Making the World of Difference: The First 1000 Days Scientific Symposium Report

Kerry Arabena, Sarah Howell-Muers, Rebecca Ritte and Emily Munro-Harrison

Onemda VicHealth Koori Health Unit

The University of Melbourne

Melbourne School of Population & Global Health

Goal of the First 1000 Days

To provide a coordinated, comprehensive intervention to address the needs of Aboriginal and Torres Strait Islander children from conception to two years of age, thereby laying the foundation for their future health and wellbeing.

Making the World of Difference: The First 1000 Days Scientific Symposium Report

Kerry Arabena, Sarah Howell-Muers, Rebecca Ritte and Emily Munro-Harrison

Onemda VicHealth Koori Health Unit

The University of Melbourne

Melbourne School of Population & Global Health

ISBN: 978 0 7340 5155 4

First published August 2015

Additional copies of this publication (including a PDF version on the Onemda website) can be obtained from:

Onemda VicHealth Group
Indigenous Health Equity Unit
Centre for Health Equity
Melbourne School of Population and Global Health
Level 4, 207 Bouverie Street
The University of Melbourne, Vic. 3010 AUSTRALIA

T: +61 3 8344 0813
F: +61 3 8344 0824
E: onemda-info@unimelb.edu.au
W: www.onemda.unimelb.edu.au

Authors: Professor Kerry Arabena, Dr Sarah Howell-Muers, Dr Rebecca Ritte and Ms Emily Munro-Harrison
Managing Editor: Jane Yule @ Brevity Comms
Artwork: Shawana Andrews
Report Design and Printing: Inprint Design

For citation: Arabena, K., Howell-Muers, S., Ritte, R. & Munro-Harrison, E. 2015, *Making the World of Difference: The First 1000 Days Scientific Symposium Report*, Onemda VicHealth Group, The University of Melbourne, Melbourne.

Table of Contents

Figures and Tables

Abbreviations

ACCHOs	Aboriginal Community Controlled Health Organisations
ADHD	Attention Deficit Hyperactivity Disorder
ADLs	Activities of Daily Living
AUDIT-C	Alcohol Use Disorders Identification Test
BB	Baby Baskets
BMI	Body Mass Index
BOP	Baby One Project
CAAC	Central Australia Aboriginal Congress
CHN	Child Health Nurse
CQI	continuous quality improvement
CTQ	Childhood Trauma Questionnaire
DM	Diabetes Mellitus
HIV/AIDS	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
IUGR	intra-uterine growth retardation
KGOW	Koori Growing Old Well study
KICA	Kimberley Indigenous Cognitive Assessment tool
MCHN	Midwife/Child Health Nurse
MoU	Memorandum of Understanding
mPHQ	modified Patient Health Questionnaire
NAPLAN	National Assessment Plan, Literacy and Numeracy
NFP Program	Nurse Family Partnership Program
SNAICC	Secretariat of National Aboriginal and Islander Child Care
STDs	Sexually Transmitted Diseases
TB	Tuberculosis
VACCA	Victorian Aboriginal Child Care Agency
VACCHO	Victorian Aboriginal Community Controlled Health Organisation

Terminology

In this report the terms 'Aboriginal' and/or 'Torres Strait Islander people' or 'First Peoples' are used to identify the First Peoples of Australia and to refer to and recognise the two unique Indigenous populations in Australia. The term 'Indigenous' refers collectively to the First Peoples of Australia, New Zealand, North America, and other countries around the globe. 'Non-Indigenous' is used to refer to those who do not identify as a member of the community of First Peoples of their respective countries.

Executive Summary

This report details the program, proceedings and outcomes of the First 1000 Days Scientific Symposium, the first of four symposiums to be held at, and led by, the University of Melbourne. The Symposium's aim was to support the widespread development and implementation of evidence-based strategies and interventions into the health and wellbeing of Aboriginal and Torres Strait Islander children from conception to the age of two, and to facilitate key collaborations between community and agency stakeholders.

The focus on the First 1000 Days is important because while the family life of Aboriginal and Torres Strait Islander people is predominantly centred around complex kinship systems and clan structures, with clear lines of rights and obligations to others, an increasing number of our children are vulnerable and at risk. We recognise that until recently the education and socialisation of young children took place within the rhythms of family life, the extended family and their Country. We also recognise the intrinsic value of children within our communities.

