Maari Ma Chronic Disease Strategy

Maari Ma Health Aboriginal Corporation

Acknowledgements:

The Maari Ma Chronic Disease Strategy draws heavily on the work by the Northern Territory Department of Health and Community Services (*Preventable Chronic Diseases Strategy (1999)*), Queensland Health (*Chronic Disease Strategy, Enhanced Model of Primary Health Care*) and the National Public Health Partnership (*National Chronic Disease Prevention Framework (2001))*. As such Maari Ma Aboriginal Health Corporation acknowledges that much of the material presented in this strategy is not original work but information procured from the available documentation about these integrated approaches to chronic disease prevention and control. In addition the strategy has been informed by NSW Health's draft *NSW Aboriginal Chronic Disease Service Framework (2003).*

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Maari Ma Chronic Disease Strategy: “While prevention is better than cure, control is better than complication”

What is a chronic disease?

Chronic diseases are simply defined as 'illnesses that are prolonged, do not resolve spontaneously, and are rarely cured completely'. They share a number of common underlying risk factors, most notably social determinants, poor nutrition, inadequate environmental health conditions, physical inactivity, alcohol misuse and tobacco smoking.

How is it different?

Most health systems have been developed to respond to acute rather than chronic illnesses. In acute illness, professionals knowledgeable about the disease can offer an accurate prognosis and cure is likely. In contrast, uncertainty pervades chronic illness management, as the onset is often gradual (indeed the patient may be asymptomatic at time of diagnosis), the possible causes are multiple with many far in the past, and the duration is lifelong. Prognosis is uncertain, and cure unlikely. Though professionals hold expert information about possible causes and treatments, only the patients can provide a story of how the disease has affected their life over time. Patients with chronic disease are not just partners in health care, but their own principal care givers and experts in their own illness.

What does it mean for future practice?

The challenge of creating sustainable systems that support patients or potential clients regularly over long periods of time is enormous.

Health services will need to provide more help to people with chronic diseases, so they don't become sicker *(best practice management)*, identify health problems early *(early detection)*, and implement programs to prevent health problems occurring in the first place *(prevention)*.

Effective chronic disease prevention and control will require:

- long term relationships between patients and their health professionals and the health system;
- the organisation of services around the needs of patients, not the needs of the provider, a particular program or the health system;
- a move beyond the static model of adult lifestyle risk to one based on a lifecourse perspective, in particular early life factors;
- an integrated system of care across the disease continuum, involving multidisciplinary teams;
- a multifaceted response, involving action outside as well as within the health system;
- good communication with patients and families.

For the purposes of the strategy what have we defined as Chronic Disease?

The strategy has been developed to collectively address a manageable number of chronic diseases, and includes:

- *type 2 diabetes;*
- *hypertension;*
- *ischaemic heart disease and stroke;*
- *renal disease; and*
- *chronic airways disease*

In tackling these diseases the strategy has adopted the *"chronic disease cluster"* approach described in the National Public Health Partnership's framework but adapted it to local needs and local implementation.

The national framework grouped together a number of preventable conditions and their common modifiable risk factors. Many of the diseases are associated with what has been called the "metabolic syndrome". Further, the framework highlighted the fact that the risk of chronic disease in adulthood is associated with risk exposures across the lifecourse and thus underlined 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.

The local cluster of preventable chronic diseases, risk factors and determinants is set out in the following figure.

Figure 1: Strategy's cluster of preventable chronic disease, risk factors and determinants

Risk and Protective Factors	Biological Risk Markers	Chronic Diseases
Behavioural Factors ▪ Diet ▪ Physical activity ▪ Smoking ▪ Alcohol misuse *Psychosocial Factors* ▪ "Sense of control" ▪ Social support ▪ Resilience and emotional well-being ▪ Health literacy *Early Life Factors* ▪ Maternal health ▪ Low birthweight ▪ Childhood infections ▪ Abuse and neglect	▪ Obesity ▪ Hypertension ▪ Dyslipidaemia ▪ Impaired Glucose Tolerance ▪ Proteinuria	▪ Type 2 Diabetes ▪ Ischaemic Heart Disease ▪ Stroke ▪ Renal Disease ▪ Chronic Airways Disease

