NORTHERN TERRITORY
Aboriginal Health Forum

A child health and early childhood
core services model for the Northern Territory
developed from the two-day cross-sector workshop:

What Are the Key Core Services Needed to Improve Aboriginal Childhood Outcomes in the NT?

Progress and Possibilities

April 2016

Northern Territory Government

Australian Government
Department of Health

AMSANT

phn
NORTHERN TERRITORY
An Australian Government Initiative

Prepared by Victoria Pollifrone and staff of Aboriginal Medical Services Alliance Northern Territory (AMSANT)

Contents

Acronyms

ACCHS	Aboriginal community controlled health service
AEDC	Australian Early Development Census
AMSANT	Aboriginal Medical Services Alliance Northern Territory
ANFPP	Australian Nurse Family Partnership Program
AOD	Alcohol and other drugs
CAAC	Central Australian Aboriginal Congress
CQI	Continuous quality improvement
ENT	Ear, nose and throat
FAFT	Families as First Teachers
IFSS	Intensive Family Support Service
NAPLAN	National Assessment Program – Literacy and Numeracy
NTAHF	Northern Territory Aboriginal Health Forum
PHC	Primary health care
SEWB	Social and emotional wellbeing
TFSS	Targeted Family Support Service

Note on terminology

Within this document, the term 'Aboriginal' is predominantly used to refer to Aboriginal and Torres Strait Islander persons in the Northern Territory. It is recognised that Aboriginal identity and culture is not homogenous. It is acknowledged that within Aboriginal communities there is great diversity in language and values just as in any other communities.

Executive Summary

Extensive research over many years has provided evidence that the early years of life are fundamental to both the physical and emotional health of children, for their social and cognitive development, and for later educational achievement and life chances. Adverse childhood events have been causally linked to poorer long-term outcomes.

Children are cherished in Aboriginal cultures and nurtured within broad family networks. However, a history of dispossession and ongoing policies stemming from that history have resulted in many Aboriginal children in the Northern Territory growing up in disadvantaged communities with much poorer health, education levels and social and emotional wellbeing (SEWB) compared to the non-Aboriginal population. Evidence shows that early intervention, and specifically intervention in early childhood, can improve long-term outcomes across a range of areas including education, employment, health and wellbeing.

The Northern Territory Aboriginal Health Forum's document *Core functions of primary health care: A framework for the Northern Territory* (NTAHF 2011) outlined the core services required in Aboriginal primary health care. It included services required for antenatal care and a short section on early childhood. This section has been expanded and presented here as a set of early childhood core services.

The two-day workshop *What Are the Core Services Needed to Improve Aboriginal Childhood Outcomes in the NT? Progress and Possibilities*, held in Darwin in June 2015, brought together delegates with local expertise in early childhood development to collectively identify and agree upon key core services. The group was asked to review services in three categories: universal (available to all families), targeted (available to higher risk groups within the population, e.g. younger parents) and indicated (for children/families with specific needs, e.g. cerebral palsy or children in the child protection system). A strong, culturally appropriate universal system based on health and wellness promotion, prevention and early intervention for Northern Territory Aboriginal children aged 0-5, and their families, is the foundation of the system.

Key policy considerations in implementing this model include:

- The system now provides fractured and often ineffective service delivery to children and their families and this must change if we are to close the gap. Sector reform is required to better integrate child health, education and other early childhood services.
- Only evidence-based programs or those working to build evidence should be funded and evaluation must be an integral component of early childhood funding and programs.
- Programs and services must be culturally appropriate, consultative and inclusive of the community at all stages, including co-design and Aboriginal leadership where possible. Programs should be family centred and male inclusive.
- Early childhood and family support programs should be trauma informed given the high levels of historical and current trauma in Aboriginal families and the growing evidence base about the benefits of trauma informed approaches.
- Programs need to be of sufficient duration and intensity to have an optimal effect, and start early.
- Competitive funding processes should be reviewed as they are driving a fragmented and inequitable service system that lacks real engagement with Aboriginal communities.
- Needs-based equitable resource allocation should be a core funding principle and the Aboriginal primary health care sector must be adequately resourced to meet increasing need.

- A localised approach to building the Aboriginal workforce and providing well-trained staff is a priority.
- Inter-sectoral cooperation and coordination is required for optimal outcomes, particularly between education and health sectors.

A universal platform for early childhood services should be adopted across the following areas:

- quality antenatal and postnatal care within Aboriginal primary health care;
- clinical and public health services for children and families, including childhood surveillance, sick care, ear and dental programs, and case management for children with significant physical illness;
- a nurse home visiting program offered either universally or to all first time mothers: the program with the soundest evidence base, which is already being rolled out in the Northern Territory in Alice Springs and two remote communities, is the Australian Nurse Family Partnership Program – based on the Olds Model – that works with the mother and family from pregnancy until the child is two;
- parenting programs after completion of the nurse home visiting program, for families who are assessed as requiring parental support (such as the Let's Start and Let's Start Early programs);
- intensive, evidence-based, quality child development programs that improve educational outcomes: the Abecedarian program is an enriched educational program that has a strong evidence base for long-term educational outcomes, with some early implementation experience in the NT;
- two years of preschool from age three to five, with increased hours for those in targeted groups at higher risk of poor educational outcomes;
- indicated services for vulnerable children and families including targeted (community-based referrals) or intensive (for those already in the child protection system) family support; and
- supportive policies in the areas of social determinants.

The key services in these areas are outlined in the following matrix.

The challenge now is to use this knowledge proactively and apply it to achieve the best possible outcomes for all Aboriginal children in the Northern Territory.

Summary of core services

The workshop reviewed core services across the prenatal period and ages 0-2 and 3-5. Services were also reviewed as to whether they are universal, targeted or indicated and whether they affect the child's physical, cognitive and SEWB domains. Many services influence two or three domains (e.g. nurse home visitation influences all three domains).

Not all of the services listed below need to be provided as separate services. For example, midwives provide antenatal and postnatal care as well as antenatal education and classes. In addition, some programs may incorporate a range of services – for instance, playgroups may not be needed if an enriched Abecedarian program is implemented in a community; and targeted family support programs might provide one-on-one parenting support to parents with an intellectual disability or teen parents. However, where broader programs are not in place, specific services may be required to provide this additional support. These services are included in the more detailed list in Section 2 of this report.

	Prenatal	0-2	3-5	Universal	Targeted	Specialist	Physical	Cognitive	SEWB
Pre-pregnancy care									
School and community based sexual health education				✓					
Contraception & termination services: education & access				✓					
Adult health checks (men and women)				✓					
Public health education (including young women/men programs)				✓					
Youth services and activities				✓					
Quality antenatal and postnatal care									
Antenatal and postnatal care (aiming for first visit in first trimester)	✓			✓			✓	✓	✓
Access to traditional midwives	✓			✓			✓		
Antenatal and postnatal education/classes	✓			✓			✓	✓	✓
(Trial) birthing in remote communities	✓				✓		✓		✓
Case management for pregnant women with chronic disease	✓				✓		✓	✓	
SEWB/AOD support	✓	✓	✓			✓	✓	✓	✓
Smoking cessation support	✓	✓	✓			✓	✓	✓	✓
Home nurse visiting									
Nurse home visitation	✓	✓		✓			✓	✓	✓
Clinical child health care									
Child health surveillance		✓	✓	✓			✓	✓	✓
Child health checks to the age of 15		✓	✓	✓			✓	✓	✓
Primary ear programs		✓	✓	✓			✓	✓	✓
Oral health surveillance/treatment			✓	✓			✓		
Vaccination programs	✓	✓	✓	✓			✓		
Health promotion/prevention as part of PHC	✓	✓	✓	✓			✓	✓	✓
Sick care		✓	✓	✓			✓		
Case management for chronic conditions within PHC		✓	✓			✓	✓	✓	✓
Paediatric services including outreach		✓	✓			✓	✓	✓	✓
Child mental health services		✓	✓			✓			✓

Audiology & ENT services		✓	✓			✓	✓	✓	
Dental services			✓			✓			
Quality early learning									
Enriched learning support; or playgroups & preschool readiness if not available		✓	✓	✓			✓	✓	✓
Preschool (2 year program)			✓	✓				✓	✓
Therapeutic childcare for traumatised children		✓				✓		✓	✓
Parenting programs									
[Nurse home visitation]	✓	✓		✓			✓	✓	✓
Parental networks/ support groups, e.g. mums groups	✓	✓	✓	✓	✓	✓	✓	✓	✓
Therapeutically oriented group parenting programs			✓		✓		✓	✓	✓
Nutrition									
Public health nutrition programs	✓	✓	✓	✓			✓	✓	✓
Monitoring and support for at-risk children		✓	✓		✓		✓	✓	✓
Failure to thrive/anaemia programs		✓	✓			✓	✓	✓	✓
Obesity programs			✓			✓	✓		✓
Supporting vulnerable families									
Screening (maternal SEWB, DV, child behavioural issues)	✓	✓	✓	✓			✓	✓	✓
Community education re. effects of stress & trauma	✓	✓	✓	✓			✓	✓	✓
Targeted family support for families struggling with complex circumstances (not in child protection system)	✓	✓	✓			✓	✓	✓	✓
Intensive family support services for children in the child protection system		✓	✓			✓	✓	✓	✓
Services (counselling/family support) for children with behavioural problems or signs of trauma		✓	✓			✓	✓	✓	✓
AOD/SEWB services for parents	✓	✓	✓			✓	✓	✓	✓
Family violence & anger management programs	✓	✓	✓			✓	✓	✓	✓
Effective child protection services		✓	✓			✓	✓	✓	✓
Effective DV services; safe houses	✓	✓	✓			✓	✓	✓	✓
Supporting children with physical problems & developmental delay									
Public health approach to reduce impact of infectious diseases	✓	✓	✓	✓			✓	✓	
[Paediatric services including outreach]		✓	✓			✓	✓	✓	✓
Early intervention programs for children with conditions affecting physical, social and cognitive development		✓	✓			✓	✓	✓	✓
Case management/family support for children with significant physical illnesses		✓	✓			✓	✓		
Hub supports such as PATS	✓	✓	✓			✓			✓
Public health policy & social determinants									
Public health measures (AOD, smoking, violence, nutrition)				✓	✓	✓	✓	✓	✓
Secure housing, including access to emergency accommodation				✓	✓	✓	✓	✓	✓
Programs to combat racism				✓			✓	✓	✓
Investment in the education system				✓			✓	✓	✓
Programs that strengthen culture				✓			✓	✓	✓
Environmental health				✓	✓	✓	✓	✓	✓
Education and literacy for adults				✓	✓	✓		✓	✓

Section One: Background

1.1 Introduction

> *All that is valuable in human society depends upon the opportunity for development accorded to the individual child.*
>
> Albert Einstein

The first few years of life, from conception to pre-school age, are essential in establishing the path that a child will follow towards adult health and wellbeing. This is outlined in the National Early Childhood Development Strategy, *Investing in the Early Years* (COAG 2009a).

There is now very strong evidence that adult health is greatly influenced by childhood development across the physical, cognitive, social and emotional domains (Silburn et al. 2011). The early childhood environment includes both protective and adverse factors. In Northern Territory Aboriginal communities, protective factors for children include attachment to culture and being nurtured within broad family networks. Adverse events may include imprisonment of a parent, family or community violence, parental substance misuse, poverty and neglect.

The Adverse Childhood Experiences (ACE) Study showed stress and trauma in childhood to be causally linked to adult problems such as depression, suicide attempts and suicide, substance abuse, poorer employment outcomes, chronic disease risk and obesity (Felitti et al. 1998, in Emerson et al. 2015). Child abuse and neglect were found to impair early brain development and metabolic and immune system function, leading to chronic health problems. The science of epigenetics draws together environment and genetic factors to provide a biological pathway for the transmission of intergenerational disadvantage and trauma but early intervention can break this cycle (Harvard University Center on the Developing Child 2016a).

Social determinants – including nutrition, housing quality, and community- or family-related factors such as safety – are strongly linked to child health. Children from disadvantaged backgrounds often face multiple physical, psychological and emotional hardships. The combined effects of these hardships can take a heavy toll on children's health, leading to high levels of toxic stress and suboptimal development. Aboriginal children in the Northern Territory have a greater chance of exposure to the cumulative impacts of multiple stressors than do non-Aboriginal children.

