

SECTION 2

# PERFORMANCE



# NSW STATE HEALTH PLAN

## INNOVATION BRINGS CHANGE, AS DO DEMOGRAPHIC TRENDS.

Health care moves with the times, as the needs and expectations of communities, patients, and their carers evolve. In recent years, new challenges and priorities have emerged for funding, planning and delivering services, in response to increased demand, an ageing population and a greater number of people living with chronic illnesses, such as diabetes, heart disease and cancer. New treatments and diagnostic tools mean we can do more, increasing expectations.

The NSW State Health Plan is the strategic framework that brings together existing NSW Health plans, programs and policies.

Together with the NSW Premier's Priorities, this plan underpins our work across the system to deliver the right care, in the right place, at the right time, with constant vigilance on the safety of patients and staff in the health system.

There are eight Strategic Priorities 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 Strategic Priorities 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 Priorities

**KEEP PEOPLE HEALTHY**

**PROVIDE WORLD-CLASS CLINICAL CARE WHERE PATIENT SAFETY IS FIRST**

**INTEGRATE SYSTEMS TO DELIVER TRULY CONNECTED CARE**

**DEVELOP AND SUPPORT OUR PEOPLE AND CULTURE**

**SUPPORT AND HARNESS HEALTH AND MEDICAL RESEARCH AND INNOVATION**

**ENABLE E-HEALTH, HEALTH INFORMATION AND DATA ANALYTICS**

**DELIVER FUTURE-FOCUSED INFRASTRUCTURE AND STRATEGIC COMMISSIONING**

**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 through emergency departments within four hours by 2019
- tackling childhood obesity, by reducing overweight and obesity rates of children by five per cent by 2025.

## NSW Health also contributes directly to these State Priorities:

- deliver 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 (NDIS), 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](http://www.nsw.gov.au/improving-nsw/premiers-priorities). The State Priorities are also shown on this page.

## PRIORITY 1

# KEEPING PEOPLE HEALTHY

## KEY ACHIEVEMENTS FOR 2017-18

- Around 87 per cent of early childhood services participated in the Munch & Move program and 83 per cent of primary schools participated in Live Life Well @ School.
- The meningococcal school-based vaccination program for students in Years 11 and 12 in 2017 reached 72 per cent and 76 per cent coverage respectively.
- Get Healthy Service graduates lost an average of 3kg and 4cm in waist circumference.
- 722,128 people visited iCanQuit website, nearly 11,000 more than in 2016-17.
- Adult smoking rates declined from 16.9 per cent in 2010 to 15.2 per cent in 2017.
- 25 per cent (19,819) of people estimated to have hepatitis C accessed treatment.
- In 2017, there were 11 per cent fewer HIV diagnoses than the previous six year average.

## 1.1 IMPLEMENT POLICY AND PROGRAMS TO REDUCE CHILDHOOD OBESITY

More than one in five children are overweight or obese. The NSW Premier's Priorities include a target to reduce the rate of overweight and obesity in children by five per cent by 2025.

Programs delivered through the NSW Healthy Children Initiative focused on early childhood services, schools, junior community sport and families. Around 87 per cent of centre-based early childhood services participated in the Munch & Move program and 83 per cent of primary schools participated in Live Life Well @ School. A targeted treatment program, Go4Fun, helped over 11,000 children and their families to adopt a healthy lifestyle.

Go4Fun was designed to be culturally safe and appropriate for Aboriginal children and their families, while maintaining participation and impact. In 2017-18, 289 Aboriginal families participated, and children achieved significant health benefits as a result. Aboriginal Go4Fun won the Premier's award for Tackling Childhood Obesity in 2017.



**All children admitted to a NSW Health service must now have their weight and height/length measured and entered into the electronic medical records**

Routine height and weight measurement for children is good practice clinical care. It helps health professionals to identify children who are above or below a healthy weight, and to provide parents with brief advice and referral if needed. All children admitted to a NSW Health service as an inpatient must now have their weight and height/length measured and entered into the electronic medical records. The Healthy Kids for Professionals website, developed in collaboration with experienced health professionals and families, provides online resources and training.

Parents have said they want to know more about simple steps they can take to help their children stay a healthy weight, eat well and be active. To support this, the Make Healthy Normal social marketing campaign promoted healthy eating and active living messages, particularly for families.

### Key obesity reduction programs

NSW Health invested \$37 million in overweight and obesity prevention in 2017-18. The NSW Healthy Eating and Active Living Strategy (HEAL) is a comprehensive, whole of government approach to addressing overweight and obesity.

NSW Health provides programs to support individuals to meet their healthy lifestyle goals. The Get Healthy Information and Coaching Service is a free, telephone-based coaching service delivered by university-qualified health coaches. Participants are supported to make sustainable changes that will help achieve and maintain a healthy weight. Over 57,000 people have participated since it was established in 2009. In 2017-18, Get Healthy Service graduates lost an average of 3kg and 4cm in waist circumference. Get Healthy in Pregnancy is now available in all 73 hospitals with maternity services.



**Get Healthy Service graduates lost an average of 3kg and 4cm in waist circumference**

NSW is the first state in Australia to remove sugar-sweetened drinks from food outlets for staff and visitors in public health facilities, and was also the first to introduce kilojoule menu labelling at major fast food outlets and cafés. In combination with the 8700kJ app, kilojoule labelling helps consumers select lower kilojoule choices.

The NSW Government invested \$550,000 with the Centre for Population Health to enable the Knockout Health Challenge, which supports weight loss and healthy lifestyles among Aboriginal communities.

## 1.2 ENSURE PREVENTIVE AND POPULATION HEALTH PROGRAMS TO REDUCE TOBACCO USE

Smoking rates are falling, but it remains a leading cause of preventable disease and death in NSW.

NSW Health invested more than \$13.5 million on tobacco control efforts in 2017-18. Initiatives included public awareness and education campaigns, smoking cessation support, compliance and enforcement of smoke-free and tobacco retailing laws, and targeted programs for priority populations including Aboriginal people, people in custodial settings and people with social disadvantage.

The Cancer Institute NSW implemented six campaigns to help smokers to quit and stay that way over the financial year. There were 10,248 incoming calls to the NSW Quitline, and around 722,128 people used the iCanQuit website, an increase of almost 11,000 users from the previous year (711,361).

**722,128 people visited iCanQuit website, nearly 11,000 more than in 2016-17**

The Cancer Institute NSW released the Smoking Cessation Framework for NSW Health Services on behalf of the NSW Smoking Cessation Collaboration. The Cancer Institute NSW has worked with local health districts to support local implementation.

The NSW Government is committed to closing the gap in pregnancy smoking rates between Aboriginal and non-Aboriginal women in order to give Aboriginal children the best start in life. The Quit for New Life program supports women having a baby, as well as the people they live with, to quit smoking. From 2013 to 2018, the program supported over 5200 clients to quit. Local health districts have made significant steps to embed best practice smoking cessation care into routine clinical practice across Aboriginal Maternal and Infant Health Services, Building Strong Foundation Service and hospital maternity clinics.

NSW Health is progressively strengthening system supports, and has introduced key performance indicators for local health districts, a statewide training program with incentives for antenatal service providers, a smoking in pregnancy webinar for GPs, as well as access to Quitline and Aboriginal Quitline services to support cessation during pregnancy.

## 1.3 EMBED A HEALTH SYSTEM RESPONSE TO ALCOHOL AND DRUG USE AND WORK ACROSS GOVERNMENT

To minimise harm from alcohol and other drug use, NSW Health delivers comprehensive education, brief intervention, treatment, rehabilitation and aftercare programs through NSW Health public sector services, non-government organisations and Aboriginal



## KEEPING PEOPLE HEALTHY ELIMINATION OF HEPATITIS C IN A PRISON SETTING

### Justice Health and Forensic Mental Health Network

Hepatitis C virus (HCV) prevalence in NSW prisons is 20 to 30 times higher than in the community. In 2016, the availability of new medications created an opportunity for Justice Health and Forensic Mental Health Network to potentially cure all patients with HCV in one of its prisons – the Compulsory Drug Treatment Program (CDTP).

Following treatment, patients reported improved wellbeing. The longer term benefits include significantly decreasing the risk of hepatocellular carcinoma and death. Concurrent treatment is seen as an important measure in reducing re-infection, and is used in conjunction with harm minimisation education. The process is a partnership between Justice Health, Corrective Services NSW and Hepatitis NSW. Broad screening, concurrent treatment and ongoing reviews of new admissions in the CDTP are considered an innovative approach for HCV elimination in a prison.

Photo: James Wood and Colette McGrath, Justice Health; Danny O'Connor, CE, Western Sydney LHD; Maria McMahon, Hepatitis NSW; Paul Willma, GM, Cerner; Camilla Lobo, Justice Health; Elizabeth Koff, Secretary, NSW Health; Angela McClements, Justice Health; Brad Hazzard, Minister for Health.

Community Controlled Health Services. During 2017-18, NSW Health implemented new programs funded through the \$75 million 2016 NSW Drug and Alcohol Package.

Substance Use in Pregnancy and Parenting Services (SUPPS) provides treatment and support to pregnant women and their child for up to two years after birth and were expanded across NSW in 2017-18.

**Substance Use in Pregnancy and Parenting Services were expanded across NSW**

Five local health districts and The Sydney Children's Hospitals Network received funding to provide youth alcohol and other drug treatment services. The Sydney Children's Hospitals Network and John Hunter Children's Hospital in Hunter New England were funded to provide Youth Addiction Medicine Fellowship positions, to build the capacity of the NSW child and adolescent specialist workforce.

A new alcohol and other drug residential rehabilitation service for women with dependent children was established in Orange, and additional capacity was purchased in two other services located in Wyong and Malabar.

Assertive Community Management teams were established in seven local health districts and one specialty network in metropolitan, regional and rural NSW, to support people with severe and complex substance use issues.

The Alcohol and Other Drugs Continuing Coordinated Care Program was established to provide statewide coverage, so that people with severe substance use issues remain connected to treatment.

The Alcohol and Other Drugs Early Intervention Innovation Grants Scheme was established to test innovative approaches to prevention, early intervention, harm reduction and aftercare/relapse prevention, with a focus on young people who are vulnerable to drug use. The Evaluation Grants Scheme was established to build capacity among non-government organisations (NGOs) drug and alcohol services to evaluate existing programs and build the evidence base. In 2017-18 Ted Noffs Foundation, Kedesh Rehabilitation Services, ACON Health, Mission Australia and Odyssey House were awarded Evaluation Grants. SMART Recovery, Lyndon Community, the Salvation Army and Hunter New England Local Health District and partners received Innovation Grants.

The Justice Health and Forensic Mental Health Network's Connections Program assessed and supported 738 patients with drug and alcohol problems, following their release from custody. The Network also negotiated post-release arrangements made with a community provider for 1784 adults participating in custodial Opioid Substitution Therapy.

## 1.4 REDUCING THE IMPACT OF INFECTIOUS DISEASES IN THE COMMUNITY

The supplementary meningococcal school-based vaccination program for students in Years 11 and 12 in 2017 reached 72 per cent and 76 per cent coverage respectively. In 2018 the vaccine is being extended to students in Years 10 and 11.

NSW Health continued to make progress towards the virtual elimination of HIV. In 2017, HIV testing increased by six per cent compared with 2016, and 95 per cent of people diagnosed with HIV were treated and retained in care. By 30 April 2018, nearly 9500 people at high risk of HIV infection had accessed HIV pre-exposure prophylaxis (PrEP) through the EPIC-NSW trial.



**NSW Health continued to make progress towards the virtual elimination of HIV**



### VOLUNTEER OF THE YEAR BELINDA WHITE

#### Murrumbidgee Local Health District

Belinda, affectionately referred to as Bil, has volunteered her time to facilitate a Creative Writing group for participants of the Mental Health Recovery Program. It involves group work and one-to-one support, covering subjects such as self-esteem, assertiveness, living skills and cognitive behavioural therapy. The program takes a holistic view of recovery, promoting good diet, sleep, routine, exercise, relationships and communication skills.

Bil uses her own experience of mental health and her teaching background to explore the natural talents of consumers. She is an inspiration to staff, consumers and the wider community. Bil has proven herself dependable as seen in the consistency of her work in the Recovery Unit. She is always professional in her interactions with staff and consumers and is held in high regard by consumers. The quality of Bil's work and the impact it has had on consumers within the program is indisputable.

Photo: Dr Teresa Anderson, CE, Sydney LHD; Dr Michael Brydon, CE, Sydney Children's Hospitals Network; Belinda White, Volunteer of the Year; Innes Clarke, Murrumbidgee LHD; Elizabeth Koff, Secretary, NSW Health; Brad Hazzard, Minister for Health.

NSW Health continued to increase access to hepatitis C treatment, including primary care settings such as Aboriginal Community Controlled Health Services, and for vulnerable populations in prisons and drug and alcohol services. Between March 2016 and March 2018, 25 per cent (19,819) of the people estimated to be living with hepatitis C in NSW were treated.

The Justice Health and Forensic Mental Health Network achieved virtual elimination (elimination within the limitations of testing) of hepatitis C at six centres. It is impossible to guarantee total elimination as some patients may decline testing or transmission could occur before a new arrival is tested or treated.

The Housing for Health Program, delivered to Aboriginal communities across NSW, achieved a high rate of improvement to dwellings. The program makes houses safe and suitable for healthy living, targeting essential health hardware by such things as fixing leaky toilets, electrical repairs, and ensuring there is sufficient hot water and somewhere to wash people and clothing. Improvements made can reduce the risk of disease and injury and lead to health improvement for tenants, particularly children under five. In 2017-18, work was completed on 701 houses in 21 communities, with 4921 health and safety items fixed and 2721 people assisted.

## Management of significant infectious disease outbreaks

From July to December 2017, NSW Health identified and controlled an outbreak of hepatitis A which affected 37 adults in NSW. The outbreak was linked to an international outbreak of hepatitis A predominantly affecting men who have sex with men, and also affected other Australian states and territories. Sexual health services and advocacy groups worked together to increase protective vaccination coverage to control the outbreak.

NSW Health led the national investigation into an increase in hepatitis A which linked cases to consumption of imported frozen pomegranates. A total of 30 cases of hepatitis A occurred: New South Wales (15), Victoria (6), Western Australia (3), South Australia (2), the Northern Territory (2), the Australian Capital Territory (1) and Queensland (1). The outbreak was controlled following the recall of the affected product from supermarkets in April 2018.



**NSW Health led the national investigation into an increase in listeriosis which linked 22 cases to contaminated rockmelon**

NSW Health also led the national investigation into an increase in listeriosis. A total of 22 cases of listeriosis occurred: New South Wales (6), Victoria (8), Queensland (7) and Tasmania (1). The investigation linked the cases to one rockmelon grower in southern NSW. The outbreak was controlled following the recall of rockmelon from this farm in March 2018.

## PRIORITY 2

# PROVIDE WORLD-CLASS CLINICAL CARE WHERE PATIENT SAFETY IS FIRST

## KEY ACHIEVEMENTS FOR 2017-18

- Quality Audit Reporting System (QARS) implemented by all NSW Health local health districts for clinical audits and surveys, with 389,431 audits conducted this year.
- Quality Improvement Data System (QIDS) accessed by 4500 clinicians and managers to improve patient safety and healthcare quality, number of users increases every day.
- The NSW Quality Improvement Collaborative supported 42 teams to help reduce falls across NSW.
- NSW sepsis mortality rate continued to decline to 11.5 per cent (2017).
- Around 16,936 patients were safely discharged from hospital with ComPacks to support their discharge, costing \$24.8 million.
- NSW Health Pathology's Point of Care Testing program generated \$12 million in direct cost savings for the NSW Health system. A further \$6 million in savings came from cases where patients did not require admission to emergency or ward beds.
- The Bureau of Health Information (BHI) surveyed more than 270,000 recent patients for the NSW Patient Survey Program and achieved response rates of 61 per cent.

## 2.1 CONTINUE TO EMBED QUALITY IMPROVEMENT TO ENSURE SAFER PATIENT CARE

NSW has a system-wide approach to delivering care that is safe, high quality, timely, efficient and based on the best evidence available.

In 2017-18, the Clinical Excellence Commission (CEC) continued to act as NSW Health's lead agency on clinical governance, National Health Service standards and improving safety and quality. In partnership with the Ministry of Health Patient Safety First Unit, the CEC provided a responsive, agile service, offering regular specialist information, advice and good practice to health services on a wide range of safety and quality issues including critical incidents, along with opportunities to partner with patients, families and carers in patient safety work.

In May 2018, the Clinical Excellence Commission (CEC) launched the Master Clinician's Guide to Quality and Safety, providing expert tools and resources to help health care staff foster a culture of safe, high-quality care at the hospital where they work. The CEC also minimised potential harm by producing 13 Safety Alerts/Notices and five medication shortage communications.

Of 376 product recalls risk assessed, 15 were identified as high risk, requiring a system level response led by the CEC.

The CEC's Between the Flags (BTF) Education program, released in June 2018, provides flexible and innovative online safety resources, including a new one-hour workshop for Senior Medical Officers. Over 80,000 NSW Health staff have completed BTF training since 2010.

Over 2017-18, the Quality Improvement Academy trained 496 improvement coaches and 34 improvement experts. eLearning training was delivered to 487 staff, and 280 participants completed Patient Safety training. Quality Tools webpages continue to help health employees build quality improvement leadership in delivering the safest and highest quality of care for every patient, every time. The improvement collaborative methodology was used with 42 teams to support work across NSW to reduce falls.

