



Opening Doors: Evaluation of Maari Ma Health Aboriginal Corporation's Chronic Disease Strategy

December 2016



Maari Ma's Vision

Aboriginal people live longer and close the gap – families, individuals and communities achieve good health, wellbeing and self-determination supported by Maari Ma.

**Opening Doors:
Evaluation of Maari Ma Health
Aboriginal Corporation's
Chronic Disease Strategy**

December 2016

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A note on terminology

In this report the term 'Aboriginal' is used to refer both to Aboriginal and Torres Strait islander peoples. The term 'Indigenous' is used to refer to indigenous peoples globally. The term 'Non-Aboriginal' is used for those Australians who are not Aboriginal and/or Torres Strait Islander.

From Maari Ma's Chairperson and Chief Executive Officer:

Just over 10 years ago, Maari Ma developed its Chronic Disease Strategy. It provided the organisational framework for improving population health and wellbeing across the Aboriginal population in far western NSW through reducing the incidence and impact of chronic health conditions on our communities. The strategic nature of the strategy and its long-term timeframes reflected the importance and complexity of the task.

This report provides a narrative of the work associated in rolling out the Strategy over the last decade. It presents a record of the experiences of many people over many years in transforming our health care system and improving access to health services for Aboriginal people. It demonstrates that there has been significant progress in the right direction in implementing our Strategy. It identifies some improvements we can make going forward and ways we can build on the earlier achievements. Finally, it captures the blood, sweat and tears of many people, families, clients and friends from our region and beyond, who have influenced what we are as an organisation and what we do. We now share this work and our learning with the wider community in the hope it will assist Aboriginal health more broadly, and we commend it to you.

While the publication of this report is a time to applaud, we would caution that chronic diseases remain the health conditions of greatest concern facing Aboriginal people living in the far west of NSW today because of the significant burden they place on individuals, communities and health services.

As such, building on our achievements and impact on health outcomes over the last decade, we will need to take on board the evaluation's recommendations about where we can improve, so we continue to provide high quality care for people with chronic diseases as well as extend our current services to perform even better.

There has never been a greater need to empower individuals and the community through a better understanding of what causes ill health and what can prevent and alleviate it. While the evaluation demonstrates we are on the right track, it also tells us that we have a long way still to go. There is not only a need to change lifestyle habits and behaviours to enhance wellness but to continue to build systems and environments that support self-management and healthy behaviours.

We would like to thank all the many people involved in the development and implementation of the Strategy for their contribution and efforts, as well as those who contributed to the evaluation over the last 12 months, including the Menzies team.

We urge you all to remain engaged and committed to the important work still to be done and to improving the health outcomes of Aboriginal people in far western NSW.

Maureen O'Donnell
Chairperson

Bob Davis
Chief Executive Officer

Foreword

This evaluation of Maari Ma's Chronic Disease Strategy gives an account of our efforts over the past decade to prevent, detect early and better manage chronic disease in our community. Some of the information is technical and some of it is communicated as a story, but it all highlights where our organisation started more than a decade ago, where we are today and the work that we still need to do.

Looking back, we can see that our Chronic Disease Strategy provided a mechanism to open doors for the community. Like a series of doors, one opening after another, the service progressed side by side with our community – moving forward together and taking on board the health needs of Aboriginal people living in the outback. Acknowledging, and with respect, these health needs were often not understood or considered a problem by many Aboriginal people in our communities. Many people were living in isolation and this was compounded by them not being seen as part of society. These factors motivated Maari Ma to develop this strategy. Trust was difficult to establish but over time it was achieved and relationships were formed, and together we were able to move forward to the next step.

The Chronic Disease Strategy organised our workforce in a way that assisted community and staff to build a more meaningful relationship. Discovering illnesses and understanding health for the first time enabled community members to be diagnosed and educated about their disease and to access services to better manage their health.

The evaluation process and findings have empowered us to learn from what we've done, to be transparent and accountable to the community for whom we work, and to guide our improvements going forward.

'We are committed to closing the gap, but never closing the doors.'

The fact that we are still implementing the Strategy more than 10 years after we developed it, and the fact that we still have a Strategy to evaluate, demonstrates we are here for the long run. Going forward many more doors will open and keep opening - because together with community we remain committed to Closing the Gap. The evaluation is evidence of Maari Ma's long-term commitment to this aim.

As the next door opens, I look forward to new beginnings and greater connections, healthier futures and a clearer path as we travel together to Close the Gap. But, in the end, it's the opening doors that sum up our journey.

Kaylene Kemp

Manager, Community Engagement

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About this Evaluation

The Evaluation is made up of three parts – **Summary, Report and Appendices** – and is co-authored by Menzies School of Health Research and Maari Ma Health Aboriginal Corporation, with Menzies providing the technical assistance. The views expressed, therefore, should be attributed to the organisation responsible for each Section (see below). The report has been developed in collaboration between the partners in the evaluation. However, responsibility for the content of each section lies with the organisation that has taken the lead role in writing the section.

The **Summary** reflects the key achievements of the Chronic Disease Strategy and identified priorities for the future. The main **Report** describes the Maari Ma region, evaluation methodology, Chronic Disease Strategy and the findings in relation to the evaluation objectives.

The following Sections of the Report have been written by Maari Ma Health Aboriginal Corporation:

- Section A: Introduction
- Section C: Chronic Disease Strategy
- A number of vignettes throughout Section D.

The following Sections have been written by Menzies School of Health Research:

- Section B: Chronic Disease Strategy Evaluation
- Section D: Progress on the Chronic Disease Strategy Objectives
- Section E: Major Achievements of the Strategy and Priorities for Further Development

The **Appendices** contain more detailed information on the evaluation framework, clinical audit data and hospitalisation data presented in the main Report.

Acknowledgments

Many people have made important contributions to this report, including:

- Maari Ma Board of Directors for their leadership
- Maari Ma staff, past and present, for their time, expertise and insight
- NSW Ministry of Health for timely data provision
- The Menzies evaluation team, led by Ross Bailie and Jodie Bailie¹

We would like to thank all interview participants for their time and interest.

We acknowledge and pay respect to the Aboriginal people of far western NSW for seeking to improve their health in partnership with Maari Ma.

Maari Ma would like to acknowledge and give recognition to a dedicated colleague, Colin O'Donnell. Being a local Barkintji man, who was respected throughout the Far West region, Colin was known for his dedication and commitment to his people and the community. This was shown through his work ethic and contributions, advocacy and support throughout the roll-out of health-related services designed specifically for Aboriginal people to have accessible health care that recognised the impact on them of chronic disease.

Today, the commitment to continue this standard of health care continues and is reflected through the implementation of the Cycle of Care ensuring that Colin's efforts will always be remembered by Maari Ma staff, family and friends.

¹ Menzies Project team included: Professor Ross Bailie – Project leader, evaluation design, data collection, analysis and report writing; Ms Jodie Bailie – Project management, evaluation design, data collection, analysis, and report writing; Dr Frances Cunningham – Analysis, report writing and review; Dr Veronica Matthews – Clinical audit data analysis; Mr James Bailie – Hospitalisation data statistical analysis; Ms Perri Hull – Document formatting; Professor Alan Cass – Evaluation design and review.

Abbreviations

ABCD	Audit and Best Practice for Chronic Disease
ACCHO	Aboriginal Community Controlled Health Organisation
AHPRA	Australian Health Practitioner Regulation Agency
AHW	Aboriginal Health Worker
AOD	alcohol and other drugs
BMI	body mass index
BP	blood pressure
CEO	Chief Executive Officer
CHD	coronary heart disease
CTG	Closing the Gap
CQI	continuous quality improvement
CVD	cardiovascular disease
DET	Department of Education and Training (NSW Government)
DoCS	Department of Community Services (NSW Government, now Family and Community Services)
GP	General Practitioner
GPMP	General Practitioner Management Plan
HbA1c	Haemoglobin A1c
HIPPY	Home Interaction Program for Parents and Youngsters
IPTAAS	Isolated Patients Travel and Accommodation Scheme
IT	information technology
LGA	Local Government Area
LHD	Local Health District
MBS	Medicare Benefits Scheme
NSW	New South Wales
NT	Northern Territory
OVHS	Outback Vascular Health Service
PHC	primary health care
PHN	Primary Health Network
PPH	potentially preventable hospitalisation
RFDS	Royal Flying Doctor Service
SEWB	social and emotional wellbeing
TAFE	Technical and Further Education
UDRH	University Department of Rural Health (University of Sydney)

Summary

Maari Ma Health Aboriginal Corporation commissioned the Menzies School of Health Research (Menzies) to partner in an evaluation of its Chronic Disease Strategy. The purpose of this evaluation is to review the development and implementation of this Strategy over the past 10 years and to provide guidance on further work.

The evaluation was completed between January and December 2016, with data collected from four main sources: hospitalisation records, clinical indicators from quality improvement processes, program administration data, and interviews with 68 key informants either individually or as part of a group. Maari Ma and Menzies then worked collaboratively on interpreting and evaluating the data.

Key achievements – Health Service Support

- A sustained commitment to and refinement of the Strategy by Maari Ma Board of Directors
- Organisational systems and leadership that has supported an ongoing focus on health outcomes and quality of care
- Regular review and system refinements that have underpinned change management that has enabled Strategy implementation
- A strong focus on Aboriginal workforce development – a culture of two-way learning and working together
- Strong community links and a culturally safe and accessible service
- Investment in information technology and clinical information systems to enable team-based care
- A track record of forming productive partnerships in research, evaluation, and training

Key achievements – Healthy Start program

- Establishment of specific child and maternal health programs with a multidisciplinary team-based approach to care
- Development and implementation of community-based programs to address the social determinants of health, while maintaining a population health focus
- Improved attendance for antenatal and postnatal care
- Increasing adherence to best practice guidelines in the delivery of maternal and child health care

Key achievements – Keeping Well program

- Development of a proactive, intensive case-management, team-based approach for chronic disease care, including a Cycle of Care for Aboriginal health checks and management plans
- Improved access to primary health care services including GPs, specialists, allied health and specialist services
- Development of primary mental health care teams who support chronic care programs
- Establishment of dental health care programs
- Improved prevention through health checks and ensuring follow-up of abnormal results
- Excellent HbA1c control – the gold standard for assessing glycaemic control – for clients with diabetes
- Improvement in blood pressure and cholesterol control for clients with diabetes and/or coronary heart disease

These major achievements reflect areas that need ongoing attention, as they will continue to be important outcomes for the Strategy. We have identified a number of areas of work that should be considered as potential priorities over the coming years.

Section A: Introduction by Maari Ma

Maari Ma Health Aboriginal Corporation (Maari Ma) in far western New South Wales (NSW) developed and initiated implementation of its Chronic Disease Strategy (the Strategy) in 2005.² The purpose of this evaluation is to review the development and implementation of the Strategy over the past 10 years and to provide guidance on further work. Maari Ma commissioned the Menzies School of Health Research (Menzies) to work in partnership with the service to undertake the evaluation from January to December 2016. Although Maari Ma covers all areas within far western NSW – Broken Hill, Central Darling, Wentworth and Balranald shires, and the Unincorporated Far West – the evaluation focuses on the region's four major communities to which Maari Ma directly provides services and programs relevant to the Strategy. These are the regional centre of Broken Hill and its surrounding communities of Menindee, Ivanhoe and Wilcannia (referred to in this document as the Broken Hill Cluster).

1. Maari Ma Health Aboriginal Corporation

Maari Ma is an Aboriginal community controlled regional health service based in Broken Hill, dedicated to improving the health of communities in the Far West region of New South Wales. It is governed by an Aboriginal Board of Directors, democratically elected to represent the seven communities across the Maari Ma region of far western NSW: Broken Hill, Dareton/Wentworth, Ivanhoe, Balranald, Menindee, Wilcannia and Tibooburra. All Directors are members or chairs of their respective Aboriginal Community Working Parties and/or Local Aboriginal Land Councils, plus other community representative groups. As such, they are closely attuned to the needs of their communities.

Maari Ma is built on the organisational values of community, quality, empowerment, respect, compassion and culture. Its vision is:

Aboriginal people live longer and close the gap- families, individuals and communities achieve good health, wellbeing and self-determination supported by Maari Ma

When the then Far West Ward Aboriginal Health Service (and subsequently Maari Ma) was established in 1995 it developed an 'inter-dependent' partnership with the mainstream regional health authority operating at that time. For the first five or so years, in addition to establishing a traditional Aboriginal Medical Service in Broken Hill, it sought to influence health service delivery across its wider region through indirect means. This included purchasing services and funding positions (beginning with the Wilcannia Coordinated Care Trial in 1996), innovative management arrangements (Lower Western Sector Agreement in 1998, that was abandoned by Far West Local Health District (LHD) and NSW Health in 2013), and various advocacy and advisory structures. During this period the organisation's focus was on improving the Aboriginal community's deal from the mainstream providers and access to their services, while building its own organisational competence and capability in keeping with the National Aboriginal Health Strategy of 1989.³

The organisation continued to fund mainstream providers to deliver the bulk of its Aboriginal health services in the region, but also began to regionalise, employing a few of its own visiting and resident staff to deliver health services directly to the communities around its hub in Broken Hill. Since that time, as Maari Ma's self-sufficiency has grown, it has gradually increased its direct service delivery and decreased its reliance on mainstream providers within the Broken Hill Cluster.

² H. Burke, M. A. Cook & R. Weston on behalf of Maari Ma Health Aboriginal Corporation 2005, *Maari Ma Chronic Disease Strategy: 'While Prevention Is Better than Cure, Control Is Better than Complication'*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW. Accessed on 28 September 2016 at: <http://www.maarima.com.au/pdf/documents/cds-final.pdf>.

³ National Aboriginal Health Strategy Working Party 1989, *National Aboriginal Health Strategy*, Department of Aboriginal Affairs, Australian Government, Canberra.

Maari Ma receives its primary funding from the Australian Government to provide comprehensive, high-quality and culturally appropriate primary health care (PHC) and community services to the Broken Hill Cluster. It also receives some State Government financial support. Despite numerous representations to the Commonwealth over more than a decade Maari Ma has yet to receive any funding to deliver health services directly in the Balranald and Wentworth Shires (the Dareton Cluster).

By 2005, Maari Ma had developed into an Aboriginal community controlled health organisation (ACCHO) of about 70 people, and was managing the mainstream (NSW Health-funded) health services in Wilcannia, Menindee, Ivanhoe, White Cliffs, Wentworth, Dareton, Balranald and Tibooburra. These services were spread across almost 200,000 square kilometres and located in communities ranging from 1600 (Balranald) to less than 150 people (Tibooburra), and from 0 per cent Aboriginal population in White Cliffs up to 60+ per cent in Wilcannia. Maari Ma was also operating a growing traditional Aboriginal health service for Broken Hill's population of about 1,200 Aboriginal people.

In 2016, Maari Ma is running a hub and spoke PHC service to the Broken Hill Cluster. As part of its regional remit, Maari Ma operates a large multidisciplinary team of general practitioners (GPs) and medical specialists, generalist and specialist registered nurses, Aboriginal Health Workers (AHWs),⁴ Aboriginal transport officers, primary mental health and alcohol and drug (AOD) workers, dietitians, other allied health staff and oral health practitioners. It includes both resident and visiting staff. The AHWs provide clinical care as well as the cultural interface and essential knowledge about their communities and clients. In Broken Hill and Wilcannia, staff are part of Maari Ma shopfronts while in Menindee and Ivanhoe, staff are integrated into the local Far West LHD teams.

Maari Ma has an extensive range of visiting specialists, including a cardiologist, endocrinologist, renal physician, respiratory physician, paediatrician, perinatal psychiatrist, ear, nose and throat surgeon, audiologist, psychiatrist, pain management physician, addictions medicine specialist, smoking cessation specialist, podiatrist, ophthalmologist, optometrist, and a physiotherapist. Most of these specialists provide clinics throughout the Maari Ma region, including Wilcannia, Menindee and Ivanhoe. Maari Ma also provides a transport service for clients to and from their homes and to other health appointment locations, as well as proactive support for patients who have to travel to Broken Hill, Mildura and Adelaide.

Maari Ma uses continuous quality improvement (CQI) approaches to review and improve the services it provides. A 'team care' approach is a fundamental premise of Maari Ma care, and this is clinically led by GPs with a multidisciplinary approach to care facilitated by AHWs and nurses.

2. Regional characteristics and context

The Maari Ma region (see Figure 1) covers a vast area that is approximately one quarter of the whole of New South Wales. The majority of the region is classified as 'remote' or 'very remote' according to Accessibility/Remoteness Index of Australia categories.⁵

⁴ The term Aboriginal Health Workers (AHWs) is used throughout this evaluation as a collective, generic term that incorporates the spectrum of positions at Maari Ma. It includes AHWs who are Bachelor degree qualified, Diploma qualified, practitioners, trainees, and those with no professional qualification (who have gone by a number of titles, e.g. Community Workers, Community Aides, and Cultural Workers).

⁵ The University of Adelaide 2014, 'ARIA (Accessibility/Remoteness Index of Australia)'. Accessed on 6 June 2016 at: https://www.adelaide.edu.au/apmrc/research/projects/category/about_aria.html.

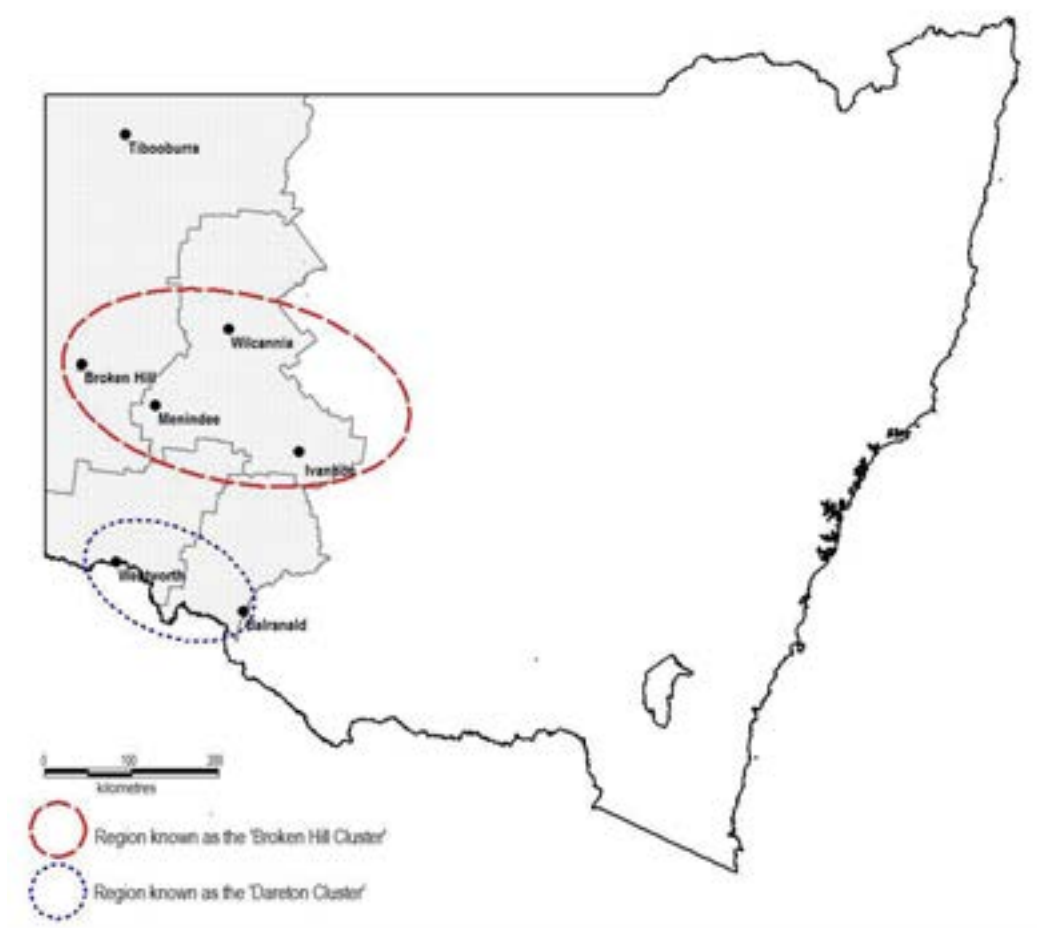


Figure 1 Map of Maari Ma region: Broken Hill Cluster and Dareton Cluster

Broken Hill is the major service centre for the Broken Hill Cluster with residents of the surrounding towns using the city for its wide range of facilities and services. There are also close family linkages between the Aboriginal population in Broken Hill and the nearby towns, as the majority of the city's Aboriginal residents have come from these neighbouring communities in recent years. Over the past five censuses there has been a discernible migration to Broken Hill. While the region's population overall continues to decline, the number of Aboriginal people residing in Broken Hill has risen by, on average, more than 40 per cent at each census since 1991.⁶

For the Broken Hill Cluster, 11 per cent (n=2157) of the population identified as Aboriginal in the 2011 Census. Of the total population, 20 per cent (743/3751) between the ages of zero and 14 years identified as Aboriginal, and 8 per cent (1414/16755) over 15 years of age.⁷

In their respective communities, Wilcannia has 58 per cent of the population identifying as Aboriginal, Menindee 40 per cent, Ivanhoe 39 per cent and Broken Hill 8 per cent (see Table 1). Compared to NSW and Australia as a whole, where about 2.5 per cent of the population identify as Aboriginal, the Maari Ma region has a high resident Aboriginal population (15%).

⁶ J. Ierace, G. Alperstein, C. Kennedy & C. Dyer 2014, *Health, Development and Well-being in Far Western NSW. Our Children and Youth*, Maari Ma Health Aboriginal Corporation, Broken Hill. Accessed on 29 August 2016 at: <http://www.maarima.com.au/pdf/documents/Child-Health-Profile-Report.pdf>.

⁷ 2011 ABS Census data, provided by Maari Ma for the evaluation.

Table 1 Population data for evaluation area

	Aboriginal population	Total population	Proportion Aboriginal
Broken Hill Cluster	2,157	20,506	11%
Broken Hill	1,395	18,517	8%
Wilcannia	475	823	58%
Menindee	178	450	40%
Ivanhoe	77	200	39%

Source: ABS 2011, supplied by Maari Ma

Drawing on 2011 Census data, family incomes were substantially lower in the Maari Ma region compared to NSW as a whole. While the NSW median family income was \$1,477 per week, for Broken Hill, Wilcannia and Menindee the incomes were all below \$1000 a week (\$994, \$804 and \$883 respectively). Unemployment for Aboriginal people is high in the Maari Ma region at 24 per cent compared with 17 per cent for NSW as a whole.⁸ Much of the region's population is from socioeconomically disadvantaged communities, with fewer residents completing their secondary education and more people in the social welfare system compared with the rest of NSW.⁹

Aboriginal adults have a higher prevalence of many risk factors – such as smoking, poor nutrition, alcohol misuse, low rates of physical activity, and mental health issues – that contribute to chronic conditions. Aboriginal people in far western NSW have a higher prevalence, and earlier onset, of almost all chronic conditions when compared with the non-Aboriginal population. Most of the extra burden of disease experienced by Aboriginal adults occurs in chronic conditions with modifiable risk factors such as ischaemic heart disease, diabetes, chronic airways disease and chronic kidney disease.¹⁰

3. Evolution of the Maari Ma Chronic Disease Strategy

In 2005 when Maari Ma embarked on its Chronic Disease Strategy it was a relatively young ACCHO that had been running an Aboriginal health service in Broken Hill, at the same time as managing mainstream health services for Aboriginal and non-Aboriginal people in the small communities surrounding Broken Hill in far western NSW, for the preceding 10 years under the Lower Western Sector Agreement with Far West Area Health Service. Maari Ma's governance structure, with representation from communities spread across a large region of NSW, made it unique among ACCHOs in Australia.

The delivery of health services in far western NSW was affected by the challenges of remote health service delivery, similar to those found elsewhere in Australia, which included:

- Limited access to a full range of health services in the region
- Traditional approaches to delivering services were not sustainable
- Services delivered were not necessarily culturally appropriate
- Services were set up to respond to episodic and urgent concerns
- Practitioners were not working together in any meaningful way: different service providers were often working in the same community on different days leading to poor coordination and little or no integration
- Little prevention and early intervention work was taking place.

⁸ Ierace et al., op. cit.

⁹ ibid.

¹⁰ Australian Institute of Health and Welfare (AIHW) 2015, *Aboriginal and Torres Strait Islander Health Performance Framework 2014 Report: Detailed Analyses*, Cat. No. IHW 167, AIHW, Canberra. Accessed on 28 September 2016 at: <http://www.aihw.gov.au/publication-detail/?id=60129550779>.

Chronic disease was the clear emerging issue for both the Aboriginal and non-Aboriginal population, and the overwhelming view was that improved PHC, delivered in a targeted and proactive way across the whole lifecourse, would provide better outcomes for those with a chronic disease while also delaying disease progression in those with a chronic disease in its early stages.

The answer, which both mainstream health service providers and Maari Ma had been grappling with prior to 2005, was to improve the delivery of PHC in the Far West by:

- providing the type of services people needed in a way that they would access those services
- keeping people well
- helping them to understand what it is that makes them unwell
- assisting them to make healthy choices.

With a high Aboriginal population in the Maari Ma region already suffering poorer health through generations of limited access to health services, it was no surprise that the burden of chronic disease was felt by the Aboriginal population of the Far West at significantly higher rates than the non-Aboriginal population or that health outcomes were often far worse or fatal (see Figures 2 and 3).

Data prior to the development of the Strategy (reported by the then Population Health Unit in 2004) show that Aboriginal people were significantly more likely to be admitted to hospital for either diabetes or heart disease compared to other NSW residents (as indicated by the bars being above the red line), whereas non-Aboriginal people were as likely as all other NSW residents to be admitted to hospital for these diseases (as their bars are crossing the red line) (see Figures 2 and 3).



Figure 2 Standardised separation ratios for hospitalised diabetes morbidity in far western NSW, 2004

Source: Program data provided by Maari Ma – originally from Population Health Unit, Far West Area Health Service 2004

Note: The red line shows where there is parity of rates between the study population (Far West Aboriginal males and females and non-Aboriginal males and females) and the standard population (NSW)



Figure 3 Standardised separation ratios for hospitalised cardiovascular disease morbidity in far western NSW, 2004

Source: Program data provided by Maari Ma – originally from Population Health Unit, Far West Area Health Service 2004

Note: The red line shows where there is parity of rates between the study population (Far West Aboriginal males and females and non-Aboriginal males and females) and the standard population (NSW)

The origins of many chronic diseases are set *in utero* and early childhood. Chronic diseases and their risk factors are also inextricably linked with the broader socio-economic determinants of health and quality of life, particularly education and employment.

Maari Ma deliberately did not set out to reinvent the wheel and borrowed heavily from other chronic disease strategies already in place across remote Australia, in particular the Northern Territory (NT) and far north Queensland. At Maari Ma, the aim of the Strategy was to address the whole life spectrum – from the unborn child (through antenatal care), to maternal and child services, and then to adult services – with a focus on improving rates of chronic disease by addressing its prevention, early detection and better management. The vehicle for this was more comprehensive and effectively coordinated PHC. The Strategy is presented here, distilled into a single table (see Table 2).

Table 2 **Maari Ma's Chronic Disease Strategy¹¹**

	Healthy Start	Keeping Well
Prevention	<ul style="list-style-type: none"> • Healthy mothers and babies program • Immunisation • Oral health promotion • School-based programs 	<ul style="list-style-type: none"> • Smoking cessation and prevention programs • Physical activity, weight loss and nutrition programs • Brief intervention for lifestyle and risk factors
Early detection	<ul style="list-style-type: none"> • Population list, recall system and antenatal check and follow-up • Population list, recall system and child health check and follow-up 	<ul style="list-style-type: none"> • Population list, recall system and annual adult health check and follow-up
Care	<ul style="list-style-type: none"> • GP clinics • GP/Obstetrician clinics • Oral health clinics • Paediatrician clinics 	<ul style="list-style-type: none"> • Disease register, recall system and cycle of care including management plans and medication reviews • Complication screening services • GP clinics • Visiting specialist clinics
Health Service Support		
<ul style="list-style-type: none"> • Business Planning • Supportive information systems • Staff orientation and training • Data collection, reporting and feedback 		

The decade since the Strategy was implemented could equally be described as a 10-year change management exercise, or a 10-year series of plan-do-study-act cycles. As such, the Strategy has manifested itself differently every day, with new circumstances brought about by varied staffing, change of governments, different funding sources, shifting boundaries, innovative technology, new partners and stakeholders, research findings, and greater insight into chronic diseases, human nature and organisational change.

However, the basic tenet or aim of the Strategy has remained the same: to improve health outcomes for the Aboriginal people of far western NSW by improving delivery of primary health services. While it may have never looked the same from one month to the next, the long-term goal did not waver.

When, in 2015, Maari Ma set out to see what had been achieved in 10 years, by partnering with the Menzies School of Health Research to evaluate the Strategy, what we were actually asking was, 'Have our interventions been positive for the health of Aboriginal people in far western NSW?' What we now know is that the process of evaluating something like the Maari Ma Chronic Disease Strategy is rather like trying to measure the dimensions of an ice block on a sunny outback day in summer – constantly changing.

The decision to take a population-based approach to improving health outcomes through the delivery of structured PHC was much more difficult than we imagined it to be. Degrees of complexity were introduced in managing both employees from other organisations and funds (some Aboriginal-specific and some not) from a variety of sources and applying them to a range of purposes in small communities. We received ambivalent support from our partner organisations as Maari Ma's size and reputation grew, all the while focusing on Aboriginal health but aiming to improve overall PHC to the broad population in each community. All the challenges of remote service delivery came to pass: the need for integration and coordination, the problem of fragmented services, difficult communication and culturally inappropriate services, and the need for, but seeming impossibility of, sustainability, had to be addressed: and all the while remaining true to our communities and maintaining partnerships.

¹¹ Burke et al., op cit.

The 'start' was the navel-gazing phase: a myriad of internal discussions, and looking at who was doing what in the chronic disease space among Aboriginal Australians. Then it was time to write down our take on this work: how to make that approach work in far western NSW, across both mainstream and Aboriginal health organisations in the small communities of the west. What was 'do-able' and what was 'aspirational'. After scoping out the plan, we talked to others: our own staff, and then our partners and their staff.

The process was guided and driven by the organisation's Aboriginal leaders – our Board of Directors and the Chief Executive Officer (CEO) – and informed by our clients and our clinicians, both Aboriginal and non-Aboriginal. It evolved organically, from community-wide adult and child health checks, to follow-up services that met the needs of the health issues identified. Systems were developed, forms trialled, positions created, meetings held, data collected, and results analysed.

Having studied the implementation of the Northern Territory's chronic disease strategy to inform the development of our own, we also took the opportunity to participate in the NT's chronic disease evaluation project, Audit and Best Practice for Chronic Disease (ABCD) Extension project. ABCD's systematic auditing of medical records gave us the process we needed to be able to engage with staff across the Maari Ma region at each of the health services about what they were providing and the impact they were having. Many people commented in those early days that it was the first time that data that went into the health system had ever come back to them to inform service delivery in a way that made sense.

ABCD also gave us the language to drive change: continuous quality improvement or CQI became part of the strategy and part of the Maari Ma lexicon. It also became a vehicle for understanding what 'evidence-based best practice' actually meant, as more staff became involved in undertaking audits (and thus becoming familiar with the best practice-derived audit tools) and processes such as self-assessment and reflection. After each audit (done annually), results were fed back to staff through a systems assessment process, as well as to communities via Maari Ma's Board and the community working parties.

While the overarching framework of the Strategy was set from 2005, with the child/maternal focused Healthy Start and adult-focused Keeping Well program 'planks', the individual components of the Strategy, the 'flesh on the bones' so to speak, was added to as funding opportunities came up. The Healthy Start and Keeping Well teams were developed in each community on the basis of existing personnel: registered nurses and Aboriginal Health Workers with an existing interest or qualification in child or maternal health became known as Healthy Start team members, and those with better connections to the adult (and particularly male) population became Keeping Well team members. These local teams were then supported in their outreach efforts by 'specialist' workers: child and family nurses, diabetes educators, midwives, a child dental team. As the distance from the top of the Maari Ma region to the bottom was considerable, the framework relied on those providing outreach being based in Broken Hill or Dareton, with a very few (e.g., the diabetes clinical nurse consultant) providing services across the entire region.

To begin with, the Strategy adopted the 'chronic disease cluster' approach described in the National Public Health Partnership's framework,¹² but gradually adapted it to meet local needs and implementation issues. The framework highlighted that developing chronic disease in adulthood is associated with risk exposures across the life-course, underlining the importance of whole-of-life strategies. The framework also recognised the role played by non-modifiable factors, and the relationship of broader social and environmental determinants to patterning risk factors and the distribution of health outcomes.

In the late 2000s, mental illness and alcohol and substance misuse were incorporated into the Strategy. Mental illnesses, particularly depression, and AOD are common co-morbidities with other chronic

¹² Preventing Chronic Disease: A Strategic Framework, National Public Health Partnership, October 2001

physical conditions, and both contribute significantly to the overall burden of chronic disease in the Maari Ma region. They also both have risk factors common to other chronic conditions, and the approach to prevention, early intervention and management using a systematic approach to primary care service delivery is similar to other chronic conditions. As such, it needed to be embedded in to Maari Ma's GP-centred multidisciplinary team-based service model.

Over time, Maari Ma's Chronic Disease Strategy developed through funding opportunities such as the Australian Government's Building Healthy Communities, Healthy for Life, Regional Primary Health Strategy, Bringing Them Home, and Rural and Remote Workforce, and the NSW Government's Aboriginal Maternal and Infant Health Strategy, dental funding, Social and Emotional Wellbeing, to name a few. Each new funding 'bucket' provided an opportunity to employ clinicians to work across the communities: AHWs, child and family nurses, dietitians, and mental health/AOD workers.

In 2007, Maari Ma ended its agreement with the Royal Flying Doctor Service (RFDS) to provide general practice services and began employing its own GPs. In line with the Strategy, many of the general practice clinics had a strong focus on chronic disease care. Indeed, the successful delivery of organised chronic disease primary care services enabled major service and system improvements in the prevention and management of chronic disease that were not previously possible.

The Commonwealth versus State funding line was an ongoing tightrope for Maari Ma to negotiate. As previously mentioned, many of the Commonwealth funding 'buckets' accessed to enhance services in the north of the Maari Ma region were not able to be, or were unsuccessfully, applied for in the south because of the Commonwealth's long-standing policy to fund only one Aboriginal community controlled health service per community. The physical presence of the Coomealla Health Aboriginal Corporation in Dareton and Balranald Aboriginal Health Service in Balranald meant that Maari Ma was unable to provide the same level of services in the south as it did in the north, even though both organisations were often unstable or dysfunctional. However, the existence of the Lower Western Sector Agreement, and Maari Ma's overarching role in managing the mainstream services across the region outside of Broken Hill, meant that it could still influence the services being provided in Wentworth and Balranald Local Government Areas (LGAs), particularly the structure and type of services being provided to Aboriginal people.