However, we also acknowledge these ideals have been radically disrupted for some families, particularly those who have suffered the separation of their children, the destruction of extended family networks and decades of living in oppressive circumstances – as evidenced by poor health and early deaths, sub-standard housing, poor educational outcomes, high unemployment and large numbers of Aboriginal and Torres Strait Islander people in custody. Despite these hardships, family remains the primary and preferred site for developing and protecting culture and identity in our children.

We also acknowledge, then, the importance of family-strengthening initiatives, the crucial role played by men in raising children and the importance of the First 1000 Days to the future prosperity of Aboriginal and Torres Strait Islander societies. By initiating an early and continued investment in the next generation, we can mitigate connections between adverse early experiences and a wide range of costly problems, such as lower educational achievement and higher rates of criminal behaviour and chronic disease. The First 1000 Days focuses on reducing the burdens of significant adversity on families with young children.

About the Scientific Symposium

The First 1000 Days Scientific Symposium was held at Graduate House on the University of Melbourne's Parkville campus on Thursday 2 April 2015. The first of a four-part series, participants at the Symposium heard from different scholars working in the early years as to the impact of early life interventions both across the lifespan and in different regions in Australia. The Symposium initiated the conversation about developing a clear, evidence-based strategy to support all vulnerable parents and their children in Australia, but with a focus on Aboriginal and Torres Strait Islander communities.

The aim of the Symposium was to build a core knowledge base that combines insights from scientific research, program evaluation and on-the-ground experience about the importance of the First 1000 Days on an individual's health and wellbeing. A key focus was to encourage collaboration on the development and uptake of research projects that could explore, investigate, evaluate and assess approaches targeting an infant's First 1000 Days – guided by a shared plan for action.

More than 100 participants from 30 different institutions were present at the Symposium, which was facilitated by Professor Kerry Arabena (Chair of Indigenous Health and Director of the Indigenous Health Equity Unit in the Melbourne School of Population and Global Health at the University of Melbourne), and chaired by Professor John Mathews (Professorial Fellow in the Centre for MEGA Epidemiology at the University of Melbourne, and Director of the Menzies Foundation). The Symposium considered how to develop and apply high-quality evidence to the issue of childhood vulnerability in Aboriginal and Torres Strait Islander populations that is grounded both in the neuroscience of early brain development and in the complex effects of social and community environments on children's development.

Presenters at the Symposium, all of whose presentations are included herein, focused attention on the fundamentals of human development at a time in a child's life when changes in service integration and family engagement can deliver on the promise of childhood equity. Multi-agency strategies that engage families in focusing on the early period of childhood were consistently promoted in all presentations.

Participants also heard that coordinated interventions which properly engage parents and vulnerable children with interrelated issues – such as maternal mental health, parental incarceration, racism and familial stress – and that also interact with the child protection and welfare systems have the best chance of being effective. Two such interventions are regional approaches that promote multi-agency strategies to engage families and focus on the early period of child development. The first of these preventative programs is run by the Central Australia Aboriginal Congress (CAAC) and is geared towards increasing attendance and engagement – the Nurse Family Partnership Program, and the Congress Preschool Readiness Program. The second is the 'Baby One Program' from Apunipima Cape York Health Council in north Queensland. Led by Aboriginal Community Controlled Health Organisations (ACCHOs) and supported by universities, these initiatives encourage service-specific enhancements at the local and regional levels to ensure that supports are equitably available for vulnerable families.

Scientific Committee on the First 1000 Days

The structure and role of a Scientific Committee on the First 1000 Days were discussed, and participants invited to propose and comment on the Terms of Reference and possible in-principle areas of focus for the Committee over the coming five years. The Symposium also afforded the opportunity for group discussions centered on the development of topics that could guide research development in this area under the aegis of the Scientific Committee. These discussions yielded some highly relevant and inspired themes that show promise as future research programs; more than four research applications have already been submitted to the Lowitja Institute's call for expressions of interest in its Aboriginal and Torres Strait Islander Early Childhood Health funding round.

Possible research themes for the First 1000 Days approach

The following themes were put forward by participants at the Symposium as possible areas of future research using the First 1000 Days approach.

