The Western NSW Integrated Care Strategy recognise Aboriginal and Torres Strait Islanders as the first People of this land.

We pay our respects to elders past and present and to a culture rich in history and traditions.
Our People

We would like to thank everyone who has contributed to the Strategy over the past twelve months.

Without you this journey would not be possible.

To our project teams - Blayney, Cobar, Coonamble, Cowra, Dubbo, Molong, Mudgee, Walgett and Wellington

To our organisations - Non government, government, private providers and not for profit

To our community groups

To our communities

To our patients

Thank you.
A Message from the Steering Committee

Following our first progress report in November 2015, we are proud to provide the Western NSW Integrated Care Strategy progress report for 2016 highlighting our achievements over the past 12 months.

Integrated Care has meant some radical changes to the way we do business. From the beginning, we focused on a collaborative approach to innovation and a commitment to our communities and recognised that we could transform health care in our region for our most vulnerable patients, their families and carers. This would not have been possible without the financial support from the NSW Ministry of Health.

As partners in the Western NSW Integrated Care Strategy we continue working together on achieving our vision:

“To transform existing services into an integrated Western NSW system of care that is tailored to the needs of our rural and remote communities, and improves access to care and health outcomes with a particular focus on closing the Aboriginal health gap.”

And our priorities:
- Support high performing primary care
- Develop a coherent system of care
- Close the Aboriginal health gap
- Live within our means

From the outset, we have acknowledged that the goals and objectives of the Strategy have been highly ambitious in such complex and varied environments. Despite this, we have strived to tackle the challenges and maintain our passion and enthusiasm to lead improvements to care for people in our region.

We will continue to adapt and apply our learnings as our solutions mature, with many of our learnings already applied in the rollout of our second wave demonstrator sites. While it has been challenging at times, it has been incredibly rewarding to see real change occurring for patients, clinicians and the whole health system.

It is hoped that this document will serve as a report on our progress over the previous twelve months and also provide practical tools and guidance to others looking to implement integrated models of care. Our drive is to embed the principles of Integrated Care by making it the standard for the way services are delivered right across Western NSW.
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Key Initiatives

Ambulatory Models of Care and Hospital in the Home

The beginning of 2016 saw the LHD in receipt of additional funding from the Ministry of Health (MoH), to enhance the rollout of Hospital in the Home (HitH) and to bolster strategic partnerships with Aboriginal Health Services (AHSs) in the region.

With the changes to ambulatory models of care, community nursing and the implementation of HitH in our rural sites, all linked with the Strategy, a project team was established. The team’s primary role was to increase HitH admissions for both adult and paediatrics and work with AHSs to pilot telehome monitoring.

In addition to boosting HitH, the LHD conducted a review of community nursing with the view to better supporting integrated health care with a particular focus on integrated models of care.

Second Wave Demonstrators

Our last report, released in November 2015, coincided with the campaign calling for expressions of interest (EOI) for second wave demonstrators. The response was very positive with a diverse range of submissions received.

The selection of second wave sites was based on learning from first wave sites. With the focus on:

- Further developing population health outcomes
- Improving the patient experience
- Enhancing system efficiencies

Successful EOI submissions had to address the following key criteria:

- Commitment from local leaders to drive innovation and service redesign
- Demonstrated collaborative partnerships with other locality providers as well as the Western NSW Primary Health Network (PHN) and the Western NSW Local Health District (LHD)
- Capacity for the development of initiatives that will support multidisciplinary care and workforce upskilling
- Commitment to development and implementation of initiatives that align with the key directions of the Western NSW Integrated Care Strategy and improved health outcomes for patients
- Commitment to the wider Western NSW Integrated Care Strategy in reporting outcomes and sharing lessons learnt
By the beginning of 2016, the Steering Committee had evaluated the applications and second wave sites were determined as:

- Blayney
- Coonamble
- Mudgee
- Walgett
- Lightning Ridge*

*Lightning Ridge - was originally shortlisted as a second wave demonstrator however, it was recommended and approved by the Steering Committee that implementation be delayed due to the announcement of a HealthOne facility for Lightning Ridge in early 2016.

The announcement of second wave sites meant detailed project planning commenced immediately on integrated models of care, with implementation planned for July 2016.

First wave demonstrator sites primarily focused on managing high risk patients with chronic and complex conditions. As the Strategy has developed and lessons learned and applied, it was critical that second wave demonstrators tested not only new environments but also new models of care. Our new models of care in second wave sites have emerged as:

**Coonamble**
First 2000 Days of Life

**Walgett**
First 2000 Days of Life

**Blayney**
Chronic and Complex Conditions

**Mudgee**
Dementia Management  
Asthma Management  
Managing pregnancy in overweight and obese mothers
Highlights

NSW Health Minister Visits
In January 2016 Minister Skinner visited Molong HealthOne to formally announce sites successful in their bid to become Western NSW second wave demonstrators. Minister Skinner met with the Molong Integrated Care Team discussing how Integrated Care has changed service delivery and praised their efforts and commitment to the strategy.

In May 2016, Minister Skinner along with Minister Toole, NSW Minister for Local Government and Member for Bathurst visited Blayney MPS and HealthOne. The Ministers met with the newly established Blayney Integrated Care team and during the visit Minister Skinner launched the Western NSW Integrated Care Awareness Month and the #myhealthmatters social media campaign.

In November 2016, Minister Skinner visited Dubbo touring Dubbo Hospital's Birthing and Maternity Unit and meeting the team involved in the outreach service associated with the Bellies, Bubs and Beyond project in Coonamble.