## Safety and Quality Framework

The draft Safety and Quality Framework is in development, and will align to the new Clinical Excellence Commission's Strategic Plan (2018-2021). The framework will provide contemporary statewide guidance to organisations, and will complement the current priorities set out for NSW Health Patient Safety First. The framework will describe the broader aim across NSW to deliver safer care to every patient, every time and support local health districts and health networks as they establish their local patient safety programs.

eHealth NSW continued to work with the Clinical Excellence Commission to deliver a contemporary, intuitive and secure Cloud-based Incident Management System (IMS+) for NSW Health staff that will support improved capturing of data. The pilot is expected to commence in Quarter 4 of 2019 for three months, followed by quarterly rollouts of new content until the program closes in October 2020.

The NSW Diabetes Taskforce developed a capability building program to support junior medical officers and nursing staff care for people with diabetes requiring hospitalisation and insulin management. This included 'Thinksulin' a decision support app, and an associated eLearning program.



**The Emergency Care Institute introduced monthly teleconferences for small rural emergency departments**



## PATIENT SAFETY FIRST NOT ANOTHER DVT IN THE ED

### Western Sydney Local Health District

When the Westmead Hospital emergency department team identified a significant variation in how Deep Vein Thrombosis (DVT) presentations were treated, they initiated processes for standardising and optimising management of acute DVT, including a web-based clinical decision support tool. In addition, a streamlined model of care for assessment, treatment and follow-up was implemented, with ongoing monitoring and evaluation enabling continuous improvement.

Results showed a considerable increase in the number of patients receiving appropriate investigation, treatment and referral – from 12.82 per cent to 84.21 per cent. Other beneficial outcomes included a shortened time between ED assessment and clinic follow up, with 92 per cent of patients seen in three days or less, a reported reduction in stress experienced due to 'anti-clot' treatment, and high rates of satisfaction. Fewer patients experienced complications of treatment prior to follow up.

Photo: Jonny Taitz, Clinical Excellence Commission; Louis Do, Jennifer Curnow, Jason Montgomery and Helen Crowther, Western Sydney LHD; David Currow, CEO, Cancer Institute; Lorraine Koller, Western Sydney LHD; Elizabeth Koff, Secretary, NSW Health; Brad Hazzard, Minister for Health.

The Emergency Care Institute introduced monthly teleconferences for small rural emergency departments. These focus on cases with challenging features or adverse outcomes, and include analysis and an educational component.

The Agency for Clinical Innovation (ACI) developed an online interactive self-assessment tool to enable local health districts to identify areas of need to build capability in providing services for people with intellectual disability. In addition to four pilot sites which commenced in 2015, the ACI supported four new hospitals to enroll in the NSW Collaborative of the National Surgical Quality Improvement Program. The four pilot sites embedded change initiatives to improve patient outcomes and the care quality of their surgical services, focusing on reducing urinary tract and surgical site infection rates. Nepean Hospital developed a surgical site infection improvement program which delivered a 50 per cent reduction in surgical site infections following colorectal surgery. Plans to roll out the program to other surgical specialties are under way.

The Cancer Institute has developed resources to inform people with cancer about the importance of having their care overseen a multidisciplinary cancer care team (MDT). Cancer services, MDTs and specialists for selected high-volume specialist centres are listed on the Canrefer website, which has seen an increase in users of 11.6 per cent (11,054 additional sessions) in 2017-18.

## Efficiency – New KPIs and monitoring for safety and quality

At the start of 2017-18, the System Purchasing and Performance Safety and Quality Framework was released to the system. This Framework supports the design, purchasing and performance monitoring, and continuous improvement of health services that are needs-based and provide safe, high-quality and high-value care for patients. The Framework operates alongside the Purchasing and Performance Frameworks, Service Agreements with local health districts and specialty health networks, and Performance Agreements with Pillar organisations. Within the Framework, key performance indicators and improvement measures are outlined, and are grouped within the following safety and quality domains: effectiveness; equity; safety; timeliness & accessibility; appropriateness; efficiency; and patient-centred culture.



**At the start of 2017-18, the System Purchasing and Performance Safety and Quality Framework was released to the system**

Eight Hospital Acquired Complications (HACs) were identified as Key Performance Indicators, which were incorporated into local health district and specialty health network service agreements from 2018-19. These HACs are pressure injuries, venous thromboembolism, healthcare associated infections, falls resulting in fracture/other intracranial injury, surgical complications requiring unplanned return to theatre, medication complications, 3rd/4th degree perineal laceration during delivery and neonatal birth trauma. Through the Service Level Agreements progress in achieving these targets will be monitored in line with the performance framework.

The Agency for Clinical Innovation (ACI) continued to work with local health districts to reduce clinical variation. ACI's audit and improvement team conducted 96 audits across 13 districts and networks to investigate clinical variation with a focus on chronic obstructive pulmonary disease, diabetes and congestive heart failure. The diabetes team completed 32 clinical audits to investigate clinical variation in diabetes inpatient care and provided local teams with valuable information about current care processes and supporting the development of improvement plans and projects to align with best practice care. The Osteoarthritis Chronic Care and Osteoporotic Re-fracture Prevention programs were implemented in 23 and 20 sites across NSW.



## PATIENTS AS PARTNERS THE PATIENTS' VOICE

### Nepean Blue Mountains Local Health District

In a statewide first, The Patients' Voice project recognises the importance of safety of inpatients, and of communicating with them. Patients, families and carers were sent a letter of introduction to the afternoon nurses' handover, outlining what patient information needs to be captured and shared with the incoming nursing shift.

Post-implementation surveys and audits showed a 30 per cent decrease in clinical incidents because of patient information shared in the new protocol. All patients who took part in the pilot of this initiative gave very positive feedback.

The initiative is likely to be applicable in broader health settings, both nationally and internationally.

Photo: Michael Woods, Nepean Blue Mountains LHD; Brad Hazzard, Minister for Health; Julie Williams, Jaimie Earl and Kim Maddock, Nepean Blue Mountains LHD; Wayne Jones, CE, Northern NSW LHD; Eula Salayog, Nepean Blue Mountains LHD; Elizabeth Koff, Secretary, NSW Health; Amanda Larkin, CE, South Western Sydney LHD.

These new services helped patients gain access to evidenced-based, coordinated chronic care programs for management of osteoarthritis and osteoporosis re-fracture risk. The ACI conducted separate analyses of variation in hysterectomy and arthroscopy and identified areas for further investigation. The hysterectomy analysis showed significant variation in procedure type, as well as variation between rural and metropolitan NSW. Next year, the ACI will convene an expert advisory group to review the findings and identify whether the variation is warranted.

## 2.2 DELIVER BETTER VALUE CARE

### Leading Better Value Care

The Leading Better Value Care program is one of the core approaches supporting NSW Health's shift towards value-based healthcare. It involves identifying and scaling evidence-based initiatives across NSW that improve health outcomes, experiences of receiving and providing care, and effectiveness and efficiency of care. The program has a strong focus on measurement and evaluation to show the impact of care on outcomes that matter to patients and the wider health system.

In 2017-18, eight clinical initiatives were selected as part of the first tranche of the program. The criteria for Leading Better Value Care initiatives are that they should have a clear focus on improving patient outcomes, provide an evidence-based solution to known issues, and deliver a measurable impact in creating capacity within the health system.

The initiatives in the first year of the program focus on improving care for patients:

- with osteoarthritis
- at risk of osteoporotic re-fracture
- with chronic heart failure
- with chronic obstructive pulmonary disease
- requiring hospitalisation for diabetes
- at risk of diabetes related foot complications
- over 70 years at high risk of falls in hospital
- with end stage renal disease.

The Agency for Clinical Innovation (ACI) and the Clinical Excellence Commission (CEC) assisted local health districts (LHDs) to implement solutions through capability development activities, clinical audits, redesign to workflows and models of care, providing evidence-based change packages, as well as undertaking upfront economic appraisals and formative evaluations. The LHDs were free to decide how to implement solutions in a way that best met their local needs and circumstances. They were also provided with \$11.8 million in funding to support the establishment of the Leading Better Value Care Program across NSW, and were funded for additional activity to help provide more efficient and effective care in non-admitted settings where appropriate.

The Leading Better Value Care Program will continue as a system priority, reflecting the long-term commitment to move from volume-based to value-based healthcare. The eight Tranche 1 initiatives will be further embedded and another five clinical initiatives will be developed as part of the second tranche of the program.



**The Leading Better Value Care Program will continue as a system priority, reflecting the long term commitment to move from volume-based to value-based healthcare**

Even though the Leading Better Value Care Program is only one year old, the data and feedback available to date indicate that good progress is being made through the implementation of new models of care and better utilisation of resources. Quarterly monitoring reports show significant progress. A snapshot across NSW showed:

- Governance structures have been established to drive the implementation of each initiative.
- Clinics are being established to provide new multidisciplinary models of care.

- An overall decrease in the number of falls in hospitals for patients over 70 years resulting in serious injury.
- Initiatives that encourage the provision of care in non-admitted settings showed a decrease in hospital admissions and an increase in non-admitted services.

The Ministry of Health and pillar organisations will focus on gathering the evidence to help align system drivers such as purchasing and evaluation by undertaking costing studies, investing in the statewide collection of Patient Reported Measures, and establishing a linked dataset to support the measurement and analysis of value in the system.

The Bureau of Health Information (BHI) developed new key performance measures for patient experience, to be used in the service agreements between the Ministry of Health and districts and networks. This resulted in the replacement of historic measures with two new indices comprising four and six scored questions, as well as a new improvement measure on treating patients with respect and dignity.

The Agency for Clinical Innovation's Renal Supportive Care model involves an interdisciplinary approach integrating the skills of renal medicine and palliative care. This model helps patients with chronic kidney disease and end stage kidney disease to live as well as possible by better managing their symptoms. This year, the model was strengthened and expanded with incorporation into the Leading Better Value Care program, allowing more patients to receive care under the model in more hospitals.

## Support for patients discharged from hospital

The ComPacks Program is a non-clinical package of case management and community services which helps to make safe early discharge for eligible patients possible. The ComPacks package supports patients for a six-week period following discharge from NSW public hospitals. Access to the ComPacks program allows patients access to services immediately after discharge from hospital, for a safe transition home. The packages can prevent patients returning to hospital unnecessarily and help prevent avoidable readmissions. More than 150 NSW public hospitals across 15 local health districts and speciality health networks use ComPacks. In 2017-18 16,936 patients across NSW were discharged with ComPacks at a cost of \$24.8 million.

## Social impact investment

NSW Health began implementing Australia's first two health-related social impact investments in 2017-18.

The Silver Chain Palliative Care Service commenced in July 2017 and provides 24/7 community-based palliative care in the Western Sydney Local Health District (WSLHD). The service will be delivered over a seven year period and benefit an estimated 8340 patients. The service is progressing well, and demonstrates a strong partnership between WSLHD and the Silver Chain Group in supporting patient referrals to the service. At the end of June 2018, more than 800 people from WSLHD had received the Service and referrals from the WSLHD had exceeded expectations.

In October 2017, the NSW Government partnered with Flourish Australia and Social Ventures Australia (SVA), to implement the Resolve Program in the Nepean Blue Mountains and Western NSW local health districts. The program will be delivered over seven years, and benefit approximately 530 people. It provides participants with two years of comprehensive, recovery-oriented mental health support, including a residential program with 24/7 peer support, community outreach and after-hours phone support. A key feature of the program is that core components of support are delivered by peer workers – people with a lived experience of a mental health issue who can use their knowledge to help others with their recovery.



**The NSW Government partnered with Flourish Australia and Social Ventures Australia to implement the Resolve Program in the Nepean Blue Mountains and Western NSW LHDs**

The program complements other mental health services in both local health districts (LHDs) that are responsible for taking care of participants' clinical needs. The LHDs and Flourish have developed a strong working partnership to support the program's implementation and referrals. In the first year, participation in the program met expected numbers of referrals, and the feedback from patients, families and clinicians was positive.

Joint Working Groups oversee, monitor and report on both social impact investments. Independent certifiers have been appointed to verify performance data and determine whether outcomes have been achieved and any payments are to be made. Independent evaluators have been appointed to assess whether these investments are achieving benefits for patients, community and government and report on process and implementation measures, outcomes and cost effectiveness.

## Purchasing and Service Agreements

The NSW Health Purchasing Framework supports the aim of the NSW Government to keep people healthy, provide care that people need, deliver high-quality services, and manage services well. It is informed by the directions and strategies of the NSW State Health Plan and is underpinned by the principles of safety, patient-centred care, efficiency, timeliness and accessibility, effectiveness, appropriateness and equity. In 2017-18, the framework was reviewed to more clearly articulate the purchasing methodology for greater transparency and build capability in the NSW public health system.

The Ministry of Health's System Purchasing Branch held a Safety and Quality Workshop, which brought together NSW Health senior clinicians and health information managers, as well as district, network and pillar executive representatives, to consider how purchasing adjusters and performance measures could be used to help deliver safe, optimal quality care. The workshop informed the 2018-19 Service Agreement process, to include a greater emphasis on safety and quality from both performance and purchasing perspectives.



**In 2017-18, the Ministry of Health's System Purchasing Branch negotiated the purchase of over \$19 billion in health services from local health districts and specialty health networks**

In 2017-18, the Ministry of Health's System Purchasing Branch negotiated the purchase of over \$19 billion in health services from local health districts and specialty health networks, including acute, emergency department, sub-acute, non-admitted and mental health services. As part of this process, quality purchasing adjusters were applied to ensure NSW Health delivers high quality services safely. The objective is to make sure health purchasing is not driven by cost, but rather a focus on purchasing for patient outcomes.

The annual Service Agreements between the Ministry of Health and every local health district, specialty health network, pillar organisation and Health Administration Corporation entity were reviewed in 2017-18. These agreements remain strongly aligned to the NSW Health State Plan objectives, supporting a collective response to system priorities and ensuring roles and responsibilities are clearly articulated, and leading to a more collaborative approach with less duplication. The performance of local health districts and networks is measured against key performance indicators. The Leading Better Value Care Program, hospital acquired complications, and patient experience were added to these key performance indicators in 2017-18.

## 2.3 FOSTER ENGAGEMENT FROM CONSUMERS AND CARERS TO IMPROVE THE CUSTOMER EXPERIENCE

NSW Health successfully implemented a Feedback Assist Widget on the main webpages of the Ministry of Health, local health districts, specialty health networks and NSW Ambulance. The widget is a citizen interface application that allows customers to provide feedback, compliments or suggestions. The system aims to give customers consistency and efficiency in complaint management across the whole of government.

In 2017-18, the NSW Health Customer Service Improvement Plan (CSIP) was updated and highlights key opportunity areas to improve customer satisfaction and patient experience.

The NSW Health CSIP focuses on four key priority areas:

- Improving Community Access to Acute Care
- Improving Community Access to Elective Surgery
- Delivering Truly Integrated Care
- CORE Values.

The Bureau of Health Information (BHI) surveyed more than 270,000 recent patients for the NSW Patient Survey Program and achieved response rates of 61 per cent. Tens of thousands of people responded by post and online to provide information about their experiences in a variety of settings in the NSW public health system.

The BHI also developed new key performance measures for patient experience which has resulted in the replacement of historic measures with two new indices comprising four and six scored questions, as well as a new improvement measure on treating patients with respect and dignity.



**The Bureau of Health Information surveyed more than 270,000 recent patients for the NSW Patient Survey Program and achieved response rates of 61 per cent**

The Clinical Excellence Commission (CEC) continued to strengthen systems and programs that enable consumers to engage with clinicians for better care. It continued to implement patient and family escalation of care with particular emphasis on Culturally and Linguistically Diverse (CALD) communities, mental health and emergency departments. The TOP5 program, supporting carer involvement in dementia care, continued to spread. Assisted by considerable input from health staff and consumers, a health literacy framework for NSW Health is progressing. The establishment of a joint Agency for Clinical Innovation and Clinical Excellence Commission Consumer Council this year further enabled the consumer voice to be included.

This year, the Patient Reported Measures program was implemented across 54 sites in 11 local health districts and specialty health networks, to drive patient-centred care and local improvements. Assessments were conducted at all local health districts to assess readiness for the implementation of a new IT solution to capture patient reported measures. Work continued between ACI and eHealth in readiness for the new program.

This year, 25 rural Multipurpose Services (MPS) participated in the Agency for Clinical Innovation Living Well in MPS Collaborative, which implemented principles of care and improved quality of life for MPS residents. Over 360 small-scale improvements were embedded, including developing social profiles highlighting residents' likes, dislikes and routines, improving access to aged care specific education for staff, using telehealth, and making environments more home-like, for example by building vegetable gardens and including pets. The final evaluation found the project addressed gaps in residential aged care assessment identified by the Australian Commission on Safety and Quality in Healthcare: A Principles in Practice Report.

The Cancer Institute and the Bureau of Health Information (BHI) implemented a statewide Client Experience Survey for BreastScreen NSW, with 17,000 women surveyed, with a response rate of 61 per cent. Overall, 97 per cent of women rated their experience as 'very good' or 'good', and 93 per cent said they would 'definitely' continue with routine mammograms.

HealthShare NSW had a 21 per cent increase in customer satisfaction scores (from 5.3 in 2016 to 6.4 in 2018), and a 13 per cent increase in customer engagement scores (from 5.5 in 2016 to 6.2 in 2018) as measured by a bi-annual customer survey.

HealthShare NSW rolled out My Food Choice to 4310 beds in 28 sites across NSW Health during 2017-18. The aim of this program supports nutritional outcomes and makes the experience of being in hospital more pleasant for patients.