Disappointingly, in 2013 NSW Health and Far West LHD terminated this landmark agreement. Although the end of the agreement had little impact on Maari Ma's direct delivery of health services to the Broken Hill Cluster – indeed, over the 10 years Maari Ma had grown to be the principal primary care provider in the region – it did stop the organisation's ability to influence Aboriginal health service delivery in the southern part of its region, thereby denying improvements in the health of Aboriginal people across all of its communities. This action, along with the increasing uncooperativeness of our local health partners, has been an ongoing frustration for the Maari Ma Board, and contributed to the deteriorating relationships with the key mainstream health services in the Broken Hill Cluster over the past five years.

The Chronic Disease Strategy gave us the framework to develop our services for the following 10 years, and the details of the Strategy developed and evolved every day during that time. The following Sections of this report tell the story of that evolution and the results achieved to date.

Section B: The Chronic Disease Strategy Evaluation

1. Objectives of the evaluation

Having reached the significant 10-year milestone post-implementation of the Strategy, Maari Ma contracted Menzies School of Health Research to support it to conduct a comprehensive evaluation of the Strategy's implementation, including an assessment of whether its objectives had been achieved. The evaluation aim was to:

1. Review the extent to which the Strategy has achieved its intended objectives
2. Review the development and implementation of programs or sub-programs that have contributed to the achievement of the Strategy's objectives and targets
3. Identify priorities for future work by Maari Ma in the prevention and control of chronic disease
4. Identify priorities for further evaluation and research related to the Strategy.

2. Evaluation methodology

The evaluation used a mixed-methods approach focusing on the four major communities in which Maari Ma directly provides services and programs relevant to the Strategy: Broken Hill, Menindee, Ivanhoe and Wilcannia (the Broken Hill Cluster) (see Figure 1).

3. Evaluation framework and indicators

The Strategy's aims and objectives were clarified through consultation with a broad range of Maari Ma staff (see Appendix A), who then worked collaboratively with Menzies evaluators to develop guiding principles for indicator definitions, the evaluation framework and evaluation processes. Comprehensive indicators address activities across the scope of the Strategy.

The evaluation is designed to assess the extent to which the objectives of the Strategy, as identified by Maari Ma staff through the evaluation framework, have been addressed. Table 3 sets out the evaluation framework, the health impact objectives and medium-term result objectives of the Strategy.

Table 3 Maari Ma's Chronic Disease Strategy – Goals and objectives

Goal	Improve long-term health outcomes for Aboriginal people
Health impacts	<p><i>Objective 1:</i> Rates of chronic disease morbidity and mortality among Aboriginal people are reduced</p> <p><i>Objective 2:</i> Disparities in chronic disease morbidity and mortality between Aboriginal and non-Aboriginal people are reduced</p> <p><i>Objective 3:</i> There is a reduction in preventable chronic disease risk factors among Aboriginal people</p>
Medium-term results	<p><i>Objective 4:</i> Improve the quality of care provided to Aboriginal people</p> <p>Healthy Start Program</p> <p><i>Objective 5:</i> Improve access to and quality of child and maternal care</p> <p><i>Objective 6:</i> Improve overall child development and wellbeing</p> <p>Keeping Well Program</p> <p><i>Objective 7:</i> Improve chronic disease prevention, management and follow-up care</p> <p><i>Objective 8:</i> Increase the number of Aboriginal people trained and employed to provide health care</p> <p><i>Objective 9:</i> Increase capacity of workforce (skills and number of people) providing PHC and other services to Aboriginal people</p> <p><i>Objective 10:</i> Increase number of health care providers who are equipped to assist Aboriginal people with or at risk of chronic disease to make healthy lifestyle choices and to manage their health</p> <p><i>Objective 11:</i> Strengthened community capacity and linkages between the health service and community</p> <p><i>Objective 12:</i> Improve access to primary health care</p> <p><i>Objective 13:</i> Improve access to specialist services where required</p> <p><i>Objective 14:</i> Increase in number of Aboriginal people actively participating in their own health care</p> <p><i>Objective 15:</i> Increase inter-sectoral collaboration to address poor health outcomes</p> <p><i>Objective 16:</i> Improve the capacity of the organisation to deliver coordinated and comprehensive care</p> <p><i>Objective 17:</i> Improve health promotion and education</p>

4. Data collection

Data were collected from four main sources: hospitalisation data, clinical indicators from quality improvement processes, program administrative data, and interviews.

Hospitalisation data

NSW Health provided hospitalisation data from 2006–2007 to 2013–2014 for Aboriginal and non-Aboriginal people resident in the Central Darling, Broken Hill and Unincorporated Far West LGAs for a range of key datasets – where there were adequate numbers to report without risk to privacy or confidentiality, in line with NSW Health policy. Menzies extracted comparative State-wide hospitalisation data from the NSW Health data web portal. Appendix B contains further information about the hospitalisation data.

Clinical indicators

Analysis of the clinical indicator data assesses the Strategy's impact on Maari Ma's clinical performance and outcomes for Aboriginal clients. In this evaluation a set of clinical indicators considered to be of highest relevance and value from Maari Ma's existing quality improvement systems has been used. Maari Ma has undertaken a range of ABCD clinical audits from 2005–2015 (although not comprehensively

during this period) in the areas of child health, vascular and metabolic syndrome management, maternal health and preventive care. De-identified audit data were provided to Menzies for aggregation, analysis and triangulation with other datasets. Appendices C and D contain further information about the clinical indicator data.

Program administrative data

Maari Ma provided Menzies with program administrative data for the evaluation, including reports and routinely collected data for internal monitoring and external reporting to funding bodies.

Key informant interviews

Key informant interviews provide insight into the main Strategy achievements and the key factors underlying them; things that have not gone so well; priorities for work in prevention and management of chronic disease over the next five years; and ongoing priorities for further research and evaluation. The interviewee list, sourced from Maari Ma management, covered a broad cross-section of current and previous employees/contractors as well as employees of organisations with complementary roles to Maari Ma. It included clinicians (medical practitioners, nursing staff, allied health workers and health workers), program managers, community workers, management and administrative staff.

Menzies' evaluators (JB and RB) conducted face-to-face interviews for Broken Hill respondents (17), with the others conducted by telephone (17) or with feedback in writing (2). Twelve others were approached but either did not respond to email or phone communications (10) or were unwilling to participate (2). A total of 36 individual interviews and seven group interviews were conducted (with 39% of Maari Ma staff as at 23 March 2016) (see Appendix E). All interviewees provided informed consent prior to interview. Interviews were audio-recorded then transcribed for analysis, together with the written feedback.

5. Data integration and analysis

The analysis process was conducted over a number of phases. An initial phase focused on analysing data from each of the main sources, followed by drawing together and comparing data from the different sources. Menzies staff undertook the initial data analysis and discussed key issues in the data collection processes and initial analyses with the lead Maari Ma evaluation contact staff.

An analysis workshop was held for Maari Ma and Menzies to discuss the preliminary evaluation findings, with evaluators from both organisations working collaboratively on the interpretation of the findings and on the development of the evaluation report.

6. Ethics approval

This evaluation was approved by the NSW Aboriginal Health and Medical Research Council Ethics Committee in December 2015 (No. 1138/15).

Section C: Chronic Disease Strategy, by Maari Ma

The Maari Ma Chronic Disease Strategy today comprises the **Healthy Start program**, designed around Aboriginal families – pregnant mums, their children and families – and the **Keeping Well program**, designed around adults and targeting people who are at risk of, or living with, a chronic disease. Both programs aim to deliver a range of prevention, early intervention and management services (illustrated in Table 4) in the PHC setting by integrated multidisciplinary teams (AHWs/registered nurses/GPs) with allied health, mental health, AOD, and medical specialists support around the teams. The programs were underpinned by **Health Service Support** organisational capacity.

Table 4 The Chronic Disease Strategy – Healthy Start program, Keeping Well program and Health Service Support

	Healthy Start	Keeping Well
Prevention	<ul style="list-style-type: none"> • Antenatal care • Healthy young mothers and babies programs • Breastfeeding • Immunisation • Oral health promotion • Child development and early learning/literacy programs • Children and young people programs 	<ul style="list-style-type: none"> • Smoking cessation and prevention programs • Alcohol harm reduction programs • Brief interventions for mental health • Brief interventions for lifestyle risk factors • Physical activity, weight loss and nutrition programs • Programs to reduce access to tobacco and alcohol among young people
Early Intervention	<ul style="list-style-type: none"> • Children and young people health surveillance and screening, including GP reviews 	<ul style="list-style-type: none"> • Screening and early intervention (e.g. GP-led adult health checks and follow-up)
Care	<ul style="list-style-type: none"> • GP clinics • Secondary services, including paediatrician, oral health, child and adolescent psychiatry, speech pathology, dietetics 	<ul style="list-style-type: none"> • Agreed, coordinated GP-led multidisciplinary plans for individual care, including coordination with specialist services (e.g. cardiology, endocrinology, nephrology, respiratory, smoking cessation, psychiatry, etc.) • Regular monitoring of chronic diseases • Providing access to pharmaceuticals and quality use of medicines • Hospital discharge planning • Self-management support • Preventing complications of diabetes • Multidisciplinary rehabilitation services, e.g. cardiac, pulmonary, stroke • Support, education and advice regarding lifestyle risk factors • Mental health and AOD services
Health Service Support		
	<ul style="list-style-type: none"> • Community education (including to orientate community to service changes) • Business planning • Supportive clinical information systems • Raising community awareness programs (e.g. community development, social marketing) 	<ul style="list-style-type: none"> • Workforce planning and development (including staff orientation and training) • Data collection, reporting and feedback (including quality improvement)

Source: Maari Ma Health Aboriginal Corporation

1. Early days – Community engagement and service redesign

To implement the Chronic Disease Strategy successfully, Maari Ma realised early on that it needed to:

1. Reorient the community to engage with Maari Ma in a proactive way around scheduled care services
2. Reorient and grow the existing PHC workforce into appropriate teams to do the work
3. Provide the workforce with a standard schedule of care and tools to deliver the services shown in Table 4.

The early community education work that was undertaken to reorient the community to a more planned way of accessing Maari Ma's PHC service was largely led by its Board of Directors and CEO. Key messages were then delivered by long-term local Aboriginal members of staff, e.g. service manager, practice manager and senior AHWs. Reflecting on the first few years of the Chronic Disease Strategy and the challenges experienced when encouraging the community to change their access from 'reactive' to 'proactive', local Aboriginal staff involved at the time said they were *'able to gain traction for the change due to their strong links with the community'* and *'the credit that had accumulated between Maari Ma and the community'*.

This early community education work paved the way for community acceptance of the prevention services delivered as part of the 2005's Blue Care Plan, the changing role of the AHWs (from a generalist community health role to include a focus on chronic disease scheduled care), and later on (from 2010) the prevention, early detection and treatment, and individually tailored management plans delivered under the Cycle of Care.

The existing workforce was able to support the early roll-out of the Strategy, but while resources were available they were in the most part poorly organised, disconnected and with no support systems in place to enable the service to deliver organised patient-centred care.

AHWs and registered nurses largely delivered a community health home visiting service. Medical and allied health specialist services were inadequate, infrequent and often worked with patients in silos with regard to their clinical care, only engaging local AHWs to assist with community engagement and patient access. GPs, where they existed, were fly-in fly-out, time poor and largely focused on delivering stand-alone acute (walk-in) clinics and episodic care. Overall, the approach to service delivery was *ad hoc* and depended on individual providers and their preferences. A snapshot of the environment at the time is shown in Tables 5 and 6.

At the time Maari Ma had the organisational authority to make significant workforce and operational changes in order to implement the Chronic Disease Strategy because it managed the mainstream PHC services in the region through the Lower Western Sector Agreement with NSW Health, as well as managing its own Aboriginal medical service in Broken Hill.

At the outset, key changes included the following:

- Development of the Blue Care Plan for adult chronic vascular disease and delivery of standardised, scheduled care, administered by AHWs and nurses.
- Implementation of the first iteration of the Healthy Start screening program, which focused on having the community midwife, child and family health nurse and AHW administer health checks for children aged between 0–5 years.
- Reorienting the community away from 'reactive' access – only accessing the acute or walk-in clinic when they felt sick – towards more 'proactive' access – taking up the new screening and scheduled care services even if they felt well. Senior AHWs at the time worked hard with the community to promote the new model of care.

- Organisation of staff into two teams (Healthy Start and Keeping Well), and AHWs and registered nurses partnering to combine their skill-set and promote two-way learning.
- Focusing the AHW and registered nurse teams more on delivering the scheduled care program and less on delivering unstructured community-based care.
- Establishment of regional staff – e.g. diabetes clinical nurse consultant, child and family nurse, dietitians, social and emotional wellbeing (SEWB) staff – to support local teams in implementing the new model of care. The regional staff made regular, purposeful visits to each team to provide mentoring and capacity building to assist with program delivery.
- Formation of a formal partnership with the Menzies School of Health Research in Darwin to roll-out the then innovative ABCD program that included annual CQI audits.

From 2005 to 2013, Maari Ma continued to manage the roll-out of the Strategy across its region. During this time, four important factors influenced the geographical scope, its clinical governance and the partnership approach taken in implementing the Strategy.

1. Maari Ma's Board of Directors consistently sought resources to develop and enhance services in both the Broken Hill and Dareton Clusters. However, when funding was provided, it was almost always granted for the Broken Hill Cluster only, on the perception that there were two existing Aboriginal health services in the southern part of the region, and that it was (and still is) the position of key government departments to support those services. Despite the Board's best efforts, in particular the strong advocacy made by the Directors representing the southern communities, resourcing of the Chronic Disease Strategy innately targeted the Broken Hill Cluster.
2. In 2013 NSW Health terminated the Lower Western Sector Agreement, which meant that Maari Ma no longer had the authority to influence, indirectly or directly, Aboriginal health service development and delivery in the mainstream health services. This action stopped Maari Ma formally supporting mainstream health services to reorganise their staff and their workload so as to implement the Strategy, and further restricted Maari Ma's implementation of the Strategy in the southern part of the region. While Maari Ma remained committed (and still does) to deploying resources to support the Strategy's implementation within mainstream health services, it does so largely on an 'as requested' basis that relies on good will and relationships with staff in the local services as opposed to any formal organisational partnership.
3. In 2010, Maari Ma implemented the Commonwealth Government's Closing the Gap (CTG) reform, which included services associated with the new Medicare items under this reform.¹³ As such, these practice changes centred on the Broken Hill Cluster where Maari Ma employed its own GPs. Yet again this initiative meant, in practical terms, a reduced emphasis in the southern part of the region.
4. In 2007, Maari Ma ended its agreement with the RFDS for them to provide general practitioner services and began employing its own GPs. While this step resulted in major improvements in the delivery of GP-led, multidisciplinary team-based chronic care, it also impacted on Maari Ma's ability to influence the RFDS's adoption of the Strategy.

These four factors significantly impacted on the course of the Chronic Disease Strategy and how and where it was implemented. For this reason the remainder of this Section summarises the Strategy and its programs as it relates to the Broken Hill Cluster.

¹³ The Closing the Gap program in health is also referred to as the Indigenous Chronic Disease Package. For more details see Department of Health 2016, 'Chronic Diseases', Australian Government, Canberra. Available at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/irhd-chronic-disease>

Tables 5 and 6 on the following pages, capture a snapshot of the environment in 2005 when the Strategy began, the key changes and a snapshot of the environment in 2015.

Table 5 Evolution of community engagement

Community access largely 'reactive'	Community engagement efforts	Community access increasingly more 'planned'
<ul style="list-style-type: none"> Community members usually presented to the Service when they felt very unwell so then needed to access acute doctor clinic Minimal uptake of preventive and planned services, other than immunisations and some antenatal care Community expectations centred on AHWs being seen in the community and delivering a generalist community health/home visiting service that included: follow-up 'errands' for the community, welfare checks, aged care support, Webster pack delivery, wound dressing, visiting Maari Ma patients in hospital and at home when discharged Many community members felt too 'shamed/undervalued' to present to the health service and preferred to access health care delivered via home visits Focus on what Maari Ma's Primary Health Service should be doing for the community, with little emphasis on empowering the community towards a more proactive approach and self-management Community engagement largely left to the frontline AHWs, reception and transport staff 	<ul style="list-style-type: none"> Equal focus on 1) well people: education to encourage people to access the preventive annual Aboriginal health check, and 2) chronic disease patients: education to encourage people to complete their scheduled care Focus on engagement around lifestyle risk factors Establishment of a home visiting policy that encouraged community access via the health service facility setting Community development strategies built into a range of programs including: SEWB, WINGS, oral health (Clean Teeth Wicked Smiles), dietetics (Hunting for Health delivered in the school setting) 	<ul style="list-style-type: none"> Community engagement is no longer left to the AHWs, it's everyone's business Establishment of the Manager Community Engagement and Manager Community Services & Programs, with both positions located in the executive team to highlight the importance of Maari Ma's community engagement work Focus on empowering the community to access comprehensive PHC in the clinic setting, rather than waiting at home to receive <i>ad hoc</i> and incomplete services Focus on patients setting their own health goals in their GP Management Plan Greater balance between 1) supporting hard-to-access patients in the community setting, and 2) supporting patients to self-manage via the clinic setting, e.g. increase in the number of chronic disease patients who collect their own Webster pack rather than relying on an AHW to deliver; and greater uptake of planned scheduled care, e.g. attendance at booked clinics, and completion of Cycle of Care Greater emphasis on community uptake of non-health care activities, e.g. cooking group, physical activity programs, Playgroup Multi-faceted community communication strategy, including: monthly community newsletter; radio and TV advertisements, and in-house advertisements for waiting room TV; regular community surveys and focus groups; monthly community dinner; regular event days, e.g. World No Tobacco Day, NAIDOC etc.

Table 6 Evolution of the primary health care service

Incoherent primary health care service	Chronic Disease Strategy developed	Comprehensive primary health care service
<ul style="list-style-type: none"> Royal Flying Doctor Service doctors providing acute focused service Limited focus on chronic disease services/programs Limited focus on early detection and early treatment in well population Time poor doctors Poor continuity of providers Staff largely overwhelmed and feeling helpless and frustrated <i>Ad hoc</i> approach to services, dependent upon individuals at the time Preventive services to children stopped abruptly at age 5 years and, other than acute doctor clinics, didn't pick up again until 15 years + Preventive Aboriginal health checks were delivered on an <i>ad hoc</i> basis (largely school-aged kids and adults), and doctors not involved in screening, assessment Allied health providers often worked with patients in silos (outdated body parts approach) as no real mechanism to link them into a team care arrangement Limited visiting specialist services delivering stand-alone clinics largely disconnected from the doctor clinics Registered nurses and AHWs in local PHC services delivering community home visiting service largely disconnected from the doctor clinics Poorly organised care and lack of systems to support communication between providers and service delivery 	<ul style="list-style-type: none"> Two programs Healthy Start antenatal to 5 (including oral health) Keeping Well 15 years + Focus on prevention, early intervention and care Planned event-type approach to preventive annual Aboriginal health checks Dedicated resources to focus on chronic disease management Supported by health promotion (SEWB, including smoking cessation) Underpinned by health systems support to reorientate workforce and services 	<ul style="list-style-type: none"> Maari Ma employed GPs providing walk-in, chronic disease, maternal, child and youth health clinics Prevention, early intervention, chronic disease management service across the age spectrum including antenatal, child and family, youth and adult programs Focus on long-term disease management Long-term patient relationships, with health professionals and health system Services organised around the needs of patients, not the needs of the system Good communication and integrated care between teams and with patients and families Promoting positive feedback for patients Respecting people's autonomy and decision making about their lives Reorientation of services with greater focus on well people, early intervention and chronic disease management Integrated team-based approach Preventive Aboriginal health checks and follow-up integrated into routine care (0–5, 6–8, 9–15, 15 yrs +) Combination of standardised scheduled care and individualised management plans Combination of opportunistic care (walk in clinics) and planned care (booked clinics) Local AHW, nurse and GP teams supported by allied health and extensive visiting medical specialist program; emphasis on building capacity in local teams with specialists as support to treating GP (knowledge transfer, case management vs individual consults) Promotion of self/family care Community awareness and engagement Use of care plans to promote self-care Supporting the education and behavioural change needs of patients Underpinned by health systems support Medical record management Clinical information systems – recall system Change management, CQI, protocols, tools Workforce development Changed staff attitudes Increased numbers of staff supporting Strategy Chronic disease seen as core business by all staff Staff have positive attitude

2. Healthy Start program

Today, the Healthy Start program is a maternal, child and youth health program delivering antenatal care and evidence-based standard, scheduled care services from birth to 15 years. The program is complemented by an early learning and literacy program (the Early Years Program) that includes significant community engagement strategies.

The Healthy Start program was established as a key component of the Strategy largely due to two key factors:

1. The leadership provided by Maari Ma's Board of Directors and CEO to implement a population health approach to child health with a focus on prevention. The Board's vision remained steadfast during 2005–2015, underpinned by its commitment to engage a public health paediatrician to guide an evidenced-based approach and the production of key documents – *Maari Ma Strategic Plans* (2008–2013 & 2014–2019),¹⁴ *Child Health profile* (2009),¹⁵ *Child and Youth Health profile* (2014)¹⁶ and *Strategic Framework* (2009 and 2012)¹⁷ – each of which in their own way reinforced the Board's vision.
2. The strong evidence linking early childhood development and wellbeing to health status in later life and the need to invest in well-designed, well-resourced screening, early detection and treatment services.

In 2006 the program commenced as a nurse-led maternal and child health program, focusing on babies and children from birth to five years. The existing workforce – consisting of AHWs, stand-alone community midwives and child and family health nurses – was organised into the new Healthy Start team structure. Teams were located in the local PHC services and supported by a senior stand-alone child and family health nurse based in the regional office.

The first iteration of the program focused on the implementation of nurse/AHW-administered child development health checks, and oral health checks delivered by the child dental team. Over the decade the program expanded and evolved into an integrated GP, clinically led, multidisciplinary child and family health service featuring five core service components: Maternal Health, Child Health, Child Dental, Youth Health, and Early Years.

The **Maternal Health** service operates a shared care model with the specialist obstetricians at Broken Hill Base Hospital. The program consists of scheduled antenatal care delivered by a community midwifery team (AHW and midwife), supported in the community by a Maari Ma GP obstetrician and perinatal Aboriginal mental health workers. The team delivers a smoking cessation program, provides birthing support under an agreement with the Broken Hill Health Service (Obstetrics Unit) and post-natal care from birth to six weeks. The service is delivered in both the primary care and home setting and involves a significant community engagement component including: belly casting, supported visits to the Obstetrics

¹⁴ Maari Ma Health Aboriginal Corporation 2008, *Strategic Plan 2008–2013*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW. Accessed on 30 September 2016 at: <http://www.maarima.com.au/pdf/documents/mmh0007-strat-plan-revised.pdf>; Maari Ma Health Aboriginal Corporation 2014, *Strategic Plan 2014–2019*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW. Accessed on 30 September 2016 at: <http://www.maarima.com.au/pdf/documents/maari-ma-strategic-plan-LQ.pdf>.

¹⁵ C. Kennedy, A. Buckland, G. Alperstein & H. Burke on behalf of the Far West Aboriginal Child Development and Well-Being Management Group 2009, *Health, Development and Wellbeing in Far Western NSW. A Picture of Our Children*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW. Accessed on 30 September 2016 at: <http://www.maarima.com.au/pdf/documents/16995-maari-ma-report.pdf>.

¹⁶ Ierace et al., op. cit.

¹⁷ G. Alperstein, C. Dyer, H. Burke, C. Kennedy & B. Davis on behalf of the Far West Aboriginal Child and Youth Development and Well-Being Management Group 2012, *Strategic Framework Document: Improving Development and Well-being for Aboriginal Children and Young People in the Far West of NSW*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW. Accessed on 30 September 2016 at: http://www.maarima.com.au/pdf/documents/maari_ma_green_booklet-final.pdf.

Unit, support for pregnant women from Wilcannia and Menindee to access accommodation in Broken Hill a week prior to their due date, assistance to attend out-of-town specialist obstetric appointments, and a new mums' group.

The original **Child Health** service was redesigned in 2011 to implement a more comprehensive screening program comprised of 28 age- and development-specific checks focused on prevention and early identification of child physical development and emotional wellbeing. The embedding of doctors experienced in child health into the team has enabled the delivery of dedicated child health clinics and an expansion of the service to include medical treatment and management. In 2014 the service further expanded to include children aged six to eight years and employed Maari Ma's own paediatrician as part of the Child Health team, thereby strengthening the service's medical management of children and support to families. Allied health providers are packaged around the Child Health team, with further support provided by a perinatal psychiatrist.

A key feature of Maari Ma's Child Health service is that it operates as an integrated multidisciplinary team in a true sense. The doctor focusing on child health functions as the link between all providers, and weekly team meetings ensure a coordinated family-focused approach.

The **Child Dental** service is a health promotion, prevention, early intervention and treatment service designed to complement the child health screening checks. The service delivers oral health checks for children from birth through to school age. Key features of the service include the engagement of a public health dentist to inform its work, the fluoride varnish program (up to the age of five years), the school-based health promotion program and the school-aged screening and treatment service.

The **Youth Health** service is a relatively recent addition to the program. Established in 2015 to proactively target youth from nine to 15 years, the dedicated youth health team is made up of an Aboriginal youth worker, registered nurse and a doctor experienced in the health needs of young people. The program is designed around evidenced-based, age-specific annual preventive health checks and follow-up services for those aged nine to 11 years and 12 to 15 years. Its key features include a population health approach targeting all Aboriginal youth; age-specific checks designed to reflect developmental and gender differences between young people across the age spectrum; weekly youth health clinics; engagement with parents around consent; engagement with young people via the school setting and the local Clontarf Academy; referral to mental health and AOD services for young people identified as at risk; and a child and adolescent psychiatrist to support the team with complex case presentations.

The **Early Years** program is a community-based early learning and literacy program featuring a Supported Playgroup, Little Kids and Books, and the Home Interaction Program for Parents and Youngsters (HIPPY). These programs are designed to engage parents with children aged zero to five years and assist them in teaching their children to learn through play, improve early literacy, and build school readiness. The Early Years program makes a significant contribution to the Child Health service through its engagement of families in the community and the home setting.

Most significant developments: Healthy Start program

Significant developments in the Healthy Start program include:

- Leadership provided by Maari Ma's Board of Directors and CEO not only to maintain a focus on maternal and child health in the face of competing priorities, but to grow the program significantly
- Program development informed by a public health paediatrician and dentist
- Redesign of the program (2011) to include the schedule of 28 age-specific preventive and early intervention health checks
- Integration of doctors experienced in child health into the Healthy Start team creating a doctor-led, team-based care approach (GP/AHW/registered nurse)

- Dedicated child health clinics and expanding the program to include treatment and management
- Establishment of resident and visiting allied health service providers packaged around the patient and team
- Embedding Maari Ma's own paediatrician into the Healthy Start team to create a true integrated multidisciplinary team improving communication, medical management of children and support of families in between paediatric clinic visits
- Integration of women's health into routine care rather than as a stand-alone service
- Inclusion of fluoride varnish in the Child Dental service
- Extension of the program to include six- to eight-year-olds
- Extension of the program to include nine- to 15-year-olds and roll-out of age-group specific preventive health checks
- Establishment of the Early Years program (early learning through play and literacy)
- Use of the Ferret system to monitor recalls for scheduled annual health checks
- Use of a shared clinical information system to support team care arrangements and monitor acute care needs.

3. Keeping Well program

The Keeping Well program is Maari Ma's adult preventive, early detection and chronic disease management service. The initial program proactively targets Aboriginal people over the age of 15 years who fall into two groups. The first are those who are known to be well, and the second are those who have cardiovascular disease (CVD), including: type 2 diabetes, hypertension, ischemic heart disease, stroke and/or renal disease.

In 2005, the program was implemented in an environment where RFDs doctors delivered stand-alone clinics, including at the Maari Ma Primary Health Care Service. They were time poor and provided an acute-focused service. Therefore, both the preventive health program (adult and child health checks) and the preventable chronic disease monitoring program (Blue Care Plan) were delivered by the newly established local Keeping Well teams (consisting of an AHW and a registered nurse). Coordination and support for these teams were provided by Maari Ma's regional primary health staff, which included the Aboriginal health check coordinator, diabetes clinical nurse consultant, dietitians, dental service and the SEWB team. Oversight and health service support were provided by the public health physician and data analyst.

The Aboriginal health checks were delivered as town-specific, community events, with each event delivered over a period of one to two weeks. Patients identified as at risk were referred to a walk-in clinic doctor for follow-up treatment and medical services – including the mental health service, alcohol clinic, dental clinic and the 12-week quit smoking program – coordinated by regional office program staff. After the health check, patients diagnosed with a chronic disease were referred to the Keeping Well team for education and proactive monitoring. Each health check event concluded with population health-level feedback to the community.

Given the environment at the time, the Blue Care Plan for adult preventable chronic disease was specifically designed for the Keeping Well team to deliver. The care plan set out evidence-based monitoring and complication screening checks over a 12-month period. Patients who were identified as deteriorating at the regular quarterly AHW checks were referred by the Keeping Well team to the doctor in the walk-in clinic setting. Patients were further supported by limited number of visiting specialists delivering stand-alone clinics and regional staff including the diabetes clinical nurse consultant and dietitians, and the SEWB team who provided a mentoring and capacity building role. Health service

support resources also assisted the teams with the management of health information including: establishment of disease registers and population lists, and a system to monitor and recall scheduled care (at the time the clinical information system 'Ferret'¹⁸ was used). The implementation of the program was monitored using the Menzies' CQI program, ABCD.

In 2007, Maari Ma employed its own doctors. This significant development, a key milestone in the Chronic Disease Strategy, finally enabled the organisation to dedicate doctor time to prevention, early intervention and chronic disease management and link doctors into the Keeping Well program. The addition of the doctors extended the Keeping Well program's capability beyond chronic disease monitoring to include its effective management. During the 2007 to 2010 period, efforts were made to integrate doctors into the Keeping Well AHW/registered nurse teams.

However, numerous barriers were experienced that impeded integration and the anticipated shift towards team-based care, including:

- Doctors and the Keeping Well team used separate medical records (Doctors used Medical Director¹⁹ and AHW/registered nurse used paper medical record).
- Doctors and the Keeping Well team used separate recall systems (Doctors used Medical Director, AHW/registered nurse used Ferret).
- Doctors tailored a patient's chronic disease care plan to suit their individual needs, but the lack of a communication system between them and the Keeping Well team meant these individualised care plans were usually left to the doctors to implement while the Keeping Well team continued with the standardised scheduled care plan. This included routine quarterly checks, regardless of whether the patient required more or less frequent follow-up.
- The visiting specialist services were working separately with both the doctors and the Keeping Well team.
- There was a high 'do not attend' rate at chronic disease clinics, as patients had become accustomed to the Keeping Well team delivering the monitoring checks in the community as part of a home visit. It was difficult for community members to accept that they needed to access many of their chronic disease services in the clinic setting.
- The Keeping Well team struggled to communicate effectively to their patient cohort, and to the community more broadly, the role of the doctor in chronic disease management.

In 2010, the Commonwealth Government's Closing the Gap (CTG) reform was implemented.²⁰ This provided the circuit breaker required to reshape the Keeping Well program and address many of these barriers. The Practice Incentive Program – Indigenous Health Incentive,²¹ implemented under CTG, provided a framework that 'drew in' the doctors, AHWs and registered nurses under the banner of 'team care'. This enabled Maari Ma to enhance the program further by more meaningfully linking the services delivered by its allied health and primary mental health and AOD service providers.

In order to implement the CTG reform, Maari Ma developed the Cycle of Care and ceased using the town-specific, event-style Aboriginal health check and the Blue Care Plan.

Within the Cycle of Care, the preventive component of the Keeping Well program continued. Aboriginal people deemed 'well' were recalled to complete an annual health check (Medicare Health Assessment for

¹⁸ Ferret is an electronic clinical information system.

¹⁹ Medical Director is a clinical information system. Accessed on 30 September 2016 at: <http://medicaldirector.com/>.

²⁰ Closing the Gap program in health is also referred to as the Indigenous Chronic Disease Package. For more information go to: <http://www.health.gov.au/internet/main/publishing.nsf/Content/irhd-chronic-disease>.

²¹ Department of Health 2014, *Factsheet: Practice Incentives Program Indigenous Health Incentive Guidelines*, Australian Government, Canberra. Accessed on 30 September 2016 at: <https://www.humanservices.gov.au/health-professionals/services/medicare/practice-incentives-program>.

Aboriginal and Torres Strait Islander people Medicare Benefits Schedule [MBS] Item 715).²² This was delivered in the clinic setting by a GP/AHW/registered nurse team, and implemented either opportunistically or as part of a patient's planned routine visits. Follow-up services usually involved the AHW/registered nurse, dietitian, adult dental, and primary mental health and AOD service providers.

The chronic disease management component of the Keeping Well program continued to quarantine resources to proactively support Aboriginal people who had a CVD health-related chronic disease. Patients in this cohort worked with their own usual treating doctor to develop a 12-month individual management plan that combined standardised scheduled care with the patient's health goals and the team care arrangements. The team care is delivered over a 12-month period by the patient's GP/AHW/nurse team, supported by allied health and primary mental health and AOD services providers, dental service, pharmacy service and an extensive visiting medical specialist program.

Maari Ma's Cycle of Care is illustrated in Figure 4.

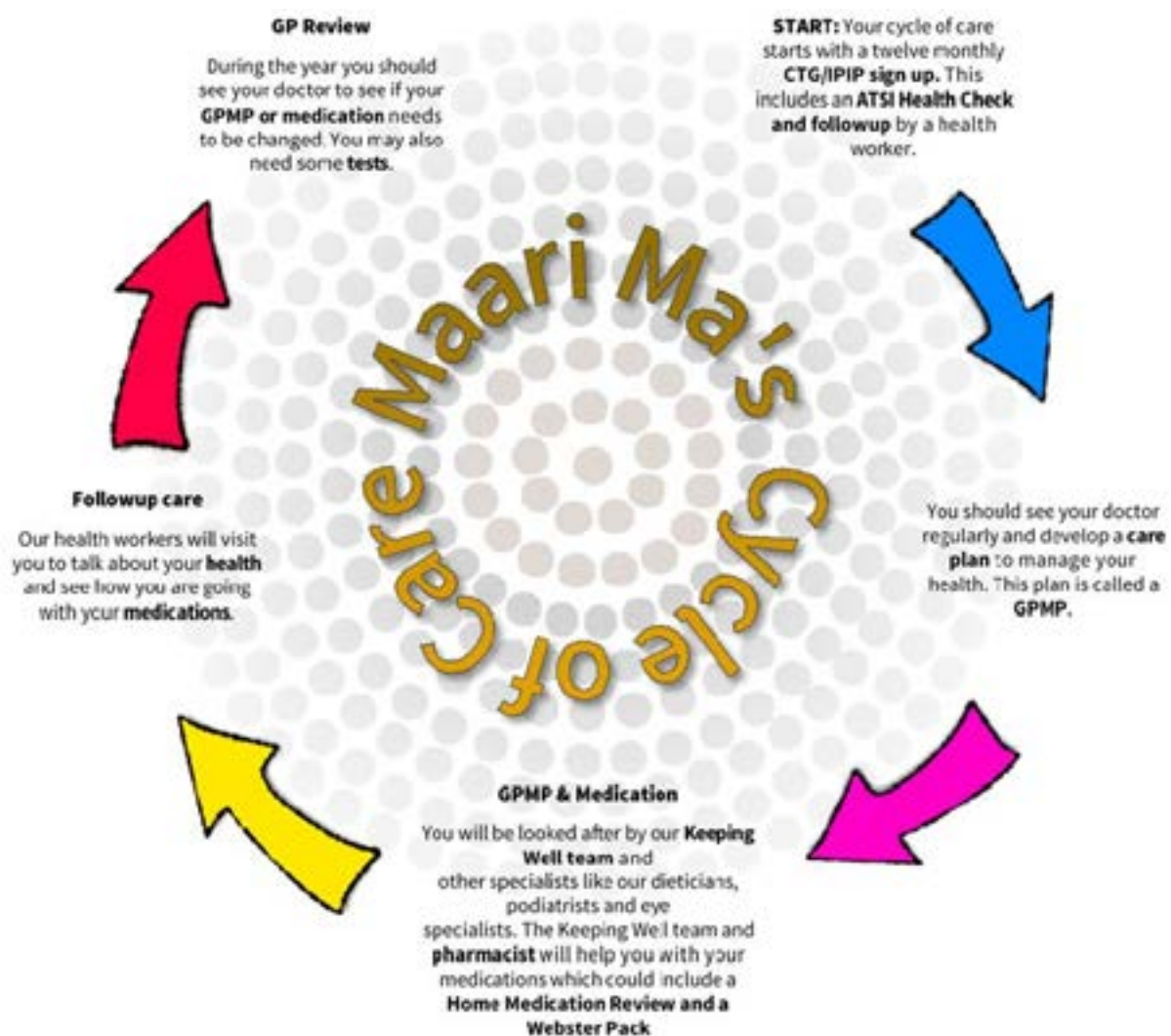


Figure 4 Maari Ma's Cycle of Care

²² For more information on the Medicare Health Assessment for Aboriginal people MBS 715 go to the Australian Government Department of Health website. Accessed on 4 October 2016 at: http://www.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare_ATSI_MBSitem715.

