

Performance



Performance summary

Health care is changing and so are the needs and expectations of communities, patients, and their carers. Increased demand, an ageing population and more people dealing with chronic illness like diabetes or cancer all mean new challenges for how services are funded, planned and delivered.

The *NSW State Health Plan* provides the strategic framework that brings together existing NSW Health plans, programs and policies. This plan and the NSW Premier's Priorities, sets priorities across the system for the delivery of the right care, in the right place, at the right time.

Three directions provide the vision for the future of the health system, one that is sustainable, purposeful and most importantly delivers positive outcomes for the people of NSW.

The directions are:

- keeping people healthy and out of hospital
- providing world-class clinical care
- delivering truly integrated care.

There are four strategies that determine how health services work together to achieve the vision in our hospitals, for our workforce, in research and innovation, eHealth and infrastructure.

The strategies are:

- supporting and developing our workforce
- supporting and harnessing research and innovation
- enabling eHealth
- designing and building future-focused infrastructure.

The *NSW State Health Plan* is available at www.health.nsw.gov.au/statehealthplan.

The NSW Premier's Priorities are available at www.nsw.gov.au/making-it-happen.

Directions

DIRECTION 1

Keeping people healthy and out of hospital

DIRECTION 2

Providing world-class clinical care

DIRECTION 3

Delivering truly integrated care

Strategies

STRATEGY 1

Supporting and developing our workforce

STRATEGY 2

Supporting and harnessing research and innovation

STRATEGY 3

Enabling eHealth

STRATEGY 4

Designing and building future-focused infrastructure

DIRECTION 1

Keeping people healthy

Overview

Prevention is critical to keeping people healthy and out of hospital. Prevention and screening strategies need to be constantly monitored, reviewed and refined to make sure they continue to deliver real results as health issues change.

Preventive health not only keeps people well, but can assist those with conditions such as diabetes from developing further complications.

NSW Health is working towards the NSW Premier's Priority to reduce overweight and obesity rates of children as part of a whole of government, systematic approach to support children and families to be healthy and active.

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

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

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

NSW Health is committed to building partnerships across government agencies to help keep people healthy and to improve overall quality of life, support our economy and reduce the burden of chronic illness on the community.

Challenges

As health issues keep changing, prevention strategies also need to be constantly monitored, reviewed and refined to make sure they continue to deliver real results.

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

What NSW is doing

To meet this challenge NSW Health is working with other government agencies to implement initiatives that will make a difference to the health of the people of NSW, not only in the short term, but into the future. These core initiatives are developed centrally, but implemented and adapted locally and include:

- reducing smoking rates and the adverse effect of tobacco
- addressing drug misuse
- tackling overweight and obesity rates
- promoting the responsible consumption of alcohol
- helping people manage their own health through screening programs, immunisation programs, and community and consumer education.

Highlights

497,448 visits to iCanQuit.com.au in the past 12 months



69 Community Drug Action Teams delivered targeted prevention to communities across NSW



1000 businesses registered for Get Healthy at Work reaching 165,000 workers



225 referrals and 201 admissions to the Sobering Up Centre, providing brief interventions to influence responsible drinking



Health Management Plans for children in Out of Home Care increased 55.4 per cent from 2013-14 to 2014-15



D1.1 Reduce smoking rates and the adverse effects of tobacco

To prevent the uptake of smoking, to motivate and support all smokers to stop and protect people from the harmful effects of second-hand smoke through a range of programs and initiatives outlined in the *NSW Tobacco Strategy 2012-2017*.

Key achievements

- > Adult smoking rates are on a downward trend. In 2014, approximately 15.6 per cent of adults were current smokers compared with 16.4 per cent in 2013.
- > Smoke-free commercial outdoor dining laws were passed by Parliament in late 2012 and came into effect on 6 July 2015. There are high levels of compliance with the new legislation with 98 per cent compliance during the first three months.
- > The Cancer Institute NSW implemented 12 anti-smoking campaigns between July 2014 and June 2015, including a focus on culturally and linguistically diverse communities and Aboriginal people. These contributed to smoking rates continuing to decline, a 30 per cent increase in visits to iCanQuit.com.au and an increase in the number of calls from Aboriginal people to NSW Quitline.
- > The Cancer Institute NSW continued to promote the NSW Quitline and iCanQuit.com.au and invested in enhancements to better meet the needs of the NSW community.
- > The Cancer Institute NSW awarded three Evidence to Practice grants focusing on approaches to tobacco control in high smoking prevalence population groups.
- > The Aboriginal Tobacco Resistance and Control in NSW Framework was released. The Framework provides evidence, key principles and best practice approaches to reduce smoking rates among Aboriginal people.
- > St Vincent's Hospital Network established a new statewide partnership with the National Rugby League to tackle Aboriginal smoking rates. A promotional video was shown at the NRL All Stars match, attended by over 23,000 people.
- > Quit for new life program delivered support to 540 pregnant Aboriginal women to help them quit smoking.
- > The Justice Health & Forensic Mental Health Network partnered with Corrective Services NSW in planning for the establishment of the Smoke Free Prisons policy commencing in August 2015. This included revising the Network's Clinical Guidelines for Nicotine Dependence and Smoking Cessation and working in collaboration with the Cancer Institute NSW to develop staff and patient resources to support implementation. The policy prohibits smoking by staff, visitors and inmates in all NSW correctional facilities.
- > There were high levels of compliance with tobacco legislation with 98 per cent for smoke-free outdoor laws, 94 per cent for sales to minors laws and 84 per cent for point of sale laws.

CASE STUDY: NSW HEALTH

New smoking ban campaign

Overview

A NSW Health campaign was undertaken to increase industry and community awareness of the new smoking ban in commercial outdoor dining areas that commenced from 6 July 2015.

Key activities

Key strategies were stakeholder engagement and social marketing through radio and digital advertising across the internet and social media channels.

Outcome

The campaign increased awareness by 23 per cent (from 59 per cent to 82 per cent) while maintaining high community support (over 82 per cent). A collaborative NSW Health media plan led to 338 positive media items across NSW over the six months prior to the ban.



Evidence of effective audience engagement included a strong Facebook click-through rate, a 24-fold increase in weekly views of the smoke-free website and a surge in calls to the Tobacco Information Line (743) during the advertising period.

Strong stakeholder participation extended the campaign reach. Culturally-sensitive communications prepared Arabic-speaking restaurant proprietors for prohibition of water-pipe under the ban. The campaign successfully built awareness and social support leading to 98 per cent compliance to date.

D1.2 Address drug misuse

To contribute to whole of government strategies and programs that address drug related issues. These range from prevention to treatment and resource planning.

Key achievements

- > The most recent data available is from the 2013 National Drug Strategy Household Survey (November 2014) which shows that NSW has below national average rates of drug misuse. Recent illicit use (previous 12 months) of any drug was 13.9 per cent compared to 14.7 per cent nationally.
- > Throughout the year, NSW Health provided a wide range of responses to address drug misuse. This included specialist counselling, withdrawal management, assertive outreach, consultation liaison services in targeted hospitals, and the Involuntary Drug and Alcohol Treatment Program for severely substance dependent individuals. Services targeting particular population groups or drugs of concern to reduce drug use and related harms, included the Medically Supervised Injecting Centre, opioid treatment, nine cannabis clinics, two stimulant treatment programs, Substance Use in Pregnancy Services, and court diversion into treatment.
- > In the first six months of 2015, there were 1,942 methamphetamine-related presentations to emergency departments. This compares to 1,298 presentations in the first six months of 2014 (50 per cent increase) a total of 2982 presentations for the 12 months of 2014. To help combat this increase the NSW Government has announced \$11 million over the next four years for new services to treat and support people using crystalline methamphetamine. Included within this package is:
 - \$7 million in new stimulant treatment services in Illawarra Shoalhaven, Mid North Coast/Northern NSW and Western Sydney Local Health Districts. Existing Stimulant Treatment Programs at St Vincent's Hospital in Darlinghurst and Hunter New England Local Health District will also be enhanced as part of the package
 - \$4 million for non-government treatment services to tackle crystalline methamphetamine use in rural and regional NSW. Non-government organisations will partner with local health districts to deliver crystalline methamphetamine treatment services tailored to the needs of individual communities in rural and regional NSW
- > The Justice Health and Forensic Mental Health Network assessed and supported 746 patients on the Opioid Substitution Treatment Program.
- > An independent evaluation of the Stimulant Treatment Program at St Vincent's Hospital and in Newcastle, found that approximately 50 per cent of clients recovered from stimulant dependence after receiving counselling and that this recovery was accompanied by significant improvements in mental health and social functioning.

CASE STUDY: NSW MINISTRY OF HEALTH

Keep Them Safe Whole Family Teams: An innovative, integrated partnership approach to health care

Overview

Keep Them Safe is the NSW Government response to the Wood Commission of Inquiry into Child Protection Services in NSW. NSW Health was funded to improve child safety by supporting the needs of parents with mental health, drug and alcohol problems.

This unique outreach partnership model operates to prevent vulnerable families from falling between the gaps. Key partners include the NSW Ministry of Health Mental Health, Drug and Alcohol Office and Community Services. The model of care was informed by interrogation of international literature on evidence-based interventions, for families with complex mental health, drug and alcohol needs and with co-existing child safety concerns.

Key activities

Local health districts are funded to deliver Whole Family Team interventions. Teams are located in Gosford, Newcastle, Nowra and Lismore. Each year, 46 specialist clinical staff provide services to over 200 vulnerable families.

Drug, alcohol and mental health multidisciplinary clinicians work as one team in close partnership with community service professionals. Services are delivered in the home and the community. This involves joint specialist assessment and treatment, information sharing and workforce development.

Outcome

Measures of family functioning including parenting, family relationships and child wellbeing all improved significantly. Child safety also improved substantially with a 58.4 per cent reduction in the rate of risk of significant harm reports for children in families who received this model of care.

An independent evaluation found that there were clinically significant improvements in parental mental health as measured by both clinicians and parents. Drug and alcohol outcomes also improved.

This program was a finalist in the 2014 NSW Health Awards.



D1.3 Tackle overweight and obesity rates

To implement the *NSW Healthy Eating and Active Living Strategy 2013 – 2018* to encourage healthy changes at a personal level and in environments that support healthy living and to meet the Premier's priority to reduce overweight and obesity rates of children.

Key achievements

- > Adult overweight and obesity rates are still at concerning levels but have stabilised with 52.5 per cent of NSW adults overweight or obese (2014).
- > In 2014 around 21.5 per cent of children aged 5 to 16 years were overweight or obese. While this is a decrease from 23.2 per cent in 2010 the rate appears to be stabilising. As one of the Premier's priorities, the focus remains on reducing this rate by a further 5 per cent over the next ten years.
- > The Healthy Children Initiative has reached 84 per cent of primary schools with Live Life Well at School, over 90 per cent of centre-based early childhood services with Munch and Move, and over 6000 families with Go4Fun®.
- > Over 1000 businesses registered for Get Healthy at Work with potential reach of 165,000 workers. Over 5000 workers undertook a Brief Health Check.
- > The launch of the National Health Star Rating (front of pack labelling) was supported. The system is now on over 2000 supermarket foods and is being incorporated into other NSW initiatives.
- > The Healthy Eating and Active Living Year One status report was released and the Make Health Normal campaign was launched with advertising support in June 2015 Further advertising, community and stakeholder engagement activity is planned for 2015-16.
- > Over 900 individual and 33 teams participated in the 2014 Aboriginal Knockout Health Challenge. The Knockout Health Challenge invites NSW Aboriginal communities to participate in a fun and effective program to lose weight and combat obesity and other diseases through a team weight loss challenge. There was an average weight loss of 2.3kg for the participants who provided final data for the George Rose Challenge 2014.
- > More than 50 per cent of participants who completed the six month Get Healthy Service coaching program lost between 2.5 per cent and 10 per cent of their original body weight.

CASE STUDY: NSW HEALTH

The NSW Get Healthy Information and Coaching Service

Overview

The *Get Healthy Information and Coaching Service* is a free telephone-based service designed to support adults make sustainable changes to improve healthy eating, physical activity and achieving and/or maintaining a healthy weight. Participants enrolled in the coaching program receive between 10 to 13 coaching calls from a University qualified health coach. All calls are tailored to meet the participant's personal health goals. Programs are tailored for individuals at high risk, with specific Aboriginal and Type 2 Diabetes programs.

Key activities

While taking a population level health approach, the Service works closely with Local Health Districts, Health Professionals and General Practitioners (GPs) to reach those most at risk of chronic disease. LHDs utilise a range of promotional activities to engage the community and health professionals.

Outcome

Evaluation of the Service has found that participants who complete the six month coaching program lose on average 4 kg and 5cm off their waist circumference. Between July 2014 – June 2015, the Service received 942 referrals from health professionals and GPs; making it the second highest referral source after mass media. Evaluation also shows that participants referred by their health professional or GP are more likely to complete the 6 month coaching program and achieve better health outcomes. Feedback from health professionals and GPs referring to the Service has been positive. Dr Bauer from the Central Coast recommends other GPs refer patients and regularly refers his patients. He says "The GHS offers free access to professionals who can set realistic goals and help patients achieve them, without a substantial financial or time burden."



D1.4 Promote responsible alcohol consumption

To contribute to whole of government strategies and programs that address alcohol misuse.

Key achievements

- > The rate of alcohol consumption by adults in NSW at levels that pose a health risk over a lifetime, decreased from 33.7 per cent in 2003 to 27.4 per cent in 2014.
- > Throughout the year, NSW Health provided a wide range of treatment, information and community engagement responses to address alcohol misuse, including specialist treatment services provided by local health districts such as counselling, withdrawal management, assertive outreach, and consultation liaison services in targeted hospitals.
- > As part of the NSW Government's response to alcohol and drug related violence in the Sydney Central Business District, the trial of the mandatory Sobering Up Centre has been extended for a further two years.
- > Between 1 July 2014 and 30 June 2015, there were 225 referrals and 201 admissions to the Sobering Up Centre. Justice Health & Forensic Mental Health Network nursing staff monitor the health of admitted detainees at the Centre and provide brief intervention to influence responsible drinking and link detainees with community services, where appropriate.
- > The network of 69 Community Drug Action Teams delivered targeted education and prevention to local communities across NSW. The Your Room website was updated with information on alcohol.
- > The NSW Ministry of Health commenced development of the Aboriginal Alcohol and Pregnancy Project.
- > An alcohol/risk drinking module is being integrated into the Get Healthy Coaching Service.
- > The NSW Ministry of Health contributed to the liquor licencing process through Community Impact Statements.
- > In addition to the services provided by local health districts, non-government organisations delivered a large proportion of drug and alcohol treatment services in NSW. The NSW Government provided funding to support over 1000 treatment places in a range of service types including community based and residential rehabilitation. These services are located in rural, regional and metropolitan regions. Additionally, information via telephone services for drug and alcohol provided information, education, crisis counselling and referral including the Alcohol Drug Information Service, Family Drug Support and the Drug and Alcohol Specialist Advisory Service.

CASE STUDY: SYDNEY LOCAL HEALTH DISTRICT

Aboriginal outpatient alcohol withdrawal service



Overview

Aboriginal people can face barriers to accessing treatment for alcohol problems including long waiting lists for withdrawal management and culturally challenging environments within mainstream services. Some barriers may be overcome through the provision of culturally safe and appropriate services and outpatient treatment from Aboriginal Community Controlled Health Organisations.

Alcohol withdrawal management is often the gateway to abstinence and is a critical time for an individual to engage with treatment services. A partnership project between Sydney Local Health District and the Illawarra Aboriginal Medical Service established a home alcohol detoxification service, assisted by funding from the Foundation for Alcohol Research and Education.

Key activities

The aim of this initiative was to increase accessibility of services to Aboriginal people, by increasing capacity of the Illawarra Aboriginal Medical Service to provide home detoxification.

The model was based on local knowledge and capacity, as well as consultation with community stakeholders, local health districts and Aboriginal Community Controlled Health Organisations, that had sporadically used home detoxification.

The service, known as the A-clinic, aimed to address these issues and is based on cultural appropriateness, best evidence and clinical experience, with a goal to improve access to quality and safe health care.

Outcome

This initiative resulted in an increased capacity for the Illawarra Aboriginal Medical Service to provide home detoxification, an increased number of Aboriginal people going through withdrawal management and an increased number of people engaged with alcohol treatment services.