A new ICT application for the Isolated Patients Travel and Accommodation Assistance Scheme (IPTAAS) was implemented in April 2018, resulting in an increase in the total number of claims processed, and processing times improved by 21 per cent.

## Point of Care Testing expanded

NSW Health Pathology's Point of Care Testing program expanded 12 per cent on 2016-17 levels. With more than 1.5 million point of care tests performed in NSW each year, it is the largest managed program of its kind in the world. An independent review showed it generated \$12 million annually in direct cost savings for the NSW health system. A further \$6 million in savings comes from cases where patients did not require admission to emergency or ward beds. The program helps patients receive vital tests and treatment when and where they need it most.



**Point of Care Testing is the largest managed program of its kind in the world**

NSW Health Pathology also began customer service training for frontline collections staff, and a project to establish best practice around patient identification. A package of standardised patient information flyers explaining pathology tests and collection procedures is being developed.

## 2.4 ENSURE TIMELY ACCESS TO CARE, WITH A FOCUS ON EMERGENCY, SURGERY AND AMBULANCE PERFORMANCE

### Emergency treatment performance

In 2017, NSW Health adopted a process to further strengthen Emergency Treatment Performance and identify support needs. This process involves close collaboration with the Ministry of Health on strategies to address patient flow and ensuring patients are efficiently moving through Emergency Departments (EDs).

The Ministry of Health's System Purchasing Branch provides expert advice and targeted support to districts and networks to improve emergency access and elective surgery performance. In 2017-18, subject matter experts tracked and monitored local and state level key performance indicators. They also completed site visits to districts and networks, to help build local capability for patient flow, emergency access and elective surgery waitlist management.

The NSW Patient Flow Collaborative started in November 2017 aimed at improving patient flow through collective efforts across 13 hospitals. The key focus of the Collaborative has been on spreading successful approaches across the system, focusing on increasing capacity and improving patient flow. The Collaborative methodology is based on rapid improvement initiatives focused on six key categories: admission avoidance; front door flows; senior decision making; bed management; hospital functions and discharge planning. Key stakeholders involved from each local health district hospital included: general managers or executive directors of operations; EDs and inpatient physicians; and key patient flow staff.



**The NSW Patient Flow Collaborative started in November 2017 aimed at improving patient flow through collective efforts across 13 hospitals**

The Whole of Health Program provided participating hospitals with onsite support and capacity to implement the rapid improvement initiatives. There were four learning set forums held across the 12 months that provided empirical learning, the opportunity to share successful improvement initiatives and problem solve common challenges. The learning sets were attended by key stakeholders within all 13 hospitals.

The Agency for Clinical Innovation (ACI) began a partnership with Central Coast Local Health District, supporting a pilot to reduce intensive care units exit block. Four sites across three local health districts were enrolled as part of the pilot phase. Staff from the sites attended capability training workshops to equip teams with the skills and knowledge needed to set up and lead the project locally.

The Emergency Care Institute completed the implementation of the Nurse Delegated Emergency Care (NDEC) project. This model of care supports registered nurses to manage the entire episode of care for patients presenting with less urgent conditions to emergency departments in rural and remote areas. Eleven sites have implemented NDEC, and a further 11 have been endorsed to start it.

The Centre for Healthcare Redesign Graduate Certificate Program supports local health district teams to build skills in local redesign. These teams deliver projects of strategic priority, creating better healthcare services. A snapshot of projects in 2017 includes increasing effectiveness and access to pulmonary rehabilitation, increasing flow in discharge lounges, reducing pre-operative iron deficiency for surgical patients, providing better referral and support services to residential aged care facilities to reduce unnecessary transfers, increasing access for endoscopy for patients at risk of bowel cancer and releasing more time to care for nurses by overhauling stock ordering and management.

## Elective surgery

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 of Health's System Purchasing Branch introduced a comprehensive model for Elective Surgery Access Performance (ESAP) management in February 2018. The ESAP Monitoring and Recovery Support programs target facilities with large numbers of overdue elective surgery patients and poor on time performance. These hospitals must provide weekly reports and participate in teleconferences with the surgery and performance teams. The Ministry of Health worked closely with the hospitals to monitor improvement strategies, including spot purchasing, to reduce the number of overdue elective surgery patients.



**Under the Increasing Access to Elective Surgery Initiative, the NSW Government invested an additional \$3 million to further improve access to elective surgery services in NSW**

Under the Increasing Access to Elective Surgery Initiative, the NSW Government invested an additional \$3 million to further improve access to elective surgery services in NSW. The funding was provided to districts and networks to complete additional cataract extraction, hip replacement and knee replacement procedures.

In April 2018, the System Purchasing Branch Surgery Team hosted the second Annual Elective Surgery Waiting Time Coordinators and Booking Officers Professional Development Day. Fourteen speakers from the Ministry and local health districts gave presentations on a range of models and initiatives for increasing access to surgery. The day was very well attended, with 135 registrations from across districts, networks and pillar organisations and gave those attending the opportunity for networking and sharing ideas.

## Ambulance improvements

NSW Ambulance has continued to expand and implement integrated care initiatives to provide patients with appropriate care options and reduce the number of transports to Emergency Departments (EDs). These include patient referral to alternate destinations, palliative and end of life care, aged care, paramedic connect and frequent user management. These programs focus on improving integration and patient connectedness, through both new and already established models of care, with local health districts, social service providers, Primary Healthcare Networks (PHNs) and non-government organisations within and across local health district boundaries. These include the Western Sydney Collaboration, NSW Ambulance Falls Strategy, NSW Ambulance Authorised Care Plans and NSW Ambulance Patient Focused Disability Inclusion Plan.

The Paramedic Response Network (PRN) is an innovative, evidence-based operating model that will deliver a more sophisticated and even deployment of paramedics and ambulance vehicles across metropolitan Sydney. To assist in implementing the new operational model, the NSW Government's \$150 million Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS) program is delivering nine new superstations and new facilities called Paramedic Response Points (PRPs). Four additional ambulance superstations began operating in 2017-18, at Liverpool, Penrith, Northmead and Artarmon and brought the number of operational superstations in metropolitan Sydney to seven. The first PRP opened at Mortdale. These major milestones reached in the roll-out of the Paramedic Response Network model of operations continue to improve the availability of paramedics delivering exceptional clinical care to patients requiring mobile emergency assistance.



**Four additional ambulance superstations began operating in 2017-18, at Liverpool, Penrith, Northmead and Artarmon**

Running in all superstations in metropolitan Sydney from the beginning of operations, the Make Ready Model frees paramedics to provide clinical care to patients and delivers more efficient logistics management of ambulances. They return to service more quickly, more hygienically-cleaned and accurately stocked. More than 50 new logistics positions have been created, with logistics staff provided by HealthShare NSW, working side-by-side with paramedics.

NSW Ambulance is improving infrastructure across regional and rural areas to further strengthen the high quality mobile emergency medical care delivered to communities. The NSW Government's \$122 million Rural Ambulance Infrastructure Reconfiguration program currently includes 23 locations across the state that will benefit from an upgraded, rebuilt or entirely new ambulance station.

Beginning operations in 2017-18, new and upgraded ambulance stations at Coolamon, Ardlethan and Harden brought the number of operational stations delivered to four, as part of the biggest regional and rural transformation of infrastructure in the organisation's history.

## 2.5 DISSEMINATE INFORMATION TO INFORM SYSTEM PERFORMANCE AND DRIVE REFORM

The landscape of health information in NSW is changing in response to emerging system priorities. There is growing interest in and demand for meaningful information for better decision making, more contextualised performance information, longitudinal data, and combined data sources that provide a more meaningful and coherent picture of system performance. NSW Health continues to increase transparency and the amount of information available for a wide range of audiences.

The Health Information and Performance Governance Committee (HIPGC) is NSW Health's principal data governance forum advising on data governance and facilitating collaboration between the Ministry, districts, pillars and shared services. It provides a system-wide perspective to ensure a strategic approach to data, data assets and data management to ensure data is available, meaningful, reusable and easily understood for decision makers at all levels of the organisation. The Committee advises NSW Health and eHealth NSW on matters relating to data governance including aspects of information management, performance reporting development, digital health (eHealth), governance and strategies, and to facilitate collaboration between the Ministry of Health, pillars, shared services, local health districts and specialty health networks in relation to these areas.

The Committee provides advice on reporting requirements, data collection management, eHealth matters which require long term oversight and which interface with data standards, contributes to the development of data standards, mandatory Minimum Data Sets for Statewide data collection implementation, and documentation of the annual NSW Health Service Agreement performance indicators and service measures. The Health Information and Performance Governance Committee endorsed the draft NSW Health Data Governance Framework which provides a principle-based approach to the development and management of NSW Health's statewide data assets. It also aided in the development of new KPIs, improvements to data quality and the development of new applications to support health improvements initiatives. The Health Information and Performance Governance Committee continues to inform local data custodians on broader data strategies and programs.

The Bureau of Health Information (BHI) provides all patient survey feedback to people who work within local health districts and are responsible for providing information to support improvements in patient experience in hospitals. In the second half of the year, BHI undertook extensive face-to-face consultations with LHDs and executives and has incorporated their feedback into its strategic plan for 2019-2022. The new strategic plan will better align BHI products with health priorities and improve responsiveness and timeliness of information. BHI continues to investigate methods of conveying concise and timely performance information on local hospitals to LHD boards.

BHI continued to deliver a suite of reports and information products on the performance of the NSW public health system using advanced data analytics, data visualisation and communications. BHI reports provide the community, health professionals and policy makers with information that increases the visibility of the performance of the healthcare system's performance, informing actions to improve healthcare and strengthen accountability.

Reports cover a wide range of topics including emergency department and surgical procedure waiting times, ambulance response times, patients' experiences in a variety of healthcare settings, and clinical variation between hospitals in mortality and readmissions.



**The Bureau of Health Information continued to deliver a suite of reports and information products on the performance of the NSW public health system using advanced data analytics, data visualisation and communications**

In 2017-18, BHI published 19 reports and data releases on healthcare performance and reported, for the first time, on the experiences of patients with disability in NSW public hospitals. Four Healthcare Quarterly reports were published featuring information about activity and performance for NSW public hospitals and ambulance services, adding 44 emergency departments to the analysis. The July to September issue of BHI's Healthcare Quarterly reflected the resilience of the NSW public health system at a time of an extraordinarily high number of influenza cases. The January to March issue reported, for the first time, on the number of inpatient episodes at NSW public hospitals that involved mental health treatment. This was an important step toward performance reporting in this area and supports the growing public interest in mental health services.

BHI published its first online chartpacks, which summarised healthcare performance information through key graphs that can be downloaded in different formats, making complex healthcare information more accessible and engaging. The chartpacks highlighted patient-reported experiences at outpatient cancer clinics throughout NSW, and compared the NSW healthcare system with 11 countries who took part in the 2016 Commonwealth Fund International Health Policy survey. BHI also worked with the Clinical Excellence Commission (CEC) to produce a chartpack on reporting of hand hygiene compliance, which brought together data from different sources, including patients' observations of hand washing.

BHI's Healthcare in Focus report took a comprehensive look at healthcare performance in NSW and featured some 140 indicators – placing NSW results, where possible, in an international or national context. This report was structured around a framework that considered performance in terms of six key dimensions: accessibility; appropriateness; effectiveness; efficiency; equity; and sustainability. BHI also conducted targeted sampling of 30,000 patients across nine disease groups to provide patient experience and outcome data to the Leading Better Value Care program. This data will become part of the Register of Outcomes, Value and Experience (ROVE) that represents one of the most detailed linked datasets in Australia.

BHI continued to manage and expand the NSW Patient Survey Program to support integrating patient feedback into health system improvements. The Survey asked 270,000 patients about their time in NSW public hospitals including children and young people, emergency department patients of rural, regional and metropolitan hospitals, maternity patients, patients attending outpatient clinics, including cancer clinics, and for the first time, women visiting a BreastScreen NSW centre for a routine screening mammogram.

In 2017-18, BHI partnered with the Commonwealth Fund to collect and report on the healthcare experiences of older adults (65+) in NSW. A chartpack presented data comparing the NSW population with 10 other countries and their respective health systems, including measures such as access to care, patient experiences with GPs and hospital care, care for chronic conditions, and end of life care.

In 2017, the Reporting for Better Cancer Outcomes Program reported on 53 key performance indicators in cancer control, including eight focused on patient-reported measures. This is almost double the number of indicators reported in 2015 (22), providing a more comprehensive view of cancer control across the state.

## PRIORITY 3

# INTEGRATE SYSTEMS TO DELIVER TRULY CONNECTED CARE

## KEY ACHIEVEMENTS FOR 2017-18

- Roll-out of statewide enablers, including a risk algorithm, in local health districts to help identify consumers who could benefit from extra support.
- Implementation of a new funding approach for integrated care, to fund areas based on population.
- Evaluation of over 13,000 patients to see whether patients receiving integrated care, including additional support in the community, were less likely to require hospital care.
- In 2017-18, NSW Health completed a feasibility trial of domestic violence screening and response in emergency departments.
- The NSW Government invested \$2 million to deliver projects under the Suicide Prevention Fund.
- The National Disability Insurance Scheme (NDIS) delivered to 89,000 participants including 34,450 people who received disability support for the first time.
- During 2017-18, EnableNSW assisted 70 hospital loan pools to replace old stock and fill gaps for much needed discharge equipment at a value of over \$3 million.

## 3.1 REFINE EMERGING MODELS OF INTEGRATED CARE FOR BROADER IMPLEMENTATION IN THE COMMUNITY

The NSW Integrated Care Strategy commenced in 2014. It aims to better coordinate patients across the hospital and community settings by developing and implementing new models of care. This year represented a significant change in the approach to integrated care, with an emphasis on working in partnership with the Commonwealth and a focus on engaging partners outside NSW Health that offer support to people with complex needs. The Coordinated Care Bilateral Agreement with the Commonwealth Government began with NSW Health undertaking all eight priority areas recommended by the Council of Australian Governments (COAG). Ongoing funding of \$30 million was provided to local health districts to implement local approaches and share what works for scaling across different regions or different population groups.

The HealtheNet Clinical Portal provides NSW Health clinicians with secure and immediate access to an aggregated summary view of a patient's recent medical history from across all NSW local health districts (LHDs) and a patient's national My Health Record, if they have one.

When a patient is discharged from hospital an Electronic Discharge Summary is shared to a patient's My Health Record via the HealtheNet Portal thereby supporting a better-connected health system nationally.

Radiology Information Systems (RIS) and Picture Archive and Communication Systems (PACS) solutions are a critical component of effective and integrated clinical care. eHealth NSW commissioned a program of work championed by an alliance of local health districts (LHDs), The Sydney Children's Hospitals Network and NSW Pathology to procure a replacement for the current end-of-life solution. The new RIS-PACS solution will provide a shared platform with the ability to share medical images and information across LHDs in NSW. The program will deliver new and consolidated imaging IT infrastructure and allow for increased efficiency by the seamless sharing of images and information between departments and different health facilities. In 2017-18, the RIS-PACS program completed vendor selection, established the RIS-PACS program and service delivery governance, and initiated a proof of concept project.



**eHealth NSW and The Sydney Children's Hospitals Network partnered with the Australian Digital Health Agency to establish and lead the National Children's Digital Health Collaborative**

eHealth NSW and The Sydney Children's Hospitals Network partnered with the Australian Digital Health Agency to establish and lead the National Children's Digital Health Collaborative. This national program is exploring how digital health technology can help make Australia the best place in the world to raise healthy children. It will ensure that all Australian children, irrespective of location, socioeconomic status or cultural background, have the same opportunity to be healthy, safe and thriving. The Collaborative is supporting the National Digital Health Strategy to support families and their healthcare providers to readily access a comprehensive longitudinal digital health record. It brings together over 400 stakeholders including healthcare providers, clinicians, consumers, government agencies, researchers and industry representatives. Since early 2018, NSW Health has been leading the first of four initiatives: the development of a national Child Digital Health Record.

## 3.2 DELIVER MENTAL HEALTH REFORMS ACROSS THE SYSTEM

In 2017-18, the NSW Government committed an extra \$20 million for mental health reform, bringing the Government's recurrent investment in reform to \$95 million per annum.

A major focus of mental health reform is strengthening community-based mental health services. Key achievements under the reform include:

- Successfully transitioning 120 long stay patients to the community by the end of 2017.
- Expanding specialist mental health clinical and community living support services.

- Workforce training and development for health and partner workforces.

## Suicide prevention

The fifth National Mental Health and Suicide Prevention Plan 2017-2022 was released in October 2017. This plan remains focused on integrated regional planning and service delivery between primary health networks (PHNs) and local health districts (LHDs) as priority areas.

The NSW Ministry of Health and the NSW Mental Health Commission are leading the development of a Strategic Framework for Suicide Prevention in NSW. This will set out the fundamental principles of suicide prevention, helping communities coordinate the essential elements in a way that suits their own local needs and conditions.



**The NSW Ministry of Health and the NSW Mental Health Commission are leading the development of a Strategic Framework for Suicide Prevention in NSW**

The Strategic Framework for Suicide Prevention in NSW will help organisations to clearly understand their responsibilities and will strengthen our system's ability to respond to suicide. It will better coordinate services across Commonwealth, state and local levels, including LHDs and Primary Health Networks (PHNs), and between health and other critical service areas such as education, justice, and family services.

In 2017-18, the NSW Government also invested \$2 million to deliver projects under the Suicide Prevention Fund. Eight mental health non-government organisations (NGOs) have been commissioned over four years to deliver community-based suicide prevention activities across NSW. Actively involving LHDs and PHNs in the governance structures for these projects remains critical to their success.