Addressing family violence

Participants scoped research activities that could be conducted under the First 1000 Days, with interventions that have direct implications on family violence, child protection, child deaths, and empowerment considered important. Projects that integrated violence with drug and alcohol services and housing services, in partnership with industry organisations and communities, were seen as best practice solutions. Community consultation on all projects would be required to ensure that community input on their needs and goals are included and embedded in the interventions.

Early nutritional interventions

Early childhood is a strong predictor of metabolic syndrome, and habits and lifestyle are the largest causal factors of obesity. There is an established link between Diabetes Mellitus (DM) and low socio-economic status and obesity, although no significant link has been found between childhood traumatic events and DM. However, using the Childhood Trauma Questionnaire (CTQ), the topic would certainly benefit from further research. This is necessary if we are to address why Aboriginal and Torres Strait Islander people are more prone to DM and what can be done to prevent it by applying an early nutritional intervention. Consideration of other causal factors (such as smoking and alcohol) is still required.

Family mentoring

Participants felt there could be work that identified the role of support networks for parents, particularly those engaging with child protection or early education services. It was thought there could be more work done on gaining a comprehensive understanding of the community's role in collective parenting, and understanding the connections between grandparents'/ grandmothers' groups, protective factors and later health outcomes. There would be a strong emphasis on family and cultural support, parenting mentoring and case management approaches through this theme.

Raising motivated children

Educational attainment and the role of parents are the biggest determinants of whether young people will flourish in the future. Currently, educational attainment and employment are often used as proxy measures of aspirations and purpose, but individual aspirations are also important. Indeed, how the aspirations of the previous generation affect later generations is unknown, but it is likely to have an influence along with the number of positive role models in a young person's life. A major focus of this research theme would be to engage with those Aboriginal and Torres Strait Islander communities in which young people are flourishing and not focus on struggling communities. This would enable an investigation as to whether these young people describe a sense of purpose, connectedness and cultural identity in tandem with the positive outcomes emanating from their community.

Developing a workforce focusing on family healing and First 1000 Days' interventions

Workforce up-skilling and professional development for family healing and trauma practitioners is an issue, especially given the dearth of dedicated family therapist positions for Aboriginal and Torres Strait Islander people. By engaging workers already involved in family therapy, as well as current Aboriginal and Torres Strait Islander students, a postgraduate degree could be developed that, as part of their role, would facilitate knowledge exchange with the Aboriginal and Torres Strait Islander and non-Indigenous workforce. In addition, a research project is needed that focuses on the development of a workforce model to assist in implementing evidence-based approaches during the First 1000 Days. This would nominally identify skills, career paths and opportunities for all people engaged with and supportive of First 1000 Days programs.

Increasing antenatal and early years engagement

Poor antenatal engagement among Aboriginal women in Victoria leads to poorer health for newborns and then throughout their childhood. Thus, it is critical to identify ways to increase engagement during this key period. There is evidence that decreased self-efficacy leads to health service avoidance, and cultural strengthening leads to improved self-efficacy. Current research on the benefits for Aboriginal and Torres Strait Islander women of continuity of care with a midwife has shown a reduction in smoking rates, a decrease in infant formula use, possibly improved nutrition and fewer low birthweight infants and specialist care nursery admissions.

Developmental pathways: Department linkage to improve policy and practice

Health service providers – under the auspice of State departments, registries and other data custodians – collect data containing information on the health and life events of Aboriginal and Torres Strait Islander people. Having access to, and command of, this basic information across government sites allows modelling for the timing and potential impact of decision points within and between agencies. With guidance from community, and using agreements across those departments that are leading and informing governance and research, user-generated research questions can be developed that will return meaningful information back to the community.

How to be the best parents we can be: What is good parenting?

A generation of Aboriginal and Torres Strait Islander people lacked a parenting role model. However, despite, or perhaps because of, this absence there is still a desire for the next generation to be the most effective parents they can be. Currently, there is a lack of strong data on Aboriginal and Torres Strait Islander parenting skills, models and outcomes of parenting interventions, but without robust data funding for further research is difficult. There is a need for home support programs for Aboriginal and Torres Strait Islander (especially vulnerable) parents, and programs educating adults on parenting before they have children could also be considered. In addition, there are issues around the sensitivity of discussions with Aboriginal and Torres Strait Islander parents about parenting.

Where to from here?