In 2011, Maari Ma established an executive level position to manage community engagement. This significant initiative was largely underpinned by the need to assist the Keeping Well team to:

- Improve community education about the Cycle of Care
- Engage hard-to-access patients
- Promote self-management and shared responsibility (see Box 1)
- Raise awareness in the community about the benefits of proactively accessing planned care in the booked clinic setting delivered by the GP/AHW/registered nurse team, rather than waiting for incomplete services delivered in the home setting
- Listen and respond to community feedback about the need for a generalist community health/home visiting service that includes: welfare checks, aged care, Webster pack delivery, wound dressing, visiting Maari Ma patients in hospital and when discharged (see Box 1)

The challenges associated with, and progress made in, supporting the community to change the way they access the services delivered under the Cycle of Care is highlighted in Table 5.

From 2011 to 2015, in addition to the work undertaken in community engagement, the program addressed a range of capacity, health systems and service development issues that impacted on the ability of the expanding integrated GP/AHW/registered nurse teams to deliver the program. These are highlighted in detail in the next Section.

Some of the key improvements made during this time included:

- Allocation of a usual treating doctor
- Development of clinical information systems enabling the integration of the GP/AHW/registered nurse and team-based care
- Extensive visiting medical specialist service program, with an emphasis on building capacity in the local teams with medical specialists largely functioning as support to the treating doctor (knowledge transfer, case management versus individual consults)
- Patient-centred, team-based clinical reviews.

In 2015, the patient cohort actively managed under the Keeping Well program became a sub-set within the practice's broader chronic disease patient cohort. This change led to Maari Ma doctors managing patients diagnosed with a wide variety of chronic diseases including: respiratory diseases (chronic obstructive pulmonary disease or COPD, asthma), mental health disorders (depression), musculoskeletal diseases (arthritis, osteoporosis), dementia and cancers.

However, due to the avoidable morbidity and mortality rates associated with preventable chronic diseases in the Aboriginal population, deliberate steps have been taken to ensure resources remain allocated and quarantined to ensure Aboriginal people with preventable chronic diseases remain the focus of targeted recall and proactive follow-up in the community. Patients living with other chronic diseases are supported by their treating doctor and clinic staff to self-manage, with recalls set around the GP management plan and regular review.

Most significant developments: Keeping Well program

The most significant developments in the Keeping Well program are:

- Implementation of the community-based annual adult health checks, and subsequent integration of these into the clinic setting delivered opportunistically and as part of routine care
- Establishment of key post-health check follow-up programs and services: the smoking cessation program, alcohol clinics, primary mental health and AOD service
- Introduction of standardised scheduled care (Blue Care Plan) delivered by the AHW/registered nurse team

- Three cohorts of AHW trainees and credentialing of Aboriginal Health Practitioners
- Evolving the AHW role from delivering a siloed generalist community health home visiting service to functioning as an Aboriginal Health Practitioner in an integrated multidisciplinary PHC team
- Employment of Maari Ma's own doctors and integrating them into the GP/AHW/registered nurse team
- Closing the Gap reform and establishment of Maari Ma's Cycle of Care
- Cessation of the Blue Care Plan and establishment of the GP management plan/team care arrangement, combining both scheduled care and individualised care, with greater emphasis on empowering patients towards self-management
- Integrating the community-based and clinic teams, making chronic disease management everyone's business
- Dedicated chronic disease, booked clinics with flexibility built into the service to deliver opportunistic services for hard-to-access patients who present to acute (walk-in) clinics
- Health service planning and development resulting in improved access to services including: an agreement with Royal Prince Alfred Hospital in Sydney that boosted Maari Ma's now extensive visiting medical specialists program; establishment of resident and visiting allied health services; and Maari Ma support for Isolated Patients Travel and Accommodation Scheme (IPTAAS)²³ assisting patients to access out-of-town health appointments.

4. Health Service Support

During the development and early implementation of the Strategy, Maari Ma recognised the significance of the service-level redesign that was required to reorient the PHC system and workforce away from *ad hoc* disjointed services towards organised prevention, early intervention and quality care services delivered in an integrated multidisciplinary team environment.

Given the redesign work that lay ahead, from the outset Maari Ma deployed a range of resources to inform, guide and provide practical support to the frontline workforce to change practice. Four key factors influenced Maari Ma's decision making and approach to resourcing health service support:

1. The Board of Directors was determined to lead a population-health, whole-of-life approach to improving health services and health outcomes for Aboriginal people. This determination influenced the appointment in 2005 of a public health physician to inform the service redesign.
2. The Board of Directors, individually and collectively, had significant experience in leading and influencing change to improve services for Aboriginal people both in the mainstream and in Aboriginal community controlled health care environments. Through the Lower Western Sector Agreement with NSW Health and the local Area Health Service, Maari Ma's Board of Directors worked tirelessly to influence operational change in the local health services. Some Directors were also serving on the Area Health Service Board and local community Health Advisory Councils, and all Directors had been involved in the formation and establishment of Maari Ma's Primary Health Care Service in Broken Hill. The Board's experience of working to influence change in health care gave them significant insight into the challenges faced where clinicians are required to change practice without appropriate change management support and a framework in which to operationalise the changes.
3. Maari Ma's senior Aboriginal leadership (Board, CEO and senior Indigenous staff) were committed to a 'change journey' based on two-way learning and capacity building. This meant

²³ For more information on IPTAAS, go to NSW Health website. Accessed on 30 September 2016 at: <http://www.enable.health.nsw.gov.au/home/iptaas>.

that health service supports, as they were deployed, were required to work alongside frontline primary care workers and team managers to develop the new programs, systems, work flow processes and tools from the ground up. A CQI framework (plan, do, study, act) was chosen because this approach enabled teams to make small incremental changes, evaluate their efforts and collaborate to inform further improvements. The process in itself was capacity building and in keeping with the leadership's desire to facilitate a supportive change journey in a cross-cultural environment.

4. In keeping with Maari Ma's approach to facilitate a more integrated way of working, a decision was made early on not to co-locate health service supports in a 'team' but rather to attach the resources, as required, to the primary care services and teams where change processes were underway. This is shown in Table 3, where health service support underpins both the Healthy Start and Keeping Well programs. This meant that health service supports were viewed as a 'virtual resource pool' drawn from across the organisation, working with and moving between the teams as needed. This decision contributed to the Chronic Disease Strategy being embedded across the organisation and not pigeon-holed to the business of the PHC service, thereby making the Strategy everyone's business.

From 2005 to 2015, the resources that were tipped into the virtual health service supports pool were drawn from a range of disciplines among Maari Ma's own staff (located in the executive and across various directorates) and from visiting supports engaged as consultants where necessary. The support functions provided are listed here.

- Chief Executive Officer:
 - established governance arrangements to oversight the Strategy program, including the early Regional PHC Management Group that later became the Strategic Health Group, chaired by the CEO. This level of oversight ensured a sustained focus on the Strategy at the executive level and that the Strategy was embedded into Maari Ma's core business.
- Public Health Physician:
 - provided the conceptual framework and guided the development and implementation of the Strategy, keeping the spotlight on an evidence-based population health and whole-of-life approach
 - established evidence-based standardised scheduled care, and reformed medical and specialist medical services; engaged community paediatrician to inform population health approach in Healthy Start; guided the reorganisation of the primary care workforce towards an integrated multidisciplinary team approach
- Social and Emotional Wellbeing team:
 - early work in 2005–2009 to develop capacity of frontline primary health workers to deliver screening, brief interventions and early treatment for mental health and AOD; delivered smoking cessation program and established workplace Smoke Free Health Care policy; set up community programs and community engagement
 - engaging and raising awareness in the community about service changes (e.g. Cycle of Care)
 - listening and responding to community feedback
 - engaging the community to improve uptake of services delivered in the primary care setting and support hard to access patients

- establishment of complementary community based programs e.g. Early Years, Wilcannia's WINGS Drop-in Centre²⁴
- Workforce team:
 - supporting employment of Aboriginal people
 - workforce planning; role change
 - training and professional development in PHC and chronic disease
- Corporate services team:
 - health planning and service development
 - agreements, funding submissions, reporting and needs assessments
 - evaluation and research
 - CQI: routine data checks, monitoring, analysis, feedback; and both large service-wide and small project-specific, time-limited CQI activities
 - information management and technology (clinical information system and infrastructure to support application of the system).
- Health systems development and support:
 - facilitating the development of standardised processes that enable team-based care, tools, Cycle of Care, recalls systems, follow-up systems, appointment booking systems
 - practice management expertise to implement the CTG reform.

As evidenced by the above list, the health service support activated by Maari Ma was wide and varied. However, the key functions and mainstay of support provided was directed to **Continuous Quality Improvement (CQI)** and **Systems Development and Support**.

From 2005, Maari Ma partnered with Menzies on the ABCD quality improvement program of work. This partnership enabled Maari Ma to use **CQI** processes to monitor the implementation of the Strategy and provide feedback to teams. In 2008, Maari Ma also partnered with the George Institute in Sydney on the Kanyini Vascular Collaboration²⁵ on the Polypill trial; in 2009 on the cardiovascular risk assessment; in 2011 the Kanyini Torpedo trial to evaluate the Health Tracker tool; in 2014 on the development of a wellbeing model framework; and in 2015 on the depression tool validation study.

Our experience with the Kanyini Vascular Collaboration on the cardiovascular risk assessment taught us that in order to engage a doctor-led multidisciplinary PHC team, we needed to be able to provide patient-level data (rather than the population-level only data provided under ABCD) that enabled clinicians to reflect on and change their practice. The risk assessment audit process enabled us to engage doctors in a way that we had been unable to around ABCD data and processes. This experience prompted us to stop relying on population-level only data to make improvements. From 2013 onwards, Maari Ma's CQI efforts were focused on smaller plan, do, study, act cycles, implemented by its local health care teams around specific service/practice improvements.

From 2005 to 2007 Maari Ma's **System Development Support** work largely focused on program-level support, for example:

- establishment of the SEWB team
- development of the smoking cessation program
- support for the event-type Aboriginal health checks

²⁴ For more information on Wilcannia's WINGS Drop In Centre go to Maari Ma website. Accessed on 30 September 2016 at: <http://maarima.com.au/news/19/25/Wings-Drop-In-Centre-Wins-Award>.

²⁵ For more information go to the Kanyini Vascular Collaboration website. Accessed on 30 September 2016 at: <http://www.kvc.org.au/>.

- establishment of the Keeping Well team to deliver the Blue Care Plan.

However, when Maari Ma employed its own doctors in 2007, and later the CTG reforms of 2010, systems support was shifted to focus on the service-level changes required to integrate the doctors into the AHW/registered nurse teams and implement the Cycle of Care (see Figure 4) focused on chronic disease prevention and management.

From 2008 onwards, efforts were focused on improving systems around electronic appointments, billing and medical records. Maari Ma uses a practice management software program PracSoft and the clinical information system Medical Director, which needed to be massaged to improve its application in a multidisciplinary team care setting with features such as recall reasons, recalls and shortcuts tailored to our needs. The information system Ferret is utilised for Healthy Start scheduled recalls. Doctors Control Panel²⁶ was added to boost functionality but standard features also needed to be modified such as Aboriginal health check and GP management plan templates. Service design was also adjusted to enable the dedicated child health clinics to be integrated into the Healthy Start team, and chronic disease management services to be delivered in the clinic settings, opportunistically and in the planned booked clinics, with follow-up delivered in the community.

Most significant developments: Health Service Support program

- Primary care workforce capacity:
 - three cohorts of AHW Trainees and support to accredit each of our AHWs as Aboriginal Health Practitioners
 - growing the size and scope of Maari Ma's own medical workforce
- Leadership by the Board of Directors and Chief Executive Officer to:
 - engage a public health physician to guide a population-health approach to chronic disease prevention, early intervention and care
 - focus on data quality and analysis to inform planning and development
 - provide practical assistance by deploying health service support resources to facilitate the change management process
- Significant health planning and service developments resulting in improved access to services both locally and out of town including, as examples:
 - dedicated child health clinics, and chronic disease clinics
 - visiting medical specialists program (14 disciplines)
 - resident and visiting allied health services
 - Maari Ma's support for IPTAAS program, supporting patients to attend out-of-town appointments
- Implementation of the CTG reform, known locally as Maari Ma's Cycle of Care
- Establishment of information management and technology positions within Maari Ma that have enabled the development of clinical information systems, the infrastructure required to operate the systems, and decision support to facilitate efficient and effective care
- Significant changes to work practice and roles in the primary care setting enabling clinicians to work in an integrated team to focus on chronic disease:
 - establishment of GP/AHW/registered nurse teams, with systems in place to enable allied health professionals and medical specialists to support them

²⁶ For more information go to the Doctors Control Panel website. Accessed on 30 September 2016 at: <http://www.doctorscontrolpanel.com.au/>.

- organising and prioritising sufficient time for doctors to work as part of a team and to deliver chronic disease prevention, early detection and management services
 - introduction of a systematic approach to standardised scheduled care such as early Blue Care Plan, Healthy Start age-specific checks, Aboriginal health checks, GP Management Plans and Team Care Arrangements
 - changing the clinic setting to enable chronic disease prevention, early detection and management to be delivered both opportunistically at walk-in clinics, and planned at booked clinics.
- Community engagement – e.g. establishment of Manager Community Engagement position, focus on hard-to-access patients, community education to raise awareness of service changes including the Cycle of Care, community newsletter
 - Embedding CQI and research activities aimed at systems change and improvement in day-to-day practice
 - In-house staff education and capacity building for brief interventions for lifestyle factors.

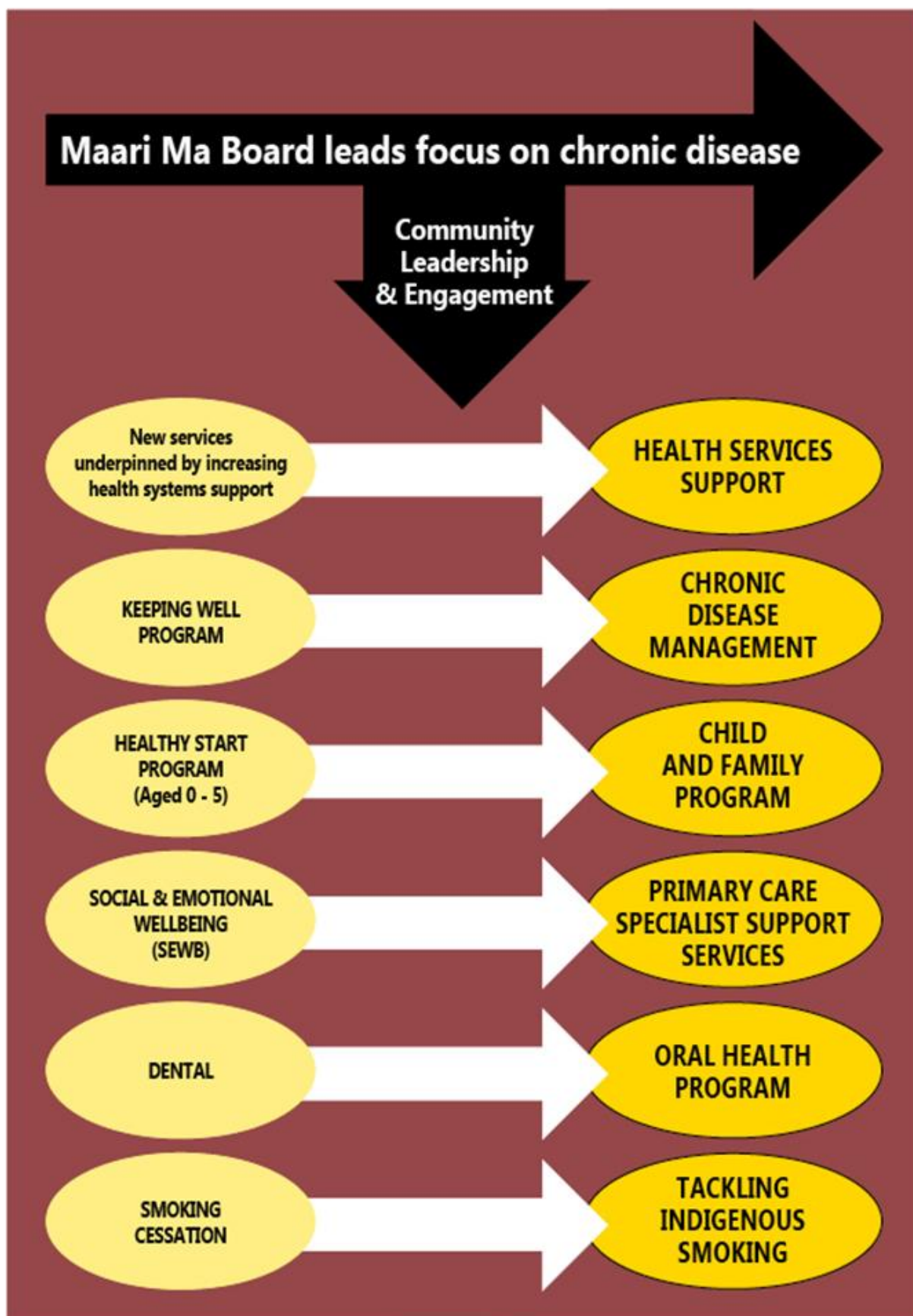


Figure 5 Evolution of the Strategy over a 10-year period, as conceptualised by Maari Ma Health Aboriginal Corporation

5. Summary of the Chronic Disease Strategy key milestones, 2005–2015

2005

- Leadership by Maari Ma's Board of Directors and CEO determined to develop and implement Maari Ma's Chronic Disease Strategy
- Significant investment in staff and resources to develop and implement the Strategy
- Establishment of Blue Care Plan led by AHW and registered nurse
- Establishment of Keeping Well teams and orientation of PHC workforce resources across the region to focus on intensive, targeted engagement of CVD patients and delivery of scheduled care as set out in the Plan
- Delivery of event-style, community-based Aboriginal health checks (for people aged 15 years plus) across the region
- Establishment of health service support capacity to guide the reorientation of workforce and services to focus on service development, information management, tools and processes, monitoring, feedback and CQI
- Establishment of the SEWB team to focus on health promotion and developing capacity of the PHC workforce to deliver brief interventions for lifestyle risk factors

2006

- Establishment of senior child and family nurse position to lead the Healthy Start program across the region
- Support provided to local senior child and family nurse workers to implement child development health checks. School-based Healthy Kids checks and child dental health service delivered as part of the program
- Development of Maari Ma's smoke-free workplace policy and the first smoking cessation program, which was delivered as part of the Aboriginal health check's follow-up services

2007

- Employment of its own doctors enables Maari Ma to focus more effectively on chronic disease and management of care
- Transfer of Aboriginal Maternal and Infant Health Service positions from Greater Western Area Health Service to Maari Ma, located in the Healthy Start team

2008

- Ongoing leadership by the Board – reviewed and updated Maari Ma Strategic Plan that again reinforced focus on the Strategy
- Focus on doctor-led, team-based care model (GP/AHW/registered nurse), with allied health service providers packaged around the patient and team
- Work begun to establish tools, processes and systems to enable the multidisciplinary team to deliver standardised screening and early intervention, scheduled care and individualised management plans
- Graduate Diploma in Child and Family Health undertaken by 10 staff across the region, thereby significantly bolstering the capacity of the Healthy Start teams
- Employment by Maari Ma of its own dentist (0.5 fulltime equivalent 2008–2010) to complete required follow-up from adult Aboriginal health checks

2009

- SEWB team redesigned to incorporate mental health and substance abuse into Strategy and embed staff into doctor-led, team-based care model
- First AHW TAFE-supported trainee cohort (with a second group in 2011 and a third in 2015) of 18 local Aboriginal people successfully complete Certificate IV in Aboriginal and/or Torres Strait Islander PHC (Practice) and Certificate III Pathology Skills. Twelve current trainees are on track to complete both courses in 2016

2010

- Establishment of the Early Years program, which included the engagement of public health/community paediatrician to guide the development of a population-health approach to child development, learning and literacy
- Incorporation of CTG reforms to Medicare into the Chronic Disease Strategy
- Formulation of Maari Ma's Cycle of Care

2011

- Establishment of Manager Community Engagement position, located in the CEO's executive team, with senior local Aboriginal person as incumbent
- Healthy Start program is enhanced, focusing on scheduled care with children aged zero to five years, and antenatal care program strengthened by support of GP specialist
- Integration of doctors experienced in child health into the Healthy Start team. Focus on doctor-led, team-based care (GP, AHW, child and family health nurse), with allied health service providers packaged around the patient and team. A focus on women's health was a natural extension
- Establishment of dedicated child health clinics enables an expansion of the program to include better treatment and care, and improved links with the visiting specialist paediatric service
- Establishment of agreement with Royal Prince Alfred Hospital in Sydney, which kickstarts Maari Ma's substantial visiting medical specialists program

2012

- Employment of a pharmacist to improve medication use and compliance with a focus on the Keeping Well patient cohort
- Keeping Well program is expanded to include chronic disease management delivered opportunistically in acute or walk-in clinics and planned for in booked clinics

2013

- Shift from stand-alone Women's Health clinics to a more integrated service delivery model; women's health embedded across the service including in the Child Health, walk-in and booked clinics

2014

- Healthy Start program expanded to include six- to eight-year-olds with a focus on preventive services
- Employment of our own community paediatrician embedded in the Healthy Start program created a true integrated multidisciplinary team improving communication, medical management of children and support of families in between Child Health and paediatric clinic visits

- Keeping Well program is further adjusted to deploy both community-based and clinic-based staff to actively support the Keeping Well chronic disease patient cohort thereby embedding chronic disease management across the service

2015

- Establishment of the Youth Health program (9 to 15 years)
- Lead program funded with a focus on health promotion and follow-up where children have high blood lead levels

Section D: Progress on the Chronic Disease Strategy Objectives

1. Chronic disease health outcomes and risk factors

Key achievements

- Slight decreasing trend in hospitalisations for chronic conditions – this contrasts with increasing trends in hospitalisations for other conditions among Aboriginal people across NSW
- Clear improvements in blood pressure (BP) and cholesterol control for clients with diabetes and/or coronary heart disease, better than the national median
- Clear improvements in HbA1c control for patients with diabetes, better than the national median
- Recent reductions in the number of women who smoke and consume alcohol during pregnancy

Potential priorities for ongoing work

- High number of low birthweight babies, probably related to high rates of smoking in pregnancy despite progress on this score
- High prevalence of risk factors (alcohol consumption, cigarette smoking and obesity) for Aboriginal people with or without a chronic disease

For this Section we draw on hospitalisation data provided by the NSW Ministry of Health (see Appendix B),²⁷ clinical audit data (see Appendices C and D) and interview data. The analysis of trends in mortality and hospitalisations for Aboriginal people in far western NSW is constrained by the relatively small population and, therefore, small number of events. Appendix B provides a more detailed assessment and notes on the data, including limitations. Appendix C provides a more detailed assessment of the clinical indicator data. Appendix D presents a clinical indicator comparison table using ABCD national data as a benchmark for assessment. The audit data reflect what is recorded in the clinical notes. There may be items of care that are being delivered but not recorded in the notes.

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to Objectives 1, 2 and 3.

For *Objective 1: Rates of chronic disease morbidity and mortality among Aboriginal people are reduced* and *Objective 2: Disparities in chronic disease morbidity and mortality between Aboriginal and non-Aboriginal people are reduced* we reviewed hospitalisation data provided by the NSW Ministry of Health. There is no clear increasing or decreasing trend in all-cause mortality (see Appendix B, Figure 2) for Aboriginal people in the Broken Hill Cluster over the period 2006–2014, and no clear evidence that the gap in mortality between Aboriginal and non-Aboriginal people has decreased.

However, demonstrating that health programs have had an impact on mortality is notoriously difficult due to the long timeframes for programs to affect mortality rates and other multiple concurrent and interacting influences. These influences may make it impossible to demonstrate clearly the impact of a program even over an extended timeframe. Demonstrating impact is especially difficult in relatively small populations – as is the case for the Broken Hill Cluster – as they may not provide the power to detect statistically significant differences in outcomes.

There is also a widening gap between the rates of hospitalisation for Aboriginal and non-Aboriginal people that is increasing for Aboriginal people but decreasing for non-Aboriginal people. While this

²⁷ NSW Ministry of Health provided data for '10502 Broken Hill and Far West Statistical Level 3 (SA3)' (Broken Hill & Far West), which includes the Statistical Area Level 2 of Broken Hill, Central Darling and Upper Far West. The area of SA3 represents the evaluation area of interest and Maari Ma refers to this area as the 'Broken Hill Cluster'.

increase is primarily driven by a rise in non-preventable hospitalisations (such as injury), there is a growing trend in potentially preventable hospitalisations (PPHs) overall for Aboriginal people in the Broken Hill Cluster. This pattern appears to be associated with an increase in the acute category, rather than for chronic conditions, and is also evident for Aboriginal people in the rest of NSW.

Although there is a lack of clear quantitative evidence as to the impact of the Strategy on trends in mortality and on hospitalisation data for the Broken Hill Cluster (see Appendix B), it cannot be concluded from this analysis that the Strategy is not having an effect on hospitalisations. Potential limitations with respect to the data include small population numbers in the Broken Hill Cluster, and caution should be used in interpreting findings from analyses of the hospitalisation data.

There has also been an increase in low birthweight babies in the Broken Hill Cluster, probably related to the high rates of smoking and alcohol use in pregnancy that persist despite some success in lowering these rates.

For Objective 3: There is a reduction in preventable chronic disease risk factors among Aboriginal people, analysis of clinical indicator data shows some clear improvements in intermediate health outcomes for Aboriginal people in the Broken Hill Cluster, potentially linked to the Strategy's preventive activities. Improvements are evident in blood pressure and cholesterol, as well as in HbA1c²⁸ control for patients with type 2 diabetes and/or Coronary Heart Disease (CHD), which should result in a reduction in complications, disability and premature mortality.

For the Broken Hill Cluster's 'well' clients (without a chronic disease) there were no clear increasing or decreasing trends in records of abnormal blood pressure, lipid levels, urinalysis or blood glucose levels. However, trend data show a lower percentage of well clients with abnormal blood glucose than the median for the national data. These results may reflect aspects of the environment or lifestyle influences that present less risk for chronic disease, as well as better prevention/health promotion, screening and early diagnosis in this service population – all of which are features of the Strategy. These quantitative findings are consistent with interviewees' observations of improved health outcomes for Aboriginal people in Broken Hill Cluster as a result of the Strategy.

However, the prevalence of major risk factors (alcohol, smoking, and being overweight/obese) remains high for the Broken Hill Cluster – for those with or without a chronic disease, and notably for pregnant women. This highlights the importance of maintaining a focus on preventive care and health promotion.²⁹

Key evidence on which assessment of programs is based – Health impacts

Hospitalisations

All-cause hospital admission rates for Aboriginal people in the Broken Hill Cluster are increasing. In 2013–2014 they were double the rate for non-Aboriginal people and higher than the rate for Aboriginal people in the rest of NSW (see Appendix B, Figure 3). This increase in all-cause hospitalisations for Aboriginal people in the Broken Hill Cluster appears to be primarily driven by increases in non-preventable hospitalisations (see Appendix B, Figure 4).

Potentially preventable hospitalisations

PPHs are defined as 'those that may have been prevented by timely and effective provision of non-hospital or PHC' and include 22 conditions for which a hospitalisation is considered to be potentially

²⁸ HbA1c is regarded as the gold standard for assessing glycaemic control. For more information go to RACGP website. Accessed on 4 October 2016 at: <http://www.racgp.org.au/afp/2012/januaryfebruary/hba1c-and-monitoring-glycaemia/>.

²⁹ AIHW 2012, *Risk Factors Contributing to Chronic Disease*, Cat. No. PHE 157, AIHW, Canberra. Accessed on 17 August 2016 at: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737421546>.

preventable.³⁰ Data for PPHs at the Broken Hill Cluster level were available for chronic conditions, acute conditions and all PPHs (which include vaccine preventable conditions).

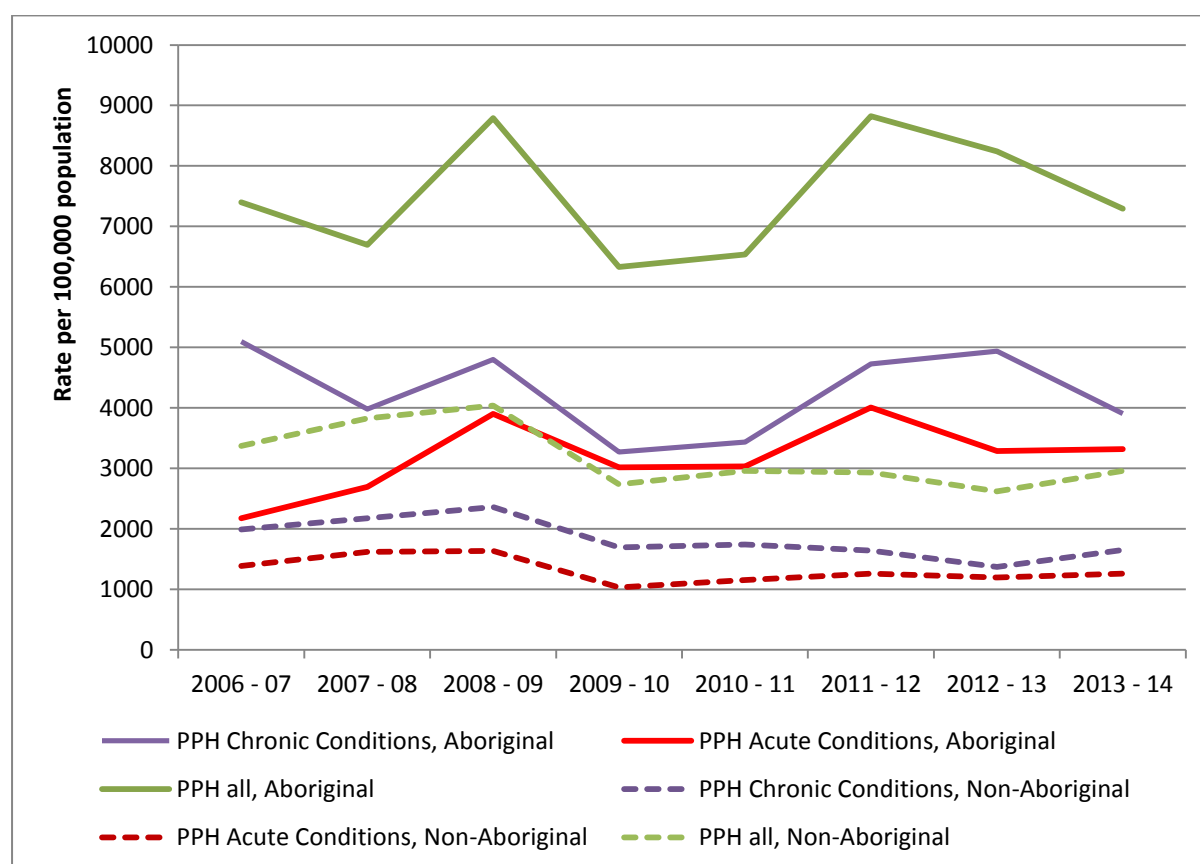


Figure 6 PPHs for chronic conditions, acute conditions and total per 100,000 population, comparisons by Aboriginality, Broken Hill Cluster (Broken Hill and Far West SA3), 2006–2014

The sustained high level of PPHs overall for Aboriginal people in the Broken Hill Cluster (see Figure 6) and in NSW (see Appendix B, Figure 5) appears to be associated with an increase in PPHs in the acute category³¹ rather than in PPHs due to chronic conditions. However, the difference in trends between these two PPH categories in the Broken Hill Cluster is not statistically significant.