This project received the Integrated Planning and Service Delivery Award at the 2014 Aboriginal Health Awards.

D1.5 Help people manage their own health

During 2014-15 a focus was placed on ensuring people from at risk populations had access to prevention programs such as the Needle and Syringe Program, vaccination for Hepatitis B, and community education campaigns.

Key achievements

- > The Antenatal Pertussis Vaccination Program was rolled out across the state. This program offers free pertussis (whooping cough) vaccine to pregnant women in their third trimester to protect young babies from whooping cough before they are old enough to be fully vaccinated.
- > NSW Health continued to implement the Save the Date to Vaccinate campaign to educate parents about the importance of timely vaccination for children. The campaign includes a popular phone app to remind parents when their children's vaccinations are due.
- > NSW Kids and Families developed a comprehensive set of standards for Building Strong Foundations which will be published in 2015-16. Building Strong Foundations is a co-delivered early childhood health service for Aboriginal parents.
- > NSW Kids and Families implemented a pilot for the Cultural Inclusion Checklist for Maternity Services to strengthen the cultural inclusiveness of maternity services for Aboriginal women, fathers/partners and families. NSW maternity services trialled the checklist by undertaking a self-assessment audit. Twenty-two maternity services voluntarily participated and received funding to enhance the cultural inclusiveness of services.
- > The Centre for Population Health and NSW Kids and Families partnered to jointly fund and develop the Aboriginal Alcohol in Pregnancy Project. The Project aimed to engage Aboriginal women, their partners, families, and young people to raise awareness of the risk of alcohol in pregnancy and Fetal Alcohol Spectrum Disorders. The Project provides help to access support and professional services. The Project included stakeholder and community events, an illustrated story book, a professional Fetal Alcohol Spectrum Disorders support resource, video case studies and social media engagement.

CASE STUDY: SOUTH EASTERN SYDNEY LOCAL HEALTH DISTRICT

a[TEST]: peer-led rapid HIV and STI testing for the gay community



Overview

This project was initiated to address a local need to develop and implement innovative HIV testing models to meet the *NSW HIV Strategy 2012-2015* targets for increased testing in high-risk populations.

The project was the result of collaboration between various organisations and involved innovative use of community peer educators, facilitated access to those men who have sex with men who engage in high risk behaviours and conducted HIV rapid tests.

Key activities

Sydney Sexual Health Centre, with partners ACON and the Kirby Institute, developed outreach testing models staffed by peer educators and a specialist nurse.

Computer assisted self-interview kiosks were used to collect relevant information and reduce barriers to access. Various models of a[TEST] were used that were responsive to the particular setting.

Models of a[TEST] implemented included after-hours testing at community organisation premises, a mobile testing caravan at Taylor Square for World AIDS Day 2013 and a Darlinghurst shop front for the Mardi Gras Festival 2014.

Outcome

This partnership successfully implemented the first peer-led community-based rapid HIV testing service in Australia.

Evaluation of the project found a high proportion of untested gay men attended the services. Those who had a positive HIV or STI test were linked to care. The evaluation also demonstrated high rates of consumer satisfaction and success in accessing gay men who had never had a HIV test or were testing infrequently.

These results demonstrate that a[TEST] was addressing an unmet need in the community. a[TEST] models are now being rolled out in a variety of settings across the state.

This project received the Local Solutions Award at the 2014 NSW Health Awards.

- > NSW Kids and Families worked with local health districts and Aboriginal Community Controlled Health Services to enhance capacity to identify Aboriginal people requiring health services, under the Commonwealth's Indigenous Teenage Sexual and Reproductive Health and Young Parent's Support Measure. This project was focused on improving access for Aboriginal parents with young children, especially young parents, to mental health and drug and alcohol specialist services and support.
- > The Cancer Institute NSW undertook a range of initiatives to raise awareness, support and increase breast and cervical screening participation rates including:
 - implementing an engagement strategy targeting Aboriginal women through the development and distribution of new resources on the benefits of screening. Preliminary evidence by local service providers indicates a positive reception in the community
 - community engagement, stakeholder partnerships, media and public relations activity to target culturally and linguistically diverse communities
 - explored new evidence around influencing cervical screening behaviour with the NSW Pap Test Registry collaborating with the Behavioural Insights Unit of the Department of Premier and Cabinet to design and implement an innovative 27 month reminder letter strategy using behavioural insights frameworks. A public relations campaign was also implemented to encourage women to continue to have regular Pap tests, despite the proposed changes to the national cervical screening program announced in April 2014
 - procuring a fleet of 13 new BreastScreen NSW mobile vans to improve client experience, provide state-of-the-art technology and support marketing and recruitment efforts.
- > During 2014-15, the Cancer Institute NSW commenced the *Primary Care Engagement Strategy and Implementation Plan* for BreastScreen NSW, NSW Bowel Screening and NSW Cervical Screening Program to engage with primary health care professionals regarding the importance of their role in promoting cancer screening to their patients.
- > The Cancer Institute NSW sponsored workshops and seminars as part of the Sydney General Practitioner Conference and Exhibition 2015 that focused on the signs and symptoms of bowel cancer, and the different roles of colonoscopy and Faecal Occult Blood Tests in reducing deaths from bowel cancer. Seminars communicated the five year implementation schedule to achieve full biennial screening for all people aged 50-74 by 2020. The Institute also launched the Bowel Cancer in NSW website at the Conference.
- > In 2014-15, there were 1537 adult and adolescent patients who accessed the Aboriginal Chronic Care Program, representing a 20 per cent increase from last financial year. This program provides systematic screening, health education, health promotion and early intervention strategies for this vulnerable population.
- > The Agency for Clinical Innovation Nutrition Network developed a new consumer resource on the Nutrition Standards for Consumers of Inpatient Mental Health Services in NSW. This is available on the Agency for Clinical Innovation website. In 2014-15, this resource was translated into seven community languages.
- > The Clinical Excellence Commission provided resources for health services to provide guidance on health literacy issues including a web-based portal to support health services to produce effective consumer information.

DIRECTION 2

Providing world-class clinical care

Overview

NSW Health is improving performance standards and continuing to focus on quality control to deliver better patient care. Hospitals are a core part of the NSW Health system with the priority being to provide high quality, patient-centred clinical care.

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

Challenges

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

What NSW is doing

The NSW Premier's Priority is to improve service levels in hospital with a focus on ensuring 81 per cent of patients have appropriate treatment within four hours. To support this Priority, the Whole of Hospital program and the focus on integrated care has been expanded.

The NSW Health system has also been restructured to put decision-making closer to the patient. In creating a 21st century health system, clinicians and managers are being empowered to help transform the way patient care is provided. Key priorities include:

- moving beyond the emergency department to create a better connected health system
- developing and implementing new models of care to meet changing needs and address unwarranted clinical variation
- driving better performance via partnerships with clinicians and managers
- maintaining a continued focus on quality and safety
- listening to patients.

Highlights

1800 (estimated) fewer unexpected cardiac arrests since the Between the Flags program began



Adapted Hospital in the Home to provide home-based care for a two year old child awaiting a heart transplant



Patients with sepsis now receiving antibiotics within the 60 minute target in emergency departments



Performed a liver transplant on Australia's youngest recipient, an eight-week-old baby



84.1 per cent hand hygiene compliance. NSW continues to have highest rates in Australia



Up to 203,000 patients surveyed on their experience as part of the Bureau of Health Information Patient Survey Program



9470 patient surveys completed using Patient Experience Trackers statewide



D2.1 Moving beyond the emergency department to create a better connected health system

To emphasise a system-wide approach to integrated care, in partnership with primary care providers, focusing on streamlining the patient journey to deliver ‘the right care in the right place’.

Key achievements

- > Over 59,000 people were enrolled in the Chronic Disease Management Program. In 2014, the first evaluation of the Chronic Disease Management Program found it had mobilised local health districts and speciality health networks to examine different models of care and provided a solid foundation for integrated care. A redesign process for the Chronic Disease model is currently being developed by the Agency for Clinical Innovation.
- > The Whole of Hospital Program has transitioned to a ‘whole of health’ approach that takes into account not only what happens within our hospitals but also the impact that hospital avoidance and post discharge care programs, such as Hospital in the Home or the Chronic Disease Management Program, offer in improving access to care and connecting the whole patient journey. This is where integrated patient care becomes critical. The Whole of Health program:
 - had expanded to 44 sites by the end of 2014, with representation from all local health districts and speciality health networks. Lessons learned are shared across districts and the state.
 - continues to provide part funding for local program leads, statewide benchmarking data and access to subject matter experts to assist with streamlining business processes aimed at improving patient flow and access to care.
 When the program commenced, only six out of 10 patients in NSW had their treatment in the emergency department completed within the four hour benchmark. Approximately three quarters of all patients are now seen in the emergency department and either discharged, transferred to another facility or admitted within four hours. This result is a reflection of the success and increased focus on centrally facilitated but locally owned whole of hospital solutions to create capacity within the hospital in order to flow patients through in a timely manner.
- > The ComPacks Program facilitates safe and early discharge of eligible patients from hospital by providing access to a short-term package of care designed to help them gain independence and prevent re-admission to hospital. It is a key initiative in managing demand in NSW public hospitals. In 2014-15, the ComPacks program delivered 14,900 packages to patients being discharged from NSW public hospitals.
- > Hospital in the Home services provide daily care to children and adults with acute conditions who reside outside hospital as a substitution of in-hospital care across NSW. Without the Hospital in the Home service the patient would require hospitalisation. In 2014-15, there were over 21,000 same day/overnight separations managed in patients’ homes, an increase of 6.7 per cent on 2013-14.
- > The Sydney Children’s Hospitals Network launched the Paediatric Palliative Care Program to consolidate resources for families and promote community-based care options.
- > The instigation of work on the Kids and Families data warehouse to support data analytics and improve service performance by NSW Health, including analysing data needs in relation to all child and family health services.
- > In October 2014, the Electronic Medical Record Release Two (eMR2) was made available to improve access to comprehensive electronic clinical notes and support care coordination across multiple health care providers.
- > HealthNet has been rolled out to provide clinicians with access to a summary of patients’ recent medical histories, including patients’ clinical information from hospital, primary care and community outpatient settings.
- > To help clinicians and managers better coordinate patient flow through emergency departments and hospitals, NSW Health further developed and refined the Patient Flow Portal (PFP). A collaborative and consultative approach with engagement of clinicians from across the sector, embedded the PFP as the primary system for managing patient flow and care coordination.
- > Implementation of the *Reform Plan for NSW Ambulance* concluded, providing a framework to better integrate NSW Ambulance within the broader health system.
- > NSW Ambulance is continuing to implement the *Reform Plan for Aeromedical (Rotary Wing) Retrieval Services in NSW*.

CASE STUDY: SOUTH WESTERN SYDNEY LOCAL HEALTH DISTRICT



RETRIEVE: safe return of post PCI patients

Overview

South Western Sydney Local Health District faced challenges in managing critical care beds and patient flow to ensure the timely and appropriate access to critical care, continuity of care and support transition of care.

Guidelines recommend hospitalisation for at least 24 hours post Percutaneous Coronary Intervention (PCI) in non-ST elevation acute coronary syndrome patients, but do not comment on appropriateness of transfer to non-PCI capable hospitals. This creates a practice of keeping patients overnight in a PCI capable hospital.

The RETRIEVE criteria was validated as a tool for screening suitability for same day transfer of acute coronary syndrome patients, post PCI to the referring non-PCI capable hospitals.

Key activities

PCI capable hospital and non-PCI capable hospitals needed evidence-based protocols to aid decision making for inter-hospital transfers.

Through collaboration between hospitals and health professions this project developed and validated the REverse TRIage EVEnts (RETRIEVE) criteria, to facilitate safe and timely transfer of acute coronary syndrome patients, post PCI, to their referring hospital.

Outcome

There were 407 patients were prospectively screened. Of the 233 patients that met the RETRIEVE criteria 230 (98.7 per cent) had no major adverse events or requirement for return to the PCI capable hospital.

RETRIEVE criteria facilitate safe, patient-centred care while freeing tertiary hospital beds. Use of this protocol appears to be as safe as routine overnight observation in a PCI capable hospital. These results were presented internationally at The Society for Cardiac Angiography and Interventions and published in Catheterization and Cardiovascular Interventions.

This project received the Collaborative Team Award at the 2014 NSW Health Awards.

CASE STUDY: SOUTH EASTERN SYDNEY LOCAL HEALTH DISTRICT



Let's be free of VRE: A collaborative approach

Overview

Vancomycin Resistant Enterococcus (VRE) bloodstream infections are a serious cause of morbidity and mortality, leading to increases in length of stay and overall costs for immunosuppressed patients.

Audits in 2010-11 demonstrated VRE positivity in 38 per cent of admissions to wards 4E and 4N. Reducing rates of transmission of VRE directly results in significant reductions in VRE bacteraemia and associated morbidity and mortality.

The haematology and oncology units of St George Hospital implemented and adopted new strategies to reduce VRE transmission in patients admitted to wards 4E and 4N.

Key activities

The project team implemented innovative multifocal measures to deal with nosocomial infections. These included increased swabbing, improved cleaning services, cleaning surveillance tools, personal patient hygiene packs and patient questionnaires.

The project resulted in improved teamwork between the haematology, oncology, infectious diseases and infection control departments and the hospital's operations and cleaning services.

Questionnaires allowed patients to provide feedback on the measures implemented and assisted the project team to better understand their needs.

Outcome

A significant reduction in the rate of VRE and bloodstream infections acquired on 4E and 4N wards resulted in:

- a decrease of total admissions from 3.6 per cent to 0.6 per cent
- a significant decrease in VRE positive swabs from 27.3 per cent to 11.1 per cent
- improvements through an external cleaning audit.

Collaboration between the haematology, infection control and cleaning services departments enabled the hospital to implement strategies that will guide future infection control measures to reduce morbidity and mortality, leading to better patient outcomes.

This project received the Harry Collins Award at the 2014 NSW Health Awards.

D2.2 Developing and implementing new models of care to meet the changing needs and address unwarranted clinical variation

To standardise the delivery of health care in urban and rural communities and help local health districts and specialty health networks adopt new and improved practices.

Key achievements

- > The Agency for Clinical Innovation's minimum standards for the management of hip fracture in the older person was implemented in 37 hospitals across NSW, identifying the key components of best-practice surgery and management to improve outcomes for patients with hip fractures. Evaluation was undertaken at six sites to assess the standards with positive results noted in terms of patient care.
- > During 2014-15, the Reducing Unwarranted Clinical Variation taskforce focussed on urology, a number of selected surgical procedures, childbirth and pneumonia. This resulted in the Community-Acquired Pneumonia Audit Tool being adapted for use in NSW and tested in five pilot sites in two local health districts.
- > The Tracheostomy Clinical Practice Guideline was developed by the Agency for Clinical Innovation. The Guideline supports clinicians to improve the experience of care provided to patients needing a tracheostomy and to reduce adverse events. Locations where patients are cared for by a multidisciplinary team are up 53 per cent, clinician education programs are up 35 per cent and enhanced infection prevention measures are up 50 per cent.
- > The Agency for Clinical Innovation implemented the Stroke Clinical Audit Process across 30 facilities in NSW to identify gaps in services that contribute to unwarranted clinical variation and to improve functional outcomes for ischaemic and haemorrhagic stroke patients.
- > The Cancer Institute NSW led surgical services optimisation for surgery with curative intent for pancreatic and oesophageal cancers. The annual average for NSW hospitals is reported as performing six or more of these procedures which is the identified minimum threshold for best outcomes.
- > The Hospital in the Home model of care was adapted by the Sydney Children's Hospital Network to provide home-based care for a two-year-old boy awaiting a heart transplant, avoiding a 129-day inpatient journey, most likely in the Paediatric Intensive Care Unit.
- > Sydney Children's Hospitals Network pioneered a new, less-invasive surgery technique for children with pure oesophageal atresia, known as the Foker Technique.
- > Sydney Children's Hospitals Network performed a record number of liver transplants in one month, reached the milestone of 300 liver transplants and successfully performed a liver transplant on Australia's youngest liver transplant recipient, an eight-week-old baby.
- > NSW Kids and Families brought together evidence-based models of care for maternity care in the *Optimising Maternity Care Guide* for NSW Health maternity services. The Guide will be made available in 2015-16.
- > NSW Kids and Families guided and supported NSW Health's implementation of a new model of care for victims of domestic and family violence, in partnership with South Eastern Sydney Local Health District and Western NSW Local Health District and inter-agency partners.
- > The NSW Ministry of Health continued implementing the *Advance Planning for Quality Care at End of Life Action Plan 2013-18* to focus on supporting people at end of life, their families and health professionals. Action plan implementation includes a *Standardised Resuscitation Plan* form and related policy that supports health professionals to identify patients for whom a resuscitation plan may be appropriate and provides guidance on developing a plan.
- > The NSW Ministry of Health released the *End of Life Decisions, the Law and Clinical Practice: Information for NSW health practitioners* website which addresses end of life decision making and law related to Advance Care Planning.
- > The Greater Metropolitan Booking Hub for Non-Emergency Patient Transport (NEPT) was created in May 2014. The Hub has since coordinated transport for over 182,000 patients and made and received 248,000 telephone calls. The proportion of NEPT work undertaken by emergency vehicles in June 2015 was reduced to 4.9 per cent compared to 15.7 per cent in June 2014.