Evidence from longitudinal studies proves that it is possible to intervene in early childhood and interrupt the vicious cycle that would otherwise lead from social disadvantage to health disadvantage, which in turn leads to more social disadvantage. Knowledge accumulated over the past 40 years supports the conclusion that children whose mothers received high quality antenatal and postnatal care, who then go on to participate in high-quality early childhood programs including preschool, experience a range of immediate and longer term health, social and educational benefits (Braveman et al. 2014). Cost analysis shows investing in early childhood offers the best return on dollars spent for disadvantaged people, with high quality programs producing a 6-10% per annum return on investment – substantially higher than later education, employment and policing interventions (Heckman 2006).

The Board of Inquiry into the Child Protection System in the Northern Territory emphasised early intervention and support for vulnerable children and families (Northern Territory Government 2010a). It called for a public health approach, recommending a model that diverts families out of the child protection system by providing appropriate support through a significant and sustained investment in

family support services – both at the universal level, including parenting education, and particularly targeted services for vulnerable families.

The adoption of an effective population approach to improving early childhood development outcomes and a commitment to inter-sectoral planning and collaboration in program development and implementation is the key to improving outcomes for all children, particularly the most vulnerable (Silburn et al. 2011). Services in the Northern Territory are currently disconnected, overlapping and often ineffective. At the end of 2010, more than 1,000 programs and services for children under 15 years of age were identified across the Northern Territory. They were characterised by multiple funding sources, a lack of overall coherence and a lack of rigorous evaluation (NT Early Childhood Coalition 2013). If the Closing the Gap targets in education, employment, health and wellbeing are to be met then there must be substantial and immediate progress made to develop a more coherent and strategic approach to early childhood development through coordinated preventative strategies.

This report presents such an approach, based on the outcomes of the two-day *Progress and Possibilities* workshop held in Darwin in 2015. It provides a framework to underpin strategic investment in proven, integrated core services. The model includes three tiers of services – universal, targeted and indicated – to meet children's needs from before birth to school age. These services need to be responsive to, and driven by, the community at a local level.

1.2 Context

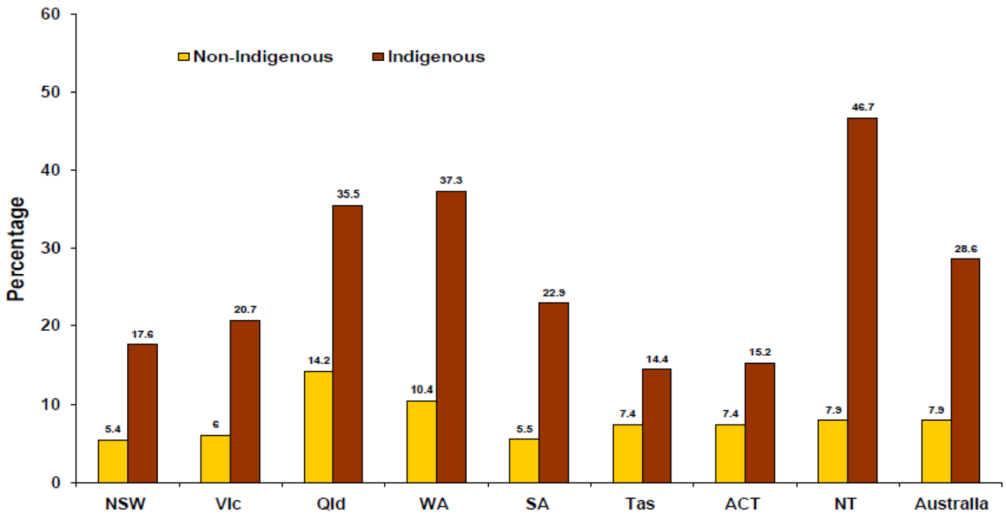
a) Disadvantage in Northern Territory Aboriginal populations

Colonisation, dispossession and displacement from traditional lands, loss of culture, the separation of families through past government policies, high levels of incarceration, and ongoing discrimination and racism have all contributed to continuing disadvantage, poor health and poor social outcomes for many Aboriginal people. Aboriginal culture is resilient, and many Aboriginal parents have the knowledge and skills to provide environments and relationships that nurture their child and promote the child's development and wellbeing. However, too many Aboriginal children in the Northern Territory grow up in disadvantage, with unacceptable rates of poverty, overcrowding, exposure to domestic violence and alcohol abuse, and incarceration of family members.

These inequities are some of the main drivers of the 'gap' between Aboriginal and mainstream Australian society. Aboriginal children in the Northern Territory are much less likely to enjoy a safe and healthy life than others. These children – especially in remote communities – experience poorer health outcomes, including three times the infant mortality rate, 0-4 mortality rate and low birthweight rate compared to non-Aboriginal children (AIHW 2015a), along with very high rates of hospitalisations for infections. They attain much lower Australian Early Development Census (AEDC) and NAPLAN scores than the national average, indicating poor readiness for school and predicting lower educational outcomes.

The AEDC measures early childhood development at school entry across five domains: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, and communication skills and general knowledge. It clearly reveals the extent of the disadvantage for young Aboriginal children. In many remote communities more than 50% of children are vulnerable in two or more domains, with only slight improvement between the 2009 and 2012 results (AEDC 2015).

Fig 1: Percentage of children 'developmentally vulnerable' on AEDI language and cognitive skills by jurisdiction and Indigenous status, 2009*



(1) 'Developmentally vulnerable' This refers to children who scored below the 10th percentile of the national AEDI population on the AEDI Language and Cognitive Skills domain scale

*Note: AEDI renamed AEDC in 2012. Results from 2009 used here, as 2015 report did not include breakdown by Indigenous status and jurisdiction.

(Source: AEDI National Support Centre, in Silburn et al. 2011)

Aboriginal people in the Northern Territory suffer from poorer overall health and lower life expectancy compared to the general population (AIHW 2015a), despite very significant improvements over the last 20 years. The bulk of the gap is due to chronic disease; there are also high rates of substance abuse and mental health problems.

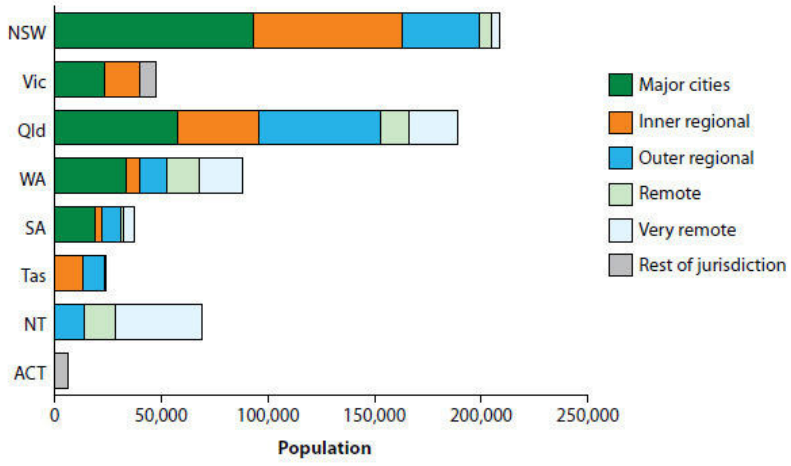
The Aboriginal population of the Northern Territory is also disadvantaged compared to others in terms of education, employment and income. This is a key population factor affecting the capacity of Aboriginal parents to care for their children.

In addition, lack of access to secure housing and high rates of food insecurity are major issues, particularly in remote areas where almost two-thirds of Aboriginal people live in overcrowded housing and food is high cost (with cost relative to Darwin prices increasing), and the majority of food purchases are nutrient poor (AIHW 2015a; Brimblecombe et al. 2013; Department of Health 2014). Of the 20 Territory Growth Towns, nine have been classified by the Australian Bureau of Statistics as having the highest measures of disadvantage in the country (Silburn et al. 2011). Per capita alcohol consumption is the highest in the nation and the rates of harm are particularly high among Aboriginal people.

b) Geography

The majority of the Aboriginal population of the Northern Territory lives in very remote areas making equitable service delivery, particularly for complex and specialist services, more challenging.

Fig 2: Distribution of Aboriginal resident population by remoteness and jurisdiction, 2011



(Source: ABS 2013, in AIHW 2014a)

1.3 Key concepts related to the early childhood core services model

a) Early childhood development

Early childhood development encompasses the physical, emotional and cognitive growth of a child from before birth to starting school. Environments that promote early child health and development include:

- good nutrition to enable physical growth;
- caring, responsive surroundings that protect them from adversity (including neglect and physical, emotional and sexual abuse);
- opportunities to explore their world through play; to learn how to speak and listen to others; and to develop the skills to focus, stay 'on task' and exercise impulse control; and
- connection to culture, with research showing that children from very remote and homelands communities had higher rates of wellbeing (Zubrick et al. 2005)

These environments and their characteristics are the determinants of early childhood development. In turn, early childhood development is a determinant of health, wellbeing and educational outcomes. This makes promoting healthy Aboriginal early childhood development particularly complex in the Northern Territory, as it requires multiple integrated responses to promote positive outcomes in early childhood development while tackling the social determinants of health.

b) Trauma informed approaches

It is well acknowledged that Aboriginal and Torres Strait Islander communities, families and individuals have been affected by trauma since colonisation. Atkinson (2013) asserts that children are continually exposed to more recent traumas and life stressors, alongside historical trauma. Hence, key Indigenous organisations and leaders have a growing interest in trauma-informed care and safe ways of working. The benefits of trauma informed care through skills enhancement and transforming policies and procedures are starting to be demonstrated across a wide range of areas including AOD programs, mental health services, community primary health in high needs areas, child protection and support of vulnerable families and Aboriginal service delivery (Atkinson, 2002; Atkinson, 2013; Bateman &

Henderson, 2013; Browne et al., 2012; Lavoie, 2014). Embedding trauma informed policies and care principles when working with our families and children enables and supports the wellbeing, healing and recovery for families and by extension the communities in which they live

c) Core services model

The Northern Territory Aboriginal Health Forum's 2011 document *Core functions of primary health care: A framework for the Northern Territory* outlines a set of agreed core services that should be available within all Aboriginal primary health care services. Core services are flexible in that they can be adapted to particular contexts and cultural requirements. The document includes services required for antenatal care and a short section on early childhood that has been substantially expanded in this report.

d) Determinants of health

A determinant of health is a factor or characteristic that contributes to health status. These determinants consist of a range of individual, behavioural, social, economic, cultural, physical and environmental factors that interact to influence health. Early childhood development has strong links to other social determinants of health (CSDH 2008).

e) Population approach / Comprehensive primary health care

In this document, 'primary health care' is understood to go beyond treatment of illness and to incorporate health promotion, illness prevention, advocacy, community development and promotion of individual and community self-reliance and participation (NTAHF 2011).

The overall goal of a population and comprehensive primary health care approach to service provision is to maintain and improve the health of the entire population and to reduce inequalities in population groups. A population approach focuses on the whole community and on prevention and early intervention. It emphasises equity, community participation, accessibility of services, and the importance of addressing the determinants of health of both individuals and communities. Inter-sectoral action across other areas of service delivery such as housing and alcohol policy are a central part of population health and comprehensive primary health care. Evaluation and monitoring of outcomes is crucial to a population health approach.

f) Three levels of core services

This document identifies core services that are required at three different levels of service provision: universal, targeted and indicated. These are defined as:

Universal services are available and accessible to the whole population and are accessed by most people. They are designed to promote positive functioning and decrease the likelihood of specific problems or disorders developing. There is no labelling or stigmatisation involved and they may consequently be more effective at reaching vulnerable and disadvantaged children. In this report 'universal' refers to all Northern Territory Aboriginal children and their families.

Targeted services are available to selected groups or individuals known to be at risk of developing a particular health or developmental problem. These services are designed to reduce the likelihood of the problem developing or to intervene early to reduce the impact of the problem. It is critical that screening processes are sound so that problems requiring intervention are identified and addressed.