Potentially preventable hospitalisations due to chronic conditions

From 2006–2007 to 2013–2014, there was a slight decline (not statistically significant) in PPHs due to chronic conditions in the Broken Hill Cluster Aboriginal population (see Figure 7). However, PPHs for chronic conditions among this group continued to occur at a substantially higher rate than for Aboriginal people in NSW overall. In the Broken Hill Cluster Aboriginal population, PPHs for chronic conditions in 2013–2014 were more than double those for non-Aboriginal people, with Aboriginal females having higher rates (about 60–70% higher) than Aboriginal males (see Appendix B, Figure 8). There is debate in

³⁰ National Health Performance Authority (NHPA) 2015, *Healthy Communities: Potentially Preventable Hospitalisations in 2013–14*, NHPA, Sydney. Accessed on 17 August 2016 at: <http://www.myhealthycommunities.gov.au>

³¹ Acute PPH includes: dehydration and gastroenteritis, pyelonephritis, perforated/bleeding ulcer, cellulitis, pelvic inflammatory disease, ear nose and throat infections, dental conditions, appendicitis with generalised peritonitis, convulsions and epilepsy and gangrene.

the published literature about the extent to which PPHs as currently defined and calculated are a useful measure for assessing the impact of PHC programs.³²

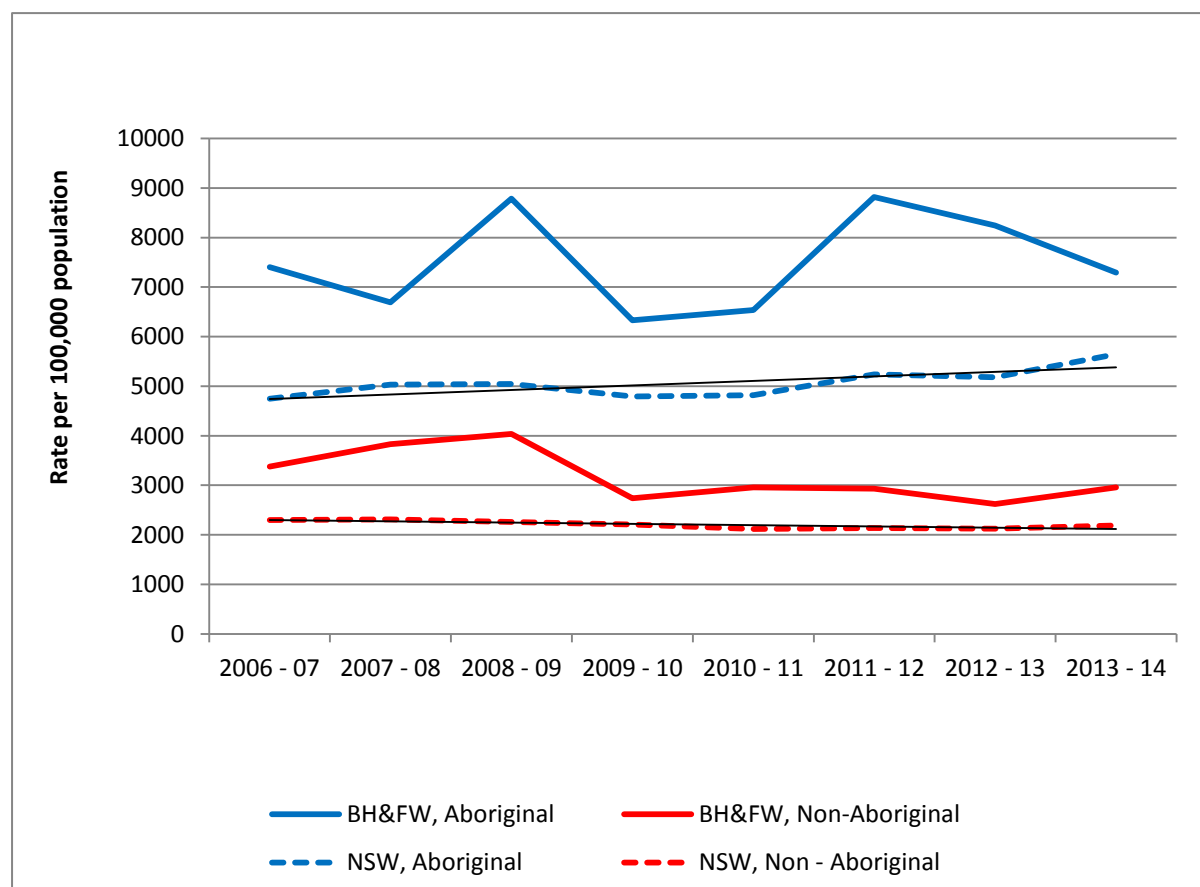


Figure 7 PPHs: Chronic conditions per 100,000 population, comparison by Aboriginality, NSW and Broken Hill Cluster (Broken Hill and Far West SA3), 2006–2014

Causes of hospitalisations, by principal diagnosis

The category of hospitalisation that shows the most notable increase (2006–2007 to 2013–2014) for Aboriginal people in the Broken Hill Cluster is ‘Factors including health status and contact with health services’ (see Appendix B, Figure 12).³³ There was a slight increasing trend for hospitalisations due to ‘pregnancy related conditions’ for Aboriginal women in the Broken Hill Cluster (see Appendix B, Figure 16), and for ‘Smoking attributable hospitalisations’, possibly due to changes in coding practices for hospitalisation data (see Appendix B, Figure 19).

³² M. Falster, L. Jorm & A. Leyland 2016, ‘Visualising linked health data to explore health events around preventable hospitalisations in NSW Australia’, *BMJ Open*, 6(9):e012031. doi:10.1136/bmjopen-2016-012031. Accessed on 4 October 2016 at: <http://bmjopen.bmj.com/content/6/9/e012031.full.pdf+html>; Also see M. Passey, J. Longman, J. Johnston, L. Jorm, D. Ewald, G. G. Morgan, M. Rolfe & B. Chalker 2015, ‘Diagnosing Potentially Preventable Hospitalisations (DaPPHne): Protocol for a mixed-methods data-linkage study’, *BMJ Open*, 5(11):e009879. doi:10.1136/bmjopen-2015-009879. Accessed on 4 October 2016 at: <http://bmjopen.bmj.com/content/5/11/e009879.full.pdf+html>.

³³ This International Classification of Diseases Code category can arise in two ways ‘a) When a person who may or may not be sick encounters the health service for some specific purpose, such as to receive limited care or service for a current condition, to donate an organ or tissue, to receive prophylactic vaccination (immunisation), or to discuss a problem which is in itself not a disease or injury; and b) When some circumstance or problem is present which influences the person’s health status but is not in itself a current injury or illness.’ Many of the separations involve repeat admissions for the same people – for care such as dialysis. From World Health Organization 2016, ‘International Statistical Classification of Diseases and Related Health Problems: 10th Revision’. Available at: <http://apps.who.int/classifications/icd10/browse/2010/en#!/XXI>.

Low birthweight

Hospitalisation data show diverging trends in low birthweight babies (<2,500 grams at birth) for Aboriginal and non-Aboriginal mothers in the Broken Hill Cluster, contrasting with converging trends for Aboriginal and non-Aboriginal women in NSW (see Figure 8). The proportion of low birthweight babies born to Aboriginal mothers is approximately double that born to non-Aboriginal mothers in the Broken Hill Cluster.

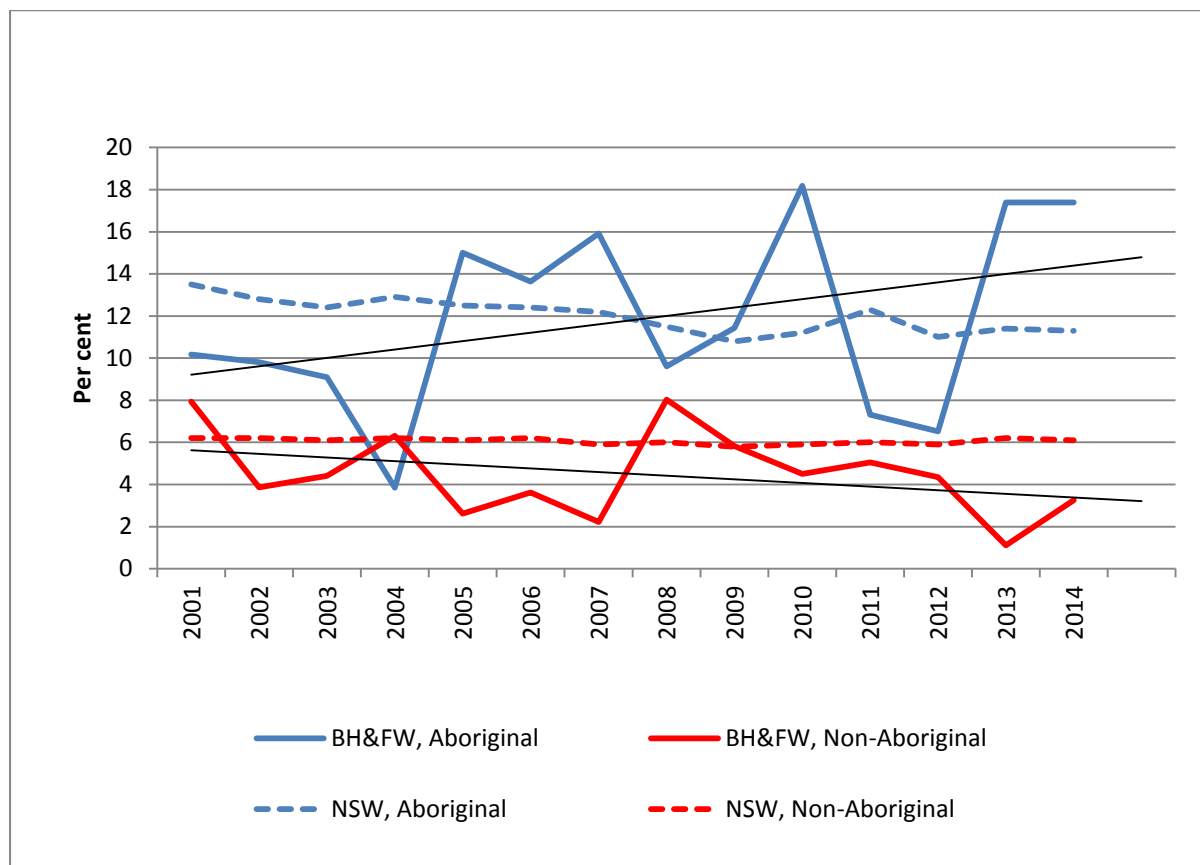


Figure 8 Low birthweight (<2,500g) babies among Aboriginal and non-Aboriginal mothers, NSW and Broken Hill Cluster (Broken Hill and Far West SA3), 2001–2014

While these trends may be influenced by changes in identification of Aboriginal mothers and babies over time, as well as resulting differences between regions, the relative increase in low birthweight babies for Broken Hill Cluster mothers indicates this is an area requiring further attention. This increase is supported by a recent publication that shows a growing number of low birthweight babies in the whole Maari Ma Region from 11.3 per cent (2003–2007) to 13.1 per cent (2007–2011). The report also noted that for Aboriginal women in NSW overall there was a decrease in the birthweight of their babies (see Table 7), with smoking in pregnancy widely recognised as the major cause.³⁴

³⁴ M. Scollo & M. Winstanley 2015, *Tobacco in Australia: Facts and Issues*, Cancer Council Victoria, Melbourne. Accessed on 17 February 2016 at: <http://www.tobaccoinaustralia.org.au>

Table 7 Proportion of low birthweight babies born, Maari Ma Region and NSW, 2003–2007 and 2007–2011

		Maari Ma Region		NSW	
		Aboriginal	Total	Aboriginal	Total
Low birthweight (>2500 grams)	2003–2007	11.3%	5.1%	12.6%	6.4%
	2007–2011	[^] 13.1%	6.0%	11.8%	6.2%

Note: Included in low birthweight data are 675 babies born in Victorian hospitals to women who reside in Maari Ma Region

[^] Significantly higher than the current NSW total population result

Source: Perinatal data collection 2003–2011³⁵

³⁵ See Ierace et al., op. cit.

Key evidence on which assessment of programs is based – Intermediate health outcomes

Preventive health

The percentage of well clients with an abnormal blood pressure, urinalysis, blood glucose or lipid levels, documented in the medical record in the past 24 months (as reflected in the ABCD clinical audit data), shows no clear increasing or declining trends. The percentage of well clients with an abnormal blood glucose recorded in the past 24 months, for example, is less than for the ABCD national data (see Figure 9), suggesting lower levels of undiagnosed diabetes in the Broken Hill Cluster service population.

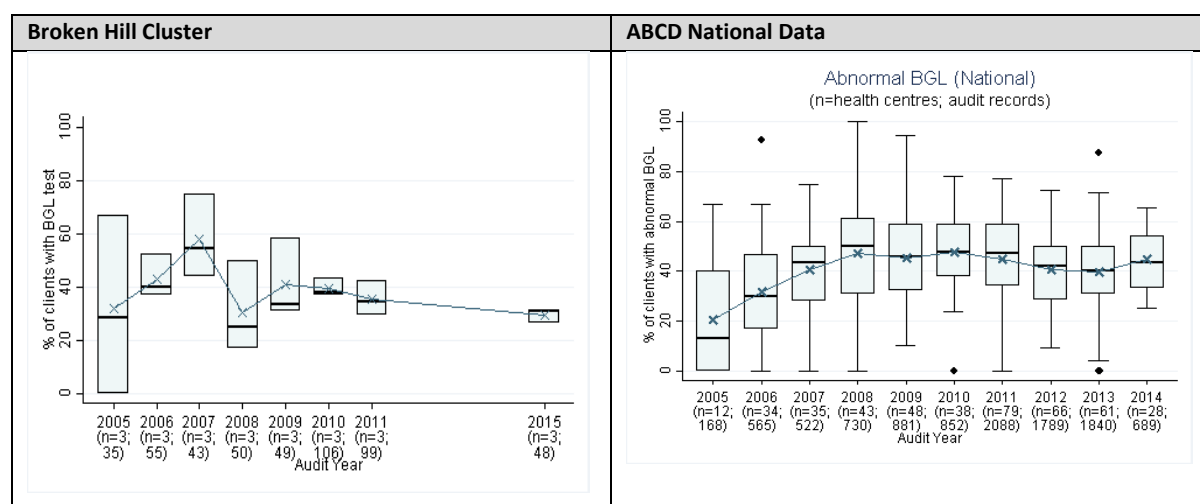


Figure 9 Percentage of well clients with an abnormal blood glucose level recorded in the past 24 months, by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster and ABCD national data

n=number of health services; number of client records audited who had a BGL test in previous 24 months

A blood glucose level is abnormal if ≥ 5.5 millimole/L

Chronic illness care

The clinical audit data show clear improved control of intermediate health outcomes for clients with diabetes and/or coronary heart disease and these outcomes are generally better than the median for the ABCD national data (see Appendix C, Figures 79, 83, 86, 89).

There are clear declining trends in the percentage of clients with diabetes and CHD whose most recent blood pressure was abnormal (see Figure 10). In 2005, approximately 80 per cent of patients with diabetes had an abnormal BP result compared to approximately 40 per cent in 2015. The Broken Hill Cluster is achieving better BP control for clients with type 2 diabetes or CHD than the national median for ABCD data (see Appendix C, Figure 79). Similarly, when compared with the national key performance indicator data – where 44 per cent of clients with type 2 diabetes had an abnormal reading as at December 2014³⁶ – the Broken Hill Cluster is achieving better BP control than the national percentage.

³⁶ AIHW 2014, *National Key Performance Indicators for Aboriginal and Torres Strait Islander Primary Health Care: Results from December 2014*, AIHW, Canberra. Accessed on 20 May 2016 at: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129547048>

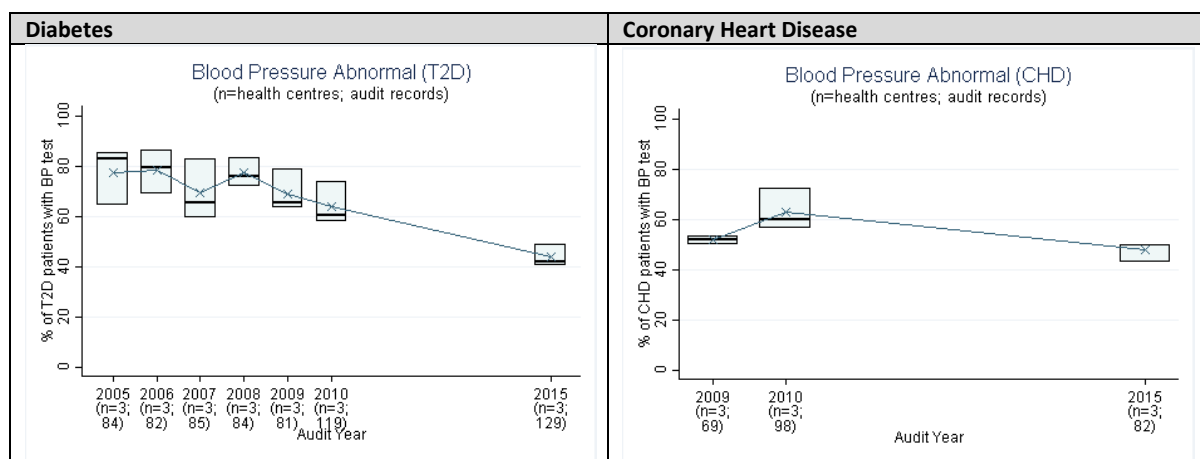


Figure 10 Percentage of clients with type 2 diabetes or CHD whose most recent BP record was abnormal ($>130/80$), by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster

n=number of health services; number of client records audited for clients who had a BP test in the previous 12 months

There are clear declining trends in the percentage of clients who have diabetes or CHD with an abnormal cholesterol reading. In 2005, more than 80 per cent of clients with diabetes recorded an abnormal cholesterol result, but this figure had fallen to approximately 20 per cent by 2015 (see Figure 11). The decline was not as marked for clients with CHD. The Broken Hill Cluster is achieving significantly better control of cholesterol for clients with diabetes or CHD than the ABCD national median (see Appendix C, Figure 86).

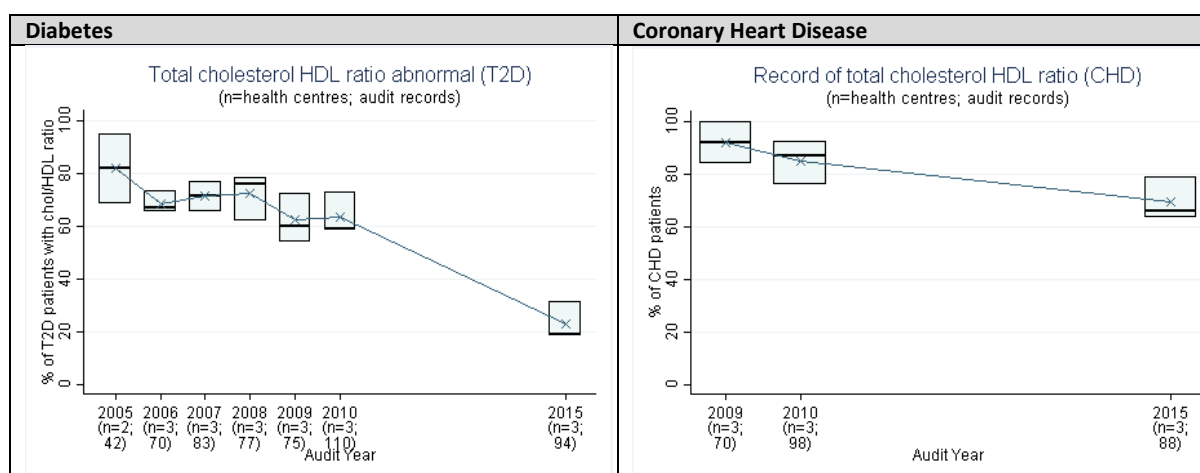


Figure 11 Percentage of clients with type 2 diabetes or CHD whose most recent cholesterol result was abnormal by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster

n=number of health services; number of client records audited for clients who had an total cholesterol test in the previous 12 months

Abnormal total cholesterol/HDL ratio ≥ 4.5 , if audit date is before 23/12/2011, abnormal total cholesterol is ≥ 4.0 millimole/L

There was a clear decline in the number of people with diabetes who had an abnormal HbA1c³⁷ test ($>7\%$). In 2005, approximately 65 per cent of clients with diabetes had an abnormal test result; this fell to

³⁷HbA1c is glycosylated haemoglobin and reflects the average blood glucose over the lifespan of the red blood cells containing it. HbA1c is regarded as the gold standard for assessing glycaemic control.

approximately 57 per cent in 2015. The Broken Hill Cluster is performing better than the median for ABCD participating services, which has been 65–70 per cent for the past several years (see Figure 12).

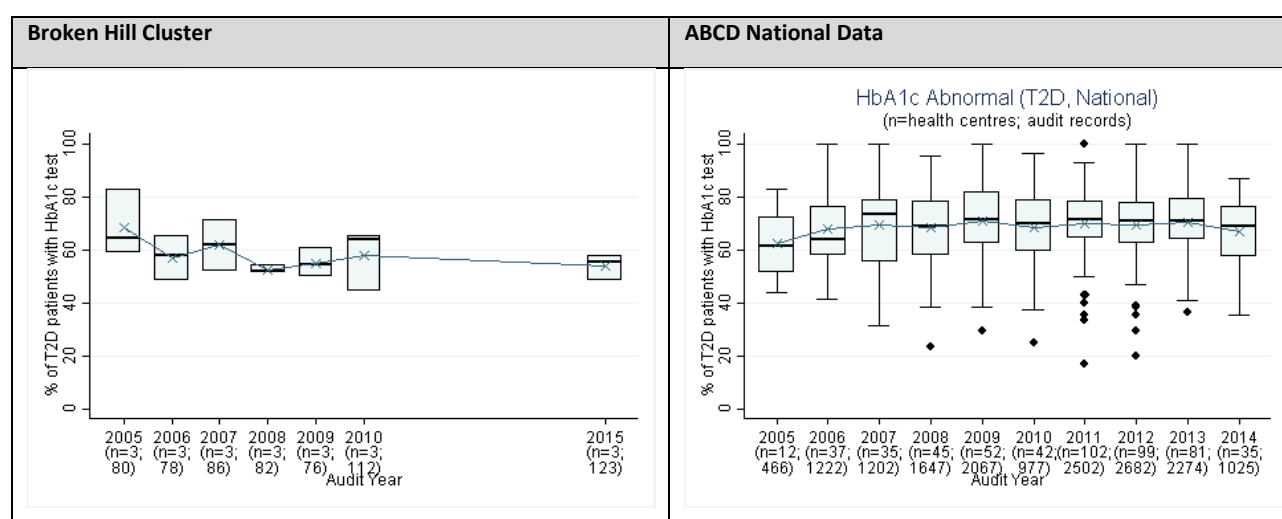


Figure 12 Percentage of clients with type 2 diabetes whose most recent HbA1c result was abnormal by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster and ABCD national data

n=number of health services; number of client records audited for clients who had HbA1c test in previous 12 months

Abnormal HbA1c is >7%

Key evidence on which assessment of programs is based – Prevalence of risk factors

Preventive care

The prevalence of risk factors for poor outcomes among generally well adults (those without a chronic disease) in the Broken Hill Cluster is high (see Figure 13) – being similar to or higher than the median for the national ABCD data. Alcohol use at high-risk levels stands out as being higher than for the national data (see Appendix C, Figure 9).

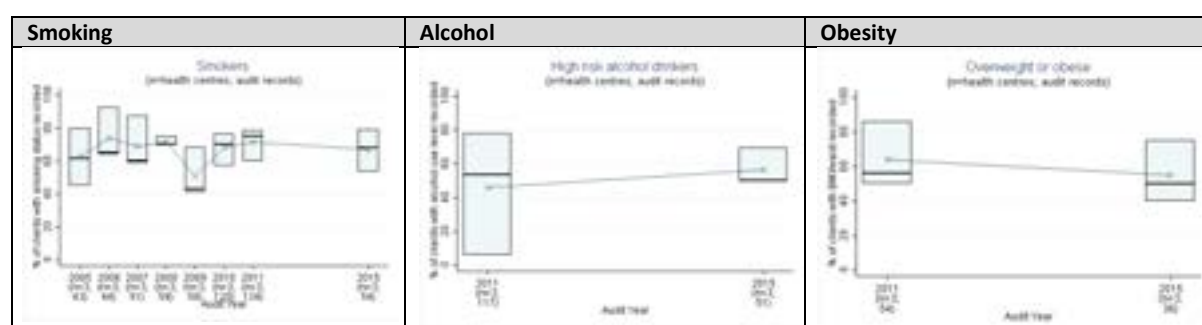


Figure 13 Percentage of well clients recorded who a) smoke, b) use alcohol at risky levels and c) are being overweight/obese in the last 24 months, by audit year: Mean, median and range between health services, 2011–2015, Broken Hill Cluster

n=number of health services; number of client records audited who had their a) smoking status b) alcohol status c) BMI recorded in previous 24 months

Maternal health

High proportions of pregnant women in the Broken Hill Cluster both smoked cigarettes and drank alcohol during pregnancy (see Figure 14) – higher than the median for the national data (see Appendix C, Figures 45, 47). The most recent clinical audits, however, indicate that these rates may be falling.

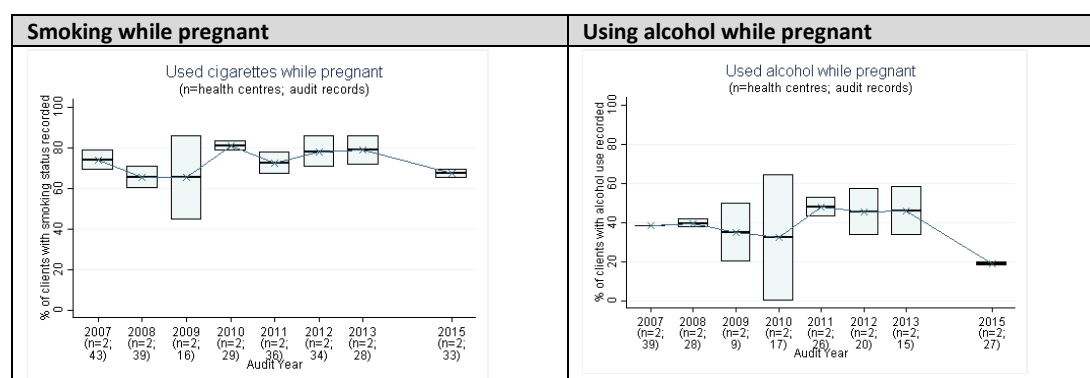


Figure 14 Percentage of women a) smoking during pregnancy and b) using alcohol during pregnancy, by audit year: Mean, median and range between health services, 2007–2015, Broken Hill Cluster (Broken Hill and Wilcannia)

n=number of health services; number of client records audited for clients who had their a) smoking status b) alcohol status recorded during pregnancy

This improvement in both smoking and in alcohol consumption rates during pregnancy, which is evident from the ABCD clinical audits, is supported by a recent publication noting that rates of smoking during pregnancy and the amount smoked were much higher in far western NSW compared to the State overall.³⁸ This publication also notes a significant reduction in the number of women smoking during pregnancy in the Maari Ma region as a whole, from 78 per cent (2003–2007) to 66 per cent (2007–2011). There was also a reported reduction in the proportion of pregnant women smoking more than 10 cigarettes a day, from 65 per cent to 54 per cent (see Table 8).

Table 8 Proportion of women who smoked during pregnancy and usage, Maari Ma Region and NSW, 2003–2007 and 2007–2011

		Maari Ma Region		NSW	
		Aboriginal	Total	Aboriginal	Total
Smoking during pregnancy	2003–2007	77.9%	38.8%	63.2%	18.9%
	2007–2011	^* ↓ 66.2%	21.3%	50.4%	11.9%
More than 10 cigarettes per day	2003–2007	64.8%	57.6%	54.3%	46.4%
	2007–2011	^* ↓ 53.7%	46.4%	39.2%	29.9%

Note: Data presented is for the whole Maari Ma region, not just the Broken Hill Cluster

^Significantly higher than the current NSW total population

*Significantly higher than the current NSW Aboriginal population result

↓Significantly lower than the previous period Maari Ma Aboriginal population result

Source: Perinatal Data Collection 2003–2011³⁹

³⁸ Ierace et al., op. cit.,

³⁹ ibid.

Chronic illness care

Aboriginal people in the Broken Hill Cluster with diabetes and CHD have a high prevalence of risk factors (see Figure 15; Appendix C, Figures 69, 70, 72, 73, 76). Clients are recorded to be smoking and using alcohol at higher rates than the median for the national data (see Appendix C, Figures 70, 73). The prevalence of being overweight/obese is more than 90 per cent – similar to the national data (see Appendix C, Figure 76).

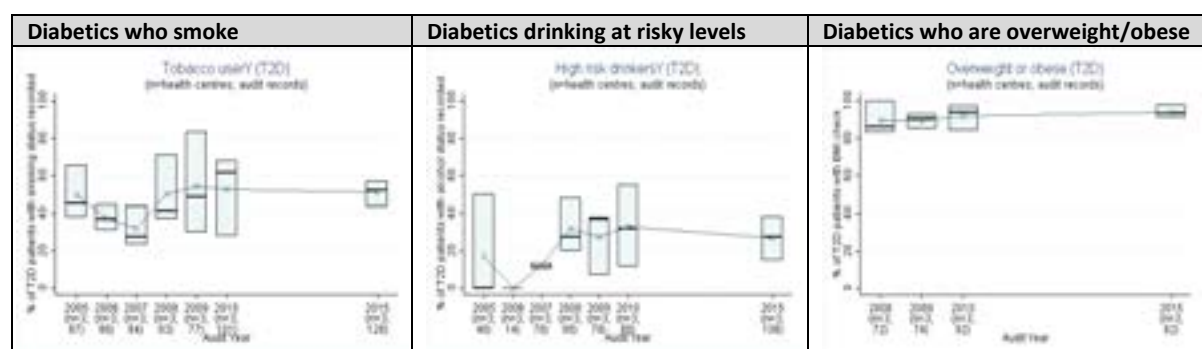


Figure 15 Percentage of diabetic clients who a) smoke cigarettes, b) drink at risky levels and c) whose BMI indicates being overweight/obese by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster

n=number of health services; number of client records audited for clients who had a) smoking status recorded, b) alcohol status recorded, c) a BMI check in previous 12 months

Qualitative data

Interviewees noted the high proportion of people in the Broken Hill Cluster who consume alcohol at risky levels and smoke cigarettes, particularly young people and pregnant women. They also raised concerns about the growing level of youth obesity.

2. Quality of care

Key achievements

- Increasing delivery of care according to best practice guidelines in most areas of care

Maternal care

- *Maternal care* (overall delivery of care) shows a clear increasing trend, and a level of delivery similar to the median for the national ABCD data
- The majority of maternal process-of-care indicators show good outcomes including: antenatal care plan in clinical record; recording of women attending for five or more antenatal visits; recording of medical risk factors assessment; recording of a post-natal visit

Child health

- *Child health* (overall delivery of care) shows an improving trend, and the level of recorded care is generally higher than the median for the national ABCD data
- The majority of child health process-of-care indicators show good outcomes. Indicators with the most marked improvements are: recording of child health check completed; health service medical summary documentation

Preventive health care

- *Preventive care* (overall delivery of care) shows no increasing or declining trend, and the level of delivery is similar to the median for the national ABCD data
- Indicators that show particularly marked improvement include: adult health checks; recording of brief interventions

Chronic illness care

- *Diabetes care* (overall delivery of care) shows a declining trend with the level of recorded care generally lower than the median for the national ABCD data
- *Coronary heart disease care* (overall delivery of care) shows no clear increasing or declining trend; level of recorded care is similar to the median for national ABCD data
- Improving trend in the recording of GP Management Plans for clients with diabetes or coronary heart disease

Potential priorities for ongoing work

- Strengthen focus on reducing use of cigarettes and alcohol during pregnancy
- Strengthen programs that address SEWB, use of AOD
- Improve documentation of services delivered in patient records, particularly for diabetes care

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to Objectives 4, 5, 6 and 7. Findings from the analysis of both clinical audit data and interview data are presented for aspects of care provided with respect to two key programs under the Strategy: Healthy Start and Keeping Well. Appendix C provides a more detailed assessment of the clinical indicator data, while Appendix D presents a clinical indicator comparison table using ABCD national data as a benchmark for assessment. The audit data reflect what is recorded in the clinical notes, although there may be items of care that are being delivered but are not recorded. A more accurate recording of services delivered could enhance the quality of team-based care.

Quality of care provided

For *Objective 4, Improve the quality of care provided to Aboriginal people*, we used composite indicators. In maternal care and child health these indicators show positive results. Both preventive care and CHD care show no increasing or declining trend. The level of delivery of preventive care was similar to the median for the national ABCD data, with an increase in delivery in the most recent audit (2015). Diabetes

care showed a declining trend in recording of care according to best practice guidelines, and with a level generally lower than the median for the national ABCD data. This contrasts with findings reported above of improvements in intermediate outcomes for people with diabetes.

Accurate recording of processes of care for patients with chronic disease may be an important area of further work for Maari Ma. The interview data show a widely held view that the Strategy has improved the quality of care for Aboriginal people in the Broken Hill Cluster, consistent with the trends in the audit data for maternal care and child health.

Access to and quality of child and maternal care

For *Objective 5, Improve access to and quality of child and maternal care*, the Broken Hill Cluster's maternal health clinical audit shows improvement and high levels of care for many indicators. Maari Ma may look to strengthen the implementation of evidence-based programs to address the high rates of tobacco and alcohol use during pregnancy. For *Objective 6, Improve overall child development and wellbeing*, the child health clinical audit data show improvement and high levels of care for almost all indicators.

Chronic disease prevention, management and follow-up care

For *Objective 7, Improve chronic disease prevention, management and follow-up care*, analysis of clinical audit data shows that no preventive care indicators were consistently in an optimal range of more than 80 per cent. Nevertheless, the analysis does show improving trends for many indicators. The high-risk levels recorded of alcohol use, of cigarette smoking and of being overweight/obese (reported above in Section D.1 'Prevalence of Risk Factors') provide a focus for strengthening preventive care. Clinical audit data for preventive care show room for improvement in the delivery of screening for mental health issues. Interviewees consistently indicated a need for a focus on social and emotional wellbeing.

Key evidence on which assessment of programs is based – Healthy Start program: Access to quality child and maternal health care

Maternal health care

The indicator of overall delivery of maternal care for the Broken Hill Cluster (based on overall adherence to service delivery guidelines) shows an improving trend (2007–2015), similar to the ABCD national data (see Figure 16).

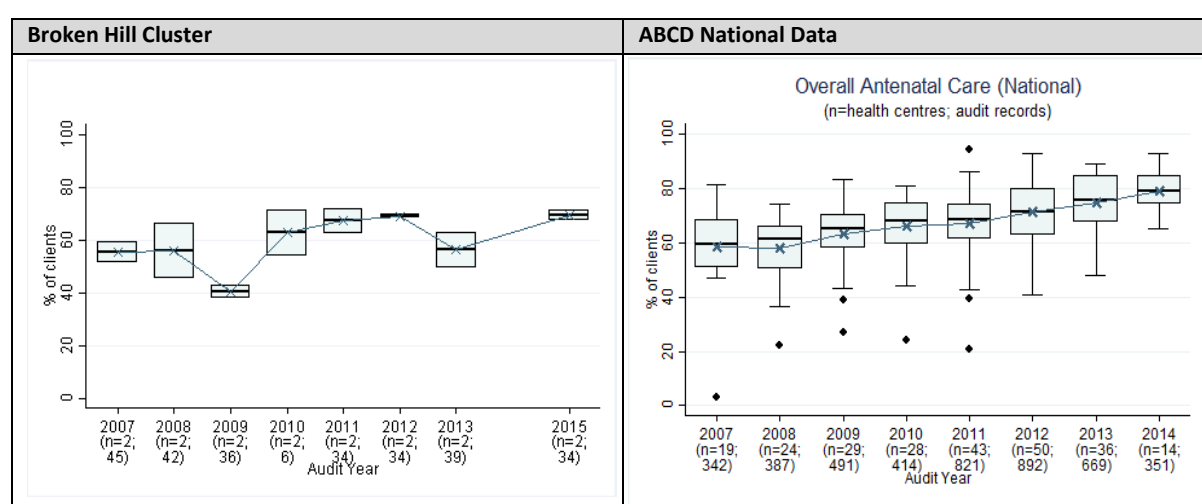


Figure 16 Overall adherence to service delivery for antenatal care, by audit year: Mean, median and range between health services, 2007–2015, Broken Hill Cluster (Wilcannia and Broken Hill)

n=number of health services; number of client records audited

Overall adherence to service delivery for antenatal care composite indicator includes: ≥7 antenatal visits, estimated gestational age ≤13 weeks at first antenatal visit, BP (1st, 2nd and 3rd trimester), urinalysis (1st and 2nd trimester), BMI (1st trimester), fundal height (2nd and 3rd trimester), foetal movements (3rd trimester), blood glucose (2nd trimester), mid-stream urine, full blood examination, Syphilis serology, smoking status recorded (1st and 3rd trimester), drinking status recorded (1st and 3rd trimester), social risk assessment, emotional wellbeing assessment, discussion of plans for care and birthing, breastfeeding, domestic and social environment.