D2.3 Drive better performance via partnerships with clinicians and managers

To articulate public health system service levels and give clinicians and managers the Information they need to drive improvements to patient care.

Key achievements

- > The Cancer Institute NSW conducted the fifth annual cycle of the Reporting for Better Cancer Outcomes program in 2014-15. This included 27 system performance indicators provided to local health districts and Medicare Locals (now Primary Care Networks) in NSW to produce a report and a cycle of meetings held with chief executives.
- > The Agency of Clinical Innovation implemented hip fracture standards; developed and tested a pneumonia audit tool across five sites to reduce unwarranted clinical variation; developed a Cystic Fibrosis Model of Care and guided its implementation and evaluation; implemented strategies to improve tracheostomy care; collaborated with nine local health districts/primary health alliances to support implementation of the Building Partnerships Framework; and developed *High Risk Foot Standards* to promote a multi-disciplinary approach to the management of the high risk foot. At June 2015, Phase one of the High Risk Foot Service self-assessments was completed, with 18 sites in eight local health districts and St Vincent's Health Network participating.
- > HealthShare NSW introduced improved, nutritionally-compliant menus at 97 hospitals. Remaining Sydney hospitals will go live during 2015. The menus improve patients' hospital experience and better support nutrition outcomes.
- > The evaluation of the TOP 5 program for hospitalised patients with dementia in 21 sites was shown to be effective in improving patient safety, personalised care and staff satisfaction. The report and journal article highlighting outcomes were both released in April 2015.
- > The Clinical Excellence Commission updated its existing databases and developed new databases including National Safety and Quality Healthcare Standards, Blood Watch and Death Review; in collaboration with the NSW Ministry of Health, developed and reviewed quality and safety measures and in collaboration with NSW Kids and Families, and based on feedback from the local health districts and specialty health networks, updated and released the *Standard Newborn Observation Chart*, *Standard Maternity Observation Chart* and the *Adult and Paediatric Emergency Department Observation Charts* and *Emergency Care Institute*.
- > In late 2014, the CEC SEPSIS KILLS database was upgraded to enable hospital data collection and chart generation for the inpatient sepsis program. Over 23,000 cases have now been reported in the SEPSIS KILLS database. Emergency departments continue to perform well regarding time to administration of antibiotics, with the median time remaining under the target of 60 minutes.
- > The NSW Ministry of Health harnessed strong working relationships with local health districts, specialty health networks and pillar chief executives and their boards to ensure effective implementation of the NSW Health Performance Framework. The number of health services on performance Level 3 (serious underperformance) reduced significantly from four to one.
- > Focus has continued on ensuring the 2015-16 Service Agreement process was completed with transparency, timeliness and coordination across the NSW Ministry of Health and pillar organisations.

CASE STUDY: MID NORTH COAST LOCAL HEALTH DISTRICT

Vertebrae fractures: rural management adaptations



Overview

After feedback from patients and staff from multiple disciplines on dissatisfaction with the current standard of care of patients who sustain vertebrae fractures, 24 stakeholder groups collaborated to identify actual and potential deficits gaps.

Key activities

Early transfer of patients with vertebrae fractures was the norm, incurring substantial costs as well as adding emotional and financial strain to the patient and their family.

A range of multifaceted solutions were implemented, including product and process standardisation, formal education and enhanced clinical governance.

Outcome

Patients are now managed in rural/low care centres by competent, trained staff with clear management plans. Compliance and satisfaction for both patients and staff has increased and patient safety and quality has been optimised.

This outcome has been achieved by close collaboration and teamwork between clinical and management staff, product consultants, patients and their families.

This project received the Collaborative Team Award at the 2014 NSW Health Awards.

This project continues to achieve excellent results and is now implemented across the LHD.

D2.4 Maintaining a continued focus on quality and safety

To help clinicians recognise and rapidly respond to the needs of patients and continue to develop programs that reduce infection rates in hospitals.

Key achievements

- > In 2014-15, there were 90 hospitals assessed against the National Safety and Quality Health Service Standards with 90 per cent successfully accredited and 10 per cent awaiting final accreditation results.
- > Since Between the Flags program was introduced in 2010, the Rapid Response rate (a process measure of the recognition of the deteriorating patient) has increased by 135.9 per cent and the cardiac arrest rate (an outcome measure) has decreased by 42.0 per cent in NSW, compared to the baseline period. Based on this reduction, it is estimated that there have been 2170 fewer unexpected cardiac arrests in NSW public hospitals than would have been predicted based on the previous trend.
- > The Clinical Excellence Commission:
 - in collaboration with eHealth NSW, developed and embedded the electronic Between the Flags observation charts and electronic Clinical Review and Rapid Response forms in to Electronic Medical Record Phase Two
 - piloted a 5x5 Antimicrobial Audit in 15 sites between May 2014 and April 2015. Following positive evaluation, the package will be launched system-wide by the commission in September 2015
 - responded to the potential infection risks of Viral Haemorrhagic Fever (Ebola) to NSW Health staff by producing and distributing education resources on the safe use of personal protective equipment in collaboration with the Ministry.
- > In collaboration with eHealth NSW and Western Sydney LHD, an electronic 'Sepsis Alert' was piloted at Blacktown Hospital in early 2015 to support sepsis risk screening. Over 8000 staff have completed two HETI Online eLearning modules which raise awareness of sepsis and the SEPSIS KILLS program.
- > Staphylococcus aureus bacteraemia reported rates in NSW have remained below the Council of Australian Governments agreed benchmark of 2.0 per 10,000 bed days, with an average rate of 0.78 per 10,000 bed days (as at June 2015).
- > Hand hygiene rate continues to improve. In June 2015 the compliance rate was 84.1 per cent. NSW continues to have the highest rates in Australia.
- > Long Bay Hospital achieved 96 per cent hand hygiene compliance in 2014-15, representing a notable increase from 89 per cent observed last financial year.
- > Pathology NSW worked with NSW Health clinical streams to introduce:
 - a single adult and an age-related paediatric reference interval for commonly ordered chemical pathology tests
 - a changeover of reporting units for commonly ordered therapeutic drugs to reduce the chance of misinterpretation of concentrations
 - structured reporting templates for anatomical pathology results related to cancer cases to enhance thoroughness of reports to clinical teams.
- > Healthshare NSW linen service delivered 100 per cent of orders accurately and improved business efficiency through energy efficient washers, dryers, lighting, safety-optimised trucks and customer dashboards. New innovative textile products for operating theatres were also rolled out.
- > The Bureau of Health Information:
 - developed a new measure that focused on returns to acute care in NSW public hospitals for seven common clinical conditions and procedures
 - published two volumes of Patient Perspectives reports, building on questions from the NSW patient surveys which explored aspects of integration for emergency department patients and admitted patients in NSW public hospitals.

CASE STUDY: HUNTER NEW ENGLAND LOCAL HEALTH DISTRICT



Safe benzodiazepine guideline for elderly inpatients

Overview

Benzodiazepines are a class of medications that are commonly used and misused in the elderly. This is despite benzodiazepines being well known to cause falls, cognitive impairment and delirium. A team of junior doctors led a multidisciplinary effort to reduce the misuse of benzodiazepines in elderly people admitted to hospital.

Through collaboration between junior medical personnel, nursing staff, allied health and administrative staff, the project aimed to:

- identify the extent of benzodiazepine prescription (for acute insomnia) within the district
- assess the appropriateness of prescribing benzodiazepines to inpatients over the age of 65
- provide guidance to staff about the risk of harm to patients associated with benzodiazepine use
- reassess and establish positive change.

Key activities

With high demand for sleeping tablets on the evening ward shift, the project committee feared adverse effects were often overlooked.

Using a retrospective audit as the main assessment tool, the project committee identified a clear lack of literature and hospital policy.

The project streamlined communication and collaboration with clinical and non-clinical staff, and built close ties with university students looking to help develop quality improvement projects.

Outcome

Year on year, appropriate benzodiazepine prescriptions for insomnia improved from 30 per cent to 66 per cent.

Falls within John Hunter Hospital reduced from 177 (May and July 2013) to 156 falls (April to June in 2014), a reduction of 11.9 per cent.

This project generated statewide interest in the promotion of good sleep for inpatients and developed a guideline to limit the harm caused by benzodiazepines.

This project was a finalist in the 2014 NSW Health Awards.

CASE STUDY: SYDNEY CHILDREN'S HOSPITALS NETWORK



Paediatric bereavement the experience of families

Overview

The Department of Pain Medicine and Palliative Care developed an online bereavement resource to support the delivery of education to health professionals caring for families.

Bereaved families can be reluctant to use support services based at the hospital because of the painful memories associated with this environment. The lack of information and education available for health professionals caring for children and their families can increase isolation following the death of a child, which is a risk factor of complicated grief and may result in poorer outcomes in bereavement. To address this risk, an innovative and original online resource was developed.

Key activities

Bereaved family members were invited to participate in professionally-led filmed interviews to reflect on their experience of caring for a child with a life-limiting illness and bereavement. Written information was provided to participants outlining the purpose of the project prior to them granting consent.

Outcome

Using a collaborative approach with families and appropriate recruitment, consent and facilitation, a valuable resource was developed using the experiences of the bereaved families to educate health care professionals in bereavement work.

Evaluation identified that 76 per cent of health professionals improved their knowledge about grief and loss after viewing the online resource. Videos have been accessed across Australia and worldwide including Iran, Ireland, Singapore, North America and Ukraine.

The resource has been promoted throughout paediatric tertiary hospitals and other health services that support bereaved family members.

This project was a finalist in the 2014 NSW Health Awards.

D2.5 Listen to our patients

To improve the patient's health care experience and outcomes and encourage responsive and empathic nursing practice.

Key achievements

- > The Bureau of Health Information:
 - In 2014-15 up to 203,000 patients were surveyed about their care experience. These included 8000 patients in small facilities, 6000 in maternity units, 86,000 in emergency departments, 75,000 admitted patients, 20,000 children and 6000 using outpatient cancer services
 - created a new series, *Snapshot Report*, to summarise key results from the NSW Patient Survey Program
 - published two volumes of *Patient Perspectives* reports providing in-depth analyses of results from NSW patient surveys
 - increased the data available on the online data portal, Healthcare Observer, to include patients' experience of care in the emergency department and added new features to enable users to make comparisons between local health districts and peer groups
 - hosted international guests from the Organisation for Economic Co-operation and Development and the National Health Service in the United Kingdom. The Bureau was also invited to support the revision of Canada's support organisations for health reporting and visited other state agencies in Australia, to discuss health performance reporting.
 - > Within the Integrated Care Program, the Agency for Clinical Innovation is piloting solutions to evaluate Patient Reported Measures. Several local health districts are trialling Patient Reported Measure solutions, which are designed to capture real-time feedback on patient experiences and outcomes using computerised surveys.
 - > HealthShare NSW worked with industry experts, major food companies and groups such as Arthritis Australia and Georgia Tech Research Institute on the Food Packaging Improvement Project to develop specifications to improve accessibility of hospital food packaging. The specifications developed are now used by more than two thirds of suppliers to NSW Health and other entities.
 - > The In Safe Hands Program continued to be implemented across the state. The interdisciplinary team building program has been implemented at over 60 health units. The Clinical Excellence Commission is supporting these health units by providing advice and tools and resources to assist them to implement the program.
 - > Fourteen local health districts and two specialty health networks have taken up the Clinical Excellence Commission's Patient Based Care Challenge. The Challenge encourages health services to increase consumer engagement to improve patient and staff experience, clinical outcomes and the use of resources. By February 2015, an average of 18 strategies were implemented, per local health district..
 - > The Patient Experience Symposium was held in April 2015. Over 400 clinicians, consumers and managers participated in sessions that highlighted new initiatives from across the State and internationally.
 - > The Essentials of Care framework is now included in undergraduate nursing programs at participating universities in NSW. Improvements made in participating units across the state include:
 - a reduction in pressure areas by 58 per cent
 - a reduction in falls by 55 per cent
 - a reduction in aggressive incidents (mental health units) by 80 per cent
 - a decrease in patient complaints by 58 per cent.
-

DIRECTION 3

Delivering truly integrated care

Overview

Delivering the right care, in the right place, at the right time relies on a connected health system that is organised around the needs of the patient. A system that the patient and their carers can easily navigate, and one that leads to improved health care experiences, avoids duplicate tests and unplanned hospitalisations, while ensuring patients don't 'fall between the cracks' of the myriad of programs across the public and private sectors.

Integrated care involves the provision of seamless, effective and efficient care for an individual across different providers and funding streams. It ranges from prevention and early intervention through to end of life, across physical and mental health in partnership with the individual, their carers and family.

While helping provide better care for patients, it also bolsters capacity to reduce unnecessary and costly emergency department presentations and hospitalisations to create a more financially sustainable health system for the future.

Challenges

The challenge is to deliver seamless, effective and efficient care systematically and sustainably across the health system to those who need it most, the people with complex, chronic conditions.

What NSW is doing

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

- empowering patients to be partners in their care
- supporting strategic, targeted investments in new models of integrated care
- investing in enablers to inform and support delivery of the integrated care strategy
- strengthening partnerships with the primary and community care sectors for a seamless care experience
- aligning financial incentives and performance
- scaling up, rolling out and embedding successful initiatives across NSW.

Highlights

1.3 million hospital discharge and 2.2 million community health event summaries available in HealtheNet



992 Aboriginal patients received chronic disease screenings at 32 custodial sites, an increase of 330 patients on last financial year



Three local health district Integrated Demonstrators established



Total government commitment of \$180 million over six years for integrated care



Since 2013, approximately 2400 Last Days of Life Home Support Packages have been delivered to patients and their families



\$1.8 million to establish two LikeMind pilot sites in Western Sydney and Nepean Blue Mountains Local Health Districts



D3.1 Empowering patients to be partners in their care

To develop strategies and initiatives that help patients and their carers navigate the health system.

Key achievements

- > eHealth NSW continued to enhance HealtheNet functionality by increasing availability and scope of clinical documentation sent to the national Personally Controlled Electronic Health Record.
- > As at June 2015, 1.3 million local health district hospital discharge summaries and 2.2 million community health event summaries were available via HealtheNet enabling better continuity to deliver the best care.
- > The Clinical Excellence Commission continued to implement the Partnering With Patients program to work with consumers and health services to empower partnership and promote a range of methods for gaining feedback about patient experience to drive quality improvement.
- > The TOP 5 initiative was implemented in 21 hospitals by the Clinical Excellence Commission to improve clinician-carer communication and assist with transfers of care for patients with dementia. Program evaluation showed the initiative is effective for improving patient safety, personalised care and staff satisfaction. The evaluation report was released in April 2015 and is available on the Commission's website.
- > Using a co-design approach, the Agency for Clinical Innovation Patient Experience and Consumer Engagement Team and the Agency's Consumer Council developed the Agency for Clinical Innovation's *Patient Experience and Consumer Engagement: A Framework for Action*. This framework provides information and strategies to facilitate meaningful consumer engagement.
- > The Agency for Clinical Innovation designed the Intellectual Disability Hospitalisation Co-design Project to capture and understand patient, family and staff experiences of hospitalisation and identify and organise themes for quality improvement.

CASE STUDY: WESTERN NSW LOCAL HEALTH DISTRICT

Yanagagi Numbadil Nurbul: Walking together in friendship



Overview

Bathurst Health Service was one of eight NSW hospitals to participate in the Aboriginal Identification Hospital Quality Improvement Project. The goal was to improve the patient journey for Aboriginal people attending the emergency department, review why Aboriginal patients did not wait, left at their own risk or discharged against medical advice.