## Reviews and initiatives

In 2017, the NSW Government asked the NSW Chief Psychiatrist, together with a panel of five local and international mental health experts, to undertake a statewide review into the seclusion, restraint and observation of consumers in NSW Health facilities. The review team examined the use of seclusion, restraint and observation in acute mental health units and declared emergency departments. The review included local and international evidence, 10 community consultations, consultations with more than 300 frontline mental health and emergency department staff and more than 300 mental health and emergency department leaders, site visits to 25 facilities and more than 100 written submissions. The review report was publicly released on 18 December 2017 and the Government accepted all 19 recommendations at that time. The Review identified seven themes and made a number of recommendations across the areas of culture and leadership, consumer safety, accountability and governance, workforce, consumer and carer engagement, data and the built and therapeutic environment.



## DELIVERING INTEGRATED CARE COMMUNITY EYE CARE IN WESTERN SYDNEY

### Western Sydney Local Health District

Glaucoma and diabetic retinopathy (DR) are major causes of visual impairment in Australia. Glaucoma affects four per cent of people over 40, half of whom are undiagnosed. Diabetic retinopathy affects 35 per cent of people with diabetes. In addition, only 20 to 50 per cent of the population have regular eye examinations.

Community Eye Care is an innovative care model in Westmead Eye Clinic. Low risk glaucoma and diabetes patients have standardised assessments at community-based optometrists, and the files are then electronically transferred to Westmead for ophthalmologist review.

The initiative resulted in better outcomes by improving access to ophthalmic services through streamlined referral and assessment, bolstering communication between providers, and improving access to eye clinic services. Almost half of patients (47 per cent) do not require a hospital appointment, resulting in improved capacity and more timely access for patients who need eye clinic appointments.

Photo: Joseph Nazarian, Western Sydney LHD; Victor Carey, Baxter; Andrew White, Western Sydney LHD; Brad Hazzard, Minister for Health; Belinda Ford, Western Sydney LHD; Stewart Dowrick, CE, Mid North Coast LHD; Elizabeth Koff, Secretary, NSW Health; Margaret Nguyen and Jackie van der Hout, Western Sydney LHD.



**The mental health acute seclusion rate has been reduced by 16% (from 6.9 episodes per 1000 bed days in 2016-17 to 5.8 in 2017-18)**

The mental health acute seclusion rate has been reduced by 16 per cent (from 6.9 episodes per 1000 bed days in 2016-17 to 5.8 in 2017-18) On 11 May 2018, NSW Health released Mental Health Safety and Quality in NSW: A plan to implement the recommendations of the Review of seclusion, restraint and observation of consumers with a mental illness in NSW Health facilities.

During 2017-18, The Hon Anthony Whealy QC, a former Supreme Court judge, conducted a review of the NSW Mental Health Review Tribunal which dealt with forensic patients. The report on the review was publicly released on 6 June 2018.

In response to the review's recommendations, and to recommendations made by the Law Reform Commission, the Attorney General and the Minister for Mental Health announced an overhaul of the forensic mental health system.

Reforms will focus on improving outcomes for victims while maintaining the fair treatment of people who have cognitive and mental health impairments.

There was also a statutory review of the Mental Health Commission in 2017-18. External consultations with more than 100 NSW Health, NSW Government, non-government and community stakeholders took place between October 2017 and January 2018. This included an online survey, which received 753 responses and a collaborative multi-stakeholder one-day forum attended by 60 invited participants. The final review report was tabled in Parliament in June 2018.

### Aboriginal mental health and wellbeing

In 2017-18, guided by an Aboriginal expert advisory group, the Ministry of Health developed a draft of the Aboriginal Mental Health and Wellbeing Policy. This policy is currently being aligned with the recently-approved NSW Strategic Framework and Workforce Plan for Mental Health 2018-2022 and wider consultation will begin in late 2018.

### Forensic mental health strategic planning

The draft forensic mental health strategic plan contributed to early planning for the \$700 million Statewide Mental Health Infrastructure Program. Planning is now underway for a number of key projects, including additional beds for the forensic mental health network.

### Training

The Health Education Training Institute (HETI) has embedded mental health recovery as the key concept driving the development of the two higher education frameworks: Applied Mental Health Studies and Psychiatric Medicine. In addition, all online learning modules developed have a focus on recovery.

## 3.3 INTEGRATE THE APPROACH TO END OF LIFE AND PALLIATIVE CARE

In 2017-18, NSW Health released the Making an Advance Care Directive package, which contained an information booklet and an Advance Care Directive form. The NSW Health webpage on Advance Care Planning was updated to provide up-to-date resources for the public and health professionals.

NSW Health continued to deliver the Government's \$100 million enhanced investment over 4 years in palliative care. In 2017-18, \$17.4 million was allocated to increase the medical and nursing specialist palliative care workforce, enhance training and skill development, improve medication management and implement the Silver Chain Palliative Care Service in Western Sydney Local Health District (WSLHD).



## EXCELLENCE IN THE PROVISION OF MENTAL HEALTH SERVICES INNOVATIVE SERVICE DELIVERY MODEL

### Western Sydney Local Health District

This project aims to support for people who dial triple-zero for an ambulance when they need mental health care. Such calls are up to 15 per cent of clients who call triple zero. In response to this, Cumberland Hospital in partnership with NSW Ambulance, implemented the Mental Health Acute Assessment Team (MHAAT), which promotes hospital avoidance and links patients with appropriate community mental health service. It maximises mainstream health resources such as emergency departments through reducing long stay mental health patients.

Since the introduction of MHAAT there has been a significant reduction in the number of mental health patients staying in emergency departments longer than 24 hours. This indicates patients are receiving appropriate care, such as referral and follow up in community or admission, more quickly. MHAAT diverted more than 500 patients from emergency departments in 2016.

Photo: Jonathan Tunhavasana, NSW Ambulance; Dr Nigel Lyons, Deputy Secretary, Strategy and Resources; Junn Miranda, Western Sydney LHD; Dr Murray Wright, Chief Psychiatrist; Charles MacMillan and Anita Dass, Western Sydney LHD; Elizabeth Koff, Secretary, NSW Health; Brad Hazzard, Minister for Health.

NSW Health is developing an End of Life and Palliative Care Framework, informed by 10 roundtables across NSW in 2017 and a survey of 2000 health consumers, professionals and advocates. The Framework will set the vision and direction for end of life and palliative care in NSW, to ensure all people can access the best possible end of life and palliative care no matter their age, health condition or where they live.

Local health districts also placed considerable importance on palliative care initiatives. Far Western NSW Local Health District continued to implement its Palliative and End of Life Care Framework across all care settings. Broken Hill hosted a rural and regional Ministerial Roundtable on Palliative Care in May 2017, helping to inform the Minister for Health on palliative care successes and challenges.



**Broken Hill hosted a rural and regional Ministerial Roundtable on Palliative Care in May 2017**

The Silver Chain Palliative Care Service commenced in the Western Sydney Local Health District (WSLHD) in July 2017. It will provide 24/7 community based palliative care, and benefit an estimated 8340 people or more.

The service is progressing well, and demonstrating a strong partnership between WSLHD and the Silver Chain Group in supporting patient referrals to the service. At the end of June 2018, more than 800 people had received the Service and referrals had exceeded expectations.

The Agency for Clinical Innovation (ACI) Palliative Care Network, in collaboration with the Clinical Excellence Commission, planned and co-facilitated over 24 strategic and/or operational planning workshops with local health districts and specialty health networks, to provide support for people approaching and reaching the end of their lives, as well as their families and carers. The workshops were tailored to meet local population planning and workforce needs and drew on the ACI's online planning resource Palliative and End of Life Care - A Blueprint for Improvement.

### 3.4 TRANSITION TO THE NATIONAL DISABILITY INSURANCE SCHEME (NDIS) AND EMBED DISABILITY INCLUSION

The NSW transition to the National Disability Insurance Scheme (NDIS) officially completed on 30 June 2018. EnableNSW is extending its current working arrangement with the National Disability Insurance Agency to 30 June 2019 to assist in finalising the phasing and transition of people to the NDIS. The extension provides interim supports whilst the NDIS develop and implement a new Assistive Technology (AT) pathway for participants. NSW Health has a mutual interest in ensuring National Disability Insurance Agency participants receive AT in a timely manner and remain safe and independent in the community and avoid unnecessary readmission to hospital.

EnableNSW has provided a number of workshops in local health districts to assist allied health, nursing and medical staff understand how EnableNSW is working in partnership with the NDIS. Sessions have focused on the role of EnableNSW as a registered provider and have targeted all areas of AT and service provision under the Working Arrangements.

Over the last year of transition, NSW Health has worked intensively with the National Disability Insurance Agency and other government departments to ensure all existing clients of state disability services, as well as almost 35,000 receiving special disability supports for the first time, transitioned successfully to the NDIS. The NSW Ministry of Health supported local health districts and specialty health networks to establish clear referral pathways, resolve NDIS-related issues and develop supporting resources.

NSW Health continued its focus on streamlining hospital discharge for NDIS participants, supporting faster access to early intervention services for children with disability and monitoring the interface between the NDIS and the health system.



**NSW Health worked intensively with the National Disability Insurance Agency (NDIA) and other government departments to ensure all existing clients of state disability services, as well as almost 35,000 receiving special disability supports for the first time, transitioned successfully to the NDIS**

The NDIS is now available across NSW to eligible people under 65. More than 89,000 participants now have choice and control over who provides support to them and how that support is provided. This includes 34,450 people who are receiving special disability supports for the first time. Almost all former clients of NSW Government-funded disability services have successfully transitioned to the NDIS.

NDIS referral pathways and resources are in place in over 220 hospitals and health centres across NSW. NSW Health will continue working with the National Disability Insurance Agency to support those applying for access to the Scheme and clarify which supports are within scope for NDIS funding.

#### NSW Health Disability Inclusion Action Plan 2016-2019

As part of the obligations in the *NSW Health Disability Inclusion Action Plan 2016-2019*, NSW Health promotes the provision of equitable systems and processes to improve the access and experience of people with disability.

This year there has been ongoing improvement to promote and encourage staff to undertake standardised online learning across NSW Health organisations. In 2017, the Health Education and Training Institute developed, implemented and reviewed training modules with a focus on disability, diversity, awareness and inclusion. Collaboration has occurred across the NSW Health system to develop additional priority education and training resources with a disability inclusion focus.

In addition to the formalised NSW Health training, many local health districts and specialty health networks undertake local training on care and service provision for people with disability. The main focus of this training is to build staff awareness of the experience of people with disability in order to understand disability inclusion. Some of these local resources and training include:

- revising behavioural interview training to include disability inclusion (Hunter New England LHD)
- face to face disability awareness training (HealthShare NSW and eHealth NSW)

In 2017 more than 16,800 online courses were undertaken by NSW Health staff to build knowledge, confidence, and communicate skills in providing care and services to people with disability.



## SUPPORTING OUR PEOPLE CULTURALLY RESPONSIVE PAIN MANAGEMENT APPROACH

### South Western Sydney Local Health District

South Western Sydney identified that most pain management research excluded culturally and linguistically diverse (CALD) communities. In the few studies published, those communities had poorer outcomes for pain, quality of life and function compared to patients from dominant cultures.

As a result, South Western Sydney Local Health District brought in a rigorous research approach to improve pain management for CALD patients. It included a review of pain management interventions and their efficacy, and a qualitative enquiry with adults with chronic pain was carried out across Mandaean, Vietnamese and Assyrian groups. The findings led to three key improvements: development of a physiotherapy-led culturally-adapted treatment, the validation of a visual tool to evaluate pain-related suffering, and a study to evaluate the effectiveness of a culturally-adapted assessment and treatment approach. The study highlighted significantly higher levels of patient engagement and reduced pain-related suffering compared with those who attended standard physiotherapy.

Photo: Annette Solman, CE, Health Education and Training Institute; Elizabeth Koff, Secretary, NSW Health; Lucy Chipchase and Matt Jennings, South Western Sydney LHD; Michael Foreman, First State Super; David Wong, Bernadette Brady, Christine Eagleton, Natalie Pavlovic and Rob Boland, South Western Sydney LHD; Brad Hazzard, Minister for Health.

## 3.5 DETERMINE NSW HEALTH'S FUTURE ROLE IN RESPONSE TO AGED CARE REFORMS

NSW Health delivers a number of aged care services on behalf of the Australian Government. Some services are at the interface of the health and aged care systems, impacting client outcomes and quality of life. Other aged care services are less acute contributing positively to an older person's well-being.

NSW Health's role as a provider of Australian Government aged care services includes the Aged Care Assessment Program (ACAP), Regional Assessment Service (RAS), Transition Aged Care Program (TACP), Commonwealth Home Support Program (CHSP) and nine residential aged care facilities. In 2017-18, NSW Health completed 60,891 comprehensive assessments for the Aged Care Assessment Program on behalf of the Australian Government. During 2017-18 NSW Health Aged Care Assessment Teams (ACATS) piloted the NSW Health Older Persons Reported Experience Measure (OPREM) an evidence based tool to ensure we hear the voice of people using the service.

NSW Health received exceptional feedback from the clients surveyed:

- 96 per cent of clients agreed or strongly agreed that they were satisfied with their assessment and that they would recommend the service to others;
- 98 per cent of clients agreed or strongly agreed that they were listened to and involved in their assessment as much as they wanted to be;
- 96 per cent of clients agreed or strongly agreed the assessor clearly explained the purpose of the assessment.

In 2017-18 the Integrated Care program established an Aged Care Nurse Practitioner position based at Tweed Heads. This position was jointly funded by North Coast Primary Health Network and the Northern NSW Local Health District to develop a hospital avoidance service model. The Nurse Practitioner developed a collaborative relationship with nine General Practices and provided an assessment, treatment and management service model for over 220 patients who were living at home. Also in Northern NSW Local Health District, Dorrigo Hospital became the first site in NSW to be accredited under the Eden Program, an aged care cultural change model designed to combat loneliness, helplessness and boredom in older people.

### 3.6 SUPPORT VULNERABLE FAMILIES AND YOUNG PEOPLE IN THE COMMUNITY AND OUT OF HOME CARE

NSW Health is a partner agency in the whole-of-government reforms in domestic and family violence. This includes participating in all Safety Action Meetings throughout NSW.

In 2017-18, NSW Health completed a feasibility trial of domestic violence screening and response in emergency departments.

The NSW Ministry of Health worked with the Department of Premier and Cabinet on the NSW response to the recommendations of the Royal Commission into Institutional Responses to Child Sexual Abuse, to improve support and treatment for victims, survivors, and children with harmful sexual behaviour. The response included expanding NSW Health New Street services for children and young people engaging in harmful sexual behaviour.

NSW Health is a key partner in the Their Futures Matter reforms, with the Deputy Secretary, Strategy and Resources sitting on the board responsible for reform implementation. The reforms highlight the government's commitment to delivering wrap-around supports to vulnerable children and families across the state, adopting an investment approach to improving life outcomes.



**Western Sydney LHD is piloting a wrap-around service that provides increased and ongoing support to vulnerable young parents and their children**

NSW Health has led a comprehensive review of the healthcare needs and service responses for a cohort of vulnerable children aged under 12 years in out-of-home care. This review has contributed to the development of a range of service solutions for children and young people in out-of-home care that complement the existing NSW Health out-of-home care Health Pathway Program. For example, all local health districts are enhancing coordinated care for the under 12 cohort through a new cross government Team Around the Child initiative.

In addition, Western Sydney Local Health District is piloting a wrap-around service that provides increased and ongoing support to vulnerable young parents (25 years and under) and their children. This includes providing a dedicated coordinator and new multidisciplinary team to respond to health needs. Nepean Blue Mountains Local Health District is supporting a pilot for a wrap-around service to better support 10 to 17 year olds entering the juvenile justice system, including additional and improved clinical support for young people appearing at Parramatta Children's Court.

### PRIORITY 4

## DEVELOP AND SUPPORT OUR PEOPLE AND CULTURE

### KEY ACHIEVEMENTS FOR 2017-18

- NSW Health funded 15 additional medical specialist training positions across a range of specialties, including endocrinology, genetic pathology, palliative care and psychiatry.
- A total of 2400 new graduate nurses and midwives have been employed in NSW Health in 2018.
- There were a record 999 medical intern training positions in NSW in 2018, an increase of 149 positions since 2012 and an annual investment of \$107 million to train interns. A further six NSW intern positions in southern NSW were recruited as part of the Australian Capital Territory intern training network.
- There were 132 Rural Preferential intern positions filled in 2018.
- In 2018, 20 Aboriginal medical graduates started as interns in NSW. This is the highest since the Aboriginal Medical Workforce recruitment pathway started.
- NSW Health Junior Medical Officer Recruitment campaign recruited 3146 junior medical officers for the 2018 clinical year.
- NSW Health continues its commitment to improving Aboriginal health by increasing the Aboriginal nursing and midwifery workforce, with 70 Aboriginal nursing and midwifery students currently supported with cadetships in 2018. Since inception, 150 nurses and midwives have graduated through this program.
- Scholarships were also provided to assist Aboriginal nursing and midwifery students in their studies. This included 47 undergraduate scholarships and 12 Postgraduate scholarships.
- 72 rural postgraduate midwifery student scholarships have been provided since 2011 to small rural maternity units to 'grow their own' midwifery workforce, improving viability and sustainability of maternity services in these communities.
- More than 1400 Enrolled Nurse scholarships have been awarded since 2013, including 202 in 2018.
- Aboriginal students completed 92 TAFE qualifications: 24 in 2015, 44 in 2016, and 24 in 2017.
- There were 15 leadership and management programs available through the Health Education and Training Institute (HETI).
- A 149 per cent increase in CORE Chat participation and 84 per cent increase in CORE Chat for Managers.
- A total of 114,000 staff or 84 per cent in-scope staff were rostered using HealthRoster.