Non-modifiable factors: Age, sex, ethnicity, genetic make-up, family history
Socio-environmental determinants: Socio-economic status, geographic location, community characteristics (eg presence/absence of social capital), environmental health, job stress

The strategy's cluster does not include all chronic diseases and conditions, nor all possible risk factors, for instance cancer, depression and oral health. The pragmatic intention of the strategy in the first instance is to improve coordination around a manageable number of related conditions that strikes a balance between a single issue approach and trying to do everything. If clustering population health activity around these core conditions and risk factors proves successful, other conditions and risk factors may be added to the cluster in the future.

What is the burden of these chronic diseases in the Far West?

The burden of these chronic diseases constitutes a growing public health problem for the whole population in far western NSW, with approximately 1 in 3 deaths and 1 in 23 hospital separations related to diabetes and cardiovascular disease. Further, while the cardiovascular disease mortality rates are similar to the rest of the state, the years of potential life lost due to cardiovascular disease are twice that of NSW.

The greatest impact from chronic diseases is seen within the region's Indigenous population. The Far West has higher rates of key vascular health risk factors, for instance, 46% of Aboriginal people over 15 years smoke compared with 25% of all persons over 15 years in NSW. Regional prevalence estimates for diabetes based on recent community based screening programs are high by Australian

standards while hospitalisation rates for diabetes and cardiovascular disease are three- to four-fold higher than those for NSW. Additionally, hospitalisation profiles show that diabetes and cardiovascular disease admissions peak about 15-25 years earlier in the Aboriginal population, that is, at 45-50 years compared with 65-70 years in the non-Aboriginal population.

What is involved in the Chronic Disease Strategy?

The Maari Ma Chronic Disease Strategy draws on current best practice in Australia.

As previously mentioned the listed chronic disorders can be grouped together from a public health perspective as they have *common risk factors and strong clinical associations.* The origins of these diseases are set *in utero and early childhood* (most notably through low birth weight, growth retardation, and repeated childhood infections) and are worsened by lifestyle changes (weight gain, lack of physical activity and substance abuse). The 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. Lifestyle choices are often more reflective of unrelenting socio-environmental constraints rather than personal preferences. Therefore an *integrated, intersectoral and whole-of-life* approach is needed.

This group of chronic diseases affects the entire population, as unhealthy lifestyles are an Australia-wide problem, but Aboriginal and Torres Strait Islanders are particularly affected, and are more likely to have multiple chronic diseases. The strategy outlined here is *relevant to the whole population*, indigenous and non-indigenous, urban and rural since the whole of society is affected by lifestyle change. The cost of not intervening early is too great - an inexorable rise in deaths, hospitalisations, disease complications and financial costs incurred in relation to events such as renal dialysis.

The strategy sees the diseases and their underlying factors as *preventable*, but interventions are needed well before complications appear. Indeed, most hospitalisations represent a failure of community based management. Health care for people with chronic diseases is a mix of patient- and provider-initiated steps that need to be maintained over the patient's lifetime. The challenge is to create *systems that support self care*, *link community health services with hospital services and link medical care with a public health approach.*

In developing the strategy, Maari Ma Health Aboriginal Corporation recognises the need to redirect attention towards the high priority area of chronic diseases and to continuously review progress towards the set actions of the Chronic Disease Strategy. More rapid and substantial progress will, however, be dependent on the commitment of local service providers to the strategy, and on more equitable Commonwealth and State funding for primary level health services and funding for services in the remote communities of far western NSW. The structural challenges to taking such an integrated approach on a regional, as opposed to a local, level are undoubtedly larger, but the benefits are potentially great.

How is it different to what we're doing now?