Minister Skinner also visited Wellington Aboriginal Corporation Health Service (WACHS) discussing with the team, the changes and benefits Integrated Care has provided patients and the broader care teams.

Minister Jillian Skinner and Minister Toole with members of the Western NSW Integrated Care Strategy

Minister Skinner with Integrated Care Strategy team in Dubbo for Bellies, Bubs and Beyond

Minister Skinner and Dr Robin Williams with WACHS staff and patient
External Evaluation

In mid 2016 an external evaluation of the Western NSW Integrated Care Strategy was formalised and announced as a consortium of the following institutions:

- University of New South Wales, Centre for Primary Health Care and Equity (CPHCE)
- University of Sydney, Australian Rural Health Research Collaboration (ARHRC)
- University of Technology, Centre for Health Economics Research and Evaluation (CHERE)

The evaluation will consider:
- Implementation in terms of service providers
- Patient journeys and experiences
- Health outcomes and service utilisation
- Costs and benefits of the Strategy

There are three reports being compiled as part of the Strategy;

- The early indications report is scheduled for completion in December 2016;
- The initial evaluation report, scheduled for delivery in October 2017;
- And the final report scheduled for completion in December 2018.

Integrated Care Conferences

The Strategy has been recognised internationally with abstracts accepted and presented at the 16th Integrated Care Conference in Barcelona, Spain in May 2016 and; the 4th World Congress of Integrated Care in Wellington, New Zealand in November 2016.

Dr Robin Williams presenting at the Conference in New Zealand

Members of the Western NSW Integrated Care Strategy in New Zealand

Host city Wellington, New Zealand
First Wave Sites

The past 12 months have proven to be a particularly critical time for first wave sites. Many have successfully implemented initial stages of their respective models and have altered or enhanced aspects of their projects in order to better meet the needs of all stakeholders including patients.

Anecdotally the Strategy is making real differences to the lives of our patients, clinicians and the system as a whole. We are now looking to evidence what our people are telling us about the Strategy.

Graph 1.1

Enrolments By Site (Cumulative)

Graph 1.2

Enrolled Cohort ED Presentations

Graph 1.3

Enrolled Cohort ALOS

Graph 1.4

Enrolled Cohort Hospital Admissions

Over 400 Emergency Department (ED) presentations were recorded for the enrolled cohort 18 months prior to enrolment, peaking at almost 600 ED presentations six months prior to enrolment. After 12 months of enrolment in the Strategy the ED presentations have reduced to 323.

The graph also depicts an upward trend for ED presentations for at risk patients without interventions. Interestingly, the data suggests that the trend can be reversed with the correct interventions in place.

The data suggests that while presentations to ED have been reduced significantly, when patients are admitted to hospital post enrolment their admission is for a higher acuity or more complexity, depicted in the increase in average length of stay (ALOS).
A key milestone for the model in Cobar has been the commencement of enrolling patients under 70 years of age once the program was fully operational. The past twelve months have seen Cobar realise this goal with 46 patients under 70, now enrolled in the program.

Preceding the reduction in enrolment age, the model needed to be tested in terms of practicalities for managing a new group of patients, the cohesiveness of the care team and the responsiveness of the wider health system to the changes implemented.

Cobar was able to demonstrate readiness to expand the programs scope in the following ways:

- Amending the Comprehensive Health Assessment Tool for suitability with all age groups
- Redeveloping a Care Plan template for use by all practitioners
- Commencing regular interdisciplinary case conferencing at the Primary Health Care Centre, with representatives from Community Health, Acute Care, Ambulance and Allied Health
- Reshaping the former Aged Care Forum to the Community Services Forum and expanding the membership to include any community service provider servicing Cobar
- Promoting the uptake of 'My Health Record' for all ages and uploading shared health summaries
- Modifying workflow processes within the care team to increase involvement of Practice Nurses in health assessments and care planning for complex patients with chronic diseases
- Developing and promoting Advance Care Directives through local groups such as the Health Council, View Club and Rotary

In addition to the programs expansion to include patients under 70, Cobar has also been a trial site for the rollout of NSW Ambulance Paramedic Connect program. Paramedic Connect focuses on managing low acuity and chronic disease patients at home in collaboration with local health providers and has complemented the project in Cobar.

Cobar has also recently begun initial stages of planning for the implementation of a First 2000 Days of Life model. Early planning stages are focussing on data collection, identification of potential service providers and likely resource requirements to deliver best practice models.

Clinical Leadership

Is critical to the success of local demonstrator models of care. Clinical leadership does not necessarily need to be by a medical officer but they do need to possess leadership qualities - enthusiasm, appetite for change, vested interest in the community and above all capacity to drive changes within the team.
One of the highlights for Cowra in 2016, has been the improvements in multidisciplinary team care. The lessons learnt in the initial twelve months of the project have enabled better communication and developed relationships across the primary, acute, community based sectors, NGOs and social service providers.

As part of the Strategy service providers have iterated the difficulties in the implementation of a whole of locality approach to manage patients with mental health and drug or alcohol related conditions. Impeding a whole of locality approach is the number of providers and no formal mechanism for communicating a patient’s care plan.

The successful implementation of the cdmNet - shared care planning platform has allowed real sharing of care plans and notes between providers. The multidisciplinary case conferencing has also evolved and provides a crucial platform for better professional relationships and collaborative approaches to care.

The Model: GP led multidisciplinary care for people diagnosed with complex and chronic disease and people with complex and enduring mental health, drug and alcohol conditions.