The NSW public health system is the largest healthcare employer in Australia, with 117,047 full-time equivalent staff as of June 2018.

In June 2018, there were 12,137 full time doctors employed within the NSW health system, representing approximately 10 per cent of the total health workforce, and 10,445 allied health professionals. A record 48,286 full time equivalent nurses and midwives were working in NSW Health hospitals and health services as at June 2018.

The NSW Health workforce is complex and diverse. Under the guidance and direction of the NSW Health Professional Workforce Plan and the Health Education and Training Institute (HETI) Strategic plan, major workforce capability strategies were developed and implemented in 2017-18.

These plans provide the framework for recruitment, training and education of health professionals in all NSW Health agencies over the next decade.

Continuing professional development and education are vital for fostering new knowledge, understanding and innovative thinking. The aim is to create a skilled workforce, support for students and continuing professional development, as well as leadership and management programs.

Building and strengthening our Aboriginal workforce has been a strong focus for NSW Health for many years. In 2018, we began a review of the Respecting the Difference program, which is cultural training aimed at building a stronger understanding and appreciation of Aboriginal history and contemporary issues that impact on Aboriginal people. In September 2015, the NSW Premier announced 30 priorities for the state. One of these is Driving Public Sector Diversity, which commits NSW Health to doubling the number of Aboriginal and Torres Strait Islander people in senior leadership roles, and increasing the proportion of women in senior leadership roles to 50 per cent by 2025. In November 2017, a Jobs for People with Disability target was announced. It commits to a doubling of representation of people with disability by 2027.

NSW Health is committed to providing a workplace culture that supports wellbeing of the workforce with a focus on the NSW Health CORE values of collaboration, openness, respect and empowerment.

A diverse and balanced skills mix is key to improving system and patient outcomes. NSW Health frequently reviews models of care and service design to identify efficiencies and opportunities to improve. This includes building an efficient mix of interdisciplinary clinical education to support patient care.



## A SAFE AND HEALTHY WORKPLACE WORKING TOGETHER TO STOP VIOLENCE

### Mid North Coast Local Health District

The Mid North Coast Local Health District recognises that staff and visitors have the right to be safe at work. Domestic and family violence in the workplace can create distress as well as pose a risk to employees and the public. It can also impact work performance and productivity. As a team Mid North Coast Local Health District wanted to create both a safer workplace and a workforce that understands how to prevent violence.

To deliver a solution, the Mid North Coast Local Health District worked to become an accredited White Ribbon Workplace. This whole-of-organisational approach to violence prevention engaged and enabled staff to lead the change. Interactive domestic and family violence workshops were made available to more than 4000 staff. Post training feedback revealed significant improvements across a range of areas. Mid North Coast Local Health District is proud to be the first NSW local health district to achieve White Ribbon Workplace Accreditation.

Photo: Michael Foreman, First State Super; Don MacKenzie, Stewart Dowrick, CE and Colleen Ryan, Mid North Coast LHD; Leslie Williams, Parliamentary Secretary for Regional and Rural Health; Jane Newman and Jo Trewavas, Mid North Coast LHD; Elizabeth Koff, Secretary, NSW Health; Brad Hazzard, Minister for Health.

## 4.1 RIGHT PEOPLE, RIGHT SKILLS, RIGHT TIME: TO GROW AND SUPPORT A SKILLED WORKFORCE

Improving the supply of appropriately trained and qualified workers across all areas is important. In 2017-18, NSW Health continued to implement existing programs as well as new initiatives including:

- The Health Education and Training Institute (HETI) employed a full time Diagnostic Imaging Medical Physicist Training Advisor to support the development of the Medical Physicist workforce.
- One radiopharmaceutical science training position was funded for three years, to be based at Royal Prince Alfred Hospital.
- NSW Health funded five scholarships and two academic prizes for Radiopharmaceutical Science students from Macquarie University to encourage course enrolment and completion.



**The five year progress report on the Health Professionals Workforce Plan 2012-22 indicated that most strategies and actions are on track**

The Health Professionals Workforce Plan 2012-22 was released in August 2012, following extensive consultation with a broad range of health professionals, organisations, associations and providers, both rural and urban. The plan is a high level framework, aligned with the State Health Plan: Towards 2021. It outlines the strategies to ensure NSW Health trains, recruits and retains a full range of health professionals to meet future community needs. The five year progress report indicated that most strategies and actions are on track, with NSW Health heading in the right direction: health services from the right people with the right skills in the right place. The plan is approaching its seventh year, and remains a strong element of the NSW Health Strategic Priorities. The Ministry of Health will review the plan to ensure it continues to align with future health workforce priorities to support the delivery of health service and improve patient care. The current detailed plan can be found at [www.health.nsw.gov.au/workforce](http://www.health.nsw.gov.au/workforce).

**Training**

NSW Health funded 15 additional medical specialist training positions across a range of specialties, including endocrinology, genetic pathology, palliative care and psychiatry, in line with identified workforce priorities.

There were a record 999 medical intern training positions in NSW in 2018, an increase of 149 positions since 2012. A further six NSW intern positions in southern NSW were recruited as part of the Australian Capital Territory intern training network. This represents an annual investment in the order of \$107 million to train interns.

The annual NSW Health Junior Medical Officer Recruitment campaign successfully recruited 3146 junior medical officers for the 2018 clinical year. The campaign involved 46,673 applications, mainly for specialty training positions, including endocrinology, haematology, medical oncology, general medicine and paediatrics.

More than 1400 Enrolled Nurse scholarships have been awarded since 2013, including 202 in 2018.

Aboriginal students have completed 92 TAFE qualifications: 24 in 2015, 44 in 2016, and 24 in 2017. These include qualifications in Dental Assisting, Oral Health Promotion, and Dental Radiography. Some students have completed more than one qualification. The 2018 cohort is projected to graduate with 25 TAFE qualifications in late 2018.

The Aboriginal Environmental Health Officer Training Program develops a highly skilled Aboriginal workforce by providing employment, education (Bachelor degree) and support over six years for Aboriginal people to become Environmental Health Officers (EHOs).

The trainees are also assessed against defined workplace proficiencies. In 2017-18, there are 13 continuing trainees and 17 graduates in the training program. One trainee graduated during this period and gained full time employment in local government as an EHO.

The NSW Rural Generalist Medical Training Program provides Junior Medical Officers with a supported training pathway to a career as a rural generalist, able to deliver services in both hospitals and general practice in rural communities. Training opportunities exist in the areas of: anaesthetics, emergency medicine/obstetrics, mental health, obstetrics, paediatrics and palliative care. In 2017-18, The Health Education and Training Institute (HETI), in consultation with the NSW Ministry of Health, Royal Australian College of General Practitioners, the Australian College of Rural and Remote Medicine and the Australasian College of Emergency Medicine, developed a new emergency medicine pathway for the program. The pathway will train medical officers who will be credentialed with a scope of practice suitable to provide services and leadership for local health districts in rural and remote towns in NSW in emergency medicine. A pilot of the emergency medicine pathway has been introduced for the 2019 clinical year.

The Public Health and Biostatistics training programs offer three-years of supervised workplace based training across a range of settings within NSW Health. Eight new trainee biostatisticians started the Biostatistics Training Program in 2017-18. Five trainees graduated and were awarded a Master of Biostatistics degree from the University of Sydney. Four new trainee public health officers started the Public Health Training Program in 2017-18, and three trainees graduated with a certificate of completion.

The Aboriginal Population Health Training Initiative supports Aboriginal people to develop and apply public health skills through three years' of workplace based training and part-time postgraduate study. In 2017-18, seven new trainees started the program and two trainees completed their training and achieved a Master of Public Health degree.



**During 2017-18, HETI published a total of 170 new digital learning resources**

HETI delivered three medical supervisor training courses in 2017-18. The two-day course builds the financial, people and performance management capabilities of medical managers, particularly those who receive a Staff Specialist allowance. HETI's two new higher education programs in mental health began their second year of delivery in 2018. HETI is continuing to promote these courses and new strategic initiatives are being developed for HETI Higher Education, with the aim of consolidating and improving the quality of the new programs.

HETI is now a Registered Training Organisation (RTO) delivery site and began delivering the Diploma of Leadership and Management in 2018. This Diploma is the first year of the two-year Next Generation of Leaders and Managers in NSW Health Program, previously delivered in partnership with NSW TAFE. Cohort 2 of this program commenced in 2018 and will undertake the Diploma delivered by HETI through face-to-face learning environments. HETI will also offer the Diploma program through blended delivery to NSW Health staff, such as those working in rural and remote areas, who do not have access to this course through one of the other existing delivery sites. HETI may also deliver RTO programs where there is a statewide demand in the future.

During 2017-18, HETI published a total of 170 new digital learning resources. They cover a variety of topics including: newborn advanced life support, preventing and managing hypoglycaemia, public health emergency management, and workplace discrimination, harassment and bullying for employees and managers. These resources are available to all NSW Health employees through My Health Learning.

The Rural eHealth Program played a pivotal role in upskilling and training NSW Health staff in rural and remote locations to learn new skills for recording patient information, as well as using the electronic systems to monitor and better inform patient care.

### Recruitment and on-boarding

HealthRoster is the statewide rostering system providing a wide range of functional and business benefits to meet the needs of NSW Health. HealthRoster reporting analytics tools are delivering important benefits through increased visibility of rostering practices to NSW Health local health districts (LHDs) and organisations to support better workforce management decision-making. The system enables managers to roster more effectively by providing dynamic feedback on staffing needs and award compliance while rosters are being built and modified. This supports improved workforce and service planning and the meeting of Service Level KPIs and quality standards. It also supports staff through adoption of safe working hour practices, leading to improved health and wellbeing.

The Human Capital Management Program is being implemented across NSW Health, providing an improved and more streamlined statewide recruitment and on-boarding solution.

## 4.2 FOSTER A CULTURE THAT REFLECTS OUR CORE VALUES AND RESPECTS DIVERSITY

NSW Health is committed to providing a workplace culture that supports wellbeing of the workforce with a focus on the NSW Health CORE values of collaboration, openness, respect and empowerment.

NSW Health continues to drive improvements in workplace culture, including system-wide changes to improve the health and wellbeing of our junior medical workforce. Following the JMO Wellbeing and Support Forum in June 2017, the JMO Wellbeing and Support



## COLLABORATIVE LEADER OF THE YEAR CLAIRE PHELAN

### South Eastern Sydney Local Health District

Since her appointment as Director of the South Eastern Sydney Local Health District Oral Health Service in 2014, Claire has transformed the service into a client-focused team with clear strategic direction and a culture of innovation and excellence. Claire is committed to the ongoing development of her team, supporting staff to study and creating Aboriginal traineeships in administration and dental assisting.

Significant achievements include strengthening ties with local Aboriginal communities, a new two-chair dental clinic at the La Perouse Aboriginal Community Health Centre and redeveloping the Mission Australia dental clinic for homeless people. The commissioning of a mobile dental clinic has improved access to dental care for priority populations, such as residents of aged care facilities.

Photo: Zoran Bolevich, CE, eHealth; Susan Pearce, Deputy Secretary, System Purchasing and Performance; Claire Phelan, South Eastern Sydney LHD; Elizabeth Koff, Secretary, NSW Health; Brad Hazzard, Minister for Health.

Plan was published in November 2017. It aims to better support NSW Health's junior medical workforce and provide greater assistance to junior doctors if burnout and other mental health issues arise. The plan features 10 practical initiatives to be implemented over the next 12 to 18 months, and will contribute towards continued efforts to improve the medical culture.

One of these initiatives is the Your Training and Wellbeing Matters Junior Medical Officer (JMO) online survey, undertaken in November 2017. It was the first time all employed junior medical officers had been surveyed by any Australian state or territory health department. It was open to all junior medical officers working in NSW Health. The survey received 1910 responses, a 22 per cent response rate.



Your Training and Wellbeing Matters JMO online survey, undertaken in November 2017, was the first survey of its kind undertaken by any Australian state or territory health department

Health organisations continued to implement local strategies aimed at reducing incidents of bullying and unacceptable behaviour and enhance workplace culture. Anti-bullying management advisors developed strategies for improving communication, increasing information sharing and providing support and coaching to managers on effective complaints management processes. The confidential Anti-Bullying Advice Line provides guidance and information to employees on the process for resolving complaints. Health organisations must report de-identified data to the Ministry of Health on individual complaints known to human resources departments. These are initially assessed as potential bullying complaints. There were 85 bullying complaints received for the period 1 July 2017 to 30 June 2018. This represents 0.07 per cent of the total full time equivalent (FTE) staff in the health system (based on June 2018 FTE).

A Grievance Policy Implementation Workshop was held in May 2018 with representatives from a broad spectrum of the health system. The externally-facilitated workshop, allowed participants to discuss how implementation is progressing within their respective organisations. The workshop also featured two presentations on successful implementations and resources to be shared across the system.

### Aboriginal workforce

In 2018, 20 Aboriginal medical graduates started as interns in NSW. This is the highest since the Aboriginal Medical Workforce recruitment pathway started.

The Good Health – Great Jobs: Aboriginal Workforce Strategic Framework 2016–2020 is intended to support local health districts, specialty networks and other NSW Health organisations grow and to develop their Aboriginal workforce. Building on the previous Framework (2011–2015), it sets out the Aboriginal workforce development priorities and desired outcomes for NSW Health for 2016–2020 and the key actions needed to achieve them.

The rate of Aboriginal employment in NSW Health has risen to 2.6 per cent from 1.8 per cent in 2011 and includes doctors and nurses. Local health districts and other public health organisations responded with Aboriginal workforce plans and initiatives and have halved the gap in employment outcomes between Aboriginal and non-Aboriginal peoples.

## 4.3 DEVELOP EFFECTIVE HEALTH PROFESSIONAL MANAGERS AND LEADERS

The Take the Lead 2 program aims to develop the skills of nursing and midwifery unit managers in leading high-performing teams. To date, 371 Nursing/Midwifery Unit Managers have completed the program, with a further 60 currently enrolled. The In the Lead program is a customised leadership program for senior nursing and midwifery managers, to enhance their knowledge and skills as transformational leaders. To date, 47 Nurse/Midwifery Managers have completed the program and a further 61 are currently enrolled.

eHealth NSW continues to focus on increasing the number of women in senior management roles via targeted employment and internal programs that foster, encourage and develop women's leadership skills and capacity. eHealth NSW is introducing several initiatives, some of which are gender specific, such as an executive skills development program for mid-level female managers and a professional development program for women in the early stages of their career, while other initiatives are open to all staff and involve a broader mentoring program across the organisation.

Health Infrastructure launched the Inspired Women's Leadership Series, to support the Diversity and Inclusion Strategy and offer learning and development opportunities across the organisation.

### HETI leadership and management programs

During 2017-18, the Health Education and Training Institute published a leadership and management development pathway for NSW Health staff. This shows the progression of a staff member, from new and aspiring leaders through to executive leaders, senior clinicians and managers, and indicates the training opportunities for all the levels in between. While this is the recommended pathway, staff can join at any level, as appropriate for individuals and organisations. The structure of the pathway enables staff to strategically target the right people for the right training, and for staff to be supported on their career journeys, from aspiring managers to executive leadership.

HETI delivered three Medical Managers Training Programs in 2017-18, to a total of 61 participants. The two-day program consists of three workshops, including Resource Management for Better Clinical Outcomes, Mastering Improved Clinician Performance and Conversations in Medical Managers.

CORE Chat for Managers continued to be delivered to NSW Health partner organisations. This half-day workshop helps NSW Health managers build a positive team culture with the CORE values of collaboration, openness, respect and empowerment in their workplaces. The 2017-18 financial year saw 814 participants complete CORE Chat for Managers, across 76 courses.

The Next Generation of Leaders and Managers Program develops leaders who will foster a culture of excellence, innovation and collaboration, to ensure the delivery of safe, high-quality healthcare within NSW. Cohort 2 commenced during 2017-18. During the first year of this two-year program, participants undertake a Diploma of Leadership and Management.

The Financial Management Essentials Program was reviewed and modernised during 2017-18, ready for a relaunch in 2018. The existing program was delivered to 341 participants across 29 courses in 2017-18.

HETI continued to deliver the People Management Skills Program during 2017-18, reaching 828 participants across 40 courses.

## 4.4 IMPROVE HEALTH, SAFETY AND WELLBEING AT WORK

NSW Health is undertaking system-wide change to improve the health and wellbeing of its junior medical workforce. Following the JMO Wellbeing and Support Forum in June 2017, NSW Health published the JMO Wellbeing and Support Plan in November 2017 which aims to better support NSW Health's junior medical workforce and provide greater assistance to junior doctors if burnout and other mental health issues arise.

The plan featured 10 practical initiatives to be implemented over the next 12 to 18 months, and will contribute towards continued efforts to improve the medical culture. One of these initiatives is the Your Training and Wellbeing Matters Junior Medical Officer (JMO) online survey, undertaken in November 2017. It is the first time all employed junior medical officers have been surveyed by any Australian state or territory health department. It was open to all junior medical officers working in NSW Health and received 1910 responses, a 22 per cent response rate.