Key activities

A steering committee of local stakeholders, including members of the local Aboriginal community, was established.

Innovative approaches included a cultural and environmental scan focused on partnering with patients to ascertain cultural responsiveness and awareness of the facility. Focus areas identified in the findings included cultural history sustainability, clinical pathways and patient journey experience.

A reconciliation event and NAIDOC celebrations were held. Vital links were established with key stakeholders providing opportunities for networking and information sharing, connecting care, resources and funding.

Outcome

Partnering with the Aboriginal community and other stakeholders was key to enabling sustainable outcomes, gaining community trust and support and 'changing the way we do business'.

Eighty per cent of staff viewed the Aboriginal identification training DVD and completed the surveys. Through education, orientation for staff (including medical officers), an increased presence of Aboriginal Health Workers and an increased awareness of the services available for Aboriginal clients, staff confidence in asking all patients who present to hospital about Aboriginality has increased. This has resulted in a:

- 84 per cent increase in the number of patients who received follow up care
- 35 per cent reduction in patients who did not wait or left against medical advice.

This project was a finalist in the 2014 NSW Health Awards.

D3.2 Supporting strategic, targeted investments in new models of integrated care

To develop and test system-wide approaches to integrated care and provide funding to develop innovative integrated care projects at the local level.

Key achievements

- > NSW Health has established three local health district Integrated Care Demonstrators at Western Sydney, Central Coast and Western NSW Local Health Districts. These are currently in the early stages of implementing their approaches to integrated care in partnership with primary care and other health and social agencies. A robust monitoring and evaluation framework is in place to ensure outcomes are achieved.
- > Funding has been provided from the Planning and Innovation Fund to 17 local health districts and specialty health networks to implement their own discrete integrated care projects. These projects are being developed in partnership with primary care and other health and social agencies.
- > eHealth NSW supported Integrated Care Demonstrator sites to implement the pilots of Shared Care Planning tools. These tools facilitate the sharing of information between health care providers and enable patients to actively participate in the development and management of shared care action plans.
- > eHealth NSW is working with the NSW Ministry of Health, Agency for Clinical Innovation and the Integrated Care Demonstrators to deliver statewide strategic e-enabler investments across NSW Health information technology infrastructure.
- > There has been continued development of the Activity Based Management Portal as well as additional Portal applications to aid NSW Health staff in the management of the health care system on an activity basis.
- > There has been continued provision of support to clinicians in using the Activity Based Management tools to discover insights into clinical practices through benchmarking, investigating models of care to improve patient care and deliver patient outcomes.

CASE STUDY: SOUTH WESTERN SYDNEY LOCAL HEALTH DISTRICT

A framework for ensuring Aboriginal health is a priority for SWSLHD hospitals



Overview

The South Western Sydney Local Health District established a framework to make sure Aboriginal Health is a priority across the service.

Key activities

The framework aims to improve service responsiveness for Aboriginal patients. Aboriginal health forums have been established at the District's three largest hospitals. An Aboriginal health key performance indicator (KPI) dashboard has also been implemented across the District and all facilities report against these KPIs.

The forums convene regularly and bring together hospital executive, Aboriginal staff and relevant community stakeholders to develop strategies and improve hospital services for Aboriginal patients and their families.

The KPI dashboard facilitates reporting and data gathering and provides an opportunity to identify where performance can be improved.

Outcome

As a result of the framework, Aboriginal health is high on the organisational agenda.

The forums have also progressed several initiatives over the past year including:

- expansion of the Aboriginal Liaison Officer (ALO) workforce
- cultural spaces within facilities
- better ENT (Ear, Nose and Throat) referral pathways for Tharawal Aboriginal Medical Service patients at Campbelltown Hospital
- cardiologist outreach services from Liverpool Hospital
- Tharawal Aboriginal Medical Service GP outreach service in Bowral Hospital
- redevelopment of the 48 hour follow up and Aboriginal chronic care referral pathway.

This project received the Performance Monitoring, Management and Accountability Award at the 2014 Aboriginal Health Awards.

D3.3 Investing in enablers to inform and support delivery of the integrated care strategy

To continue to link state and Commonwealth funded services data to help patients and clinicians access the information they need when and where they need it.

Key achievements

- > HealthNet is now connected to all local health districts to enable health care providers to access up-to-date patient information from the Electronic Medical Record which integrates into the national Personally Controlled Electronic Health Record to provide a holistic vision of patient health information.
- > A statewide telehealth solution has been implemented to support public health, university, and in-patient home telehealth solutions. Achievements to date include video conferencing management system consolidation for five health agencies, foundation email messaging services for nine local health districts and collaboration systems for six health agencies.
- > The Agency for Clinical Innovation completed and disseminated two literature reviews to provide clinical indicators and performance information evidence to support effective risk stratification of patients who could benefit from integrated care.
- > The Agency for Clinical Innovation worked with the Integrated Care Demonstrator sites to provide support in relation to risk stratification and patient selection, alignment with Chronic Disease models and related initiatives (such as clinical pathways processes) that support integrated care.
- > Primary Health Networks were established on 1 July 2015. The NSW Ministry of Health is currently engaging with the new Primary Health Networks and the Commonwealth to understand data linkage and data sharing requirements, and to ensure that engagement with Networks support achievement of shared Commonwealth and State objectives, in particular, increasing the efficiency and effectiveness of medical services and improving coordination of care for patients.

CASE STUDY: HUNTER NEW ENGLAND LOCAL HEALTH DISTRICT

Vaxtracker for National Vaccine Safety Surveillance Project



Overview

In 2010, use of the seasonal trivalent influenza vaccine in children under five years was halted nationally after unexpectedly high numbers of children experienced febrile convulsions following vaccination. This project aimed to develop and pilot an online real-time post marketing vaccine monitoring system, designed to detect adverse events possibly associated with vaccination.

Key activities

A web-based program called Vaxtracker was developed which asked parents/carers of newly vaccinated children to complete two online surveys to provide information on adverse events following immunisation.

In 2014, Vaxtracker became part of the national AusVaxSafety network. Vaxtracker is now used by general practices within the Hunter New England, South Eastern Sydney and Western Sydney local health districts, the Sydney Children's Hospitals Network and general practices in Victoria.

Outcome

Vaxtracker is an innovative web-based program providing Australia's first active vaccine post marketing safety surveillance and offers efficiency over telephoning individual vaccine recipients. Vaxtracker data uniquely enables adverse event rates to be calculated. Any safety signals detected by Vaxtracker are alerted to the Therapeutic Goods Administration.

Vaxtracker can be adapted to any vaccine and was used for the new measles, mumps, rubella and chickenpox (MMRV) vaccine, introduced in July 2013 for 18 month old children.

In 2014, data collected using the Vaxtracker program demonstrated the safety of the current influenza vaccine recommended for children aged six months to five years.

Having the Vaxtracker vaccine safety data available on the web will help inform parents and improve consumer confidence in vaccines.

This project was a finalist in the 2014 NSW Health Awards.

D3.4 Strengthening partnerships with the primary and community care sectors for a seamless care experience

To promote local health pathways that standardise and simplify referrals for GPs, hospitals and community health providers for better patient access to services.

Key achievements

> The Agency for Clinical Innovation is evaluating the pain management model of care implemented under the NSW Pain Management Plan. Evaluation will draw on data from the electronic Persistent Pain Outcomes Collaboration established in 21 NSW Health sites and managed by the University of Wollongong.

> The Musculoskeletal Primary Health Initiative supported delivery of the Agency for Clinical Innovation's Osteoarthritis Chronic Care and Osteoporotic Refracture Prevention Programs in primary health settings, to evaluate whether these models of care can be effectively delivered through general practices.

> The Agency for Clinical Innovation established the Primary Health Initiative in Wagga Wagga, Coffs Harbour/Port Macquarie and North Sydney. A fourth trial is currently planned for Broken Hill.

> In 2014 the NSW Mental Health Commission submitted a ten year roadmap for strengthening mental health care in NSW, *Living Well: A Strategic Plan for Mental Health in NSW 2014-2024*, which the Government accepted announcing \$115 million to 2016-17 to commence implementation.

As part of Mental Health Reform 2014-2024 the Government has committed to deliver on the following key directions:

- Strengthening prevention and early intervention – with a stronger focus on services for children and young people.
- A greater focus on community based care – including providing more community based services and a phased transition of long-stay patients in mental health facilities into safe community care.
- Developing a more responsive system – through improved specialist services for people with complex needs such as borderline personality disorders and those in hospital with physical health care needs.
- Working together to deliver person-centred care – including better integration between mental health services, mainstream health, justice and human services, and Australian Government funded services.
- Building a better system – including by developing the mental health workforce, establishing an evidence base and research to support improvement, improving engagement with families and carers, growing and supporting a peer workforce, and increasing NGO capacity to deliver services for Government.

> In February 2015, funding of \$250,000 was allocated under the NSW Government response to *Living Well: A Strategic Plan for Mental Health in NSW 2014-2024*, to support the delivery of Mental Health First Aid training to community based youth workers in rural and regional areas. Wesley Mission was contracted to deliver this evidence based training. The training has been successfully delivered to over 350 people (130 per cent of original target number) to support the delivery of Mental Health First Aid and facilitate referral to appropriate care for mental health.

CASE STUDY: SYDNEY LOCAL HEALTH DISTRICT

Holistic health for mental health clients

Overview

The General Practitioner (GP) Clinic, co-located with the Mental Health Community Centre, aims to screen, assess and treat physical health problems of clients who do not otherwise have a GP.

This initiative increases community access to GPs, psychiatrists, clinical psychologists and other allied mental health professionals for mental health care.

Key activities

The functional, funding, legal and administrative model for this clinic required innovation.

Sydney Local Health District provided the infrastructure, including use of a consultation room, medical equipment, nursing and administrative support. Inner West Sydney Medicare Local provided support for practice management and information systems.

The introduction of a GP clinical nurse from Sydney Local Health District enhanced the communication between the GP and mental health clinicians.

Outcome

The co-located GP Clinic has cared for over 100 consumers who had not seen a GP in the last 12 to 18 months.

The close working partnership between the GP Clinic and Marrickville Community Mental Health Service resulted in earlier detection and intervention of physical health problems, improved care coordination and increased access to a range of health services and preventive health interventions.

This project received the Minister for Mental Health Award for Excellence in the Provision of Mental Health Services and the People's Choice Award at the 2014 NSW Health Awards.



- > The NSW Government response to *Living Well: A Strategic Plan for Mental Health in NSW 2014-2024* includes the statewide expansion of a successful community living support program for young people with severe mental illness. The program is delivered by the non-government sector in partnership with local mental health services. The community living support for young people with serious mental illness expanded to an additional four local health district sites (Nepean Blue Mountains, South Western Sydney, Hunter New England and Northern NSW), building on the highly successful, independently-evaluated Young People's Outreach Program (Y-POP) delivered in Western Sydney Local Health District. The independent evaluation of Y-POP found an 80 per cent reduction in the amount of time spent in hospital by clients after entry to the program. New sites are due to commence operations in the second half of 2015.
- > In 2014-15, the Justice Health & Forensic Mental Health Network:

 - diverted 2605 adults and adolescents with mental illness from custody into appropriate care in the community, representing an almost eight per cent increase from last financial year
 - managed the continuity of care for 560 young people with mental health and/or drug and alcohol concerns leaving custody, representing a 23 per cent increase from last financial year, through the Network's Community Integration team. Over 52 per cent of those assisted were Aboriginal
 - continued to engage and collaborate with the Aboriginal Community Controlled Health Sector to improve the availability, accessibility and quality of holistic, comprehensive, culturally safe and appropriate health care
 - established a formal partnership through a memorandum of understanding with Maari Ma Medical Aboriginal Corporation to support release planning for Aboriginal patients from the Broken Hill Correctional Centre
 - Adolescent Court and Community team commenced a formal clinical redesign project to identify strategies to improve efficiencies and increase referral rates, including the potential use of audio visual link, diversion directly from custody and the placement of Adolescent Court and Community team clinicians within the courts.
- > NSW Ambulance initiated a number of key clinical and demand management programs focused on improving the integration and connectedness with health and social service providers, Medicare Locals (now Primary Health Networks) and non-government organisations across the state.
- > The \$1.8 million *LikeMind* pilot is a non-government organisation led, co-located and integrated service for people with moderate to severe mental illness. It was established in Penrith and Seven Hills to provide one-stop shops in which an individual's needs may be holistically responded to including mental health, drug and alcohol, physical health and psychosocial needs.
- > *Mothers with Mental Illness and their Children*, branded as *Mums and Kids Matter*, is one of three projects funded to June 2016 under the National Partnership Agreement on Supporting National Mental Health Reform. The Program contributes essential components of the current NSW Perinatal and Infant Mental Health service system in providing care in mental health for mothers and their young children (0-5 years) in NSW. This statewide program provides services and brokerage to reduce separation of mothers with mental illness from their children, while the mothers receive specialist health care. This innovative new program is run in the community and managed by Wesley Mission, with support provided through linkages with government agencies, and other key stakeholders to improve care coordination for mothers with severe and complex mental health needs and their young children.
- > Keep Them Safe Whole Family Teams, funded under the Keep Them Safe Initiative until June 2016, provided specialist clinical mental health and drug and alcohol in-home and community based interventions in the Lismore, Newcastle, Nowra and Gosford regions. The service is for children and families with complex mental health and drug and alcohol issues where the children have been identified at risk of significant harm. An independent evaluation of Keep Them Safe Whole Family Teams indicated that the program was highly successful in improving child safety and demonstrated clinically significant improvements in parental mental health, substance misuse, family functioning, parenting and child wellbeing, with a reduction of 58.4 per cent in the rate of risk of significant harm reports.
- > Getting on Track in Time – *Got It!* an evidence based clinical mental health program, also funded under the Keep Them Safe Initiative until June 2016, delivered school-based mental health indicated intervention for children in kindergarten to year two who display emerging conduct problems. Got It! is delivered by specialist multidisciplinary Child and Adolescent Mental Health Service clinicians in schools and in partnership with education staff in Dubbo, Newcastle and Mt Druitt. The program is designed to reduce the frequency and severity of disruptive behaviours to ultimately reduce the incidence of conduct disorder among children.
- > The Project Air Strategy for personality disorders was launched in January 2015 and is being implemented statewide, over five years. This Project Air model of care provides services for people with personality disorders by developing new service pathways and providing specialist training for mental health, drug and alcohol and emergency department clinicians to diagnose and respond to the needs of people with personality disorders. The Project Air Strategy also provides targeted education programs for consumers, families and carers.

D3.5 Aligning financial incentives and performance

To adapt NSW Health's Activity Based Funding model to support integrated care and encourage care in alternative settings.

Key achievements

- > The Justice Health & Forensic Mental Health Network worked closely with the Activity Based Funding Taskforce and the Mental Health and Drug and Alcohol Office to ensure the accuracy of its collection activity for the Mental Health Costing Study. This project was sponsored by the Independent Hospital Pricing Authority to develop a contemporary activity based purchasing and funding model for NSW mental health services.
- > The Integrated Care Demonstrator sites are currently designing and planning new funding arrangements to support their individual integrated care initiatives. NSW Health is also assessing evidence from recent trials (e.g. Diabetes Care Project) as well as contributing to the Commonwealth Government's Healthier Medicare initiative which aims to improve health financing in primary care, and to better support coordinated care.
- > Local health districts and specialty health networks have been provided with the capacity to view and analyse the patient journey and the integration of care across all the hospital settings (emergency department, acute, non-admitted, sub and non-acute).
- > The scope of the NSW funding model has been extended to incorporate non-admitted services practised outside hospitals including home-delivered care and community health services.
- > There are a range of federal initiatives that have potential to change funding and health service delivery models within NSW. These include the Commonwealth Government's intention to cease the National Reform Agreement in 2017-18, the Reform of the Federation process, the Commonwealth review of Medicare Benefits Scheme items and Primary Care, and the creation of Primary Health Networks.

CASE STUDY: WESTERN NSW LOCAL HEALTH DISTRICT

Breaking down silos through integrated care project

Overview

The Healthy Kids Bus Stop Project is a community-based integrated care partnership between Royal Far West, Western NSW Local Health District, Western NSW Medicare Local and Ronald McDonald House Charities to address the gaps in child health needs in rural NSW.