The next three Symposiums to progress the First 1000 Days research agenda have been booked. The second is for researchers and implementers of projects operating across different national sites to develop both an understanding of what data is being collected and why it is being collected and to develop core data that can be used in comparisons across jurisdictions and regions. This meeting will also focus on current datasets, how they can be used and birth cohorts in Australia.

The third Symposium is for community people and organisations to focus on the development of community governance frameworks for the First 1000 Days research sites being negotiated across Australia. It will also identify how to engage with and support families, to take and use strengths-based approaches and to identify key methods for engaging fathers and extended family members in modelling activities and the early years workforce.

The fourth and final Symposium will target policy makers and influencers to identify ways in which policy processes can respond to the evidence generated from First 1000 Days sites, and replicate these findings into other areas of activity across Victoria and nationally. The First 1000 Days Framework will be ready for implementation in 2016.

The Evidence

The First 1000 Days between a woman's pregnancy and her child's second birthday offers a unique window of opportunity to shape healthier and more prosperous futures (1,000 Days 2014). In recent years the perceived importance of the First 1000 Days has gained traction as new evidence emerges as to the impact of maternal nutrition on brain development, the neuroscience of infants, the long-term impacts of early childhood experiences such as stress permanently affecting characteristics usually considered genetic ('epigenetics'), and the capacity of infants to begin structured learning earlier than previously supposed (Arabena 2014).

The evidence shows that:

- Ensuring that the brain achieves its optimum development and nurturing during this peak period of growth is vitally important, as it enables babies to achieve the best start in life (Leadsom et al. 2014).
- From birth to 18 months, connections in the brain are created at a rate of 1,000,000 per second. A baby's earliest experiences shape its brain development and have a lifelong impact on that baby's mental and emotional health (O'Connell, Boat & Warner 2009).
- A baby or foetus exposed to toxic stress can have their responses to stress distorted in later life. Such early stress can come from the mother suffering from symptoms of depression or anxiety, having a bad relationship with her partner or from an external trauma such as a bereavement (CDCHU 2011).
- When a baby's development falls behind the norm during the first years of life, it is then much more likely to fall behind even further in subsequent years than to catch up with those who have had a better start in life (AMA 2010).
- A baby's social and emotional development is strongly affected by the quality of their attachment – that is, the bond between a baby and its caregivers (Malekpour 2007).
- Babies are disproportionally vulnerable to abuse and neglect. A number of our children are living in complex family situations, or at heightened risk in households with problems such as substance misuse, mental illness or domestic violence. Many of the statistics show that serious case reviews involve children under the age of 12 months (Morgan & Chadwick 2009).

When children have opportunities to develop executive function and self-regulation skills – which are crucial for learning and development – both individuals and society as a whole benefit. In vulnerable families, we need to build the capabilities of adult caregivers in order to achieve good outcomes for the children in their care. By supporting the development of children's and caregiver's self-regulation skills, mental health and executive functioning, we can improve the economic and social stability of the family, thereby maximising the health benefits that will positively impact on young children across their life-course (CDCHU 2015).

Figure 1: Summary of possible actions under a First 1000 Days approach for Aboriginal and Torres Strait Islander Infants and those caring for them

Issues to be addressed	• drug and alcohol* • Impact of incarceration	• smoking* • maternal nutrition • antenatal care • focus on gestational diabetes	• breastfeeding and good nutrition • family support and preservation	• family support and preservation • good nutrition • appropriate learning and stimulation?
Goals	• maximise health, awareness and resilience for potential parenthood • focus on fatherhood	• reduce incidence of low birth weight babies • reduce incidence of conditions such as FAS-0 • delay pregnancy • better fathering	• reduce growth faltering • comprehensive immunisation • improved brain development	• avoid early obesity • improved dental health (too early?) • understand and mitigate impact of placement into care
Relevant services	• drug and alcohol services • youth corrections	• child and maternal nursing • antenatal care • home visiting	• home visiting • family support	• early learning and development • home visiting
Possible priorities or interventions	• cultural strengthening* • family outreach/ support for those in gaol/care (eg playgroups/ playgrounds in gaols) • Year 12 catch-up • relationship education	• target those Aboriginal women under 19 giving birth each year • Year 12 catch-up • relationship support • review location and focus on antenatal and post natal services	• greater risk-assessment for neglect? • links to family and cultural support • analyse linked data to understand mortality and morbidity	• teach self-regulation and emotional intelligence concepts to parents • intensive pre-school and baby learning and communication programs, eg Abecedarian • community charters for child rights