About Cowra:
Population: 12 000
Aboriginal & Torres Strait Islander People: 6.5%
Aged 65+: 22.1%
Nearest Regional Referral Hospital: Orange, 95kms
Current enrolled patients: 108

Holistic Care
A key learning of the project particularly from Cowra implementing chronic disease and a mental health, drug and alcohol models of care, has been collaborative team based care.

The identification of crossover patients - those with chronic and complex conditions and also patients with mental health, drug or alcohol related conditions was significant and has yielded some very positive outcomes for patients and clinicians.

As a result of the Strategy, service providers have been working together to solve issues and from this a centralised intake process has commenced. The progression of a central point of contact for patients and carers has been a significant development in the Cowra model.

The model aims to provide one entry point for patients and their carers to access a team of providers rather than a series of single services. It is anticipated that the team will work together to better manage mental health, drug and alcohol (MHDA) patients in the community and prevent acute admissions to hospital.
The Proof is in the Plum Jam!

We’re incredibly fortunate to have Dr Ros Bullock, Cowra GP as the Strategy’s Clinical Lead.

In January 2016, during Minister Skinner’s visit to Molong, to announce second wave sites, Ros presented The Minister with a jar of plum jam.

![Dr Ros Bullock presenting her plum jam to Minister Skinner in January](image)

Using plums gifted to her by patient John*, Ros crafted the jam the night before, for the sole purpose of presenting it to Minister Skinner the following day to thank her for her ongoing support.

**John’s Story**

John, was one of the first to enrol in the Integrated Care Strategy, Chronic Disease Program in Cowra.

Having been diagnosed with a chronic disease several years ago, John had a history of poor management of his condition over the Christmas period and would often be admitted to hospital as a result.

The Christmas of 2015 was the first in long time that John remained at home. His care was carefully planned well in advance and then monitored throughout the holiday season.

The team of doctors, nurses, allied health professionals and care coordinators from the Practice and the LHD, worked together and utilised opportunities to case conference, share clinical information and determine the best way to care for John to prevent hospitalisation.

It comes as no surprise that John remained at home over the holiday season. However, the extent to which his health and hospitalisations affected his quality of life were particularly evident in January.

John attended the Practice in January and was delighted to give Ros some plums that he lovingly picked over Christmas. John explained to Ros he was so grateful to have been able to spend his Christmas not just at home with his loved ones, but stable and well enough to be in his garden.

The humble jar of plum jam is symbolic of what the Strategy can deliver and has become synonymous with Integrated Care in Western NSW.

*Name changed to protect identity.
The Dubbo Diabetes Project - phase one, was focused on improving the management of Type 2 Diabetes in Aboriginal patients, piloting the project at the Dubbo Regional Aboriginal Health Service (DRAHS).

Recognising the need to expand the focus cohort to all patients with diabetes in Dubbo, the project progressed to phase two 'whole of locality'. The evolution of the project to a whole of locality approach has brought with it significantly more challenges. Two key issues faced by the project team have been; securing engagement across all ten practices and recognising that each service provider has different needs in terms of support and resource requirements.

The progression into phase two of the project has enabled the application of lessons learnt in phase one and also findings from the research undertaken which have included:

- Supporting and facilitating the uptake of 'My Health Record' in primary care settings with specialists, community pharmacists, private and public allied health providers
- Improvements to the four key domains for changing diabetes management education, communication, workforce and service reform across all service providers
- Establishment of the Dubbo Diabetes Health Network. Membership of the Network is multidisciplinary with representation from all service providers in Dubbo

The Project Team have been working together with all service providers in the area, implementing lessons learnt including:

- Development of referral pathways for diabetes patients in the area
- Providing seamless transitioning of patients between acute sector and primary care service providers
- Better supporting care providers to manage patients in the community to prevent acute episodes occurring
- Empowering patients to manage their conditions and improve their quality of life

The Model: GP led multidisciplinary care for people diagnosed with Type 2 Diabetes, with a particular focus on Aboriginal People.

About Dubbo:
Population: 40 500
Aboriginal & Torres Strait Islander People: 12.3%
Aged 65+: 12.1%
Nearest Regional Referral Hospital: Dubbo
Current enrolled patients: 65

The Macquarie River, Dubbo
**The Model:** GP led multidisciplinary care for people aged over 16 years with diagnosed chronic disease and associated complex health and care needs

**About Molong:**
Population: 2,400
Aboriginal & Torres Strait Islander People: 3.3%
Aged 65+: 13.6%
Nearest Regional Referral Hospital: Orange, 35kms
Current enrolled patients: 207

Integrated Care in Molong is focused upon improving the health of people with chronic and complex conditions through a GP led multidisciplinary team based model of care within the Molong HealthOne.

Through the Integrated Care Strategy there has been the establishment of clear care pathways which has enabled enrolled patient to better manage their care.

The Project identifies patients who are frequent users of health care in Molong, including hospital, general practice and community based care. Once identified, patients were invited to register for Integrated Care where they would receive a:

- Comprehensive Health Assessment
- Case Conference
- Shared Care Plan
- Medication Review

All enrolled Integrated Care patients are allocated a Care Navigator who works closely with the patient and their carers to help link them to identified health and social services.

Over the past 12 months the Molong Project has also begun focusing on the 45-49 years age group to identify those potentially at risk of developing chronic disease in the future. The team of clinicians at Molong HealthOne are conducting structured chronic disease risk assessments with the group to identify relevant risk factors.

Those identified with early chronic disease or identified risk factors are then closely managed through planned and structured care and recall / review.