Chronic diseases are often asymptomatic for long periods and therefore 'hidden'. They constitute a risk to length and quality of life, but how important that risk is to an individual will depend on the other risks, priorities and values in that person's life. Because they are *chronic, complex and challenging* at both an individual and population level, the control of chronic diseases constitutes the ultimate challenge for the 'new public health' approach

The strategy proposes an unremitting commitment to *integration* - an integrated theoretical framework that encompasses social and medical determinants of health; an integration of client, clinical (individual-level) and public health (population-level) perspectives; an integrated approach to the underlying risk factors for chronic disease; integration at the level of guideline development, care plans and standards of care for both individuals and their families; and an integrated approach across the continuum of need from health to illness, and across the continuum of care between community and hospital services, and between health and other government sectors.

Furthermore, the strategy reflects the ongoing commitment by Maari Ma Health Aboriginal Corporation *to work in partnership with the community and other agencies* to encourage healthy living, to create health-promoting environments and to increase the capacity of communities to control their own health services.

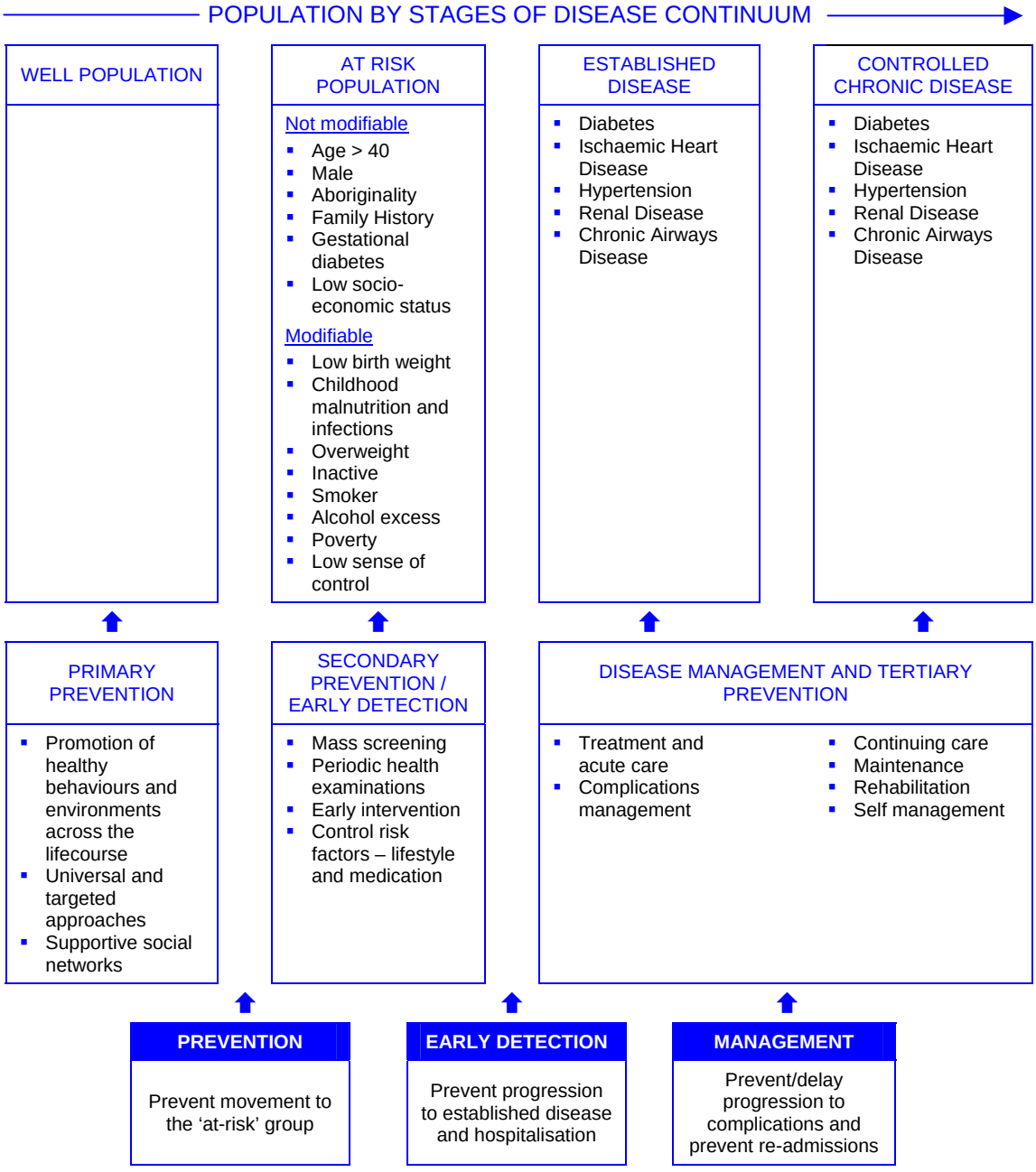
Implementation of this strategy will lead to a delay in onset and a reduced number of adverse health outcomes in the short to medium term, as well as a reduction in long-term financial costs, but the full impact of all the interventions will not be felt for some years. So this is a *staged long-term strategy* to overcome problems that themselves have arisen over many years.