Reduced maternal and childhood morbidity and improved cognition, neurodevelopmental outcomes

↓

Improved economic and education participation, social wellbeing and family resilience

**Note: a number of issues will need to be addressed across all phases*

Governance and Leadership – *establish a Task Force to lead*

Monitoring and Evaluation – *define the key expected changes and how to measure them*

Workforce Planning and Development – *identify the various workforces involved with the 'First 1,000 Days' and look for any shared challenges*

Research and Communication – *address under-ascertainment/misclassification of births and improve data access and linkage*

The First 1000 Days

A radical change is required in how we think about and enhance the early outcomes for Aboriginal and Torres Strait Islander children in Australia (SNAICC 2013). Too many children and young people do not have the start in life they need. As our understanding of developmental science improves, it becomes clearer and clearer that adverse events in a child's life lead to structural changes in brain development that have life-long and societal ramifications (TLRP [n.d.]). We now also know these ramifications are intergenerational (Lee & Macvarish 2014). Not intervening will affect not only this generation of children, but also the next. Those who suffer adverse childhood events achieve less educationally, earn less and have worse health outcomes – all of which makes it more likely that the cycle of harm is perpetuated in the following generation (Leadsom et al. [n.d.]).

The First 1000 Days Scientific Symposium was a call to consider the implementation of new interventions founded in rigorous science, and to consider the opportunities inherent in the 'critical window of opportunity' from conception to the age of two. International research shows that early intervention programs during pregnancy and in the early months and years of a child's life have tremendous positive impacts on health later in life. The physiological, educational and emotional environment of the child in this 'First 1000 Days' has been shown to exert a profound impact on long-term developmental and life trajectories (Illig 1998; The Lancet 2013; The Save the Children Fund 2013).

In our communities, pregnancy, birth and the first 24 months can be tough for every mother and father. Some parents find it difficult to provide the care and attention their baby needs (see Andrew Jackomos presentation, pp.9–11). Participants at this forum also heard that this same time period can be a chance to affect great change as parents are usually receptive to offers of advice and support, and agencies are able to provide seamless services emphasising community leadership, workforce development, coordination of effort, partnerships and collaboration.

In the Australian context, early intervention support for mother and baby is not always available to Aboriginal and Torres Strait Islander children. As a result, they can be subject to poorer health and cognitive development than non-Indigenous infants. This has life-long health and wellbeing implications that impact at the individual, family, community and societal level (McHugh & Hornbuckle 2010).

Thus, the First 1000 Days framework is being developed as an approach to improving health outcomes for Aboriginal and Torres Strait Islander children and to maximising the potential of all children. Coordinated by Professor Kerry Arabena and the Indigenous Health Equity Unit within the Melbourne School of Population and Global Health, the framework will focus attention on preconception, maternal antenatal and post-partum nutrition and healthy lifestyle strategies, and nutritional, social, environmental, educational and family supports for the developing infant and child (The University of Melbourne 2015).

Recent evidence demonstrates there are many areas that could be used to guide the development of targeted interventions for the Framework including:

- impact of maternal nutrition on brain development
- neuroscience of infants
- long-term impacts of early childhood experiences such as stress, which may permanently affect characteristics usually considered genetic ('epigenetics')
- capacity of infants to begin structured learning earlier than previously supposed
- building the capabilities of adult caregivers in vulnerable families
- developing executive function and self-regulation skills in the child.

This approach will also involve health care workers, community organisations and all levels of government to address local and systemic-level issues contributing to the growing gap in infant and parental health between Aboriginal and Torres Strait Islander and non-Indigenous Australians. These issues include preconception, maternal and child health, parental support, early childhood education, housing availability and quality, and poverty reduction.

The impact of capacity building in these areas can be global and enduring. For example, when children have opportunities to develop executive function and skills in self-regulation – crucial for learning and development – the positive outcomes and health benefits to the child extend to improvements in the economic and social stability of the family, and to society as a whole (Vimpani, Patton & Hayes 2004).

Furthermore, interventions in the First 1000 Days have already shown demonstrable and far-reaching outcomes (1,000 Days 2014), such as:

- saving lives
- significantly reducing the human and economic burden of communicable diseases such as TB, malaria and HIV/AIDS
- reducing the long-term risk of developing some non-communicable and chronic diseases including diabetes
- improving educational achievement and earning potential
- improving a nation's gross domestic product.