Indicated services are available to individuals or families who have an established condition or problem, and are designed either to eliminate the condition or problem, or to minimise its negative impact. Some

of these services can be provided wholly or partly within primary health care. For example, child anaemia can be treated within primary health care, whereas autism requires specialist intervention.

g) An integrated service system

The model presented in this report hinges on improving coordination between primary, secondary and tertiary health services. Rigid referral guidelines can result in problems being referred to specialists only when they are already entrenched and consequently more difficult to manage, with poorer outcomes. The service system needs to be flexible and integrated, with specialists providing support and input to primary health care providers, including assisting them to respond to emerging problems. Secondary and tertiary providers should build the capacity and skills of the primary health care sector and in turn, secondary/tertiary providers need to learn about the universal health system. Suitable models that support this style of delivery include specialist outreach into primary health care and co-location of primary, secondary and tertiary providers. This type of integrated model has been recommended in the National Framework for Universal Child and Family Health Services (AHMAC 2011).

1.4 Methodology

The two-day *Progress and Possibilities* workshop was an initiative of the Northern Territory Aboriginal Health Forum's Primary Health Care working group and was sponsored by the Northern Territory Department of Children and Families. Delegates with expert knowledge in an area of early childhood development were invited to take part. Representatives attended from non-government and government agencies within the health, education, welfare, academic and research sectors. Facilitators for both days were Aboriginal child development experts.

The first day was an Aboriginal-only session to set the foundations for the second day and ensure a strong Indigenous voice and perspective. Delegates were Aboriginal professionals working in child and community health and other services, as well as community members. Many referred to their own personal experience as parents, grandparents, aunts and uncles.

On the second day, participants from Day One were joined by non-Aboriginal delegates. Key points and issues agreed on the first day were presented, providing a base for further discussion, and presentations were given by leading experts from the child health and early childhood development sectors. Delegates worked in groups to develop a list of core services across age ranges (in utero, 0-2 and 2-5), domains (physical, cognitive and social) and categories of services (universal, indicated and targeted). This was then workshopped with the whole group to come up with a matrix of core services.

Section Two: Core services model

2.1 Key general policy considerations

Implementation of the model described in this report will require a number of policy shifts in order to be fully effective. Overarching policy issues that are relevant to all program areas are outlined below. Additional policy implications relevant to specific areas are noted throughout this section.

1) A universal, tiered approach to services for children and their families has been identified as an effective way to ensure genuine participation, amelioration of disadvantage and improved developmental, learning and health outcomes for all children. Such an approach will require sector reform to better integrate child and family health, education and other early childhood services and to ensure these areas work together to provide a holistic service model from prenatal through to school age. Close partnerships are especially important where early childhood programs are implemented in different sectors (for example, the Families as First Teachers and Australian Nurse Family Partnership Programs are provided by the education and health sectors respectively).

2) Many early childhood programs provided in Australia are unproven, untested and potentially even harmful, with few evidence-based programs delivered (Emerson et al. 2015). There is often limited evidence available for a program's effectiveness, particularly in an Aboriginal context. This does not necessarily mean the program is not effective, but highlights the importance of undertaking evaluation. It is therefore crucial to fund only those programs that are either evidence based or working to build evidence and to discontinue funding those that are not. All programs should incorporate a continuous quality improvement (CQI) approach into service delivery.

3) Even where there is an evidence base, evaluations of some programs have shown lower levels of engagement and retention and reduced impacts for Aboriginal children compared with non-Aboriginal children (Emerson et al. 2015). To be effective, early childhood programs need to be culturally appropriate and resonate with the beliefs and expectations of parents and communities (Grieves 2009, in Emerson et al. 2015). Programs and services should only be introduced after appropriate community consultation, and community involvement should continue through all stages of program delivery, including co-design of programs and Aboriginal leadership in service delivery where possible.

4) Effective services need to be of sufficient duration and intensity to produce optimal outcomes, have well trained staff, be integrated with existing community services, and start as early as possible (including during pregnancy). Programs that cut costs and corners and offer 'band aid' solutions to the complexities faced by many Aboriginal children in the Northern Territory have little chance of success and should not be funded at the cost of established, successful, culturally appropriate services. Programs that have had successful pilots and then been scaled up have often shown disappointing results. Close attention needs to be given to the fidelity of a program and how it is implemented when scaled up (Emerson et al. 2015).

5) Competitive funding processes that place unproven programs – provided by organisations inexperienced in service delivery in the Northern Territory context and not connected or not relevant to the community – in direct competition with experienced proven programs and established service providers have been identified as an area of concern by service providers. Competitive tendering tends to favour large mainstream organisations (often national or international and with weak links to communities and little or no Aboriginal leadership) over community controlled Aboriginal organisations that have strong relationships with communities but less capacity to respond to tenders

with short timelines. The way in which funding is allocated needs to address this important issue. Priority should be given to strategies that support Aboriginal self-determination and that facilitate the growth of established, proven programs and promote their capacity to operate in the longer term.

6) The work required to calculate the financial implications of the Northern Territory Aboriginal Health Forum (NTAHF) core services policy has not been undertaken but a 2011 evaluation concluded that many services were not up to the minimum funding benchmark and a financing study was required (Allen & Clarke 2011). Services during pregnancy and for families with young children need to be placed in the context of an adequately resourced and effective Aboriginal primary health care sector. Further, programs must be funded at levels that meet the high needs of Aboriginal families – including for prevention and early intervention – and ensure effective implementation across the whole population.

7) Equity and needs-based planning is a core principle of the NTAHF and must be the driver for reform and expansion of the Aboriginal primary health care sector in the Northern Territory.

8) There is a critical role for Aboriginal people in maternal and early childhood services, and a greater focus on building capacity and leadership in the Aboriginal workforce is required. Roles that are particularly needed in terms of better outcomes for children include Aboriginal health workers (including SEWB), Aboriginal education officers, strong women workers, community child health workers, Aboriginal liaison officers and early childhood educators. Filling these roles at the local level is the key to sustainability but presents a challenge in terms of access to accredited culturally appropriate training and job support outside urban centres. Reform is required, including more emphasis on supporting training in communities. These workforce initiatives should be part of larger efforts to increase the Aboriginal workforce overall, including in roles requiring tertiary education.

9) Evidence suggests that a strong connection to culture and community can be a significant protective factor for Aboriginal children (Emerson & Fox 2014). Programs should be strength-based, with a focus on strengthening culture and building resilience, including helping children and families to develop self-care skills. They should also be trauma informed.

10) The workshop recommended a change of terminology and service approaches from ‘child and maternal’ to ‘child and family’, to better reflect Aboriginal culture and structures.

Additionally, the following points underlying this early childhood core services model were agreed by Aboriginal delegates at the *Progress and Possibilities* workshop:

- Pregnancy and the first five years of life are perhaps the most important stages in the lifecycle. The foundations of future health and wellbeing are formed at a time when parents who are not coping are more receptive to making changes, if well supported.
- Aboriginal people are ‘researched to death’; there is ample proof of the importance of early intervention and prevention.
- For the majority of Aboriginal families pregnancy, childbirth and the early childhood years are an uncomplicated experience but for others there needs to be a range of relevant coordinated support services to help them raise ‘solid kids’.
- A universal systems approach to health, education and care services for all children and families does not mean a ‘one size fits all’ model. Aboriginal people are not homogenous and communities and services must be able to respond to their unique contexts and particular child and family circumstances.
- Aboriginal people do not respond to a ‘top down’ approach. With proper education and community awareness about children’s development and its impact on the life course, Aboriginal people will be responsive to the need for change and empowered to be actively involved.

- A range of structural, familial and relational barriers prevent some Aboriginal families from using available services and reduce opportunities to provide a good start for children. A major system change is required or vulnerable families will remain vulnerable. It is not just about addressing the problems families are facing but the social and environmental conditions that have led to families developing vulnerabilities in the first place. This will take a generational commitment from governments, not just within election cycles.
- Referring to child and maternal health is not culturally appropriate for many Aboriginal people; services should be family- and male-inclusive. There should therefore be a change of emphasis from child and maternal services to services based around family and clans.
- In order to work effectively for Aboriginal people, mainstream services need to ensure they have a culturally inclusive philosophy, offering programs and environments that meet the needs of the whole family at a local level.

2.2 Key Programs and Services

The core services model presented here comprises a list of generic services that have been shown to work and in most cases are already government-endorsed strategies. Examples of existing programs are included to illustrate some approaches currently in place and are not meant to be exhaustive.

2.2.1 Pre-pregnancy care

The workshop scope was pregnancy to the age of five years. This was a deliberate decision to ensure discussion focused strictly on pregnancy and early childhood, and to use the time available to canvass issues thoroughly and achieve consensus. However, participants were invited to give broad consideration to pre-conception and the following key universal services were identified:

- School- and community-based sexual health education services for young people
- Contraception and termination services (education and access)
- Adult health checks for both men and women
- Education (including young women/men programs) on smoking, protective behaviours, positive wellbeing, hygiene and life skills
- Youth services and activities

A recommendation from the workshop was to conduct a follow-up workshop focusing on pre-conception.

Policy implications

- A high proportion of pregnancies are not planned, so population health approaches as well as targeted approaches to pre-pregnancy care are required (Children by Choice 2013).

2.2.2 Quality antenatal and postnatal care

What is required?

Universal:

- Antenatal and postnatal care (aiming for first visit in first trimester), including: screening for SEWB problems and AOD use, with referral as required; breast feeding support; education about infant care (services should be inclusive of men where appropriate)

- Access to traditional midwives
- Antenatal and postnatal education/antenatal classes
- Nurse home visitation program commencing in pregnancy (See 2.2.3)

Targeted:

- Home visiting outreach service via Aboriginal primary health care services for vulnerable/at-risk women, to increase access to antenatal and postnatal care and other services as needed (where nurse home visitation program is not available or eligibility requirements are not met)
- Recommendation to trial birthing in remote communities, supported by midwives (connection to family and Country, less stress)

Indicated:

- Case management for pregnant women with significant chronic illness (e.g. diabetes, RhD, bronchietactsis)
- SEWB and AOD support and case management as required for women with significant mental health/AOD issues
- Smoking cessation support

Why is it needed?

All women should have access to good quality care during pregnancy and after birth but Aboriginal women and babies continue to experience higher rates of mortality and morbidity compared to others. The proportion of low birthweight babies born to Aboriginal mothers is twice as high as for non-Aboriginal mothers (AIHW 2014b).

Antenatal care is a key component of a healthy pregnancy. Regular antenatal care helps to identify and treat complications and to promote healthy behaviours. Although there is little direct evidence, outcome data suggest that neonates born to mothers who do not receive antenatal care are three times more likely to be of low birthweight, and five times more likely to die, compared with neonates born to mothers who receive antenatal care (US Department of Health and Human Services). Given high rates of smoking and chronic disease in Aboriginal women, timely antenatal care may be particularly important.

Key factors identified in successful programs for improving the health of Aboriginal mothers, babies and young children are: community based and/or community controlled services; providing continuity of care and a broad spectrum of services; integration with other services (e.g. hospital liaison, shared care); outreach activities; home visiting; a welcoming and safe service environment; flexibility in service delivery and appointment times; a focus on communication, relationship building and development of trust; respect for Aboriginal people and their culture; respect for family involvement in health issues and childcare; having an appropriately trained workforce; valuing Aboriginal staff and female staff; provision of transport; and provision of childcare or playgroups (Herceg 2005).

Continuity of maternity care refers to consistency in the care and advice received by women during pregnancy, childbirth and in the postnatal period from the same caregiver or small group of caregivers. This is usually in contrast to conventional or ‘standard’ public hospital maternity care commonly provided by a number of different staff including obstetricians, general practitioners, and midwives. Midwifery-led continuity of care is associated with:

- reduced frequency of many obstetric interventions (less likely to be induced, less likely to have an epidural in labour, fewer caesarean sections) as well as less post-natal depression; and
- high levels of satisfaction with level of care received compared with standard obstetrician-led models of care (Henderson et al. 2007).

All pregnant women living in remote areas of the Northern Territory are encouraged to travel to an urban centre where birthing facilities can support a safe birth for the mother and baby. Many women experience difficulties leaving their families and communities. For Aboriginal women, additional difficulties include language and cultural differences, problems negotiating travel and hospital systems and lack of health literacy. Sometimes, the impossibility of overcoming these difficulties leads the woman to return to her community instead of remaining in the urban centre and an aero-medical evacuation may then be required in an emergency. A trial of 'Birthing on Country' may be beneficial but would require extensive consultation and planning that is beyond the scope of this paper.

