CHAPTER II
PERFORMANCE

NSW STATE HEALTH PLAN

HEALTH CARE IS CHANGING AND SO ARE THE NEEDS AND EXPECTATIONS OF COMMUNITIES, PATIENTS, AND THEIR CARERS. INCREASED DEMAND, AN AGEING POPULATION AND MORE PEOPLE DEALING WITH CHRONIC ILLNESS SUCH AS DIABETES, HEART DISEASE AND CANCER ALL MEAN NEW CHALLENGES FOR HOW SERVICES ARE FUNDED, PLANNED AND DELIVERED.

The *NSW State Health Plan* provides the strategic framework that brings together existing NSW Health plans, programs and policies. This Plan and the NSW Premier's Priorities set priorities across the system for the delivery of the right care, in the right place, at the right time, with constant diligence on the safety of patients and staff in the health system.

There are eight Directions and Strategies that provide the vision for the future of the health system, a vision that is sustainable, purposeful and most importantly delivers positive health outcomes for the people of NSW. The Directions and Strategies determine how health services work together to achieve the vision in hospitals, the workforce, in research and innovation, e-health and infrastructure in a financially sustainable way.

STRATEGIC OBJECTIVES

DIRECTIONS

1 Keep people healthy

2 Provide world-class clinical care

3 Deliver truly integrated care

STRATEGIES

4 Develop and support our workforce

5 Support and harness research and innovation

6 Enable e-health and health information

7 Design and build future-focused infrastructure

8 Build financial sustainability and robust governance

PREMIER'S AND STATE PRIORITIES

THERE ARE 30 STATE PRIORITIES, INCLUDING 12 PREMIER'S PRIORITIES, FOR GROWING THE ECONOMY, DELIVERING INFRASTRUCTURE, PROTECTING THE VULNERABLE, AND IMPROVING HEALTH, EDUCATION AND PUBLIC SERVICES ACROSS NSW.

NSW Health is contributing directly to these Premier's Priorities:

- building infrastructure, with key infrastructure projects to be delivered on time and on budget across the State
- creating jobs, with a target of 150,000 new jobs in all sectors across the State by 2019
- driving public sector diversity, by increasing the number of Aboriginal people and women in senior leadership roles by 2025
- reducing domestic violence, with the proportion of domestic violence perpetrators who re-offend to be reduced by 25 per cent by 2019
- protecting children, by decreasing the percentage of children and young people re-reported of being at risk of significant harm by 15 per cent by 2019
- improving government services, by improving customer satisfaction with key government services every year during this term of government to 2019

NSW Health has direct responsibility for:

- improving service levels in hospitals, with 81 per cent of patients to go through emergency departments within four hours by 2019
- tackling childhood obesity, by reducing overweight and obesity rates of children by five percentage points by 2025

NSW Health is contributing directly to these State Priorities:

- better government digital services, with 70 per cent of government transactions to be conducted via digital channels by 2019
- cut wait times for planned surgeries, by increasing on-time admissions for planned surgery, in accordance with medical advice
- deliver strong budgets, with expenditure growth to be less than revenue growth
- transitioning to the National Disability Insurance Scheme, with successful transition of participants and resources to the NDIS by 2018
- reducing adult re-offending, by reducing the number of adults in the justice system who re-offend by five per cent by 2019.

The NSW Premier's Priorities are available at www.nsw.gov.au/improving-nsw/premiers-priorities.

KEEPING PEOPLE HEALTHY

DEVELOPING AND IMPLEMENTING HEALTH PROMOTION AND DISEASE PREVENTION STRATEGIES TO HELP PEOPLE STAY HEALTHY AND BETTER MANAGE THEIR HEALTH AND WELLBEING IS CORE BUSINESS FOR NSW HEALTH.

CHALLENGES

Smoking remains a leading cause of preventable disease and death in NSW. More than one in five children are overweight or obese. One in two adults is overweight or obese and one in four adults exhibits risky levels of alcohol consumption. These are serious issues for both individuals and the wider community.

Aboriginal people, socio-economically disadvantaged people and those living in rural and remote locations experience much poorer health than the rest of the NSW population.

Making sure good health is shared by everyone and across every community in NSW remains an important priority.

The many types of domestic and family violence can affect anyone in the community. Building a system that effectively reduces domestic and family violence, and supports victims, is an important goal.

Prevention strategies across the entirety of the health sector need to be monitored, reviewed and refined to make sure they continue to deliver real-world solutions and results.

The challenge for NSW Health is to continue to develop and implement prevention strategies to help people stay healthy and better manage their health and wellbeing.

WHAT NSW IS DOING

To meet these challenges NSW Health is working with other government agencies to implement initiatives that will make a difference to the health of the people of NSW, now and in the future.

Core initiatives are developed centrally, but implemented and adapted locally and include:

- driving preventive and population health programs with a focus on childhood overweight and obesity
- improving Aboriginal health outcomes
- collaborating to support vulnerable youth to protect children at risk and reduce homelessness
- developing whole of Government drug and alcohol response
- driving whole of Government initiatives to reduce domestic violence and perpetrator re-offences.

HIGHLIGHTS

- 711,361 people used the iCanQuit website between July 2016 and June 2017 – an increase of 122 per cent on the previous year
- Vaccination coverage for all children at one year of age improved from 93% to 93.6%
- More than 90% of early childhood services participated in the Munch & Move campaign for healthy living by children under five
- 83% of schools joined the Live Life Well @ School scheme promoting physical activity and healthy eating
- Participation in the Go4Fun program increased, with 9647 families taking part since 2011
- More than 6000 people in a year enrolled in the EPIC-NSW program to prevent HIV infection
- Public dental services expanded, with 360,000 people receiving care
- 3009 adults and young people with identified mental illness were diverted from custody into community care

1.1 DRIVE PREVENTIVE AND POPULATION HEALTH PROGRAMS WITH A FOCUS ON TACKLING CHILDHOOD OBESITY

Overweight and obesity

Overweight and obesity and the associated lifestyle risk factors of physical inactivity and unhealthy eating have a serious effect on the health of people in NSW, and create a large financial burden on the State. A range of initiatives have helped stabilise adult rates of overweight and obesity since 2010. The NSW Premier's Priorities include a target to reduce the rate of overweight and obesity in children by five percentage points by 2025. NSW Health has a number of healthy eating and active living initiatives and programs to support achievement of this target.

The Make Healthy Normal campaign is one of NSW Health's largest public health promotion initiatives. It encourages healthy eating and active living and creates a new, healthy 'normal' for everyone in NSW. A new campaign phase was launched in May 2017 targeted to older men and families with young children.

> 50 communities across the Western and Far Western local health districts were participating in the Make Healthy Normal physical activity programs for under 16-year-olds

The Healthy Kids initiative is delivered in early childhood services, schools, junior community sport, and with families. The Munch & Move component supports the healthy development of children from birth to five years of age by promoting physical activity, healthy eating and reduced small screen time. More than 90 per cent of early childhood services participate. The Live Life Well @ School component supports physical activity and healthy eating for school children and is supported by 83 per cent of schools. Go4Fun is a free 10-week program about healthy lifestyles for children aged 7-13 who are above a healthy weight. Since July 2011 it has supported more than 9647 families.

More than 1100 women have been recruited to the Healthy Beginnings trial in Sydney, South Eastern Sydney and Southern NSW local health districts. The trial uses phone and SMS support to provide healthy eating and play information to parents of children aged under two years.

The *Healthy Choices in NSW Health Facilities* policy framework was launched in June 2017 to offer healthier food and drink to staff and visitors and aims to remove all sugary drinks with no nutritional value from sale in NSW Health facilities by December 2017.

NSW Health worked with the NSW Department of Education to revise the *NSW Healthy School Canteens Strategy,* which increases healthy food and drink options and is supported by the Health Star Rating system for packaged foods.

The Healthy Kids for Professionals website and training was launched to provide weight management resources for health professionals, to support them to routinely measure the height and weight of children from 2017-18.

The Nutrition Network, which improves nutrition standards in hospitals, developed or revised 20 diet specifications during the year. This included three diabetes diet specifications developed in collaboration with the Endocrine Network. The Nutrition Network is partnering with Health Share NSW and the NSW Food Authority to develop a low-microbial diet specification.

Helping people manage their own health

Promotion campaigns and early intervention are key strategies to keep people healthy and out of hospital. NSW Health focuses on key areas of prevention to help people proactively manage their health.

EPIC-NSW is a public health intervention to provide HIV pre-exposure prophylaxis – the use of antiretroviral drugs to prevent HIV infection – to people at a high risk of HIV infection. The program enrolled more than 6000 people by June 2017.

NSW Health continues to increase access to hepatitis C treatment. This includes for people in primary care settings such as Aboriginal Community Controlled Health Services and for vulnerable populations in prisons and drug and alcohol services. Between 1 March and 31 December 2016, 14 per cent (11,236) of the people estimated to be living with hepatitis C in NSW had been treated. Hepatitis B childhood vaccination coverage at 24 months increased from 95 per cent in 2015 to 96 per cent in 2016.

HUNTER NEW ENGLAND LOCAL HEALTH DISTRICT

Physical Activity 4 Everyone. Preventing the decline in physical activity

TEENAGERS MOVE THEIR WAY TO A HEALTHIER WEIGHT

More than 1100 high school students from disadvantaged backgrounds were involved in a globally innovative program to help teenagers become more active and control their weight.

The Physical Activity 4 Everyone initiative ran for two years and included 10 secondary schools, five who were actively involved in the program and five who were control schools.

The program found that participating students performed an extra seven minutes of physical activity each day and gained two per cent less weight compared with the control group students.

The program was motivated by research findings that adolescents were unlikely to accumulate the 60 minutes of moderate to vigorous physical activity per day necessary to reduce the risk of non-communicable diseases such as heart disease, diabetes and some cancers.

Physical Activity 4 Everyone was the first program globally to demonstrate (via a randomised controlled trial) a positive effect on both physical activity and weight status among adolescents from disadvantaged backgrounds.

The project team, from Hunter New England Local Health District, has developed a model to scale up the intervention and was awarded an inaugural NSW Health Translational Research grant to evaluate the intervention.

This project received the Preventive Health Award at the 2016 NSW Health Awards.

In response to a rising number of cases of meningococcal W disease in Australia, NSW Health funded a meningococcal ACWY vaccination program for students in years 11 and 12 in 2017. In the first term of the program (term 2, 2017) more than 100,000 vaccines were administered.

NSW public dental services are mainly delivered in dental clinics based in community health centres and hospitals in local health districts. An Oral Health Fee for Service Scheme utilising private dentists is also in place. Public dental services are provided according to criteria that prioritise emergency situations, as well as patient groups in most need and at highest risk of disease. In 2016-17, NSW public dental services provided more than 790,000 episodes of care to more than 360,000 people, of whom 6.9 per cent were Aboriginal people.

Overall, public dental activity has increased by 33 per cent from 2011-12 to 2016-17.

The Justice Health and Forensic Mental Health Network conducted a range of preventative programs within the forensic mental health and criminal justice systems:

- A metabolic screening and early intervention project started at Frank Baxter Juvenile Justice Centre to engage young people in their treatment by recording their measurements in their own health 'passports'. Participants are also educated on the health effects of lifestyle choices including smoking, diet and exercise.

- Influenza vaccinations were given to 5355 patients in the Network's Winter Immunisation Program.

- The Network successfully eliminated hepatitis C at the Compulsory Drug Treatment Correctional Centre using new direct acting antiviral medications.

- An average 1510 patients participated in the self-medication program each month, 51 per cent above the Network target.

- The Network employed an exercise physiologist in the Forensic Hospital to evaluate the effect physical activity programs on the wellbeing of patients and advise treating teams on targeted interventions.

- Targeted health promotion and education events were held in custodial settings in alignment with key health promotion 'weeks' including Oral Health, Back Health, Women's and Men's Health, Antibiotics Awareness, Lung Health, and Healthy Heart.

- The Network introduced community-style fitness programs in the Forensic Hospital to encourage patients to exercise.

Smoking

Smoking rates continue to decline in NSW. Smoking among NSW adults has decreased from 22.5 per cent in 2002 to 15 per cent in 2016. The State has a comprehensive approach to reduce tobacco smoking including education campaigns, support services for people quitting smoking, and enforcement of smoke-free and tobacco retailing laws.

The Cancer Institute implemented six anti-tobacco mass media campaigns over the financial year. More than 711,000 people used the iCanQuit website between July 2016 and June 2017, an increase of about 122 per cent from the equivalent period the previous year (320,583 users).

MID NORTH COAST LOCAL HEALTH DISTRICT

Aboriginal Wellbeing Hospital Discharge Journey Booklet

INFORMATION BOOKLET GUIDES ABORIGINAL PATIENTS THROUGH HOSPITAL STAY

Aboriginal patients and their carers were better supported during hospital visits thanks to an information guide developed especially for them.

A booklet of culturally appropriate resources helped the patients while they were receiving care in hospital and after discharge in the Mid North Coast Local Health District.

Aboriginal people worked with Aboriginal Community Controlled Health Services, primary health networks and health facilities to develop the Aboriginal Wellbeing Hospital Discharge Journey Booklet.

The booklet provided information for the entire hospital process, from admission to discharge and follow-up. It could also be used as an individualised care plan across all specialties.

As a communication and planning tool, it outlined key areas for patients and carers to consider.

The booklet was made available in health facilities across the district and helped Aboriginal people, their families and carers communicate more effectively with service providers.

The booklet was adapted and used by other hospitals and local health districts and was a finalist in the 2016 NSW Health Awards.

Photo: Nurse Ellen Roulston takes care of a young patient.

1.2 IMPROVE ABORIGINAL HEALTH OUTCOMES

The NSW Government is committed to Closing the Gap in health between Aboriginal and non-Aboriginal people and continues to support health system reform through the NSW *Aboriginal Health Plan 2013-2023*, delivering culturally sensitive services that better meet the needs of Aboriginal people.

NSW Health supports a wide range of services through partnership arrangements with Aboriginal health organisations – including initiatives to address cardiac health, mental health and healthy lifestyles – to tackle smoking, chronic disease, cancer, diabetes, injury and suicide.

> **1293 Aboriginal people participated in the NSW Knockout Health Challenge in 2016-17. On average, participants lost 2.4% of their body weight**

Cardiac health

In NSW cardiovascular disease is the biggest contributor to the gap in mortality between Aboriginal and non-Aboriginal people. NSW Health is delivering a range of initiatives to reduce the burden of cardiovascular disease in Aboriginal communities and close the life expectancy gap. These include the Better Cardiac Care project, which aims to reduce mortality and morbidity caused by cardiac conditions through increasing access to services, improving management of risk factors and improving the co-ordination of care. Specific Better Cardiac Care activities include:

- supporting initiatives to reduce smoking rates such as brief interventions and Quitline referrals
- ensuring chronic disease programs for Aboriginal people align with current evidence
- improving the uptake of cardiac rehabilitation by Aboriginal people
- supporting Aboriginal Community Controlled Health Services in Clinical Quality Improvement activities
- analysing linked Medicare data to understand the journey of patients with cardiovascular disease through the health system
- making acute rheumatic fever and rheumatic heart disease notifiable
- establishing a statewide electronic register for rheumatic heart disease.

Managing chronic conditions

The Agency for Clinical Innovation supported six workshops to improve respiratory care for Aboriginal people. Fifty nine staff working in Aboriginal health completed a two-day workshop, of which 41 were Aboriginal Health Workers.

The Agency's Pain Management Network published a guide to telehealth consultations with Aboriginal people for pain management, to support the delivery of culturally competent telehealth pain services.

Service mapping was undertaken to help address inequitable access to High Risk Foot Services. Variation in amputation rates is much higher in Aboriginal people (53.9 per 100,000 population) than in non-Aboriginal people (12.7 per 100,000 population).

Cancer screening and care

The Cancer Institute NSW has:

- awarded 26 screening and prevention grants, to the value of $3,878,142, to engage people with lower screening participation rates
- conducted face-to-face consultations with 17 Aboriginal medical services across NSW to inform the development of a culturally-appropriate lung cancer care pathway for Aboriginal people

- enhanced the identification of Aboriginal people on the NSW Cancer Registry using linked administrative data.

Maternal and infant health

At 30 June 2017, Aboriginal children aged 1 and 5 were 94.3 per cent and 96.7 per cent fully vaccinated, respectively, compared with 93.6 per cent and 93.4 per cent of non-Aboriginal children.

The NSW Ministry of Health established a Cultural Reference Group as part of the Aboriginal Maternal and Infant Health Service evaluation. The group has Aboriginal membership from across NSW and provides Aboriginal cultural and community expertise to the evaluation, which will be finalised in 2018.