By giving children the best start in the First 1000 Days of life we are enabling them to develop to their full potential as psychologically and physically healthy, socially engaged, well-educated and productive adults. By contrast, adverse experiences for the child in this period can derail healthy development, and create learning, behavioural and health challenges that place a heavy burden at the individual, family, community, and national level.

Overview of Presentations at the Scientific Symposium

The following section provides a brief overview of the presentations given at the First 1000 Days Scientific Symposium on 4 April 2015. They are grouped under three headings:

- Targeting community: Realities and facts
- Regional responses: Strengthening families
- The First 1000 Days: Life stages approach.

Targeting community: Realities and facts

Taskforce 1000: A focus on vulnerable children across Victoria

Mr Andrew Jackomos, Victorian Commissioner for Aboriginal Children and Young People, Melbourne (excerpts from speech)

It is essential to realise that the great majority of Aboriginal and Torres Strait Islander children in Victoria are happy and healthy. They are raised in loving and safe families in which they are taught to be proud of their culture, society and history. They are actively encouraged to participate in education – with record numbers completing Year 12 and continuing on to tertiary education and trades – and they contribute to their local Koori community and broader society.

There is a minority of children, however, who have not been, or are not currently, afforded these opportunities. In considering the previous State government's report from the Cummin's Inquiry into Vulnerable Victorian Children (Cummins, Scott & Scales 2012), the State Parliament in 2012 rightfully recognised that there are far too many Koori infants and children who exist in vulnerable circumstances and in statutory out-of-home care. The Inquiry found that Australia's history of invasion and colonisation, and subsequent government policies going back more than 200 years, continues to impact directly on Aboriginal children and families today.

Statistics on these children reflect the extent of their vulnerability. They will have higher rates of in-utero exposure to cigarette smoke and drug abuse, and poorer birth outcomes with lower birth weights. Throughout childhood, they will participate less in the early years of education and be more likely to be suspended and expelled from a government school. They will be exposed to higher rates of racial abuse and discrimination, have greater involvement with the youth justice system and higher rates of incarceration – particularly if they are in the statutory care of the State. And they will experience higher child mortality rates. Therefore, rather than improving, things are getting worse.

A particularly prominent area of concern is the role of out-of-home care. Aboriginal and Torres Strait Islander children comprise a disproportionately high percentage of those in the out-of-home care system in Victoria, with rates increasing. The Commonwealth's 2015 Report on Government Services (Productivity Commission 2015) revealed that Koori babies and children in Victoria who were removed and living away from immediate family homes rose by 42 per cent in just 12 months to 30 June 2014. It also revealed rates of Aboriginal children in out-of-home care up to 13 times higher than for non-Indigenous children.

Vulnerability among children is multi-factorial in origin, and predisposes the child to neglect and abuse in both the family context and in the State care intended to protect them. The majority of Aboriginal children placed in out-of-home care are also placed with non-Koori communities and families. The abuse and neglect to which these children can be exposed, both prior to and following placement in care, is staggering – particularly given that they are citizens in a first nation providing opportunities for affluence and advantage. The trauma and removal of children from their families also often forms part of an intergenerational cycle of violence that needs to be broken.

A joint taskforce has been established by the Secretary of the Department of Human Services and the Victorian Commissioner for Aboriginal Children

and Young People to review the reasons behind the increasingly high rates of removal of Aboriginal children into out-of-home care. Its aim is to identify opportunities to improve their current poor outcomes and for the provision of more appropriate care in the government and funded service sector. More than 750 children from a range of regional and urban localities across the State were surveyed to investigate the various features of the children's circumstances and care provision as shown in Table 1.