Program examples

Culturally appropriate women's health care in urban Aboriginal medical services

Urban Aboriginal community-controlled health services (ACCHSs) such as Danila Dilba and Central Australian Aboriginal Congress (CAAC) provide comprehensive care for women during and after pregnancy as part of their women's health services. These services are provided in a culturally safe environment, with Aboriginal and non-Aboriginal staff working together. CAAC's Alukura centre is a female-only space, developed during the 1980s to address concerns of women in Central Australia. Remote Aboriginal primary health care services also provide this service. However, they may be constrained by a lack of suitable clinic space and insufficient staff – both local female Aboriginal staff and midwives.

Midwifery group practice

The Northern Territory government operates midwifery group practices that provide continuity of care to Aboriginal women from remote areas during pregnancy, birth and the post-partum period, including during the 'sit down' time when women leave communities to give birth. Since the midwifery group practice models have been in operation in the Northern Territory, there has been an increase in the early discharge of babies from the special care nursery, supported by daily visits and breastfeeding guidance. Improved communication and coordination of care with remote health has been reported, with high levels of satisfaction from women on their birth experience and less stress related to the need to birth away from country (Williams 2011).

Resident and outreach midwives

Resident midwives are located in some larger communities and provide expert midwifery care to that community and often surrounding areas. Outreach midwives are based in regional centres and visit remote communities. An increased quantum of resident and outreach midwifery services is required because the proportion of remote area nurses who have trained as midwives has dropped to around 30% (Lenthal et al. 2011).

Strong Women, Strong Babies, Strong Culture

The Northern Territory Department of Health's 'Strong Women, Strong Babies, Strong Culture' program was first developed as a pilot project in 1993 in three Top End communities and later expanded to other communities in the Top End and the Centre. It has since been adopted in Western Australia and Queensland. The program employs senior Aboriginal women to work in partnership with health service professionals to support young women during pregnancy and with parenting. The senior women encourage attendance at antenatal care clinics, provide advice on nutrition and promote cultural connections and traditional knowledge. The program has a strong community development focus. Positive improvements in birthweight were reported in one early evaluation (Kruske 2011).

Policy implications

- Provision of timely midwifery care is still a challenge, with only 50% of Aboriginal women having an antenatal visit prior to 13 weeks pregnancy. The proportion of remote area nurses who are midwifery-trained continues to fall. There may also be cultural/health literacy issues affecting take up of antenatal care.
- A mapping exercise of the availability of midwifery services should be undertaken.

2.2.3 Nurse home visiting

What is required?

Universal:

- Nurse home visitation

Why is it needed?

Family home visiting or nurse home visiting is an effective strategy for improving outcomes for children through parental support and early intervention. The best-known and evaluated model was developed by Professor David Olds. Nurses visit families in their homes and provide advice on the mother's prenatal and ongoing health, guidance and support on infant and child development, support for parents to provide care that will improve the child's health and development, and support for the mother to achieve her own life goals including through employment and education.

Some other jurisdictions implement a home visit by a trained nurse soon after birth to enable a comprehensive assessment and potential for early intervention. This could be offered to women not offered an ongoing home visitation program (e.g. because of later presentation in pregnancy) or who declined the program.

Program examples

Australian Nurse Family Partnership Program (ANFPP)

The ANFPP has been adapted for the Australian Indigenous context from the Olds Model, the major change being inclusion of Aboriginal family support workers in the team, working alongside nurses. The program commences in pregnancy and continues until the child's second birthday, with nurse home visitors providing services to support the mother and child according to evidence-based protocols. As the program has a sound theoretical basis, there is a strong emphasis on program fidelity and support and training of staff. Evaluated outcomes in the United States include:

- reduced maternal smoking (equivalent to reduction of four cigarettes a day in one randomised controlled trial);
- less substantiated child abuse and hospitalisations for child injuries;
- increased birth spacing, with mothers less likely to be pregnant at child's second birthday;
- better achievements in maths and reading for children of the most disadvantaged mothers;
- reduced substance use (less smoking and alcohol and marijuana use at age 12, $p = .02$);
- less youth offending for girls;
- reduced childhood mortality (deaths up to age 9), with children 4.46 times more likely to die in the control group compared with children in the program; and

- improved outcomes for mothers, including less use of welfare and increased stability of relationships (longer relationship with current partner, more likely to be with child's biological father at child age 9, and partner more likely to be employed) (Coffey 2015, Olds 2007).

CAAC has a successful ANFPP model in place in Alice Springs and two remote communities.

Policy implications

- ANFPP is an intensive program that has very well proven outcomes. It was designed to be offered to vulnerable first time mothers; however, in the Northern Territory to date it has been offered to all Aboriginal mothers. An evaluation currently underway of the CAAC program will help to refine the approach, but it is likely the recommendation will be to offer it to all Aboriginal mothers.
- CAAC is implementing this program in two remote communities as well as Alice Springs and it is now being extended to two more communities. Implementation across the Northern Territory, including the most remote regions, would be feasible with a hub and spoke model to small communities that do not have enough mothers and children in the target age group to sustain a full ANFP program.
- This is a culturally sensitive program with (usually) non-Aboriginal nurses visiting Aboriginal families. It has been successfully adapted in Australia to include Aboriginal family support workers. It has only been implemented by community-controlled organisations to date and it is likely to require careful consultation and strong Aboriginal leadership to succeed.
- The Commonwealth government has supported this program and it is now being expanded from the current four sites to an additional ten sites around Australia.
- The strongest outcomes are in the areas of maternal wellbeing and child safety. Nurse home visiting should be complemented by programs that improve educational outcomes for vulnerable children and families.

2.2.4 Clinical child health care

What is required?

Universal:

- Child health surveillance including screening for physical, behavioural and developmental problems using culturally validated tools; physical screening should include screening for oral health and ear problems
- Medicare rebateable child health checks up to the age of 15
- Primary ear health programs
- Oral health check-ups and treatment
- Vaccination programs
- Health promotion/prevention programs focusing on aspects of child health (such as nutrition and hygiene)
- Sick care, including coordinated chronic disease care for children with long-term illness

Targeted:

- Outreach to vulnerable families when children are not regularly attending health checks or there is concern about their health

Indicated:

- Case management and care for chronic conditions
- Paediatric services including paediatric outreach

- Child mental health services
- Early intervention for developmental delay
- Audiology and ENT services
- Dental services
- See also Section 2.2.9, Supporting children with physical problems and developmental delay.

Why is it needed?

Evidence supports that an early focus on physical, cognitive, psychosocial and behavioural health is crucial to improving not only the health of Aboriginal children, but also their childhood development (Mildon & Polimeni 2012).

Regular and timely child health checks are designed to enable:

- assessment of growth and development, as well as physical, psychological and social wellbeing;
- provision of advice and education and the opportunity to discuss any concerns the parent/carer may have;
- identification of children and families who may need additional support;
- adherence to the childhood vaccination schedule; and
- early detection and treatment of health or developmental problems, and referral of children as required.

A NHMRC review of Australian child health surveillance undertaken in 2002 (Centre for Community Child Health 2002), and a later review in 2010 (Alexander & Mazza 2010), found surprisingly little evidence of the effectiveness and appropriateness of child health surveillance in Australian children. However, the high proportion of Aboriginal children with multiple health issues – including childhood anaemia, growth faltering and failure to thrive, ear disease and dental disease – suggests that poor physical health is contributing to children's developmental vulnerability. Given this, screening for treatable problems is likely to be more beneficial in this population than in non-Aboriginal children (NT Department of Health and Families 2009). Screening for treatable conditions therefore seems to be well justified, despite the lack of evidence.

As pointed out in the evaluation of the Child Health Check Initiative and Expanding Health Service Delivery Initiative (Allen & Clarke 2011), child health screening programs should conform to the World Health Organization screening criteria but often do not. These criteria include: the condition must be a public health problem, screening is acceptable to the population being screened, the cost of screening and treating must be economically justifiable within the total health expenditure, earlier intervention as a result of screening must lead to better outcomes as opposed to later opportunistic detection and treatment, and treatment for detected conditions is available. It is also critical that child health surveillance programs are developed in partnership with primary health care providers, who will be implementing them, and that they are well evaluated, including against the World Health Organization screening criteria.

In order to review the findings of child health surveillance and evaluate its effectiveness, de-identified data needs to be collected, analysed and disseminated (with appropriate data governance) back to primary health care services, paediatricians and other experts, as well as to the NTAHF and other key stakeholders. Data should include assessment of coverage, timeliness and reach of childhood surveillance, as well as prevalence of important conditions such as ear and dental disease, anaemia and developmental vulnerability.

The 2007-2008 Child Health Check Initiative found ear and dental problems were the most common issues requiring referral (Allen & Clarke 2011). High prevalence of chronic ear disease with hearing impairment and poor oral health for Indigenous children in the Northern Territory are long-term problems, with the Allen and Clarke report noting they were the most significant blockages in terms of outreach and hospital support. The prevalence rates of ear disease and hearing loss are above the threshold of 4% defined by the World Health Organization as a public health emergency (WHO 2004). There has been significant expansion of oral and hearing programs, including through Stronger Futures funding, although, particularly with oral health, it is still far from meeting the need.

Program examples

Healthy Under 5 Kids

The Northern Territory Department of Health's comprehensive child health program is implemented in government primary health services and some ACCHSs and is being rolled out to urban community health centres. The program aims to enhance the interaction between the primary health care team and parents and includes physical, behavioural and social checks as well as anticipatory guidance and referrals. The highest rate of referrals is to hearing services. In all locations, the majority of routine scheduled child health assessments are conducted by nurses and Aboriginal health practitioners. This program has not yet been formally evaluated and it is not clear how comprehensively it is being implemented even in government remote services. There is some data collection and feedback to services but this requires further development.

Hearing and dental health programs

A comprehensive ear health program is being implemented across the Northern Territory in remote communities, with more than 4,000 consultations provided in 2014, although it is not clear that it has been scaled up to meet the needs. It includes audiology, telehealth ENT consultation, case management for children with chronic ear disease, and referral pathways for ear surgery. Aboriginal community workers are working on health promotion strategies in some communities. Just under half of the children seen by outreach ear services had a functional hearing improvement (AIHW 2015b).

The dental program is provided to remote communities as an outreach and has been expanded as part of Stronger Futures, focusing on children under 16. This includes preventative treatments such as fluoride varnish (provided by credentialed health providers to reduce the risk of caries) and health promotion.

Policy implications

- Bailie et al. (2008) emphasised the need to provide services for social and family support in order to realise the benefits of childhood surveillance in the Northern Territory. Areas where services are often lacking (either insufficiently supplied or absent) include psychosocial/parenting support, early intervention for developmental delay and issues identified in the carers including SEWB issues and family violence.
- There is a need for ongoing professional development and support for primary health care staff on the ground. Larger communities should have a dedicated child health position and smaller communities should have visiting child health nurses. Generalist clinicians including Aboriginal health practitioners should have access to child health training.
- Children with more severe physical illness such as recurrent infections require intensive case management and support. This is not available outside one or two urban centres. Aboriginal identified positions include family support workers who could provide psychosocial and cultural support to families at higher risk, including where children have physical illness but also where families are struggling with difficult social circumstances.

2.2.5 Quality Early Learning

What is required?

Universal:

- Enriched learning support (e.g. Abecedarian) offered to all parents without tertiary education, making it universal in most remote communities and with a high uptake in urban communities
- Play groups/day care (including parents) incorporating exercise/active play, for children not taking part in Abecedarian or prior to its implementation
- Preschool from age three with qualified preschool teachers (two-year program)

Targeted:

- Supported playgroup/pre-school readiness program, if the Abecedarian program is not available

Indicated:

- Early intervention for children with developmental delays
- Therapeutic childcare for children who have been traumatised

Why is it needed?

High quality early learning programs provide greater benefits for children's social, emotional, and learning outcomes, particularly for children from disadvantaged backgrounds. The significantly lower AEDC and NAPLAN scores of Aboriginal children indicate a need for early learning support. The transitions from home to early childhood education and onto school are important milestones for both children and families. The transition into school is especially significant as 'readiness' for school is predictive of long-term academic and occupational achievement.