Of the specific indicators of care for maternal health (see Appendix D), indicators consistently in the optimal range of more than 80 per cent (compliance with best practice guidelines) include:

- Antenatal care plan in clinical record
- Recording of medical risk factors assessment
- Recording of women assessed as being at risk of social and emotional wellbeing issues and with a record of follow-up (though small numbers)
- Recording of a post-natal visit.

More than half (14/23) of the specific process-of-care indicators for maternal care show an improving trend. Most of these (10/14) indicate a similar level of care compared to the national data, with the following showing a particularly marked improvement:

- Overall delivery of routine antenatal checks
- Recording of women attending five or more antenatal visits
- Recording of a brief intervention for women identified as smoking during pregnancy
- Recording of women with documented alcohol use having received a brief intervention/counselling
- Recording of medical risk factors assessment and follow-up
- Recording of women assessed for social and emotional wellbeing.

Four of the specific process-of-care indicators show no clear improving or declining trend, with the following two showing a relatively low level of care compared to the national data:

- Overall delivery of antenatal counselling and education
- Recording of mid-stream urine.

Child health care

The indicator of overall child health care shows an improving trend for the Broken Hill Cluster, with child health services delivered at a higher level than the median for the national ABCD data (see Figure 17).

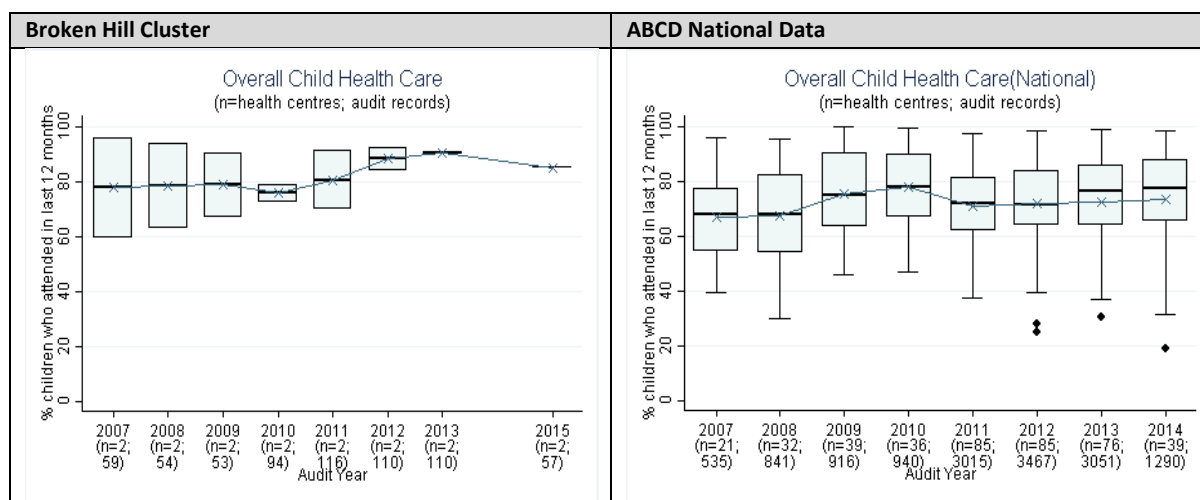


Figure 17 Overall child health service delivery, by audit year: Mean, median and range between health services, 2007–2015, Broken Hill Cluster (Broken Hill and Wilcannia)

n=number of health services; number of child records audited for clients who attended in previous 12 months

Overall child health service delivery composite indicator includes: weight, height, head circumference, hip exam, testes check, ear exam, breastfeeding, nutrition advice, sudden infant death syndrome prevention, and developmental check

Of the 11 more specific process-of-care indicators for child care (see Appendix D), eight show an improving trend or are consistently above 80 per cent. Four of these show a level of care that is higher than the median, while the other four are generally similar to the median for the national data. Several indicators show a level of care that is within or close to the optimal range of 80 per cent or more at the most recent audit (2015).

Indicators that showed the most marked improvements are:

- Recording of child health check completed in the past 12 months (MBS 708/715)
- Health service medical summary documentation.

The more specific process-of-care indicators that are not within the optimal range for 2015 are:

- Immunisation recorded as delivered according to the recommended schedule for children under five years of age
- Children with developmental delay who had documented evidence of follow-up assessment (small numbers)
- Record of delivery of brief intervention/counselling (composite indicator).

Improving child development and wellbeing

As reported in Section D.9: Health Promotion and Education, interviewees identified both the health promotion and community development activities as being important for improving child health and development in the Broken Hill Cluster. Interviewees commonly reported that they provide a useful vehicle to access harder to reach families and to build linkages for them with health services and other types of support. They also indicated that the burden of illness for child health relates less to physical health and more to developmental and behavioural issues.

Clinical indicator data for child health show good recording and delivery of developmental milestone checks (see Appendix C, Figure 96), and recording of children with a developmental delay similar to the national ABCD data (see Appendix C, Figure 97). Given the high prevalence of risk factors in adults, the increase in delivery of brief interventions for children in 2015 is promising (see Appendix C, Figure 100).

In the area of child health, interviewees consistently noted that they had a focus on developing programs based on evidence, and were identified as being ‘visionary’ for picking up early on the links between a

healthy start and the progression of chronic disease in the future. Maari Ma has engaged a community paediatrician to provide expert oversight and leadership in this area, and interviewees perceived this as an important asset to the development of the child health program and team.

Key evidence on which assessment of programs is based – Keeping Well Program: Chronic disease prevention, management, follow-up care

Preventive care

The composite indicator for *overall preventive care* shows no increasing or declining trend, which is similar to the national data although these do show a more sharply increasing trend (see Figure 18). In the most recent audit in 2015 there was a large improvement in the overall delivery of preventive care, which is promising.

No preventive care indicators were consistently in the optimal range of more than 80 per cent. Half (11/22) of the specific process-of-care indicators for preventive care show an improving trend, and about half of these (5/11) show a better level of care compared to the national data. Indicators that show particularly marked improvement include:

- Adult health check (MBS Item 715) or alternative health check
- Recording of a brief intervention for documented smokers
- Recording of alcohol use
- Recording of a) brief intervention and b) referral for documented higher risk alcohol users.

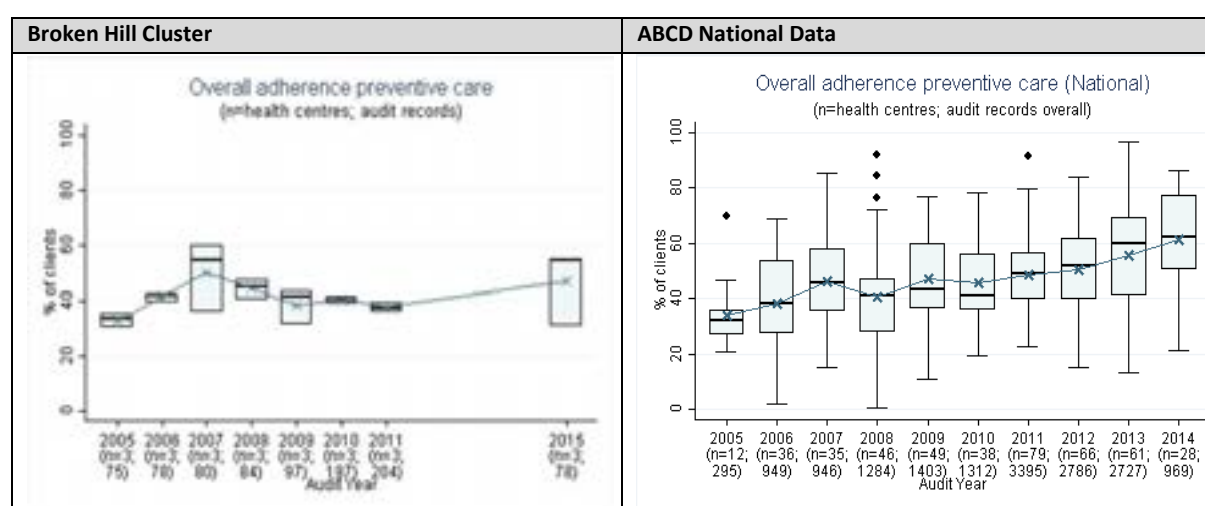


Figure 18 Overall adherence to preventive care to well clients, by audit years: Mean, median and range between health services, 2005–2015, Broken Hill Cluster (Broken Hill, Wilcannia and Menindee)

n=number of health services; number of client records audited who attended in previous 24 months

Overall adherence to preventive care composite figure includes the following indicators: weight, waist circumference, BP, urinalysis, blood glucose level, sexually transmitted infections (gonorrhoea and chlamydia; syphilis), Pap smear, oral health, nutrition, physical activity, smoking and alcohol status recorded, brief intervention if smoker and/or high risk alcohol user

Five of the *specific* process-of-care indicators show no clear improving or declining trend. One of these indicators – Overall delivery of basic measurements – shows a level of care that is relatively low compared to the national data. Six of the specific process-of-care indicators show a declining trend or are consistently low, with the following four of these indicators showing a level of care that is relatively low compared to the national data:

- Recording of eligible clients with a documented absolute cardiovascular risk assessment
- Overall delivery of ear, eye and oral health checks
- Recording of urinalysis
- Recording of screening for social and emotional wellbeing using a standard tool.⁴⁰

Interviewees consistently provided feedback about the need for a focus on screening for mental health issues and social and emotional wellbeing care as well as improved access to services.

Increasing preventive health activities through undertaking health checks

Maari Ma has focused more recently on undertaking health checks to improve the detection and prevention of chronic disease and access to care. Clinical audit data (see Appendix E, Figure 4) and program data provided by Maari Ma demonstrate a large uptake of these health checks (see Figure 19). Program data show that in 2011 Maari Ma claimed 111 health checks (MBS 715) for the Broken Hill Cluster and this increased to 1145 health checks in 2015. The majority of health checks were for people aged 15 years and over (see Figure 19).

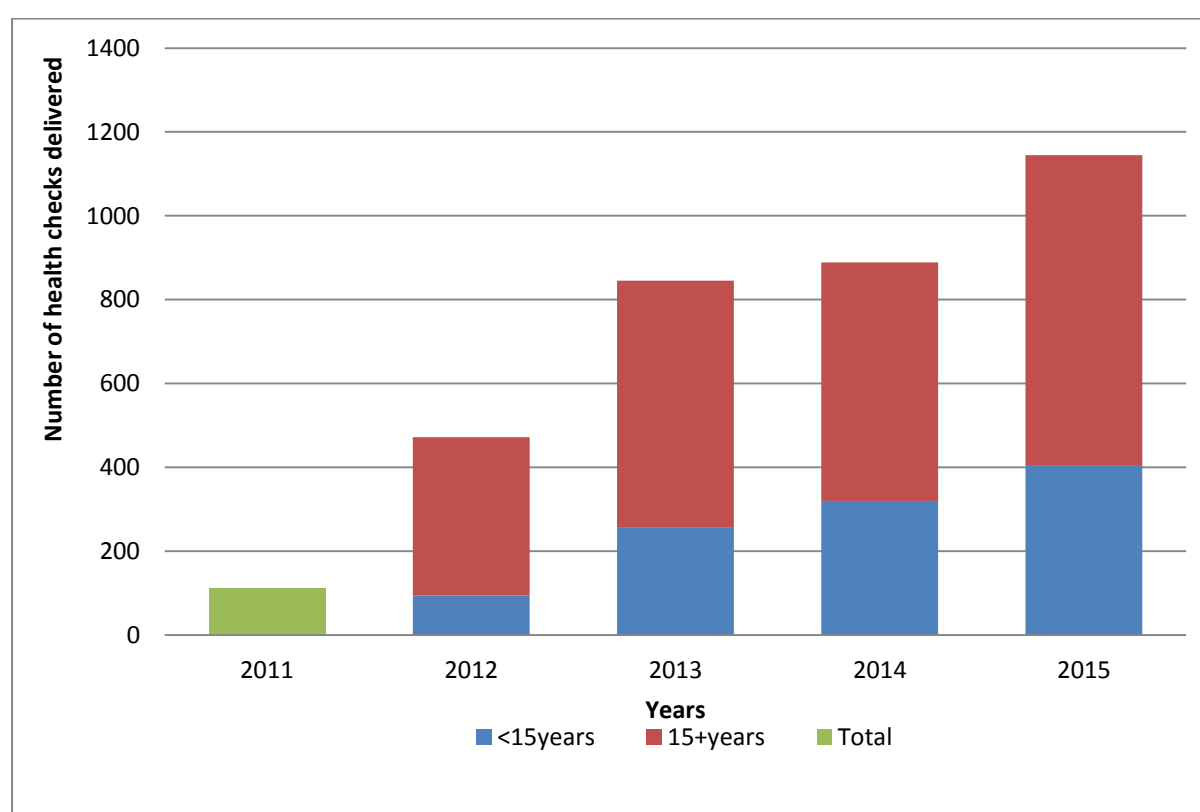


Figure 19 Number of MBS 715 health checks claimed, by age groups, Broken Hill Cluster, 2011–2015

Note: For 2011 the data was not available by age groups; we have therefore presented a total for this year

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

Clinical audit data show that about 50 per cent of the Aboriginal people attending the service who are 'well' (i.e. have no diagnosis of a chronic illness) and aged between 15–54 years have had a health check (MBS715) in the past two years (see Appendix C, Figure 4). This is a major achievement in terms of Maari Ma's efforts to improve the detection and prevention of chronic disease.

⁴⁰ According to the clinical audit protocol the tools identified are: 'K5, K6, K10, PHQ2, PHQ9, EPDS or another tool routinely used in your health service or jurisdiction'.

This substantial increase in the uptake of health checks in the Broken Hill Cluster has been coupled with an increase in follow-up by Maari Ma of any abnormal findings from these checks (see Figure 20), which is vital to achieving health benefits. Health services can claim up to 10 services for follow-up activities provided by a practice nurse or Aboriginal Health Practitioner for any Aboriginal person who has received a health check (MBS Item 10987).⁴¹ Maari Ma has implemented effective systems to enable a high level of follow-up care, including recall and reminder systems; staff training; highly organised patient records; supporting patients to attend the service; and removal of cost barriers. It has been reported that nationally there is generally limited follow-up from health checks.⁴²

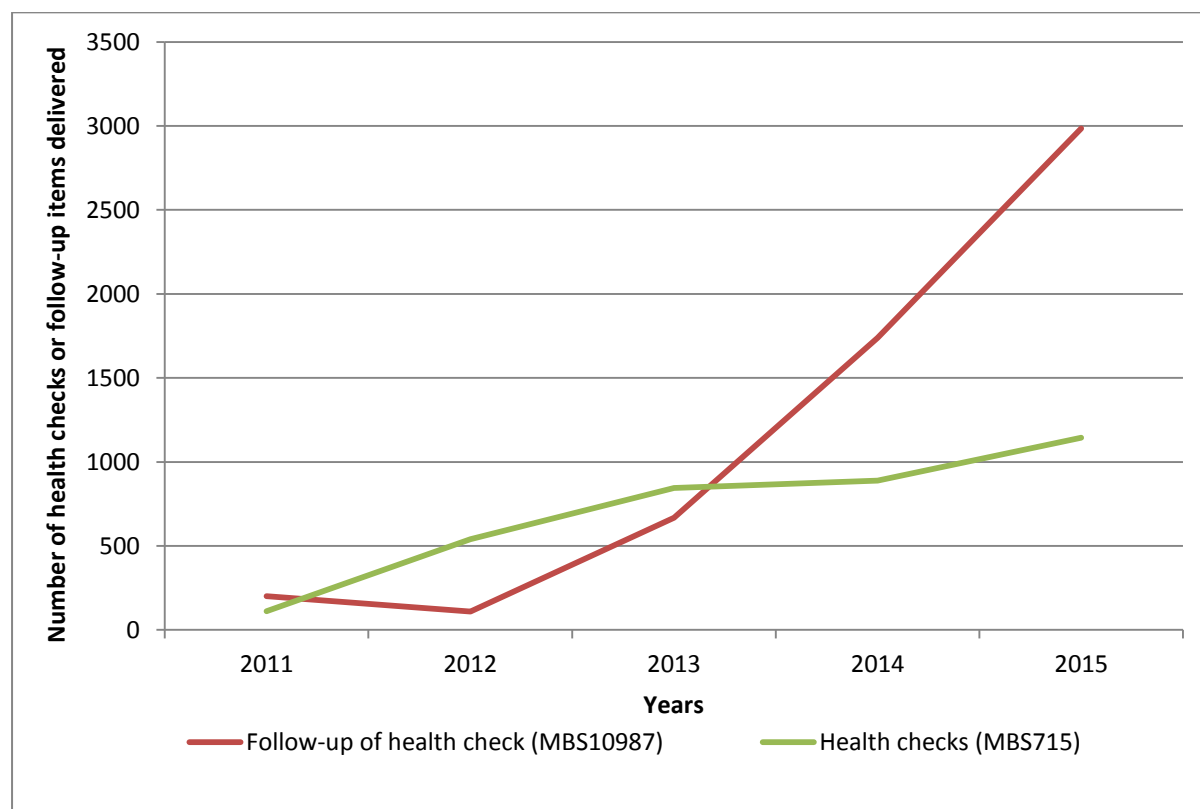


Figure 20 Uptake of health checks (MBS 715) and follow-up services provided by a Practice Nurse or Aboriginal Health Practitioner (MBS Item 10987), Broken Hill Cluster 2011–2015

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

Chronic illness care

The *overall delivery of diabetes care* against best practice guidelines in Maari Ma (based on an audit of documented care) shows a decline between 2010 and 2015, with recorded care being lower than the national ABCD data (see Figure 20). For *overall delivery of care for CHD* there is no clear increase or decline, similar to the national ABCD data (see Figure 21). These results must be viewed against the backdrop of improved outcomes in control of blood pressure and HbA1c for patients with diabetes.

⁴² J. Bailie, G. Schierhout, M. Kelaher, A. Laycock, N. Percival, L. O'Donoghue, T. McNeair, A. Chakraborty, B. Beacham & R. Bailie M. et al. 2014, 'Follow-up of Indigenous specific health assessments – A socio-ecological analysis', *Medical Journal of Australia*, 200(11):653–7. Accessed on 18 August 2016 at: <https://www.mja.com.au/journal/2014/200/11/follow-indigenous-specific-health-assessments-socioecological-analysis>.

Six of the 37 specific process-of-care indicators show an improvement, and are mostly better than or similar to the national data. The exception is recording of self-management goals for diabetes, which is lower than the median for the national data. The indicators that show a marked improvement include:

- Delivery of MBS Item 721 (or 723) GP Management Plan or alternative plans – CHD
- Recording of follow-up plan documentation for clients with an abnormal BP – diabetes and CHD
- Recording of medication review or adjustment following an abnormal HbA1c result.

About 70 per cent (25/37) of specific process-of-care indicators show no improvement, a decline or are consistently low, with a lower level of recording than the median for the national data, and include:

- Recording of absolute cardiovascular risk assessment – diabetes
- Delivery of brief interventions for smoking – diabetes and CHD
- Recording of body mass index (BMI) – diabetes and CHD
- Recording of full lipid profile – diabetes and CHD
- Recording of total cholesterol – diabetes and CHD.

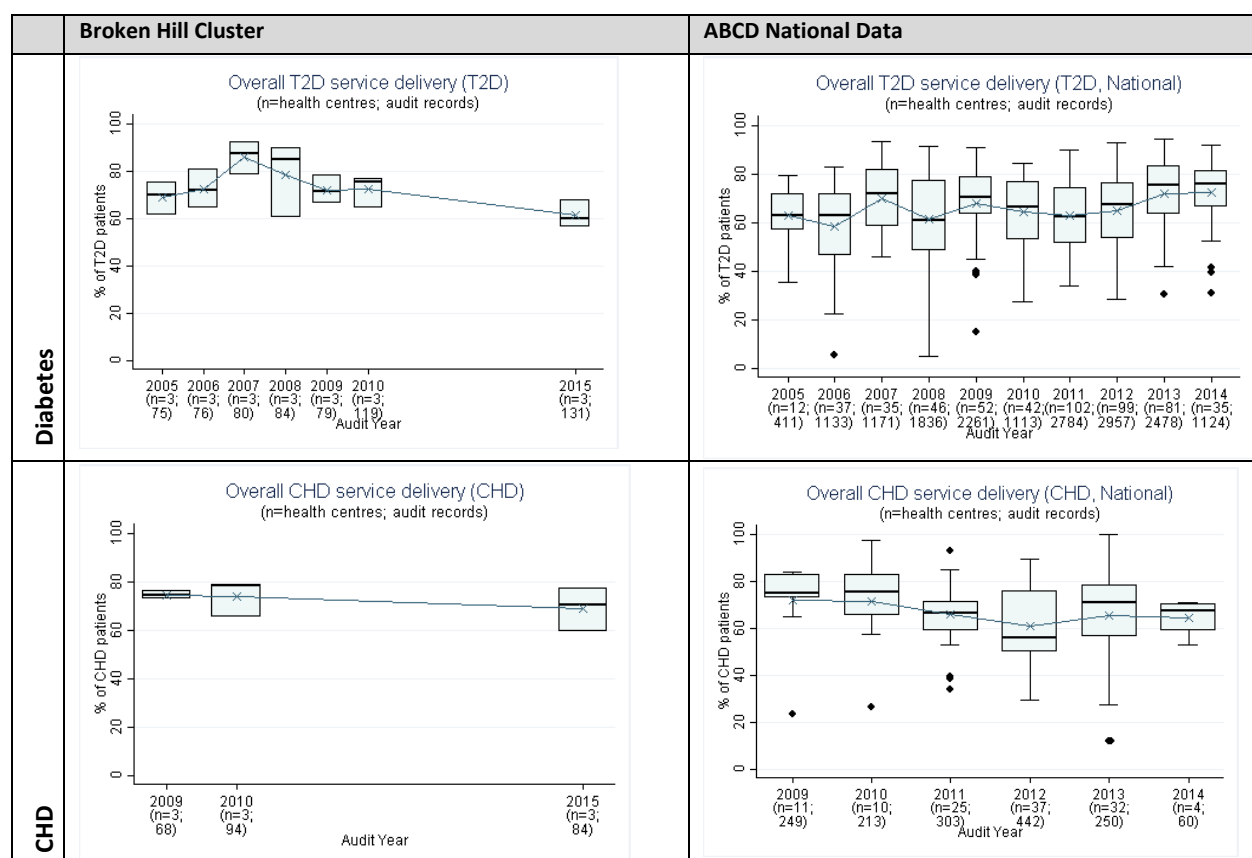


Figure 21 Overall service delivery to type 2 diabetes and CHD clients by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster (Broken Hill, Wilcannia, Menindee)

n=number of health services; number of client records audited for clients who attended in previous 12 months

Composite indicators include: GP management plan, chronic disease management and medication discussion, influenza vaccination within last 12 months, pneumococcal vaccination, BP within last 6 months, smoking status and alcohol use recorded, brief intervention if smoker or high-risk alcohol user, weight, BMI and waist circumference recorded in last 6 months, nutrition and physical activity discussion within last 12 months, and albumin/creatinine ratio, estimated glomerular filtration rate, lipids and total cholesterol/HDL ratio within last 12 months. Additional indicators within type 2 diabetes composite are: visual acuity, dilated eye check and foot check within last 12 months and HbA1c within last 6 months. Additional indicator within coronary heart disease composite is blood glucose level check within the last 12 months.

Box 1: Maari Ma's Cycle of Care

The Keeping Well program is based on a Cycle of Care developed by Maari Ma, which involves standardising systems and processes to deliver checks and follow-up services in the patient's cycle of care (Figure 4). The cycle commences with the patient registering for the Pharmaceutical Benefits Scheme Co-payment measure to access subsidised or free medications, and to have a health check and appropriate follow-up by a health worker. It also includes the development and review of a GP Management Plan.

GP Management Plans

For patients with diabetes and CHD in the Broken Hill Cluster there has been a high level of delivery of GP Management Plans (MBS 721)⁴³ between 2012 and 2015 (see Figure 22). On average, 80 per cent of patients in the previous two years have had one of these plans, which enable GPs to map out and coordinate the health care of a patient with a chronic illness, including those who require multidisciplinary, team-based care. It involves the GP assessing the patient, agreeing management goals and actions to be taken by the patient, and identifying and documenting ongoing services to be provided. This high level of development of GP Management Plans at Maari Ma is evidence of its well-organised systems of care.

There are, however, no historical data on GP Management Plans at Maari Ma as these Medicare Item numbers were not available for use prior to the employment of GPs by the service. Between 2005 and 2008 the service delivery model used alternative GP Management Plans, i.e. not claiming through Medicare. In 2009, following the employment of GPs, Maari Ma instituted a GP-led model of care and GP Management Plans (MBS 721 or 723) were put into place to support this. Maari Ma has since developed systems of care that have resulted in a high level of delivery of GP Management Plans (MBS 721 or 723) between 2009 and 2015.

Clinical audit data (see Appendix C, Figure 66) support the program data provided by Maari Ma and demonstrate a sustained high level of delivery of GP Management Plans from 2009–2015.

⁴³ Department of Health 2014, *Chronic Disease Management: Provider Information*, Australian Government, Canberra. Accessed on 18 August 2016 at: [http://www.health.gov.au/internet/main/publishing.nsf/Content/F0ABED13C55F6715CA257BF0001EDB18/\\$File/Fact%20Sheet%20-%20CDM%20-%20Provider%20Info.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/F0ABED13C55F6715CA257BF0001EDB18/$File/Fact%20Sheet%20-%20CDM%20-%20Provider%20Info.pdf).

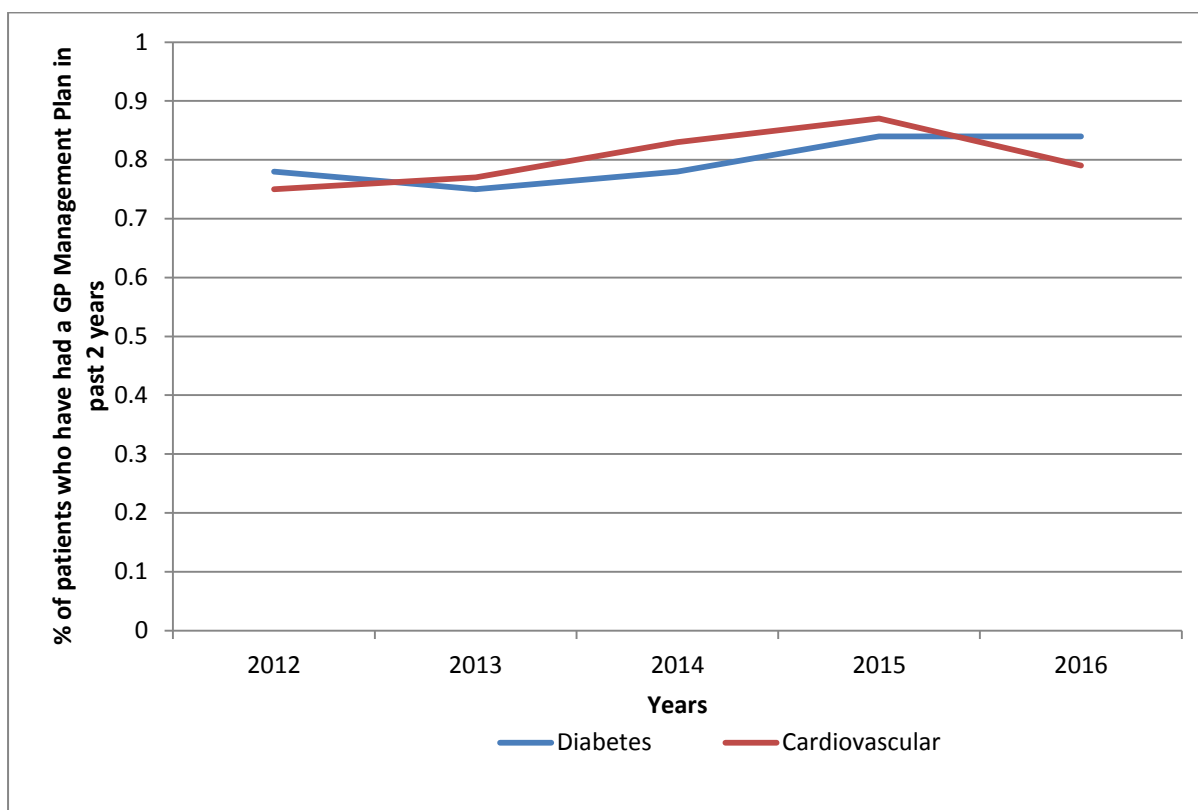


Figure 22 *Percentage of patients with diabetes or Cardiovascular Disease who have had a GP Management Plan completed in the past two years (MBS 721), by condition, Broken Hill Cluster, 2012–2016*

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

Home Medication Reviews

Home Medication Reviews (HMRs) are an important aspect of the care cycle for patients with a chronic disease at Maari Ma. To maximise patient benefit from medication, and to prevent medication-related problems through a team approach, Maari Ma employed a pharmacist in 2012 to work directly with patients and GPs to undertake HMRs.⁴⁴ The pharmacist commences the HMR in the patient's home, then the patient discusses the pharmacist report with a GP in the health service and they agree upon a medication management plan. This increased attention to ensuring high-quality medication management has seen a large increase in the number of HMR Medicare Items claimed by Maari Ma patients (see Figure 23). Continued efforts to engage with patients to complete medication reviews with a GP at the health service should result in a further increase in the completion of HMRs.

⁴⁴ Department of Health 2016, 'Home Medication Reviews'. Accessed on 23 August 2016 at: http://www.health.gov.au/internet/main/publishing.nsf/Content/medication_management_reviews.htm.

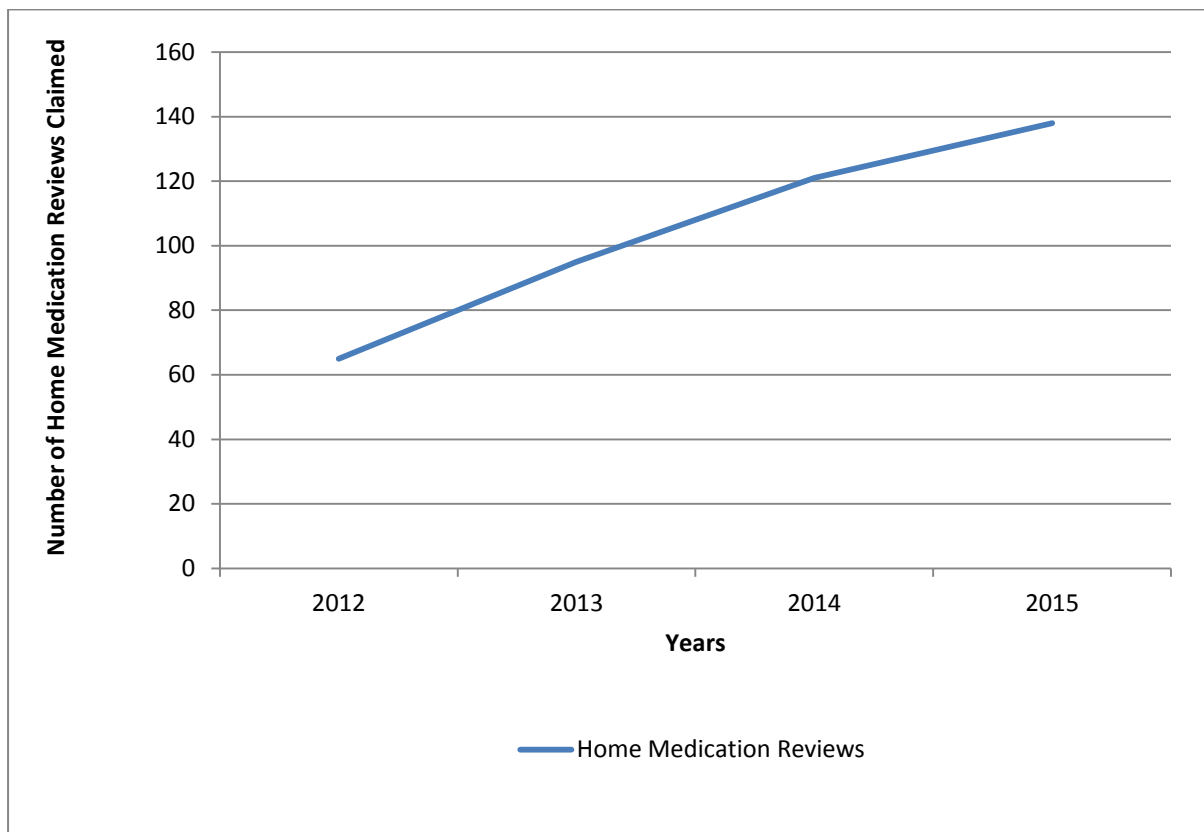


Figure 23 Number of Home Medication Reviews (MBS Item 900) claimed, by year, Broken Hill Cluster, 2012–2015

Source: Maari Ma Program data

3. Training and employment of Aboriginal people and workforce development

Key achievements

- Building the Aboriginal workforce
- Workplace culture of two-way learning
- Strong commitment to training and capacity building
- Formal training for Aboriginal Health Workers
- Attracting, valuing and supporting GP registrars
- Regular educational sessions with visiting specialists

Potential priorities for ongoing work

- Further in-house training on the Strategy – strengthening linkages between teams
- Efficient and effective strategies for ongoing training – make effective use of internal and external resources

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to Objectives 8, 9 and 10.

For *Objective 8, Increase the number of Aboriginal people trained and employed to provide health care*, Maari Ma's focus on building its Aboriginal workforce at all organisational levels has been a major achievement of the Strategy. In 2016, Aboriginal employees made up 55 per cent of the total full-time equivalent employees (see Table 9), with 'two-way learning' – Aboriginal and non-Aboriginal health professionals working together and learning from each other – highly valued. Maari Ma's commitment to formal training of AHWs and upskilling of workers once employed was also identified as a major strength of the Strategy.

Maari Ma has addressed *Objective 9, Increase capacity of workforce (skills and number of people) providing PHC and other services to Aboriginal people*, through its commitment to training all staff. This is evident through Maari Ma's provision of ongoing training and development to more than 70 per cent of its staff, particularly its policy of capacity building the skills of staff. Interviewees valued the ongoing clinical education provided by visiting specialists as an important staff recruitment and retention strategy in a remote location.

Objective 10, Increase number of health care providers who are equipped to assist Aboriginal people with or at risk of chronic disease to make healthy lifestyle choices and to manage their health, appears to be a significant area for ongoing work. The high prevalence among Aboriginal people in the region of the major risk factors for chronic disease indicate that further development of systems and skills to enhance delivery of brief intervention, self-management support, and SEWB screening and care are important areas for staff training.