What are the key components of the strategy?

Following the lead of the Northern Territory and Queensland the Maari Ma Chronic Disease Strategy has adopted a framework with three key components – *prevention, early detection and management*.

The following figure illustrates the strategy's comprehensive approach to chronic disease control across the continuum of care, and the key roles of prevention, early detection and management within this framework. The diagram is an amalgamation of the conceptual models described in the Northern Territory Department of Health and Community Services' strategy and the National Public Health Partnership's framework.

Figure 2: Comprehensive model of chronic disease prevention and control



What are the principal interventions in the Chronic Disease Strategy?

A great deal of evidence already exists to guide action in a remote region like far western NSW. A comprehensive review of the *evidence base* was undertaken by the Northern Territory Department of Health and Community Services for the purpose of informing their strategy development and implementation, leading to a set of what they termed key result areas (an area where there is strong evidence to support action but as yet insufficient evidence to define the precise program/intervention) and best buys (a discrete program/intervention that can be identified and implemented). This evidence base is summarised in the following table.

Figure 3: Evidence based interventions to control chronic disease across the lifecourse

Strategy level	Nature of intervention	Key Result Area (KRA)/Best Buy (BB)
Prevention	*Maternal health*	▪ Improving infant birthweight (KRA)
	Promotion of child health	▪ Breastfeeding (BB) ▪ Promoting childhood nutrition (BB/KRA) ▪ Decreasing childhood infections through better environmental health conditions (KRA) ▪ Childhood immunisation (BB)
	Underlying determinants of health	▪ Maternal and childhood education (KRA) ▪ Promote 'sense of control' and mental well-being (KRA)
	Lifestyle modification	▪ Smoking cessation and prevention programs (BB) ▪ Brief intervention for hazardous alcohol use (BB) ▪ Nutrition, weight loss and physical activity programs in high risk populations (BB/KRA)
Early detection	*Early detection and early treatment*	▪ Screening (BB/KRA) ▪ Adult immunisation (BB) ▪ Aggressive blood pressure lowering to prevent progression of renal disease (BB) ▪ Regular monitoring of disease (BB)
Management	*Best practice management*	▪ Prevention of complications of diabetes (BB/KRA) ▪ Aggressive management of heart attacks and known cardiovascular disease (BB) ▪ Rehabilitation and outreach programs (cardiac, respiratory, renal) (BB) ▪ Support, education and advice re risk factors (nutrition, tobacco, physical activity) (BB/KRA)

In the Far West many key activities are already underway, and some already have a long history of successful achievement. In some cases it will be necessary to build on or strengthen these initiatives or better integrate the work with the other health providers and in relation to particular settings (eg schools) and population groups. Finally, new initiatives will need to be researched and implemented.

The following table describes a set of interventions that should form the basis for the implementation of the strategy. Not all of the menu can be actioned in full immediately and an agenda will need to be set and a work plan developed to be rolled out over time.