In accordance with the *Work Health Safety Act (NSW) 2017* and the *Work Health and Safety Regulation (NSW) 2017*, the Ministry of Health maintains its commitment to the health, safety and welfare of workers and visitors to its workplace. Strategies to improve work health and safety include implementing Work Health Safety: Better Practice Procedures and Injury Management and Return to Work policy frameworks; ongoing commitment to the Ministry of Health Work Health Safety Mission Statement, and promoting healthy lifestyle campaigns on general health and wellbeing strategies to staff. As part of the Government funding commitment for nursing, 30 safety culture coordinator positions were created to support the development of safety cultures to enhance patient care and staff well-being.



**As part of the Management of Acute Severe Behaviourally Disturbed Patients in Emergency Departments project, Mental Health Liaison Nurses are now working in Dubbo and Maitland EDs**

In 2016, the Minister for Health endorsed a 12-point action plan to improve security at all NSW public hospitals. In line with action item 7 of this plan, the Management of Acute Severe Behaviourally Disturbed Patients in Emergency Departments project was established, specifically aimed at improving the management and treatment pathways available for acute behaviourally disturbed and mental health patients who present to emergency departments. This multi-site implementation project is examining an innovative model of nurse-led mental health care in emergency departments in Dubbo and Maitland, to see if it is feasible and transferable. The project is gaining traction across the sites, with Mental Health Liaison Nurses now working from the emergency departments.



## HEALTH RESEARCH AND INNOVATION HIGH-RISK INFLUENZA SCREENING TEST

### Nepean Blue Mountains Local Health District

The High-risk Influenza Screen Test (HIST) is the world's first biomarker test that provides doctors with critically important information on a patient's immune system responses to flu virus. One out of five people suffers flu infection every year and it can quickly develop into pneumonia and death. The test needs a small drop of blood to read gene codes produced by immune system cells in response to the influenza virus, alerting doctors to individuals who are at risk of deterioration due to pneumonia and who need urgent medical treatment. It will play an important role in helping front-line doctors diagnose and treat high-risk individuals during flu epidemics or pandemics.

Photo: Associate Professor Benjamin Tang, Nepean Blue Mountains LHD; Kerry Chant, Chief Health Officer; Professor Tony Maclean and Dr Maryam Shojaei, Nepean Blue Mountains LHD; Lynda Bartlett, Microsoft; Sally Teoh, Nepean Blue Mountains LHD; Elizabeth Koff, Secretary, NSW Health; Brad Hazzard, Minister for Health.

Research managers are assisting with the implementation and evaluation stages of the project, and educational workshops to support the staff involved have started.

### NSW Ambulance programs

NSW Ambulance is implementing the Wellbeing Investment Program to further support staff mental health and wellbeing. Supported by \$30 million in NSW Government funding over four years, the Wellbeing Investment Program was developed with substantial input from stakeholders, including unions, and followed an overwhelming response to the 2016 NSW Ambulance Wellbeing and Resilience Summit.

Four streams are being implemented as part of the program: Well at Work; Safe at Work; Protected at Work; and Capable Leader. A major feature of the program is the Wellbeing Workshops, which are being rolled out to every member of staff at NSW Ambulance. Run over three days, the workshops are designed to support and enhance staff health, wellbeing, safety, self-awareness and quality of life. The face-to-face education and training incorporates simple yet powerful strategies and skills to implement in the personal and professional life of staff.



**NSW Ambulance is implementing the Wellbeing Investment Program to further support staff mental health and wellbeing**

The Wellbeing Investment Program also features a set of major initiatives to strengthen support for staff, including the appointment of the first chief psychologist, two occupational violence prevention officers and new occupational therapist, physiotherapist and exercise physiotherapist positions. The program is also delivering an increase in numbers of peer support officers and chaplains.

The NSW Ambulance Patient Experience Summit was the third in a series of organisational summits designed to better support staff health, safety and wellbeing and bolster their ability to deliver exceptional patient care. The 2018 summit brought more than 350 staff and stakeholders together with a symposium of experts, to discuss and provide insight on all areas of the patient experience.

## PRIORITY 5

# SUPPORT AND HARNESS HEALTH AND MEDICAL RESEARCH AND INNOVATION

## KEY ACHIEVEMENTS FOR 2017-18

- In 2017-18 NSW Health released the Population Health Research Strategy 2018-2022, identifying three key areas of work during the next five years: encourage high quality, relevant population health research; maximise the use of research evidence to improve population health; and build population health research capability.
- The NSW Government provided \$43 million in infrastructure funding to support the day-to-day costs of running independent medical research institutes in NSW, through the Medical Research Support Program and associate programs.
- Medical device and commercialisation initiatives received \$8.6 million in funding, supporting the development of ground-breaking new medical technology.
- Around \$8.3 million was invested in 24 innovative Translational Research Grant Scheme research projects with the potential to translate their findings into treatments benefitting NSW patients.
- NSW Health established the NSW Cannabis Medicines Advisory Service, to provide advice and support to medical practitioners wishing to prescribe cannabis medicines for their patients. This service was launched in January 2018 and had received 285 enquiries as of 30 June 2018.
- NSW Health's processing of clinical trial ethics applications in under 60 days rose to 90 per cent, up from 77 per cent in 2016-17 with 241 applications approved.
- NSW Health's clinical trial authorisations in under 30 days rose to 89 per cent, from 82 per cent in 2016-17 with 730 clinical trial site applications authorised compared with 676 in 2016-17.
- There was a 10 per cent increase in Cancer Institute NSW funded cancer clinical trials, and 25 per cent increase in the number of people enrolled on these trials, compared with 2016-17.

## 5.1 GENERATE POLICY RELEVANT RESEARCH

Through the Prevention Research Support Program, NSW Health supports research organisations that are conducting prevention and early intervention research aligned with NSW Health priorities. In 2017-18, more than \$2.8 million in funding was provided to seven NSW research organisations to support research infrastructure, capability building initiatives and strategies to help translate research evidence into policy and practice across NSW.

NSW Health provided the Sax Institute with \$1.8 million a year for the five years to June 2018. These funds assisted the Institute in providing research and evaluation services and training, enabling exchange between researchers, policy makers and practitioners, and developing and maintaining research projects such as the 45 and Up Study and the Secure Unified Research Environment, a high-security computing environment that enables remote analysis of health data.

In 2017-18 this funding also went towards several services to the Ministry of Health and Pillar organisations, including brokered evidence reviews, evaluation and research services, and research skills training sessions.

Over five years to June 2018, NSW Health provided \$500,000 a year to the Australian Prevention Partnership Centre. This national collaboration is conducting research into building an effective, efficient and equitable system for preventing lifestyle-related chronic disease. Research conducted in partnership with NSW Health during 2017-18 included a project on improving the economic analysis of prevention, and explored electronic methods of collecting data about health prevention policy and program implementation, focusing on the NSW Population Health Intervention Management System (PHIMS).



**NSW Health released the Population Health Research Strategy 2018-2022, which provides a contemporary framework to generate and use population health research effectively**

In 2017-18 NSW Health released the Population Health Research Strategy 2018-2022, which provides a contemporary framework for NSW Health to generate and use population health research effectively. It identified three key areas of work during the next five years: encourage high quality, relevant population health research; maximise the use of research evidence to improve population health; and build population health research capability.

The Ministry of Health supported rigorous evaluation of several statewide policies and programs including the NSW Aboriginal Health Plan 2013-2023, National Disability Insurance Scheme Year 1 Transition, Aboriginal Maternal and Infant Health Service, Healthy Food and Drink in NSW Health Facilities, and Housing and Accommodation Support Initiative.

## 5.2 DRIVE RESEARCH TRANSLATION IN THE HEALTH SYSTEM

Driving the translation of evidence into the health system will ensure the NSW public benefits from the significant government investment in basic sciences and clinical research. With \$8.3 million invested in the Translational Research Grants Scheme (TRGS) in 2017-18, NSW Health funded a range of projects to fast track translation of research into improved patient outcomes, health service delivery, and population health and wellbeing.



**Through the Translational Research Grants Scheme (TRGS), NSW Health funds a range of projects to fast track translation of research into improved patient outcomes, health service delivery, and population health and wellbeing**

Feedback from the first two rounds indicated that applicants need to build their skills in developing high-quality projects and partnerships. Information sessions included practical advice on planning a project and its implementation, and on building meaningful partnerships to ensure the project's success. The information sessions were filmed and used as an online resource for applicants.

A checklist was designed to help applicants quickly assess if their application was likely to be competitive. It prompted them to ask themselves if:

- the research question is right for the NSW health system
- the right stakeholders and partners have been engaged
- the outcomes can be scaled up
- the methodology is rigorous; and
- the project team have all the relevant skills.

Knowledge translation is a key criterion of TRGS to ensure that projects are considering scalability and implementation of research translation in the health system.

Applicants must show that they have involved relevant partner organisations before the project starts, while it is running and after it finishes. This ensures that key policy and practice partners have helped develop the research questions and are involved at relevant stages of the project, such as the presentation and publication of findings, and working out what is needed to change practice.

## 5.3 MAKE NSW A GLOBAL LEADER IN CLINICAL TRIALS

Clinical trials are vital when developing new treatments, interventions or tests to prevent, detect, treat or manage various diseases or health conditions. They also help to improve health care services by raising standards of treatment. To support the translation of health and medical research in NSW a vibrant early phase clinical trials environment is vital so clinical trials are high quality, processes are efficient and NSW becomes a destination of choice for early phase trials.

NSW Health published its Early Phase Clinical Trials Framework in March 2017. It is part of a broader set of measures aimed at making NSW a centre of excellence for clinical trial initiatives. Over the last 12 months, project governance and technical working groups have been established to support the Framework's implementation, as well as wide consultation with stakeholders, including a workshop with all NSW Human Research Ethics Committee (HREC) Chairs and Executive Officers.

**NSW Health's overall statewide performance in reviewing clinical trial ethics applications in under 60 days rose to 90%, from 77% in 2016-17**

As a result, the criteria for appointment to the NSW Health Early Phase Clinical Trials HRECs Scheme has been further refined to support applications and appointments in 2018-19.

One of the priorities for NSW Health's Office for Health and Medical Research is improving research ethics and governance approval timelines, particularly for clinical trials. There are two key performance indicators in the Chief Executive service agreements that deal with research ethics and governance turn-around timelines.

In 2017-18, NSW Health's overall statewide performance in reviewing clinical trial ethics applications in under 60 days rose to 90 per cent, from 77 per cent in 2016-17. During the reporting period 241 clinical trial ethics applications were approved, compared with 237 in 2016-17.

NSW Health's performance for clinical trial authorisation in under 30 days rose to 89 per cent, from 82 per cent in 2016-17. During the reporting period, 730 clinical trial site applications were authorised compared with 676 in 2016-17.

### Medicinal cannabis trials

The NSW Government committed \$21 million to support an evidence-based approach to cannabis medicines, including \$9 million to fund clinical trials and \$6 million to fund the NSW Clinical Cannabis Medicines Program. These clinical trials focus on adults with chemotherapy induced nausea and vomiting unresponsive to other treatments, adults with terminal illness, particularly appetite-related symptoms and children with severe drug-resistant epilepsy.



**In 2017-18, NSW continued to lead Australia in access to cannabis medicines and cannabis medical research**

In 2017-18, NSW continued to lead Australia in access to cannabis medicines and cannabis medical research. Key achievements include:

- Improved patient access to unregistered medicinal cannabis (i.e. products not registered on the Australian Register of Approved Therapeutic Goods) by introducing a single application process with the Federal Government on 2 March 2018. A decision on routine applications is made within 48 hours.
- Established the NSW Cannabis Medicines Advisory Service, to provide advice and support to medical practitioners wishing to prescribe cannabis medicines for their patients. This service was launched in January 2018 and had received 285 enquiries as of 30 June 2018.
- Entered into a new partnership with the Australian Centre for Cannabinoid Clinical and Research Excellence to provide cannabis medicines monitoring, translation of research into practice and assistance in increasing access to cannabis medicines for palliative care patients.
- Increased the number of places on the Compassionate Access Scheme for children with treatment-resistant epilepsy. To date, 86 children have had access to Epidiolex®, with 63 children still receiving active treatment. The Sydney Children's Hospitals Network is still participating in a global clinical trial using Epidiolex® to treat children with tuberous sclerosis complex. Enrolment numbers have exceeded the initial cap of 10, making The Sydney Children's Hospitals Network the highest recruitment site in Australia.
- Continued to recruit to clinical trials for palliative care and chemotherapy-induced nausea and vomiting.

## 5.4 ENABLE THE RESEARCH ENVIRONMENT

NSW Health continued to support and harness research and innovation. Investment through its Office for Health and Medical Research in 2017-18 included:

- \$43 million in infrastructure funding to support the day-to-day costs of running independent medical research institutes in NSW, through the Medical Research Support Program and associate programs. These programs aim to build world-class health and medical research capability and enhance statewide research infrastructure, assets, systems and processes.
- \$8.6 million invested through medical device and commercialisation initiatives, including the Medical Devices Fund, the Medical Devices Commercialisation Training Program, the Medical Research Commercialisation Fund and the NSW QB3 Rosenman Institute Scholar Program. These funds support the development of ground-breaking medical technology.

- \$8.3 million invested in 24 innovative Translational Research Grant Scheme research projects that have the potential to quickly translate their findings into treatments that could benefit NSW patients. The scheme provides grants to staff employed in the NSW public health system, and is designed to accelerate the development of research capability and evidence translation within the system.
- \$6.56 million invested through the Sydney Genomics Collaborative to provide NSW researchers with access to cutting-edge genomic technologies. The Collaborative consists of three sub-programs: the Medical Genome Reference Bank, the NSW Genomics Collaborative Grants Program, and the Cancer Genomics Medicine Program.

Through the Office for Health and Medical Research, NSW Health's PhD Scholarship and Early-Mid Career Fellowship programs continued to strengthen the NSW health and medical research workforce. In 2017-18, over \$6 million was invested to support programs that build capacity in the NSW health system in areas of identified need, and promote participation in high-quality research projects across the spectrum from basic science through to health service and population health research.

### Statewide biobank

The Statewide Biobank officially opened, providing advanced robotic cold storage technology. Operated by NSW Health Pathology, the \$12 million facility is the first and largest of its kind in Australia. It will give researchers a better understanding of the health of NSW people and help improve the way disease is detected, diagnosed and treated.



**The Statewide Biobank officially opened, providing advanced robotic cold storage technology**

To support consent requirements for the new Statewide Biobank, as well as provide guidance on consent requirements for other NSW biobank collections, NSW Health developed and published the NSW Health Statewide Biobank Consent Toolkit. The Consent Toolkit provides standards for biobanks on using broad-based consenting, the return of incidental findings and links to NSW Health datasets. It is designed to ensure high ethical research standards are met, and improves sample and data availability for researchers.

### Pathology research and innovation

NSW Health Pathology is investing in research and innovation to make sure the latest tests, technologies and scientific discoveries are identified and delivered. In 2017-18, it established a research and innovation framework and advisory committee that promotes and links pathology researchers across NSW.

The launch of a new Intellectual Property Framework and committee, together with NSW Health Pathology's seven established clinical streams will create more opportunities to translate research into clinical practice, leading to better care and improved outcomes for patients.

## PRIORITY 6

# ENABLE E-HEALTH, HEALTH INFORMATION AND DATA ANALYTICS

## KEY ACHIEVEMENTS FOR 2017-18

- Electronic Medical Records (eMR) went live in 159 NSW Health hospitals. Clinicians' usage has risen five-fold in five years: from five million views per month in 2013 to 25 million views per month.
- Every day more than 40,000 clinicians open 824,000 patient charts, order around 317,000 tests and book around 31,000 appointments digitally.
- Rollout of the Electronic Record for Intensive Care (eRIC) application continued in its second year and was deployed to a further eight intensive care units across five local health districts, to 230 beds in 11 hospitals, with almost 7000 patients treated in those beds. The first eRIC deployment reduced administration time by over 50 per cent.
- Rural local health districts are adopting medication management solutions in 112 facilities to further improve safe prescribing and administration of medicines.
- Over 15 eMR enhancements implemented to improve patient outcomes.
- eMeds rolled out in 38 public hospitals across NSW.
- Analytics Assist was established to support NSW Health staff easily find data, information and analysis services.
- Over 500 million de-identified records were made available annually to support research.

## 6.1 IMPLEMENT INTEGRATED PAPER-LITE CORE CLINICAL INFORMATION SYSTEMS

eHealth NSW continues to transform the inpatient environment, by working with local health districts to implement eMRs. By the end of 2017-18, eMR2, which extends the foundation eMR, went live at 159 of the 178 public hospitals across NSW within the scope of the project. There were more than 15 projects started to enhance the eMR supporting improved patient outcomes.

Clinicians' eMR usage has risen five-fold in five years: from 5 million views per month in 2013 to 25 million views per month in 2017-18. Every day more than 40,000 clinicians open 824,000 patient charts, order 317,000 tests and book 31,000 appointments digitally.



Every day more than 40,000 clinicians open 824,000 patient charts, order 317,000 tests and book 31,000 appointments digitally

A project is under way to address how deteriorating patients are managed within eMRs, by supporting early clinical recognition and response. This initiative includes 33 enhancements and, for the first time, incorporates maternity and newborn functions, which are currently managed using paper-based processes.

The project will be guided by a Design Working Group, with representation from the Clinical Excellence Commission's, Managing Deterioration Advisory Group and local health districts.