Clinical expertise provided by the four key partners effectively changed the methodology from silo to integrated service delivery and the wider community supported the initiative.

Key activities

The project team set out to address rural inequity and service gaps. The project provides an interactive 'whole of child' health screening and care pathway program targeting children aged 3-5 years old.

The screening component provided a multi-agency, multi-disciplinary approach to a 'whole of child' assessment. This was followed by a case conference that identified a care pathway for every child that was seamless and efficient.

A key element to the success of the project was using local service providers, including the child's GP as the foundation, enhanced by regionally sourced paediatric specialists to create a specialised team.

Outcome

The pilot assessed 65 children, with 91 per cent identified as having health or developmental concerns, resulting in 122 referrals into the partner agencies.

A review after six months showed that the majority of local referrals had been followed up. Thirteen of the 17 children referred to Royal Far West had been assessed and diagnosed within five weeks from the point of referral. Some significant developmental concerns were identified including the early identification of a child with severe autism.

This project was a finalist in the 2014 NSW Health Awards.



D3.6 Monitoring, evaluating and seeking feedback to guide improvement

To establish a robust evaluation program to understand which aspects of the *Integrated Care Strategy* are making a difference.

Key achievements

- > eHealth NSW continued to support the statewide Enterprise Data Warehouse, which is a source of key performance information for the system.
- > eHealth supported the development of a new Analytics Strategy for NSW Health to deliver new data management capabilities and reporting tools for use across NSW Health.
- > A total of 9470 surveys were completed across NSW during 2014-15 using Patient Experience Trackers. These trackers are small electronic hand held devices used to collect patient, family and staff feedback at the point of care.
- > Bureau of Health Information published 12 reports on different aspects of performance including:
 - improving the analytic capacity in the Bureau of Health Information's *Hospital Quarterly* reporting series
 - a new report on the rate of unplanned return to acute care
 - reports on the perspectives of patients gathered from the NSW Patient Survey Program. Full results from the NSW Patient Survey Program are publicly available on the Bureau of Health Information online data portal, Healthcare Observer.
- > Bureau of Health Information worked collaboratively with the Cancer Institute NSW to publish a new report in the *Insights Series* looking at emergency department utilisation by people with cancer.
- > Robust evaluation and monitoring is underway for the Integrated Care Demonstrators and the Innovators, with a focus on continuous improvement in the program.
- > Service Agreements between NSW Health and local health districts and speciality health networks now include integrated care. Specific performance indicators are being developed and trialled with the Demonstrators to be rolled out to the Innovators once finalised.

CASE STUDY: NSW AMBULANCE

Today is the day that we make tomorrow different



Overview

During 2013, staff from around the state provided feedback on how NSW Ambulance should operate to ensure the best care can be delivered to patients. This information was used to form a new vision for NSW Ambulance, to be no longer only an emergency transport service but to be positioned firmly as an emergency mobile health service.

Key activities

NSW Ambulance's case load has changed with 40 per cent of cases considered low acuity; 50 per cent considered urgent but not life-threatening; and 10 per cent relate to potentially life-threatening situations.

Rather than a one-size-fits-all treat and transport model that takes every patient to a hospital, NSW Ambulance takes the appropriate health care to patients, responding and focusing on the right care, for the patient, in the right way, in the right place and at the right time, to free up resources and demand on emergency departments.

The model includes engaging community first responders and collaborating with primary care partners.

Outcome

The four domains of patient care – emergency, urgent/unscheduled, health system support and community support – ensure a tailored approach specific to the needs of each patient.

Results are highlighted by the Frequent User Management program, an initiative from the urgent/unscheduled patient care domain. By coordinating the health care needs of 35 patients monitored under the Frequent Users Management program, calls to Triple Zero (000) by these patients, were halved during the first quarter. This has also indirectly benefitted other patients by freeing up emergency ambulances for those who need them most.

This project received the Integrated Healthcare Award at the 2014 NSW Health Awards.

D3.7 Scaling up, rolling out and embedding successful programs across NSW

To look at locally developed models that can be rolled out system-wide to support better integration of care for patients.

Key achievements

- > The NSW Health Awards each year highlight innovative projects from all NSW Health organisations. Judging for the Awards includes the potential to which the project can, or has been, spread to other units/areas. The Minister for Health Award in 2014 went to Orange Hospital. This start up project introduced a new way to involve the patient at the centre of care with the whole treating team collaborating in ward rounds. This Structured Interdisciplinary Bedside Round approach has now spread to 81 sites across NSW with a further 25 in implementation.
- > The Clinical Excellence Commission evaluated the TOP 5 initiative for hospitalised patients with dementia in 21 hospitals and found that a model developed by the Central Coast Local Health District had broader applicability system-wide. A second evaluation of the use of TOP 5 in transfers of care is underway.
- > Six policy related documents on barcode scanning in hospital pharmacies, patient identification bands, open disclosure, clinical procedure safety, prevention of venous thromboembolism and principles for managing disturbed and/or aggressive behaviour were released by the Clinical Excellence Commission.
- > The Agency for Clinical Innovation, in partnership with NSW Ambulance and local health districts has successfully implemented the State Cardiac Reperfusion Strategy across NSW, giving patients with suspected heart attacks that may benefit from early reperfusion definitive care in the shortest possible time.
- > The ongoing monitoring and evaluation of the Integrated Care Demonstrators will highlight key areas for scaling up and rolling out a system-wide approach to integrated care. Existing programs such as the Chronic Disease Management Program are being rolled into integrated care and will be aligned with components of integrated care. Several activities are underway to support learning and spread of knowledge across the system, for example:
 - education on specific areas related to integrated care
 - monthly teleconferences for all integrated care project teams to hear updates on progress from the central agencies and share knowledge
 - integrated care workshops.
- > The NSW Government has now allocated \$180 million over six years to support integrated care. This includes supporting local health districts develop partnerships which allow patients to access a seamless range of health care services, whether it be hospital treatment or community based primary health care services provided by general practitioners, pharmacists, allied health professionals, other non-government organisations or private providers.

CASE STUDY: ST VINCENT'S HEALTH NETWORK AND AGENCY FOR CLINICAL INNOVATION

Successful and innovative evidence translation



Overview

The Quality in Acute Stroke Care trial showed that supported implementation of clinical protocols to manage fever, sugar and swallowing dysfunction (FeSS clinical protocols) for 72-hours following stroke: decreased death and dependency by 16 per cent; significantly improved fever, glucose and swallowing management; and decreased length of stay by two days.

St Vincent's Health Network partnered with the NSW Agency for Clinical Innovation (ACI), 15 local health districts, clinicians and the National Stroke Foundation to implement these FeSS clinical protocols in all 36 NSW stroke services.

Key activities

The Quality in Acute Stroke Care Implementation Project established a model to support translational activities at the local level and rapid translation of evidence to practice.

Outcome

This was a landmark translational project that achieved better service delivery by providing multidisciplinary clinician education, barrier assessments and clinical champion support.

Results showed significantly improved service outcomes across the state. Namely, an increased proportion of patients received care according to the FeSS clinical protocols. These findings are clinically important as the original trial demonstrated the association between improvements in these service outcomes and decreased death and dependency for stroke patients.

This project was a finalist at the 2014 NSW Health Awards.

STRATEGY 1

Supporting and developing our workforce

Overview

Investing in the NSW Health workforce and respecting and valuing the contributions of the staff and many others who volunteer their services is key to delivering high quality patient-centred models of care now, and into the future.

The *Health Professionals Workforce Plan 2012-2022* outlines how all NSW Health organisations plan to recruit, train, educate and innovate over the next decade while the Health Education and Training Institute helps to drive skills and leadership development across the state. With a continued focus on the NSW Health CORE values of collaboration, openness, respect and empowerment, local health districts and specialty health networks will improve local workforce planning on staff levels and skill mix, with initiatives targeting regional and rural communities.

Challenges

Health systems have traditionally been designed around the institutions that deliver services rather than the populations they serve. More of the same is no longer the answer. In the modern health landscape, powerful drivers are at odds with traditional approaches including:

- impending workforce shortages combined with an ageing population, means that it will not be possible to meet forecast workforce growth based on current health service patterns and models of care
- geographic maldistribution of the health professional workforce, exacerbated by the spread of NSW's population over greater geographic areas, means that access to care is impacted in regional and remote areas
- the expected government spending on health will nearly double between 2010 and 2050, based on current approaches, calling into question the future affordability of health care if nothing changes
- specialisation of health care professionals has been increasing steadily, yet chronic and complex patient presentation is requiring more holistic and generalist models of care.

What NSW is doing

To help strengthen and support the workforce, funding of \$12.4 million was provided in 2014-15 to support strategies within the Health Professionals Workforce Plan, with a range of initiatives to:

- improve workplace culture
- ensure our workforce has the right people, with the right skills, in the right place
- support and inspire our workforce.

Highlights

1800 additional medical practitioners (full time equivalents) since March 2011



4200 additional nurses/midwives (full time equivalents) since March 2011



375 Nursing/Midwifery Unit Managers enrolled in the 'Take the Lead 2' program



1.5 million courses completed through HETI online in 2014-15



39 nursing and midwifery students are enrolled in the Aboriginal cadetship program



Sixteen Aboriginal Medical Officers commenced internship in NSW Health hospitals in 2015



S1.1 Improve workplace culture

To ensure the CORE values underpin workplace culture so staff feel respected, valued and empowered to deliver high-quality patient care.

Key achievements

- > In 2014-15, over \$4 million was allocated to public health organisations to fund culture change initiatives.
- > The Public Service Commission's 2014 People Matter Survey results highlighted where NSW Health exceeded broader public sector results including job security, accurate reflection of role descriptions and learning and development activity. Importantly, 91 per cent of staff indicated feeling that they make a positive contribution to achieving NSW Health's objectives.
- > The NSW Health 2015 YourSay survey was conducted between March and May 2015. A record number of staff participated in the survey. Engagement with NSW Health's values of Collaboration, Openness, Respect and Empowerment is measured in the survey to gauge improvements in workplace culture.
- > More than 350 staff from local health districts, specialty health networks and pillar organisations participated in CORE Chat workshops in 2014-15. Further detail on the CORE Chat program is provided on page 80.
- > Small Acts of Kindness, a film developed by the NSW Ministry of Health in 2014, highlights the importance of compassion and kindness within contemporary health care. The film is supporting and reinvigorating the importance of facilitating care that is person centred, humanistic and compassionate through implementation of local innovations and strategies. The film is being used within orientation programs to identify NSW Health's commitment to compassionate care as a foundation of health care delivery as well as in undergraduate programs in nursing and medicine.
- > Several eLearning modules on the topic of patient centred care, for example Person Centred Care have been added to HETI Online. These modules focus on promoting dignity and respect for the patient, drawing from the patient's experience and involving the patient and families in decision making about their care.
- > HETI's Training and Support Unit for Aboriginal Mothers, Babies and Children delivered a range of clinical skill development webinars for staff working in the Aboriginal Maternal and Infant Health Service and the Building Strong Foundations Network. A group of 54 network staff, including Aboriginal Health Workers, joined three special education webinars in 2015. This initiative supports the growth of our Aboriginal workforce and the delivery of safe and culturally appropriate health care for Aboriginal communities.

CASE STUDY: SYDNEY LOCAL HEALTH DISTRICT

Caring for staff using Meditation-based Compassion and Mindfulness Training



Overview

Sydney Local Health District has more than 11,000 staff, the majority dealing with more than 2 million admissions, outpatient visits and emergency department presentations a year.

Ensuring the wellbeing of staff improves their capacity to provide high quality compassionate care for patients and their families. Research has found a positive link between staff wellness and productivity, and that patients who have positive care experiences have better clinical outcomes.

Last year, Sydney Local Health District developed an innovative Heart of Health program, in partnership with the NSW Chief Nurse, Susan Pearce to support staff wellness.

An element of the program includes meditation-based compassion and mindfulness training. Sankalpa, a practical science based, secular program enables participants to learn and practise stress reduction, relaxation, mindfulness, self-compassion and compassion skills.

Key activities

The program began in Canterbury Hospital emergency and now operates across all District hospitals, involving more than 70 staff weekly. The program is offered in weekly and two-day intensive formats (about 40 clinical leaders recently attended this). Twenty staff are being trained over 18 months to facilitate the program.

Outcome

Program effects are being evaluated in collaboration with researchers from USYD and ACU. Preliminary findings demonstrate the intensive format (12 hour dose) significantly improved participants' mindfulness, positive affect, stress, wellbeing, and resources (physical, mental and emotional) with large effect sizes (1.0-1.7). The weekly format (8 hour dose) also produced significant improvements in the above including perspective taking capacity, compassionate, patient and family-centred care, climate of compassion and emotional safety with effect sizes from moderate to large (.4-.8).

S1.2 Ensure our workforce has the right people, with the right skills, in the right place

To foster a skilled workforce to meet changing health care needs, like the shift from hospital to community-based care.

Key achievements

- > The annual Junior Medical Officer recruitment campaign in July 2014 was successful in recruiting over 3205 Junior Medical Officers who started in the 2015 clinical year. Over 50,800 applications were received across the range of recognised medical specialities in Australia including endocrinology, haematology, medical oncology, general medicine and paediatrics.
- > The Aboriginal Recruitment Pathway successfully appointed 16 new Aboriginal Junior Medical Officers to undertake their internship in NSW hospitals in 2015.
- > A record 980 medical intern training positions in NSW were recruited to for 2015, an increase of 130 since 2012. A further five intern positions were funded in the ACT intern training network for NSW university medical graduates. This represents an annual investment of \$107 million to train the next generation of doctors.
- > 94 interns commenced under the Rural Preferential Recruitment Service. This is an increase of 19 doctors since 2012. Further detail on this scheme is provided on page 76.
- > To support expansion in the settings in which junior doctors undertake training, three new intern positions in general practice and 20 new second postgraduate year 2 positions in non-acute hospital settings were funded in 2015.
- > A further 13 new specialist medical training positions were funded across a range of specialities, including general medicine and clinical genetics, according to identified workforce priorities.
- > In partnership with Macquarie University, the Ministry has supported the re-establishment of the Masters program for Radiopharmaceutical Sciences. The program now reports a small number of participants. Further detail on this initiative is provided on page 77.
- > The New Graduate Interprofessional Educational Framework was launched by the Health Education and Training Institute this year. It supports new graduate doctors, nurses, midwives and allied health staff during their transition to work in NSW Health. Further detail on this program is provided on page 80.

CASE STUDY: NSW MINISTRY OF HEALTH AND LOCAL HEALTH DISTRICTS

Aboriginal Population Health Training Initiative



Overview

The Aboriginal Population Health Training Initiative involves on-the-job training combined with part-time study towards a Master of Public Health degree.

The Initiative was established in response to the under representation of Aboriginal people in the health workforce and high demand for skilled Aboriginal health professionals.

Funded by the NSW Ministry of Health and delivered through partnerships with Population Health services within local health districts, the training initiative is open to Aboriginal people who have a health-related undergraduate degree and an interest in population health.

Key activities

The three year traineeship combines workplace learning within a NSW Health service and part-time study towards a Master of Public Health degree. The Initiative enables trainees to develop and apply their public health skills in the workplace.

Outcome

Since the Initiative began in 2011, 13 trainees have been recruited, with the first four trainees completing their traineeships in 2014.

Positive impacts delivered by the Initiative include:

- an increasing number of Aboriginal people working in Population Health
- creating employment and career opportunities for the community
- providing health services with the opportunity to interact positively with Aboriginal people and communities.

This initiative received the Aboriginal Workforce Award at the 2014 Aboriginal Health Awards.

S1.3 Support and inspire our workforce

To develop the skills needed at all levels of the NSW Health workforce, through targeted and effective education and training.