Domestic and family violence

NSW Health established two Local Support Coordinator (LSC) positions at the Wellington Aboriginal Corporation Health Service and Dubbo Neighbourhood Centre. The positions were established under the Commonwealth Women's Safety Package and are part of the Aboriginal Family Health and Violence Prevention workforce in NSW. The positions deliver frontline services to women affected by family violence, including working with women to ensure with women to ensure their safety and continued support. The positions align with the *Aboriginal Family Health Strategy 2011-2016: Responding to Family Violence in Aboriginal Communities*, which aims to reduce the incidence and impact of domestic and family violence in Aboriginal communities by promoting culturally safe and holistic service provision by NSW Health and key stakeholders such as Aboriginal Community Controlled Health Services and non-government organisations.

Housing and health

The Housing for Health program is delivered across NSW to maintain homes including essential health hardware (for example, fixing a leaking toilet, electrical repairs, having sufficient hot water, having somewhere to wash a young child). This can lead to improvements in the health of tenants, in particular children aged 0-5 years, and reduce the risk of disease and injury. In 2016-17, Housing for Health was delivered to 497 houses in 13 Aboriginal communities. More than 3206 items relating specifically to health and safety were fixed, benefiting 1950 people.

Healthy lifestyles

The NSW Knockout Health Challenge is a community-led healthy lifestyle and weight loss challenge for Aboriginal communities across NSW. In 2016-2017 a total of 1293 Aboriginal people participated, losing 2.4% of their body weight on average. The Challenge was implemented also with 65 participants from Wellington Correctional Centre, the first time the program has been delivered in a correctional setting.

The Get Healthy Information and Coaching Service is a free NSW Health service that supports adults to reach their healthy lifestyle goals. Since inception in February 2009 to June 2017, 2260 Aboriginal people have used the service making up four per cent of total participants.

The Dalang Project is an oral health project which employs oral health therapists in six Aboriginal Community Controlled Health Services across NSW. It is a partnership between the Poche Centre for Indigenous Health, the Rotary Club of Australia, the Centre for Oral Health Strategy, Nepean Blue Mountains Local Health District and each hosting Aboriginal medical service. The model is unique as it enables oral health therapists to engage with local Aboriginal communities and implement culturally effective oral health promotion solutions, as well as provide dental treatment. Each oral health therapist is responsible for collaborating with the local Aboriginal community to implement these strategies in a local target school. The Poche Centre provides the planning and coordination required to implement these programs.

The Quit for New Life program supports pregnant women and their family members to quit smoking. From 2013 to 2017, it supported more than 4650 Aboriginal clients, including 2229 pregnant women, 909 postnatal women and 1513 family members.

The NSW Needle and Syringe Program prevents the transmission of blood-borne viruses among people who inject drugs and the broader community. In NSW, 18 per cent of all clients accessing the program identified as Aboriginal people.

Go4Fun is a free 10-week program about healthy lifestyles for children aged 7-13 who are above a healthy weight. An Aboriginal-specific version of the program was delivered from February 2017.

Take Blaktion is a campaign empowering Aboriginal young people to make informed decisions about their sexual health, using comedy to reduce stigma and shame.

The Justice Health and Forensic Mental Health Network engaged 545 Aboriginal young adults in culturally and gender specific sexual health education. The sessions aimed to address the high incidence of sexually transmitted infections and risky sexual behaviours among young men in custody.

Accountability

NSW Health is strengthening broader health system performance and accountability by developing Aboriginal health dashboard indicators. Dashboards will be used to inform discussions between the Ministry and local health districts and specialty health networks about Aboriginal health measures that span workforce, safety, quality and access to care.

In 2017, a revised *Aboriginal Health Impact Statement* was issued to NSW Health staff. The tool supports staff to apply an 'Aboriginal health lens' to the development of new or revised health policies, programs and strategies. The AHIS uses a range of examples, prompts and targeted questions to support and guide staff to carefully consider and apply the health context, impact and engagement of Aboriginal people to health initiatives.

1.3 COLLABORATE TO SUPPORT VULNERABLE YOUTH TO PROTECT CHILDREN AT RISK AND REDUCE HOMELESSNESS

Youth Community Living Support Services

The NSW Government has provided funding to ensure community-based psychosocial support services for young people with severe and complex mental illness and their families through the Youth Community Living Support Services (YCLSS). Two community managed organisations (Flourish Australia and Wellways Australia), in partnership with their local mental health services, deliver developmentally appropriate support to young people aged 16 to 24 and their families.

> **The new NSW Youth Health Framework 2017-24 targets support for people aged 12 to 24 years**

Youth Community Living Support Services support young people's recovery in the earlier stages of their illness and reduce their risk of developing more significant disability. These services assist young people to minimise periods in hospital and provide practical assistance in developing living skills, accessing education and training, and improving relationships with family and friends.

YCLSS builds on the successful trial of the Young People's Outreach Program (Y-POP) delivered by Richmond PRA (now Flourish Australia) in Western Sydney. An independent evaluation of the Y-POP service found an 80 per cent reduction in the amount of time spent in hospital by young clients after they entered the program.

Whole Family Teams

The Government provided funding to expand the Whole Family Teams program to include three extra teams in the Nepean Blue Mountains, Western Sydney and South Western Sydney local health districts.

Whole Family Teams provide a tertiary specialist health outreach service in the home that is structured to help families where parents have drug and alcohol and/or mental health issues and where there is a substantiated risk of significant harm. Families are primarily referred by the Department of Family and Community Services.

An independent evaluation of Whole Family Teams found the model was highly successful in improving child safety, parental mental health and drug and alcohol outcomes, and family functioning. An independent theoretical analysis also suggests the model has potential to provide a substantial return on investment over the long term for both Government and society.

The NSW Youth Health Framework 2017-24

The *NSW Youth Health Framework 2017-24* was developed after statewide consultation, including with young people. The Framework guides NSW Health to promote health and wellbeing and provide responsive services for people aged 12 to 24 years. It provides a platform to build staff capacity and encourages targeted service models and strengthened partnerships for vulnerable young people who are at higher risk of poor health.

1.4 DEVELOP A WHOLE OF HEALTH SYSTEM DRUG AND ALCOHOL RESPONSE

The NSW Government's NSW Drug Package applies over four years to tackle drug misuse.

As part of the package, NSW Health:

- enhanced, by $8 million over four years, three alcohol and other drug specialist non-government organisations to increase drug and alcohol residential rehabilitation services for women with dependent children
- established and enhanced substance use in pregnancy and parenting services across eight regional/rural and metro local health districts
- established assertive community management services to help people with severe substance dependence and highly complex needs across eight regional/rural and metro local health districts and one specialty health network
- enhanced funding to local health districts and the Justice Health and Forensic Mental Health Network to provide alcohol and other drug treatment services
- established a Youth Addiction Medicine Fellowship Program through the Sydney Children's Hospitals Network and John Hunter Hospital
- established an $8 million Alcohol and Early Intervention Innovation Fund, to function over four years, for non-government organisations and their partners to build the evidence base with a focus on young people using drugs, prevention and early intervention, harm reduction or after-care/relapse prevention. There was $720,000 awarded for non-government organisation evaluation grants
- enhanced Family Drug Support service delivery and mapped services that support families and significant others of people with problematic substance use.

The NSW Government continued to deliver its $11 million program to treat and support people using crystalline methamphetamine by:

- continued provision of stimulant treatment programs in six local health districts
- enhancing community based non-government service delivery in three rural and regional locations
- delivering education and support activities to communities and the Aboriginal health workforce to assist in responding to crystalline methamphetamine use.

The NSW Health Opioid Treatment Program continued to develop in 2016-17, increasing access and treatment options, with preparation underway for a trial of injectable buprenorphine and enhancements in conjunction with the Justice Health and Forensic Mental Health Network.

The Justice Health and Forensic Mental Health Network assessed 16,386 patients on entry to correctional centres for withdrawal management issues. The Network maintained 1244 new patients on Opioid Substitution Treatment (OST) on entry to custody in 2016-17. The Network is the largest public provider of OST in NSW, providing treatment to 1586 clients on a snapshot day in 2016. The Network's Connections program supported the transition of care of 778 adult custodial patients with drug and alcohol concerns. The program develops tailored treatment plans for each patient and links them with health and welfare services to support their reintegration into the community during the critical post-release period. The Network also assessed and developed community-based treatment plans for 969 patients in the Drug Court Program.

1.5 DRIVE WHOLE OF GOVERNMENT INITIATIVES TO REDUCE DOMESTIC VIOLENCE AND PERPETRATOR RE-OFFENCES

Violence

The *NSW Domestic and Family Violence Blueprint for Reform 2016-2021: Safer Lives for Women, Men and Children* sets out how to reform the domestic violence system in NSW. The Blueprint is for building an effective system that addresses the causes and responds to the symptoms of domestic and family violence. It includes strategies to prevent domestic and family violence, intervene early with individual and communities at risk, support victims, hold perpetrators to account, and improve the quality of services and the system as a whole.

To support the Blueprint the NSW Government has doubled its investment in specialist domestic violence services and initiatives to more than $300 million over four years, up from $148.5 million in the 2015-16 Budget.

The NSW Domestic Violence Disclosure Scheme helps people who may be at risk of domestic violence to find out if their current or former partner has a history of violent criminal offences. The Scheme is the first of its kind in Australia.

Safety Action Meetings are a key element of the It Stops Here NSW Government Domestic and Family Violence Reforms. Safety Action Meetings promote more efficient information sharing between service providers to improve victim safety, facilitate access to domestic violence support services, promote earlier intervention and reduce stress and trauma for victims and their children. NSW Health participates in all 27 Safety Action Meetings across NSW.

The portfolio responsibility for domestic violence transferred from NSW Health to Family and Community Services in 2017.

> **The NSW Government has doubled its investment in specialist domestic violence services to more than $300 million over four years**

Perpetrator re-offending

The Justice Health and Forensic Mental Health Network supports multiple programs aimed at reducing instances of re-offences by perpetrators. For example, there were 1317 young people in custody who participated in antenatal care and parenting education sessions, including advice on appropriate and supportive relationships with their children and partners/co-parents. The Network's Community Forensic Mental Health Service started phase one of the Reasoning and Rehabilitation risk reduction group program, which aims to reduce the risk of violence and future offending in participants. The program was designed by Cognitive Centre Canada and includes cognitive behavioural therapy over 36 sessions.

The Network also supports reduced reoffending by addressing the health conditions that impact offending behaviour, such as drug and alcohol misuse and mental illness. In 2016-17, the Network:

- diverted 3009 adults and young people with identified mental illness from custody into community-based care
- achieved a zero bail breach or return-to-custody among participants of its pilot Aboriginal Court Diversion and Bail Support Program. The initiative targets individuals with complex mental health and/ or drug and alcohol concerns as well as significant social needs.

PROVIDE WORLD-CLASS CLINICAL CARE

NSW HEALTH IS IMPROVING PERFORMANCE AND CONTINUING TO FOCUS ON QUALITY CONTROL TO DELIVER BETTER PATIENT CARE. HOSPITALS ARE A CORE PART OF THE NSW HEALTH SYSTEM WITH THE PRIORITY BEING TO PROVIDE HIGH QUALITY, PATIENT-CENTRED CLINICAL CARE.

The way health care services are delivered throughout the NSW Health system is changing. Increasingly, acute hospitals are not a stand-alone service but part of an extensive health and medical network designed to serve the diverse and growing needs of the NSW community. This means working with clinicians and managers to develop and implement new models of care to better serve patients within hospital and beyond them. To achieve this, NSW Health must also link with services provided in private and non-government sectors, including those funded by the Commonwealth Government such as general practice.

CHALLENGES

Open 24 hours a day, seven days a week, NSW Health often provides the first point of contact for those needing access to health care. The challenge is to continue to ensure that innovation is driven through locally-led, centrally facilitated initiatives that can be expanded across the system, as well as maintain a focus on flexibility to ensure programs can be tailored to meet the needs of local communities.

WHAT NSW IS DOING

One of the NSW Premier's Priorities is to improve service levels in hospital and ensure 81 per cent of patients are seen, treated and discharged from emergency departments within four hours by 2019. To support this Priority NSW Health is focusing on best practice models of care for patients at the right time, in the right place.

The NSW Health system is also putting decision-making closer to the patient. Extensive consultation with patients and their carers tells clinicians and managers how to improve the care they provide. Key priorities include:

- providing care that is safer and of higher quality
- improving service by cutting waiting times for emergency care and planned surgery
- leading patients and carers to be more engaged with health services
- implementing strategic commissioning for clinical services.

HIGHLIGHTS

- 91.7 per cent of patients were transferred from ambulance to emergency department care within 30 minutes, exceeding the target rate of 90 per cent
- 87 per cent of rural and regional patients were through emergency within four hours
- NSW has the highest proportion in the country of people moving through emergency departments in four hours
- Better and faster meal services in hospitals provided increased satisfaction and wellness for patients
- The *Last Days of Life Toolkit* was published to support the care of dying patients
- NSW Patient Survey Program asked people across the State about standards of care
- A risk assessment tool was developed to help prevent blood clots in pregnant and post-partum women

2.1 DELIVER BETTER VALUE CARE THROUGH SAFE, QUALITY, EFFICIENT AND EVIDENCE–BASED CARE

NSW Health has a system-wide approach to delivering care that is safe, high quality, efficient and evidence-based.

Quality and safety

The Ministry of Health is continuing its already strong focus on the safety and quality of care through the coordination of reportable incidents, root cause analyses, coronial inquiries and investigations by the Health Care Complaints Commission (HCCC). The consideration of recommendations arising from these matters has been a key tool for the Ministry to improve patient safety, minimise identified and emerging risks, and enhance organisational learning.

> **1575 staff received Speaking Up for Safety training in Western NSW Local Health District**

A revised monitoring system for coronial and HCCC matters tracks the progression of each matter from the beginning of an inquest until the resolution of all recommendations.

The Ministry continues to collaborate with the Clinical Excellence Commission and local health districts/specialty health networks to develop new strategies on safety and quality management.

The Agency for Clinical Innovation launched the Investigating Clinical Variation project and the Quality Improvement Collaboration (QuIC) online forum in June to investigate clinical variation in mortality and re-admissions, as reported by the Bureau of Health Information. (The Bureau published two reports from The Insights Series providing detailed, hospital-level information about mortality and re-admission rates in NSW from July 2012 to June 2015. The Bureau also published two *Spotlight on Measurement* reports which provided information about methods and technical issues relevant to measuring clinical variation in NSW.) Clinicians, managers and consumers have committed to using QuIC thinking to address clinical variation in the acute management of people admitted to hospital with chronic heart failure and chronic obstructive pulmonary disease. This approach involves detailed data analysis, formal feedback with clinicians and managers, and supported implementation.

The Clinical Information Access Portal provides all NSW Health staff with access to the world's best available medical evidence to support evidence-based health care. It can be accessed at the point of care, regardless of geographical location.

Diabetes increasingly exists with other comorbidities, making blood glucose management a critical and complex problem. Complexity and errors increase when information is distributed throughout the Electronic Medical Record. Over the year, eHealth NSW's Blood Glucose Levels (BGL)-Insulin Project sought to reduce unnecessary complexity and support more effective BGL assessment and management.

The Electronic Medications Management (eMeds) system was live at 13 NSW public hospitals by the end 2016-17. eMeds provides a smarter and safer way for clinicians to prescribe, order, check, reconcile, dispense and record the administration of medicines to hospital patients. eMeds provides a complete digital picture of a patient's medicines in real time from anywhere in a hospital, and facilitates improved communication across patients' health care teams. Research indicates that electronic medication systems can reduce medication errors and adverse drug events during hospital stays by more than 55 per cent.

eHealth NSW is developing a comprehensive safety and quality framework to underpin the development of its infrastructure, clinical and corporate systems. The framework is focused on building health IT systems for safety and quality. This work is being undertaken with the NSW Ministry of Health, local health districts, pillars and clinicians to ensure eHealth NSW systems support best clinical practice.

The Clinical Excellence Commission continues to work to support local health districts and specialty health networks to deliver world class quality care. In 2016-17, it developed a NSW Maternity Venous Thromboembolism risk assessment tool, and developed supporting resources, to help prevent blood clots in pregnant and post-partum women. It also developed evidence-based resources for safer use of non-Vitamin K antagonist oral anticoagulants – a type of high-risk medicine.

The Commission prepared 10 Safety Alerts/Notices and nine Medication Shortage Communications to minimise medication safety risks. It also translated information brochures on antibiotics and antibiotic resistance into six languages to support decision making by patients and clinicians.

The System Purchasing Branch of the Ministry held a safety and quality workshop for senior clinicians, health information managers and other executives to consider how purchasing adjustors and performance measures support the delivery of safe, optimal quality care. The workshop informed the 2017-18 Service Agreement process.