The rollout of the Electronic Record for Intensive Care (eRIC) application continued into its second year of deployment, providing an integrated statewide application to improve patient safety and support better clinical decision-making for critically-ill patients. In 2017-18, eRIC was deployed to a further eight intensive care units across five districts. In total, eRIC has been deployed to 230 beds in 11 hospitals, with almost 7000 patients treated in those beds.

Electronic Medical Management (eMeds) is supporting safer care by reducing the risk of medication errors across NSW Health hospitals. Data indicated 10 areas of improvement in the safety and quality of medication management through use of the system, which was successfully implemented in 38 hospitals during the initial roll-out phase. This phase closed in June 2018.

Rural local health districts are adopting medication management solutions in 112 facilities to further improve safe prescribing and administration of medicines.

Six rural local health districts led the establishment of a single formulary to standardise medicine decision-making and promoted equity of access to medicines for patients. This is a first in NSW and shows what strong governance and collaboration can achieve to lead transformational change.

## 6.2 FOSTER EHEALTH SOLUTIONS THAT SUPPORT INTEGRATED HEALTH SERVICES

### HealtheNet Clinical Portal

We are continuing to roll out to NSW Health clinicians secure digital access to NSW Health Pathology test results via the HealtheNet Clinical Portal. It provides real-time access to results across organisational boundaries, and assists clinicians by providing safer, more timely, high quality clinical care. HealtheNet has allowed NSW Health Pathology to be the first pathology provider in Australia to add results to My Health Record enabling patients to share results with health care professionals nationally.

In March 2018, HealtheNet went live sharing NSW Diagnostic Imaging Reports with the My Health Record. By the end of 2017-18, diagnostic imaging reports for patients who have a My Health Record were being sent to the electronic record in five local health districts.



## STAFF MEMBER OF THE YEAR THOMAS GLANVILLE

### Murrumbidgee Local Health District

Thom consistently demonstrates a commitment and achievement to advancing information and technology based solutions for improved patient care that benefit Murrumbidgee Local Health District.

In 2017 Thom developed ED NOW, a real-time Emergency Department dashboard that tracks patient flow and care, and enables clinicians to more easily manage the ED. The dashboard is a major advancement in patient flow through Emergency Departments and is now being trailed in local health districts across NSW Health.

Thom has demonstrated himself to be leader within Murrumbidgee Local Health District and is an excellent ambassador of both the District and NSW Health. Data analytics (big data, data mining and multifaceted data matching) is a relatively new field within the public health sector, and Thom has established himself as a leader at both the Murrumbidgee LHD and NSW Health state level over the past two to three years.

Photo: Daniel Hunter, CE, HealthShare; Thomas Glanville, Murrumbidgee LHD; Brad Hazzard, Minister for Health; Kim Sutherland, CE, Bureau of Health Information; Elizabeth Koff, Secretary, NSW Health.



HealtheNet was successfully integrated with iPharmacy, enabling NSW Health hospitals to share records of medication dispensed on discharge with the HealtheNet and My Health Record

In November 2017, HealtheNet successfully integrated with iPharmacy, enabling NSW Health hospitals to share records of medication dispensed on discharge with the HealtheNet and My Health Record. Most local health districts are now sharing this information. This significantly improves access to a patient's medication history regardless of where they present, supports better handover of care and is improving patient outcomes. It is estimated that more than 50 per cent of medication errors occur at the transition of care. Patients with one or more medicines missing from their discharge information are two to three times more likely to be re-admitted to hospital than those with the correct information on discharge.

eHealth NSW has invested in the upgrade and virtualisation of video-conferencing and telehealth infrastructure into the Government Data Centres. This has enabled a more robust and reliable environment with increased capacity for web and mobile-based video conferencing solutions.

In 2017-18, eHealth NSW continued to deploy video conferencing solutions across NSW Health including:

- The integration of the statewide Skype for Business solution and statewide video conferencing and audio systems. Over 17,000 staff were enabled on the Skype for Business unified communications platform which is used for internal communications, telehealth and tele-stroke services.
- Implementation of a new streaming and recording solution enabling events on and off the Health Wide Area Network to be live-streamed and recorded.
- Greater collaboration across NSW Health with the establishment of monthly telehealth user group meetings, co-chaired by eHealth NSW and the Agency for Clinical Innovation.
- New real-time monitoring and reporting tools to capture trend analysis of video-conferencing statewide.
- Access to patient and guest Wi-Fi services were rolled out to 17 NSW Health facilities.

Patient Reported Measures (PRMs) are a critical component of achieving truly integrated and better value care across the state. Vendor evaluation and selection was completed and funding secured to deliver phase one of the PRM program in 2018-19. eHealth NSW worked with the vendor and with the Agency for Clinical Innovation, to ensure that PRMs can be used in a meaningful way, through human-centred design processes and usability testing. Usability testing is a more formal process than feedback elicitation, and focuses on how people perform using the system in routine and complex situations.

The Integrated Care Implementation Group endorsed a statewide approach to eReferrals and Shared Care Planning, with planning under way to continue these initiatives in 2018-19.

Telehealth can be used to deliver a service to rural, remote and isolated communities that they may not have otherwise had access to. The Agency for Clinical Innovation (ACI) collaborated with the NSW Ministry of Health on a review of telehealth activity and reporting. A suite of tools based on current provider and consumer views is being developed for dissemination to local health districts and specialty health networks, forming a key enabler in relevant ACI guidelines and toolkits.

## 6.3 ENHANCE DATA, MANAGEMENT, ANALYTICS AND HEALTH INTELLIGENCE

E-health is the use of a 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. 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.

### Centre for Health Record Linkage (CHeReL)

Data linkage transforms routinely collected data into a powerful resource for research, evaluation and policy. Linked data provides timely, local and real-world information that can be constructed in a cost-effective way. The Centre for Health Record Linkage (the CHeReL) is at the forefront of data linkage in Australia and links multiple sources of data and maintains a record linkage system that protects privacy. There are more than 164 million records from 24 datasets in the Master Linkage Key and more than 210 datasets have been linked. This resource has been used by over 2100 researchers and has resulted in attracting \$127 million in competitive grant funding to NSW and 514 peer-reviewed papers in scientific papers. In 2018, linked data from the CHeReL was used to support critical government priorities such as Their Futures Matter, NDIS evaluation and the NSW Integrated Care Strategy.

### Enterprise Data Warehouse (EDWARD) implementation

EDWARD will be NSW Health's principal clinical data source for performance monitoring, health service purchasing and funding, health service planning, epidemiology and research. It utilises Big Data and enables machine learning and artificial intelligence to be fully leveraged. Delivering on EDWARD enables NSW Health to directly progress the Secretary's key priority area of Digital Health and Analytics. It also indirectly enables the delivery of Better Value Healthcare and System Integration as well as supports implementation of eHealth strategy and the NSW Health Analytics Framework.



**EDWARD will be NSW Health's principal clinical data source for performance monitoring, health service purchasing and funding, health service planning, epidemiology and research**

The approach to information management which EDWARD enables, rationalises data reporting, thus reducing the reporting burden on health services. It does this through:

- reporting the same data only once
- acquiring and storing transactional level data at the most granular level it can be stored
- using mature relational and dimensional data models
- deriving measures once in EDWARD rather than in multiple source systems (single source of truth)
- increasing the timeliness and reliability of data supply.

The program is implementing this change in analytical capacity and capability through overseeing the transition of the system manager to using EDWARD as its primary source of information. This includes primarily supporting a number of Ministry branches, the Agency of Clinical Innovation, Clinical Excellence Commission, Bureau of Health Information and Cancer Institute and their many customers who require access to quality clinical data. The transition is being achieved in tandem, with all districts and networks moving to EDWARD and away from the Health Information Exchange system.

### Improved data capture, quality and reporting

The Corporate Analytics reporting suite now includes 40 reporting tools and dashboards, spanning finance, human resources, payroll, procurement and logistics and food and patient services. The suite is available to a wide range of stakeholders from across NSW Health, and contributes to better data management, analytics and health intelligence.

eHealth NSW is delivering a Telecommunications Expense Management solution as a statewide managed service, supporting decision-making through greater visibility, control and accountability of telecommunications expenditure. The Telecommunications Expense Management Platform includes electronic invoice loading, matching to contracted services, cost allocation to cost centres and reporting. Since January 2017, the Platform has delivered NSW Health approximately \$2.7 million in cost savings by providing the data analytics to identify and dispute erroneous charges and service level penalties.



**The Corporate Analytics reporting suite now includes 40 reporting tools and dashboards, spanning finance, human resources, payroll, procurement and logistics and food and patient services**

eHealth NSW is building capacity for health informatics in the sector in a number of ways, including holding a number of in-house programs for graduates and interns who are interested in the field of digital health. It was also involved in a number of workshops at the Health Informatics Society of Australia's 25th Health Informatics Conference 2018, Australia's premier digital health, health informatics and eHealth conference.

NSW Health is developing a foundational curriculum for digital health literacy. It includes a component focused on data and analytics, and is being developed as part of a massive open online course. The work is being led by eHealth NSW's Data and Analytics Portfolio, in partnership with the Health Education and Training Institute and the University of Sydney.

eHealth NSW is building the foundations that will allow the Learning Management and Human Capital Management systems to be integrated. The Performance and Talent Management project, part of the Human Capital Management program, will introduce a statewide system that will better manage staff development. In 2017-18, the foundations of the project were agreed and the design of the system commenced.

## 6.4 ENHANCE PATIENT, PROVIDER AND RESEARCH COMMUNITY ACCESS TO DIGITAL HEALTH INFORMATION

The NSW Health Mobility Platform is enabling secure access to data and applications from mobile devices for over 4000 staff. The increasing demand for convenient and secure mobile access from local health districts is expected to result in a significant increase in uptake.

eHealth NSW has collaborated with HealthShare NSW to roll out StaffLink iExpenses, a new electronic system for submitting and managing employee expense claims. Mobile App versions of iExpenses are available at Google Play and the Apple App Store. So far, just under 6000 claims have been processed from 19 NSW Health organisations using the new system. On average, health organisations using iExpenses see a 30 per cent (3.5 day) reduction in time from submission to payment.

NSW Health clinicians now have access to near-real-time diagnostic-quality medical images acquired in NSW public hospitals, following the statewide upgrade of the Enterprise Imaging Repository (EIR) viewer software, led by eHealth NSW. The EIR viewer is browser-based, allowing clinicians to run it on multiple devices and view the same images at the same time, leading to improved collaboration and decision-making.



**The Clinical Information Access Portal provides access to the world's best available medical evidence to support evidence-based healthcare, reduce adverse events, and improve patient outcomes**

The Clinical Information Access Portal (CIAP) provides all NSW Health staff with access to the world's best available medical evidence to support evidence-based healthcare, reduce adverse events, and improve patient outcomes. Feedback from clinicians and ongoing usage data confirm that clinicians in the NSW public health system value CIAP highly.

A major benefit is the uniform access it provides at the point of care for all clinicians, regardless of geographic location or institution size.

In October 2017, more than a quarter of respondents to a user survey reported that they accessed CIAP on a mobile device or at home, and more than 72 per cent used CIAP either daily or two to three times per week.

During 2017-18, eHealth NSW continued to support the Australian Digital Health Agency in planning for the national rollout of an 'opt-out' model of citizen participation in the My Health Record. The introduction of the opt-out model means that by the end of 2018 every Australian will have a My Health Record unless they choose to opt-out. The My Health Record is a patient-controlled record system which allows the patient and healthcare providers to securely access the patient's records wherever they are in Australia. This system will facilitate access to important health information such as allergies, medical conditions, treatments, medicines, and details of tests or scans and reports, if that information is added.

## PRIORITY 7

# DELIVER FUTURE FOCUSED INFRASTRUCTURE AND STRATEGIC COMMISSIONING

## KEY ACHIEVEMENTS FOR 2017-18

- In 2017-18, NSW Health continued to support integrated planning with other NSW Government agencies, including the development of the designated Health and Education precincts identified in the Greater Sydney Commission district plans.
  - The Health Infrastructure Asset Management function (HI-AM) was established in 2017-18 to provide support for statewide asset management reform. In 2017-18, Asset Refurbishment and Replacement Program funded 115 projects, worth \$50.3 million, across 18 local health districts and speciality networks.
  - In 2017-18, Health Infrastructure completed 16 projects across NSW, with a combined total cost of \$556.3 million. It completed 17 business cases for projects with a combined total value of \$2.2 billion, eight investment decision templates for projects with a combined total value of \$1.9 billion, and nine project briefs for projects with a combined total value of more than \$37.9 million.
- Note: The above may include reference to individual components of larger infrastructure projects and programs therefore may not be recognised as officially completed.
- The Health Service Planner Capability Development Strategy was launched in October 2017. It describes the range of capabilities health service planners need to succeed in their roles, and outlines what is needed to build a skilled and capable service planning workforce across NSW Health.

## 7.1 IMPROVE SYSTEM SERVICE PLANNING CAPABILITIES TO UNDERPIN INFRASTRUCTURE DECISIONS

### Clinical Services Plan

A fundamental requirement for quality infrastructure investment projects is that local health districts and specialty health networks develop a Clinical Services Plan (CSP). The CSP identifies the service need driving the capital investment, and ensures that the model of care and projected future activity are sufficiently detailed so that the infrastructure can respond to the service need. The clinical services planning section of Health Infrastructure's publication *How to Build a Hospital* was updated during 2017-18 to provide further guidance for infrastructure planning.

In 2018, NSW Health coordinated a workshop on Workforce Planning for Facility Development, to help local health districts to engage in aligning workforce and infrastructure planning from the point at which they are developing a Clinical Services Plan. Early engagement will ensure that workforce planning aligns with local service and facility planning for building future-focused infrastructure.

Robust service planning is critically important: it underpins NSW Health's annual capital program. Service planning is a complex process, and planners need to have a broad skill set. Enhancing service planning capabilities will lead to a more efficiently designed health system, because planners analyse the best way to meet the health needs of their population. The Health Service Planner Capability Development Strategy was launched in October 2017. It describes the range of capabilities health service planners need to succeed in their roles, and outlines what is needed to build a skilled and capable service planning workforce across NSW Health. This includes targeted training programs, a community of practice, self-directed learning pathways, presentations on current system reforms and a trainee program. Key capability initiatives were implemented in 2018 including a baseline capability assessment that will act as the foundation for benchmarking and future evaluation of the strategy and development of a Job Shadowing Guide.



**NSW Health has been developing activity projections to inform service and capital planning for the next 20 years**

## Clinical Services Planning Analytics

NSW Health has been developing activity projections to inform service and capital planning for the next 20 years. The review included analysis of international and Australian best practice models for service activity, statistical analysis, and was informed by an Expert Advisory Panel of leading statisticians and health economists. This resulted in a robust set of activity projections for selected health streams to 2036 based on the refined methodology. Updated activity projections reflecting system reforms were loaded into Clinical Services Planning Analytics (CaSPA) in a new Health Activity Projections Platform (HealthAPP) in July 2017.

The CaSPA portal is a resource for local health districts to support evidence-based service planning. In February 2018, health service planners across the state were provided access to scenario modelling functionality through HealthAPP. Scenario modelling gives service planners the ability to change key data assumptions to view and interrogate activity projections, model reforms and service model changes. Key service planning guidelines were designed and published on the portal to provide support for NSW Health service planners when planning for service capacity. Regular training was provided to service planners on how to use the analytical tools hosted on the CaSPA portal.

CaSPA continues to be developed. It hosts up-to-date data analytics tools to inform service and capital planning across NSW Health. Updated activity projections reflecting system reforms were loaded into CaSPA in a new Health Activity Projections Platform in July 2017. An updated version of the Services Planning Guide for Health Services and Infrastructure Development and Investment was uploaded to CaSPA in February 2018.

A revised 2017 Asset Strategic Plan (ASP) template was issued to local health districts and specialty health networks, and also to the Ambulance Service, eHealth and NSW Health Pathology. The revised ASP template is designed to provide comprehensive information on service priorities and associated drivers for asset investments.

A number of new and revised planning guidelines were developed and loaded onto the Clinical Services Planning Analytics Portal. They cover a range of topics, including chemotherapy and renal services. Together with others, these guidelines form a suite of resources for health service planners, and are all available on the CaSPA portal. NSW Health has been active in the Common Planning Assumptions Group, made up of senior representatives across NSW Government. The Common Planning Assumptions are agreed information assets for use by the NSW Government for use when preparing proposals, business plans and strategies that rely on projections.

In 2017-18, NSW Health continued to support integrated planning with other NSW Government agencies, including the development of the designated Health and Education precincts identified in the Greater Sydney Commission district plans.

## 7.2 UTILISE STRATEGIC COMMISSIONING MORE EFFECTIVELY

NSW Health established the NSW Health Commissioning and Contestability Working Group in 2017-18. The working group is responsible for the structured and coordinated approach to deliver better value healthcare and outcomes across NSW Health in this area.

In 2017, NSW Health developed a NSW Health Commissioning and Contestability Framework that includes key elements and supports NSW Health to identify appropriate projects. NSW Health also completed a stocktake of its current and future projects in this area. The stocktake report identified factors for successfully implementing projects and identified gaps in system capability. Following the report, the working group identified potential areas for applying a commissioning and contestability approach, and work has commenced on these agreed priorities. Capability gaps are being supported through NSW Treasury's Commissioning and Contestability Community of Practice and existing resources.

## 7.3 DELIVER AGREED INFRASTRUCTURE ON TIME AND ON BUDGET

### Capital works infrastructure

Health Infrastructure's proven ability to plan and deliver world-class health care facilities continued to drive exceptional outcomes for the NSW health system in 2017-18.

