emergency services staffed and equipped. The expected direct costs to the NSW government for natural disasters are projected to increase threefold by 2060-61.^{60,61} Historical expenses across the environmental protection category are highly variable. This variability is expected to persist; partially driven by the increased volatility associated with natural disasters.

Effective planning and management will allow for a more agile response to future natural disasters, mitigate risks to biodiversity and land and better prepare our environment for change. This is integral to reducing the cost of crisis management and recovery in the long-term, while preventing irreversible damage to our environment. Reducing emissions to preserve clean air for future generations will also help support liveability in New South Wales. (See Box 4.2).

⁵⁹ i) CSIRO, 2020, State of Climate. ii) AdaptNSW, *State of climate extremes research in NSW*, viewed 9 March 2021, <https://climatechange.environment.nsw.gov.au/Impacts-of-climate-change/State-of-climate-extremes-research-in-NSW>
iii) NSW Treasury, *An indicative assessment of four key areas of climate risk for the 2021 NSW Intergenerational Report*, 2021 Intergenerational Report NSW Treasury Technical Research Paper TTRP 21-05, 2021.

⁶⁰ This represents estimated costs under the Disaster Recovery Funding Arrangements and does not reflect the likely full cost to Government of natural disaster response due to the modelling of a narrow set of services only.

⁶¹ NSW Treasury, *An indicative assessment of four key areas of climate risk for the 2021 NSW Intergenerational Report*, 2021 Intergenerational Report NSW Treasury Technical Research Paper TTRP 21-05, 2021.

Box 4.2: More trees mean more shade, cleaner air and more beautiful places to live

To support our greatest natural carbon sink — trees — the Five Million Trees Program, including the Greening our City Premier's Priority will increase the tree canopy across Greater Sydney to 40 per cent by 2036. This will provide shade and reduce the 'urban heat island' effect, while providing other amenity and environmental benefits for the community.

THE IMPORTANCE OF TREE CANOPY



Source: Department of Planning Industry and Environment.

4.3 Resilient, effective and efficient service delivery

Without action, the pressures outlined in this chapter are projected to increase total government expenditure⁶² — the sum of recurrent expenses (excluding interest) and net capital expenditure⁶³ — from 14.2 per cent of GSP in 2018-19 to 15.3 per cent of GSP in 2060-61. This is driven by an average annual growth rate in total government expenditure of 4.5 per cent. In addition, it is anticipated that external events will continue to present other challenges — such as natural disasters⁶⁴ or global crises necessitating significant spending in any one year with little notice.

As these pressures grow, it will be increasingly important to prioritise government spending towards the most effective and efficient ways of delivering services and infrastructure, that are adaptive and resilient to future unforeseen events.

A timely opportunity to rethink and redesign service delivery and infrastructure needs

The pandemic saw society and government embrace change at a scale and pace not previously considered

⁶² Expenditure refers to the sum of recurrent expenses (excluding interest) and net capital expenditure. Expenditure is used to calculate the fiscal gap.

⁶³ Net capital expenditure refers to gross capital expenditure, less sales of non-financial assets and less depreciation.

⁶⁴ See Box 2.3 in Chapter 2: Future shape of the NSW economy.

possible. The government can make the most of this openness to change to rethink and redesign the delivery of services and infrastructure. This will encourage innovation, and more effectively deliver outcomes.

Innovations should move towards leveraging advances in technology; supporting more connected service systems; embedding resilience in service delivery and infrastructure; and more effectively prioritising investments based on evidence and outcomes. These will support more flexible, adaptable and accessible services; transitioning away from traditional methods of service delivery through physical infrastructure including hospitals, prisons, and courts. Together with more strategic use of existing infrastructure, this transition can help to free up more funds towards services (Box 4.3).

Leveraging advances in technology to improve services

Changing habits and advances in technology have changed the way government delivers services.

Digital infrastructure can drive efficiency and safeguard the sustainability of

critical services. It presents opportunities to exponentially scale up services quickly and cost-effectively in ways that cannot be achieved with physical infrastructure. It also offers opportunities to complement service delivery using physical infrastructure, to deliver more accessible, targeted and tailored services to individuals.

As government moves towards digitisation, it will be important to narrow the digital divide and preserve equity of access for all. Continuing foundational technological investments such as high-speed network infrastructure will also be crucial. (Box 4.4).



Embracing technology

Government can embrace data and technological advancements to enable more targeted and tailored services to individuals in a way that suits their needs and lifestyles

BOX 4.3: MODERNISING SERVICE DELIVERY AND INFRASTRUCTURE CAN HELP REDUCE THE NEED FOR FUTURE LARGE-SCALE CAPITAL INFRASTRUCTURE

Reducing service delivery through physical infrastructure by 10 per cent across health, education, transport and justice

can reduce future annual capital spend by nearly

\$4 BILLION

in today's dollars, by 2060-61



Bringing services to people's homes and neighbourhoods



Supporting people outside of hospitals and the justice system



Optimising the use and capacity of our transport network

Source: NSW Treasury.