A key enabler at Molong has been the use of a shared electronic record. General practice and LHD community based care providers located at Molong HealthOne all access and input into the electronic software (Best Practice) which has facilitated the ability to share relevant information to guide care planning and delivery of care.

Underpinning the success at Molong, has been the social and community care coordinator who has joined the multidisciplinary team to work with the enrolled cohort and facilitate the coordination of social care for identified people.

**Shared Care**
An astounding 90% of people attending the Molong HealthOne have agreed to share their medical record with the HealthOne care team including general practice and community based providers.
Wellington

Building upon the previous twelve months of work, the Wellington Project continued its focus on better managing Aboriginal people with chronic disease through culturally appropriate team based care. Two crucial positions have been established at Wellington Aboriginal Corporation Health Service (WACHS) to support the local project.

- The Care Facilitator supports the patient, family and care team to better manage a person's identified health needs by organising appointments, referrals, home visits and structured follow up.
- The Social and Community Care Coordinator works closely with the patient, family and social care providers to facilitate the coordination of social care including transport and meals on wheels. It was recognised early on in the project that the role of social care coordination was just as important as coordination of health care needs.

Care Coordination & Care Navigation

As the Strategy has evolved it has become evident across the various models how important the care navigation and social and community care coordination is to the success of the project. These roles are critical to supporting multidisciplinary and multiagency care functions. However, under current funding mechanisms such as the MBS there is no scope to ensure sustainability. Moving into the future we are working on investing in these roles through an outcomes based approach.

One of the key highlights for the WACHS project has been the hosting of local service provider forums. These days provide an opportunity for all providers in Wellington to meet and discuss opportunities to work together with a focus on connecting patients to the care they need across the health and social care sectors. The local service provider forums have fostered important networks and connections for providers, reducing service duplication and improving outcomes for patients, carers and their families.
Second Wave Sites

The expansion of the Strategy into second wave has been considerably less onerous. We have applied our learning from first wave sites that have made marked improvements in all aspects of planning and implementation.

Learnings from first wave that have been implemented in second waves sites have included:

- Extensive campaign calling for comprehensive EOI’s, assessing site’s readiness to implement integrated models of care
  - Resulted in a diverse range of innovative submissions
- Changed how we allocate funds to our local demonstrator sites
  - Second wave sites and the proposed models are requiring less resources

The implementation of the START (Support, Training, Advice and Resource Team)

- Focus on project and change management support assistance with design and implementation of new models
- Comprising of at a minimum:
  - Project lead
  - Project officer
  - Specialist advisor (dependent on the model and the local needs) eg. Clinical Nurse Consultant (CNC) or Clinical Midwife Consultant (CMC)
In May 2016, Blayney hosted NSW Health Minister for Health, Jillian Skinner and Member for Bathurst, Paul Toole. During this visit Minister Skinner, launched the Western NSW Integrated Care Awareness month and launched the #myhealthmatters social media campaign.

The Blayney Project is focusing on providing an holistic approach to health care. Since its inception the team have developed key networks with Orange Aboriginal Medical Service (OAMS) and the LHD’s Oral Health team to enhance dental services for Aboriginal clients, with a particular focus on the enrolled cohort in Blayney. This is a new service for the area and is conducted fortnightly.

The team have also assisted with the enhanced physiotherapy and occupational therapy services to Blayney residents. In addition, the subacute team at Blayney MPS is also now able to offer outpatient appointments through the support of Bathurst Health Service.

Through learnings in the first wave rollout, Blayney have adopted the multidisciplinary care conferences. Utilising videoconferencing, the outreach allied health staff from Bathurst are then also able to actively participate in the weekly case management meetings.

A key milestone for Blayney has been the achievement of 100% of the enrolled cohort having completed a comprehensive health assessment. Subsequently the team have been able to work with the patient and other care providers in developing a care plan which is then shared via cdmNet.

The 'Meet Ted' animation has also been completed. The short video explains to people what Integrated Care is and how the project in Blayney can help with complex health issues.
The 'First 2000 Days of Life' project 'Bellies, Bubs and Beyond' was officially launched in Coonamble in October 2016. The first of its kind within the Western NSW Integrated Care Strategy.

The model of care is a whole of community response to supporting all families as early as possible. The model has been developed with two distinct entry points reflecting the current stage of life for the family.

1. Early in the first trimester of a woman’s pregnancy
2. Children from birth to the commencement of formal schooling and their parents.

The model supports the development of key relationships from the earliest stages of life, when early interventions have a significant impact on improving the health and development of a child. Additionally the model identifies the health and social needs of parents or carers as a vital component to the holistic approach to happy and healthy families.

The antenatal focus of the project aims to identify women as early as possible to connect them with the required specialist services. The model aims to provide the following for all women:

- Access to their first comprehensive health assessment prior to 14 weeks
- A Care Plan reflective of their obstetric, general health and social care needs
- A Care Navigator to coordinate health and social needs

- A choice of care which may include shared care between midwife, GP and specialist providers
- Regular communication to support the transition of care between the community and the birthing facility
- Early identification and support to address existing and emerging psychosocial risks
- Support to enhance healthy lifestyle choices
- Access to coordinated and responsive postnatal care
- Continued support for the family after the birth of their baby with their health, development and wellbeing until the child commences formal schooling.

Dubbo Hospital is the main birthing site for regional communities west of Dubbo. The recent successful recruitment of two outreach midwives, based in Dubbo has had a very positive impact on the project. The role of the outreach midwives is to work closely with the hospital staff and also the patients home community midwives.
The second entry point, for children from birth until formal schooling, is a whole of family initiative, addressing identified health and social care needs coordinated by the service provider of choice. The model provides a monitoring and review system that is relevant to the needs and stages of life. All families enrolled in the program have a review schedule reflective of their current needs.