The Council of Australian Governments committed in 2008 to ensuring access by all children to a quality preschool program for fifteen hours per week, delivered by an early childhood teacher with four years training (COAG 2008). This was also incorporated as a Closing the Gap target. There is a robust evidence base on the effects of preschool, with a large longitudinal European study showing that preschool led to better social and cognitive development for children. Factors that contributed to better outcomes were qualified teachers; low teacher to student ratios; early enrolment (age three rather than four), so that preschool becomes at two-year program; and warm interactions between staff and children (Sylva et al. 2004). In the US, the HighScope Perry Preschool study showed that disadvantaged children attending a high quality two-year preschool program had improved education, economic and crime outcomes compared to those who did not attend preschool, including almost twice the rate of females graduating high school, higher rates of employment at age 40 (75% vs 62%), 14% higher adult earnings, and significantly fewer arrests. The public return on investment was $12.90 per dollar spent (Schweinhart et al. 2005). Children in New Zealand have twenty hours free preschool per week. Evidence suggests that for children from disadvantaged families, more hours of preschool provide greater benefits.

An Australian Bureau of Statistics study revealed a relatively high proportion of Aboriginal children enrolled in preschool in remote and very remote areas in the Northern Territory; however, overall only a minority of preschool classes were provided by a teacher with at least three years of training (ABS 2013).

Program examples

Abecedarian

The Abecedarian approach offers a suite of high-quality teaching and learning strategies involving three key elements: game-like activities between an adult and a child; reading to the child each day; and emphasising language through daily events and routines, extensive conversations and responding to children's use of language. These elements have been successfully implemented in a number of service delivery settings including home visiting, parent education classes, family literacy programs, childcare centres and kindergarten classes. The program runs from six months of age until preschool but may be extended for children at higher risk.

The outcomes of the Abecedarian approach have been consistently positive. For example, studies have shown that Abecedarian programs improve employment outcomes (70% in higher education or a skilled job at age 21 compared to 40% for those who did not receive the program); reduce the need for special education; improve outcomes for low birthweight babies (including better scholastic achievements and reduced risk-taking); and improve outcomes for teenage mothers (Australian Medical Association 2013).

In the Northern Territory, the Abecedarian program has been implemented at CAAC as part of school readiness and key elements of the program have been incorporated into Families as First Teachers (FAFT).

The CAAC program Ampe Kenhe Apmere, also known as Congress Childcare, is a licensed Multi-Functional Aboriginal Children's Service that has successfully trialled an Abecedarian educational day care program for disadvantaged Aboriginal children in Alice Springs. The early results are highly promising and an evaluation of outcomes is currently underway in partnership with the Melbourne University.

FAFT is delivered in schools in remote communities by the Northern Territory Department of Education and Training. It provides early learning playgroups and parenting programs on child development and health to prepare children for successful entry to school. Early childhood professionals and local Indigenous family liaison officers and playgroup leaders deliver the programs to families. The developer of the Abecedarian approach, Professor Joseph Sparling, tailored the approach to suit the needs of Northern Territory Aboriginal families in remote communities and this has been embedded into the FAFT program. Since FAFT began, the proportion of Indigenous children in very remote communities assessed as developmentally vulnerable in one or more domains fell by 5.7%, although it cannot be said that this is causal. Anecdotal evidence from school principals suggests children are better prepared for school. However, the quality, consistency and delivery of the programs varied widely among the 21 communities where it was implemented (AEDC 2014). The FAFT program has an association with improved school readiness, literacy and learning behaviours, but it needs to be more fully evaluated.

Pre-School Readiness Program

The primary aim of the Pre-School Readiness Program developed by CAAC is to improve school transition and therefore improve long-term school engagement. A 2012 evaluation conducted by Menzies School of Health Research found that the program had effectively capitalised on CAAC's established relationships with Aboriginal families and utilised CAAC's medical service client record system to enable the universal availability of an outreach developmental support service for the population of Aboriginal families with three- and four-year-old children in Alice Springs (Moss & Silburn 2012). This proactive developmental outreach program operating through a primary health service is unique among the early child development school readiness programs currently available in Australia.

It should be noted that pre-school readiness is incorporated within comprehensive Abecedarian programs, so a separate pre-school readiness program is not needed alongside a comprehensive Abecedarian program and two years of preschool. However, a separate program may still be required to complement programs with less intensive Abecedarian content, such as FAFT.

Policy implications

- FAFT holds promise but there is concern about how well it is being implemented across a wide range of communities. It is recommended to conduct a full evaluation of a couple of FAFT sites, together with centre-based Abecedarian trials in a couple of sites.

2.2.6 Parenting Programs

What is required?

Universal:

- Nurse home visitation for age 0-2 (see 2.2.3)
- Parental networks/support groups, e.g. mums groups

Targeted:

- Therapeutically oriented group parenting programs (e.g. Let's Start)
- Teen/young parent support – can be provided through targeted family support programs (see Supporting vulnerable families, section 2.2.8) and in larger centres through teenage parent groups
- One-to-one parenting support as required, for parents with special support needs such as intellectual disability – can be provided through targeted family support programs (see Supporting vulnerable families, section 2.2.8)

Indicated:

- Family support services (see Supporting vulnerable families, section 2.2.8)

Why is it needed?

For the purpose of this document, the definition of a parent is 'a person performing in the role of a primary caregiver to a child'. This definition therefore may include grandparents, stepparents, foster parents or other carers.

Poor parenting has been shown to have almost twice the impact on child development outcomes as poverty, while positive parenting can mediate the impacts of poverty (Kiernan & Mensah 2011, in Emerson et al. 2015). Parenting skills are likely to be influenced by the effects of disadvantage and family risk factors (Australian Medical Association 2010).

Effective parenting support programs for Indigenous families generally include: use of cultural consultants in conjunction with professional parent education facilitators and home visitors, long-term rather than short-term programs, a focus on the needs of both parents/carers and the child, and a supportive approach that focuses on family strengths (Mildon & Polimeni 2012).

Parenting programs can be home- or centre-based and provided to individual families or groups. Although parenting support programs are often used as secondary or tertiary interventions in high-risk families, they may be more effective as universal primary prevention programs. Parenting programs that

are the most successful are those that are culturally safe, meaningful and accepted within the local community.

Parenting programs with good evidence of effectiveness internationally include Triple P, The Incredible Years, HighScope Perry preschool, the Carolina Abecedarian program and the Chicago Child-Parent Centres (Robinson et al. 2011, Macmillan et al. 2009, Mildon & Polimeni 2012, Tully 2009, Moore & McDonald 2013). The Triple P program includes an enhanced program for children with significant behavioural issues.

Program examples

Let's Start

The Let's Start program, developed and trialled in the Northern Territory, is based on a manual that sets out structured activities for children from age four and their parents over 8–10 weeks. About 40 schools, community centres and early childhood centres in Darwin, Darwin rural regions, Jabiru and on the Tiwi Islands have taken part in the program to date. An evaluation of the Let's Start program was undertaken in 2009. Study limitations (including that this was a small observational study without a control group) meant definitive attribution of outcomes was not possible; however, the evaluation concluded there were 'strong indications of a treatment effect'. Findings included significant reductions in problem behaviours as reported by teachers and parents (suggesting early intervention can support transition to school), and significant reductions in parental psychological distress at both program completion and six month follow-up. Case studies indicated increased parental confidence and assertiveness and increased capacity of some to support their children's attendance at school. The program was also shown to have potential as a highly acceptable intervention to support improvements in parental mental health. However, participation and retention rates were low in Darwin (49 children referred, 15 participated and only 10 completed), implying it may require adaption for urban contexts; and overall, only a minority of children and parents completed most or all of the 10-week program (Robinson et al. 2009.

Let's Start Early is an extension to the program, providing early intervention for parents with infants and toddlers.

Policy implications

- More evaluation is needed to ascertain what parenting programs work best for Aboriginal families, given the somewhat limited evidence base in this context. Families with highly complex issues who are in the child protection system or at risk of entering the system will require intensive/targeted family support but may also benefit from a group parenting program. Families who are not in crisis but who need support around issues such as children's behaviour will also benefit.

2.2.7 Nutrition

What is required?

Universal:

- Public health nutrition programs with a focus on mothers and babies – these programs should have community input into how they are delivered, include community health promotion and work with stores

Targeted:

- Increased monitoring and support for children who are at risk (e.g. because of prematurity or low birthweight or parenting issues) or who are not meeting growth targets (but where failure to thrive has not been diagnosed); this could include provision of supplements or meals to targeted groups

Indicated:

- Programs for children with failure to thrive, anaemia and other nutritional conditions, consisting of a range of services including case management, family support, nutrition input and nutritional supplementation, and regular paediatric review
- Programs for children who are obese

Why is it needed?

Good nutrition in-utero and in infancy and childhood establishes the foundation for good health throughout life. High levels of childhood anaemia and failure to thrive indicate poor nutrition in a large proportion of Aboriginal infants and children in the Northern Territory and are a significant contributor to suboptimal cognitive and physical development (Bar-Zeev et al. 2013). There are numerous causal contributors to the nutrition and wellbeing problems affecting disadvantaged children in the Northern Territory. These include housing insecurity and poor infrastructure (e.g. lack of functioning kitchen), parental mental health issues or AOD dependency, low health literacy about food, and the limited choices of reasonably priced healthy food in remote stores, coupled with an increasing reliance on take-away or other 'fast' convenience food.

One of the major proposed *Close the Gap* equity targets was that by 2018, 90% of Indigenous families could access a healthy food basket for under 25% of their income. However, the trend is going the wrong way, with a 2014 family basket survey (Department of Health 2014) showing it was 53% more expensive to buy in remote communities than in Darwin – the highest difference ever recorded. In the 2012-13 *Australian Aboriginal and Torres Strait Islander Health Survey*, one-third of Aboriginal people in the Northern Territory reported their household had run out of food during the previous twelve months and could not afford to buy more, compared with 4% of non-Aboriginal people (AIHW 2015a). Solutions must involve sectors beyond health, including food producers, transporters and retailers, educators, economists and policymakers.

A longitudinal study over four years in Central Australia showed that a well-designed nutrition program initiated and developed through community participation, and including education as well as nutritional support for at-risk children, can achieve substantial improvement in the growth of children aged 4–36 months. The program involved local Aboriginal services and the community store. The study showed declines in the prevalence of malnutrition and the rate of hospitalisations and an overall improvement in growth status (Warchivker & Hayter 2001). Broadly, evidence shows long-term programs that are multifaceted, driven by the community and that address the high cost of food can improve nutritional intake, including that of high needs groups (Lowitja Institute 2012).

Obesity is a growing concern, even among young children, and requires more attention, particularly given earlier onset of chronic disease (Northern Territory Government 2015).

Program examples

NPY Women's Council Child Nutrition and Wellbeing Program

The NPY Women's Council's award-winning nutrition program (commencing in 1996) provides an example of a community-driven multi-faceted program, offering nutrition education, case management,

intensive nutrition rehabilitation, and community development activities. The organisation is currently seeking funding to conduct a program evaluation.

Galiwin'ku Healthy Baby, Healthy Community Program

The Galiwin'ku Baby Hub, a collaboration between Miwatj Aboriginal Health Service and Australian Red Cross, aims to decrease the level of underweight children and the prevalence of anaemia in children under five. The program targets malnutrition using a comprehensive primary health care approach that balances prevention and clinical services. Activities include child health checks and treatment; showing new mothers how to look after babies, including age-appropriate healthy food preparation; education for families in Yolnu Matha language about parenting, nutrition, health and hygiene; home visits; and outreach education sessions. A 2014 evaluation found the program had resulted in positive outcomes for vulnerable babies and families, including contributing to a decreased level of anaemia and growth faltering, and increased knowledge and confidence among mothers, while more children had been screened for malnutrition (Harrison & Maypilama 2014). The report noted a lack of capacity to meet need.

Policy implications

- Food security is a key issue in remote communities and overarching policy to improve this (such as a healthy food subsidy) may be very useful. Public health nutrition programs need to involve the community.

2.2.8 Supporting Vulnerable Families

What is required?

Universal:

- To identify vulnerable families:
  - Screening for SEWB problems and family violence in the antenatal and postnatal periods along with appropriate referral and support
  - Screening for behavioural issues or impact of trauma in children
- Community education about the effects of stress and adverse life events in early childhood and how the community can work to reduce harm to children from these adverse events

Targeted:

- Parenting programs (see section 3.1.5)

Indicated:

- Targeted family support for families who are struggling with complex circumstances such as a parent in jail or post-release, or parents who are teenagers, have intellectual disability, AOD or SEWB issues or who are otherwise vulnerable (not in the child protection system)
- Intensive family support services for children in the child protection system (reducing risk of removal)
- Services such as counselling and family support for children with behavioural problems or signs of trauma (including therapeutic play incorporating art, music and connection to culture)
- AOD and SEWB services for parents/carers, including outreach
- Family violence and anger management programs
- Effective child protection services including:

    - Family preservation/reunification plans to include family-centred approach and clan-based planning
    - Kin placements (if best option for child); non-family placements to access cultural support for child
    - Support for family contact in statutory interventions
- Effective domestic violence services, including safe houses

Why is it needed?