Box 4.4: NSW Telestroke Service

The NSW Telestroke Service gives patients in rural NSW areas rapid access to life-saving stroke diagnosis and treatment. It does this by connecting local doctors to specialist stroke physicians via video consultation in an emergency department.

Stroke is one of Australia's biggest killers and a major cause of disability. Every year around 19,000 residents in New South Wales will have a stroke. More than a third of these residents live in regional, remote or rural areas.

A \$21.7 million NSW Government election commitment for the service was announced in March 2019 and is jointly funded by the NSW and Commonwealth Governments.

The service launched in March 2020. By 7 May 2021 the service was live at nine NSW hospitals: Port Macquarie, Coffs Harbour, Lismore, Dubbo, Orange, Bathurst, Shoalhaven, Grafton and

Griffith. During this time the NSW Telestroke Service provided over 700 virtual consults across the State.

Melinda Laverick, a 52-year-old teacher in Coffs Harbour, made a full recovery from her stroke after she woke one morning with trouble speaking and a blinding headache.

"I had brain scans which, via Telestroke, were seen in seconds by stroke specialists in Sydney. They prescribed immediate clot-busting medication which meant that by the time I transferred to John Hunter Hospital in Newcastle, surgery wasn't even necessary. The care I received was extraordinary."

NSW Telestroke Service is hosted by the Prince of Wales Hospital. By June 2022, up to 23 rural and regional hospitals across New South Wales will be connected.

Source: NSW Health.

More connected service systems to holistically improve lives

Many challenges that governments and society face today are complex and systemic. Their causes and effects are often blurred. These complex challenges require a response that identifies and holistically addresses underlying factors.

Well connected services across government and sectors enables government to deliver more effective services. These services can be targeted at prevention and early intervention, and equip people to manage their own learning, health and other needs.

This needs to be supported by a person-centred approach that allows people to access services that are tailored to their needs and circumstances. For example, this includes the provision of culturally appropriate services for Aboriginal Australians.

This reduces costs to government in the long-term, as the future need for acute crisis responses in health, justice and social services is alleviated (see Box 4.5).



More connected service systems

Well-connected services across government and sectors will more efficiently and effectively improve outcomes



Box 4.5: Brighter Beginnings initiative

Many factors can create and exacerbate challenges throughout a child's life, impact their physical and mental health and limit their future opportunities to engage in education and meaningful employment. These include individual, family, environmental and community factors.

The NSW Government's Brighter Beginnings initiative aims to give every child in New South Wales the best start to life from conception to five years (the first 2000 days of life). This is a critical period for physical, cognitive, social and emotional health; and provides the foundation for health, wellbeing and learning throughout a child's life.

Through this initiative, government agencies are working together to:

- deliver and continuously improve universal services
- ensure every child and family has what they need through the provision of targeted supports, services and timely information.

Preparing children so that they are at the appropriate developmental stage to start learning in school will deliver better outcomes every decade of their lives and across generations.

Source: NSW Department of Premier and Cabinet.



Embedding resilience in services

Immense disruptions of recent drought, bushfires and the pandemic, highlight the need to embed resilience into all levels of government services

Embedding resilience to reduce the impacts of future events

A world-class government anticipates and prepares for the future.

Planning for an uncertain future and putting in place the processes and capacity to adapt will ensure that people, services and infrastructure are resilient to withstand and recover from major events.

The recently established agency, Resilience NSW, will bring a whole of government approach to disaster management, supporting communities to prepare and help to respond to any disaster or event. It will ensure that different parts of government act cohesively to build resilience and support local communities.

Embedding resilience into the State's disaster response capacity goes beyond preparing for how to respond to natural

disasters. It can also include examining how we consider the impacts of such events and plan ahead to mitigate their impacts *before* they occur, such as by designing critical infrastructure to withstand shocks and stresses, upgrading data and risk prediction modelling, and reviewing existing disaster response plans (Refer to Box 4.6).

This approach can apply to natural hazard mitigation as well. One area of particular interest are traditional Aboriginal land management methods which have shown significant promise in building more resilient infrastructure and land use practices. For example, 'Cultural Burns' — slow burning fires that restructure vegetation so that there is insufficient fuel load for wildfires to escalate into bushfires — have been trialled in the Bega Valley and other areas in New South Wales. Similarly, recent innovations in New South Wales such as 'Regenerative Agriculture' use traditional Aboriginal knowledge to better manage risks of drought, topsoil erosion and desertification through practices that rehydrate landscapes, regenerate topsoil, increase biodiversity and improve water use while also improving agricultural yields and profits.