The formal transition to the Paramedic Response Network reflects an evolution in the way NSW Ambulance delivers emergency medical patient care. As part of this process, NSW Ambulance placed into its new superstations the Make Ready Model logistics support team, provided by HealthShare NSW, to use modern inventory management and the best environmental cleaning and infection control standards to ensure vehicles are restocked efficiently, cleaned and ready to go when needed by paramedics. This allows paramedics to focus on care of patients.

Efficiency

The HealtheNet Program provides NSW clinicians secure access to vital pathology test results for the first time. NSW became the first state or territory to add pathology results to the national My Health Record, because HealtheNet can pass clinical data along to My Health Record.

The *NSW Framework for New Health Technologies and Specialised Services* outlines how to review health technology new to the public health system. The document provides guidance for local health districts/specialty health networks and pillars to support their role in the local evaluation of new technologies.

The *NSW Health Genomics Strategy* was developed after extensive consultation and was due to be published in the second half of the 2017 calendar year. The Strategy aims to create a shared vision for clinical genomics in NSW, and to avoid fragmentation and duplication of resources. The Strategy aligns with the *National Health Genomics Policy Framework*, due for release in November 2017.

2.2 IMPROVE SERVICE LEVELS IN HOSPITALS

Emergency Treatment and Transfer of Care performance

The State's continual achievement of the Transfer of Care (TOC) target has led to a new standard of excellence. This year 91.7 per cent of patients were transferred from ambulance to emergency department care within 30 minutes, an improvement of 4.3 percentage points on 2015-16, with June 2017 marking the tenth consecutive month the 90 per cent target was achieved.

SYDNEY LOCAL HEALTH DISTRICT

Central line infection prevention in newborns

CUTTING INFECTION RATES FOR BABIES

Vulnerable newborns suffered fewer blood stream infections associated with the use of central lines under a staff education program.

Central lines are a vital part of care for sick newborns, providing a stable portal for provision of life-saving medications and the necessary nutrition that babies need to grow.

Prevention of central line-associated blood stream infections (CLABSI) was a key objective for improvements in patient safety and reduction of mortality, morbidity, hospital stays and costs.

The training included skills such as insertion and maintenance of central lines as well as hand hygiene, assertiveness training to facilitate staff empowerment and audit feedback to give encouragement to staff at the Newborn Care Unit of Sydney Local Health District. Specific skills were developed during interactive problem solving scenarios.

An analysis showed significantly reduced central line use and catheter dwell time, and a sustained reduction in central line-associated infections.

The project highlighted the substantial impact on clinical practice that could be made within one nursery and was generalised for implementation in other neonatal units.

The project received the Harry Collins Award at the 2016 NSW Health Awards.

The Emergency Treatment Performance (ETP) target of 81 per cent of patients moving through hospital emergency departments in four hours by 2019 is part of the Premier's Priority for 'improving service levels in hospitals' and aims to ensure safer and timely treatment for patients. The Ministry of Health has systems to help local health districts and specialty health networks achieve the target.

In 2016-17, the statewide ETP rate was above 70 per cent every month, with the highest performance in December and January (above 76 per cent). A large percentage of rural and regional facilities consistently achieve over 81 per cent, contributing to the state result.

91.7 per cent of patients across the state were transferred from ambulance to emergency department within 30 minutes

The 90 Day Challenge (90DC) is an innovative project to improve processes for discharge planning and coordination. It is a collaborative method that challenges hospitals to implement improvements within 90 days, in partnership with their teams and patient representatives. The initial phases of 90DC produced new resources for improved discharge planning and management. A key focus of the strategy is to ensure best practice models spread across the system.

By end June 2017, 109 telehealth terminals had been installed across NSW Health facilities, including at a number of residential aged care facilities. The terminals improve timely access to safe health care and reduce unnecessary travel for patients and clinicians to emergency departments.

Elective surgeries

NSW Health is committed to achieving the State Priority of cutting wait times for planned surgeries by increasing on-time admissions for planned surgery in accordance with medical advice, and is on track to achieve the target. The Ministry is working closely with targeted hospitals to monitor improvement strategies, including spot purchasing, and a monthly teleconference. A monthly teleconference is hosted by the Ministry surgery team with surgery wait list managers from all districts and networks to discuss performance.

The System Purchasing Branch of the Ministry provides expert advice and targeted support to districts and networks to improve emergency access and elective surgery performance. In 2016-17, specialists monitored targets and visited districts and networks to help drive improvements.

The Agency for Clinical Innovation's Surgical Services Taskforce continues to support the Emergency Surgery Guidelines, which it developed with experienced surgical staff to define the principles underpinning the redesign of emergency surgery including:

- measuring the generally predictable emergency surgery workload
- allocating operating theatre resources that are matched to the emergency workload
- consultant surgeon-led models of emergency surgery care
- standard-hours scheduling where clinically appropriate.

The Surgical Services taskforce also developed and is implementing the Operating Theatre Efficiency Guidelines. These guidelines are a best practice guide for the management of operating theatres in hospitals and provide assistance on efficiency measures and cost considerations.

NORTHERN SYDNEY LOCAL HEALTH DISTRICT

Reducing avoidable ambulance presentations in emergency

ELDERLY CALLING FOR AMBULANCE GIVEN THE BEST RESPONSE

Careful evaluation of calls to the NSW Ambulance booking system reduced the number of elderly people presenting to hospital emergency unnecessarily.

The simple and low cost program was undertaken by the Geriatric Rapid Acute Care Evaluation (GRACE) team at Hornsby Ku-ring-gai Health Service. They monitored calls for ambulances to attend residential aged care facilities in the area, assessing the urgency of the need and whether a hospital trip was being requested for sub-acute or chronic health issues.

Data showed a 15 per cent reduction in unnecessary hospital presentations after the initiative. A 12 per cent reduction in hospital presentations was recorded, as was a 10 per cent reduction in calls to the identified residential aged care facilities, compared with the previous year.

The team aimed to develop the service to include a broader multidisciplinary team to provide more appropriate care to the elderly patients in their own environment, enabling them to spend less time in hospital and avoid hospital related complications.

The project received the Minister for Health Award for Innovation and was a finalist for Integrated Health Care at the NSW Health Awards.

Photo: Unnecessary hospital visits were avoided by careful monitoring of calls involving residential aged care facilities.

2.3 IMPROVE PATIENT AND CARER SATISFACTION WITH KEY HEALTH SERVICES AND BUILD STRONG ENGAGEMENT

Data about how patients experience the health care system plays an increasingly prominent role in determining how care is provided at state and Commonwealth levels. Reliable and accurate data, gathered via extensive consultation with patients and shared in a timely fashion, is an important tool for health care organisations to evaluate and improve their performance in all areas of care and service.

Listening to patients

The NSW Patient Survey Program asks different groups of people about their health care experiences. In 2016-17, the Bureau of Health Information conducted surveys with adult patients admitted to public hospitals (including small and rural hospitals), admitted children and young patients, emergency department patients of rural, regional and metropolitan hospitals, maternity patients and patients attending outpatient clinics.

The Bureau published two Patient Perspective reports reflecting on experiences of care by Aboriginal people who had a recent hospital admission, and by women who received maternity care.

The Bureau has increased the data publicly available on its online portal, Healthcare Observer, to include patient survey feedback from maternity patients, adult admitted patients, and people who used outpatient cancer clinic services. It provides all patient survey feedback to people who work within local health districts and who are responsible for improving patient experience in hospitals.

The Agency for Clinical Innovation, meanwhile, has led the implementation and formative evaluation of the Patient Reported Measures program, which empowers patients and their carers to provide direct, timely feedback about how they were treated in the health care system and the results that were achieved. eHealth NSW is contributing to the design of the program, using information and communications technology to make sure as many patients as possible are able to efficiently provide their feedback.

> **The NSW Patient Survey Program surveys adults and young people across the health system about the care they receive**

Engaging the workforce

NSW Health engages with clinicians and managers across the system to improve the safety and quality of care provided, using data and evidence as their guide. Activities included:

- The Essentials of Care program supports the development of nursing and midwifery practice and patient care. Its 2017 Showcase was held in May 2017 and attended by more than 500 clinicians, consumers, senior managers and key stakeholders. Outstanding initiatives from across the state were recognised, such as the Lismore Renal Unit's collaborative model of staff and consumer engagement which was used in the development of the new unit.

- Clinical Engagement Forums held across NSW provided more than 1500 metropolitan, regional and rural clinicians with the opportunity to contribute to the development and enhancement of clinical technology used to care for patients.

- The Clinical Excellence Commission published *The Last Days of Life Toolkit* to support clinicians in the care of dying patients in NSW health facilities.

WESTERN SYDNEY LOCAL HEALTH DISTRICT

Caring for Our Carers

BEDDING DOWN FOR BETTER CARE

Patients experienced less stress and were less exposed to injuries from falls when their carers stayed with them overnight in hospital rooms.

The Caring for Our carers trial program was developed after staff at Western Sydney Local Health District listened to requests from patients for carers to be allowed to stay in hospital while providing support.

The carers were able to sleep next to patients in 40 specially modified single rooms in the new Clinical Services Building at Blacktown Hospital. The rooms had been modified by a team of architects, patients, carers and staff of Health Infrastructure to include a privacy curtain and a sofa bed that offered a comfortable place to sleep for the carer. The modifications did not interfere with safe clinical care being provided to the patients.

Carers were able to leave hospital well-rested and ready to continue providing care when the patient was discharged.

Staff saw that having carers present also helped solve communication problems with patients who were confused and from culturally and linguistically diverse backgrounds.

The initiative was being developed to help patients in more NSW hospitals, including new facilities for Stage 2 at Blacktown Hospital and as part of the Westmead expansion.

It also attracted interest from hundreds of local and overseas health professionals.

The program was born during consultations for the Blacktown and Mount Druitt Hospitals Expansion Project.

The Western Sydney Local Health District implemented a number of changes to support it, including new resources for patients, information for staff and revised visiting hours.

The project received the Caring for our Carers Award at the 2016 NSW Health Awards.

Photo: Facilities for carers in hospital rooms made life better for patients without affecting clinical care.

- eHealth NSW's Electronic Record for Intensive Care (eRIC) team and the Port Macquarie Base Hospital won the 2017 Mid North Coast Local Health District Innovation Award for Digital Technologies Transforming Health. The clinical enhancements that eRIC provides across the health system reflect the benefits of a system that is built by clinicians for clinicians.

- The Organisational Safety Improvement Matrix was introduced in 15 local health districts and specialty networks to generate shared priorities among local teams for improvements in safety.

2.4 IMPLEMENT NEW BUSINESS INVESTMENT MODELS TO DELIVER EVIDENCE–BASED SOCIAL IMPACT

NSW Health has delivered two new Social Impact Investments in 2016-17, providing new services in palliative care and mental health in partnership with reputable non-government organisations.

Australia's first social impact investment to support palliative care patients will be delivered by Silver Chain Group in partnership with NSW Health. The Silver Chain Group Community Palliative Care Service will operate in Western Sydney Local Health District over the next seven years.

Two new Social Impact Investments increase services in palliative care and mental health

In collaboration with Flourish Australia and Social Ventures Australia, a new social impact investment has been developed to improve the wellbeing of mental health patients and reduce their reliance on health and other government services. Flourish Australia will deliver the Resolve Program to approximately 530 patients in Nepean Blue Mountains and Western NSW local health districts. Each Resolve participant will be provided with comprehensive, recovery-oriented mental health support over two years, tailored to their individual needs. Participants will benefit from a residential service for periodic care; integrated psychosocial mental health support; and a warm line for after-hours support from peers. The Resolve Program will be supported by a $7 million Social Benefit Bond, raised and managed by Social Ventures Australia.

The aim of each investment is to provide holistic, integrated, community-based care, shifting spend away from high cost acute services.

NORTHERN NSW LOCAL HEALTH DISTRICT

Early recognition of dementia. Memory assessment program

TREATMENT FIRST FOR COUNTRY PATIENTS WITH DEMENTIA

People with memory problems and dementia were given local access to specialist assessment for the first time under a telehealth program that overcame the barrier of distance on the north coast.

The free program allowed frustrated local doctors in the Tweed Valley to have their patients work with a specialist memory clinic when such services had otherwise not been available in the region. The Tweed Valley has the highest prevalence of people with dementia in NSW.

The Early Recognition of Dementia: Memory Assessment Program was a collaboration of private and public health practitioners, including the area teleheath manager. It offered doctors and their patients a central point of access for specialised care via a videoconferencing system.

Two years after their introduction, the clinics had greatly increased the number of referrals. With feedback to general practitioners, after-hours clinics and referral to other services and non-government organisations, they were considered the 'go-to' clinics in the Northern NSW Local Health District for patients with memory problems.

The project was replicated by other health services and received the Collaborative Team Award in the 2016 NSW Health Awards.

Photo: Getty Images

2.5 IMPLEMENT STRATEGIC COMMISSIONING FOR RELEVANT CLINICAL SERVICES

NSW Health's Purchasing Framework aligns with the *NSW State Health Plan*, is informed by the State's funding guidelines, and is aligned to the State budget process. The Purchasing Framework determines the services that should be purchased to allow the State health priorities to be achieved. It translates the Government's strategic investment priorities into the type and volume of services to be purchased from local health districts and specialty health networks, and defines the associated incentives and business rules for implementation within the financial year. The function of purchasing is a key component of the annual business planning cycle.

> **eHealth NSW saved $10 million with a new purchasing model**

As part of a functional review of the Ministry, governance of annual Service Agreement development was changed to better reflect its role of system manager and ensure a more transparent and effective process for purchasing decisions. A Service Agreement Governance Committee keeps patients and carers at the forefront of decision making.

Demand for peritonectomy (a complex abdominal operation where the membrane lining the abdominal cavity and its organs are removed for specific cancers) has increased over time. After an extensive review and planning process, the Ministry sought an operator for a second public sector peritonectomy service. Royal Prince Alfred Hospital demonstrated the ability to provide a robust service with strong clinical and infrastructure support, and robust clinical governance. The hospital opened the second site in April.

In 2016 a memorandum of understanding (MOU) was established between NSW Ambulance and a number of after-hours medical deputising services. This has expanded to six services providing paramedics with a 'see and refer' pathway for low acuity patients who call triple-zero (000) and whose conditions do not warrant transport to an emergency department. This MOU has been supported through promotion, via NSW Ambulance's *Is Your Urgency an Emergency?* campaign.

Implementation of the category management model for purchasing delivered more than $10 million in savings for eHealth NSW, as well as a higher level of engagement with procurement services.

DELIVER TRULY INTEGRATED CARE

DELIVERING THE RIGHT CARE, IN THE RIGHT PLACE, AT THE RIGHT TIME RELIES ON A CONNECTED HEALTH SYSTEM THAT IS ORGANISED AROUND THE NEEDS OF THE PATIENT. IT REQUIRES A SYSTEM THAT THE PATIENT AND THEIR CARERS CAN EASILY NAVIGATE TO ACHIEVE BETTER HEALTH. SUCH A SYSTEM ALSO AVOIDS DUPLICATE TESTS AND UNPLANNED HOSPITALISATIONS, BUT ENSURES PATIENTS DON'T 'FALL BETWEEN THE CRACKS' OF THE MANY PROGRAMS ACROSS THE PUBLIC AND PRIVATE SECTORS.

Integrated care involves seamless and effective care for people across different providers and funding streams. It ranges from prevention and early intervention through to end-of-life care, across physical and mental health in partnership with individuals, their carers and families.

It also reduces unnecessary and costly emergency department presentations and hospitalisations to create a more financially sustainable health system.

CHALLENGES

The challenge is to deliver seamless, effective and efficient care sustainably in all instances, particularly for people with complex and chronic conditions.

WHAT NSW IS DOING

To meet this challenge, NSW is transforming the health system to one where hospitals work in partnership with the primary care sector, including general practitioners and community services to make sure people with chronic and complex care needs stay healthy and out of hospital. Steps to achieve this include:

- embedding emerging models of integrated care and care in the community, working with the Commonwealth
- implementing plans to deliver mental health reform across the system
- promoting choice through the introduction of end of life programs
- protecting the vulnerable through transition to the National Disability Insurance Scheme.

HIGHLIGHTS

- The *NSW Integrated Care Strategy* leads co-ordination of care across the health system
- International forums share global knowledge about integrated care
- 61 general practices were selected for the Health Care Homes initiative for people with chronic conditions
- New custodial shared care model implemented in all correctional centres
- 560 patients of Justice Health and Forensic Mental Health Network linked to community health services on release
- Patient Reported Measures program gathers extensive feedback from patients about their care
- 58 long stay psychiatric patients successfully helped to live in the community
- Community consultations across NSW to inform new State plan for palliative care

3.1 EMBED EMERGING MODELS OF INTEGRATED CARE AND CARE IN THE COMMUNITY

The *NSW Integrated Care Strategy*

Now in its fourth year, the *NSW Integrated Care Strategy* supports the development of innovative care for people that is co-ordinated across all parts of the health system.