Key evidence for assessing progress for achieving Strategy Objectives 8, 9, 10

Interviewees identified Maari Ma's focus on building its Aboriginal workforce at all organisational levels not only as a major Strategy achievement but as an underlying factor of its success. It was achieved through setting the strategic direction with commitment from the Board, CEO and staff, a strong investment in training, the development of a culture valuing and respecting the role of Aboriginal staff, and recognising the importance of community linkages.

The high proportion of Aboriginal staff and the engagement with the community is striking... Aboriginal staff are confident and take lead roles. The leaders are Aboriginal and their influence flows down. There is very good morale and slowly you watch very shy people come in and they realise they can contribute. Fantastic team morale, the best place I have ever worked in 35 years as a GP. (GP, Maari Ma)

In the 1990s Maari Ma introduced the title of 'Primary Health Workers' as a collective term for registered nurses and AHWs. This change was instituted as a way to overcome any potential professional divide between registered nurses and AHWs, and to place both at the same level on the hierarchy.

Aboriginal workforce

Workforce snapshots are regularly displayed in newsletters to community, and to staff and as part of staff meetings. Maari Ma has developed metrics to monitor workforce developments (see Table 9).

Table 9 Workforce data for Maari Ma Health Aboriginal Corporation, 2013–2016

	2013	2014	2015	2016
No. of employees (full-time, part-time and casual)	108	102	108	116
Aboriginal employees	57%	56%	52%	54%
Full-time equivalent employees	87	89	85	92
Full-time equivalent Aboriginal employees	52%	50%	51%	55%

Source: Maari Ma Health Aboriginal Corporation Health Rounds, *Issue 1, 2016*

Maari Ma has grown to be the major employer and trainer for Aboriginal people in the Far West region. Many interviewees highlighted the critical role played by these Aboriginal staff in improving care through developing relationships and enhancing acceptability of the service (see Section D.4 'Community and Linkages'). The engagement of Maari Ma Aboriginal staff with the community was identified as a strength of the organisation.

Where possible, Maari Ma recruits in its local communities – such as Wilcannia, Menindee and Broken Hill – for all levels within the organisation, with a focus on the up-skilling of Aboriginal staff. It also actively reviews the requirements for positions to encourage the greater use of AHW roles and a culture of 'two-way learning', as illustrated by this interviewee:

It is two-way learning: Aboriginal and non-Aboriginal health professionals working together and learning from each other. (Allied Health Practitioner, Maari Ma)

The insights of Aboriginal staff into the family connections and culture of the local communities were also identified by interviewees as a strength, but can lead to cultural issues in managing staff because 'everyone is related', and because of the perceived high incidence of 'sorry business'. Although non-Aboriginal managers in Maari Ma are able to seek guidance from Aboriginal staff on how to manage staff in relation to such cultural issues, expectations in relation to this type of role was identified as a potential source of stress for Aboriginal staff. So too was the sense of frequently being called upon by the community on a wide range of health-related issues.

Box 2: Changing role of Aboriginal Health Workers

Prior to 2005, Aboriginal Health Workers at Maari Ma were under-utilised in the delivery of chronic disease prevention, early treatment and management services. Often their role was confined to assisting non-Aboriginal registered nurses and allied health service providers access the Aboriginal community.

Senior AHWs trained as diabetic educators did deliver stand-alone screening clinics in the primary health care setting. These AHW-led clinics were not formally linked to the GP clinics, with the AHWs engaging doctors on an *ad hoc* basis when the screening process identified at-risk patients who required medical follow-up.

However, the majority of AHWs delivered a generalist community health service, primarily in the home setting, which included:

- Webster pack delivery
- Home visits to complete monitoring checks – blood pressure and blood glucose levels – and to check on the general welfare of patients
- Domiciliary care – wound dressings, practical support to assist with health care, e.g. filling scripts, accompanying patients to medical specialist appointments
- Aged care – completing errands for frail patients with impaired mobility
- Visiting patients in hospital and at home to follow-up after hospital discharge
- Family support – assisting patients with social welfare issues e.g. housing problems.

As a result, there was a disconnect between the clinic-based registered nurses and community-based AHWs. Community support and engagement was viewed as the AHWs' responsibility. Apart from delivering an *ad hoc* screening service, AHWs were rarely challenged to practise and develop their clinical skills.

In 2011, when Maari Ma implemented the Cycle of Care, the role of the AHW was embedded in the GP/AHW/registered nurse team, which were deployed across both the clinic and community settings. AHWs became responsible for delivering a significant portion of the Aboriginal health check and GP Management/Team Care Arrangement preparation and follow-up services. The AHWs' time became more focused and targeted towards supporting chronic disease patients to complete the scheduled services in the Cycle of Care.

This is a lesson about losses and gains.

The changing role of the AHW resulted in: improved community uptake of chronic disease prevention and management services; increased attendance by patients to the primary health service; professional development, with AHWs completing the credentials required to achieve Aboriginal Health Practitioner status and, in one instance, the registered nurse qualification; community engagement becoming accepted as a whole-of-service responsibility.

However, despite these gains many patients talked about the loss of the AHW role in the community, which included the absence of generalist support functions relied on by many vulnerable, marginalised and hard-to-access patients, and the peace of mind, comfort and sense of security people felt just from seeing the AHWs out and about in the community. The perspective of some in the community was that the gains didn't cancel out the losses.

The lesson for Maari Ma and the challenge going forward is to find a sustainable balance between delivering organised, scheduled care in the clinic setting and a general community health service.

Training of staff

Since its establishment, Maari Ma has had a strong commitment to professional development, with all staff encouraged and supported to undertake additional training as required. From July 2015 to March 2016, more than 70 per cent of staff participated in ongoing training and development, which included in-service education, workshops and conferences.⁴⁵ The Board of Directors also noted Maari Ma's strong emphasis on capacity building both through the training of local Aboriginal staff, and mentoring and encouraging them into leadership positions in the organisation.

Maari Ma's history of commitment to training Aboriginal staff, especially AHWs, was identified as a major strength and achievement of the Strategy. Three cohorts of trainees have undertaken the Certificate IV in Aboriginal and/or Torres Strait Islander PHC (Practice). In the current cohort (2016) there are nine new trainees in the program and three existing workers undertaking training.⁴⁶

Interviewees valued Maari Ma's commitment to continued employment after training programs have been completed: for example, a number of the AHWs trained by Maari Ma have continued into nursing and allied health roles.

As Maari Ma is a relatively small organisation and has limited capacity to deliver training, it is often reliant on external providers. However, distance from the major centres where training organisations are based presents challenges in terms of access, cost and time, and may also not be well suited to the local context. Maari Ma's achievements in supporting the training of its staff are, therefore, especially significant. The development of innovative and efficient programs that meet local needs is vital to Maari Ma's ongoing commitment to staff training.

Box 3: In focus – Training of workforce

Maari Ma has had a strong commitment to developing professionally qualified Aboriginal Health Worker positions from Day 1. Initially this was Diploma-qualified AHWs as part of the Broken Hill University Department of Rural Health (UDRH) course run by the University of Sydney. When UDRH ceased this course, Maari Ma replaced it with Certificate-qualified AHWs as part of the TAFE program.

Finally, when the Australian Health Practitioner Regulation Agency (AHPRA) endorsed Aboriginal Health Practitioners in 2012, Maari Ma enacted a policy that all of its qualified AHWs had to fulfil the eligibility criteria and register, or already be registered, with AHPRA. The policy also stipulated that all recently qualified AHW trainees had to be registered with AHPRA within six months to maintain their employment with Maari Ma. The outcome of this policy directive is most graphically demonstrated by the fact that of the 36 registered AHWs in NSW in June 2014, 15 were from Maari Ma (42%), and represented all the qualified AHWs in the organisation.

For Maari Ma it wasn't just about employing more Aboriginal staff, it was also about getting more clinically qualified Aboriginal staff in the front-line services. We not only had an obligation to our patients but also to our staff. Although Aboriginal nurses have existed in Aboriginal medical services in the cities and regional centres, they were extremely scarce in Broken Hill. Our attempts to recruit these positions more often than not drew a blank. Thus, the organisation has always had a strong commitment to, and practical understanding of, 'growing our own'.

Maari Ma's first 'home-grown' Aboriginal registered nurse is currently enrolled in midwifery studies. Some interviewees spoke about aiming for their first 'home-grown Aboriginal doctor'.

⁴⁵ Maari Ma Health Aboriginal Corporation 2016, *Maari Ma Health Rounds Issue 1*. Accessed on 27 July 2016 at: <http://www.maarima.com.au/pdf/newsletters/health-rounds-1-2016.pdf>.

⁴⁶ Maari Ma Health Aboriginal Corporation 2016, *Maari Ma Health Rounds Issue 1*. Accessed on 27 July 2016 at: <http://www.maarima.com.au/pdf/newsletters/health-rounds-1-2016.pdf>.

The photo below shows the third cohort of Aboriginal Health Worker trainees, who commenced their study in 2015: seven are from Broken Hill, four from Wilcannia and one from Menindee.



Medical students and GP registrar training and support

Maari Ma has provided placements for medical students and GP registrars over recent years. Interview feedback indicates that GP registrars value their time at Maari Ma and the opportunity that it provides. One GP registrar highlighted the excellent supervision and support they experienced, while others greatly appreciated Maari Ma's orientation program (five days of orientation before seeing clients). Some interviewees identified the need for more training of GP registrars on the use of Medicare item numbers and on the Strategy implementation and expectations.

Specialist service education sessions for Maari Ma staff

Visiting specialists are encouraged by Maari Ma to provide continuing professional development for staff in the region. This was valued by interviewees, who identified access to specialist education and support as an important means of attracting and retaining clinical staff in a remote location. Staff educational sessions have included foot examination and foot care, diabetes in the older person, and clinical practice guidelines for use in tobacco dependence. There are also community education sessions, including after-hours sessions.

Training for staff to support people to make healthy lifestyle choices and to manage their health

Maari Ma has provided a number of in-house training sessions for staff on brief interventions and smoking cessation (as reported in program data provided by Maari Ma), and interviewees identified a need to continue attending to the prevention side of the Strategy given the high levels of risk factors for the population. Similarly, findings from the analysis of clinical audit data highlight the need to improve aspects of care, including the provision of self-management support, SEWB screening and follow-up care. Maari Ma is participating in a study to validate a culturally appropriate SEWB screening tool and there may be opportunities for training staff on the implementation of this.

Interviewees also identified a need for ongoing in-house training on the Strategy to build a more cohesive orientation to chronic disease management and prevention at Maari Ma, and noted this may enable further team linkages. These comments from interviewees should be interpreted in the light of Maari Ma's significant achievements in developing and communicating a Cycle of Care that covers prevention and management of chronic disease.

4. Community capacity building and linkages between the health service and community

Key achievements

- Strong commitment to ensuring all programs are linked into the local Aboriginal community, which has been achieved through Aboriginal leadership and building the Aboriginal workforce
- Aboriginal staff, especially AHWs, play an important role in linking in with their local communities, facilitating access to care and building trust
- Accessible and 'culturally safe' health service for Aboriginal clients

Potential priorities for ongoing work

- Continue the focus on development and innovation in the areas of building community capacity and developing linkages between the health service and community

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to *Objective 11, Strengthened community capacity and linkages between the health service and community*. Maari Ma has addressed the key elements for building community capacity – commitment, resources, skill development and community linkages. Interviewees confirmed the importance of Aboriginal community ownership, support and buy-in for Maari Ma, and recognised the value of community-level engagement through resourcing community development activities. Interviewees also identified Maari Ma's myriad links to the local Aboriginal community as an important factor underlying the Strategy's success. Aboriginal staff, especially AHWs, are seen as providing strong community linkages.

Evidence for assessing progress for achieving Strategy Objective 11

Interviewees have consistently highlighted strengthened community capacity and positive linkages with the health service and the community as Strategy achievements that have enabled improved access to health care. The 'ingredients' of Maari Ma's effort to build community capacity, as noted by interviewees, were commitment, resources, skill development and community linkages. These 'ingredients' have been developed through Maari Ma's initiative and leadership, with the involvement and engagement of community members. Community capacity building has included the development and strengthening of individual skills for community members, expansion of the Aboriginal leadership base, wider sharing of the Maari Ma vision, and development and implementation of a strategic agenda.

Commitment

Linkages between the health service and the community were built and enabled through factors such as the strong role of Aboriginal governance and leadership at Maari Ma, the high proportion of Aboriginal staff in the health service, valuing Aboriginal staff at all levels of the organisation, and having community input into program development and implementation.

Indigenous support and buy-in... we have a strong backing at the Board level. (Corporate Services, Maari Ma)

While Maari Ma supports the capacity building of its Aboriginal staff, it is also clear that staff across the organisation highly value the contributions and roles played by Maari Ma's non-Aboriginal staff.

Resources

A number of Maari Ma's activities and programs have a focus on community capacity building and reaching hard-to-access groups. For example, Maari Ma operates a number of playgroups, cooking groups and community dinners, and has also produced resources for the wider community. Interviewees

placed a high value on these community development activities, as exemplified by the following comment:

Engagement needs to be at community level also and Maari Ma have put a lot of resources into how [they] are perceived in the community and this is very important. They embrace that community engagement and put a lot of resources into it. You improve recruitment of patients into care... that's the nitty gritty; if they don't come in you can't help them. (GP, Maari Ma)

Skills and community linkages

Many interviewees flagged Maari Ma's commitment to ensuring all programs have a strong link to the local Aboriginal community as a major factor in the Strategy's success. This commitment has been demonstrated both through developing the Aboriginal leadership of the health service and building an Aboriginal workforce. Community capacity has been built through the provision of employment and role models. Although locally trained staff do not always continue with Maari Ma, there is a recognition that they still contribute their skills and knowledge by going back into the community, and by taking up positions within other important organisations.

The Aboriginal Health Worker role is highly valued and considered essential to the operation of the Maari Ma service. Interviewees often referred to the importance of the role as a 'linkage agent' with the community, one that is capable of ensuring the involvement of Aboriginal staff in all programs of work from initial design to implementation. Many interviewees talked about how the local community were more engaged in their health care due to this relationship and the trust that had built up over time:

I feel really proud, over the 20 years we have made a big change with community, we have a relationship and it is like a big family. To get to that point was hard work. More people understand health problems and why they need to take medications... trust plays a big part in that. It's essential to have community contact through all of our programs. (Corporate Services, Maari Ma)

Aspects of the AHW role that were identified and valued by interviewees included: setting the client at ease, going into the community to perform health care, reminding clients of appointments and travel bookings, following up hard-to-reach clients, accompanying doctors on home visits and ensuring that clients understand what is required for diagnosis.

Aboriginal staff also connect the clinics with the community, as they have access to local knowledge on which community members are in town or away, if there has been a death in the family, or if someone has a new mobile number.

We have a focus on our community... we need community engagement... community support workers, health workers and the registered nurses going out into the community. There is more emphasis here on community engagement... If we didn't do that (community engagement) people wouldn't come in. Doctors are willing to do home visits and this makes a big difference. (PHC Team, Maari Ma, Group Interview)

Respondents linked the community's high level of awareness of the health service to the role of AHWs and Aboriginal staff generally in the community, noting the importance of having AHWs as part of the team. There were consistent reports by interviewees of the Aboriginal community feeling comfortable with the service.

We used to go in with a lot of patients and we used to sit in with the visits, all the Aboriginal visits, but we don't need to now. They don't want you there any more [now they feel] more comfortable. They are OK on their own. Before they would be really shy and not used to the doctors and not understanding what the doctor said. Now they are quite comfortable coming in by themselves. (PHC Team, Maari Ma, Group Interview)

Interviewees expressed pride in the development of the service as a culturally safe, community-controlled health service, especially with the new building in Broken Hill. There was strong commitment and support for programs with community linkages, with some interviewees highlighting the importance of ensuring ongoing support for Aboriginal staff to work in the community, as this is seen by the community as being as valuable as clinic work.

The busier we get the more mainstream we become... need to make sure we are community focused, for example, running fitness groups and having time to sit and chat afterwards. (PHC

Teams, Maari Ma, Group Interview)

5. Access to services

Key achievements

- Increased access to PHC and specialist services through:
 - development and use of a model of care
 - multidisciplinary team-based care
 - excellent community engagement.
- Efforts to engage 'hard-to-reach' groups, e.g. through the youth health program

Potential priorities for further work

- Improved coordination of client appointments through the Cycle of Care
- Sustainability of services, including capacity of staff to support the services

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to Objectives 12 and 13.

For *Objective 12, Improve access to primary health care*, interviewees reported that the patient-centred Cycle of Care had improved access to PHC for Aboriginal people in the Broken Hill Cluster. The Cycle of Care is based on GP-led multidisciplinary teams, with strong community engagement through the use of Aboriginal staff and a focus on the whole-of-life approach to health. Maari Ma's data on increased client attendance (showing a substantial increase in booked and attended appointments from 2011 to 2015) support the qualitative feedback from interviews.

The new youth health program is viewed as an important addition to the Strategy, encouraging young people to access to the health service for annual health checks. Interviewees indicated that more work was needed to improve access for other 'hard-to-reach' groups.

For *Objective 13, Improve access to specialist services where required*, since commencement of the Outback Vascular Health Service (OVHS) in 2009, there has been considerable improvement in access to a wide range of medical specialists and specialised allied health services in the Broken Hill Cluster. These specialist services include a regular visiting schedule, being sited within the primary health team, and GPs leading the care of patients.

Interviewee feedback highlighted the importance of having timely, local access to specialist services at Maari Ma, obviating the need for complex, long-distance client referrals, with their associated appointment delays, for medical specialists and specialised allied health services. Maari Ma has both expanded its specialist services, according to an assessment of service needs, and assisted clients with access to other specialists through the Isolated Patients Travel and Accommodation Scheme. To date the additional administrative costs of improved access to specialist services and supported travel have been absorbed by Maari Ma, adding to its operational expenses.

Evidence for assessing progress for achieving Strategy Objectives 12 and 13

Maari Ma has expanded its service delivery over the past 10 years from a health service with a few nurses and AHWs to a GP-led multidisciplinary team approach to care. Broken Hill interviewees expressed pride in the opening of the new purpose-built health care facility in 2015, with its improved access to primary care for Aboriginal people, and saw this improved access as a major achievement of the Strategy and its Cycle of Care model. Interviewees also noted that streamlining client visits could improve the client experience, and identified a need for continued work in accessing 'hard-to-reach' groups.

Since 2009, OVHS has led to improved access for Maari Ma clients to specialist and specialised allied health services, with high attendance at specialist clinics likely reflecting client and GP satisfaction with

OVHS. Access to other specialist services, however, was reported as still posing some problems, due to cost and travel distances. Maari Ma also supports clients in accessing the IPTAAS, and AHWs assist clients with transport and coordination.

Primary health care access

Development of a model of care that has enabled improved access

Interviewees consistently reported that implementation of the Strategy enabled the development of a model of care facilitating prompt and regular access to the service.

People are more confident to come in now to the health service. Before they would ring and ask us to come to their house or they would come to the back door of the centre. They are coming earlier now for care and not leaving it late. (PHC Team, Maari Ma, Group Interview)

There are several aspects of the model of care that have enabled improved access to the health service: the GP-led multidisciplinary team, strong community engagement supported by Aboriginal staff and a focus on a whole-of-life approach. Clients are also encouraged to attend regularly through a system of reminders and recalls for care.

Attendance at health service

Qualitative feedback consistently identified an increase in attendance at the health service, and more people keeping appointments that had been booked for them:

Especially in the last 18 months we have seen an improved access to care, people are coming and the community seem much more engaged in the process we used to have lots of ‘do not attends’ and now it is pretty uncommon. (GP, Maari Ma)

This feedback is supported by the Maari Ma program data and the clinical audit data, with the former showing a substantial increase in the number of people who had a booked appointment with any clinician (e.g. a GP, midwife, dietitian or specialist) in the Broken Hill Cluster. In 2015 there were more than 27,000 booked appointments (see Figure 24).

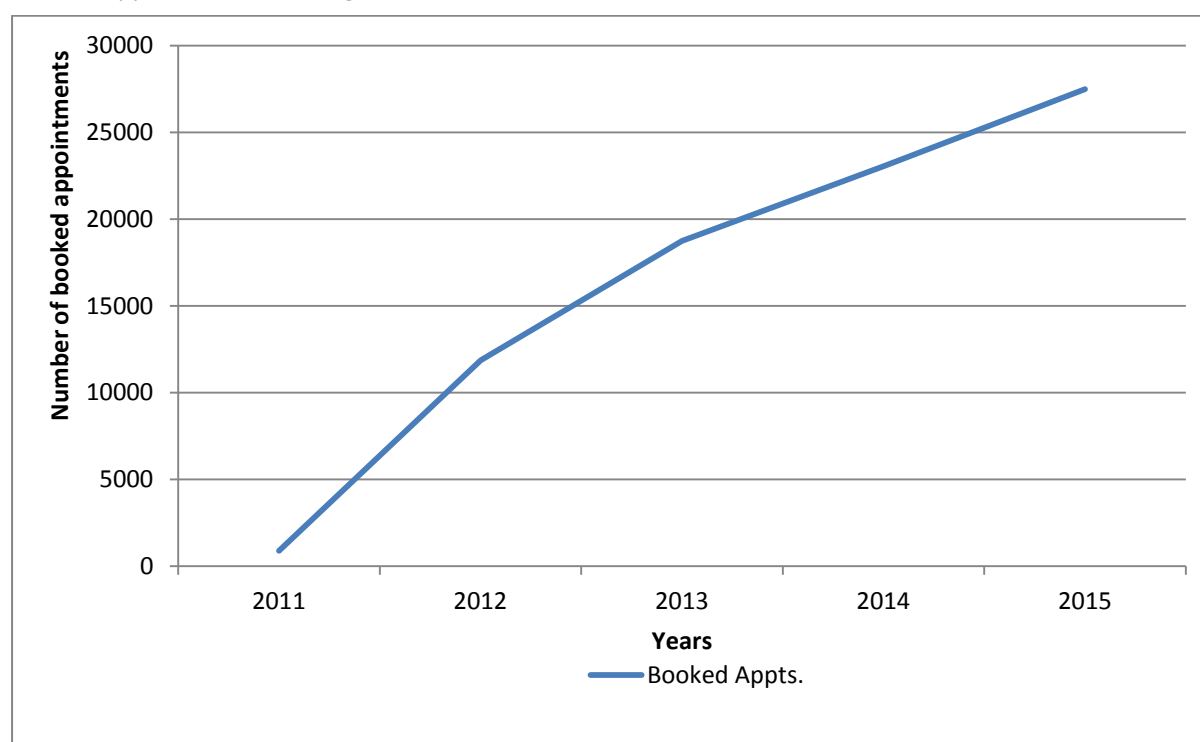


Figure 24 Number of booked appointments with any clinician, Broken Hill Cluster, 2011–2015

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

The number of people who had and kept a booked appointment also rose, from 62 per cent in 2011 to 69 per cent in 2015 (see Figure 25), signifying that access had improved through the establishment of better systems and patient willingness to attend the health service. Despite this increase in patients attending there was consistent qualitative feedback that the service should continue to focus on improving attendance rates.

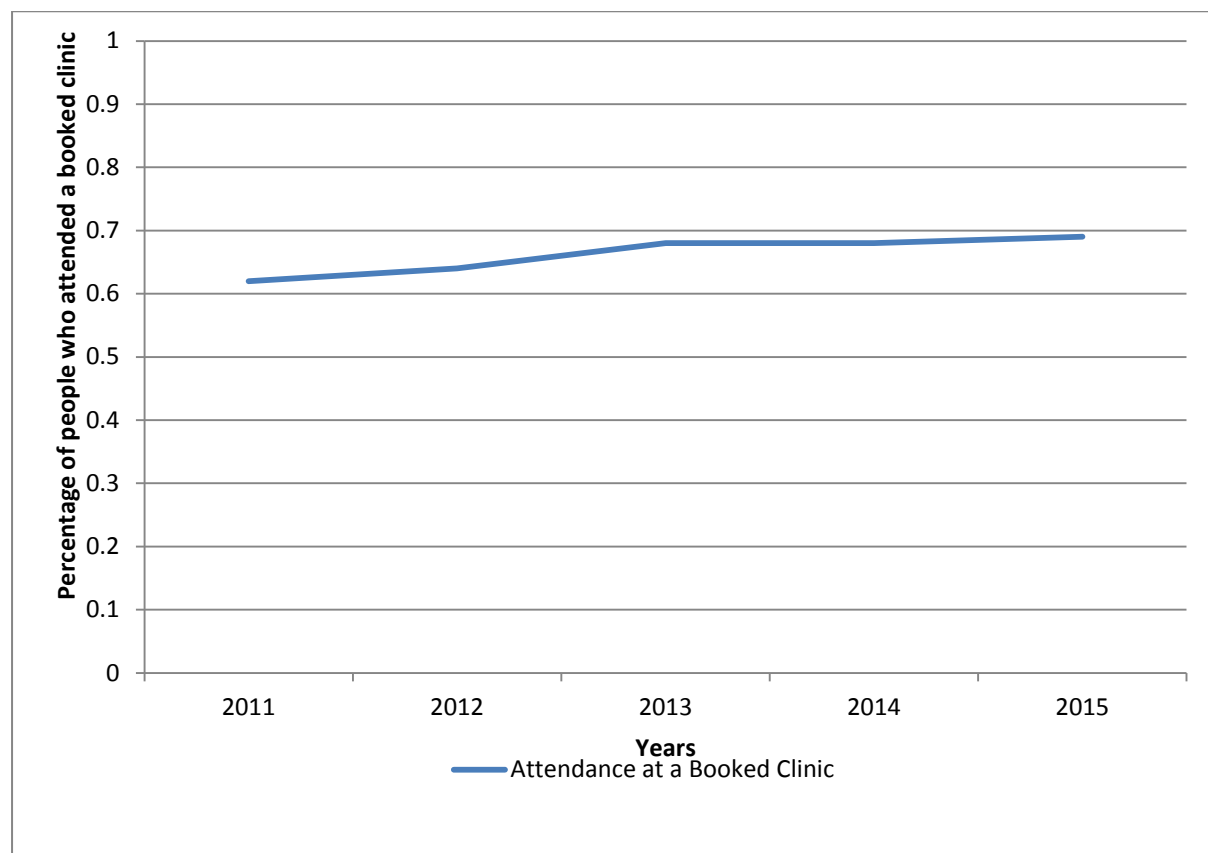


Figure 25 Percentage of people who attended for a booked clinic, with any clinician, Broken Hill Cluster, 2011–2015

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

There have also been substantial improvements in the ratio of people attending booked clinics as opposed to attending walk-in clinics (see Figure 26). Maari Ma has invested significant time and resources in getting patients to book an appointment so that it can offer more systematic, planned care rather than episodic treatment. The shift to more planned care is evident in the increase in the proportion of people attending booked clinics.

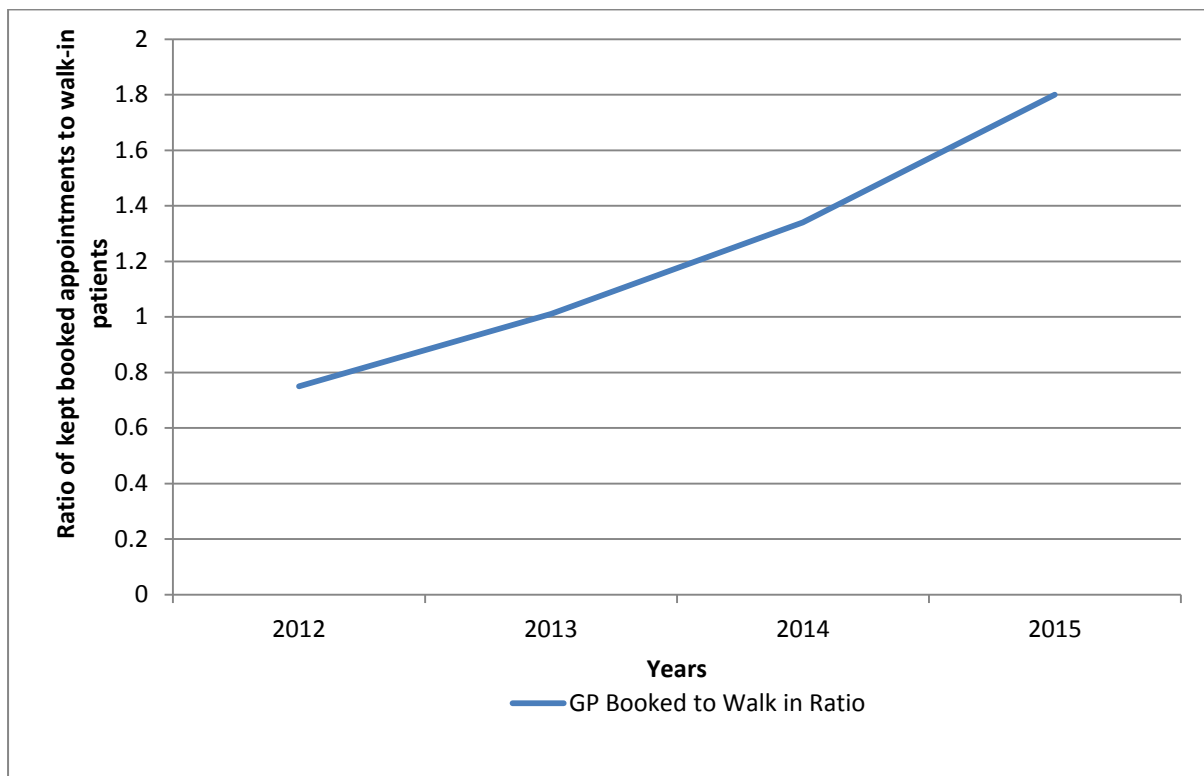


Figure 26 Ratio of number of GP appointments that were booked and kept by the number of patients that attended walk-in clinics, Broken Hill Health Service, 2012–2015

Note: There were no data available for 2011 and there was two months missing in 2012

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

Increased attendance at the health service is reflected in clinical audit data, program data supplied by Maari Ma and qualitative feedback from the interviews. For preventive health, chronic illness care and child health, the clinical audit data show that between 2005 and 2015 more than 80 per cent of clients attended the health service within the required timeframes for scheduled services of six months and two years (see Appendix C, Tables 2, 10, 12).

Client experience

As noted by one respondent, people are more likely to attend a clinic if it is possible to coordinate medical appointments. However, this respondent acknowledged that, with more people being identified as needing chronic illness care and more programs being provided, there was a greater likelihood of appointment clashes: '*... [so you] can have six people chasing the one person*'. Similarly, another respondent noted the need for improved communication between clients and health practitioners when planning visit times, citing the experience of an end-of-life, chronically ill client who found that so many home visits from AHWs and nurses created a '*bit too much humbug*'.

A number of interviewees expressed concerns about the number of times an individual is expected to engage with the health service. There were reports of people feeling like '*a full-time client*', with this becoming amplified when a family's experience was taken as a whole. For example, a client with diabetes is expected to attend appointments, followed by recalls for numerous visits. If they also have a child, they will have to attend all of the child health checks and follow-up appointments for any acute care needs. Thus, any changes to the system that could streamline visits to the health service for clients (or families) would greatly alleviate this burden, as reflected in the following quote from an Aboriginal staff member:

If there is a way we could make the Aboriginal health check Cycle of Care a bit more compact, which includes the home medication review as well. We are asking too much – people then don't want to come back. It is about getting the balance right. There is a lot of contact with

medical/clinical health people, the whole lot... there is frustration from the community... they think we should all know the same information and so they feel they have to do all again. If we could work out a better way to approach completing the Cycle of care that would be great...
(Corporate Services, Maari Ma)

Access to early antenatal care

Interviewees felt that women were now attending the service more regularly for antenatal care, mainly due to the use of community outreach models, using AHWs to support the program and improved community education about the need to access health care during pregnancy.

Access has improved... this has been a big change... We now do more community education about why to come in early and what services we have. The maternity teams work hard... the girls are always in the community and this program has a very good reputation... we do a lot of work to educate our people... they hear it from our own mobs and we have Aboriginal staff. Having the health workers and trainees in the community really helps. (PHC Team, Maari Ma, Group Interview)

Findings from the interviews about improved access to antenatal care are supported by clinical indicator data, which show a positive trend in the number of women attending five or more antenatal visits from a median of approximately 60 per cent in 2007 to 80 per cent in 2015 (see Figure 27). Program data provided by Maari Ma also report an increase in the number of women attending antenatal services (from 810 in 2012, to 1570 in 2015).

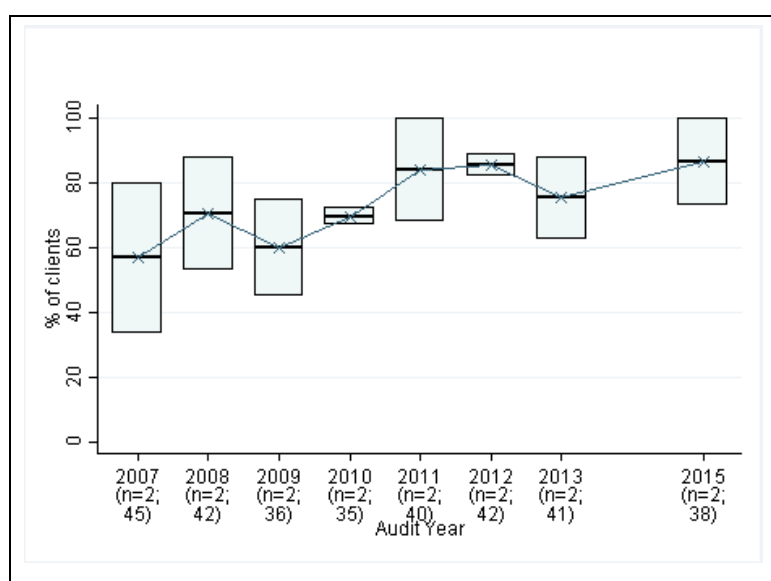


Figure 27 Recording of women attending for 5 or more antenatal visits, by audit year: Mean, median and range between health services, 2007–2015, Broken Hill Cluster and ABCD national data

n=number of health services; number of client records audited

However, in Wilcannia there is a need for improved attendance by women in the first trimester of pregnancy, as only 50 per cent of pregnant women attended the clinic compared to just over 70 per cent in Broken Hill (see Appendix C, Figure 29).

Encouraging early access through promotion of health checks

Annual adult health checks have been widely promoted in the community as a preventive health measure to encourage Aboriginal people to access the health service when they are feeling well. Attendance for health checks shows a clear increase in the Broken Hill Cluster (see Figure 17; Appendix C), and one that is above the national ABCD data.

Improving access for 'hard-to-reach' groups

Interviewees reported a need for continued work in improving access to health care for 'hard-to-reach' groups, although activities such as community dinners and supported playgroups have seen some improvements. They highlighted a need for more community-based approaches, such as using the mobile medical van for health checks and provision of care, especially in Wilcannia and Menindee.

Still in its infancy, the new youth health program was reported to be an important addition to the Strategy. It encourages youth access to the health service for annual health checks, and includes use of a SEWB tool specifically designed for adolescents. Early reports from interviewees were very positive about this early intervention program:

More and more resources are being put into healthy start. The 5–15 year age group are critical... we do the under 5s well. So much can be done before they actually get to me and that is well understood by Maari Ma... if we can be there to support them not to get a chronic disease... early intervention and prevention certainly seems more sensible to me. (GP, Maari Ma)

Box 4: Empowering the community – Our Home Visit policy

Reflecting on the Chronic Disease Strategy Evaluation, the challenges, progress made to date and work still to do, senior Aboriginal staff and long-standing employees, recall the early days of Maari Ma – well before 2005 and the Strategy.