The Introduction of this report discussed the impacts of trauma on children; however, poor outcomes are not inevitable. The evidence is growing that outcomes can be substantially improved after exposure to traumatic events such as domestic violence and childhood abuse if children are in supportive, loving environments and provided with effective therapeutic interventions (Harvard University Centre on the Developing Child 2016b).

The public health model of child protection and family support outlined in the National Framework for Protecting Australia's Children recommends a tiered approach, with targeted support to high-risk families and statutory intervention as the last resort (COAG 2009b). This model requires the capacity to support high-need families who require more than universal services but do not meet the threshold for a notification to child protection. The approach in the national framework is moving away from focusing solely on the safety of the child to a more holistic approach of supporting the family, including through addressing factors such as poverty, unemployment and mental illness. Furthermore, when a notification has been made, many children can be referred back to community agencies to receive intensive family support. The high rates of re-notification of families to child protection underscores the need for longer-term intervention that can address complex family issues (Tilbury 2015).

The Board of Inquiry into the Child Protection System in the Northern Territory emphasised early intervention and support for families to divert children from the child protection system (Northern Territory Government 2010a) and the Northern Territory has committed to the Aboriginal Child Placement Principle whereby every effort must be made to keep a child with their family. Where a child needs to be removed from their home, wherever possible they should be placed with another family member or another Aboriginal person from their community, and where that is not possible connection with culture and community is essential (Northern Territory Government 2010a). Aboriginal delegates in the workshop strongly advocated for adherence to this principle. Sadly, the most recent Australian Institute of Health and Welfare report on child protection shows the Northern Territory has by far the lowest rates of placement of children with extended family of any jurisdiction, demonstrating that much work needs to be done in this area (AIHW 2016).

Where concerns have been raised about the wellbeing of a child or a child is at risk of being removed, the inclusion of extended family and community in decision-making is a useful approach. Family Group Conferencing is one example of this and anecdotal feedback from a pilot program in Alice Springs showed high levels of satisfaction (Arney et al. 2012).

Program examples

Targeted Family Support Service (TFSS)

TFSS works with a family when there are concerns about a child's wellbeing and safety that do not necessarily require referral to child protection. Its aim is to improve family functioning and resilience to ensure the child's wellbeing, prevent child abuse and neglect, and prevent unnecessary placements of children in out-of-home care. TFSS provides assessment of the whole family with a focus on the needs of

children, assertive outreach/active engagement, goal-focused case planning, case management, practical parenting support and counselling, along with referrals to external agencies.

A number of ACCHSs provide TFSS including Wurli Wurlinjang, CAAC and Miwatj Health. ACCHSs are uniquely placed to understand the very complex and chronic needs that families coming to the attention of child protection services have, often with multiple risk factors such as domestic and family violence, parental mental health problems, family homelessness and precarious housing, and parental drug and alcohol problems.

This program could be expanded to support parents with significant vulnerabilities e.g. intellectual disability or teen parents, prior to a child becoming at risk.

Intensive Family Support Service (IFSS)

IFSS originally formed part of the Commonwealth's $34 million package in response to the 2010 *Growing them Strong, Together* report into the Northern Territory child protection system. The program aims to provide an intensive family support service to high risk families involved with the child protection system, where children are not at imminent high risk. The key objectives of IFSS are the same as for TFSS, but as the families are all involved in the child protection system the service requires close collaboration with child protection authorities. A mix of mainstream and Aboriginal organisations are delivering IFSS and just under half of the workforce is Indigenous. It is being delivered by three ACCHSs in the Northern Territory.

There is a paucity of publicly available evaluation of targeted and intensive family support programs in Australia. The first phase of a comprehensive evaluation of community-controlled intensive family support services reviewed five services including the IFSS at CAAC. Common elements that were viewed as being important to successful program delivery were: comprehensive assessment using validated tools and ongoing review using these tools; coordinated case management approach where interactions with families had a clear purpose; a long-term approach to engaging families and building rapport; negotiating goals with the family and child protection authorities; an equal relationship with child protection authorities; low caseloads to allow intensive work; two-way working; matching clients to staff; and decreasing the intensity of support as families stabilised, while building capacity for the family to obtain support themselves. Providing services within an Aboriginal organisation was thought to be important by all families as families viewed the organisation as working for and with them. At this stage the evaluation has not provided any hard evidence about improved outcomes for families in this complex area. However, many families have exited the system without returning to child protection. The CAAC service closed 60% of cases within six months, 20% within 12 months and 10% were open longer than a year (Tilbury 2015).

Policy implications

- Intensive and targeted family support services for vulnerable children are only available in urban locations and are mainly delivered by ACCHSs. In the remote regions, there is a patchwork of family support agencies such as Anglicare and Save the Children doing this work but not usually with the degree of intensity required and usually without Aboriginal leadership. These services need to extend to remote areas with a consistent level of support provided to high-risk families. Given very high and rising rates of child protection notifications in the jurisdiction, both targeted and intensive family support services should be provided across the Northern Territory, preferably by the same organisation.
- Families at high risk of child abuse, neglect and parenting difficulties are least likely to take up services (Katz et al. 2007, in Emerson et al. 2015). Particular consideration needs to be given to engaging parents (and especially fathers) with mental illness and AOD problems prior to the family being subject to statutory interventions.
- Outreach services should be provided through, or in collaboration with, existing local services and this is especially important when dealing with issues of high sensitivity such as child abuse. The MOS Plus evaluation noted the need to understand cultural context and complexity of communities. It found cultural safety and respectful engagement were "of equal or even greater importance" than provision of services (SuccessWorks 2011).

2.2.9 Supporting children with physical problems and developmental delay

What is required?

Universal:

- Public health approach to reduce impact of infectious diseases

Indicated:

- Paediatric services including specialised paediatric services
- Early intervention programs for children with conditions affecting physical, social and cognitive development (e.g. FASD, developmental delay of any cause, cerebral palsy), with teams including appropriate allied health expertise and social support
- Case management/family support for children with significant physical illnesses such as heart disease, bronchiectasis, including support for those requiring highly specialised care interstate
- Support systems for clinical care such as Patient Assisted Transport Scheme (funding that provides transport for specialist services)

Why is it needed?

Early childhood intervention is the planned provision of specialist services designed to meet the overall developmental and learning needs for young children from 0-6 who have a disability or developmental delay. Research has shown that intensive early intervention for children with a disability or developmental delay is most effective (Bundy et al. 2008). The aim is to minimise the impact of developmental delay and disability on a child's development and learning. Allied health professionals such as occupational therapists, physiotherapists and speech therapists are key providers of early intervention in areas such as improving gross and fine motor skills, dressing, toileting, speech development, and eating and drinking.

These services are available in urban areas although they may not be resourced to need. There are also early intervention therapies that provide specialised support for specific disabilities such as autism spectrum disorder, cerebral palsy, hearing impairment and vision impairment. Government outreach teams support children living in remote areas although services are infrequent.

There are higher rates of drinking in pregnancy among Aboriginal women in the Northern Territory (although most abstain) (Northern Territory Government 2010b) with the consequent risk of Foetal Alcohol Syndrome (FAS) and Foetal Alcohol Spectrum Disorders (FASD). A study in the Fitzroy valley found that one child in eight was affected (Fitzpatrick et al. 2015). Although the prevalence may not be as high in the Northern Territory, it is likely to be a major contributor to poor child development.

Program examples

CAAC Child health outreach program

The child health outreach program works with children aged 0-16 who have a chronic disease or condition. The multi-disciplinary team includes nurses, an Aboriginal family support worker, a GP and a dietician who work closely with the paediatrics department at Alice Springs Hospital and other specialists. The team works with families to develop and implement a care plan that addresses the child's needs and emphasises continuity of care, including a team member attending all external appointments with the child. The program relies on strong community knowledge and relationship-building. Internal CQI data has shown positive results since it began, including 100% rheumatic heart disease compliance with medications (up from 60-70%) and reduced hospitalisations of children with chronic suppurative lung disease.

Remote disability services

The Northern Territory Office of Disability's remote allied health teams provide outreach case management and allied health services to children aged 0-5 with a diagnosed disability or evidence of developmental delay in one or more functional domains; and to those aged 6-18 with a diagnosed disability that impacts on their ability to function at home, school or in community. Clients are reviewed regularly in community by allocated key contacts (physiotherapists or occupational therapists), who function in a trans-disciplinary role and manage clients across the lifespan. The teams also include six speech pathologists, who provide a consultative service across all remote communities in the Darwin, Katherine, East Arnhem and Central Australia regions, as well as a number of regional centres. In the Top End, two specialist paediatric positions – a physiotherapist and occupational therapist – work in partnership with key contacts.

Policy implications

- Early intervention needs to be delivered frequently and at sufficient intensity to make an optimal difference. Services in urban areas may be rationed and services in remote regions are infrequent so this is not likely to be sufficient. It is problematic and ethically difficult to implement universal screening without the required follow up services for developmental delay and physical issues.
- Aboriginal organisations should be supported to deliver family support services with a funding shift away from mainstream NGOs.
- Case management approaches engaging multidisciplinary teams in coordination with or within primary health care services are important where children and families present with multiple and complex issues.
- Children may not be referred early enough if childhood surveillance is not provided consistently and by appropriately skilled staff.

2.2.10 Public Health Policy and Social Determinants

What is required?

- Public health measures, including measures that will affect AOD, smoking, violence and nutrition
- Smoking cessation education and public health programs for parents
- Secure housing, including access to emergency accommodation
- Programs to combat racism
- Long-term investment in the education system
- Programs that support and strengthen culture across multiple areas, including supporting connections to country, Elders as sources of support and leadership, and language preservation
- Aboriginal leadership/governance
- Environmental health
- Education and literacy programs for adults

Why is it needed?

This report has outlined the early childhood services required to improve the health and wellbeing of children aged 0-5. However, determinants of health affecting the child, their family and broader community must be addressed in parallel in order to close the gap in outcomes.

The health of adults can impact significantly on their parenting capacity. Primary health care needs to be adequately resourced to support parents to maintain their health and deal with chronic disease, AOD problems and SEWB issues. The Aboriginal perception of social and emotional wellbeing recognises the importance of connection to land and culture, spirituality, ancestry, family and community, and how these affect the individual (Social Health Reference Group 2004).

Self-determination has been recognised as both a right of Indigenous people (for example in the UN Declaration on the Rights of Indigenous people) and a key social determinant, linked to control and empowerment. The final report of the World Health Organisation Commission on the Social Determinants of Health found agency and control to be key determinants of social development, health and wellbeing (WHO 2008). The report drew on international research demonstrating the effectiveness of empowerment strategies to improve health and reduce health disparities, with outcomes at psychological, organisational, community and population levels, and in relation to socially excluded populations (Wallerstein 2006). The recent Mental Health Commission report reaffirmed the central importance of Aboriginal leadership and control in developing effective SEWB programs and highlighted the importance of Aboriginal organisations providing SEWB services as part of comprehensive primary health care (National Mental Health Commission 2015).

Racism – both systemic and individual – plays a significant role in Indigenous ill health, with studies indicating it accounts for one-third of the prevalence of depression and poor self-assessed health status among Aboriginal Australians, as well as having a significant association with psychological distress, diabetes, smoking and substance use (Paradies et al. 2008).

In 2012-13 more than half of Aboriginal people in the Northern Territory lived in overcrowded households (compared with 5% for non-Aboriginal), rising to 62% in remote areas (AIHW 2015a). Substandard and overcrowded housing, together with inadequate environmental health factors such as sanitation and water supply, present major health risks to Aboriginal communities, particularly those in

remote areas, and with the greatest impact being on children. This may include infectious and parasitic diseases, eye and ear infections, skin conditions and respiratory conditions, as well as indirect effects on mental health and wellbeing (Australian Indigenous HealthInfoNet 2008). Overcrowded housing also has an impact on family wellbeing; it discourages stable relationships, adds significant stress, and places pressure on food and financial security (Northern Territory Government 2010a). Addressing housing remains crucial for sustained and ongoing improvements in child health.