In 2015, the NSW Government committed $60 million over two years to the Strategy, bringing the total investment to $180 million over six years.

Highlights of the program in 2016-17:

- delivery of integrated care initiatives to people living across NSW
- delivery of education sessions and development programs to health professionals
- relationships between local health districts/specialty networks and their partners continued to mature and support the delivery of integrated care. Partners included primary health networks, general practices, local councils, schools and non-government providers

Phase one of the Health Care Home scheme will involve 61 general practices

---

MID NORTH COAST LOCAL HEALTH DISTRICT

VIP. Vocational intervention program

TWO WAYS BACK TO WORK FOR BRAIN INJURY PATIENTS

People with traumatic brain injuries were given a chance to return to work sooner under a partnership between health services, insurers and vocational rehabilitation providers.

The service, which was designed to help people across the state, developed two routes to employment: Fast Track was an early intervention service with a rapid return to work through early referral for vocational rehabilitation assessment, while New Track explored new employment opportunities through work trial placements with local employers.

Eighteen patients took part in the program, which was created under a partnership between the Mid North Coast Brain Injury Rehabilitation Service and the CHESS employment and support service.

The patients experienced the benefits of effective inter-agency communication and sharing of expertise, even as the participating organisations recognised that boundaries between the professions sometimes had to be taken into consideration.

Patients found the program efficiently co-ordinated additional services to avoid duplication during rehabilitation provided by the Brain Injury Rehabilitation Service.

The processes developed would be scalable to other NSW Brain Injury Rehabilitation Services.

The project was a finalist in the 2016 NSW Health Awards.

Photo: Getty Images.
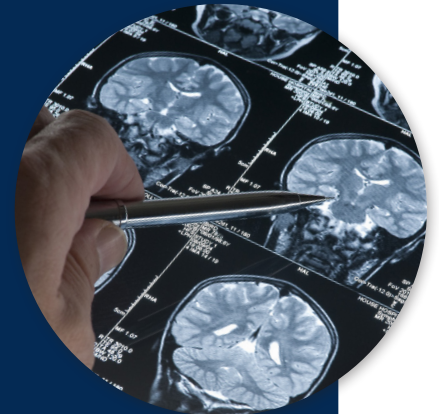
- successful models of integrated care and service delivery were embedded in sustainable 'business as usual' models, including the Northern Sydney Musculoskeletal Initiative and the South Eastern Sydney Multi-Level Clinic for Skin Cancer
- successful elements of integrated care initiatives were ready to be scaled and shared between regions, including the Northern NSW Admission and Discharge Notifications program
- local integrated care initiatives were aligned within the Service Agreement process for 2017-18, including measures to monitor implementation and inform decisions about funding
- the approach for people with chronic conditions was redesigned, such as reviewing of the risk of hospital admission in the next 15 months for people enrolled in the former Chronic Disease Management Program and offering integrated care initiatives such as health coaching

- sharing what has been learnt with local and international colleagues, including at the Fourth World Congress on Integrated Care (in Wellington, New Zealand in November 2016), the NSW Integrated Care Forum 'Redesigning Health Care for the Future' (in Sydney in February 2017), and the 17th International Conference on Integrated Care (in Dublin, Ireland in May 2017)

- further development, testing and roll-out of technology to support team care across primary and acute care providers, such as Admission and Discharge Notifications for GPs.

Evaluation of the *Integrated Care Strategy* is multi-faceted with quarterly analysis of linked data sets including emergency department presentations and potentially preventable hospitalisations. Patient Reported Measures data (see below) will be added. Details are set out in the *NSW Health Monitoring and Evaluation Framework 2016*.

National view

NSW Health also provides advice and resources to health system reform being led by the Commonwealth, including the development of the Bilateral Agreement on Coordinated Care and the implementation of the Health Care Homes initiative in NSW. A Health Care Home is a general practice or Aboriginal Community Controlled Health Service that co-ordinates care for patients with chronic and complex conditions. Phase one of the scheme will involve 61 general practices in the Hunter New England and Central Coast, Nepean Blue Mountains and Western Sydney local health districts.

Listening to patients

The Patient Reported Measures program is a key enabler of integrated care. The program gives patients and their carers the opportunity to provide direct feedback about their treatment and its results. Health care providers use the information to understand what matters most to patients, participate in shared decision-making and provide appropriate treatment and referrals. The data is also are used to drive improvements in the delivery of local services.

A key improvement to the Patient Reported Measures program will be the procurement of an integrated IT system to enable patients to provide feedback in real time.

The formative evaluation of the Patient Reported Measures program occurred in June 2017 and will be integral in building the program into 'business as usual' behaviour across the health system.

Building the future

Training for NSW Health teams and their primary care partners who manage projects funded through the integrated care strategy is provided by the Agency for Clinical Innovation. Project teams report that being able to develop skills in project management, redesign, implementation and partnership development enables them to overcome obstacles and build resilient partnerships.

SYDNEY LOCAL HEALTH DISTRICT

Supporting families after infant loss – multidisciplinary clinic

COMPASSION DRIVES BETTER CARE FOR MOURNING FAMILIES

Bereaved families dealing with the loss of a baby were given more compassionate support through a clinic offering central access to a range of specialist care groups.

The central aim of the project was respectful support in an integrated setting, avoiding the need for families to make multiple visits to hospital.

Six years of research by the Sydney Stillbirth Study across nine hospitals was the catalyst for the project. Families had clearly identified that hospital follow up after perinatal death could be improved.

The iSAIL (Integrated Services After Infant Loss) clinic was created in co-operation with community organisations including the Stillbirth Foundation Australia and SIDS and KIDS bereavement support services (since renamed Red Nose Grief and Loss). Donated financial support from the business community was used after initial funding was difficult to obtain.

The response from families was clear: 100 per cent agreed that they were satisfied or strongly satisfied with their follow up visit.

The model was embedded within best practice care for families within the Sydney Local Health District, was incorporated into the Royal Prince Alfred Women and Babies Policy for stillbirth and neonatal deaths, was being prepared for implementation at Canterbury Hospital and became standard of care for follow-up with families.

It was also the subject of a National Health and Medical Research Council application for a centre of research excellence on stillbirth.

The project was a finalist in the 2016 NSW Health Awards.

Photo: Getty Images.

In April, the Agency for Clinical Innovation hosted the event *Drug and Alcohol, Mental Health and Primary Care: Working Towards Integration*. Keynote speaker Kirsten Meisinger, MD discussed the patient-centred Medical Home Model and how it has been used in the United States to integrate mental health and drug and alcohol services with general practice. The event was attended by more than 100 clinicians from primary health, mental health and drug and alcohol services, who considered how the model can be applied in NSW. The Navigating the Health Care Neighbourhood website was launched and explored Medical Home Model.

NSW Health worked with the Centre for Primary Health Care and Equity at the University of NSW to develop agreed definitions for care coordination, care navigation and health coaching. This is an important step to creating understanding of these interventions and their aims.

NSW Health also works with primary health networks to ensure partnerships between local health districts, specialty health networks and care organisations are as strong as possible. This includes undertaking joint needs assessments, planning and service delivery for local populations, shared governance arrangements, and partnerships in integrated care.

The Justice Health and Forensic Mental Health Network registered significant achievements with models of integrated care:

- 560 patients engaged by the Network's Integrated Care Service were linked to community health services on release.

- The Network completed a $1 million expansion of its pharmacy department to meet service demand associated with the growing patient population and to support expansion of the self-medication and hepatitis C programs.

- A new custodial health shared care model was implemented in all correctional centres, reducing time required for medication administration and increasing time for direct patient care.

- The Network engaged more than 70 stakeholders from health, justice and non-government sectors at its inaugural Aboriginal Health Symposium. The event identified ways to enhance the delivery of care to Aboriginal patients in custody and on release.

eHealth NSW is leading the newly established National Collaborative Network for Child Health Informatics on behalf of the Australian Digital Health Agency. The Network is identifying digital technologies that can help parents and children to get better results from the health system.

The Integrated Care Program of eHealth NSW has identified areas for investment involving people, process management and technology. This includes working with the Australian Digital Health Agency to define integrated care standards to help shape the overall health sector.

eHealth NSW is also collaborating with the Australian Digital Health Agency on a national 'opt-out' model of citizen participation for the My Health Record program. Under the plan the benefits of the My Health Record system will be highlighted to health care providers who will have to actively contribute to their patients' health information in the system.

NSW Ambulance has implemented a number of integrated care strategies, providing patients with appropriate care options while reducing the number of transports to hospital emergency departments. The See, Treat, Refer and Discharge integrated care pathways include assessment, treatment, and/or referring patients to care providers other than hospitals. The programs improve the way patients connect with care options provided by local health districts, social service providers and non-government organisation.

3.2 IMPLEMENT THE LIVING WELL PLAN TO DELIVER MENTAL HEALTH REFORM ACROSS THE SYSTEM

NSW Health's work to strengthen mental care is guided by the Mental Health Commission document *Living Well, A Strategic Plan for Mental Health in NSW 2014-2024*. The Government committed $115 million between 2014 and 2017, and $75 million each year afterwards, for mental health reform.

Key achievements of the reform include:

- More than 300 long stay psychiatric patients have been screened or assessed through the Pathways to Community Living initiative, with 58 successfully helped to return to the community.

- Three additional School-Link Coordinators have been established in the Hunter New England, Illawarra Shoalhaven and South Western Sydney local health districts.

- 15 Got it! Teams linking with Child and Adolescent Mental Health Services have been established. Two new Got It! teams are targeting children and young people in out-of-home care or who are in contact with the criminal justice system.

- An additional three Whole Family Teams have been established in Western Sydney, Nepean Blue Mountains and South Western Sydney local health districts.

- The total number of young people engaging with Community Integration Teams (CIT) has increased from 479 in 2013-14 to 569 in 2015-16. The number of young people not returning to custody for new offences while engaged with the CIT increased from 60 per cent in 2009-10 to 91 per cent in 2014-15, therefore reducing the reoffending rate.

- Community Living Supports contracts were awarded to seven non-government organisations across all local health districts. Approximately 700 clients were receiving psychosocial support in June 2017, exceeding the target of 500 clients.

- LikeMind Orange was opened in October 2016. To date 355 clients have been supported.

- Two Innovation Fund rounds were conducted with more than 10 projects awarded funding.

- Two research grants were awarded through the Translational Research Grants Scheme for mental health initiatives.

58 long stay psychiatric patients successfully helped to return to the community

- A pilot of 24-hour-a-day teleconferencing for mental health assessment and consultation started in August 2016, providing support to regional and rural emergency departments in Hunter New England, Northern NSW and Mid North Coast local health districts.

- 116 scholarships for Certificate IV Mental Health Peer Work were disbursed.

3.3 PROMOTE CHOICE THROUGH THE INTRODUCTION OF END OF LIFE PROGRAMS

It is a priority of the NSW Government to provide better palliative care and tailored community-based palliative care services for patients. It announced an additional $100 million in funding over the next four years to improve access to palliative care services, to increase the numbers of nurses and doctors and further develop the skills of staff.

Over 8500 last-days-of-life home support packages have been delivered to patients and their families

The NSW Government recognises that each community is different. Ten roundtable meetings were held across NSW to consult with health professionals and community representatives about what changes are needed in palliative care services. The feedback provided is being used to build local solutions and to develop a new strategy for palliative care across the State.

NSW Health provided Flexible Funding of $9 million for local initiatives to expand community and workforce capacity in palliative care. A total of 23 projects were funded across 18 local health districts and specialty health networks.

In June 2017 the Office of the Chief Health Officer released the Making an Advance Care Directive form and information booklet to help people understand and complete an Advance Care Directive (ACD) in NSW. The ACD materials were developed with input from consumers and health professionals. The Ministry's ACD template is one of many advance care planning and end of life resources available for use. It is not intended to be mandatory or legislated and it does not replace or void other ACDs being used.

3.4 PROTECT THE VULNERABLE THROUGH TRANSITION TO THE NATIONAL DISABILITY INSURANCE SCHEME

The transition in NSW from state-based disability care to the National Disability Insurance Scheme (NDIS) is well underway. NSW Health continues to work closely with other NSW Government agencies and the National Disability Insurance Agency (NDIA) to implement the NDIS and to ensure there are clear referral pathways and a system wide understanding of roles and responsibilities.

Building on experience from sites where there were trials and early launches of the NDIS, NSW Health staff are working closely with clients who moved into the scheme during Year 1 of the transition.

This includes the early identification of clients who may be eligible for NDIS supports and assistance for these clients through the transition process.

Over the past 12 months NSW Health added a range of NDIS-related resources to support clients and staff. It has also developed processes to resolve systemic issues. The initial evaluation of the Year 1 transition has highlighted the importance of clear communication and escalation pathways, the need for clarity around supports that are within scope for NDIS funding, the benefits of strong relationships between stakeholders at a local level, and the challenge of ensuring Government services are coordinated to support NDIS participants and those who are not eligible for NDIS support.

39,533 NDIS plans were approved by May 2017

The implementation of the NDIS presents a significant opportunity for people with mental ill health to access psychosocial supports to help them live well in the community. In NSW, 39,533 NDIS plans were approved by May 2017, with people with psychosocial disability representing approximately 6 per cent of NDIS participants.

NSW Health has been working closely with local health districts and specialty health networks to ensure they remain actively involved during transition to NDIS.

DEVELOP AND SUPPORT OUR WORKFORCE

INVESTING IN THE NSW HEALTH WORKFORCE AND RESPECTING AND VALUING THE CONTRIBUTIONS OF THE STAFF AND MANY OTHERS WHO VOLUNTEER THEIR SERVICES ARE KEY WAYS TO DELIVER THE BEST CARE FOR PATIENTS NOW AND INTO THE FUTURE.

The *Health Professionals Workforce Plan 2012-2022* outlines how all NSW Health organisations plan to recruit, train, educate and innovate over the next decade, while the Health Education and Training Institute helps to drive skills and leadership development across the State.

CHALLENGES

Health systems have traditionally been designed around the institutions that deliver services, rather than being structured to best serve people. But the modern health landscape is changing significantly and rapidly. Key factors that will force new ways of providing care include:

- Impending shortages in specialised workforces combined with an ageing population mean it will not be possible to meet forecast workforce growth based on current health service patterns and models of care
- Geographic maldistribution of the health professional workforce, exacerbated by the spread of the NSW population over larger areas, means access to care is affected in regional and remote areas.
- Expected government spending on health will nearly double between 2010 and 2050, based on current approaches, calling into question the affordability of health care if nothing changes.
- Specialisation of health care professionals has been increasing steadily, yet chronic and complex patient presentation is requiring more holistic and generalist models of care.

WHAT NSW IS DOING

Strategies to strengthen and support the workforce include:

- developing the capabilities of our workforce to be agile, nimble and value focused
- recruiting, supporting and performance managing our workforce
- building and empowering clinician leadership to deliver better value care
- building engagement of our people and strengthening alignment to our culture
- driving public sector diversity by increasing women and Aboriginal people in senior leadership roles.

HIGHLIGHTS

- A record 2200 new graduate nurses and midwives employed
- 115 new modules developed for the NSW Health workforce e-learning network My Health Learning
- 13,000 clinical students given access to My Health Learning
- 199 learning grants made to allied health professionals
- Rural e-Health Program trains staff in remote locations on electronic systems to support better patient care
- Funding for 15 new specialist medical training positions
- 70 Aboriginal nursing and midwifery students supported with cadetships
- Implementation of the demand based statewide rostering system HealthRoster

4.1 DEVELOP THE CAPABILITIES OF OUR WORKFORCE TO BE AGILE, NIMBLE AND VALUE FOCUSED

NSW Health is committed to nurturing a skilled workforce that is able to adapt to change. A diverse and balanced skills mix is essential to improving the health system and patient outcomes. Professional development and education play important roles in facilitating knowledge, understanding and innovative thinking.

NSW Health frequently reviews its models of care and services to identify opportunities to improve. This includes building an efficient mix of interdisciplinary clinical education to support patient care.

115 new e-learning modules were developed for My Health Learning

Developing leadership and management abilities, meanwhile, is fundamental to planning and implementing structural improvements to the health system.

Strategies aimed at creating a skilled workforce also include support for students while studying and providing continuing professional development.

The Health Education and Training Institute supports education and training across the health system. In March 2017 the Institute updated and relaunched its e-learning system under the name My Health Learning. The system gives ready access to a wide range of education resources anywhere and at any time on mobile devices.