As part of the model, parents and children enrolled in the program will have access to:

- Comprehensive health assessments
- A care plan incorporating health and social care needs
- A Care Navigator to coordinate referrals for health and social needs
- Regular communication supporting linkages between relevant service providers
- Early identification and support to address existing and emerging psychosocial risks
- Supporting healthy lifestyle choices
- Coordinated review and monitoring of enrolled families

Multi-agency Initiatives
Throughout the Strategy we have tested and trialled different ways of working with other service providers. The First 2000 Days of Life model in Coonamble has been the first multi-agency approach where a ‘one door entry’ has been adopted. The model provides every family a lead carer and care navigator who work in partnership to coordinate and tailor service utilisation to client and patient needs.

Bellies, Bubs and Beyond Promotions

Resource Management
Resulting from lessons learnt in first wave sites and from implementing multi-agency initiatives has meant projects such as the First 2000 Days of Life have less resource intensive. By investing in the roles that are the key links between service providers, we get better value for money and better outcomes for our patients through better service coordination.
The Mudgee Projects are relatively new, with enrolments commencing in October 2016. The Mudgee submission was the result of a collaboration between both general practices in town, another relatively new concept in the Integrated Care Strategy.

**AIM Project**
The Asthma in Mudgee (AIM) Project is focusing on:
- Developing a comprehensive service model including the completion of comprehensive health assessments for each enrolled patient
- Establishing key partnerships - including the Asthma Foundation, Specialists and PHN
- Holding whole of community education sessions

The AIM project is seeking to reduce ED presentations, improve community management of asthma patients and enable patients to lead a better quality of life through the improved management of their condition.

**THINC Project**
The Dementia project, THINC - Timely, Holistic, Integrated, Nearby Care - for dementia and cognitive decline. The project is initially being led by South Mudgee Surgery with the view that, once established and fully operational, learnings will be easily transferrable to Mudgee Medical Centre.

The goals and objectives of THINC, centre around linking service providers from acute, primary, community and social sectors to deliver better coordinated person and carer centred care.

**Key focus area for the THINC project include:**
- Establishment of the Memory Clinic
- Timely diagnosis of cognitive decline and referral to community support service
- Early future planning
- Reduction in duplication of assessments
- Aligning the project with the LHD Geriatric Medicine Service
- Fostering relationships between general practice, LHD and community providers

The Models: GP led multidisciplinary care for:
- Asthma Management
- Dementia and Cognitive Decline Management
- Pregnancy for Overweight and Obese Women

**About Mudgee:**
- Population: 9,830
- Aboriginal & Torres Strait Islander People: 4.3%
- Aged 65+: 17.3%
- Nearest Regional Referral Hospital: Dubbo, 127kms

**Community Pharmacy**
Community pharmacy has a major role to play in identifying poorly managed conditions in the community.

We’re working closely with all community service providers to identify at risk patients outside of general practice and hospitals.
'Expecting Changes' Project

The project focusing on management of pregnancy in obese women - 'Expecting Changes' is being trialled at both South Mudgee Surgery and the Mudgee Medical Centre. The project is the result of 73 of the 290 women booked in to birth at Mudgee Health Service in 2015, recording a body mass index (BMI) >30, at 26 weeks gestation.

If a woman is recorded as having a BMI >40 at the time of delivery, they are unable to birth in Mudgee due to the associated increased risk factors, and must travel to Dubbo or Orange Health Service to receive the appropriate level of care.

Evidence shows obesity in both mothers and fathers (at time of conception) can increase the risk of complications and are also more likely to have significant long term detrimental impacts on a child.

The project is aiming to:

- Achieve healthy weight gain during pregnancy or weight loss if planning pregnancy
- Support women in achieving a targeted weight range
- Promote a 'whole of family' approach to healthy lifestyle choices

It is envisaged that the project will reduce risk factors associated with obesity in pregnancy, enable more women to birth closer to home as a result of reducing risk factors and increases the chances of a safer birth, healthier babies and longer term wellbeing of the family.

Our New Trainee Aboriginal Health Worker in Mudgee, Shai

Our newest member to the Mudgee Integrated Care Strategy is Trainee Aboriginal Health Worker, Shai. The trainee role is new to the Strategy and also new to Mudgee. Shai will be working closely with both general practices in town and the Mudgee Health Service on all three Mudgee projects to better engage and support Aboriginal People.

As part of the traineeship program Shai will attend TAFE and will be mentored by the Project Lead and Registered Nurse, Felicity, as well as working with the Integrated Care team at WACHS. While mentoring is not a new concept for trainees, the model is unique in that Shai will be employed by the LHD but will be working closely across acute, primary and community and NGO sectors.

We are extremely proud to be able to offer this opportunity and hope to further develop this model to grow our Aboriginal workforce and to embed holistic culturally appropriate care throughout our services in Western NSW.
Walgett

The Model: Multi-agency and multi-disciplinary whole of family approach coordinating a whole of community response to the health and social care needs that initiates early intervention from pregnancy through to the commencement of formal schooling.

About Walgett:
Population: 2 267
Aboriginal & Torres Strait Islander People: 44.3%
Children Aged 0-14 years: 26.0%
Nearest Regional Referral Hospital (within the LHD): Dubbo, 276kms

The Walgett project is relatively young in comparison to the other projects in the Western NSW Integrated Care Strategy.