Building resilience to unforeseeable events now will limit the impact on current generations and protect future generations against the consequences of actions taken, or not taken, today.

Box 4.6: Embedding resilience into infrastructure design – Sydney Metro

Sydney Metro is Australia's biggest public transport project delivering a new driverless metro railway system across Greater Sydney. Due to the scale of investment and longevity of metro lines, ensuring that the infrastructure can withstand unforeseeable natural disaster events is crucial. This was considered early in the planning and business case development of the project. As part of this, the probability and impact of flooding and other extreme weather events were identified and mitigated through enhancing the design and engineering of the project. This includes:

- designing the station and drainage to be flood resistant to reduce impacts of increased rainfall intensity
- ensuring relevant equipment is located in temperature controlled rooms to prevent impacts from excessive heat

- testing the sensitivity of mechanical cooling systems to increased temperatures, identifying potential additional capacity that may be required within the life of the project and safeguarding space if required
- testing the sensitivity of tunnel and station ventilation systems to increased temperatures and;
- using permeable surfaces to allow for rain to sink into the ground to prevent flooding.

By understanding the medium and long term risks and vulnerabilities, Sydney Metro has been able to build climate resilience into the rail network and mitigate future costs for government.

Source: Sydney Metro.



Focusing on evidence and outcomes

Public spending should be directed towards services and infrastructure that provide the greatest value

Effective prioritisation informed by evidence and focused on outcomes

Given increasing fiscal pressures and the growing demands for funding across service areas, public spending should be directed towards the right services and infrastructure that provide the greatest value for the people of New South Wales. This means directing funding where it best meets the changing needs of individuals and the community, businesses and the economy.

To achieve this, the NSW Government is continuing to strengthen and apply Outcome Budgeting across the sector to scrutinise and prioritise government spending, and working to build evidence of 'what works' in the delivery of better outcomes for the people, businesses and communities of New South Wales.

4.4 More tailored and accessible services — a vision for New South Wales

In 2061 – managing health through timely and convenient access to health care professionals

Keira is 72. Genetic analysis when Keira was in her 50s indicated that she has elevated risk for some cancers. She can reduce her risk with periodic monitoring and healthy lifestyle choices. Keira chooses to use a personal health assistant, an artificial intelligence tool to monitor her diet and exercise.

Keira notices fatigue and weight loss, and her personal health assistant prompts her to run screening tests using her portable scanning device. Keira opts for the convenience of virtual support from a remote multi-disciplinary health team.

Keira allows a biometric device to measure her pulse, breathing and temperature. The data is shared in real-time with her health team. Together, Keira and the team work to design a health treatment plan, including for her diet and exercise.

Keira's experience working with the health team leaves her feeling informed and in control of her own health.

In 2061 – tailored learning environments help students to reach their potential

Isaac is 10. He attends school at the learning hub, which is co-located with a residential aged care centre and a community hub. The community hub offers services such as immunisations and developmental checks, and other services such as speech therapy. It also hosts a range of extracurricular activities. Isaac is part of the community orchestra, which includes members from the aged care centre.

Isaac's teachers have more time to focus on the learning and developmental needs of each student, as digital technology has automated routine tasks such as basic record-keeping and attendance monitoring.

Isaac shows talent in music but struggles to engage with maths. Using a tool available to all teachers to help identify and access a range of complementary learning programs, his teacher finds a specialised maths-through-music program based at a school in Coffs Harbour. His teacher sets Isaac up to trial the program. Isaac is highly engaged with the trial and his teacher and family can see his rapid progress in real-time via a shared platform.

Isaac now excels at both maths and music, which has also helped with his creativity and critical thinking skills. Isaac feels more confident both inside and outside the classroom.



In 2061 – safe, convenient and environmentally sustainable commuting

Lan is in her 20s. She lives in Penrith and plans to meet up with friends who live in the Blue Mountains.

Lan asks her Nashi (her handheld life-management device) for the best transport options. Nashi uses data analytics and artificial intelligence to predict the factors that matter most to Lan: comfort first, then price. Nashi ranks the options (public and private) by comfort, cost and speed. She chooses a solar-powered, self-driving shared vehicle. As she boards, Lan's Nashi automatically bills the trip to her personal mobility subscription.

The NSW transport network is now zero emissions and the air quality is generally good. Self-driving cars dominate the roads and need less space to navigate safely. Roads are narrower, leaving ample room for trees and the extensive network of footpaths and cycleways that connect the city. Lan walks to her office in Penrith every day. It is free and ensures that she stays active and fit.

Traffic snarls are rare and the combination of intelligent speed adaptation and a connected road and vehicle network eliminated traffic accidents a decade ago.

Lan has come to expect that wherever she travels in New South Wales, it will be quick, safe and hassle-free.