During 2016-17, 115 new e-learning modules were developed for My Health Learning, covering a wide range of topics including Building a Safe Workplace Culture, Effective End of Life Conversations and Guardianship. Twelve modules were redeveloped as part of a 'review, refresh, and retire' strategy. In addition, 13,000 clinical students were given access to the system so they could undertake mandatory training for the first time, bringing the number of active account users to almost 200,000. Cyber S.A.F.E (Security Awareness for Everyone) Training is also available via My Health Learning, to ensure NSW Health employees are aware of their responsibilities in relation to information security.

The Health Education Training Institute's Mental Health Portfolio delivered training across NSW, including on *Mental Health Act* amendments and a dedicated website established to support good practice aligned with the Act. Extensive statewide training was held to support practice under the Clinical Care of People who may be Suicidal Education and Training Initiative. Both areas of training developed online learning resources on My Health Learning, including an innovative learning resource for caring for young people with mental health issues in paediatric settings.

During 2016-17, 199 Allied Health Workplace Learning Grants were made to teams of allied health professionals and/or assistants seeking to develop their knowledge and skills.

The Agency for Clinical Innovation demonstrated continued commitment to the professional development and growth of its people through the *Professional Development Framework*. It aligns the Agency's strategic objectives, reflects and reinforces its values, and captures the contribution of individuals and teams. The Agency is implementing a workplace redesign to accommodate its growing workforce. This will improve technology for more mobile and collaborative ways of working, in preparation for the Agency's move with other health organisations to new facilities in St Leonards in late 2019.

Staff from Aboriginal Maternal and Infant Health Services and the Building Strong Foundations for Aboriginal Children, Families and Communities program attended Trauma Informed Care workshops. The workshops involved understanding and responding to the effect of trauma on families and emphasised physical, psychological and emotional safety to help survivors re-create a sense of control and empowerment.

The Certificate IV in Aboriginal Family Health (Family Violence, Sexual Assault and Child Protection) is a one year Australia Skills Quality Authority accredited course. Delivered by the NSW Health Education Centre Against Violence (ECAV), the course is specifically for workers employed under the *Aboriginal Family Health Strategy 2011-2016: Responding to Family Violence in Aboriginal Communities*. The qualification can form part of an accredited training pathway to university. Successful completion of the Certificate IV facilitates entry into the Advanced Diploma in Aboriginal Specialist Trauma Counselling, which is also offered by ECAV. Upon the successful completion of both qualifications staff can apply to complete the Graduate Certificate in Human and Community Services offered through the University of Sydney.

The one year postgraduate certificate course provides a professional pathway, for Aboriginal students in particular, to a Master's of Social Work. On average 20 students enrol in the Certificate IV course and 10 in the Advanced Diploma annually. The Australian Counselling Association conducted an audit of the Advanced Diploma in 2016 and accredited it, enabling graduates to be recognised counsellors.

The Rural e-Health Program plays a pivotal role in training staff in rural and remote locations about recording patient information, as well as using electronic systems to better inform patient care. A focus is given to coaching Change Managers in rural local health districts to effectively implement major clinical change programs such as the Electronic Medical Record.

The Public Health and Biostatistics training programs offer three-years of supervised workplace based training across a range of settings within NSW Health. Five new trainee biostatisticians started the Biostatistics Training Program in 2016-17, and six trainees graduated with a Master of Biostatistics degree from the University of Sydney. Thirteen new trainee public health officers started the Public Health Training Program in 2016-17, and five trainees completed their three-years of training.

The Aboriginal Population Health Training Initiative supports Aboriginal people to develop and apply public health skills through a combination of workplace training and postgraduate study over a three year period. In 2016-17, four trainees were awarded a Master of Public Health degree, and four new trainees started the program.

More than three hundred staff started either the Foundational or Executive Clinical Leadership Program during 2016-17, as part of the Clinical Excellence Commission's Quality Improvement Academy. A further 1500 staff participated in Academy structured training programs on quality improvement tools throughout the year.

4.2 RECRUIT, SUPPORT AND PERFORMANCE MANAGE OUR WORKFORCE

Improving the supply of a well-trained workforce across all areas of health is important. In 2016-17, NSW Health continued to deliver a healthy workforce with the right people, with the right skills, in the right places.

> **10 rural postgraduate midwifery scholarships were provided to small rural maternity units to 'grow their own' midwifery workforce**

Medical workforce

Key strategies undertaken to support and grow the medical workforce, with a focus on rural and regional areas, during the 2016-17 period include:

- Funding of over $13 million for medical postgraduate training, with support for prevocational (first two years of training) networks, specialty training networks and non-specialist doctor training. These training networks link rural, regional and metropolitan hospitals.

- The Rural Preferential Recruitment Program supports doctors to spend the majority of their internship in a rural location. There were 124 interns who started their intern training under this program in 2017, an increase of 49 doctors (65 per cent) since 2012.

- Funding of over $1.5 million for the NSW Rural Doctors Network to support rural training and general practitioners.

- The NSW Rural Generalist Training Program, a statewide initiative aimed at producing doctors who are general practitioners with advanced skills to deliver services to rural communities. In 2016-17, the number of Rural Generalist training positions increased by five, with new positions established to provide training in palliative care medicine.

- NSW Health also funded 15 new specialist medical training positions across a range of specialties, including dermatology, ophthalmology, general medicine, palliative care and psychiatry, according to identified workforce priorities.

- The Aboriginal Medical Recruitment Pathway supports Aboriginal medical graduates to join the NSW Health medical workforce. In 2017, 12 Aboriginal medical graduates were recruited to intern positions.

- The annual NSW Health Junior Medical Officer Recruitment campaign successfully recruited 3531 junior medical officers for the 2017 clinical year. The campaign involved 44,843 applications mainly for specialty training positions, including endocrinology, haematology, medical oncology, general medicine and paediatrics

Allied health workforce

The *Health Professionals Workforce Plan (2012-2022)* identified five small but critical workforces, which fall under the Allied Health Workforce including Radiopharmaceutical scientists, Orthotics and Prosthetics and Diagnostic Imaging Medical Physicists. Small but critical workforces are defined as 'Workforces which contribute critical and essential elements of a comprehensive health service, and are currently experiencing threats to meet system needs now and into the future'.

Work has started to understand additional workforces in that category, such as genetic counselling and podiatry workforces.

The Ministry of Health continues to undertake horizon scanning and workforce modelling in the allied health workforce. In 2016, work completed included scanning of five of the registered allied health professions: occupational therapy, physiotherapy, podiatry, psychology and pharmacy. This will provide important information to assist with the development of workforce development initiatives to ensure the future allied health workforce is able to support the needs of the NSW population.

Initiatives to support and grow the allied health workforce in 2016-17 included:

- Enhancement of the Macquarie University Master's in Radiopharmaceutical Sciences program to ensure the curriculum was current and to support the availability of this program as the only provider of training for radiopharmaceutical scientists nationally.

- Three scholarships and two academic prizes supported course enrolment and completion. The University reported an increase in enrolments for 2016 and 2017.
- Up to 50 NSW Rural Allied Health Scholarships including undergraduate and post graduate scholarships, valued up to $10,000, are offered each year by the Health Education and Training Institute (HETI). In 2016-2017, 20 Undergraduate Scholarships were awarded to students from a rural background undertaking 'entry level' studies in allied health leading to a degree qualifying the student to practice. In addition, 17 postgraduate scholarships were awarded to assist rural allied health professionals with educational expenses directly associated with post-graduate study. HETI also administers the Aboriginal Allied Health Cadetship program by distributing funds to Aboriginal students' who are studying full time in an undergraduate allied health course, while employed in the NSW public health system as a cadet on a practical placement. In 2017 there were 11 cadets in the program: six in social work, two in speech pathology, one in radiography, one in physiotherapy and one in podiatry.
- Funding was secured to develop the orthotics and prosthetics workforce in NSW Health through professional development and shared learning opportunities. Twenty-two orthotists and prosthetists were helped to access professional development opportunities through the allocation of one-off grants during 2016-17.

Aboriginal workforce

The *NSW Public Sector Aboriginal Employment Strategy 2014-17* introduced an aspirational target of 1.8 per cent by 2021 for each of the sector's salary bands. If this target is achieved in salary bands not currently at or above 1.8 per cent, the cumulative representation of Aboriginal employees in the sector is expected to reach 3.3 per cent.

The 2017 Stepping Up Forum, hosted by the Ministry of Health, aimed to reaffirm NSW Health's commitment to Closing the Gap in health outcomes for Aboriginal people. A diverse, exciting and rewarding range of career opportunities for NSW Aboriginal health staff were showcased, with 288 delegates attending. The theme was 'Taking the next STEP UP in growing a strong and culturally supported Aboriginal workforce'.

The NSW Health *Good Health-Great Jobs: Aboriginal Workforce Strategic Framework 2016-2020* provides guidance to define, implement and support Aboriginal Health Worker roles in NSW Health. It assists the NSW Health system to grow the Aboriginal Health Worker workforce to meet the original minimum target 2.6 per cent.

The NSW Ministry of Health hosted 19 Aboriginal Health Worker Guidelines Workshops during 2016-17 with a focus on:

- How to best utilise the Aboriginal health practitioner role and the non-clinical Aboriginal Health Worker roles, in health services
- The *NSW Health Good Health-Great Jobs* decision making framework supports NSW Health to make local decisions regarding Aboriginal Health Workers undertaking clinical activities.

ST VINCENT'S HEALTH NETWORK

Psychogeriatric SOS. eOutreach for rural Australia by clinicians for clinicians

INFORMATION FEEDS NEEDS OF RURAL MENTAL HEALTH CLINICIANS

Rural clinicians supporting patients with issues related to mental health and dementia were able to solve problems faster using specially created electronic support services.

The project established partnerships with rural local health districts, primary health networks and non-government organisations, using a purpose-built website and clinician-to-clinician web conferencing.

In rural Australia, older people with mental health problems and dementia are often among the most disadvantaged. Staff are often isolated and patients are unable to access timely, meaningful help.

The St Vincent's Health Network program, called Psychogeriatric SOS, reached out to isolated clinicians to help them to enhance their psychogeriatric expertise and support dignity in ageing for their patients.

The project provided an innovative model of service delivery, as well as creative problem-solving for technological problems, communication issues and change management.

It improved communication between providers, while evaluation data demonstrated that rural clinicians felt more confident in delivering quality care.

The project received the Minister for Mental Health Award for Excellence in the provision of mental health services and was a finalist for Integrated Health Care at the 2016 NSW Health Awards.

Photo: Clinical psychologist Zeeshan Shahnawaz (left) and clinical nurse specialist Emma Carey were participants in the program.

Seventy Aboriginal nursing and midwifery students were supported with cadetships. Since the program began, 133 nurses and midwives have graduated.

The Aboriginal Environmental Health Officer Training Program develops a highly skilled Aboriginal workforce by providing employment, education (bachelor degree) and support for Aboriginal people to become environmental health officers over a six-year period. In 2016-2017 there were 13 continuing trainees while another trainee graduated, bringing the total number of program graduates to 16. Three new traineeships were established in partnership with public health units, local government and the Environment Protection Authority.

Dental workforce

A total of 34 Aboriginal students completed 44 TAFE qualifications in Dental Assisting, Oral Health Promotion and Radiography. Twenty-four completed a Certificate III in Dental Assisting, 15 completed Certificate IV in Oral Health Promotion and five completed a Certificate IV in Radiography. Six of the students completing the Certificate III in Dental Assisting also completed a Certificate IV in Oral Health Promotion. Four of the students completing Certificate IV in Oral Health Promotion also completed a Certificate IV in Radiography.

Nursing and midwifery workforce

A record 2200 new graduate nurses and midwives were employed in NSW Health in 2017.

NSW Health awarded 198 Enrolled Nurse scholarships in 2017. The scholarship positions were linked to areas of workforce need and included employment with NSW Health on completion.

More than 300 postgraduate scholarships were provided to nurses and midwives in 2017, to support their clinical practice, management and education. In addition, more than 1500 undergraduate clinical placement grants were made to nursing and midwifery students to support placements away from home.

Ten rural postgraduate midwifery scholarships were provided in 2017 to small rural maternity units to 'grow their own' midwifery workforce. This improved the viability and sustainability of maternity services in these communities.

4.3 BUILD AND EMPOWER CLINICIAN LEADERSHIP TO DELIVER BETTER VALUE CARE

In September 2016, the Clinical Excellence Commission published the *Clinician's Guide to Quality and Safety*. This guide is targeted at frontline clinicians starting in quality and safety improvement and outlines the foundations of quality and safety. It also provides an introduction into essential quality and safety tools.

The Commission is also supporting workforce development through the Quality Improvement Academy Curriculum. Tailored face to face courses include root cause analysis training, Human Factors workshops, medication reconciliation, end of life care, high risk medicines, Gold Standard Hand Hygiene Auditor training, and venous thromboembolism prevention training. In addition, the Academy offers 20 online patient safety and quality improvement education programs to all staff across the public health system.

The Agency for Clinical Innovation hosted a Shared Decision Making Masterclass, to promote the right of consumers to be fully informed and involved in making decisions about their health care. The Agency also supported clinicians to complete workplace projects through the Graduate Certificate in Clinical Redesign. Graduates develop valuable skills in project management, implementation and evaluation.

47 nurse/midwifery managers completed the pilot Nurse/ Midwifery Manager Professional Development Program

The Agency also developed and helped implement principles of care to assist staff working in residential aged care sections of rural Multipurpose Services to care for patients as though those patients were in their own homes, rather than patients in hospital.

The Bureau of Health Information published two reports and more than 150 hospital-level profiles with updated information on mortality and re-admissions. The Bureau engaged extensively with clinicians and local health districts to test the findings, respond to local feedback and ensure the information could inform change at a hospital level. The hospital-level profiles contained performance data to inform local decision making by clinicians and managers.

The NSW Health Senior Executive Development Program prepares people to operate effectively in a broad range of senior executive and chief executive positions within the NSW Health system. Program participants are exposed to a variety of innovative and immersive learning experiences that build their capability to operate in critical roles.

This year, 21 participants were able to study leadership behaviour and deepen their understanding of their roles as leaders.

The Rural Leadership Essentials Program was revised and in 2016-17 a new curriculum was designed to focus on rural health service managers and clinician/managers from smaller rural hospitals and sites. A pilot program was conducted with 30 participants from three rural local health districts.

4.4 BUILD ENGAGEMENT OF OUR PEOPLE AND STRENGTHEN ALIGNMENT TO OUR CULTURE

The CORE values of NSW Health are Collaboration, Openness, Respect and Empowerment and are applied across the NSW public health system. NSW Health encourages a strong alignment to these values and a culture that supports employee engagement, retention and performance. Cultural initiatives and professional development strategies aim to strengthen alignment to this culture.

The CORE Chat – Our Values in Action and CORE Chat for Managers programs are available to all NSW Health organisations. CORE Chat – Our Values in Action empowers staff to start important conversations and to identify positive solutions to workplace conflicts. Participation in the course helps to develop skills in communication and in giving and receiving feedback. During 2016-17, 120 workshops were delivered to 1758 NSW Health employees.

Another new course, the Medical Managers Training Program, is a two day workshop tailored to senior medical staff to develop their skills in performance management, resource management, workplace culture and disrespectful behaviour. During 2016-17, three workshops were delivered to 51 medical managers.

Other activity around developing workplace culture included:

- The results of the 2017 Public Service Commission People Matters Employee Survey were released, showing a decrease from the 2016 survey in the Engagement Index (from 65 per cent to 64 per cent) and an increase in the Culture Index (from 57 per cent to 58 per cent) across NSW Health.

- Working in partnership with key medical organisations, NSW Health released the *Statement of Agreed Principles on a Respectful Culture in Medicine* in December 2016. The Statement outlines the standards expected in our workplaces and the conduct of those working in them.

- A Junior Medical Officer Support and Wellbeing Forum was held in June 2017 with more than 150 stakeholders discussing ways to improve training and working environments for junior medical staff.

- As at June 2017, 111,473 staff completed the Respecting the Difference: Aboriginal Cultural Training eLearning module and 57,018 staff completed the face-to-face training component. This training motivates staff to build positive and meaningful relationships with Aboriginal patients, clients and visitors, and helps staff understand why many Aboriginal people do not comfortably engage with health care providers.

- The two-year Take the Lead 2 program helps nursing and midwifery unit managers develop leadership skills. To date, 339 people have completed the program, with a further 60 enrolled.

4.5 DRIVE PUBLIC SECTOR DIVERSITY BY INCREASING WOMEN AND ABORIGINAL PEOPLE IN SENIOR LEADERSHIP ROLES

NSW Health has a strong commitment to workforce diversity and recruits and employs staff on the basis of merit. This provides a diverse workforce and workplace culture where people are treated with respect. The Ministry has a number of key plans to promote and support workforce diversity including the *Disability Inclusion Action Plan* and the *NSW Aboriginal Health Plan 2013-2023*.