The combined total value of projects under Health Infrastructure's management reached \$14.4 billion at the end of 2017-18, up from \$10.6 billion at the end of the previous financial year. In 2017-18, Health Infrastructure invested a record \$1.1347 billion on its activities, compared with \$830.7 million in 2016-17.

In 2017-18, Health Infrastructure completed 16 projects across NSW, with a combined total cost of \$556.3 million. Construction completed in 2017-18 included:

- the \$282 million Wagga Wagga Rural Referral Hospital – Stages 1 and 2
- the \$121 million Hornsby Ku-Ring-Gai Hospital Redevelopment – Stage 1
- the \$50 million Brookvale Community Health Centre
- car parks at Blacktown (\$18 million) and Royal Prince Alfred (\$34.6 million) hospitals
- the Kids Research Institute Clinical Research Centre at Westmead (\$4.9 million)
- a \$17 million new multipurpose service at Molong, and
- metropolitan and rural ambulance facilities across the state.

Note: The above may include reference to individual components of larger infrastructure projects and programs therefore may not be recognised as officially completed.

Rural and regional projects remained a focus during 2017-18, representing approximately 60 per cent by number of total projects underway, and 40 per cent by value. Health Infrastructure is planning and delivering health care facilities in every corner of the state from as far north as the Tweed Valley, as far West as Broken Hill and down to Cooma in the south.



**Health Infrastructure is planning and delivering health care facilities in every corner of the state from as far north as the Tweed Valley, as far West as Broken Hill and down to Cooma in the south**

The 2017-18 financial year also saw Health Infrastructure make a significant impact in metropolitan areas. Fifty-two per cent of overall project expenditure went towards delivering five major projects across Sydney.

During 2017-18, Health Infrastructure worked closely with other member agencies of the NSW Government's Construction Leadership Group on increasing the capacity and capability of the construction industry. Centred on the NSW Government Action Plan: A ten point commitment to the construction sector, this work will help ensure the industry can play its role in delivering the record NSW Health capital program and forward pipeline.

The 2017-18 year also saw important changes in Health Infrastructure's role, structure and approach to partnering across NSW Health. In July 2017, Health Infrastructure gained responsibility for developing a best practice framework and centre of excellence for asset management across NSW Health. The new function is now established and successfully embedded.

The Health Infrastructure Asset Management function (HI-AM) was established in 2017-18 to provide support for statewide asset management reform. The initial focus of HI-AM has been aligning existing programs, including the Asset Refurbishment and Replacement Program (ARRP) and Asset and Facilities Maintenance Online (AFMO) Implementation. In 2017-18, ARRP funded 115 projects, worth \$50.3 million, across 18 local health districts and speciality networks.

### ICT infrastructure

The State Wide Infrastructure Services (SWIS) program has delivered a series of projects, including migrating all NSW Health staff for the first time to a unique universal statewide identity and an @health email address. This enables enhanced communication and scheduling. Identity integration, including a statewide staff directory with self-service capabilities, is also helping deliver improved access to NSW Health clinical applications such as Electronic Medical Records. The program is currently delivering more than 20 projects, across a range of technical disciplines, and is engaging with every NSW Health organisation to drive improved technology use for all staff.

The eHealth NSW Data Centre Reform program implemented the government's data centre reform across NSW Health. Migration of all eHealth NSW hosted services to the Government Data Centres is now complete, and a program for migrating all remaining data centres has started.

The Health Wide Area Network program has established a secure clinical-grade network for the NSW public health system. Delivery of the Health Wide Area Network to 184 rural local health districts sites was completed. This represents the largest network upgrade of its kind in rural NSW. Deployment of the network to metropolitan sites has commenced.



**Migration of all eHealth NSW hosted services to the Government Data Centres is now complete, and a program for migrating all remaining data centres has started**

The Clinical Applications Reliability Improvement program is transforming the delivery of key clinical information to clinicians across NSW Health, using modern Government Data Centres (GovDCs) and leveraging supplier partnerships to increase the reliability and availability of key clinical systems, to improve patient outcomes. A program of works has begun, starting with the migration of the Electronic Medical Record domains of 12 local health districts to the GovDCs in 2017-18. Disaster Recovery systems for these domains are being established. Response times have halved for every domain migrated to the GovDCs, and the capacity of some domains has increased significantly, translating to more clinician-patient time across the state.

The Health Security Operations Centre provides real-time analysis and monitoring for cyber security threats 24 hours per day, 365 days per year, for over 100,000 systems across NSW Health. An average 41.5 billion activity and system logs are analysed each month. Additional security infrastructure and systems have been steadily added to this service, strengthening NSW Health's overall cyber security threat detection and prevention capability.

eHealth NSW has established the Information Communication Technology (ICT) Policy and Standards Working Group, as a subgroup of the NSW Health Chief Information Officers Executive Leadership Group. The group is responsible for the development of statewide ICT policies and standards for NSW Health. It will lead the development of policies and standards that promote safe and efficient use of ICT systems, supporting improved patient outcomes.

## 7.4 FOCUS OF WHOLE OF LIFECYCLE ASSET MANAGEMENT TO BETTER MANAGE RISK

The Ministry of Health is providing support for statewide asset management reform through Health Infrastructure. The Health Infrastructure Asset Management function (HI-AM) was established in 2017-18, with an initial focus on aligning existing programs, including the Asset Refurbishment and Replacement Program (ARRP) and implementing Asset and Facilities Maintenance Online (AFMO). In 2017-18, ARRP funded 115 projects, worth \$50.3 million, across 18 local health districts and speciality networks.

In the same period, HI-AM undertook reviews of health facilities, to assess the fire safety risks associated with non-conforming and non-compliant aluminium composite panel cladding. HI-AM also oversaw 46 urgent minor maintenance projects, targeting compliance, workplace health and safety and infection control. In Quarter 3 of 2017-18, HI-AM commenced a number of initiatives, including Asset Management System development, Asset Register Development and Maintenance Planning, to support strategic asset management.



**Since its establishment in July 2017, Health Infrastructure has made significant inroads into the delivery of the Asset Verification and Maintenance Planning**

Health Infrastructure Asset Management (HI-AM) is commissioned by the Ministry of Health to undertake Asset and Facilities Management Asset Verification, Maintenance Planning and the Asset Refurbishment and Replacement Program (ARRP). Since its establishment in July 2017, Health Infrastructure has made significant inroads into the delivery of the Asset Verification and Maintenance Planning.

A proof of concept phase for Asset Register development is underway with various stages expected to complete before the end of 2018. The comprehensive program includes development of an Asset Register, Spatial Data Solution and provides a clear line of sight between the Asset Register and an evidence-based Asset Strategic Plan, planned maintenance and capital works scheduling. ARRP is continuing with the budget for 2018-19 of \$55 million expected to be fully expended. HI-AM report that allocation letters for 19 new projects have been distributed.

A facility management framework is being developed by HI-AM as part of its wider 2018-19 Maintenance Management Program. The Maintenance Management Program will be managed by HI-AM and will facilitate the effective and efficient management of assets by introducing four key sub-programs:

- Asset Maintenance Planning Framework
- Maintenance Management Framework
- Asset Schema Management
- Compliance.

## PRIORITY 8

# BUILD FINANCIAL SUSTAINABILITY AND ROBUST GOVERNANCE

## KEY ACHIEVEMENTS FOR 2017-18

- In 2017-18, NSW Health's budget included more than \$23 billion recurrent and capital to invest in hospitals and better health services including providing for more emergency attendances, elective surgeries and non-admitted patient services. This also included investment in the major capital program for new health facilities, upgrades and redevelopments.
- NSW Health delivered on-budget expense results, after known adjustment factors in 2017-18.
- NSW Health worked with Department of Finance, Services and Innovation and NSW Treasury to develop a four year procurement savings plan, including initiatives that will optimise value for NSW Health across a number of categories and focus on delivering better patient outcomes and experience.
- A NSW Small Hospital Funding Model was introduced in 2017-18 to better harmonise funding and activity flow between small hospitals and activity based funding hospitals.

NSW Health is focused on meeting the demand of a growing and ageing population whilst maintaining financially sustainable growth underpinned by a robust governance. To this end key strategies included:

- A clear strategy focused on achieving outcomes to provide a sustainable public hospital system that continues to meet growing demand for health services in the most appropriate setting.
- Key system priorities including Patient Safety First Initiatives, Leading Better Value Care, system integration, digital health, analytics and strengthening governance and accountability.
- A transparent activity funding model designed to support innovation and continuous improvement, including the identification and implementation of internal efficiencies.
- A transparent and mature Service Agreement negotiation process to support planning and resource allocation whilst aligning incentives with Key Performance Indicators, thereby ensuring the safest, highest quality and value care is delivered to patients.

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 further improve results for patients.

The activity based management portal (ABM Portal) supports clinicians and managers to benchmark performance and identify areas for improvements. This approach makes public health funding more effective.

Aligning funding allocations with patient care creates a health system in which more decisions are made locally with increased involvement from clinicians and the community.

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

- Securing financial benefits to meet Health's strategic deliverables
- Ensuring Health's delivery on Financial Management Transformation Program
- Embedding a new approach to strategic planning and the Ministry's role as system manager
- Delivering effective regulatory governance and accountability
- Driving system-wide consistency in use of health shared services.



**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**

## 8.1 SECURE FINANCIAL BENEFITS TO MEET HEALTH'S STRATEGIC DELIVERABLES

A key priority for NSW Health is securing financial and operational performance to meet strategic deliverables.

As part of this, there has been strong financial performance including delivering expenditure growth less than revenue growth despite environmental challenges. During this year, revenue was adversely impacted by external factors including a decline in private health insurance membership numbers and change to policies.

NSW Health's financial and operational performance is underpinned by a transparent activity funding model, designed to mitigate risk through informed annual purchasing of services, while at the same time maximising financial performance for the State.

Health's funding model has allowed NSW Health to continue to deliver a level of activity that keeps the public hospital and community based health systems and financial performance strong and most importantly safe.

NSW Health continues to focus on innovation and continuous improvement, with efficiency and effectiveness initiatives providing continuing opportunity to focus on financial sustainability without impacting safety, quality and service delivery. This has included NSW Health working with NSW Treasury to increase the transparency of service outcomes and spend.

NSW Health continues to adapt funding models in order to meet strategic priorities and key challenges moving forward, linked to Activity Based Funding principles as predicated in the National Health Reform Agreement.

A NSW Small Hospitals Funding Model was introduced in 2017-18 to better harmonise funding and activity flow between small hospitals and activity based funding hospitals in rural settings. The new model adopts a fixed and variable cost methodology, and replaces the previous national model. The model encourages rural health districts to make better use of idle capacity and improve the capture and reporting of activity from small hospitals.



**There has been strong financial performance including delivering expenditure growth less than revenue growth**

## 8.2 ENSURE HEALTH'S DELIVERY ON FINANCIAL MANAGEMENT TRANSFORMATION PROGRAM

NSW Health successfully implemented Financial Management Transformation (FMT) program as part of a NSW Treasury initiative, including providing technical and operational insights to inform whole-of-government design and implementation planning.

With the completion of the FMT program, NSW Health has transitioned to outcome based budgeting reporting for the NSW Health Cluster.

Outcomes based budgeting seeks to align financial and performance reporting with governance and decision making from a whole-of-government perspective.

NSW Health will continue to work with NSW Treasury to improve and refine this initiative.

## 8.3 EMBED A NEW STRATEGIC APPROACH TO PLANNING AND THE MINISTRY'S ROLE AS SYSTEM MANAGER

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 oversight of local health districts and specialty health networks, and additional internal and external scrutiny 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 local health districts and networks, utilising formal and informal mechanisms in response to areas of underperformance, in particular in relation to the improvement in Emergency Treatment Performance.



**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 document**

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.

NSW Health now has a statewide digital infrastructure that enables each employee to make use of an array of digital services using their unique StaffLink identifier. As a result, there is now a statewide platform for standardised financial, procurement and supply chain management. The StaffLink system now oversees an annual \$22 billion of transactions (representing one-third of NSW public-sector transactions) and an \$11 billion payroll, as well as three million invoices, and one million purchase requisitions.

HealthRoster is now used to roster 114,000 people, 84 per cent of NSW Health's workforce, with the remaining joining by October 2018.

eHealth NSW continues to embed the ICT Investment Assurance and Prioritisation Framework which aims to transparently prioritise new initiatives and ideas, including local health district innovation projects, statewide proof of concepts and large scale centrally funded programs.

To date nine initiatives have been delivered:

- Data capture to support the Premier's priority on tackling childhood obesity (Phase 2)
- ACT Health access request to the Patient Flow Portal of NSW Health
- Admission and Discharge Notifications Version 2
- Car Park app for Hospital Concessional Parking
- Electronic Standard Maternity Observation Chart and Standard Newborn Observation Chart
- Government Data Centre NetApp Storage Capacity Refresh
- Triage Quality Assessment Software
- Smarter Medical Billing
- Enterprise Resource Planning (EPR) Enhancements – data de-duplication in statewide systems

Thirteen new initiatives have been funded and moved into the delivery phase. The eHealth NSW, Investment, Strategy and Architecture team will continue to work with all NSW Health stakeholders to develop, prioritise and fund new initiatives and ideas.

The System Manager Dashboard was successfully delivered and informs strategic consideration against the Secretary's Strategic priorities. It complements other performance reporting products including the Monthly Reports, Quarterly Insight Series and Monitoring and Evaluation Reports on key reform priorities.

## **8.4 DELIVER EFFECTIVE REGULATORY, GOVERNANCE AND ACCOUNTABILITY**

### **Assess and deliver changes to alignment of governance processes with strategic plans**

In 2017-18 the Ministry implemented a new System Governance and System Management Committee Framework to focus our executive committees on ensuring robust corporate governance standards which align with our strategic plans. The new Framework delivers a coordinated focus across committees on strategic priorities and system performance, balanced against the need to manage critical emerging issues and general business matters. The Framework encompasses key system committees convened by the Secretary, NSW Health including the Senior Executive Forum; Health System Strategy; Health System Performance Monitor; and Ministry Executive committees.

### **Increase the transparency and communication of risk assessments**

A significant review of risk reporting practice and available information has been undertaken, within context of the objectives of the NSW Health Enterprise-wide Risk Management Policy (PD2015\_043). This has included increasing the frequency and scope of reporting to the Ministry Executive and Risk Management and Audit Committees. Also as part of this work, the Ministry's role in the NSW Health risk management practitioner network has been strengthened, with the Ministry hosting regular forums for practitioners and seeking greater input on risk information and advice in order to inform decision making.

Further, as part of the new System Governance and System Management Committee Framework, the Ministry's Risk Management and Audit Committee has been revised to expand its focus to system-wide risks which may impact on the delivery of NSW Health strategic priorities. As part of this, the Committee membership has also been revised and expanded.

### **Establish statewide governance across clinical and non-clinical education and training**

The Health Education and Training Institute (HETI) developed a draft cooperative governance model in 2017-18. It aims to improve the coordination of education and training development across the state. Consultation on the draft model will take place in 2018-19.

## 8.5 DRIVE SYSTEM-WIDE CONSISTENCY IN USE OF HEALTH SHARED SERVICES

### Shared services

NSW Health continued to drive system-wide consistency in the use of shared services with a focus on roles and value for money benefits.

HealthShare NSW is the shared service provider to NSW Health and one of the largest shared services providers in Australia. HealthShare NSW is the primary custodian for the delivery of the following services to NSW Health entities:

- Food and patient support services
- Linen services
- Procurement
- Human resource services, such as payroll, employee support and recruitment
- Financial services, such as accounts payable and receivable, accounting and reporting
- Non-emergency patient transport services
- Assistive technology through Enable NSW, for people with disability.

HealthShare NSW uses a combination of competitor benchmarking, and customer engagement and surveys to monitor how value is being delivered. Competitive benchmarking has shown many HealthShare NSW services are performing by either matching or exceeding comparator organisations. HealthShare NSW is seeking to improve overall customer satisfaction scores by 25 per cent from 2016 to 2020. Customer satisfaction with HealthShare NSW increased by 17 per cent from 2016 to 2018.

### Set targets and direction for statewide adoption

HealthShare NSW was created to generate financial savings to return to clinical services and improve the quality and delivery of services. HealthShare NSW is continuing to pursue this vision through seeking opportunities to offer better existing services to local health districts and exploring where new shared services may be delivered.

Recent examples of new services include:

- HealthShare NSW partnered with Ambulance NSW to develop the 'Make Ready' Model, which enables dedicated staff to clean ambulances using practices to achieve hygiene standards set by the Clinical Excellence Commission. The Make Ready Model was implemented in seven superstations in 2017-18 and is continuing to be rolled out.
- The NSW Mental Health Commission will begin to receive financial and human resources services from HealthShare NSW in 2018-19.
- HealthShare NSW will deliver salary packaging services to Nepean Blue Mountains Local Health District in 2018-19.

### Major equipment procurement and integration

In realigning the strategic priorities of the Office of the Chief Procurement Officer, the Ministry of Health has galvanised its role as system manager by providing strategic procurement oversight across NSW Health. This is being achieved through increased collaboration with NSW Health entities, stakeholders and clinical experts to ensure the provision of quality and safety for goods and services.

The key focus is to maximise value across the system to enable higher quality medical services for now and future generations. Another key focus has been to refine current procurement strategies and contracts in order to optimise equipment integration and effective vendor KPI management across the system. As a result, issues such as capital sensitivity are monitored and evaluated leading to enhanced benefit realisation. These strategic priorities ensure a holistic, flexible, measurable and transparent procurement process that is underpinned by a governance framework across NSW Health.