When Maari Ma's Aboriginal medical service opened, 'it was common to only have 20 people a week attend the service'. Community members didn't know the service or many of the staff.

The community put us through a test period, we work for the community, we had to earn their respect and show we could be trusted.

Many community members were reluctant to access the clinic service.

Some people felt too ashamed to come to town, they couldn't even come to Argent Street to the Aboriginal medical service. They felt people in the town looked down on them.

Instead, the community accessed the primary health services in different ways, with many people preferring a home visiting service:

Many Aboriginal people were living on the fringes, like Creedon Street, they felt they should stay there and it was better for the services to go to them.

Some people said they had to build up the courage to come to the health service. They were ashamed of how they looked; they were worried about being judged.

One day a woman came to Reception, she had her hand covering her mouth, she was too embarrassed to speak or take her hand away. But she didn't leave, she saw the doctor.

Before the Strategy, community health services were usually delivered by the AHWs in a home visit situation. In a way, this:

... kept people on the fringes of town, it's disempowering, people wait passively for services to go to them. People have a right to go wherever they want, they have a right to walk down Argent Street and not be judged, they have a right to access quality comprehensive primary health services.

We can't deliver comprehensive services as part of a home visit. People don't have privacy, they don't have a break from their stress and trauma and we don't have a well-set up clinic in the home. If people aren't empowered to come to town and walk into the health service then they are missing out on quality health care.

The services and programs delivered under the Strategy required Maari Ma to deliver a lot more services in the clinic setting.

The GP/AHW/Registered nurse team, acute and booked doctor clinics, antenatal clinics, child doctor clinics, allied health, mental health, all the visiting medical specialists and so on. All those services couldn't be delivered in the home. We were delivering many more services, and we could see even if at first people felt uncomfortable, they attended and they came back. We saw people who were once ashamed to come to the clinic, were regularly in the waiting room.

In 2010 Maari Ma developed a new Home Visit policy, underpinned by a 'strengths-based philosophy' that supported the community to engage in their health and the health care setting. Some senior Aboriginal staff refer to this as 'the left hand and right hand working together'.

Maari Ma uses a continuous quality improvement program to identify what can be changed to make the service setting more accessible. This includes improved transport, a flexible clinic approach (planned and walk-in services), regular community and group gatherings, child and family friendly spaces, and a quiet area in the waiting room for the community to access a computer/internet.

Access to medical and allied health specialist outreach services

Access to medical and allied health specialists across the Broken Hill Cluster has improved considerably since 2009, with the commencement of the Outback Vascular Health Service.⁴⁷ The OVHS delivers an outreach vascular health specialty service to the communities of far western NSW, using medical specialists as an adjunct to the provision of client care within the GP-led model. The OVHS was established as a collaborative program between Maari Ma and the George Institute for Global Health, with institutional support through a partnership with the Royal Prince Alfred Hospital, Sydney. These specialist services are additional to those available through the Far West NSW Local Health District.

A recent evaluation of OVHS specialist outreach services found that the program was well regarded, widely accepted and viewed as accessible by Maari Ma clients.⁴⁸ Interviewees for this evaluation of the Strategy frequently highlighted the establishment of specialist services like OVHS as one of its main achievements. There has, in fact, been significant growth in medical and allied health specialist services, all of which draw on different institutions based in Sydney and Adelaide and the Far West LHD. This increase is illustrated by the quote:

The service has expanded and diversified so much, it is a one-stop shop really. Respiratory physician starting one day a month... another specialist service... pain management specialist coming here... we have never had one before. We are going to match or exceed what Far West NSW Local Health District is providing. It has been dizzying growth. (Allied Health, Maari Ma)

Specialist services currently provided through Maari Ma include: cardiology, renal, endocrinology, paediatrics, smoking cessation, echo-technician, stress tests, podiatry, pain management physiotherapist, pain management specialist, ear nose and throat surgeon, AOD counselling, and psychiatry (see Figure 28). A perinatal psychiatrist also visits Maari Ma six times per year, and provides clinical training and supervision to all services in the area.

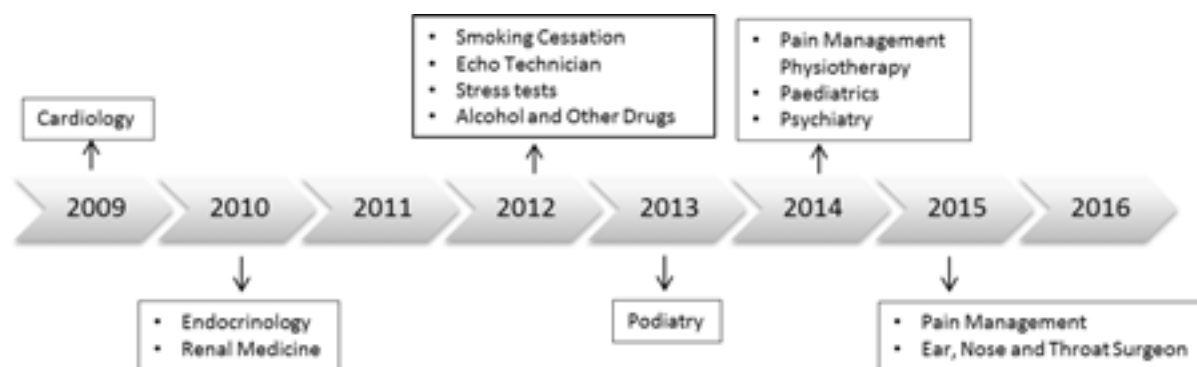


Figure 28 Development over time of the medical and allied health specialist service, Broken Hill Cluster, Maari Ma, 2009–2016

Notes: Stress tests are provided by both the Broken Hill Health Service (under a negotiated arrangement) and a private provider in Mildura; Psychiatry ceased visits in 2014 and has recommenced delivery in 2016; AOD ceased visits in 2012 and recommenced in 2016.

Source: Program data provided by Maari Ma

⁴⁷ Maari Ma Health Aboriginal Corporation 2015, *Outback Vascular Health Service: Report to the Trustees of the Scully Fund*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW; and M. Tchan & A. Cass 2012, *The Outback Vascular Health Service: Evaluation Report*, The George Institute, Sydney. Available at: <http://www.maarima.com.au/pdf/documents/ovhs-evaluation.pdf>

⁴⁸ Tchan & Cass, *ibid*.

Since 2009, Maari Ma has held 483 specialist clinics, which have provided 3,000 client consultations across a range of specialist services (see Figure 29).

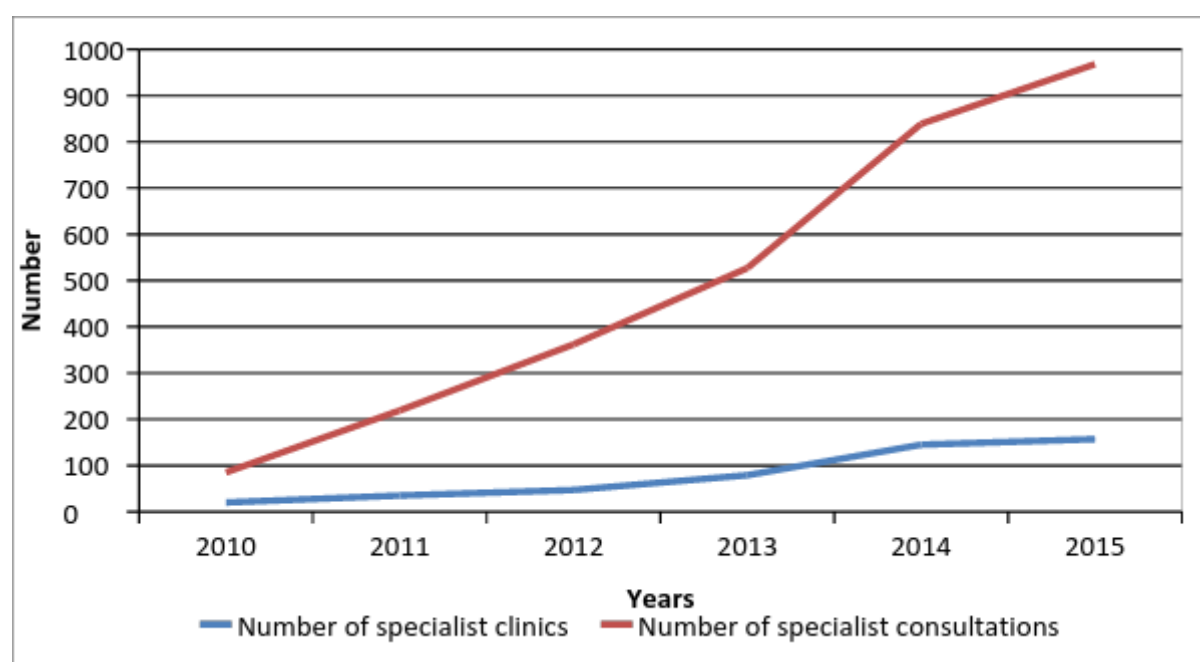


Figure 29 Number of specialist clinics held and number of specialist consultations over time, Broken Hill Cluster, 2010–2015

Source: Program data provided by Maari Ma

A defining feature of Maari Ma’s specialist outreach services model is how it is designed to work with the PHC workforce. GPs lead the care of the client, specialists act in an advisory role and the PHC workers undertake the follow-up required in consultation with the client’s regular GP. Clinicians providing the specialist services are highly regarded by staff and clients, with many interviewees noting that the specialists provide a ‘high-class’, stable service. With the regular visiting schedule and consistent staffing, both clients and staff are able to build a relationship with the specialists, who are also routinely available for telephone consultations with the GPs.

High-quality specialists OVHS... the people themselves... they have consistency... [OVHS has] not only attracted really good people but managed to keep them... This has helped with rapport and trust. If we have people with difficult issues we can get them seen in very reasonable timeframes. They (the specialists) are on the other end of the phone... they are approachable and it’s reassuring for the GPs. They are providing a high-class service to the patients. (GP, Maari Ma)

However, there was some feedback from a small number of interviewees who thought that specialists might be visiting too often and not necessarily be accessing the hard-to-reach groups. As such, they indicated there was a need for a focus on continuing to improve the coordination of client care between the visiting specialists and some of the GPs.

Interviewees also reported improved HbA1c and blood pressure control for the cohort of clients with diabetes attending the specialist services, and this is consistent with the clinical audit data. Attendance data provided by Maari Ma confirm a high attendance at specialist clinics (mostly over 70% attendance rate), particularly ‘return’ clients (see Figure 30). This high attendance is likely to reflect both client satisfaction with the service and GP satisfaction through ongoing referrals and with the systems developed to support client attendance at upcoming appointments.

The attendance rates are very high. Most run at greater than 80 per cent attendance, which is really exceptional for any service. It reflects a high level of organisation and staff on the ground to line the patients up and to try and ensure this service is used efficiently whilst we are on site...
(Visiting Specialist, Maari Ma)

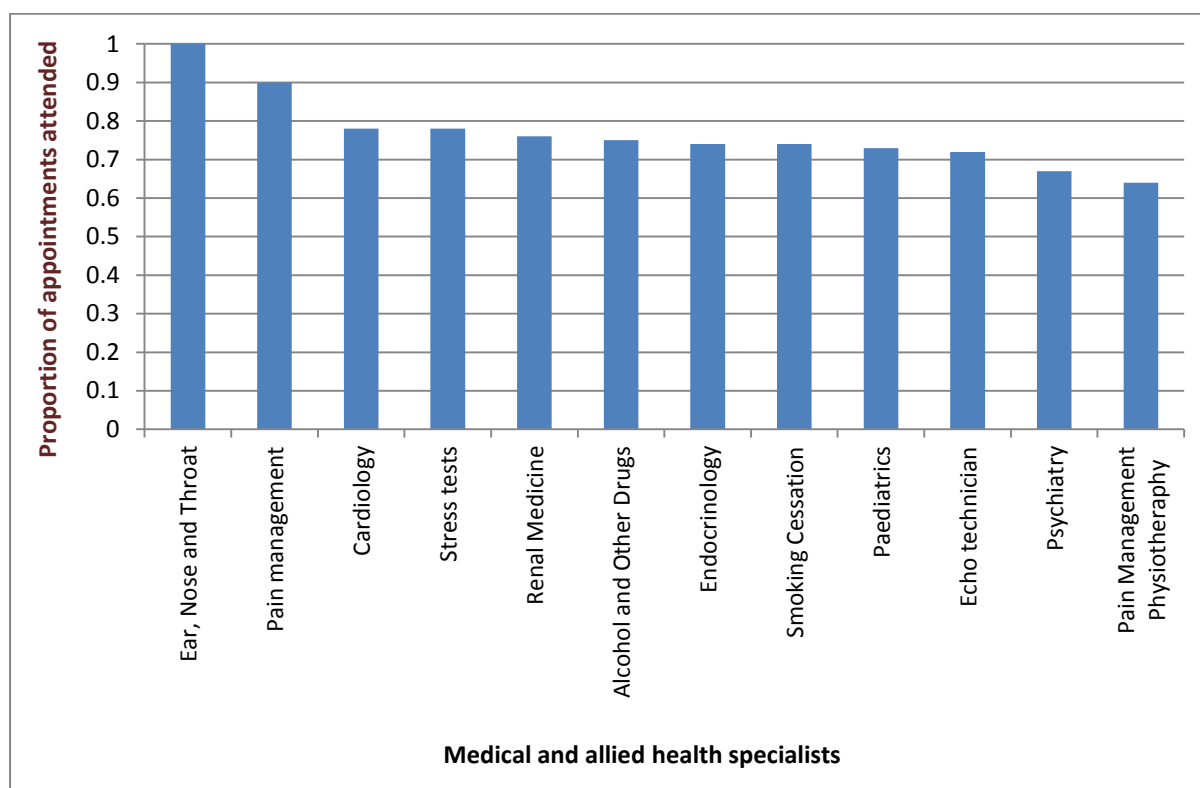


Figure 30 Attendance rate by patients for medical and allied health specialist clinic, Broken Hill Cluster, 2010–2015

Source: Program data provided by Maari Ma, extracted from Maari Ma's practice management software PracSoft

Some interviewees expressed concern that the endocrinology clinic lists were both too large and being overbooked to ensure optimal use of time, resulting in shortened appointment times when everyone turned up. This demand for the service was addressed by increasing the visiting team from one to two medical specialists, a strategy that will also aid future succession planning. Some interviewees also suggested using more considered referrals to the clinic, as specialists may not need to see clients as frequently as in hospital-based clinics. This observation is valid and most likely reflects the practice of the visiting team used to working in an urban diabetes centre service.

Maari Ma has established dedicated positions to support the specialist outreach services. Support functions include coordination and booking of specialist travel and accommodation, ensuring physical space is available to accommodate teams, developing and coordinating client lists, follow-up and appointment reminders for clients, management of referrals, and handover with regular GPs.

The support systems established by Maari Ma, and the leadership within the specialist outreach services program, appear to be crucial in maintaining the current high level of retention and continuity of specialists. It will be important for Maari Ma to continue to commit resources to coordination and systems development, and to increase this commitment with any further growth in specialist services. Interviewees did not express any opinion on gaps in service provision, so any expansion of specialist services should continue to be based on service needs assessments.

Access to other specialist services

Client access to specialist services outside Broken Hill was reportedly still problematic, mainly due to the cost and challenges to access because of distance. Maari Ma supports clients by assisting them to access IPTAAS,⁴⁹ a NSW Government program that provides financial assistance towards travel and accommodation costs for clients (and at times eligible escorts) who need to travel for specialist medical treatment not available locally.

Maari Ma supports clients to lodge their IPTAAS claim form, and now also covers the client contribution cost for their travel and accommodation if they are not able to pay. This has improved IPTAAS access and reduced out-of-pocket expenses for clients. However, as Maari Ma incurs costs additional to the IPTAAS claims reimbursement, provision of this service and its administrative processes will need to be monitored to ensure its financial sustainability.

There is a sense of more people attending appointments in Adelaide. A couple of years ago we would have one-day turnaround for the IPTAAS claims and now we have a lot of claims coming through. We now have a three-month backlog. (Team Management, Maari Ma)

AHWs also assist with client transport and coordination, often acting as escorts or drivers, further enabling client access to specialists.

Access to dental care

Maari Ma is dedicated to working with communities to improve oral health for children and adults, as it has such a strong influence on health more generally. Many health conditions also lead to poor oral health, which is significantly associated with major chronic conditions.⁵⁰ The story below, provided by Maari Ma, charts the organisation's significant achievements in improving access to dental care for both children and adults (see Box 5).

There is an important connection with oral health in terms of preventing chronic disease and disability. Having this articulated as part of the Strategy has allowed the development of services to address this link.

Box 5: Our dental story

The close link between poor oral health and chronic disease is well known and one of the reasons why Maari Ma included oral health in its prevention, early detection and care regimes in both the Healthy Start and Keeping Well programs. To assist in this, Maari Ma enlisted the help and guidance of a public health dentist as part of its Strategy implementation.

In 2005, dental/oral health services available to Aboriginal people in the Broken Hill Cluster was fairly minimal: a treatment/pain management service provided by the RFDS via fly in, fly out clinics to Broken Hill, Wilcannia, Menindee and Ivanhoe for adults and children, and a treatment-focused child dental service located at Menindee Central School.

In 2006, Maari Ma developed its child oral health program, recruiting a dental therapist who would work under the guidance of our public health dentist as well as an Aboriginal trainee dental assistant. They worked to develop an oral health promotion program for school-aged children called 'Clean Teeth Wicked Smiles', which taught tooth brushing and distributed toothbrushes and tooth paste where both were routinely expensive or shared in large households. Similarly, the 'Tiddilicks' program was adopted for pre-school children promoting tooth brushing and drinking water rather than fizzy

⁴⁹ NSW Health 2016, 'Isolated Patients Travel and Accommodation Assistance Scheme (IPTAAS)'. Accessed on 14 April 2016 at: <http://www.health.nsw.gov.au/transport/Pages/iptaas.aspx>.

⁵⁰ AIHW 2012, *Chronic Conditions and Oral Health: Research Report 56, October 2012*, AIHW, Canberra. Accessed on 23 August 2016 at: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737423223>.

drinks.

After undertaking child health checks across the region, again incorporating an oral health-screening component similar to the adult checks, Maari Ma established children's oral health clinics focusing on fluoride varnishes and fissure seals with a focus on cleaning and tooth preservation. A secondary aim was to provide children with a positive experience at the 'dentist' compared to that of most of their parents who often put off a trip to the dentist, due to lack of access, until the pain made it essential and often resulted in an extraction. Fluoride varnish made up for the lack of fluoridated water in the communities of the Far West (except for Broken Hill, fluoridated mid-last century, and Menindee, fluoridated in about 2012), and the application of fissure seals was a further effort to preserve primary or deciduous teeth.

At that time, hospitalisation rates for children for the removal of all teeth (called clearance) under general anaesthetic were significantly higher for the Maari Ma region than elsewhere in NSW. Most recently we have included the application of fluoride varnishes as part of our GP child health checks.

Having successfully established our children's dental service, Maari Ma turned its attention to improving the sub-optimal access to dental services for Aboriginal adults. Not only did this require us to find our own funds for a part-time dentist, but also to increase our ability to support a dentist through the employment of a senior dental assistant and two Aboriginal trainee dental assistants.

In 2008 we applied for a small State government grant to augment the RFDS's regional dental service in order for that service to expand to two dentists with a focus on increasing services to public dental clients, particularly Aboriginal people. This was done in conjunction with the mainstream health services' contribution of funds and was called the Tri-Partite Oral Health Agreement (Far West LHD, RFDS and Maari Ma).

We lobbied the State government regularly for recurrent funds for a dentist, but as none were forthcoming we shared a dentist with a private dental practice in Broken Hill. We were also successful in gaining a locum dental service from the Sydney Dental Hospital for 12 weeks, and since 2014 have been supported by a charitable dental program, Filling the Gap, which utilises volunteer dentists (and sometimes, dental assistants) for one- to two-week periods. These initiatives have allowed us to provide a short-term increase in our adult dental services.

The growth in dental services for adults and children is demonstrated in Figure 31.

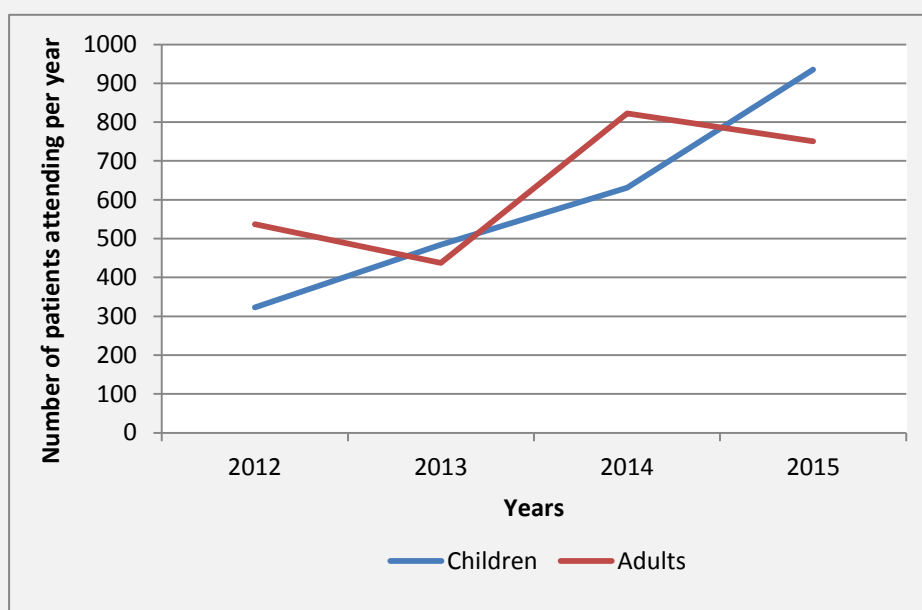


Figure 31 Number of patients attending for dental services, children and adults, by year, Broken Hill Cluster, 2012–2015

Source: Program data provided by Maari Ma

A further expansion to the Tri-partite Oral Health Agreement is currently planned, from two to three dentists, meaning that Maari Ma will receive extra dental clinics from the RFDS in exchange for the RFDS being able to see its clients at Maari Ma's facility in Broken Hill on set days. The increase to three dentists will mean we should receive a level of adult service that is sufficient to deal with our needs, especially in Broken Hill.

Maari Ma's child and youth profile documents, published in 2009 and 2015, have tracked the improvement in deciduous and adult teeth in the Maari Ma region (see Table 10).

Table 10 Dental health of children in the Broken Hill Cluster, 2011

		Broken Hill Cluster			NSW	
		Town A	Town B	Town C	Aboriginal	Total
Children with decay in baby teeth	2007	67%	77%	90%		31%
	2011	↓#27%	53%	*>81%	65%	39%
Children with decay in permanent teeth	2007	60%	37%	56%		23%
	2011	29%	46%	↓#23%	46%	35%
Average number of decayed missing or filled baby teeth	2007	3.00	4.07	5.78	2.21	
	2011	>2.50	*>5.50	*>5.98	3.04	1.53
Average number of decayed missing or filled permanent teeth	2007	1.62	2.00	1.58	0.69	
	2011	#0.75	*>1.87	#0.79	1.17	0.74

↓ significantly lower than the Maari Ma result in the previous period

* significantly higher than the current NSW Aboriginal population result

significantly lower than the current NSW Aboriginal population result

> significantly higher than the current NSW total population result

Source: Ierace et al., *op cit*.

6. Aboriginal people actively participating in their own health care

Key achievements

- More people actively engaging in their own health care and increased attendance at services

Potential priorities for ongoing work

- Strengthening recording of self-management goals
- Continue to focus on self-management, taking into account competing priorities for clients

Summary of progress in relation to Objectives

To address *Objective 14, Increase in number of Aboriginal people actively participating in their own health care*, Maari Ma has established systems to support self-care as part of the Strategy. Interviewees perceived that the Strategy's approach of multi-disciplinary care, across the lifespan has enabled Maari Ma to support client self-management. Clinical indicator data show a high level of attendance for primary health care services. However, for chronic illness patients, clinical audit data show room for improvement in the recording of self-management goals (see Figure 19). In addition, the high prevalence of major risk factors for chronic disease – including smoking, high-risk alcohol use and being overweight/obese – highlights the need to strengthen evidence-based approaches to supporting self-care and population-based health promotion and prevention programs.

Key evidence for assessing progress for achieving Strategy Objective 14

As stated in Maari Ma's Chronic Disease Strategy, one of the challenges is 'to create systems that support self-care'.⁵¹ Taking a multidisciplinary team approach, Maari Ma practitioners ask clients about their health goals using structured and individual client management plans, and work with them to ensure that routine check-ups are kept, for example, through 'booked appointments'.

Clinic attendance is an indicator of the level of client engagement with the health service. As discussed above there has been good clinic attendance for all services.

There was a widely reported perception that clients were actively participating in their own health care as a result of the Strategy programs implemented by Maari Ma, but also recognition that there was some way to go with this:

People are more aware of their lifestyle choices and [that] they can have an impact on their health. Quite often health used not to be a priority [but] this is changing because of the health education and communication. People talk more, they respect the workers and are aware that things are confidential... it takes a while for an organisation to build that trust. People are more willing to come [to the health service, and] even if they don't achieve goals there is a willingness to come back and re-engage. Not everyone changes everything but our patients do make a lot of important changes. (PHC Team, Maari Ma, Group Interview)

As reported in Section D1 above ('Chronic disease risk factors'), clients of the Broken Hill cluster have a high prevalence of risk factors. For example, those with a chronic illness are recorded as using alcohol and smoking at higher levels than the ABCD national data. Similarly, a high proportion of women continue to smoke and drink alcohol during pregnancy. Given the prevalence of risk factors in the service population there may be an argument to focus attention not only on health promotion activities but also on encouraging self-management and delivery of brief interventions at all points-of-client contact.

⁵¹ H. Burke, M. A. Cook & R. Weston on behalf of Maari Ma Health Aboriginal Corporation 2005, *Maari Ma Chronic Disease Strategy: 'While prevention is better than cure, control is better than complication'*, Maari Ma Health Aboriginal Corporation, Broken Hill, p. 4.

With Maari Ma's commitment to multidisciplinary care, a systematic and evidence-based approach to self-management is required across the health care team, as illustrated in the quote below:

I don't think the team collectively uses each other to engage patients... Is there someone else in the team who will have influence with that client? (Corporate Services, Maari Ma)

Analysis of clinical indicator data, for clients with diabetes or CHD, shows improvement is needed in recording self-management goals for chronic illness clients (see Figure 32). There was a slight improving trend evident in the audit data on delivery and recording of self-management goals for diabetic clients, ranging from zero in 2005 to around 15 per cent in 2015 (see Appendix C, Figure 68), lower than the percentage reported for national ABCD data. However, clients with CHD showed no clear trend, comparing unfavourably with national ABCD data (see Appendix C, Figure 68).

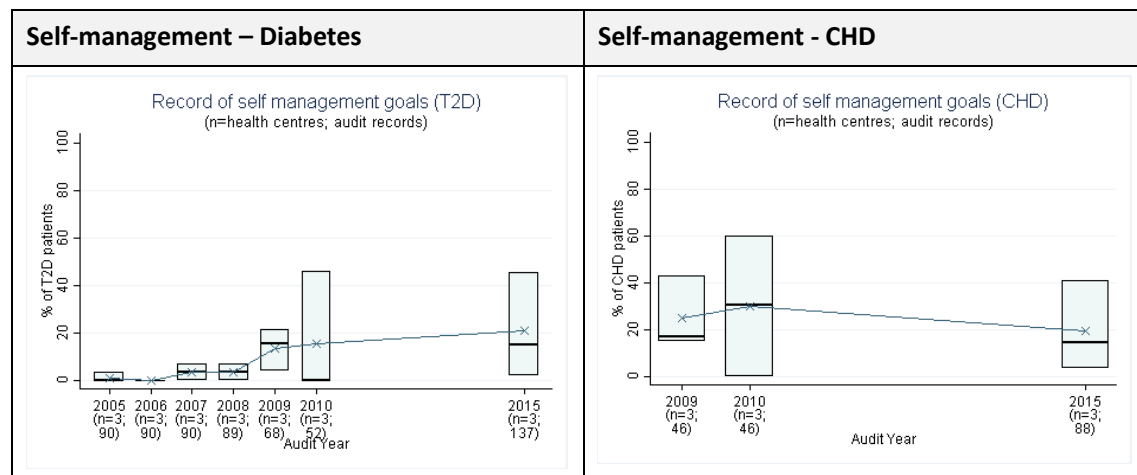


Figure 32 Recording of self-management goals, by audit year: Mean, median and range between health services, 2005–2015, Broken Hill Cluster and ABCD national data

n=number of health services; number of client records audited for clients who attended in previous 12 months

Interviewees recognised that while being realistic about the long timeframe needed to achieve improvement in self-management and in prevention, Maari Ma needs to keep its focus on the achievement of these goals, with sustained effort:

There needs to be acknowledgment that some of this work is going to take 30 years... the self-management and prevention side of this work... Not a roadblock, but we need to keep working on it. Have to keep the focus and energy. There has been a lack of progress around prevention, which is related to self-management and engagement with [the] health centre. We have a way to go... I think there are still patients prioritising health care when it is an acute problem or too late. Our booked appointments are heading in the right direction. (Corporate Services, Maari Ma)

Interviewees perceived a need for continued focus on self-management, taking account of the competing priorities that patients have in their everyday lives. Some interviewees expressed a need for social worker-style positions to assist with the social health needs of clients.

The community has competing priorities and that is distressing, [so] sometimes managing their chronic disease doesn't take precedence. With the schedule of care to support someone to manage a chronic disease there is a perception that it is a health service agenda, rather than a client agenda. We have to support clients to get past their immediate priority first. At times we manage their chronic disease in a certain way [that] may not be considered a priority of the client but it is the priority of the clinician. (Corporate Services, Maari Ma)

Box 6: Shared responsibility – A start towards self-management

In the early stages of the Strategy, an important role of AHWs and those working in the Keeping Well team, was to deliver medication dose administration aides (Webster packs) to chronic disease patients. This provided the AHW with a fortnightly opportunity to touch base with the patient about their health, discuss any problems, book appointments for planned care and collect any unused packs. This was particularly important where patients were unwell or regularly not taking medication.

The rationale was sound, but in reality our continuous quality improvement program (Webster pack delivery audit and feedback) found this generic approach to be flawed. This is because it had the potential to under-serve some patients and over-serve others thereby encouraging dependence rather than self-management.

Furthermore, the time taken to complete Webster pack deliveries often blew out from a day to a week. If the patient wasn't at home on the first delivery attempt, AHWs would return (often multiple times over a number of days) until they found the patient at home and successfully handed over the Webster pack. This time impact reduced the workers' role to that of 'courier', and left them with little time to engage in a meaningful interaction with patients.

Some patients worked full-time or were out and about during the week so not at home when the AHW arrived with their Webster pack. Others felt their chronic disease to be well controlled, demonstrated good medication compliance and were up to date with scheduled care. These patients didn't need the offered fortnightly, clinically focused service: they had the capacity to visit the pharmacy to collect and be responsible for their own Webster pack.

On the other hand, complex patients who were unwell, experiencing complications, had poor medication compliance, or were overdue in their scheduled care would likely benefit from a fortnightly AHW visit.

The audit findings resulted in a review of the Webster pack patient list and delivery arrangements being changed to accommodate the needs of three distinct groups.

1. Patients who can self-manage and are mobile can now visit the pharmacy and collect their own Webster pack.
2. Patients who can manage their own medications, but due to mobility issues or lack of access to transport can't get to the pharmacy, can have their Webster packs delivered by Transport Officers. No clinical intervention is required as this is ostensibly a courier service.
3. Complex patients who require regular monitoring and education to improve medication use have their Webster packs delivered by AHWs who can then take the opportunity to provide patient advice and support.

7. Inter-sectoral collaboration to address poor health outcomes

Key achievements

- Leadership and engagement – positive collaborations with various Aboriginal representative bodies, and in cross-sectoral work on health
- Involvement in research, evaluation and training programs with external partners

Potential priorities for ongoing work

- Strengthening organisational working relationships with partner health agencies in the Far West
- Extending the model of care to services outside of the Broken Hill Cluster

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to *Objective 15, Increase inter-sectoral collaboration to address poor health outcomes*. 'Maari Ma', in the Paakantji Aboriginal language of the Darling River, means 'people working together'.⁵² Interview feedback was generally very positive regarding Maari Ma's collaborations in training, service delivery, research and evaluation. A number of interviewees identified collaborations between the key service provider organisations as being an important area for further development, with a view to ensuring high-quality care for all Aboriginal people in the region.

Key evidence for assessing progress for achieving Strategy Objective 15

Maari Ma has a track record of forming productive partnerships with a range of both mainstream and Aboriginal organisations, covering inter-sectoral collaborations, research partnerships, service delivery and community initiatives.

Inter-sectoral collaborations

Other key health service providers for Aboriginal people in the far western region include the Far West Local Health District, the Western NSW Primary Health Network and the Royal Flying Doctor Service.

Maari Ma contributes to numerous regional partnerships and forums, including the Murdi Paaki Regional Assembly⁵³ (a peak representative structure representing the interests of Aboriginal people that works with community working parties and governance bodies in 16 communities across western NSW), and the Western NSW Primary Health Care Network (PHN).⁵⁴ In the child health area, interviewees reported constructive partnerships with a variety of government agencies, including the NSW Department of Education and Training (DET) and the Department of Community Services (DoCS). For example, the development of the Far West Aboriginal Child Development and Well-being Management Group was seen as enabling a collaborative approach to improving outcomes for Aboriginal children in the Maari Ma region (see Box 7).

⁵² Maari Ma Health Aboriginal Corporation 2016, 'Links'. Accessed on 31 October 2016 at: <http://maarima.com.au/links>.

⁵³ Murdi Paaki Regional Assembly 2016, 'Home page'. Accessed on 31 October 2016 at: <http://www.mpra.com.au/>.

⁵⁴ PHN Western NSW 2016, 'Reshaping primary health care across western New South Wales'. Accessed on 31 October 2016 at: <http://www.wnswphn.org.au/>.

Box 7: Collaboration – The Early Years project

After successfully implementing the Healthy Start program for a few years, in 2008 Maari Ma staff found that Aboriginal children were still starting school behind their non-Aboriginal counterparts in terms of development and early learning – and the gap got wider as they progressed through school. So Maari Ma engaged a public health paediatrician and academic, Garth Alperstein, to advise us. Garth had many years of experience working across agencies and non-government organisations in central Sydney to improve outcomes for marginalised and disadvantaged groups including Aboriginal children.

Under Garth's guidance we held a series of forums in Broken Hill and elsewhere in the region, explaining the research behind the key indicators for positive outcomes in child development and wellbeing. Bringing together the leading local players in mainstream and Aboriginal health, early childhood education, community services and welfare resulted in a developing collective awareness and a desire to work better together to improve outcomes for Aboriginal children in the Far West.