Aboriginal people

The NSW Health *Good Health Great Jobs: Aboriginal Workforce Strategic Framework 2016-2020* supports growth in the number of Aboriginal people employed across all roles (clinical and non-clinical) and at all levels including management and executive level. This is in line with the *NSW Public Sector Aboriginal Employment Strategy (2013-2023)*.

The representation of Aboriginal people employed in NSW Health has grown from 1.8 per cent in June 2011 to 2.5 per cent in June 2017. This amounts to 3103 people, including 93 doctors and 793 nurses. Six Aboriginal people were employed at Senior Executive Level (Band 1 and above).

Women

Women represent 74.6 per cent of the NSW Health workforce. The proportion of women decreases as grade increases, with 40 per cent of senior leadership roles held by women.

SUPPORT AND HARNESS RESEARCH AND INNOVATION

HEALTH CARE ADVANCES WITH THE HELP OF CUTTING EDGE MEDICAL AND HEALTH RESEARCH AND INNOVATION.

NSW Health is supporting the best and brightest minds to pursue cutting edge, world-class health and medical research. There is a focus on providing clinicians, managers and policy makers with the tools they need to translate research into innovative policy and practice to create healthier communities and deliver better patient care.

Facilitating better use of research expertise, assets and data including record linkage and large scale cohort studies, will assist in building a robust evidence base and provide NSW with a competitive advantage in health and medical research.

CHALLENGES

Supporting and harnessing research and innovation leads to better health in our communities and associated economic benefits, but is not without challenges. Obstacles include increased international competition for researchers, adapting to rapid changes in the way research is performed, keeping high ethical standards and retaining trust in research.

WHAT NSW IS DOING

Every NSW Health staff member and every organisation has a responsibility to support and harness ordinary and extraordinary research and innovation. The Office for Health and Medical Research, the Cancer Institute NSW, the Clinical Excellence Commission and the Agency for Clinical Innovation help to set direction and support clinicians and managers in the development of new approaches to care.

NSW Health has a 10-year plan to build research capability in NSW and provide key statewide research infrastructure. Initiatives to support and harness research and innovation include:

- building globally relevant research capability through research hubs and medical technology precincts
- developing a biobanking strategy to support research into genomics and personalised medicine
- progressing medicinal cannabis trials.

HIGHLIGHTS

- $48.6m to support 15 independent research institutes under the Medical Research Support Program
- NSW Health Statewide Biobank, the first facility of its kind in Australia, to open in 2017
- Sydney Genomics Collaborative established to facilitate research into genomic medicine
- 418 interventional cancer clinical trials open for recruitment
- $70m across three years for medical research infrastructure projects
- Cannabis medicines research including for people with cancer, epilepsy and multiple sclerosis
- $9.2m to develop new medical devices

5.1 BUILD GLOBALLY RELEVANT RESEARCH CAPABILITY THROUGH RESEARCH HUBS AND MEDICAL TECHNOLOGY PRECINCTS

Investing in research

In 2015 the NSW Government committed to investing an additional $159 million over four years in health and medical research. During 2016-17 the Office for Health and Medical Research either initiated or continued to support and harness research and innovation through the following programs and initiatives:

- The Medical Research Support Program provides infrastructure funding to support the day-to-day costs of running independent medical research institutes in NSW. The 2016-20 round of funding has $48.6 million allocated for 15 institutes in 2016-17. An additional $1.2m was provided to two institutes to assist with a merger or restructuring.

- NSW Health Early-Mid Career Fellowships help support and retain early-mid career researchers in NSW and facilitate skills development in areas including biostatistics, epidemiology, evaluation and service improvement, health economics, health service and systems design, implementation science, medical and bioinformatics. In the first round of the program, 17 fellowships were awarded totalling $3.74 million for 2016-17.

- The NSW Health PhD Scholarships Program develops the skills of PhD candidates while harnessing research capacity. In the first round of the program 26 applicants were awarded scholarships totalling $839,800 for 2016-17.

$1.8m was invested in 88 innovators via the Medical Device Commercialisation Training Program

- The Translational Research Grants Scheme is designed to accelerate the development of research capability and evidence translation. The Scheme provides grants to staff within local health districts, specialty health networks, the Ambulance Service of NSW and NSW Health Pathology. Applicants include medical staff, nursing staff, allied health professionals and population health practitioners. In 2016-17 a total $3.4 million was given to 24 projects.

- The Schizophrenia Research Chair provides scientific leadership at the Schizophrenia Research Laboratory and mentorship for schizophrenia researchers throughout the State. There was $1 million provided in 2016-17.

- The Sydney Genomics Collaborative was established to facilitate research programs into genomic medicine:
  - The Medical Genome Reference Bank at the Garvan Institute facilitates accurate diagnosis of and discovery of new genetic variants, to better understand the genetic basis for disease. The Bank is sequencing and analysing the genomes from 4000 healthy, older individuals to create a high quality database and received $3.1 million 2016-17.
  - The NSW Cancer Genomic Medicine Program is evaluating a new approach for testing the activity of drugs for the treatment of advanced cancer, with the overall goal of accelerating the clinical development of novel treatments. It received $1.8 million in 2016-17.

- The Cancer Moonshot Program involves a memorandum of understanding between the NSW Government and the US National Cancer Institute. The Cancer Moonshot Program aims to accelerate research into treatments and cures for cancer. NSW Health invested $5 million in 2016-17 to support a joint project between the Garvan Institute and the Children's Medical Research Institute in cancer protegeonomics with a focus on rare and children's cancers.

- The Medical Devices Fund invests in the development and commercialisation of medical devices. In 2016 almost $9.2m was awarded to six projects including a skin regeneration technology used in the surgical treatment of severe scars, a smarter and smaller cancer radiotherapy machine, a device that provides breast cancer patients with breath-hold instructions to reduce the risk of radiotherapy causing unnecessary and potentially fatal radiation heart damage, and a technology to assist clinicians in deciding which hearing-impaired infants should receive cochlear implants.

- The Medical Device Commercialisation Training Program was relaunched in February 2017 to provide expanded commercialisation skills training for innovators of novel medical devices and to keep research talent in NSW. In 2016-17 there was $1.8 million invested, with 88 early to mid-career researchers, innovators and entrepreneurs participating in the courses and four scholarships being awarded.

- The Medical Research Commercialisation Fund provides early investment funding for biomedical technologies, to support commercialisation through spinout companies, licensing transactions and proof of concept projects. In 2016-17 NSW Health contributed $300,000 and the Fund identified five new commercialisation opportunities for investment.

- Reform of research ethics and governance at state and national levels is focussed on streamlining the process for all human research including clinical trials in NSW. The Research Ethics and Governance Information System is being developed to support decision making and enable better monitoring and reporting by the Ministry and local health districts. A total of $1.9 million was allocated to 19 local health districts and NSW Health entities in 2016-17 for research governance, clinical trial reform and system reform.

- Interim funding was provided to four clinical research networks to support statewide research collaboration. A total of $580,000 was allocated.

- NSW health and medical research hubs were funded to build statewide research capacity, promote collaboration and help scale translation. The hubs are comprised of a consortia of local health districts, primary health networks, universities, medical research institutes, industry, and philanthropy. The funds facilitated the efficient sharing of expensive equipment, accommodation and support services, and the development of statewide research translation. In 2016-17 a total of $800,000 was provided to eight research hubs.

- The Medical Research Infrastructure Initiative was announced by the State Government in 2015 with Phase 1 comprising $70 million to be allocated from 2015-16 to 2017-18. In 2016-17 the following projects were completed:
  - The Bright Centre – fit out of floors seven to nine including a full floor dedicated to research
  - NeuRA – fitout of the Margaret Ainsworth Building comprising wetlab research facilities for dementia and Parkinson's researchers, the Sydney Brain Bank, laboratory support services and researcher offices
  - Statewide Biobank Facility – construction of a state of the art facility for a large-scale population and secondary biobank to support health and medical research in NSW (see strategic priority 5.2, Develop a biobanking facility to support research).

During the year there were 418 interventional cancer clinical trials open for recruitment in NSW. Of these, 140 were Cancer Institute NSW portfolio trials (that is, investigator-initiated and non-commercial). During this time 1765 participants were enrolled in the portfolio trials, representing a 29 per cent increase in enrolments from 2015. There were 74 Cancer Institute NSW research fellowships active during the financial year, while the Institute funded 10 research equipment grants totalling $5.3 million, with an additional $2.4 million of co-funding from other sources.

For every dollar awarded from the Institute, another $0.45 was leveraged to directly fund the purchase of cancer research equipment for use in institutions across NSW.

Projects championed by the Cancer Institute NSW Biobanking Stakeholder Network informed the development of statewide biobanking initiatives, including:

- creation of a standardised consent form for the collection of samples in NSW Health facilities, due for release in 2017
- development of a biobank certification scheme to support and promote best practice.

The seven translational cancer research centres funded by the Cancer Institute NSW brought together 787 members from 73 institutions who were actively involved in flagship projects in 2016.

The 2016 Innovations in Cancer Treatment and Care Conference, held in September 2016, focused on psycho-oncology. There were a record 419 registered attendees.

Health Protection NSW, which is responsible for surveillance and public health response, undertook research activities including:

- utilising whole genome sequencing of bacteria in food-borne outbreak investigations, including linking a national outbreak of salmonellosis to rockmelons
- starting a pilot to include whole genome sequencing in routine surveillance of Salmonella Typhimurium, Listeria monocytogenes, and tuberculosis to improve the detection of outbreaks and more quickly identify drug resistant tuberculosis
- a statewide case-control study showing that vaccinating mothers against whooping cough during pregnancy is highly effective in preventing infant hospitalisation.

The Agency for Clinical Innovation provides research grants to support scientifically excellent ethical, practice-relevant and translational research. Eighteen projects were funded in 2017. The Agency's Innovation Exchange provides a collaborative place to share and promote local innovation and improvement projects and resources, from all health care organisations across NSW. It is designed to share and spread solutions that can be adapted to suit other local health challenges. More than 300 improvement projects are available.

The Centre for Epidemiology and Evidence Investment provided $2.8 million through its Population Health and Health Services Research Support Program to increase high quality and internationally recognised population health and health services research.

HUNTER NEW ENGLAND LOCAL HEALTH DISTRICT

Pre-hospital thrombolysis and transfer improves outcomes in segment elevation myocardial infarction

PARAMEDICS ON THE ROAD TO FAST TREATMENT FOR ALL HEART ATTACK VICTIMS

Patients suffering a heart attack could be treated in the back of an ambulance, rather than having to wait until they arrived at hospital, under techniques developed to speed up communication with cardiologists and reduce critical treatment delays.

Establishing a reliable method of communication between cardiologists and paramedics allowed patients, regardless of where they lived, to be diagnosed and treated more effectively, recording an average time from the triple-zero call to the administration of thrombolytic medication of 48 minutes.

The strategies were conceived and implemented by Hunter New England Health and NSW Ambulance in response to an increased focus on reducing the time it took to start treatment for patients suffering myocardial infarction, commonly known as heart attack.

The project examined two well-described methods of reperfusion strategies for the treatment of MI: pre-hospital thrombolysis (the breakdown of blood clots formed in blood vessels, using medication) and primary percutaneous coronary intervention (a procedure used to treat narrowing of the coronary arteries of the heart).

The project helped with emergency treatment performance targets, including having fewer admissions to hospital emergency departments due to early identification of treatment and subsequent early redirection of the patient to the most appropriate hospital.

The improvement in treatment ensured patients living in rural and remote areas had early access to treatment and intervention. For rural or metropolitan patients alike, having a myocardial infarction diagnosed and treated in the back of an ambulance via mobile phone led to excellent clinical results in terms of morbidity, mortality, length of stay and the rate of re-admission within 28 days.

The project received the Translational Research Award at the 2016 NSW Health Awards.

Photo: NSW Health.

Building system-wide capacity

NSW Health is providing $1.8 million a year for five years (to June 2018) to the Sax Institute. The funds support the Institute to provide research and evaluation services and training; enable exchange between researchers, policy makers and practitioners; and develop and maintain research assets such as the 45 and Up Study, the Study of Environment on Aboriginal Resilience and Child Health, and the Secure Unified Research Environment, a high-security computing environment that enables remote analysis of health data.

In 2016-17 this funding also directly supported the provision of several discrete services to the Ministry and pillar organisations, including 14 brokered evidence reviews, five evaluation and research services, two training sessions and two research-policy exchanges.

NSW Health is also providing $500,000 a year for five years to the Australian Prevention Partnership Centre. The Centre is a national initiative conducting research into preventing lifestyle-related chronic disease. Projects conducted in partnership with NSW Health include a dynamic simulation model to forecast the effect of policies and programs aimed at reducing childhood overweight and obesity.

Funding provided through the Population Health and Health Services Research Support Program supports research infrastructure and capacity building initiatives including research fellowships, embedding researchers into policy environments, hosting international research leaders, and data linkage.

Fostering innovation from research

In 2016-17 the Ministry supported the rigorous evaluation of several statewide policies and programs including the NSW Tobacco Strategy, Life Education, Aboriginal Maternal and Infant Health Service, and Quit for New Life – a best practice smoking cessation program for women having an Aboriginal baby.

NSW Health funding to the Sax Institute assists it to achieve its mission 'to improve health and wellbeing by driving the use of research in policies, programs and services'. For example, a review of research commissioned by the Centre for Population Health through the Institute's Evidence Check program was used to inform a NSW Health resource, The Benefits of Prevention. This document describes the health and productivity benefits that will be realised by achieving the targets of the Healthy Eating and Active Living Strategy.

Sharing new ideas

The NSW Health Innovation Symposium is an annual event to celebrate and encourage innovation across the NSW Health system. In 2016, clinicians and managers embraced the theme, A Festival of Contagious Ideas, to discuss the progress of health reform. The event was held on 27 and 28 October at Sydney Showgrounds and also served as a forum for finalists in the prestigious NSW Health Awards to talk about their projects in '60 contagious seconds'.

The NSW Health Awards are an important part of the NSW Health calendar, recognising innovation and excellence in the delivery of health programs and services. The 18th annual awards were announced at a function after the Innovation Symposium, on 28 October.

The Premier's Awards for Public Service are held each year to recognise outstanding performance and excellence in the delivery of public services. In October 2016 a number of honours were awarded to NSW Health staff and organisations:

- James Brinton, Illawarra Shoalhaven Local Health District, received the Premier's Award for Individual Excellence and Achievement and the individual award for Improving Service Levels in Hospitals. As Clinical Nurse Consultant – Surgery Division at Wollongong Hospital, James provided leadership in pioneering ways of delivering surgery service that made a difference to patients.

- Lucy Nair, South Western Sydney Local Health District, received the Anthea Kerr Award for Individual Excellence, recognising her role in leading two years of change, including the rapid and award-winning implementation of major changes to business processes, at the Pharmacy Department at Bankstown-Lidcombe Hospital.

- Hunter New England Local Health District received two team awards. The award for Improving Service Levels in Hospitals recognised an initiative to achieve a consistent improvement in ambulance transfer of care times at John Hunter Hospital Emergency Department. The Tackling Childhood Obesity award was for the Physical Activity 4 Everyone program, which sought to reduce the decline in physical activity among adolescents and was implemented in 10 NSW secondary schools located in low socio-economic areas over a two year period.

- Sydney Local Health District received a team award for Improving Service Levels in Hospitals for its transfer of care pilot program, during which patient care was transferred to emergency department nurses, saving time for paramedics and achieving improvements in transfer of care performance and triage performance.

- South Western Sydney Local Health District received a team award for Improving Service Levels in Hospitals for its project to transform and improve ambulance and patient flow at Liverpool Hospital Emergency Department.
- Ministry of Health, Health Education and Training Institute, South Western Sydney Local Health District, Sydney Local Health District and all other NSW Health Organisations were awarded the Driving Public Sector Diversity award for Respecting the Difference, a training framework in Aboriginal culture that was mandatory for NSW Health's extensive workforce.

5.2 DEVELOP A BIOBANKING STRATEGY TO SUPPORT RESEARCH

The NSW Government invested $11.75 million in 2016-17 to create the NSW Health Statewide Biobank, the first facility of its kind in Australia. Large-scale robotic technology will store and process human bio-specimens, with data to support large population-based health studies and disease specific research across the State. The facility is located within the Professor Marie Bashir Centre on the Royal Prince Alfred Hospital campus and was expected to be operational in late 2017.

NSW Health Pathology has developed the *Statewide Biobanking Framework*, a service delivery model to ensure NSW has a world-class approach to managing human biobanks and the specimens they house, and to improve integration between research, diagnostics and clinical care. This year $500,000 was allocated to implement the Framework, which includes:

- a new voluntary certification program to improve the quality of biobanking in NSW
- a Statewide Tissue Specimen Locator to improve access to collections
- standardised agreements for the transfer of biospecimens between hospitals, biobanks and researchers
- a data linkage service to enable administrative data to be accessed by collections housed in the Biobank facility.