In NAPLAN testing, the proportion of Aboriginal students in the Northern Territory above the national minimum standard is substantially lower than that of both non-Aboriginal Northern Territory students, and Aboriginal students nationally, in every year tested and across reading, writing, spelling, grammar and numeracy (Northern Territory 2015). The gap in numeracy levels widened during the period 2008-2013 and school attendance rates decreased (COAG Reform Council, 2014). Education is an important determinant of health and can help break the cycle of disadvantage. However, current policy setting and investment appear to be inadequate.

Aboriginal people in the Northern Territory have both high unemployment (19%) and low labour force participation rates (55%), while the median gross weekly household income of Aboriginal adults is around one-third of that of non-Aboriginal adults and this gap has widened since 2002 (AIHW 2015a).

Alcohol related harm is very high among Aboriginal people in the Northern Territory, with harms including family and other violence, physical ill health and child neglect.

Programs

Action is required in areas outside of health such as housing, education and employment support but this is outside the scope of this report.

SEWB/AOD programs and initiatives

ACCHSs have pioneered incorporation of Aboriginal SEWB programs into primary health care. SEWB programs seek to address the impacts of colonisation – grief, loss, stress, anger and despair – that can manifest in family breakdown and violence, substance use, suicide and high levels of incarceration. Interventions at the community level include the provision of SEWB counselling for individuals and families, healing programs, and community development or prevention programs, which are often strongly linked to cultural determinants of health. Importantly AOD programs need to be incorporated into SEWB services, particularly since the rates of comorbidities are high, and SEWB services in turn need to be part of comprehensive primary health care to ensure access to culturally and clinically effective services (National Mental Health Commission 2015).

Evidence-based alcohol control measures have been very effective at reducing harm across multiple countries and population groups. Alcohol control measures have had some measurable effect in the Northern Territory with per capita alcohol consumption dropping over the last ten years (Loxley et al. 2014) but much more needs to be done given the rates of harm.

Tobacco control programs

An investment in tobacco control nationally since 2009 has resulted in tobacco control teams in many (but not all) ACCHSs. Tobacco cessation programs include public health and social marketing activities.

Policy implications

- Improvements in social determinants have been slow at best in the areas of early education and employment (COAG Reform Council 2014), with moderate improvement in housing (Australian

Health Ministers' Advisory Council 2015). This will put a brake on improvements in childhood outcomes unless these areas are addressed.

- A number of ACCHSs provide SEWB programs as part of comprehensive primary health care, although some remote services have little or no funding in this area and even services with funding are not resourced to meet the need. OSR reports (an annual workforce survey for ACCHSs) consistently find that ACCHSs identify SEWB services as one of the key gaps in service provision.
- Alcohol control measures are still too patchy and require action at the community (e.g. community-driven alcohol management plans), jurisdictional (e.g. reduction of liquor outlets, review of trading hours) and national (e.g. implementation of a volumetric tax) levels.

2.3 Progress and possibilities: Next steps

The First Five Years have so much to do with how the next eighty turn out.

Bill Gates Jnr

There are a number of effective early childhood programs in place in the Northern Territory. However, their implementation is ad hoc, there is generally a lack of evidence, and coordination across services and sectors remains inadequate. The poor AEDC and NAPLAN scores and high rates of physical health problems and behavioural issues in young children indicate a substantial unmet need for evidence-based programs that can make a difference during pregnancy and in the early years.

Without a significant increase in the priority given at both policy and service delivery levels to core universal early childhood services, early life adversity will continue to exert a heavy toll on children's physical, emotional and cognitive development. For too many Aboriginal children, this will result in ongoing low educational attainment, high rates of juvenile crime and drug use, mental health problems and poor adult health and social outcomes, such as high rates of chronic disease and low employment.

If we're going to make progress on 'closing the gap' and improve outcomes for Aboriginal children in the Northern Territory, there needs to be a commitment to increasing expenditure on early childhood programs with a focus on universal services. There also needs to be a commitment to the implementation of a consistent set of evidence-based services across the key domains in pregnancy and early childhood, as set out in this report. An evidence-based, equitable and culturally appropriate core services approach is essential if the investment in early childhood is to have optimal outcomes.

Children need nurturing families and supportive environments in order to thrive and grow. For many Aboriginal families there are multiple factors working against optimal caregiving. This core services policy must therefore be implemented as part of a broader core services approach to wellbeing that meets the health and support needs of parents, families and communities so they are able to raise "solid kids" (as described in the Aboriginal-only workshop). This broader approach has already been outlined in the NTAHF's *Core functions of primary health care*. Improving social determinants such as housing and employment and combating racism are also critical so that families are not struggling with poverty and chaotic, difficult environments.

Implementation of this model will require collaboration and commitment from government across portfolios at both Territory and Commonwealth levels, ACCHSs and other stakeholders. It should be guided and informed by implementation science as well as Aboriginal leadership and knowledge. Long-term commitment to adequate resourcing and system reform is also needed to ensure that early childhood services can make an optimal contribution to closing the gap – not only in health but also in other key areas such as employment and education.

Appendices

Appendix 1: Acknowledgements

Workshop planning
Workshop initiated by Northern Territory Early Childhood Coalition and planned by representatives from Menzies, KidSafe, AMSANT and the Commonwealth Department of Health, under guidance from the Northern Territory Aboriginal Health Forum's Primary Healthcare Working Group

Facilitators
Day 1: Heather D'Antoine, Division Leader of Education & Research Support and Associate Director for Aboriginal Programs, Menzies School of Health Research

Day 2: Prof Kerry Arabena, Chair of Indigenous Health, University of Melbourne

Day 1 co-facilitator: Sharon Wallace, Workforce Policy Officer, AMSANT

Presenters
Prof Sven Silburn, Co-director Centre for Child Development & Education, Menzies School of Health Research: *Healthy early childhood development: Key concepts*

Dr John Boffa, Chief Medical Officer Public Health, Central Australian Aboriginal Congress: *The Early Childhood Coalition and the implementation of core services and programs*

Heather D'Antoine, Menzies School of Health Research & Frank Campbell, AMSANT: *Findings from Day 1 workshop*

Welcome to Country
Dianne Quall (aka 'Deede'), Larrakia Traditional Owner

Sponsor
Northern Territory Department of Children and Families

Workshop report
Victoria Pollifrone, Independent consultant, and AMSANT staff

Appendix 2: Delegates

Frank Campbell	AMSANT
David Cooper	AMSANT
Dr Liz Moore	AMSANT
John Paterson	AMSANT
Jo Schwarzman	AMSANT
Sharon Wallace	AMSANT
Wendy Scarlett	Anglicare
Brionee Noonan	Aboriginal Peak Organisations NT
Theresa Roe	Aboriginal Peak Organisations NT
Dr Paul Bauert	Australian Medical Association
Terry Tilmouth	CAALAS

Mica Alcedo	Central Australia Health Service
Brycen Brook	Central Australia Health Service
Joy Fordham	Central Australia Health Service
Donna Ah Chee	Central Australian Aboriginal Congress
Dr John Boffa	Central Australian Aboriginal Congress
Tracey Brand	Central Australian Aboriginal Congress
Tanja Hirvonen	Centre for Remote Health
Colleen Gwynne	Children's Commissioner
Bramwell Morton	Children's Ground
Annie Dullow	Commonwealth Department of Health
Alison Killen	Commonwealth Department of Health
Nakkara Johnson	Community member (Day 1 only)
Rosie Baird	DAIWS
Anna Sebbens	DAIWS
Karen Geer	Danila Dilba Health Service
Dr Olivia O'Donoghue	Danila Dilba Health Service
Andrea Roe	Danila Dilba Health Service
Shane Russell	Danila Dilba Health Service
Colm Elliott	Department of Children & Families
LeeAnne Jarrett-Sims	Department of Children & Families
Dawn Davis	Department of Education
Jennifer Lorains	Department of Education
Fiona McGregor	Department of Prime Minister & Cabinet
Bec Gooley	Katherine West Health Board
Victoria Pollifrone	Kidsafe
Romlie Mokak	Lowitja Institute
Prof Kerry Arabena	Melbourne University
Dr Anita D'Aprano	Melbourne University
Heather D'Antoine	Menzies School of Health Research
Linda Quall	Menzies School of Health Research (Day 1 only)
Prof Sven Silburn	Menzies School of Health Research
Gurmeet Singh	Menzies School of Health Research
Matthew Strong	NAAJA
Angela Agostini	NT Health
Steve Guthridge	NT Health
Le Smith	NT Medicare Local
Claire Pilkington	Office of Disability
Eileen Gotlieb	Santa Teresa Health Centre
Michelle Dowden	Sunrise Health Service
Raelene Wing	Sunrise Health Service
Dr Christine Connors	Top End Health Service
Barbara Cox	Top End Health Service
Josie Curr	Top End Health Service
Shelley Parker	Top End Health Service

References

ABS 2013, *Preschool education, Australia, 2012*, Australian Bureau of Statistics, http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/4240.0Main%20Features32012?opendocument&tabname=Summary&prodno=4240.0&issue=2012&num=&view [accessed February 2016]

AEDC 2014, *Community Story, Families as first Teachers, Remote Communities, NT*, Australian Early Development Census, Commonwealth of Australia.

AEDC 2015, *AEDC data explorer*, Australian Early Development Census, Commonwealth of Australia. https://www.aedc.gov.au/communities/accessing-community-results [accessed March 2016]

AHMAC, 2011, *National Framework for Universal Child and Family Health Service*, Australian Health Ministers Advisory Council, http://www.health.gov.au/internet/main/publishing.nsf/content/AFF3C1C460BA5300CA257BF0001A8D86/$File/NFUCFHS.PDF [accessed April 2016]

AIHW 2014a, *Australia's health 2014: 7.1 Profile of Indigenous Australians*. Australia's health series no. 14, Canberra, Australian Institute of Health and Welfare.

AIHW 2014b, *Birthweight of babies born to Indigenous mothers*, cat. no. IHW138, Canberra, Australian Institute of Health and Welfare.

AIHW 2015a, *Aboriginal and Torres Strait Islander Health Performance Framework 2014 report: Northern Territory*, cat. no. IHW 159, Canberra, Australian Institute of Health and Welfare.

AIHW 2015b, *Hearing Health outreach services to Aboriginal and Torres Strait Islander children and young people in the Northern Territory 2012-13 to 2014-15*, Australian Institute of Health and Welfare.

AIHW 2016, *Child protection Australia 2014-15*, Australian Institute of Health and Welfare, http://www.aihw.gov.au/publication-detail/?id=60129554728 [accessed May 2016].

Alexander, KE & Mazza, D 2010, *The Healthy Kids Check — is it evidence-based?* Medical Journal of Australia, vol. 192, no. 4, pp 207-210.

Allen and Clarke 2011, *Evaluation of the Child Health Check Initiative and the Expanding Health Service Delivery Initiative: Final report*, Department of Health and Ageing, Canberra.

Arney, F, McGuinness, K, Westby, M 2012, *Report on the Implementation of Family Group Conferencing with Aboriginal Families in Alice Springs*, Centre for Child Development and Education, Menzies School of Health Research.

Atkinson, J. (2002). *Trauma Trails Recreating Song Lines: The Transgenerational Effects of Trauma in Indigenous Australia*. Melbourne, Spinifex Press.

Atkinson, J. (2013). *Trauma-informed services and trauma-specific care for Indigenous Australian children*. Resource sheet no. 21 produced for the Closing the Gap Clearinghouse. Australian Institute of Health and Welfare, Australian Institute of Family Studies.

Australian Indigenous Health*InfoNet* 2008, *Review of the impact of housing and health-related infrastructure on Indigenous health*. http://www.healthinfonet.ecu.edu.au/determinants/physical-environment/reviews/our-review [accessed April 2016]

Australian Medical Association 2010, *Developmental Health and Wellbeing of Australia's Children and Young People*, AMA. https://ama.com.au/position-statement/developmental-health-and-wellbeing-australia%E2%80%99s-children-and-young-people-revised [accessed March 2016]

Australian Medical Association 2013, *Best Practice and Good News Stories: 2012-13 AMA Indigenous Health Report Card - "The Healthy Early Years - Getting the Right Start in Life"*, AMA, 10 Dec 2013.