There have been significant risks associated with undertaking a project of this size in Walgett including:
- Isolated community
- High rates of relative disadvantage
- Large Aboriginal population
- Workforce challenges - attraction, recruitment, retention and appropriate skill mix

The Walgett project - ‘Family Health and Wellbeing’ is focused on addressing the health and social needs of the family.

The identified cohort of children aged between zero to five years old have been risk stratified as having an existing chronic condition (ears, skin, heart or lungs). The approach is to identify the family unit, performing a gap analysis and identify needs through the comprehensive health assessment. Once a care plan is developed between health and social care providers the family are invited to partner with care providers to address their identified needs

The child health assessment involves a physical, oral, aural, development, behavioural, speech and occupational therapy assessments

While the adult health assessment aims to identify physical, chronic disease and mental health, drug & alcohol conditions.

All social care assessments aim to identify service needs associated with:
- Family
- Literacy and communication
- Housing
- Food
- Spiritual
- Social support
- Personal skills
- Finances and budgeting
- Transport
- Education and/or employment

Areas of identified need will be coordinated by the care navigators to assist in developing and maintaining referral pathways to support the achievement of individual and family goals.
Community Nursing

During the implementation of the Integrated Care Strategy, the Primary and Community Health (PaCH) Nurse was identified as fundamental to the success of integrated models of care, particularly when working with chronic disease patients.

As part of the local demonstrator site projects and Ambulatory Care / Hospital in the Home (HitH) initiatives, the PaCH nursing workforce have been aligned to fulfil key integrated care functions including:

- Assessments
- Care planning
- Case management
- Care coordination

As the Integrated Care Strategy expands there is further opportunity to align the PaCH nursing workforce to better support contemporary models of primary care, with a focus on integrated care.

Hospital in the Home

In 2016, the LHD received additional funding to rollout Hospital in the Home (HitH) in our rural sites and enhance the HitH program in rural referral facilities to include paediatrics.

As a result of the additional funding the LHD are now able to offer HitH in the following locations across the District:

Adult and Paediatric - Bathurst, Dubbo and Orange
Adult HitH only - Cobar, Cowra, Mudgee, Parkes and Peak Hill

The LHD target for HitH admissions is 2.7% of total admissions. Achievement of the HitH target has been hampered by a variety of challenges including:

- Recruitment to key roles
- Extensive consultation with staff in new sites to develop models of care and tailor to local staff needs and resources

However, after months of hard work we are thrilled to have achieved target in September and October 2016. With the addition of the first ever transitional nurse practitioner in the LHD, having commenced in August 2016, we anticipate exceeding HitH admission targets into the future.

LHD Community Nursing CNC, Andrew with WACHS Integrated Care team members Anita and Chloe
HitH Case Study - Laurie

Eighty-eight year old Laurie, who lives with his wife on the outskirts of Mudgee, was happy to trial HitH to treat his knee infection which required six weeks of intravenous antibiotics.

Laurie was chosen to trial the HitH service because his doctor confirmed that his condition was stable and his wife, Del, was able look after him in between the daily visits from a registered nurse.

“It’s great being in my own home, in my own bed and having a choice about what I can eat! It’s not that the care in hospital wasn’t good, it’s just that I would prefer to be at home to receive the same care,” said Laurie.

Del has also found HitH very beneficial saying “it’s a blessing having the nurses come to our home. It takes the pressure off us - having Laurie in hospital and me visiting him each day, or both of us having to go to the hospital each day for the treatment. He can sleep when he wants without disturbance and do his own routine.”
Telehome Monitoring

Kaye lives on a property near Dubbo and was happy to be a part of the telehome monitoring trial recently after complications from bronchiectasis.

The telehome monitoring devices are able to measure blood pressure, blood oxygen saturation levels, blood glucose, temperature, weight and electrocardiography (ECG).

Kaye's data is wirelessly transmitted back to community based nurses at Dubbo Hospital who remotely monitor her vital signs at least once a day.

When asked how the telehome monitoring was going Kaye said "Good! It means I don't have to lift the wheelie walker in and out of the car to go in to town and visit the doctor; and it's good just knowing that the girls are there to keep an eye on things".

Cardiopulmonary Rehabilitation Coordinator CNC, Maria said "I've found the telehome monitoring has been really good because we've had contact with Kaye everyday and if there's been any problems we can talk to her on the phone".

Further funding was provided in January 2016 to enhance partnerships with AHSs in the region to improve chronic disease pathways and HitH. This provided an opportunity for the LHD and Bila Muuji to collaborate on a second trial with in-home monitoring with Aboriginal clients and AHS staff

The roll-out of the second trial with the AHSs is progressing in Bourke, Breewarrina, Coonamble, Dubbo, Forbes, Orange, Walget and Wellington. Training was delivered in October and our first Aboriginal patients enrolled in November.

As with all new technology, staff are learning how to use equipment with patients and are gaining confidence with connecting and supporting patients at home with telehealth monitoring. The rollout at HitH, demonstrator sites and AHSs is aligning integrated models of care to better support patient care in the community.

Telehome Monitoring Case Study - Kaye

NSW Health, as part of the rural e-health strategy provided funding to trial in-home tele-health monitoring. Extensive consultation with staff at HitH and first wave demonstrator sites has produced resources and training to support the staff and patients during the trial. Training commenced in March with staff to enrol and connect patients with equipment to do their own vital signs (blood pressure, temperature, blood oxygen, weight, blood glucose level and ECG) at home, which community nurses can monitor remotely on a computer. Patient enrolments commenced in May in trial sites.