5.3 PROGRESS MEDICAL CANNABIS TRIALS

The NSW Government committed $21 million to support an evidence-based approach to medicinal cannabis, including $9 million to fund clinical trials. These clinical trials focus on adults with chemotherapy induced nausea and vomiting (CINV) unresponsive to other treatments; adults with terminal illness, particularly appetite-related symptoms; and children with severe drug-resistant epilepsy. In 2016-17, progress of these initiatives included:

- providing 46 of the sickest children who have treatment-resistant epilepsy access to treatment with a cannabidiol-only medication, Epidiolex through a Compassionate Access Scheme

- as part of the memorandum of understanding with GW Pharmaceuticals, the Sydney Children's Hospitals Network led additional initiatives including enrolment of children with Tuberous sclerosis complex and children with Dravet syndrome in global clinical trials using Epidiolex
- enrolling patients for the pilot phase of a CINV trial from December 2016, involving up to 80 people. The trial is on schedule, with the definitive phase scheduled to enrol a further 250 patients. The pilot phase is taking place at 10 leading cancer centres in rural and metropolitan NSW
- enrolling patients for the first stage of a palliative care trial from January 2017. Data from this first stage will inform the dosing and measurements of the larger study, involving a further 250 patients at multiple sites across NSW.

Additional clinical trials using cannabis medicines are underway or scheduled to begin, to gather more evidence on the appropriate use of cannabis medicines in treating symptoms.

NSW has also contributed funding support for work commissioned by the Commonwealth Department of Health to review the evidence and develop nationally consistent guidance for the use of cannabis medicines in specific indications including multiple sclerosis; epilepsy in children and adults; nausea and vomiting associated with cancer or AIDS; palliative care for control of pain and improving appetite; and pain including cancer or AIDS related, neuropathic pain and chronic non-cancer pain.

$9m committed to fund medicinal cannabis clinical trials

ENABLE E-HEALTH AND HEALTH INFORMATION

TECHNOLOGY IS RAPIDLY TRANSFORMING EVERYDAY LIFE AND HEALTH CARE IS NO EXCEPTION.

E-health is the use of a broad range of information and communication technologies such as broadband connectivity, digital networking and smart software to improve medical care and individual health, regardless of location.

Investment in e-health delivers better and safer clinical care for patients no matter where they live, and allows the health system to become more efficient.

eHealth NSW was established as a distinct organisation within NSW Health to provide statewide leadership on the structure and management of information and communication technology-led health care.

eHealth NSW encompasses innovative programs across the State that support new models of care. These include telehealth, electronic medications management, statewide access to digital imaging and the use of voice recognition software.

E-health is being used to improve patient care through:

- patient information being available to clinicians across the State
- clinicians and other local health district staff being engaged to implement statewide systems on a local level
- the establishment of performance standards to ensure systems meet the needs of clinicians and patients.

CHALLENGES

The e-health agenda faces challenges. Despite progress, the local health districts operate on different IT systems and have differing e-health capacities. Clinician, manager and patient engagement on e-health have also been varied. Meeting the functional needs of users and achieving a full realisation of the benefits of information and communication technologies can be difficult.

WHAT NSW IS DOING

The *e-Health Strategy for NSW Health 2016-2026* has been developed to guide NSW to deliver world class e-health services. In particular, the Strategy sets the direction for e-health investment so NSW Health can harness innovations and solutions for integrated clinical care, patient engagement, cost effective delivery and smart infrastructure. This will help meet the growing health care demands of the people of NSW long into the future. While the Strategy supports statewide capability, it also promotes innovation at local levels.

HIGHLIGHTS

- 194 sites connected to the Health Wide Area Network
- Phase two of the Electronic Medical Record project live in all hospitals
- New strategy implemented to expand use of analytics across NSW Health
- Use of video conferencing almost doubled to 7030 hours a week
- 70 per cent of systems migrated to state-of-the-art Government Data Centres

6.1 BUILD DIGITAL SERVICES IN HEALTH THROUGH IMPLEMENTATION OF THE E-HEALTH STRATEGY

Three key goals have been identified for e-health in NSW:

- patients are supported, well informed and actively engaged in their health management;
- staff have the tools to make effective decisions with access to the very best training; and
- organisations have the capacity for smart, transparent and efficient management, business and service planning.

To develop digital services and to meet these three goals, NSW Health is investing in clinical systems, business systems and infrastructure.

5.36 million hospital discharge summaries are available via the HealtheNet Clinical Portal

Investing in clinical systems

eHealth NSW is transforming the inpatient environment by working with local health districts to implement the Electronic Medical Record (eMR) project. eMR2, the second phase of the program, was live at NSW hospitals by the end of 2016-17.

Implementation of the eMR's Community Health and Outpatient Care (CHOC) component, which delivers access to a patient's clinical information to 333 community health and outpatient care clinical services across NSW, was completed in December 2016.

The eMR's Electronic Medication Management (eMeds) component was live at 13 NSW public hospitals by the end of 2016-17, with plans to roll out to a further 178 facilities.

Deployment of the Electronic Record for Intensive Care (eRIC) commenced in 2016-17, providing an integrated statewide application to improve patient safety and support better clinical decision-making for critically ill patients. Intensive care units at Coffs Harbour Health Campus, Port Macquarie Base Hospital and St George Hospital are using eRIC.

Investing in business systems

The functionality of StaffLink, a statewide platform for standardised financial, procurement and supply chain management, was expanded over 2016-17. This included the successful pilot of the NSW Health Supplier Portal, which allows suppliers to view and track the progress of invoices and reconcile payments in a secure environment.

The number of NSW Health staff being rostered using the HealthRoster system increased from 25 per cent to 50 per cent over the year. Functionality for rostering medical officers was introduced, allowing a more transparent view of rostered shifts and overtime being worked.

Investing in infrastructure

The Health Wide Area Network (HWAN) program has established a reliable and secure clinical-grade network for the NSW public health system. By the end of June 2017, a total of 194 NSW Health sites had been connected to the HWAN. The rural HWAN roll-out was largely complete and deployment to metropolitan and regional local health districts was continuing.

Thousands of patients and their guests were given access to free Wi-Fi over the year, including at the children's hospitals at Westmead and Randwick, John Hunter Children's Hospital in Newcastle, Port Macquarie Base Hospital and The Bright Alliance.

More than 70 per cent of information and communication technology systems have been migrated into the state-of-the-art Government Data Centres, facilitating the closure of three of NSW Health's older facilities. Four of the five NSW Health Cerner domains are now operating out of the Government Data Centres.

With the support of eHealth NSW, the Agency for Clinical Innovation is using technology to improve mobility and flexibility for its workforce as part of a workplace redesign project. Softphones are replacing desk phones, laptops are replacing desktop computers and universal docking stations will facilitate desk sharing. The use of Wi-Fi, follow-me-printing, unallocated desks and the use of lockers instead of desk caddies will contribute to reducing paper use. Simplified and uniform audio visual technology will improve ease of use.

Strengthening e-health governance

The executive of eHealth NSW has endorsed a *Clinical Solutions Design Framework*, which provides governance of all digital health solutions managed by eHealth NSW to ensure even greater safety, usability and consistency for staff and patients.

NORTHERN NSW LOCAL HEALTH DISTRICT

Child-at-Risk electronic medical record alert

DANGER ALERT PROTECTS THE VULNERABLE

Children and pregnant women were better protected from harm due to an electronic alert that warned clinicians their patients could be in danger.

The Child At Risk (CAR) Alert was built into the electronic medical record for Northern Local Health District to make clinicians aware there were concerns about their patient's wellbeing.

Many child death reviews and commissions of inquiry have recommended improved information sharing as a strategy to prevent harm to vulnerable children. In 2015, child protection was the Northern NSW Local Health District's greatest corporate risk.

The CAR project team worked with managers and staff across all clinical streams including paediatrics, emergency departments, mental health, drug and alcohol, Aboriginal health, child and family. A help desk was provided to cement the implementation of the system.

A variety of clinicians applied the alerts, from medical officers to social workers, nurses and allied health therapists.

The system made a difference in the management of newborns, older children and at-risk pregnant women on whom an unborn child high risk birth alert had been issued.

The project received the Local Solutions Award at the 2016 NSW Health Awards.

Photo: A variety of clinicians were able to create the Child At Risk Alerts to help protect children and women in danger.

6.2 EMBED THE ANALYTICS FRAMEWORK TO IMPROVE DECISION MAKING IN HEALTH CARE

eHealth NSW is responsible for implementation of the *NSW Health Analytics Framework*, which provides a plan for broader and more sophisticated use of analytics in decision making and analysis across NSW Health. The implementation of the Framework was initiated at a workshop on 22 September 2016 attended by staff from across NSW Health organisations, research organisations and universities.

The NSW Health Analytics Steering Committee was subsequently formed to help achieve required improvements in analytics capabilities.

PharmaLytix provides real time access to drug stocks and their physical locations

Working groups reporting to the Committee have been established to focus on key strategy areas:

- clinical analytics
- corporate analytics
- health information performance governance
- strategic analytics and streamlined information
- workforce skills and training

The user base of the Corporate Analytics Spend Analyser expanded over the year to include all local health districts and the Ministry. The Spend Analyser allows users to track expenditure in comparison to previous years, and provides access to near real-time information to inform decision making and identify opportunities to reduce expenditure. An Inventory Analyser was also introduced to track orders and support compliance when ordering from state contracts, to drive greater cost savings.

The analytics solution PharmaLytix was built on a centrally managed standardised medication list called the Hospital Pharmacy Product List to provide clinicians with insights into:

- Medication usage – analysis of medication usage trends allows policies to be created and measured
- Medication purchasing and stock levels – monitoring of cost and stock levels ensures costs are minimised and maintains prompt access to medication for patients
- Timely access to information – giving medical professionals rapid access to information helps them make decisions in a timely fashion.

PharmaLytix also provides real time access to drug stocks and their physical locations, including access to a Life-Saving Drug Register displayed on Google Maps. PharmaLytix offers an array of dashboards that are used by the Ministry and associated organisations to report across NSW Health facilities, with individual local health districts also given access to their own data. Data is automatically extracted to ensure it is up to date.

The Bureau of Health Information continued to develop its online data portal, Healthcare Observer, as a source of information. The Understanding Our Graphs resource helps managers use performance information when making decisions.

Across Health, significant progress was made during in the roll out of the EDWARD data storage and management program. Both the Non-Admitted data collection and Perinatal data collection moved to reporting via EDWARD. Nine local health districts use EDWARD data to assist in the management of elective surgery waiting list information.

NEPEAN BLUE MOUNTAINS LOCAL HEALTH DISTRICT

Confident and connected at home on haemodialysis

INSTANT HELP FOR DIALYSIS PATIENTS AT HOME

People having haemodialysis in their homes were more confident about their treatment while using a new app offering instantaneous support from nurses who were monitoring the patients remotely.

Patients said they felt more involved while using the My Home Hemo app, which was part of a system to strengthen safety for patients while saving time for nurses who would otherwise be travelling between home visits across large areas.

Supporting haemodialysis patients in their homes can be resource-intensive and challenging, particularly when patients are a long way from one another.

The Nepean Blue Mountains Local Health District developed a telehealth solution, including the app for patients to record their dialysis activity and receive notifications/alerts, and an online dashboard to provide real-time data to nurses and produce reports for doctors.

The Home Haemodialysis Remote Monitoring System allowed nurses to remotely assess patients' mood, wellbeing, early complications and any psychosocial issues.

In a three-month trial, 74 patients used My Home Hemo and received notifications, emails or phone calls from nurses reviewing data remotely in real-time. Patient reviews increased by 270 per cent and 14 hours of combined nursing and patient time was saved by replacing home or clinic visits with digital communication.

The project was the winner of the NSW Health Secretary Award and a finalist for the Bob Leece Transforming Health Award at the 2016 NSW Health Awards.

Photo: The My Home Hemo app supported patients undertaking haemodialysis at home.

Extensive work was also undertaken to improve the consistency and quality of Non-Admitted activity data. This included the Non-Admitted Reporting Project, which achieved gains in the reporting of data as well developing guidance material to support consistency in reporting. This work enables better comparability of services provided to patients and greater equity in funding Non-Admitted activity on an Activity Based Funding basis.

Elsewhere, two data applications were developed to assist the NSW Health system access and utilise activity data. The Non-Admitted Patient Application (NAP App) and the Health System Performance

Application (HSP App) facilitate the exploration of complex health data, aid monitoring of performance against a range of key performance indicators and enable benchmarking between Districts and Networks.

6.3 DELIVER BUSINESS INFORMATION AND COMMUNICATION TECHNOLOGY SERVICES TO THE ORGANISATION

The roll-out of the eCredential system was completed in September 2016. Since the roll-out, 6000 senior medical and dental officers have entered their credentials into the system for verification. The web-based platform enables managers to easily access clinical credentials for medical officers to support safe patient care.

The design and technical build of the new Recruitment and Onboarding (ROB) system was completed over the year after wide-ranging consultation with health organisations about system, business processes and policy requirements. A pilot deployment of the system to support general recruitment went live in June 2017. The ROB system is a modern, intuitive system which automates and streamlines the process of recruiting and retaining staff.

Corporate information and communication technology foundation services were reviewed by the eHealth Executive Council in June 2017. Six corporate platforms were endorsed for statewide adoption: Stafflink, My Health Learning, AFM Online, HealthRoster, VMoney Web, and Oracle Identity and Access Management. Infrastructure foundation services were reviewed by the Council in February 2017 for statewide adoption, including statewide directory and identity, statewide email and archiving, Health Wide Area Network, Data Centre Reform and the Health Security Operations Centre.

The new Recruitment and Onboarding system streamlines the recruitment of staff

During the year eHealth Conferencing Services streamlined the support of video conferencing under a central management system. The Conferencing Services team is supporting more than 2100 video endpoints and software-based conferencing systems. In 2016-17, average weekly usage increased from 3831 hours to 7030 hours.

The Statewide Service Desk played a pivotal role in improving service delivery, according to the 2017 Customer Value Proposition Survey, with one-third of customers indicating that eHealth NSW services had improved over the year. Significant improvements were recorded across all baseline measures in 2017. The proportion of detractors also declined from 74 per cent to 66 per cent. The helpfulness and knowledge of staff was rated highly and continues to be a key measurement of customer sentiment.

DESIGN AND BUILD FUTURE-FOCUSED INFRASTRUCTURE

NSW HEALTH FACILITIES ARE VALUED AT $20 BILLION, INCLUDING 228 PUBLIC HOSPITALS AND 226 AMBULANCE STATIONS. SIGNIFICANT INVESTMENT IN DEVELOPING NEW AND UPGRADED EXISTING FACILITIES ACROSS THE STATE IS UNDERWAY.

Health Infrastructure manages the planning, design and delivery of health infrastructure capital works across the State. The four main elements of the services Health Infrastructure provides are advisory and strategic planning; project development; contract management and procurement services; and delivery.

CHALLENGES

The provision of health care is a constant process of upgrade and renewal. During 2016-17, there has been significant investment made in building and upgrading hospitals and health services. The challenge is how to think differently about maintaining, developing and managing NSW Health assets overall. This has meant establishing health care precincts with public and private services, encouraging integrated service delivery models for multipurpose facilities and continuing to develop strategies to respond to growth and increased demand for services.

WHAT NSW IS DOING

A major construction and upgrade program is underway across both urban and regional NSW to develop new facilities and upgrade existing infrastructure.

To ensure the design and building of infrastructure is focused on the future, NSW Health will:

- deliver the committed infrastructure projects to meet the needs of a growing population
- implement strategic commissioning for infrastructure
- proactively drive contestable commercial opportunities and efficient asset utilisation

HIGHLIGHTS

- $7.7 billion being spent over four years on hospitals and other health facilities
- $1.47 billion spent on capital works in 2016-17
- Planning or construction underway on more than 90 new or upgraded hospitals, Multipurpose Services, ambulance facilities and car parks
- Four NSW Ambulance superstations opened
- 22 NSW Ambulance stations across rural areas to be improved

7.1 DELIVER THE COMMITTED INFRASTRUCTURE PROJECTS TO MEET THE GROWING POPULATION NEEDS

Building for the future

NSW Health's forward capital program will provide world class clinical services with timely access and effective infrastructure.

NSW Health is investing in infrastructure worth more than $7.7 billion over four years. Some projects are under construction, while others are being developed, including four new hospitals, nine carparks, and 36 upgrades or redevelopments, as well as planning funds for five hospitals.

The capital works program total expenditure for 2016-17 was $1.47 billion.