Figure 4: List of recommended interventions to be implemented as part of the Chronic Disease Strategy

Strategy component	Nature of intervention
Prevention	▪ Smoking cessation and prevention programs ▪ Physical activity, weight loss and nutrition programs in high risk populations ▪ Healthy young mothers and babies programs ▪ Housing and environmental health programs ▪ Brief interventions for lifestyle risk factors ▪ Patient registers, recall systems and standardised antenatal checks ▪ Population lists, recall systems and standardised child health checks
Early detection	▪ Population lists, recall systems and standardised annual adult health checks for chronic diseases and underlying risk factors
Management	▪ Disease registers, recall systems and standard management guidelines for diabetes, hypertension, dyslipidaemia, ischaemic heart disease and renal disease

What organisational supports are needed for the Chronic Disease Strategy?

The literature on how to best *organise care* for chronic disease is less extensive but relatively consistent. The following table summarises the key features required to successfully implement an integrated approach to chronic disease prevention and control. Once again strategies to address each of these elements will not be introduced overnight, and the list will need to be prioritised and worked on over time.

Figure 5: Key organisational features required to support successful implementation of the Chronic Disease Strategy

Key features of successful chronic disease programs	Effective strategies or interventions
Health service support	▪ Supportive information systems ▪ Workforce leadership and management ▪ Staff orientation and training ▪ Data collection and feedback ▪ Dedicated time and adequate resources ▪ Effective planning and monitoring/evaluation
Reorganisation of practice systems and provider roles	▪ Population lists ▪ Disease registers ▪ Recall systems ▪ Standard management protocols
Integrated local action	▪ Involve local communities and opinion leaders ▪ Ensure cooperative working relationships between all health service providers in the region ▪ Establish links with academic institutions to support monitoring/evaluation efforts ▪ Build partnerships with other sectors such as local government and education ▪ Engage non-government health organisations like Diabetes Australia and National Heart Foundation
Access to specialist expertise	
Improved health promotion and education	▪ Increased health literacy in the community ▪ Supporting self and family care

DRIVERS

The poor chronic disease profile of the Maari Ma region population

→ Hospitalisation rates for diabetes and cardiovascular disease in Aboriginal people living in western NSW are three to four times higher than NSW rates.

→ Approximately 1 in 3 deaths and 1 in 23 hospital separations of western NSW residents is related to diabetes and cardiovascular disease.

The directives of Maari Ma Peak Health Council

❖ Key Result Area 1: Improved health outcomes

❖ Key Result Area 2: Community capacity building

STRATEGY

	Healthy Start	Keeping Well
Prevention	▪ Healthy mothers and babies program ▪ Immunisation ▪ Oral health promotion ▪ School based programs	▪ Smoking cessation and prevention programs ▪ Physical activity, weight loss and nutrition programs ▪ Brief interventions for lifestyle risk factors
Early detection	▪ Population list, recall system and standardised antenatal check and follow-up ▪ Population list, recall system and standardised child health check and follow-up	▪ Population list, recall system and standardised annual adult health check and follow-up
Care	▪ Medical Practitioner clinics ▪ Oral health clinics	▪ Disease register, recall system and standardised vascular health management protocol ▪ Self management program ▪ Non-government organisation sponsored community support groups ▪ Complication screening services ▪ Medical Practitioner clinics

Health service support

- Business planning
- Supportive information systems (FERRET, standardised medical record forms)
- Staff orientation and training
- Data collection, reporting and feedback (ABCD, SDRF, community reports)

OUTCOMES

3 year targets

✓ 50% reduction in hospitalisation rates for Aboriginal people with diabetes and cardiovascular disease

✓ 75% of Aboriginal people aged 15 years and over will have an Annual Adult Health Check

✓ 75% of Aboriginal people aged less than 15 years will have an Annual Child Health plan completed

✓ 80% of Aboriginal people with Vascular illness will have a standardised Vascular Health management plan completed

✓ 90% of Aboriginal mothers will have a standardised Antenatal Plan completed

✓ 30% of Aboriginal people completing the QUIT program maintain a 'non-smoking' status after 12 months

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