Bailie, RS, Damin, S, Dowden, M, Connors, C, O'Donoghue, L, Liddle, HE, Kennedy, CM, Cox, RJ, Burke, HP, Thompson, SC & Brown, ADH 2008, *Delivery of child health services in Indigenous communities: implications for the federal government's emergency intervention in the Northern Territory*, Medical Journal of Australia, May 19 2008, vol. 188, no. 10, pp. 615-618.

Bar-Zeev, S, Kruske, S, Barclay, L, Bar-Zeev, N & Kildea, S 2013, *Adherence to management guidelines for growth faltering and anaemia in remote dwelling Australian aboriginal infants and barriers to health service delivery*, BMC Health Services Research, 13:250.

Bateman. J., & Henderson, C. (Mental health Coordinating Council) (2013). *Trauma- Informed Care and Practice: towards a cultural shift in policy reform across mental health and human services in Australia - A national strategic direction*. Retrieved from: http://www.mhrt.nsw.gov.au/assets/files/mhrt/pdf/NTICP_Strategic_%20Direction.pdf

Braveman, P, Egerter, S, Arena, K & Aslam, R 2014, *Early Childhood Experiences Shape Health and Well-Being Throughout Life*, University of California, San Francisco Centre on Disparities in Health.

Brimblecombe, JK, Ferguson, MM, Liberator, SC, O'Dea, K 2013, *Characteristics of the community-level diet of Aboriginal people in remote northern Australia*, Medical Journal of Australia, vol. 198, no. 7, pp. 380-384.

Browne, A. J., Varcoe, C. M., Wong, S. T., Smye, V. L., Lavoie J, Littlejohn D, Tu D, Godwin O, Krause M, Khan KB, Fricklin A, Rodney P, O'Neil J and Lennox S 2012. Closing the health equity gap: evidence-based strategies for primary health care organisations. *International Journal for Equity in Health, 11*(59).

Bundy, A, Brentnall, J, Hemsley, B & Marshall, E 2008, *Therapy Services in the Disability Sector: Literature Review,* Final Report, January 2008, The University of Sydney Faculty of Health Sciences.

Centre for Community Child Health 2002, *Child Health Surveillance. A critical review of the evidence*, Royal Children's Hospital Melbourne/NHMRC.

Children by Choice 2013, *Fact sheet: Unplanned pregnancy in Australia*, http://www.childrenbychoice.org.au/info-a-resources/facts-and-figures/unplanned-pregnancy-profiles-of-abortion-adoption-and-parenting [accessed May 2016]

COAG Reform Council 2014, *Indigenous Reform 2012-13: Five years of performance*, COAG Reform Council, Sydney.

COAG 2008, *National Partnership Agreement on Early Childhood Education*, Council of Australian Governments.

COAG 2009a, *Investing in the Early Years – A National Early childhood Development Strategy*, Commonwealth of Australia.

COAG 2009b, *Protecting Children is Everyone's Business: National Framework for Protecting Australia's Children 2009–2020*, Commonwealth of Australia.

Coffey, P 2015, *Evidence brief: Nurse-Family Partnership Program and the NT context*, unpublished report prepared for Aboriginal Medical Services Alliance Northern Territory.

CSDH 2008, *Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health*, Geneva, World Health Organization.

Department of Health 2014, *Northern Territory Market Basket Survey 2014*, Department of Health, Darwin.

Emerson L & Fox S 2014, *The Importance of a Healthy Start to Life: Synopsis of evidence*, unpublished report prepared for The Lowitja Institute, ARACY, Canberra.

Emerson, L, Fox, S & Smith, C 2015, *Good Beginnings: Getting it right in the early years*, The Lowitja Institute, Melbourne.

Fitzpatrick, JP, Latimer, J, Carter, M, Oscar, J, Ferreira, ML, Carmichael Olson, H, Lucas, BR, Doney, R, Salter, C, Try, J, Hawkes, G, Fitzpatrick, E, Hand, M, Watkins, RE, Martiniuk, AL, Bower, C, Boulton, J & Elliott, EJ 2015, *Prevalence of fetal alcohol syndrome in a population-based sample of children living in remote Australia: The Lililwan Project*, Journal of Paediatrics and Child Health, 51, pp. 450–457. doi: 10.1111/jpc.12814.

Harvard University Center on the Developing Child 2016a, *Gene environment interaction* http://developingchild.harvard.edu/science/deep-dives/gene-environment-interaction/ [accessed February 2016]

Harvard University Center on the Developing Child 2016b, *From Best Practices to Breakthrough Impacts: A Science-Based Approach to Building a More Promising Future for Young Children and Families,* www.developingchild.harvard.edu [accessed May 2016]

Harrison N & Maypilama E 2014, *Evaluation Report for the Miwatj Aboriginal Health Service and Australian Red Cross Galaiwin'ku Healthy Baby Healthy Community (The Baby Hub) Program.*

Heckman, J 2006, *Skill Formation and the Economics of Investing in Disadvantaged Children*, Science, vol. 312, 30 June 2006.

Henderson, J, Hornbuckle, J & Doherty, D 2007, *Models of Maternity Care: A Review of the Evidence Towards Future Directions in Maternity Care*, Women and Infants Research Foundation.

Herceg, A 2005, *Improving health in Aboriginal and Torres Strait Islander mothers, babies and young children: a literature review*, Canberra, Dept of Health and Aging.

Kruske, S 2011, *The characteristics of culturally competent maternity care for Aboriginal and Torres Strait Women*, prepared for the Maternity Services Inter-Jurisdictional Committee for the Australian Health Ministers' Advisory Council.

Lavoie, J. (2014). Policy and practice options for equitable access to primary healthcare for Indigenous peoples in British Columbia and Norway. *The International Indigenous Policy Journal, 5*(1).

Lenthal, S, Wakerman, J, Opie, T, Dunn, S, MacLeod, M, Dollard, M, Rickard, G & Knight, S 2011, *Nursing workforce in very remote Australia, characteristics and key issues*, first published online 25 January 2011, Journal of Rural Health.

Lowitja Institute 2012, *Nutrition, physical activity, obesity and food security, telehealth, environmental health, housing and hygiene*, Northern Territory Research priority round tables, Lowitja institute.

Loxley, W, Gilmore, W, Catalano, P & Chikritzhs, T 2014, *National Alcohol Sales Data Project (NASDP) Stage Four Report,* National Drug Research Institute, Curtin University, Perth, Western Australia.

MacMillan, HL, Wathen, CN, Barlow, J, Fergusson, DM. Leventhal, JM & Taussig, HN 2009, *Interventions to prevent child maltreatment and associated impairment,* Lancet, 373, pp. 250-266.

Mildon, R & Polimeni, P 2012, *Parenting in the Early Years: Effectiveness of Parenting Support Programs for Indigenous families*, Closing the Gap Clearinghouse, resource sheet no. 16, Australian Government.

Moore, T & McDonald, M 2013, *Acting early, Changing lives: How prevention and early action saves money and improves wellbeing*, prepared for The Benevolent Society, Parkville, Victoria, Centre for the Community Child Health at the Murdoch Children's Research Institute and the Royal Children's Hospital.

Moss, B & Silburn, S 2012, *Preschool Readiness Program: Improving developmental outcomes of Aboriginal children in Alice Springs*, Centre for Child Development and Education, Menzies School of Health.

National Mental Health Commission 2014, *Contributing Lives, Thriving Communities - Report of the National Review of Mental Health Programmes and Services*, National Mental Health Commission.

Northern Territory Government 2010a, *Growing them Strong, Together: Promoting the safety and wellbeing of the Northern Territory's children*, Report of the Board of Inquiry into the Child Protection System in the Northern Territory, prepared by Bamblett, M, Bath, H & Roseby, R, Northern Territory Government, Darwin.

Northern Territory Government 2010b, *Alcohol use in the Northern Territory*, Health Gains Planning Information Sheet, Oct. 2010.

Northern Territory Government 2015, *Overweight and Obesity in the Northern Territory, 2011-2012*, Health Gains Planning Fact Sheet, November 2015.

NTAHF 2011, *Core functions of primary health care: a framework for the Northern Territory*, prepared by Tilton, E (Edward Tilton Consulting) and Thomas, D (the Lowitja Institute) for the Northern Territory Aboriginal Health Forum.

NT Department of Health and Families 2009, *Healthy Under Five Kids Data Collection Program 2009 Northern Territory Annual Report*, Darwin, DHF, Health Service Information Branch.

NT Early Childhood Coalition 2013, *Position statement.*

Olds DL, Kitzman H, Hanks C, Cole R, Anson E, Sidora-Arcoleo K, Luckey DW, Henderson CR, Holmberg J, Tutt RA, Stevenson AJ, Bondy J 2007, *Effects of Nurse Home Visiting on Maternal and Child Functioning: Age-9 Follow-up of a Randomized Trial*, Paediatrics, vol. 120, issue 4.

Paradies, Y, Harris, R & Anderson, I 2008, *The Impact of Racism on Indigenous Health in Australia and Aotearoa: Towards a Research Agenda*, Discussion Paper No. 4, Cooperative Research Centre for Aboriginal Health, Darwin.

Robinson, G, Zubrick, SR, Silburn, S, Tyler, W, Jones, Y, D'Aprano, A, McGuinness, K, Cubillo, C, Bell, M & Stock, C 2009, *Let's Start: Exploring Together. An early intervention program for Northern Territory children and families. Final evaluation report*, School for Social and Policy Research, Institute of Advanced Studies, Charles Darwin University, Darwin.

Robinson, G, Silburn, S & Arney, F 2011, *The value of investment in the early years: Balancing costs of childhood services,* Topical Paper commissioned for the public consultations on the Northern Territory Early Childhood plan, Northern Territory Government, Darwin.

Schweinhart, L, Montie, J, Xiang, Z, Barnett, WS, Belfield, CR & Nores, M 2005, *Lifetime effects: The High/Scope Perry Preschool Study Through Age 40,* High/Scope Press.

Silburn S, Robinson G, Arney F, Johnstone K & McGuinness K 2011, *Early childhood development in the NT: Vol – 1 to 4*, Menzies School of Health Research.

Silburn, S & Walker, R 2008, *Community Learning for Parenthood*, Australian Research Alliance for Children & Youth.

Social Health Reference Group 2004, *Social and Emotional Well Being Framework: A National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Well Being 2004-2009*, National Aboriginal and Torres Strait Islander Health Council and National Mental Health Working Group.

Successworks 2011, *Evaluation of the NT MOS Projects: Final Evaluation Report*, Prepared for Department of Health and Ageing Office for Aboriginal and Torres Strait Islander Health, September 2011.

Sylva, K, Melhuish, E, Sammons, P & Siraj-Blatchford, I 2004, *Final Report, Effective Provision of Preschool Education (EPPE) Project*, UCL Institute of Education, London.

Tilbury, C 2015, *Moving to Prevention research report: Intensive family support services for Aboriginal and Torres Strait Islander Children*, SNAICC and Griffith University.

Tully, L 2009, *What makes parenting programs effective? An overview of recent research,* NSW Department of Community Services, Sydney, Centre of Parenting and Research, Parliamentary Services.

US Department of Health and Human Services, *Prenatal Services*, Health Resources and Services Administration Maternal and Child Health, http://www.mchb.hrsa.gov/programs/womeninfants/prenatal.html [accessed October 2015].

Warchivker I & Hayter A 2001, *An Evaluation of a Nutrition Program in a Remote Community in Central Australia*, National Rural Health Conference.

Williams, D 2011, *A Smoother Pathway to Birth*, O&G Magazine, vol. 13, no. 3 Spring 2011.

WHO 2004, *Chronic suppurative otitis media: burden of illness and management options,* World Health Organization.

WHO 2008, *Closing the Gap in a Generation, Health Equity through Action on the Social Determinants of Health*, Geneva, World Health Organization Commission on the Social Determinants of Health.

Wallerstein, N 2006, *What is the evidence on effectiveness of empowerment to improve health?* Copenhagen, WHO Regional Office for Europe, Health Evidence Network report, http://www.euro.who.int/Document/E88086.pdf [accessed 1 February 2011]

Zubrick, S, Silburn, S, Lawrence, D, Mitrou, F, Dalby, R, Blair, E, Griffen, J, Milroy, H, Maio, J, Cox, A & Li, J 2005, *The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People*, Perth, Curtin University of Technology and Telethon Institute for Child Health Research.