Major projects completed in 2016-17:

- Bright Alliance (Comprises the Nelune Comprehensive Cancer Centre, Scientia Clinical Research, and Sydney Children's Hospitals Network), at Randwick Hospitals Campus
- Kempsey Hospital Redevelopment
- Lachlan (Parkes and Forbes) Health Service
- Tamworth Hospital Redevelopment – Stage 2
- Holbrook Multipurpose Service
- Tocumwal Multipurpose Service
- Wagga Wagga Ambulance Station
- Kogarah Ambulance Superstation
- Bankstown Ambulance Superstation
- Liverpool Ambulance Superstation
- Blacktown Ambulance Superstation

In March 2017, Health Infrastructure launched the How to Build a Hospital campaign to help communicate with stakeholders about how a hospital is redeveloped. The resources within the campaign:

- provide a better understanding of the stages and complexities of redeveloping a hospital
- outline where consumers have an opportunity to feed into the planning process and how their input is applied and valued; and
- explain the redevelopment process in user friendly, non-technical language.

$720 million committed for the Randwick Campus Redevelopment

The campaign resources, which include an informative four minute animation, are available on Health Infrastructure's website at www.hinfra.health.nsw.gov.au/how_to_build_a_hospital.

Growing partnerships

NSW Health applies an approach to project governance that promotes engagement with key stakeholders, communities and consumers.

Hospital and health facility development process is guided by the NSW Health Process of Facility Planning (POFP), the overarching framework for planning and procuring capital investment across the public health system. This is integrated with the NSW Government's mandatory whole-of-government approach to the efficient allocation and use of health resources, and sets the formal interactions with the local health districts, Ministry of Health and NSW Treasury. During planning and delivery, projects are subject to Infrastructure NSW (INSW) Investor Assurance and Gateway Review processes.

NSW Health also forms partnerships with clinicians and other staff, patients, carers and community members to deliver projects. Opportunities are also sought to engage with the private and not-for-profit sectors.

At every step of the process there are a suite of expertly-skilled professional services firms that provide the project managers, architects and cost planners, among other specialists, who are critical to projects.

Bankstown Ambulance Superstation

Kempsey District Hospital Redevelopment

Kogarah Ambulance Superstation

The Bright Alliance building, Randwick

Relationships are also developed across Government, including with the Department of Premier and Cabinet, NSW Treasury, Transport for NSW, Roads and Maritime Services, the Department of Planning and Environment, Infrastructure NSW and UrbanGrowth NSW. This helps to foster synergies between health projects and other key infrastructure programs, which may benefit health developments. An example of this is planning for light rail, metro rail, and rapid bus transport to service hospitals.

Health Infrastructure has a mandate to coordinate on behalf of NSW Health with other agencies on major infrastructure projects, precincts and other strategic pieces. This mandate extends to representing NSW Health on the Greater Sydney Commission's Infrastructure Delivery Committee, the Infrastructure Investor Assurance Committee, and the Greater Parramatta and the Olympic Peninsula Coordination Group.

7.2 IMPLEMENT STRATEGIC COMMISSIONING FOR INFRASTRUCTURE

Capital planning

The development of a Clinical Services Plan (CSP) by local health districts is a fundamental requirement for quality infrastructure investment projects. The CSP identifies the service need that drives the capital investment, and ensures the scope of the investment is detailed sufficiently to enable the infrastructure to respond to the service need. The Clinical Service Planning Guide ensures the consistent development of key service planning information by local health districts.

> **Funding allocated for major capital works at Coffs Harbour Health Campus, Macksville District Hospital and Port Macquarie Base Hospital Mental Health Inpatient Unit**

A revised 2016 Asset Strategic Plan (ASP) template was issued to health districts, specialty health networks, NSW Ambulance, eHealth NSW and NSW Health Pathology. The revised template is designed to gather comprehensive information outlining service priorities and other reasons for asset investments.

The Clinical Services Planning Analytics (CaSPA) portal is a resource for local health districts to support evidence based service planning.

CaSPA continues to be developed and host up to date data analytics tools to inform service and capital planning across NSW Health.

NSW Health is calculating the net present benefits and costs of the prioritised infrastructure projects identified in the ASPs. Prior to more detailed planning, it provides an opportunity to demonstrate value for the State and supplements the comprehensive economic appraisal undertaken on all capital projects worth greater than $10 million.

7.3 PROACTIVELY DRIVE CONTESTABLE COMMERCIAL OPPORTUNITIES AND EFFICIENT ASSET UTILISATION

Health Infrastructure has continued to work with the Ministry to identify opportunities for engaging with the private and not-for-profit sectors for delivery of services.

Over 2016-17, Health Infrastructure put to market a program of transactions utilising partnerships to deliver services and assets, informed by the successful finalisation of the operator-led Northern Beaches Hospital transaction. After extensive consultation, the NSW Government decided that a not-for-profit provider will be approached to build and run the New Maitland Hospital. Other transactions will revert to traditional delivery – reflecting a commitment to adopting the right approach for the right location.

In 2017, NSW Health released the Position Paper Reshaping the Multipurpose Services (MPS) Model in NSW to considering options other than the traditional policy approach to establishing Multipurpose Services in small rural and remote communities. The Paper notes that while the traditional MPS model, where the hospital and residential aged care are integrated in the one facility, has been the model for small rural health services for some time, opportunities exist to extend integration and coordination of health services for people in rural communities through new partnerships.

HealthShare NSW implemented the Make Ready Model with NSW Ambulance to clean and restock ambulances. Under the model, paramedics ending their shifts hand their vehicles to a Make Ready Service team, which cleans and restocks the vehicle, as well as organising any vehicle and equipment repairs. This frees paramedics to spend far less time on non-clinical duties. The program has been implemented in three superstations, Bankstown, Kogarah and Blacktown, with a further eight locations to follow.

> **The Make Ready Model for cleaning and restocking of ambulances gives paramedics more time for clinical duties**

BUILD FINANCIAL SUSTAINABILITY AND ROBUST GOVERNANCE

DELIVERING THE RIGHT CARE, IN THE RIGHT PLACE, AT THE RIGHT TIME REQUIRES A LONG TERM FOCUS ON THE FINANCIAL SUSTAINABILITY OF THE HEALTH CARE SYSTEM IN CONJUNCTION WITH NEEDS OF THE COMMUNITY, OUR PATIENTS AND THEIR CARERS.

NSW Health's approach to funding, purchasing and performance of health services supports improvements in clinical practice to deliver even better results for patients.

Local hospital systems gather information that can be used locally and at State level to manage performance and budgets. An Activity Based Funding management tool helps plan and assess performance and clinical needs. This approach makes public health funding more effective because health service management can allocate its funding based on real levels of patient care.

Transparency in how the system is funded and alignment of funding more closely with patient care creates a health system in which more decisions are made locally with increased involvement from clinicians and the community, and people can see clearly how services are run.

CHALLENGES

NSW Health is the largest health care system in Australia, and one of the largest in the world. With demand for services increasing from technological advances, an ageing population using services more frequently, and a shift in disease burden from acute care treated on an episodic basis to chronic and complex conditions that require more dynamic management, NSW Health must continue to improve budgetary performance while maintaining its high standard of health care.

WHAT NSW IS DOING

To meet these challenges and deliver strong and sustainable budgets, key priorities include:

- refining purchasing models including Activity Based Funding to drive better value care
- delivering strong budgets
- delivering effective regulatory, governance and business support
- driving reforms to deliver better value care and efficiencies.

HIGHLIGHTS

- NSW Health's System Purchasing Branch negotiated the purchase of more than $19 billion in health services from local health districts and health networks
- Service agreements outline the level of teaching and research to be undertaken by local health districts
- Capital investment of $536 million was secured across three business cases for eHealth NSW

8.1 REFINE OUR PURCHASING MODELS INCLUDING ACTIVITY BASED FUNDING TO DRIVE BETTER VALUE CARE

The Ministry uses both performance information and financial levers to drive the delivery of efficient and effective care. A combination of performance indicators and purchasing adjustors has been progressively introduced to influence the delivery of high quality services in a safe manner, to ensure the focus of health purchasing is not predominated by cost, but by value for money considerations which serve prioritised areas of health care.

Under activity based management, clinicians and managers are provided with accurate and timely information to support continuous improvement.

Actions to drive better value care have included:

- a new NSW Small Hospitals Model. The model better matches funding and activity flow between small hospitals and activity based funded hospitals in rural areas, to better support local clinical plans and use of available infrastructure
- preparing to implement the Australian Mental Health Care Classification, which will improve the clinical meaningfulness of how mental health care services are classified, counted and costed
- a program to grow the capability of NSW Health staff in costing and management accounting
- inclusion of a non-admitted stream in the State Price to reflect all stream activities
- investigation of better ways to cost and report on direct teaching and training activity.

The *System Purchasing and Performance Safety and Quality Framework* was developed to assist with the design, purchasing, performance monitoring and continuous improvement of health services that are needs-based. The Framework is the safety and quality lens through which the Purchasing and Performance frameworks are implemented. Implementation of this Framework starts from 2017-18.

The NSW Health Purchasing Framework supports the ambition of the NSW Government to keep people healthy, provide care that people need, deliver high quality services, and manage services well.

The Framework is informed by the directions and strategies of the *NSW State Health Plan*.

In 2016-17, NSW Health's System Purchasing Branch negotiated the purchase of more than $19 billion in health services from local health districts and health networks, including acute, emergency department, sub-acute, non-admitted and mental health activity. Adjustors were applied to ensure the focus of health purchasing was not driven by cost, but increasingly by patient outcomes.

When planning equitable access to health services for local communities, activity targets are used which incorporate:

- weighted population change and ageing, providing an indication of expected 'natural' growth
- recent trends in activity growth for each district/ network
- Relative Utilisation Rate (RUR) and Expected Health Utilisation Index (EHUI)
- known service changes and developments, including planned capacity increases.

In addition, higher value care is promoted by incorporating funding and incentives around reducing rates of unplanned re-admissions and re-presentations, potentially preventable hospitalisations, and improving hospital emergency department treatment performance.

8.2 DELIVER STRONG BUDGETS

NSW Health uses Activity Based Funding based on a national efficient price to improve services, efficiency, standards of clinical care and responsiveness to community needs.

Health organisations

Health entities directly manage public hospital services and functions and have the flexibility to determine the application and reconfiguration of resources and budgets to best meet local needs.

Throughout the year, activity and budget are reviewed through the *NSW Health Purchasing Framework* and annual Service Agreement process, which includes a transparent system of responding to each health service's performance and budget needs. Entities collaborated with the Ministry to determine parameters for recurrent budget by identifying key budget movements and liaising with the Ministry's Finance team.

> **Capital investment of $536 million was secured across three business cases for eHealth NSW**

NSW Health Service Agreements

Service agreements between the Ministry and local health districts outline the performance expectations of health services for the budget provided by the Ministry. Service agreements include the number and broad mix of services to be provided and the level of teaching and research to be undertaken by each entity. The level of activity and service is linked to funding.

The allocation allows for NSW Health entities to have growth in their annual budgets, reflecting both cost indexation and agreed service growth funding to meet increasing health needs in the community.

HealthShare NSW stayed within operating and capital expenditure budget and targets for intra-Health revenue and external revenue. Undisputed invoices were paid within the agreed terms and mechanisms were put in place to ensure creditors paid invoices in a timely manner. An activity based pricing model based on units of activity was also introduced, allowing for better comparison between similar industry service providers, creating greater transparency in the comparison of costings and services.

Capital investment of $536 million was secured across three business cases for eHealth NSW: the Whole of System Digital Platform ($286 million), Digital Patient Records ($236 million) and HealtheNet Pathology Results Repository ($14 million). This funding will allow eHealth NSW to accelerate the delivery of information and communications technology priorities across the system and implement the *e-Health Strategy for NSW Health 2016-2026*.

8.3 DELIVER EFFECTIVE REGULATORY, GOVERNANCE AND BUSINESS SUPPORT

The *NSW Health Performance Framework* sets out the structure in which the Ministry monitors and assesses the performance of public sector health services in NSW. The Framework includes monitoring of performance levels of local health districts and specialty health networks, with additional internal and external review and support mechanisms initiated when underperformance is detected.

A key factor of the Framework is the fostering of strengthened relationships between the Ministry, districts/ networks and other relevant stakeholders. This drives a shared approach to improvement and is pivotal in establishing high performance as well as the effective development, implementation and monitoring of recovery strategies. As part of system performance management, the Ministry and each district or network collaborate on successful strategies, while flagging underperformance and planning strategies for progress during the recovery phase.

This year, the Ministry worked with a number of districts/networks, utilising formal and informal mechanisms in response to areas of underperformance, in particular in relation to the improvement in Emergency Treatment Performance.

Under the Ministry of Health's Functional Review, the annual service agreements between the Ministry and each local health district, specialty health network, pillar organisation and Health Administration Corporation entity were refreshed, with the governance sections more robustly articulated at the front of each of the documents. The Agreements were more strongly aligned to the objectives of the *NSW State Health Plan* and roles and responsibilities were more clearly articulated for more collaboration and less duplication.

The Finance and Performance Committee of HealthShare NSW ensures the operating funds, capital works funds and service outputs required of the organisation are efficiently managed. The Committee meets monthly and is co-chaired by the eHealth NSW and HealthShare NSW Chief Executives.

The Committee receives monthly reports for review and action including:

- financial performance of each major cost centre
- liquidity performance
- the position of Special Purpose and Trust Funds
- activity performance against indicators and targets in the performance agreement for HealthShare NSW
- advice on the achievement of strategic priorities identified in the performance agreement for HealthShare NSW
- year-to-date and end-of-year projections on capital works and private sector initiatives
- workforce report (demographics and liabilities).

An *Information and Communications Technology Investment Assurance and Prioritisation Framework* has been developed for NSW Health, establishing a standardised approach for prioritising, supporting and funding ICT projects. The Framework aims to transparently prioritise new initiatives and ideas including local health district innovation projects, statewide proof of concepts and large scale centrally funded programs. The Framework has been endorsed by the eHealth Executive Council and aligns to the Department of Finance, Services and Innovation's ICT Assurance Framework.

8.4 DRIVE REFORMS TO DELIVER BETTER VALUE CARE AND EFFICIENCIES

NSW Health is continuing to develop analytical tools which allow detailed analysis of historical and projected service activity, enabling local health districts to better understand the health needs of the population they service and make informed decisions about the most efficient use of resources.

Purchasing for quality and safety

In 2016-17 an incentive for appropriate stroke care was introduced, rewarding improved patient flows into specialised stroke units.

Social impact investment

NSW Health is working to implement the Government's policy on increasing social impact investment opportunities in NSW. Two social impact investment initiatives have been developed, the Silver Chain Community Palliative Care Service and the Resolve Social Benefit Bond.

Silver Chain Community Palliative Care Service

The NSW Government has partnered with Silver Chain Group to deliver a service to enhance care for patients with an advanced, progressive, life-limiting illness. Patients and their families will have on-call access at any time to quality end-of-life care, enabling patients to be cared for at home if that is their choice, and reducing the time that patients spend in hospital. Carers and families will be offered respite care, pastoral care and bereavement support. The service will be provided over seven years to support more than 8340 people in Western Sydney Local Health District in need of palliative care.

Resolve Social Benefit Bond (Resolve Program)

The NSW Government has partnered with Flourish Australia to deliver an innovative mental health program, the Resolve Program, which will help approximately 530 people in and around Penrith and Orange with their mental health recovery.

Business systems

A number of business system reforms were implemented in 2016-17 to deliver better value care and efficiencies, including:

- A Concessional Car Parking Policy was implemented across NSW public hospitals that delivered concessional car parking fees to eligible patients, carers and visitors, and provided consistent fees and better access to car parking related information
- PROcure, NSW Health's statewide procurement and contract management system, was rolled out to all NSW public sector health agencies. The system provides a platform to improve NSW Health's procurement and contract management.

Infrastructure

Health Infrastructure continues to drive efficient asset utilisation through its Asset Refurbishment and Replacement Program (ARRP). The ARRP is a $500 million, 10-year initiative that provides funding for deferred maintenance and seeks to improve asset management across health facilities. Current priorities address life safety, critical repairs and maintenance, and workplace safety risks. More than $80 million has been allocated to more than 500 projects across NSW.

Support services

HealthShare NSW embedded a Continuous Improvement model within each directorate. All business lines are encouraged to regularly review market intelligence and implement initiatives to ensure continuous improvement. There have been efficiencies introduced across the organisation including:

- Transactional Services providing services at the lowest cost since the inception of HealthShare NSW
- Linen Services reducing the cost per tonne
- Food and Patient Support Services using the My Food Choices program to improve patient satisfaction and reduce food waste.

Concessional car parking was implemented across NSW public hospitals for eligible patients, carers and visitors