Key achievements

- > Funding of \$12.4 million was provided in 2014-15 to support strategies within the *Health Professionals Workforce Plan 2012-22*. Evaluation against the Plan showed that 65 statewide and local strategies had been implemented within the initial two year period.
- > In late 2014, the NSW Ministry of Health undertook a review of the *Health Professionals Workforce Plan 2012-22* to ensure that the future targets remain appropriate. The review was informed by consultations with agencies.
- > The NSW Ministry of Health commissioned the Take the Lead 2 program to support the work of Nursing and Midwifery Unit Managers across NSW Health. The mid program evaluation has shown that participants were engaged and motivated by the program and there has been strong transfer of learning across most performance domains. Ninety one per cent of participants reported that the program supported meaningful changes in their management skills and in their workplace.
- > In a new approach to training in lymphoedema management, the Health Education and Training Institute has developed online training programs that will assist allied health professionals in the earlier detection and effective referral for patients with lymphoedema.
- > Yarning about Quitting, a project between NSW Kids and Families, Health Education and Training Institute and the NSW Ministry of Health was implemented. The Project developed a joint blended learning package including an eLearning module, training DVD and resources for a communication workshop. The project aimed to increase the capacity of staff to provide effective and culturally appropriate smoking cessation support to Aboriginal pregnant women and mothers.
- > Four new online modules, Business Planning for Wards and Departments, Care Coordination, Enterprise-Wide Risk Management for Managers and Own Source Revenue and Your Hospital were developed by the Health Education and Training Institute to support local decision making about patient care service planning and delivery.
- > HETI Online continued to deliver leadership and management programs including Springboard, the leadership and management portal, which attracted 4632 users; and the Rural Clinical Team Leadership Program, which had 21 health professionals, including doctors, nurses, allied health and ambulance staff, graduate and present the results of their clinical improvement team projects. Further information on HETI Online is provided on page 79.

CASE STUDY: MURRUMBIDGEE LOCAL HEALTH DISTRICT

Enhanced Scope of Practice Program

Overview

In many rural areas, health care workforce shortages occasionally result in situations where a facility is left without a medical officer, requiring patients to travel outside their local areas for health care.

Expanding the Scope of Practice to enable Registered Nurses to care for patients with low-acuity conditions can improve a range of patient outcomes such as reducing time to treatment and fewer patients requiring transfers.

Key activities

To develop the rural nursing workforce to ensure patients in small communities received timely, appropriate treatment by competently trained Registered Nurses, the unique Enhanced Scope of Practice Program was developed.

The Program provided an opportunity for rural Registered Nurses to receive education and training, using technology-

driven training modalities, including interactive online learning modules and videoconference education sessions.

There were 12 Registered Nurses who successfully completed the Program and began their enhanced role at their respective facilities.

Outcome

A total of 163 patients were treated using this new model with 100 per cent receiving the care they needed in their community. The model improved access to health services and improved patient satisfaction. Evaluation found 90 per cent of patients were either satisfied or very satisfied with their overall experience and the Registered Nurses felt empowered to provide a better service to the community.

This project was a finalist in the 2014 NSW Health Awards.



STRATEGY 2

Supporting and harnessing research and innovation

Overview

Health care in NSW will only advance if we continue to pursue cutting edge medical and health research and innovation. NSW Health will continue to consolidate and extend research and innovation efforts to drive innovation in the way health care is provided.

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

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

Challenges

Supporting and harnessing research and innovation plays a vital role in the continued growth and better health of our community and economy but is not without challenges. Challenges include increased international competition for researchers, adapting to rapid changes in the way research is performed, keeping high ethical standards and retaining trust in research.

What NSW is doing

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

NSW Health is implementing a ten year plan to build research capability in NSW and provide key statewide research infrastructure.

Initiatives to support and harness research and innovation include:

- investing in research
- building system-wide capacity to turn information and evidence into policy and practice
- fostering translation and innovation from research
- building globally relevant research capacity
- sharing new ideas
- supporting collaboration.

Highlights

\$42.43 million in infrastructure funding to support independent medical research institutes in NSW



50,000 different views on all major health data now available through HealthStats NSW website redesign



Roll out of the Population Health Information Management System to influence the health of over 450,000 young children in NSW



NSW biobank web-based directory has been developed



Public Health and Biostatistics Training Program graduates in 2014-15



\$6 million was provided to four organisations for medical device technology development and commercialisation



15,000 people interviewed as part of the NSW Population Health Survey



s2.1 Invest in research

To drive collaboration and promote scale and sustainability in NSW medical research institutes and encourage the commercialisation of medical devices and technology.

Key achievements

- > \$42.43 million in infrastructure funding was provided to support the day-to-day costs involved in running independent medical research institutes in NSW. These grants were provided to 14 organisations through the Medical Research Support Program. Further detail on this funding are provided on pages 83-84.
- > The Medical Devices Fund encourages and supports investment in the development and commercialisation of medical devices and related technologies in NSW to improve patient outcomes. During 2014-15, over \$6 million was provided to four organisations through a competitor technology development program. Since the Fund started, \$16.4 million has been invested in nine successful applicants. Further detail on this funding is provided on page 85.
- > \$2.92 million provided to NSW research organisations through the Population Health and Health Services Research Support Program. This investment aims to:
 - increase the generation of high quality and internationally recognised population health and health services research that addresses NSW Health priorities
 - encourage the adoption of research findings in health policies, programs and services.
- > A review of the Population Health and Health Services Research Support Program was conducted in 2015 to determine the extent to which the Program is achieving its objectives. Findings from this review will inform future funding rounds.
- > The Cancer Institute NSW has supported:
 - seven Translational Cancer Research Centres and program grants to create improvements in cancer control
 - Translational Program Grants
 - clinical trials infrastructure to make NSW a destination of choice for clinical trials
 - research infrastructure so researchers have access to world class research, platforms, tools, equipment and networks
 - fellowships to support and retain excellent cancer researchers in NSW.

CASE STUDY: NSW OFFICE FOR HEALTH AND MEDICAL RESEARCH

Medical Devices Commercialisation Training Program (MDCTP)



Overview

The Medical Device Commercialisation Training Program (MDCTP) was launched in 2013-14 and is a 3 month intensive training program in medical devices commercialisation based in NSW. The MDCTP was developed in partnership between leading technology business incubator Australian Technology Park (ATP) Innovations and the NSW Office for Health and Medical Research (OHMR). The aim of the program is to build medical device commercialisation expertise and capacity in NSW.

Key activities

This program is conducted in two stages:

1. Training – a 3 month intensive pre-selection program run by ATP Innovations
2. Fellowship - OHMR in conjunction with QB3, the California Institute for Quantitative Biosciences provides the two year NSW-QB3 Rosenman Scholar Program to bring together clinicians, medical device commercialisation experts and entrepreneurs to maximise opportunities to develop ideas to treatment solutions for patients.

Outcomes

During the MDCTP, candidates: are exposed to entrepreneurship and develop the necessary skills to commercialise their technologies including; customer discovery, medical device design and commercial value; self-identify whether they are an entrepreneurial academic or an entrepreneur; explore the value proposition for their own unique technologies; and engage face-to-face with stakeholders across the commercialisation continuum from patients and clinical specialists to payers and regulators.

A cohort of 20 participants graduated from the MDCTP in December 2014. From this group of 20 participants, two candidates were selected, based on the recommendation of ATP Innovations and OHMR, for a two year scholarship at the Rosenman Institute at the University of California, San Francisco commencing in November 2015.

Graduates of the 2014 program have started companies, raised capital from investors, engaged industry partners and received over \$1 million in development grants to date and created new job opportunities in Australia and abroad. Candidates in the 2015 MDCTP will graduate in November 2015.

s2.2 Build system-wide capacity

To turn information and evidence into policy and practice.

Key achievements

- > There were 14 continuing trainees enrolled in the Aboriginal Environmental Health Officer Training Program in 2014-15. Further information on this initiative is provided on page 77.
- > Two Aboriginal policy analysts successfully completed the inaugural two-year Aboriginal Policy Pathway Training Program in 2014. This included graduating from the Diploma in Government (Policy Development) and Post Graduate Certificate in Public Sector Management Program. Both graduates have secured permanent positions within the Ministry. Further information on this initiative is provided on page 77.
- > The *NSW Health and Medical Research Hub Strategy* is building a system to turn information and evidence into policy and practice. Current projects include:
 - embedding quality research in local health districts
 - developing a framework to support research using data and informatics
 - developing a statewide communications strategy to promote the health and medical research sector in NSW.
- > NSW Health is working with researchers on a statewide approach to biobanking, providing grants for bioinformatics projects and increasing access to bioinformatics training. In 2014-15, \$250,000 was provided to support delivery of the program including the development of bioinformatics literacy.
- > In 2014-15, the HealthStats NSW website was redesigned to assist users in navigating and finding more detailed data by specific topic or location through 'point-and-click' explorers. Fortnightly data releases continue to ensure timely access to the most recent health data available. There are now over 50,000 views available on all major health data through HealthStats NSW.
- > Key activity in 2014-15 for the Centre for Health Record Linkage included data sharing with a number of key NSW Government Agencies and jurisdictions, supporting innovative projects in biobanking and streamlining access to linked records. The Centre for Health Record Linkage has over 100 million records in its main data linkage system making it the largest dedicated data linkage centre in Australia. It has also linked more than 100 additional datasets on request.
- > The NSW Population Health Survey interviewed approximately 15,000 people in NSW by telephone, including mobile phones during 2014-15. The Survey entered its 13th year of continuous collection and provides important information on a range of key performance indicators.

CASE STUDY: NSW OFFICE OF PREVENTIVE HEALTH

Go4Fun cluster randomised controlled trial



Overview

Go4Fun is an evidence-based community child obesity management program in NSW for children aged between 7-13 years and their families. Go4Fun has been delivered since 2009 and has demonstrated improvements in health, behavioural and self-esteem among children who participate.

As a key program requirement, children attended two sessions each week with their parent or carer. A 2012 program review identified that two sessions were a barrier to participation for families with work and other commitments so a once a week version was trialled.

Key activities

The effectiveness of the once per week delivery model in comparison with the standard twice per week was assessed through a pragmatic cluster randomised controlled trial across 11 LHDs in routine settings.

Outcome

The trial showed that the once per week delivery model was as effective as twice per week in achieving program weight, nutrition and physical activity outcomes. There were also no differences between the two groups in these outcomes six months after program completion.

Based on these findings, the once per week delivery model is now the standard delivery approach for Go4Fun and more accessible to families who could not have attended the program previously due to work and other commitments. Cost efficiency has been achieved with no compromises to program outcomes.

The program evaluation research study won a Sax Institute Research Action Award and an article describing the findings has been accepted for publication in a peer-reviewed journal.

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- > Five Trainee Biostatisticians graduated from the NSW Biostatistics Training Program in 2014-15 and were awarded a Master of Biostatistics degree by the University of Sydney. www.health.nsw.gov.au/training/botp/pages/default.aspx
 - > Eleven Trainee Public Health Officers graduated from NSW Public Health Training Program and seven graduates were conferred with the degree of Doctor of Public Health by the University of New South Wales. www.health.nsw.gov.au/training/phot/
 - > In 2014-15, the first cohort of four trainees graduated from the NSW Aboriginal Population Health Training Initiative and four new trainees commenced the program. Further information on this initiative is provided on page 77.
 - > The Population Health Intervention Management System is a health intervention management and reporting system that enables NSW Health to support and monitor the effectiveness of population health intervention activities. The Population Health Intervention Management System enables faster, more accurate and comprehensive capture of information via a secure online portal, giving the Population Health Network the ability to assess the quality and impact of their work and drive improvement across the state. The system is currently used in all local health districts by over 120 Health Promotion Officers, supporting 3850 Early Childhood Centres, 2650 primary schools and positively influencing the health of more than 450,000 young children in NSW.
 - > NSW Health is providing \$1.8 million per annum for five years (to June 2018) to the Sax Institute to facilitate policy makers' and practitioners' access to high quality research evidence. The funds are being used to maintain and develop research assets, enable collaborative research projects, provide research and evaluation services to NSW Health, deliver research and evaluation skills training, and host exchange forums involving researchers, policy makers and practitioners. In 2014-15, the Sax Institute brokered 14 reviews of evidence, six research/evaluation services for NSW Health, provided two training sessions and one research/policy exchange.
 - > NSW Health is providing \$500,000 per annum for five years to the Australian Prevention Partnership Centre. The Centre is a national initiative that is identifying new ways of understanding what works and what doesn't to prevent lifestyle-related chronic disease. Research projects underway through the Centre include the development of ways to measure the key factors that make our cities healthy and liveable and a national approach to Aboriginal tobacco control.
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s2.3 Share new ideas

To recognise, celebrate and encourage health care innovation with clinicians and managers.

Key achievements

- > The 2014 NSW Health Innovation Symposium iCan: iDeas inspiring innovation was held on 31 October 2014. Showcasing the outstanding innovation from every part of the system, the Symposium featured 59 presentations on leading-edge health initiatives that harness new ideas, new technologies and new approaches to the delivery of patient care.
- > The 16th Annual NSW Health Awards were held on 31 October 2014. The annual awards ceremony is an important event in the NSW Health calendar. It showcases the excellent work done throughout the NSW public health system. Forty finalists were selected from 144 entrants including those providing direct care and those that support direct care through development of policy, management and clinical or corporate services.
- > Each year the Premier's Awards for Public Service are held to recognise outstanding performance and excellence in the delivery of public services. In 2014, NSW Health nominated 16 initiatives. Congratulations to all teams and individual who were chosen as finalists for 2014:
 - Packaging Accessibility Project – HealthShare NSW
 - Break and Enter – Justice Health & Forensic Mental Health Network
 - Quality in Acute Stroke Care Implementation Project – Agency for Clinical Innovation
 - Sydney Sexual Health Centre partnership with ACON
 - Jenny Hart – Western Sydney Local Health District Health
 - Carolyn Murray – South Eastern Sydney Local Health District.
- > Agency for Clinical Innovation was awarded the 2014 Premier's Public Sector Award for Improving Performance and Accountability.
- > The Agency for Clinical Innovation launched the Innovation Exchange on 31 October 2014. The Innovation Exchange provides a single, collaborative place to share and promote local innovation across NSW. More than 140 initiatives are currently showcased, providing the opportunity to learn from others, share solutions, improve performance, innovate, collaborate and partner on initiatives.

CASE STUDY: CANCER INSTITUTE NSW

Real world evidence for breast cancer chemotherapy effectiveness



Overview

The efficacy and safety of new cancer treatments are usually determined from industry sponsored clinical trials. These trials typically provide a source of high quality evidence however they are often limited to a narrow subset of potential patients undergoing treatment in conditions that differ from the general healthcare system. Clinical trial evidence can be augmented with real-world evidence using linked data from the NSW Cancer Registries. Registry data can simultaneously provide large patient numbers, state-wide coverage and extensive follow-up, all within the NSW healthcare system.

Key activities

Women diagnosed with breast cancer over the period 2008-12 are studied. Through data linkage their treatment regimens can be accurately determined via the eviQ protocol as well as hospital and emergency department admissions and long term survival.

Outcome

This project allows novel insights into the uptake and use of breast cancer therapies in NSW along with richer information on their effectiveness, safety and tolerability. Time to initiate treatment offers further insights into health system performance across NSW and duration of treatment provides much needed real-world evidence for tolerability and adherence. The comparatively large amount of data available also yields information on subgroups of women who are seldom participants in clinical trials such as older women, ethnic minorities and women with additional comorbidities such as diabetes. Refined evidence from real-world studies can be used to supplement clinical trial data and fed back to both clinicians and patients to enable better decisions and better outcomes in NSW.

S2.4 Foster translation and innovation from research

To maximise the use of research in policy, practice and health service delivery.

Key achievements

- > The Office of Health and Medical Research's clinical trial support team has established a clinical trial feasibility and capacity planning framework and pathway. A component of this project includes implementing a risk assessment tool for investigator-initiated and collaborative trials. Models are currently being developed to help streamline the study approval and monitoring process for multi-centre studies and reduce the burden on lead site investigators.
- > The first Medical Device Commercialisation Training Program, a three month accelerator training course for early to mid-career researchers, was delivered in partnership with ATP Innovations. The Program was a precursor to the NSW-QB3 Rosenman Institute Scholar Program in San Francisco, allowing two scholars to further their expertise in medical device development and commercialisation.
- > Secure Analytics for Population Health Research and Intelligence (SAPHARI) is a platform that enables users within the NSW Health system to discover information through statistical data analysis. In 2014-15, developments included enhancement of the population data warehouse infrastructure, improvements to data management and governance of key data assets, optimisation of disease surveillance reporting systems to support health protection and streamlining to provide access to linked data in a significantly reduced time.
- > The NSW Government has committed up to \$9 million to clinical trials to further explore the use of cannabis and/or cannabis products in providing relief for patients suffering from a range of debilitating or terminal illnesses. An expert panel chaired by the NSW Chief Health Officer will continue to advise the NSW Government throughout the trial period.
- > Roll out of the new Enterprise Data Warehouse for Analysis, Research and Decision (EDWARD) commenced during 2014-15. The new platform enables all NSW Health organisations to collect, manage and safely use high quality data and information across the entire system. It improves upon and expands current health care information networks and pathways supporting a 'whole of system' and better translation of research into practice.