An inter-agency group was formed comprising Maari Ma, NSW DET, Greater Western Area Health Service (Broken Hill Health Service, Mental Health/Drug & Alcohol, Maternal, Child and Family Health), DoCS, NSW Police, Mission Australia and Dr Garth Alperstein. Co-chaired by Maari Ma's CEO and the DET's Director of Schools in the Far West, the group developed a strategic framework document for improved outcomes for the region's Aboriginal children.⁵⁵ The group felt that by articulating what current research showed as being the important factors influencing positive outcomes in health, development and wellbeing for children, and using this as a guide to what was required in our region, the document could be used to advocate for funding to see these improvements realised.

Through this group, Maari Ma worked in partnership with the Broken Hill TAFE in 2009 to pilot a playgroup for Aboriginal families. We then chose to use funding from vacant clinician positions to employ an early childhood educator, take over the running of the playgroup and expand its remit into early literacy activities in Broken Hill, Wilcannia and Menindee in partnership with local groups such as Save the Children Australia and Menindee Children's Centre.

In parallel with this, we worked across a large number of government agencies – NSW Health, NSW DET and DoCS, NSW Bureau of Crime Statistics and Research, Australian Institute of Health and Welfare, and Australian Bureau of Statistics – to gather data regarding children, particularly Aboriginal children in the Far West, to describe their health, families, homes, and communities so we could see if implementing the strategic framework made a difference in years to come.

This regionally collected and shared data project was unique and addressed issues many individual agencies had been flagging for some time: the need to act across agencies for the overall benefit of the region's children. The resulting report was published (2009)⁵⁶ and the project was repeated five years later (2014)⁵⁷ as a means of monitoring progress.

The Early Years project continues to grow with early literacy links to our child health calendar of visits, a discussion group for early childhood education and care (ECEC) practitioners in the Far West improving the quality of ECEC programs in line with the National Quality Framework, a cooking group incorporated into the Broken Hill Healthy Start playgroup, and HIPPY improving school readiness for four- and five-year-old Aboriginal children in Broken Hill.

The experience from the Chronic Disease Strategy was applied to the Early Years Project: the need for robust data, thoughtful application of resources, evidence-based best practice, orientation of new staff, and a CQI framework. The vibrant and successful Early Years project is now at home in what was the Child and Family Unit in the backyard of Maari Ma's Regional Office, and routinely sees large numbers of

⁵⁵ Alperstein et al., op. cit.

⁵⁶ Kennedy et al., op. cit.

⁵⁷ Ierace et al., op.cit.

Aboriginal families gathering to engage with their children and learn more about factors affecting their development.



The Far West LHD, RFDS and Maari Ma have different but overlapping roles in providing services to Aboriginal people in far western NSW. More recently, the Western NSW PHN has also been allocated the role of supporting PHC in the region, with Maari Ma and Bila Muuji Aboriginal Health Services both consortium members of the organisation that trades as the PHN. Maari Ma also collaborated with the PHN's predecessor organisation, the Far West Medicare Local.

The PHN role is likely to become more important to Maari Ma, as PHNs will increasingly be used as a conduit for PHC-related funding from the Commonwealth Department of Health. The Western NSW PHN aligns to the Western NSW and Far West LHD geographic boundaries and incorporates a large geographical region from Broken Hill in the west to Lightning Ridge in the north, Balranald and Grenfell in the south, and Oberon in the east.

Maari Ma has also collaborated with both the George Institute for Global Health and the Royal Prince Alfred Hospital in the delivery of specialist and allied specialty services. This program supports and builds the capacity of local primary care providers in the management of chronic and complex illnesses.

In addition, partnerships with a wide range of other organisations have assisted Maari Ma in delivering services to its clients, for example:

- The Broken Hill-based Outback Pharmacies Group provides a part-time pharmacist to Maari Ma to assist in Closing the Gap
- Maari Ma helped the Police Citizens Youth Club Broken Hill to establish its drop-in room
- A Memorandum of Understanding (2007) with the Mallee Family Care and collaborations on the Youth Action Project, 'Our Journey to Respect' Project and other initiatives

- The CAGES Foundation has funded Maari Ma's Healthy Start playgroup in Broken Hill for Aboriginal children and their families and contributes to the Healthy Start program more broadly
- The Fred Hollows Foundation has previously provided support for Maari Ma's social and community programs
- Maari Ma has supported the establishment of Clontarf Foundation's academy for Aboriginal boys attending Broken Hill High School.

A number of interviewees highlighted the challenges inherent in collaborating and coordinating with other major service provider organisations, notably the Far West LHD and the RFDS. Finding efficient solutions to access electronic medical records and to ensuring good coordination and continuity of patient care, for example, were identified as important issues relating to collaboration. A number of difficulties were, in part, attributed to the cessation of the management agreement between the Far West LHD and Maari Ma in 2012.

Historical difficulties also provide challenges to efforts for improving inter-sectoral collaboration. Given the scope of this evaluation, it has not been possible to analyse wider resourcing aspects that might have assisted in understanding such issues as the allocation of health funding across the key agencies in relation to Aboriginal clients. Nevertheless, we note that a number of interviewees identified inter-sectoral collaboration as not working as effectively as it could. Without seeking to allocate blame, this is an area that would benefit from further attention.

Research, evaluation and training initiatives

Maari Ma has been involved in a number of research, evaluation and training programs with external partners,⁵⁸ and interviewees noted these as positive collaborations. Examples of recent research and evaluation collaborations include with:

- The George Institute on the Kanyini Vascular Collaboration⁵⁹ (CQI project and Polypill) and Torpedo Study⁶⁰ (electronic decision support to assist practitioners in making evidence-based management decisions)
- Menzies School of Health Research ABCD National Research Partnership⁶¹ (improving health outcomes through implementing CQI and through comparative analysis against aggregate national-level data)
- Greater Western Area Health Service Paakantji Kiira-Muuku project (evaluation of a smoking cessation program)
- Australian Research Centre for Population Oral Health Silver Fluoride study (use of silver fluoride to reduce dental decay)
- University of NSW Community Safety Research Project (reducing violence and increasing resilience project).

Several interviewees noted that the latter project provided a good example of a research project needing to be more clearly linked to the Strategy so that its findings could further inform service delivery.

⁵⁸ Maari Ma Health Aboriginal Corporation 2014, *Annual Report 2013/2014*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW, pp. 30–3. Accessed on 31 October 2016 at: http://www.maarima.com.au/pdf/annual_reports/maari-ma-annual-report-2014-final-LQ.PDF; Maari Ma Health Aboriginal Corporation 2015, *Annual Report 2014/2015*, Maari Ma Health Aboriginal Corporation, Broken Hill, NSW, p. 73. Accessed on 31 October 2016 at: http://www.maarima.com.au/pdf/annual_reports/maari-ma-annual-report-2015.pdf.

⁵⁹ For more on this project go to: <http://www.georgeinstitute.org.au/projects/kanyini-vascular-collaboration>.

⁶⁰ For more on this project go to: <http://www.georgeinstitute.org.au/projects/evaluation-of-a-novel-electronic-decision-support-tool-for-cardiovascular-risk-management>.

⁶¹ For more on this project go to: http://www.menzies.edu.au/page/Research/Centres_initiatives_and_projects/ABCD_National_Research_Partnership_Project/.

Maari Ma also has a 10-year commitment to the medical student training program at Broken Hill University Department of Rural Health, Sydney University, and partnership arrangements for research and training with Macquarie University on child numeracy and science in the early years.

8. Capacity of the organisation to deliver coordinated and comprehensive care

Key achievements

- Investment in, and implementation of, health system strengthening initiatives have resulted in a service that has the capacity to deliver coordinated and comprehensive care
- Strong leadership, governance and financial systems
- Development of the Cycle of Care and follow-up systems
- Implementation of the Strategy over time – embedded into the organisational service delivery
- Data-driven decision making and investment in CQI
- Workforce and training initiatives
- Investment on improving information technology (IT) and clinical information systems

Potential priorities for further work

- Ongoing improvements to clinical information systems
- Continue to focus on using CQI approaches

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to *Objective 16: Improve the capacity of the organisation to deliver coordinated and comprehensive care*. Maari Ma's investment in health system strengthening resulted in the staged implementation of systems for improved delivery of coordinated care, thereby improving client outcomes and ensuring there was organisational capacity to implement the new Strategy's programs. Interviewees reported that Maari Ma's involvement in CQI programs (e.g. ABCD National Research Partnership) resulted in an improved ability to reflect critically on what the service was doing well and not so well. This principle of using data to drive decision making and refinements has now been embedded into the organisation at all levels. Interviewees also identified the importance to Maari Ma of maintaining the capacity of both its workforce and its systems development to ensure it has the future capacity needed to deliver effective care.

Evidence for assessing progress for achieving Strategy Objective 16

Improved capacity to deliver care through investment in health systems support

Maari Ma has invested heavily in practice support systems to enhance the capabilities of the organisation to develop systems to offer coordinated and comprehensive care for clients. The Healthy Start and Keeping Well programs are underpinned by a stream of work related to health system strengthening in the Strategy. Early in the development of the Strategy, Maari Ma recognised the need for a strong health service support/strengthening aspect, along with investment in positions to achieve this. Interviewees commonly reported that this investment has improved client outcomes through being able to implement systems that have improved Maari Ma's capacity to deliver coordinated care.

As detailed in previous Sections, Maari Ma's strong investments in workforce and training, and the establishment of a GP-led multidisciplinary team, have contributed to improving the capacity of the organisation to deliver care. Maari Ma has achieved a stable medical workforce that is now known for having '*regular long-term doctors*'.

As a focus for the next five years, interviewees noted the need to maintain both the current GP workforce and system support staff to ensure ongoing capacity to deliver care. Also important was for Maari Ma to maintain a focus on staff retention, on succession planning and recruitment, and on robust continuing medical education.

We have had some excellent GPs... One of the questions is how you could sustain that... ensure they can keep good quality GPs? Succession planning needs to be available for [a] new generation of clinicians, nursing staff and health workers, and continuing to grow and develop that – and sustain this. (Former Corporate Team, Maari Ma)

As a regional service provider, there are challenges and opportunities with operating services in a 'hub and spoke' model with, in this case, Broken Hill as the hub. Maari Ma has implemented health services using this model in difficult environments that have required special attention and support – such as Wilcannia and Menindee. Maintaining a focus on service delivery and support in Wilcannia was noted by a number of interviewees as having been beneficial because the service has struggled with retention of staff.

Activities to improve the capacity of the organisation to deliver coordinated and comprehensive care

As reported above (Section C4 'Health service support') Maari Ma has undertaken a number of activities to improve its capacity to deliver coordinated and comprehensive care through strong investment in:

- Developing clinical information systems and decision supports – e.g. disease registers, systems for patient follow-up, appointment booking and protocols to support improved systems
- Ensuring GPs have sufficient time with clients through efficient and effective booking systems and GP workforce support
- Developing the Cycle of Care, and establishing referral pathways and follow-up systems.

Striving to improve clinical information systems to ensure the capacity to deliver coordinated care

Maari Ma has invested heavily in the development of IT (including clinical information systems) to deliver coordinated and comprehensive care to the Aboriginal population of far western NSW. With the change to a GP-led environment over the period of implementation of the Strategy, there have been substantial changes to the clinical information systems required to support a team-based approach to care in a multitude of clinics. This has not been without its challenges, such as slow internet speeds (a reality for regional and remote services) and the integration of clinical information systems with other providers in the facilities.

Interviewees highlighted (and valued) access to training and support for IT; dedicated IT positions throughout Maari Ma; and resourcing to support service delivery. However, although Maari Ma has invested in improving IT to support the coordination of care, slow internet speeds are hampering such efforts in Wilcannia and Menindee.

Some clinician interviewees expressed concern about the recent move in Wilcannia for Maari Ma doctors to have their own clinical information system (Medical Director), which is perceived as not being easily accessible for RFDS doctors. They were also concerned about the potential for different systems to compromise the coordination of care in Wilcannia and Menindee. However, different clinical information systems need to be used because of service delivery arrangements with the Far West LHD.

Data-driven decision making and investment in CQI

Many interviewees identified the importance of being involved in CQI programs and having the tools available as a way to measure success, identify areas for improvement and focus their service delivery.

A game changer for us was our involvement in CQI through the ABCD program. We created a culture of using data to inform decision making and all decisions are based on data... not to shy away from [the] use of data. (Corporate Team, Maari Ma)

Maari Ma has a culture of using data to inform decision making, which was evident in the way that it takes time to review and adjust each new system being implemented. An example provided by Maari Ma

of using data to inform decision making, and ultimately to improve patient outcomes, is presented below (see Box 8).

Box 8: In focus – Using CQI to achieve better medication management

After about three years of Maari Ma’s services-wide use of ABCD information, our GPs requested analysis and feedback specific to individual providers. This feedback informed Maari Ma’s next CQI iteration which was to grow our association with the Kanyini Vascular Collaboration and the adoption of their Cardiovascular Risk Assessment Tool. Chronic disease patient-level data was provided to the GPs annually, while population data continued to be used to inform service enhancements.

Over the following five years, the patient-level data assisted GPs to manage individuals in their care using best practice guidelines. The GPs could see improvements at a patient level that, in turn, showed improvements region wide.

For example, the use of the Cardiovascular Risk Assessment Tool enabled them to identify patients who would benefit from evidence-based ‘triple therapy’ for those with CVD or at the greatest risk of developing the disease. The following chart (see Figure 33) shows the improvement over time in Maari Ma’s medication management.

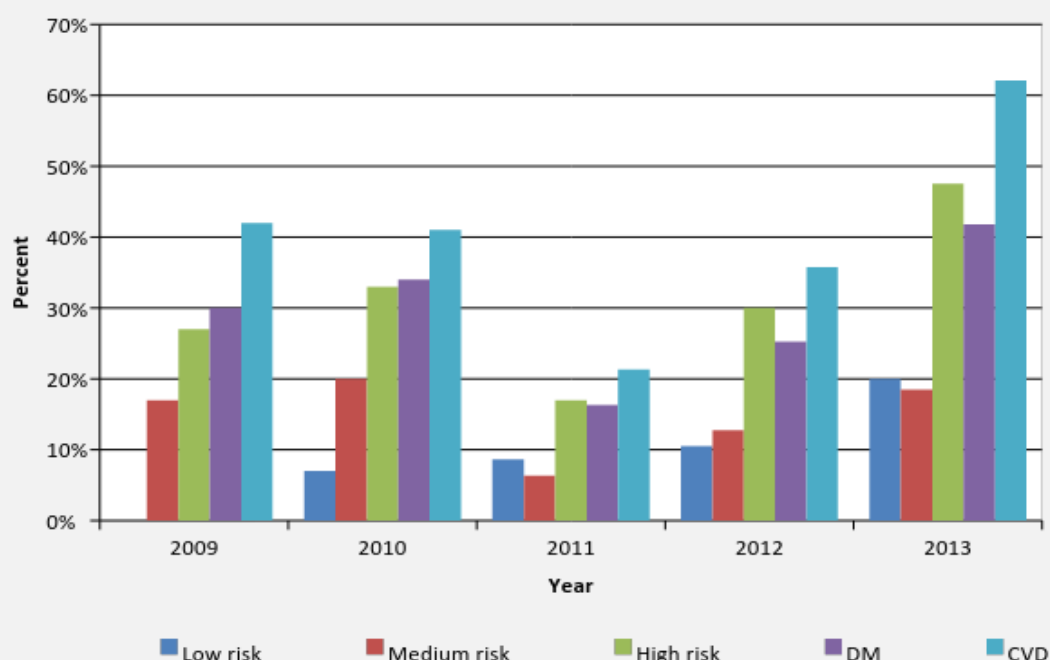


Figure 33 *Proportion of patients prescribed ‘triple therapy’ (BP medication, statin, and antiplatelet), by risk category and by year, 2009–2013, Broken Hill Cluster*

Notes: DM – Diabetes; CVD – Cardiovascular Heart Disease

Source: Program data provided by Maari Ma

Gradual implementation of Strategy programs

With the Strategy, Maari Ma adopted a deliberate approach of staging its implementation and not implementing too many programs at once to ensure that the organisation was ready to offer a complete service to meet community needs:

For me everything is a 10-year story. [The] journey for each of those aspects of the Strategy has to be incremental... progressive incremental change. Implementation has been very strategic and we have acted on [it] when there are opportunities. [It] was always going to be introduced; it was just a matter of time. (Corporate Services, Maari Ma)

9. Health promotion and education

Key achievements

- Establishment of a range of community activities to promote health, health messages and access to services
- Programs established to address broader social determinants of health and community linkages

Potential priorities for further work

- Working with all teams in Maari Ma to encourage wide support and valuing of community health promotion work
- Community and health promotion activities specifically addressing grief and loss

Summary of progress in relation to Objectives

This Section reviews the Strategy's progress in relation to *Objective 17: Improve health promotion and education*. Maari Ma has actively provided a range of group, community and population activities to improve the health of its clients. Interview feedback highlighted the importance of Maari Ma's wide-range of community-based activities in establishing trusting relationships with the community and building linkages. A number of these activities also address the wider social determinants of health for the Maari Ma community, such as early childhood development, family social supports, nutrition and lifestyle. Nevertheless, some interviewees noted the need for further work across the Maari Ma teams to ensure that there is a good understanding of, and support for, these community linkages and programs.

Evidence for assessing progress for achieving Strategy Objective 17

Maari Ma provides a number of group and community activities to promote good health messages, health literacy and access to services. A number of these activities are highlighted in Section C2 'Healthy Start Program'.

Interviewees provided positive feedback on the following programs of work:

- Supported Playgroup, Broken Hill – holistic provision of services for preschool children and their families held weekly with a wide multidisciplinary team.
- Little Kids and Books – early literacy program incorporated as part of Save the Children's playgroup in Wilcannia, in conjunction with Menindee Children's Centre, and Maari Ma's supported playgroup in Broken Hill. A set picture book is the focus of the sessions and every child keeps a copy of the book at the end of the session.
- HIPPY⁶² – Two-year, home-based program for children, with parents/carers as home tutors supporting other families.
- WINGS Drop-In Centre⁶³ – after school and holiday activities for school-aged children and teenagers in Wilcannia, actively promoting healthy and active lifestyles.
- Wilcannia Community Dinners – monthly dinners in Wilcannia run in conjunction with dietitian and community members.
- Smoking cessation (and other) messages through radio advertisements using voices of staff from Maari Ma.
- Facebook page established for community information and sharing of information.

⁶² HIPPY Australia 2016, 'Home page'. Available at: <http://hippyaustralia.bsl.org.au>.

⁶³ Maari Ma Health Aboriginal Corporation 2016, 'Community support'. Available at: <http://maarima.com.au/community-support>.

Interviewees noted the important role of Maari Ma's playgroups, early literacy and cooking programs in providing a vehicle for improving linkages with community, disseminating health promotion messages, addressing the social determinants of health, and improving access to health services. The following quote is one of many that show support for Maari Ma's extensive non-clinical outreach work:

The creation of health programs away from the traditional medical model... [enables the development of] real relationships with the ability to engage with clients and families. As a health professional I find this an extremely rewarding approach. One really great example of this is the Maari Ma playgroup. (Allied Health Practitioner, Maari Ma)

Box 9: In focus – Maari Ma Supported Playgroup, Broken Hill

The intensive supported playgroup in Broken Hill is just one example of how Maari Ma is addressing early determinants of health and laying the foundations for children to grow into healthy adults. The Strategy provided the blueprint for program development to improve the health of Aboriginal people in the area by focusing on the early years of life for Aboriginal children: *'We have to start with healthy kids as kids are our future'*.

A multidisciplinary team of 11 – Healthy Start child and family nurse, HIPPY coordinator, Early Years project leader, dietitian, mental health trainee, social worker, speech therapist, family support worker, male research officer, transport driver and an early childhood education support worker – work together to offer holistic intensive support to families with Aboriginal children each week in purpose-built dedicated facilities in Broken Hill. This playgroup has grown to include a cooking group. Attendance at the playgroup has been steady with an average of 12–16 children and 15–19 adults attending each week (see Figure 34).



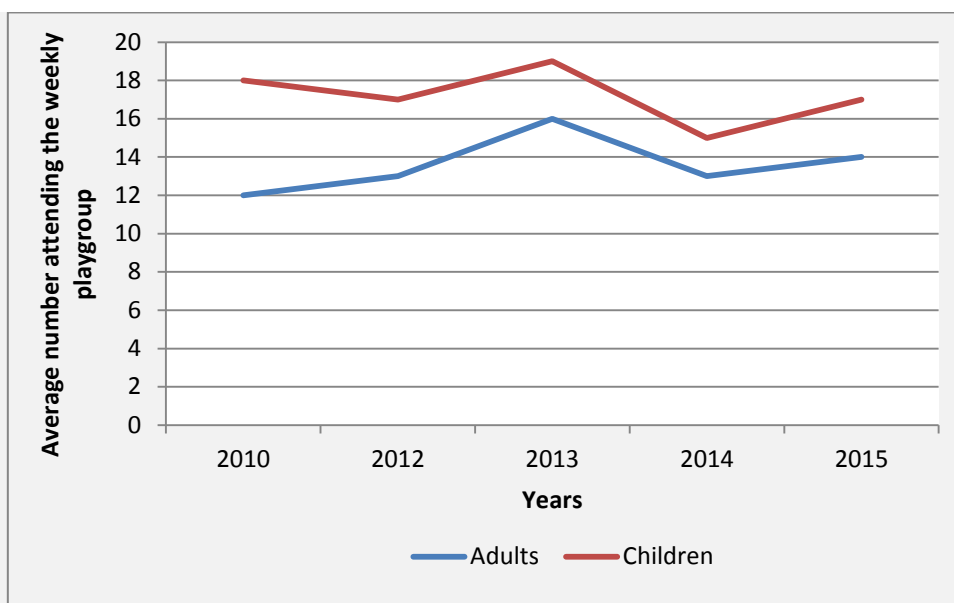


Figure 34 Average number of children and adults attending the weekly Maari Ma Supported Playgroup, Broken Hill, by year, 2010–2015

Note: Data was unavailable for 2011

Source: Program data provided by Maari Ma

The following quote reflects a widely held view among interviewees:

The playgroup provided an entrée or a relationship with a number of families who normally did not come to the clinic... it is a place for clinicians to integrate with families at the families' pace... they have built relationships and ultimately a door to the health service but with an activity that families want to participate in. (Corporate Team, Maari Ma)

A number of interviewees noted that there were challenges with getting everyone in the Maari Ma team to understand and support these types of programs. They considered there was still some progress to be made in working across teams to communicate clearly the relevance and benefits of these programs, and the evidence on which they are based.

Focus on grief and loss

A number of interviewees referred to the need for community programs that will help to address issues of grief and loss, for example:

We need more resources in grief and loss. Sometimes we had a funeral here every week. Social and emotional wellbeing and alcohol and other drugs is a big part of our community. The Far West Health provide a mental health service that comes out once a week and they look at acute patients and we have a visiting psychiatrist who sees about nine people but they are the same nine they see. There [are] no community-focused activities around grief and loss or families in crisis – teaching people how to manage the grief. Social and emotional wellbeing – we don't know how to support them and we don't have the services. (Wilcannia PHC Team, Maari Ma)

Interviewees also noted the need to do more work to de-stigmatise mental health through health promotion campaigns.

Section E: Major Achievements of the Strategy and Priorities for Further Development

This Section summarises the major achievements of the Strategy and priorities for future work, as identified by the evaluation. The major areas of achievement should receive ongoing attention, as they will continue to be important for sustaining the Strategy outcomes. There were a number of areas of work that were identified in the evaluation as being relatively less developed, and which should be considered as potential areas for priority attention over the coming years.

We present the achievements and priorities according to the three main program areas of the Strategy: 1) Health service support; 2) Healthy Start program and; 3) Keeping Well program.

1. Health service support – Achievements and priorities

Key achievements

A sustained commitment to and refinement of the Strategy by the Board of Directors: The Board of Directors' strategic, clear and united vision is to improve health outcomes for Aboriginal people in far western NSW by improving the delivery of PHC services. The development of the Strategy, and a sustained commitment to refining and implementing it, has been a key achievement. Its implementation was well planned and appropriate resources allocated. Maari Ma's performance is inextricably linked to strong and stable leadership.

Organisational systems and leadership that has supported an ongoing focus on health outcomes and quality of care: There has been leadership and commitment at Board and executive level to develop and implement processes and systems to enhance the capabilities of the organisation to offer coordinated and comprehensive care for clients. The Healthy Start and Keeping Well programs are underpinned by a stream of work related to health system strengthening. Early in the development of the Strategy, Maari Ma recognised the need for a strong health service support aspect, along with investment in positions to achieve this.

Processes for regular review and system refinements underpinning change management aspects of the Strategy: Maari Ma recognised the significance of the service-level redesign required in order to reorient PHC and workforce from *ad hoc* disjointed services towards organised prevention, early intervention and quality care services delivered in an integrated multidisciplinary team environment. The organisation has implemented robust systems to use data to inform decision making, review progress and refine processes as required.

A strong focus on Aboriginal workforce development – a culture of two-way learning and working together: There has been a strong focus on building the Aboriginal workforce at all levels in the organisation. In 2016, Aboriginal employees made up 55 per cent of the total full-time equivalent staff. There is also a strong culture of two-way learning, with Aboriginal and non-Aboriginal professionals learning from each other, and a commitment to formal training of AHWs and up-skilling all workers.

Strong community links and a culturally safe and accessible service: Linked to the focused investment in training, and the development of a culture that values and respects the role of Aboriginal staff and AHWs, the organisation has forged strong community linkages. Strengthened community capacity and positive linkages between the health service and the community have enabled improved access to health care and were consistently highlighted as achievements of the Strategy.

Investment in information technology and clinical information systems to enable team-based care: Maari Ma has developed a culture of using data to inform decision making. The organisation has invested strategically in the development of IT (including clinical information systems) to deliver coordinated and comprehensive care to the Aboriginal people of far western NSW.

A track record of forming productive partnerships in research, evaluation, and training: Maari Ma has a track record of forming productive partnerships with a range of mainstream and Aboriginal organisations that cover inter-sectoral collaborations, research partnerships, service delivery and community initiatives. Maari Ma has been involved in a number of research projects and evaluations with external partners.

Potential priorities for further work

The following possible priorities for further work in the area of health system strengthening have been identified through the evaluation.

Ensure sustainability in the areas of a) leadership and organisational capacity, and b) workforce by maintaining both the current numbers of GPs and system support staff to ensure ongoing capacity to deliver care. Similarly, AHWs are needed to provide clinical care as well as working at the cultural interface to provide essential knowledge about their communities and clients. It is important for Maari Ma to maintain a focus on staff retention, succession planning and recruitment, and robust continuing medical education and professional training and development.

Review and refresh the Strategy, with a more explicit comprehensive PHC approach and review of the objectives of the Strategy as elucidated in the evaluation to date. Enhance links between the Strategy and the cultural framework being developed by Maari Ma.

Extend and review the model of care to a) include services outside of the Broken Hill Cluster, and b) explore means of providing a holistic family-based approach to health care. Consider how to further utilise mobile clinics and outreach services to improve access to care.

Continue with investment in IT and clinical information systems to ensure they are efficient, user-friendly, and support a multidisciplinary team-based approach to care. Explore the use of handheld devices to access clinical information systems to support the delivery of health care in the community.

Ensure an ongoing application of a CQI focus on clinical care and system refinement, review the focus and approach to CQI within Maari Ma and fine-tune implementation of CQI programs that focus on identified priority areas for improvement. Also enhance the systematic use of CQI data for clinical governance to ensure a focus on strategic priorities and the effective engagement of all staff who need to be engaged in improvement efforts. Reassess the relative importance of the indicators identified in the framework, the availability of relevant data, and consider if and how the data should be enhanced to enable effective use for ongoing monitoring or future evaluation purposes.

2. Healthy Start program – Achievements and priorities

Key achievements

Establishment of specific child and maternal health programs with a multidisciplinary team-based approach to care: Strong evidence links *in-utero* health, early childhood development and wellbeing to health status in later life. With this in mind the Board of Directors saw the need to invest in a whole-of-life approach to care. This has seen the establishment of well-designed, well-resourced child and maternal health programs. The reorientation of the PHC workforce towards an integrated multidisciplinary team that includes GPs, primary care workers, nurses, midwives, specialists and allied health programs has been a major achievement – a whole-of-life approach to improving health services and outcomes for Aboriginal people.

Development and implementation of community-based programs to address the social determinants of health, and maintaining a population health focus: Programs have been established to address the broader social determinants of health – issues such as early childhood development, social supports, nutrition and lifestyle factors – for the Maari Ma community. The Board also determined to implement a population-health approach to child health, with a particular focus on prevention.

Improved attendance for antenatal and postnatal care: There has been an improving trend in the number of women attending for antenatal and postnatal care, as the Strategy enabled the development of a model of care that facilitated prompt and regular access to the service. Access has been substantially improved through the use of community outreach models, of AHWs to support the program and also of community education about the need to access care during pregnancy.

Increasing adherence to best practice guidelines in the delivery of maternal and child health care: Delivery of overall care for maternal and child health, in accordance with best practice guidelines, shows a clear increasing trend over time.

Priorities for further work

Maintain efforts in prevention and in the first five years of life, noting the high prevalence of risk factors for poor child health outcomes: The continued high prevalence of major risk factors for chronic disease – including cigarette use, high-risk alcohol consumption, and being overweight/obese – highlights the need to strengthen the implementation of evidence-based approaches to support self-care and population-based health promotion and prevention programs.

Continue the focus on pregnancy and supporting mothers to keep well, thereby preventing low birthweight, noting the current high rates of smoking and alcohol use in pregnancy: The high prevalence of low birthweight infants and the widespread use of cigarettes and alcohol during pregnancy make this a vital area for ongoing work.

Further development of the youth health program: An important addition to the Strategy is the development of the youth health program that is encouraging young people to access the health service for annual check-ups. Explore funding options to expand this to include further youth health activities.

Continue with a population-health approach and address the social determinants of health through partnerships and community-based programs, leadership by community champions and more explicit attention to a comprehensive primary health care approach.

3. Keeping Well program – Achievements and priorities

Key achievements

Development of a proactive, intensive case-management, team-based approach for chronic disease care, including a Cycle of Care for health checks and management plans: Maari Ma has successfully developed a multidisciplinary model of care with a whole-of-life approach and a central role for GPs in chronic disease management. It has also been successful in employing Aboriginal staff in a range of roles across the organisation, while recognising and valuing the contributions of both Aboriginal and non-Aboriginal staff. Maari Ma has developed strong links with the community, through outreach and community-based programs and activities.

Improved access to PHC services including GPs, specialists, allied health and specialist services: There has been considerable improvement in access to primary health care and specialist services as a result of Maari Ma's comprehensive multidisciplinary team-based approach to care and excellent community engagement. It is clear that the Strategy has contributed to improving access to PHC through: an increasing trend in attendance for annual adult health checks; high levels of attendance for preventive care; and improved access to both maternal care and specialist care.

Development of primary mental health care teams who support chronic care programs: Maari Ma recognised the need to incorporate mental health support with chronic care programs as a referral point from health assessments, and has been able to integrate this into its model of care and successfully integrate the team.

Establishment of dental health care programs: The close link between poor oral health and chronic disease has motivated Maari Ma to include oral health in its prevention, early detection and care regimes. The dental service has expanded from being a children's only service to include a service for adults.

Improved prevention through encouraging health checks and ensuring follow-up of abnormal results: There has been a substantial increase in the delivery of preventive health checks coupled with an increase in follow-up of abnormal findings stemming from these health checks. Maari Ma has implemented effective systems to enable this high level of follow-up care, which includes recall and reminder systems, staff training, highly organised patient records, supporting patients to attend the service and removal of cost barriers.

Excellent HbA1c control for patients with diabetes: There have been clear improvements in HbA1c control for patients with diabetes, which is now better than the national average.

Improvement in blood pressure and cholesterol control for clients with diabetes and/or coronary heart disease: There have been clear improvements in blood pressure and cholesterol control for clients with diabetes and/or CHD, better than the national average.

Priorities for further work

How to apply evidence-based care to Aboriginal populations without overburdening them: The effective organisation and enthusiasm of Maari Ma health care teams may at times be experienced by clients as being overly demanding and burdensome. This risk could be mitigated by improved coordination of appointments for different aspects of care for individual clients, and for individual clients and their family members. If clients experienced less frequent demands on their time, this may in turn encourage them to attend their scheduled appointments.

Documentation of care in client records, particularly for diabetes, to assist with continuity and coordination of team-based care: There are some aspects of recognised best practice clinical care, notably chronic illness care, that are not as well recorded in patient notes as they should be. Improved recording of key aspects of care may assist with coordination and continuity. Identifying and working with staff at those health centres where priority aspects of care are recorded at relatively low levels may provide a useful focus for improvement efforts.

Programs to address social and emotional wellbeing, use of alcohol and other drugs, and obesity: It may be useful to consider how activities relevant to SEWB can be strengthened across the range of clinical, social, outreach and community-based programs. The importance of health care providers being well equipped to assist Aboriginal people to engage in health-promoting behaviours and to participate actively in managing their health is a significant area for ongoing work. The high prevalence of all major risk factors for chronic disease highlights that further development of systems and skills to enhance the delivery of brief interventions, self-management support, and SEWB screening and care are important for staff development.

Further development of a regular dental service: Although there have been significant improvements in access to dental care for Aboriginal people, there is a need for further development of this service.

Continued efforts to improve access for 'hard-to-reach' groups: The importance of continued efforts to engage hard-to-reach groups is well recognised by Maari Ma staff, and should be an ongoing focus of work.

4. Priorities for further research and evaluation

Maari Ma is noted for having a culture that is open and receptive both to research and evaluation, and of using data to inform service planning. As such, Menzies asked interviewees for their perspectives on identifying the research and evaluation priorities for Maari Ma over the next five years. There were many different responses.

A number of interviewees suggested that it might be useful for Maari Ma to have a process that enabled staff to develop research and evaluation ideas or questions, ideally with a link to the Strategy, along with a process to prioritise these through collaborative mechanisms. Maari Ma could then reach out to academic or other organisations to assist in addressing these through partnership arrangements.

Interviewees commonly identified the need for research and/or evaluation of current programs to assess if they are making a difference. Evaluations can contribute to, and even drive programs, when they have been designed in conjunction with the program being delivered. The process of clarifying and articulating the processes by which programs are expected to achieve their objectives can strengthen program design and implementation. Another suggestion was to identify successful programs that have been implemented elsewhere, and assess whether these would be effective in the Maari Ma context.

An improved understanding of local Aboriginal people's perspectives and priorities for health care may be an important focus for further research. While this evaluation has analysed multiple data sources, this has not included direct patient and community experience data. 'Activation' of people and engagement of the wider community are essential to achieving improved health outcomes, and a good understanding of people's perspectives and priorities for health care is essential to achieving improved health outcomes.

The Chronic Disease Strategy came about because of Maari Ma's vision of improving the health of Aboriginal people in their region. The Strategy's implementation has required the harnessing of effort by Maari Ma's leadership and staff across numerous areas of work and multiple locations. It is a great credit to Maari Ma's leadership that they have commissioned an evaluation of the Strategy for the purpose of gaining an understanding of progress to date and guiding ongoing efforts to improve health outcomes for the Aboriginal people of far west NSW.