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eHealth
The use of eHealth was identified as key to supporting the sharing information between different care providers. Over the past 12 months, Western NSW and eHealth NSW have continued to explore solutions to support local demonstrator site integrated models of care.

Key initiatives in Western NSW over the past 12 months include:

My Health Record
All local demonstrator sites have encouraged integrated care enrolled patients to register for the Commonwealth’s 'My Health Record' initiative with the majority of identified patients agreeing to register. With the improved functionality of 'My Health Record', sites identified this as a way to share information across providers. It is acknowledged that 'My Health Record' provides information at a point in time and has limited ability to share a care plan with the nominated care team.

HealtheNet
Western NSW LHD completed implementation of the electronic medical record and HealtheNet across all sites. This has enabled the transfer of clinical information between LHD patient administration systems and 'My Health Record' allowing clinicians across all sectors greater access to information about their patients registered with 'My Health Record'.

Electronic Shared Care Planning
The local demonstrator sites continued the pilot of the electronic shared care platform cdmNet. Varying results have been achieved and it has been observed that it works well in sites where care providers were spread across sites and localities as opposed to sites where care providers were co-located eg HealthOne sites.

Single electronic health record pilot - HealthOne
Two HealthOne local demonstrator sites, Molong and Blayney are using a single electronic health record. HealthOne has the advantage of co-location of general practice, community based LHD and private providers. However, all providers use their own records with very little or no sharing between the team. Molong and Blayney agreed to the general practice record as the single electronic health record allowing all providers to access view and input into a patient's record. Express written consent was obtained from all integrated care patients to enable this to occur.

Quality Health Improvement Portal
The Western PHN has been working with the general practices at the local demonstrator sites, enabling an electronic clinical audit tool to provide anonymous data to a secure quality improvement portal. The data is used for the purposes of key performance indicator (KPI) monitoring, benchmarking, risk stratification, analysis and feedback to the practice.
eHealth continued - Challenges

The Western NSW Integrated Care Strategy has experienced challenges and learnt lessons when trying to share relevant patient information electronically. At the local demonstrator sites it was observed that ‘off the shelf’ electronic shared care platforms often did not fit seamlessly into the individual care providers workflows leading to many providers not using the electronic tool.

Upon questioning care providers, it was identified that sharing relevant information about a patient electronically was a key enabler of the local models of care. However, any electronic tool needs to fit all providers’ functional, process and business requirements which is difficult given the differing IT systems and needs of individual providers.

Risk Stratification

The ability to identify patients by risk and target interventions depending on their level of risk, is an important aspect of the work at local demonstrator sites. Sites initially developed integrated models of care for the high risk people with complex chronic disease and complex mental health conditions and drug & alcohol issues, generally 1-2% of their practice populations.

The sites identified and implemented a process to link hospital and general practice data to identify those patients in the high risk group. As the local demonstrator sites implemented the initial models they recognised the need to focus more on the whole of practice population and target additional identified health needs eg. First 2000 Days of Life and Dementia.

Risk stratification continues to evolve in Western NSW to ensure Integrated Care initiatives are modelled on the patient centred medical home (PCMH) concept. This will enable a focus on better managing the high and moderate risk patients, or 5-20% of the population to ensure they receive proactive, planned and structured care which is targeted to their identified health needs.

The local demonstrator sites are working towards a PCMH ‘whole of population’ approach to integrated care with the following components:

1. Whole population risk stratification
2. Models of care developed for all stratified tiers
3. Defined interventions for all stratified tiers
4. Tools to support agreed models of care
5. Technology to support agreed models of care
6. Workforce to support agreed models of care
7. Funding to support the models of care
8. Well defined monitoring and evaluation to assess patient outcomes and quality of can
9. START team to support rapid implementation including redesign and culture change.
Risk Stratification continued

Diagram 1: Risk stratification for the whole of population - chronic disease

Diagram 2: Intervention to match risk stratification - chronic disease

Used to identify patient cohorts, risk stratification requires linking of patient level data from a variety of sources. The importance of ‘clean’ data sources and comprehensive analytics has been identified as critical to improve the accuracy of risk stratification and designing models of care and interventions.
Patient Reported Measures

A key outcome of the Western NSW Integrated Care Strategy is to achieve improvements in patient experience, health outcomes and quality of life.

The local demonstrator sites have been collecting patient feedback to track changes in experience and self-reported outcomes for patients enrolled in Integrated Care. Measures were collected on enrolment into the Integrated Care Strategy with follow up measures taken at 6 or 12 monthly intervals depending on the initiative.

Over the past 12 months the Strategy has streamlined the measures to make it easier for the sites to collect this information and will use the data to inform evaluation of the local strategy.

Risk Stratification - Challenges/Lessons Learnt

The local demonstrator sites have used risk stratification as a tool to identify patients according to their level of risk and target interventions depending on the patient’s need.

The sites developed a process that used linked patient level data from general practice the hospital system to improve the accuracy of patient risk assessment.

However, linking patient level data has proved challenging requiring significant manual data manipulation including ‘cleaning’ data sources and gaining consent from patients.

Given this experience, the local demonstrator sites have identified the importance of ‘clean’ data sources and comprehensive analytics for risk stratification and designing models of care and interventions.