CASE STUDY: HEALTHSHARE NSW

Food packaging improvement project



Overview

HealthShare NSW, which serves 22 million meals to patients in NSW hospitals annually, partnered with Arthritis Australia and Georgia Tech Research Institute to address the problem of hard to open food packaging, a major barrier to nutrition in hospitals and at home.

Key activities

This public private partnership developed the world-first initial Scientific Review packaging accessibility report that scores each product and identifies areas for improvement. This innovative accessibility assessment tool and supporting design guidelines effected major changes to industry in Australia and internationally. It changed business models, rewarded manufacturers for innovating for consumer need and transformed products for hospital and home use.

By making accessibility a procurement condition, HealthShare NSW is supporting the wellbeing of vulnerable patients, is offering Australian small businesses an escape from price-only competition with multinationals and rewarding patient-centric innovation.

Outcome

The project resulted in measurably improved ease of opening of menu items provided in NSW public hospitals, improving patient nutrition.

Improved menu items are now becoming increasingly available in aged care facilities and other hospitals, with more facilities on the way.

Food services and nursing staff report that patients are more likely to attempt to open their own menu items, supporting patient dignity and leading to more food being consumed.

This successful partnership has dramatically redesigned packaged food, ensuring NSW public hospital patients and people at home can access food more easily, increase the amount they eat, build nutrition and support good health outcomes.

This project received the Minister for Health and Minister for Medical Research Award for Innovation at the 2014 NSW Health Awards.

S2.5 Build globally relevant research capacity

To improve research infrastructure by allocating additional funding for medical research within institutes and health care facilities, based on merit and research excellence.

Key achievements

- > Funded several research capacity building programs including Genomics A, B and C Programs, Medical Devices Commercialisation Training and the NSW QB3 Rosenman Institute Scholar Program.
- > Continued to roll out and implement a number of key support programs and initiatives to build globally relevant research capacity. These include the Medical Research and Support Program, Medical Research Support Program Transition Grants, Medical Research Support Program Assistance Funding, Clinical Trials, Hubs, Genomics and Medical Devices and Commercialisation.
- > A web-based directory of NSW biobanks has been developed. Grants have been provided for bioinformatics projects and increased access to bioinformatics training.
- > NSW Health is leveraging investment in medical research commercialisation through the Medical Research Commercialisation Fund and developing a strategy to leverage philanthropic investment.
- > NSW Health is providing medical researchers access to the latest genome sequencing technologies through the Sydney Genomics Collaborative and the pathogen sequencing partnership project at Westmead.
- > A research ethics and governance reform program is being implemented to improve the pre-approval process for all human research including clinical trials in NSW. This includes a simplified model of site specific assessment.
- > NSW Health has been instrumental in the establishment of a Jurisdictional Working Group to develop a nationally consistent approach to multi-jurisdictional clinical trials and enhance the ability to attract national and international clinical trials.
- > The funding support provided by NSW Health to the Sax Institute assists in building and maintaining research assets that include The 45 and Up Study, the Study of Environment on Aboriginal Resilience and Child Health, the Hospital Alliance for Research Collaboration and the Secure Unified Research Environment.

CASE STUDY: NORTHERN SYDNEY LOCAL HEALTH DISTRICT AND THE EMERGENCY CARE INSTITUTE (ACI)



The Australia and New Zealand ED Airway Registry Project

Overview

Endotracheal intubation is a high risk, multidisciplinary procedure that is associated with an increased rate of severe complications when it occurs in emergency departments as opposed to operating theatres. It is a procedure often undertaken on critically ill or injured patients.

This project aims to improve the safety of intubation in Australian and New Zealand emergency departments by developing a standardised data collection tool to audit practice then deliver feedback to promote improvement.

Key activities

Following an 18 month observational study, a practice improvement bundle was developed at Royal North Shore Hospital to improve patient safety. This involved multidisciplinary training, development and use of a pre-intubation checklist and changes in intubation practice.

At Northern Sydney Local Health District, the Registry has enabled real-time review and improvement of intubation practice in the emergency departments of Mona Vale,

Hornsby and Manly hospitals. Across Australia and New Zealand, participating emergency departments have reviewed and improved their intubation practice and training.

It is the first multicentre study of intubation in this region and is expected to contain over 3000 episodes by the end of the project. The data from this study will become the region-wide benchmark for the standard of intubation in emergency departments to continue to improve patient safety and the skills of emergency department clinicians.

Outcome

Over 40 emergency departments contributed to the project database with many taking similar steps to improve their patients' safety. At Royal North Shore Hospital, intubation success on first attempt improved from 83 per cent to 94 per cent and the incidence of complications fell from 28 per cent to 20 per cent.

This project received the Translation Research Award at the 2014 NSW Health Awards.

STRATEGY 3

Enabling eHealth

Overview

Technology is rapidly transforming everyday life and health care is no exception. eHealth is now generally understood to mean the use of a broad range of information and communication technologies like broadband connectivity, digital networking or smart software to help drive improvements in health and medical care for individuals and communities. Investment in eHealth has the potential to deliver better and safer clinical care for patients no matter where they live, while also driving improved and sustainable network efficiencies.

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

eHealth NSW encompasses a number of innovative programs already underway across the state that support new models of care. These include telehealth, electronic medications management, statewide access to digital imaging and the use of voice recognition software as part of the second phase of the electronic medical records program. eHealth is being used to improve patient care through:

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

Challenges

The eHealth agenda does face challenges. Despite progress, the local health districts all operate on different IT systems and have differing eHealth capacities. Clinician, manager and patient engagement on eHealth has also been varied and investments have not always met the functional needs of our users or fully realised the benefits.

What NSW is doing

The *Blueprint for eHealth* in NSW provides the vision for technology-led improvements in health care for patients. The Blueprint sets out the next steps in harnessing technology to improve the quality, efficiency and safety of health care for patients including:

- investing in clinical systems
- investing in business systems
- investing in infrastructure
- strengthening eHealth governance
- refreshing the eHealth vision to set clear directions for the future.

Highlights

eHealth NSW established on 1 July 2014



HealtheNet is now connected to all local health districts



1,500,000 online course completions were recorded through HETI Online



Migration of NSW Health systems to GovDC commenced



Rural eHealth Program established to support eHealth delivery for rural and remote local health districts



An average of 4295 users access the patient flow portal each month



S3.1 Invest in clinical systems

To integrate clinical, community health and outpatient care with electronic record systems.

Key achievements

- > The Electronic Medical Record program is extending two electronic medical record systems across NSW. Implementation of the Electronic Medical Record into Justice Health & Forensic Mental Health Network was completed early in 2014-15. The development of electronic orders continued in the Hunter New England Local Health District. Development of clinical documentation in Cerner is ongoing with implementations at Blacktown, Wellington, Cobar, Walgett, Moruya/Batemans Bay, Deniliquin, Cooma, Molong and Corowa Hospitals.
- > The Community Health and Outpatient Care Program is developing solutions across two major electronic medical record systems for clinical areas including Aboriginal health, sexual health, community home nursing, child, youth and family, mental health, allied health, aged and chronic care, drug and alcohol services. Implementation is underway across all local health districts, Justice Health & Forensic Mental Health Network and St Vincent's Health Network. The program is on track to be completed by June 2016.
- > During 2014-15, an average of 4295 users accessed the Patient Flow Portal each month.
- > An electronic Medication Management system has been implemented across 28 priority sites. The Electronic Medication Management program focuses on medication safety and brings patient medical records, management and medication delivery online, significantly reducing the risk of medication errors. As an early adopter of Electronic Medication Management, the Concord General Repatriation Hospital successfully commenced hospital wide roll out of the system in May 2015.
- > Work is underway to build an integrated Clinical Information System to support intensive care and high dependency units across NSW. The system will provide increased ability to monitor and manage critically ill patients. Clinicians will be able to access clinical documentation, Electronic Medication Management, pathology and radiology information from bedside devices.

CASE STUDY: CENTRAL COAST LOCAL HEALTH DISTRICT

Patient Journey Boards

Overview

An Electronic Patient Journey Board is a highly visible interactive touch screen that feeds data directly from the Electronic Medical Record and Patient Administration System. It is designed to facilitate multidisciplinary handover meetings with the aim of sustaining improved patient safety, patient experience, efficiency and compliance with organisational targets and policy directives.

The Electronic Patient Journey Board is another module within the Patient Flow Portal. The ability to access an Electronic Patient Journey Board provides numerous benefits to patients and staff including:

- data automatically populating when a patient is admitted or transferred into a ward, therefore reducing the risk of transcribing errors thus greatly improving data integrity
- significantly reduced manual data entry when updating patient information especially when compared to manual white boards
- improved legibility versus handwriting on a manual board
- easy identification of outstanding tasks in the patient's journey.

Key activities

The Electronic Patient Journey Board application is a unique hybrid that is designed to update information either via an automatic feed or manually by using the touch screen. The project team chose the Windows forms development platform because it offered greater flexibility in both the design and functionality of the Electronic Patient Journey Board.

Outcome

The information was displayed using graphic icons and colour schemes to discretely share clinical, financial and demographic information. The display was largely standardised across local health districts however, individual wards were able to tailor the information to meet patient needs. The Electronic Patient Journey Board made use of multifunctional cells, maximising the use of space to display multiple steps in the patient journey in a single view.

The Electronic Patient Journey Board allowed more time to be devoted to bedside clinical care, promoted patient safety and staff satisfaction, improved access to care, reduced transcribing errors and increased efficiency and accuracy in mortality reporting.

This project was a finalist in the 2014 NSW Health Awards.



S3.2 Invest in business systems

To allow managers to more effectively match the staff availability and skill levels to the needs of patients.

Key achievements

- > Roll out of the new demand-based rostering system, HealthRoster, has commenced.
- > The statewide implementation of HETI Online, a Learning Management System to support the delivery of standardised education to NSW Health staff was completed. Approximately 150,000 NSW Health staff are now able to access HETI Online. HETI Online can be accessed at any time, or any place and hosts 251 training resources. New training resources are added each month and provide both online and classroom learning. A new dashboard enhancement has recently been added to allow NSW Health organisations to monitor staff learning and development. HETI Online also enables NSW Health organisations to ensure all staff complete the mandatory training that ensures safe and high quality patient care.
- > In 2014-15, 1.5 million online course completions were recorded through HETI Online.
- > The Oracle e-Business suite (StaffLink) is a new integrated Human Resource Information System covering human resource management and payroll functions, finance, procurement and logistics information. It has been developed and implemented to simplify, standardise and streamline related business processes for NSW Health. All local health districts, networks and pillars are now covered by StaffLink. A single record is maintained for each employee, providing greater security. NSW Ambulance and the NSW Ministry of Health are scheduled to go live on the system in the next financial year.
- > StaffLink was used to process more than 2.6 million invoices and pay 145,000 NSW Health staff in 2014-15.
- > The Food Services Information Technology CBORD databases are currently being upgraded across NSW to provide statewide business intelligence and improved patient nutrition. By June 2015, 60 per cent of hospitals (where HealthShare NSW provides food services) had upgraded their CBORD database.
- > The statewide implementation of AFM Online, an enabler for the Asset and Facilities Management Performance Improvement Program, was completed.
- > Roll out of PROcure, a new procurement and contract management system, was completed across the NSW Ministry of Health and HealthShare NSW.

CASE STUDY: SOUTH EASTERN SYDNEY LOCAL HEALTH DISTRICT

eCommunicating patient feeding assistance needs



Overview

Providing assistance to eat and drink is a key directive of NSW Health's Nutrition Care Policy. However, the assistance each patient requires can vary and there was no effective system in place to communicate a patient's meal assistance needs.

This project is an example of strong cooperation across the nursing, nutrition, allied health, IT and food services disciplines.

Key activities

The Team, in consultation with clinicians, implemented a simple and uniform method to communicate a patient's mealtime assistance needs at Prince of Wales Hospital.

A short mandatory question, about a patient's diet, was included in the Electronic Medical Record system offering three response options: 1. nil assistance required; 2. assistance to open food packages; or 3. full supervision required.

This information was then downloaded to the food service IT system and it triggered an appropriate brightly coloured tray slip that indicated the level of assistance needed.

Outcome

The enhancement to the Electronic Medical Record system resulted in a significant increase in the number of patients both identified as requiring assistance and receiving assistance.

Following implementation of the Electronic Medical Record system enhancement, a review was conducted of the patients identified to receive assistance and it showed; 19 per cent required assistance to open meal packs, up from 10 per cent; and eight per cent required full assistance to eat, up from five per cent.

This project was a finalist at the 2014 NSW Health Awards.

S3.3 Invest in infrastructure

To provide a more reliable, secure and robust environment that delivers a high-speed, clinical grade interface across the State.

Key achievements

- > The Health Wide Area Network Program is progressively connecting all local health districts, networks, pillars and other NSW Health organisations to a shared, highly secure and reliable Wide Area Network across the State. The Health Wide Area Network connects all hospitals and data centres to provide the backbone which enables the statewide roll out of NSW Health clinical and corporate applications. It supports connectivity for remote access, multimedia applications, data exchange, voice and video services. The foundation network has been established. Local Wide Area Networks of the NSW Ministry of Health, local health districts, pillars, Cancer Institute NSW, HealthShare NSW and eHealth NSW are now connected to the Health Wide Area Network. Rural based local health districts will all be connected to the Health Wide Area Network by the end of 2015, providing a high speed, clinical grade interface to all rural locations.
- > The foundation infrastructure platform for NSW Health has been established at the new Whole-of-Government Data Centres at Silverwater and Unanderra. eHealth NSW has transitioned corporate information technology systems including StaffLink, VMoney and Assets and Facilities Management Online into the new Data Centres. Migration of Cancer Institute NSW to the new Data Centres has also been completed. The new Whole-of-Government Data Centres are providing a more reliable, secure and robust environment for the hosting of key clinical and corporate information technology applications for NSW Health. High-level migration plans are in place for other applications.

CASE STUDY: NSW AMBULANCE

Inter-CAD Electronic Messaging System

Overview

The Inter-CAD Electronic Messaging System is a peer-to-peer electronic communications system that operates between emergency services and public safety organisations to transmit incident requests and messages between different Computer-Aided Dispatch (CAD) systems.

Key activities

Traditionally, communications between agencies was via telephone and during peak periods delays would be experienced. Where a message needed to be relayed to multiple agencies, a call to each agency would be made. The Inter-CAD Electronic Messaging System allows messages to be relayed to multiple agencies simultaneously, improving operator efficiency and allowing the focus of dispatchers to remain on resource activation, crew welfare and safety.

Inter-CAD Electronic Messaging System is a world first vendor independent standard, which also includes utilities as part of the network.

Using an interface, agencies operating on a Computer Aided Dispatch (CAD) system have the ability to develop individual systems, providing the ability to send and receive, as well as interpret information via the interface.

The Inter-CAD Electronic Messaging System enhanced collaboration and teamwork between agencies by sharing accurate and relevant information, vehicle status information and contributed to officer safety and welfare. The electronic transfer of incident requests and information decreased the time taken for the information to be available to dispatchers and responding personnel.

Outcome

Since implementation, approximately 11,000 incidents have been sent and received by NSW Ambulance via Inter-CAD Electronic Messaging System, per month. Coupled with the system's messaging capacity, it is anticipated that Inter-CAD Electronic Messaging System will realise a saving in excess of 200,000 telephone calls per year.

This project was a finalist in the 2014 NSW Health Awards.



S3.4 Strengthen eHealth governance

To create a contemporary, responsive and world-class eHealth system in NSW.

Key achievements

- > On 1 July 2014, eHealth NSW was established as a dedicated organisation within NSW Health to guide Information and Communications Technology planning, strategy, program implementation and operations. Since its establishment, eHealth NSW has continued the statewide implementation of core systems and leveraged achievements to date, to move toward realising the eHealth vision for NSW.
- > The eHealth Executive Council is chaired by the Secretary of NSW Health and provides statewide strategic direction and support to eHealth NSW.
- > Clinical, Corporate and Infrastructure Portfolio Governance Committees have been established and provide strategic advice for the planning and delivery of eHealth initiatives and direction for future investments across the public health system. The Portfolio Governance Committees include senior clinical and executive representation from the NSW Ministry of Health, local health districts, networks, pillars and other NSW Health organisations to ensure active partnership and representation of varying local priorities across NSW.
- > eHealth NSW continues to foster clinical engagement in health informatics and integration of information communication technology into clinical practice, to improve patient health outcomes and health services.
- > eHealth NSW is implementing initiatives such as the clinical engagement forum, led by the Chief Clinical Information Officer to ensure NSW Health clinicians are active partners in the development of clinical eHealth programs.

CASE STUDY: HUNTER NEW ENGLAND LOCAL HEALTH DISTRICT

In the hands of our clinicians

Overview

The emergence of antimicrobial resistant bacteria is of major concern to societies worldwide. The current process for updating and disseminating antimicrobial prescribing recommendations was recognised as inadequate, with insufficient access to clinicians and limited version control.

This project used the District's existing Antimicrobial Guidelines to provide the underpinning framework for appropriate antimicrobial use.

The project used available technology to provide more current, easily accessible decision support information for clinicians around antimicrobial prescribing.

Key activities

The use of technology optimised for mobile phones was selected for its appeal to the junior medical, pharmacy and nursing workforce. A 2012 orientation week survey of the junior medical office provocation workforce found that while 100 per cent owned smartphones, 30 per cent of devices were android and any program would require multiple platform access.

A website was developed which was accessible from android and iPhone mobile phones and desktop computers.

This allowed for greater version control and provided the opportunity for engagement with hard to reach groups, for example rural general practitioners, visiting Medical Officers and on-call clinicians.

The District's Application Development team was engaged to develop the website within the Hunter New England Local Health District Network and to meet all the functional requirements of the project, within available resources.

Outcome

Six months after launch, the website had received 1700 sessions with 2100 page views. The project improved clinician access to guidelines which helped the prevention and treatment of health-associated infections.

Compliance with the guidelines is a major factor in achieving this success. Successful stewardship programs have also been implemented within Hunter New England Local Health District with the aim to optimise individual patient care while minimising the development and spread of antibiotic-resistant microorganisms.

This project was a finalist at the 2014 NSW Health Awards.



S3.5 Refresh the eHealth vision to set a clear direction for the future

To guide investment in state-wide eHealth initiatives and clearly articulate arrangements in governance, privacy and capacity-building.

Key achievements

- > Under the leadership of the eHealth Executive Council, eHealth NSW is supporting the refresh of the eHealth vision, which will be articulated in the NSW eHealth Strategic Plan 2015-2025. The Strategic Plan will provide a roadmap to guide the significant investment in eHealth across the NSW public health system and build capacity across the state by consolidating functionality, integrating systems and expanding existing eHealth programs.
- > In 2014-15, eHealth NSW matured its Investment Management Planning capabilities to ensure that information communication technology investments are aligned with NSW Health strategic drivers. The matured process ensures appropriate stakeholder consultation and investment decisions which consider relative risks, benefits, project outcomes and value for money.
- > eHealth NSW has introduced a number of internal initiatives to strengthen and support its operations.
 - Architecture governance: eHealth NSW is strengthening its internal processes in order to mature NSW Health's architecture conformance and alignment to support consistency and enable all systems to share data.
 - Security enhancements: eHealth NSW has responsibility to ensure the appropriate levels of security controls are implemented to protect critical systems, applications and data. eHealth NSW executes the appropriate governance set in the Privacy and Security Assurance Framework.
 - eHealth NSW is integrating security controls in clinical and corporate programs within each stage of their lifecycle and is increasing security awareness and training across the cluster to reduce the likelihood and consequences of risks faced by NSW Health.
- > The Rural eHealth Program has been established to improve the delivery of eHealth programs to the six rural and remote local health districts (Mid North Coast Local Health District, Northern NSW Local Health District, Western NSW Local Health District, Far West Local Health District, Southern NSW Local Health District, and Murrumbidgee Local Health District).

CASE STUDY: eHEALTH NSW

Rural eHealth Strategy

Overview

The Rural eHealth Strategy aims to utilise information and communications technology (ICT) to integrate and connect health services in regional and remote areas, so that patients receive the right care, delivered in the right place, by the right person and at the right time.

Key activities

The Rural eHealth Strategy recognises the positive impact technology can have on patient care and outcomes. By working in collaboration with six Local Health Districts, the strategy aims to accelerate and coordinate the implementation of clinical, corporate and infrastructure eHealth programs to rural and remote NSW.

Initiatives include:

- Implementing the HealtheNet system, a web based portal, which integrates health care services by providing clinicians with immediate and state-wide access to a secure, consolidated summary of a patient's health information.
- Supporting the development of integrated care and patient-centred care models, including the use of the Personally Controlled Electronic Health Record

- Expanding the electronic medical record system and other clinical systems to support safe, quality and efficient care
- Supporting timely decision making, through access to human resources and financial management systems
- Delivering infrastructure, such as a high speed network and wireless and to provide a secure foundation for eHealth systems and telehealth services
- Providing mobile computing capabilities to community health clinicians
- Harnessing videoconferencing and telehealth capabilities to enhance timely access to clinical advice in rural and remote communities

Outcome

The Rural eHealth Strategy will improve the delivery of eHealth programs to the rural and regionally located local health districts. These local health districts are currently working in a collective governance group with eHealth NSW, to review and implement solutions



STRATEGY 4

Designing and building future-focused infrastructure

Overview

NSW Health facilities are valued at \$20 billion, including over 230 public hospitals and 226 ambulance stations.

Significant investment in developing new and upgraded existing facilities across the state is currently underway with over \$5 billion committed over the next four years.

Health Infrastructure provides planning solutions and construction capability to NSW Health to manage the planning, design and delivery of health infrastructure capital works across the state. The four main elements of the services Health Infrastructure provides are:

- advisory and strategic planning – advising on project and capital allocation planning, business case development, and whole of government strategic planning
- project development – undertaking development of options and construct business cases, providing technical advice and facilitating consultation with a wide range of stakeholders
- contract management and procurement services – developing the project management plan, supervising the tender and contract process, evaluating tenders and monitoring contractor performance
- delivery – managing construction, acceptance testing, change management and facility commissioning.

Challenges

The provision of health care is a constant process of upgrade and renewal. Over 2014-15 this has been a government focus with significant investment made in building and upgrading hospitals and health services. The challenge has been how to think differently about maintaining, developing and managing NSW Health assets overall. This has meant establishing health care precincts with public and private services, encouraging integrated service delivery models for multipurpose facilities and continuing to develop demand management strategies to respond to growth.

What NSW is doing

A major construction and upgrade program is underway across both urban and regional NSW to develop new facilities and upgrade existing infrastructure across the state. To ensure the design and building of infrastructure is future focused NSW Health will:

- deliver on the NSW Health's committed major investments for the next five years
- use the devolved service delivery model to better plan capital requirements based on service needs
- grow partnerships in developing health facilities and equipment
- look to non-capital solutions to deliver care.

Highlights

More than 80 upgrades to hospitals, multipurpose services, ambulance stations or car parks either delivered or in planning



More than 20 new ambulance stations being upgraded or delivered across the state



eHealth is developing a virtual user defined workspace



The metropolitan ambulance station infrastructure strategy is putting paramedics closer to the community



72 capital works projects completed across NSW worth \$1.4 billion



24 HealthOne NSW Services are bringing together community health and general practice to enable truly integrated care



S4.1 Delivering the NSW Government's committed major investments for the next five years

To support programs designed to responsibly deliver major infrastructure investments.

Key achievements

- > NSW Health's capital works program total expenditure for 2014-15 (including capital expensing) was \$1.4 billion inclusive of capital expensing with 72 capital works projects completed across NSW. Significant projects completed in 2014-15 include:
 - Hornsby Ku-ring-gai Hospital Stage 1 Redevelopment (\$121 million)
 - St George Hospital Emergency Department (\$43.7 million)
 - Missenden Mental Health Unit – The Professor Marie Bashir Centre at Royal Prince Alfred Hospital, (\$67 million)
- > Infrastructure projects completed during the year included:
 - Royal North Shore Hospital Clinical Service Building
 - Missenden Mental Health Unit – The Professor Marie Bashir Centre
 - Hornsby Redevelopment Stage One
 - St George Emergency Department
 - Moruya Sub-Acute Rehabilitation Unit
 - Shellharbour Ambulatory Care Expansion
 - Hillston Multipurpose Service
 - Port Macquarie Hospital
 - Wollongong Hospital Car Park
 - Sutherland Car Park.
- > Health Infrastructure is either planning or delivering more than 80 upgrades to hospitals, multipurpose services, ambulance stations and car parks.
- > NSW Ambulance began managing the changes required to implement and realise the benefits of the new infrastructure it is planning for the future delivery of patient care. The Paramedic Response Network will transform NSW Ambulance Sydney operations: changes that are designed by paramedics for paramedics. It will include designing a make ready operational model that will maximise patient facing time for paramedics and also see the implementation of dynamic deployment software to assist in the most appropriate allocation of NSW Ambulance resources. User groups, project teams and governance structures for the program were also established and are working hard to deliver the multi-location, multi-million dollar project.

CASE STUDY: WESTERN NSW LOCAL HEALTH DISTRICT AND HEALTH INFRASTRUCTURE



Dubbo Hospital Redevelopment

Overview

Western NSW LHD is large and diverse encompassing cities, inner regional, outer regional and remote communities. The population of the Western NSW LHD is projected to increase by 8 per cent between 2011 and 2031 with communities within the LHD are experiencing varying growth rates.

Key activities

One of the largest hospitals in the district is the Dubbo Hospital, which is a major referral hospital for communities in central western NSW. Dubbo Hospital has a long history of delivering the best health service available for the community and its surrounding areas and the NSW Government is committed to delivering a redeveloped health service that will adapt and grow to meet community needs into the future. The redevelopment of Dubbo Hospital is jointly funded with the NSW Government providing \$84.2 million and the Australian Government contributing \$7.1 million from the Commonwealth's Health and Hospitals Fund. Stages 1 and 2 of

the redevelopment are nearing completion, with the new and upgraded facilities operational over late 2015 and into early 2016.

Outcome

The \$91.3 million Dubbo Hospital Stages 1 and 2 includes the delivery of new operating theatres, new day-only wards, inpatient wards and birthing suites for maternity services, upgraded renal dialysis facilities and a refurbished main entry. It also involves upgraded supporting infrastructure such as car parking, to support clinical services for western NSW communities. The NSW Government has committed \$150 million towards Stages 3 and 4 of the redevelopment. These are currently in the planning phase, and will include a range of further upgraded facilities and services tailored to the needs of the people in the Western NSW Local Health District.

S4.2 Better plan capital requirements based on service needs

To inform robust, capital asset planning at a local health district, network and state-wide level.

Key achievements

- > In 2014-15, NSW Health delivered Phase One of the Clinical Services Planning Analytics Portal as an innovative technology solution for planners across the NSW health system to access and analyse data to inform service and capital planning decisions. Ongoing refinements to the Portal will continue to provide more data, enhanced visualisation functions and useability improvements to the range of tools used by planners, overcoming challenges in data consistency and varied levels of analytical capability.
- > To further inform capital asset and service planning at local health district, specialty health network and statewide levels to 2035-36, NSW Health began a review of current methodologies and assumptions used in its clinical services planning and projection tools. The review will ensure that NSW is leading and utilising best practice in modelling approaches and information technology to inform service and capital planning decisions.
- > Health Infrastructure rolled out the Asset Replacement Program to better assist local health districts manage their assets.
- > Health Infrastructure is upgrading or building more than 20 new ambulance stations across the State. The metropolitan ambulance station infrastructure strategy is designed to put paramedics closer to the community.

CASE STUDY: HEALTH INFRASTRUCTURE

Building our future together

Overview

The \$312 million Blacktown Mount Druitt Stage 1 Project facilitated a systematic, comprehensive Community and Consumer Engagement Program. At its core, the focus was on consumers being recognised through the formal project governance structure, to enable them to be involved in, and provide valuable input into the planning and delivery phases of the project.

The Community and Consumer Engagement Program was initiated by the project team and formed an integral part of the Blacktown Mount Druitt Redevelopment Project. The program has been recognised as best practice for partnering with consumers to achieve outcomes not just limited to the physical building, but explores how design can better influence clinical care, patient flows and positive patient experience.

Key activities

At the commencement of the project, the team reviewed community and consumer engagement across the capital health portfolio. The results concluded that where consumer engagement was undertaken, projects reported an overall positive outcome.

In response to these findings and in keeping with NSW Health's CORE values, the project team ensured that the Community and Consumer Consultation Program formed the cornerstone of engagement for this project.

In response to the review findings and in keeping with NSW Health's CORE values, the Project team commenced a program of ongoing community and consumer consultation.

Outcome

As a direct result of the consumer engagement, a number of innovative and patient-focussed improvements were made encompassing changes to design, models of care and operational procedures. These solution focused initiatives included dedicated carer accommodation in patient bedrooms for overnight stays and a café style infusion lounge designed to reduce social isolation during chemotherapy.

The success of the Community and Consumer Engagement Program has led to some elements being adopted by other projects across NSW, with the help of Health Infrastructure's Consumer and Stakeholder Consultation Engagement Toolkit - a framework designed to provide a roadmap for how community and consumer engagement can be effectively delivered.

This project received the Patients as Partners Award at the 2014 NSW Health Awards.



S4.3 Grow partnerships in developing health facilities and equipment

To explore innovative and efficient approaches to deliver world-class health care facilities.

Key achievements

- > The new Byron Central Hospital is underway. The project will provide enhanced surgical services including 24-hour accident and emergency services, 43 overnight inpatient beds, a low-risk maternity service, X-ray and medical imaging services, a new 20-bed non-acute mental health unit, dental service and chemotherapy service.
- > NSW Health has continued to identify enhanced opportunities for engaging with the private and not-for-profit sectors for service delivery. The procurement method for the delivery of the new Northern Beaches Hospital is an example of an innovative approach to service delivery for NSW Health in working with the private and not-for-profit sectors to provide high quality services, facilities and equipment. At the end of the 2014, Healthscope was awarded the contract for the Northern Beaches hospital.

S4.4 Look to non-capital solutions to deliver care

To invest in eHealth solutions to deliver the connectivity needed to support new models of care.

Key achievements

- > NSW Health has continued to explore opportunities to deliver improved health outcomes in settings outside the hospital building. Examples of non-capital solutions include ComPacks community packages, Hospital in the Home and telehealth strategies. These strategies have delivered substantial benefits to patients, their families and the health system, including releasing capacity in hospitals and improving utilisation of existing assets.
- > In collaboration with South Eastern Sydney Local Health District and Illawarra Shoalhaven Local Health District, eHealth NSW is developing a virtual user defined workspace, 'Workplace as a Service', where work sessions can be made simultaneously available to clinicians across a range of platforms and locations. This approach will reduce the need for future capital purchases of information and communication technology hardware.
- > Health Infrastructure is working with NSW Health and local health districts to identify opportunities to explore non-capital solutions such as the provision of surgical services at Byron Central Hospital.
- > eHealth NSW continues to foster clinical engagement in health informatics and integration of information communication technology into clinical practice, to improve patient health outcomes and health services.

CASE STUDY: NSW HEALTH PATHOLOGY

Point of Care Testing for 24/7 rural and regional pathology

Overview

The statewide Point of Care Testing program is aiming to deploy 400 devices to more than 175 regional and rural emergency departments across NSW.

Key activities

NSW Health Pathology installed all devices within the program and ensured each site was accredited and participated in an external quality assurance program.

NSW Health Pathology worked with industry to establish the middleware software that connected to all testing devices. This allowed device monitoring across the state in real time to quickly identify and rectify technical issues. Software also integrated test results into the local medical record software, improving safety and care for patients.

Initial training for clinical and medical staff was held onsite and follow up training was provided online. The unique middleware software helped to identify users who were not performing tests correctly. These users could then be locked out of the system until they received further training to ensure the highest quality of testing was maintained.

Outcome

The hand-held devices provided onsite analysis for common pathology tests that emergency department teams rely on. Onsite analysis allowed faster results to greatly improve time to treatment. As results are available electronically in real time, costly air evacuations to larger hospitals could be avoided.

This program is the largest managed point of care system in the world and was a finalist in the 2014 NSW Health Awards.