The grain silos, Molong

Bellies, Bubs and Beyond Launch in Coonamble
Health Intelligence Unit

Over the past year the HIU has implemented and achieved a number of initiatives, including:
- Transition of several LHD teams to formally become part of the HIU in February 2016 with total staffing at 17.53 FTE
- Launched a new portal OPAL, called for LHD reporting, ongoing development is occurring
- Design and proof of concept for HIU cloud portal (for access by all member organisations and their constituents)
- Building a production version of the portal and initiating security and penetration testing (nearing completion)
- Preparation of extensive suite of data governance policies, procedures, tools and resources
- Privacy Impact Assessment undertaken
- Baseline Regional Health Needs Assessment completed in March 2016
- Enhanced version of Regional Health Needs Assessment commenced
- Re-signing of Statement of Commitment by member organisations and negotiation of nominal financial contributions for 2016/17
- MOU and SLA templates agreed and first SLA finalised and signed
- Maintenance of core business for existing teams
- Recruitment of a new Director for HIU
- Continuing to support evaluation in particular in terms of data and information provision and analytical methods
- Preparation of detailed profiles for each Wave 2 Demonstrator site to inform their local planning
- Developed a set of draft measures in OPAL to enable reporting on trends in use of hospital and other LHD services by enrolled cohort.
- Providing advice, support and input to analysis and reporting of patient reported measures
- Working with the Integrated Care strategy team to improve methods of collection of data related to the enrolled cohort
- Working with PHN to develop methods and models for extracting relevant data from general practice systems to contribute to IC reporting
- Exploring potential collaboration with Gold Coast Integrated Care in terms of data and reporting.

Achievements specifically related to the Integrated Care Strategy include:
- Work on three year evaluation of the WNSW Integrated Care Strategy
- Led the process to appoint academic partners to undertake evaluation of the Integrated Care Strategy. Negotiated to ensure appropriate plan and costings.
- Evaluation team in place, initial consultations held and evaluation plan developed, ethics approval received for quantitative analyses and provider input
- Continuing to support evaluation in particular in terms of data and information provision and analytical methods
- Preparation of detailed profiles for each Wave 2 Demonstrator site to inform their local planning
- Developed a set of draft measures in OPAL to enable reporting on trends in use of hospital and other LHD services by enrolled cohort.
- Providing advice, support and input to analysis and reporting of patient reported measures
- Working with the Integrated Care strategy team to improve methods of collection of data related to the enrolled cohort
- Working with PHN to develop methods and models for extracting relevant data from general practice systems to contribute to IC reporting
- Exploring potential collaboration with Gold Coast Integrated Care in terms of data and reporting.

A major focus over the last year has been on developing the IT infrastructure and data governance processes to enable delivery of the vision and to ensure privacy and security of health information are stringently protected.

In building the infrastructure and working closely with eHealth NSW, we have discovered that our integrated approach and the technical requirements are pushing the boundaries of what has been done in NSW and the Australian health system to date. There have been many challenges and hurdles to overcome but we look forward to driving the success of the Unit into the future.
The Western NSW Integrated Care Strategy has continued to evolve over the past 12 months and we are immensely proud of our achievements. Implementation of the Strategy has been complex and challenging at times. However, our community and care providers are starting to experience the benefits of integrated care in WNSW.

The work as part of our Integrated Care District Wide Initiatives moved to the implementation phase over the past 12 months, with a focus on Ambulatory models of care and HitH. This work is important for our vast region as it will enable care to be provided in local communities as close to peoples’ homes as possible.

Key enablers to support integrated models of care have been tested and trialed as part of our strategies at local demonstrator sites. Whilst many initiatives are local developments there have been many lessons learned that could potentially inform development of integrated care enablers into the future.

As a NSW Health Integrated Care Demonstrator Site, Western NSW has been provided with an invaluable opportunity to tailor initiatives to address our unique rural and remote health needs. The experiences and lessons learned over the past three years are considered transferable to other contexts and environments, taking into consideration appropriate tailoring to the local situation. We look forward to further embedding integrated care in our region and welcome opportunities to continue sharing our learnings.

First wave demonstrator sites continue to embed their models of care for the high to moderate risk group and move towards a ‘whole of population’ approach to integrated care. With the introduction of second wave sites we have been able to test the transferability of models currently being tested in the first wave sites and target initiatives to address identified priority health needs such as the First 2000 days of life and dementia. The introduction of the START team has been critical in providing intensive project and change management support ensuring success of integrated models of care at the local demonstrator sites. This team will be instrumental in rolling out integrated models of care at scale and pace across Western NSW.
Next Steps

Western NSW has a clear vision for the future of Integrated Care in our region. Continuing our partnership approach we will embed successful Integrated Care strategies and identify new opportunities with a focus on initiatives that address the region’s identified health needs. The following priorities have been identified for the next two years:

Identify and invite key partners in our region from all sectors to engage and participate in providing strategic planning and determining priorities for Integrated Care in Western NSW. We will be looking to transfer integrated models of care across the region with a focus on:

- Chronic Disease Management
- Mental Health
- Aboriginal Health
- First 2000 Days of Life

Local initiatives will be modelled on the PCMH concept with a ‘whole of population’ approach to integrated models of care.

Expansion of the START team to provide intensive Project Management and Change Management support to plan and implement Integrated Care initiatives across Western NSW.

Further develop and expand Ambulatory models of care and Hospital in the Home to deliver care in local communities as close to people homes as possible.

Work with key partners in the region and more broadly to investigate potential funding for critical unfunded integrated care interventions such as Social and Community Care Coordination and Care Navigation.

We are immensely proud of our achievements over the past three years and we look forward to continued growth and development of our Strategy to deliver a truly integrated system of care for the people of Western NSW.
Thank you to all involved in the Western NSW Integrated Care Strategy