Table 1: Examples of survey parameters investigated as part of the joint taskforce into Aboriginal children in out-of-home care

What support and services did the parents receive prior to and following the child's removal to enable early reunification?
Causal factors surrounding removal of the child (e.g. family violence, alcohol and drug issues, neglect, abuse, mental health issues)
Alternatives to removal
Factors contributing to ongoing placement and leaving care plans
The level and integrity of community input at the time of removal and the integrity of these checks and balances, particularly in respect of the Aboriginal Child Placement Principle (Aboriginal Child Specialist Advice and Support Service involvement)
The child's genogram and identification of intergenerational trauma
Assessment of the child's health
Identifying whether the child has a cultural support plan in place
Assessment of the level of contact the child has with family, community and traditional lands
Access to and frequency of Aboriginal family-led decision-making conferences
Educational plan
History of involvement with police, youth justice system and incarceration
Assessment of the adequacy of support services and systems and identification of areas for improvement

Findings from the survey have been presented to representatives from multiple agencies – including child protection and service organisations, human services, health, justice and education – with the aim of addressing a number of critical questions.

- *What can we do differently and do better for this child?*
- *What has worked for this child and why?*

Preliminary findings indicate that both placement in care and exposure to the youth and criminal justice systems tend to form part of an intergenerational continuum, with resultant ongoing trauma, which requires immediate attention to break the cycle. The primary factors driving children into care include male-perpetrated family violence along with alcohol and drug abuse. Additional contributing factors are a lack of role models and increased rates of autism among children. Koori children also stay longer in care compared with their non-Aboriginal peers.

The reasons for this are multi-factorial and include issues around the provision of support services for families and kin, finding suitable accommodation, parental substance abuse and incarceration, prior criminal history of parents and kin, and Aboriginal Family Led Decision Making meetings not occurring in a timely manner. A lack of Koori workers in the child protection services is also a contributing factor, which may result in inadequate knowledge around culture support planning, community and kin contacts, the identification of potential carers, and delays in connecting the child to family and community.

The focus should be on creating a future for these vulnerable children for whom the role of kin and culture is critical, and issues surrounding removal into out-of-home care is key. Improving the child protection system alone will not ensure better outcomes for these children – a holistic response is required. Strengthening and developing each child's culture and connectivity will be central, along with addressing the drivers into care. Active community involvement and linkages between service systems, including justice, health and education, are also required for future progress and enhanced outcomes. This includes prioritising the placement of children into the care of Koori community services.

There also needs to be a greater respect of individual children's cultural support plans, which in legislation aim to ensure that they do not lose contact with their family and community. Indeed, one of the most powerful and durable resilience factors for Koori children – from infancy through to young adulthood – is practised culture, a strong identity and a cohesive community; that is, relationships with other Koori children, family, community members and Elders and a knowledge of Country.

A strategic response from government in partnership with the Koori community is also urgently required to address the rapidly increasing numbers of children in care. This is no different than the 1991 findings of the landmark Royal Commission into Aboriginal Deaths in Custody (Johnston 1991), which found the disempowerment of Aboriginal and Torres Strait Islander communities, and their isolation from decision making in the policies and programs that impacts on them, as being part of the process that disadvantaged our communities then, today and unfortunately into the future. Active Koori community partnerships with government are also critical as strong communication and relationships between the two will facilitate information exchange, and allow for a more effective and strategic response to the needs of families and children. The current Victorian Government has displayed a willingness to partner with the Koori community as evidenced in the Close the Gap speech (Victorian State Government 2015), the Aboriginal Justice Agreement (Victorian Department of Justice 2004), and similar initiatives in the fields of education and health. Both the government and the public service are wanting to make substantial changes to the way we, as a community, do business in caring for not only children in out-of-home care, but for all children.

Regional responses: Strengthening families

Family strengthening and coordinated services

Dr John Boffa, Chief Medical Officer, CAAC, Alice Springs, NT

Health is increasingly recognised as being a multi-faceted concept, involving physical, emotional and cognitive spheres. Research findings have strong implications for how we can work with children who are at high risk of not reaching their potential: this includes models that focus on working with children, and that operate both on engaging the whole family and across different stages of development.

With the health transition that has occurred, the challenge has moved from the high death rate of

babies and children to the promotion of healthy development. Much of the trauma and harm caused by adverse social determinants are mediated to children through a lack of responsive care and of stimulation from parents in early childhood. This in turn has led to children who grow up more prone both to physical and mental health problems including addictions to fat, sugar, alcohol and other drugs.

The Australian Early Development Index, which measures five developmental domains – emotion, language and cognition, communication, physical and social – has revealed the extent of the disadvantage that Aboriginal children have when they first enter school, both in the language and cognitive as well as the emotional domain (Silburn, McKenzie & Moss 2009). Furthermore, between 40 and 80 per cent of children from communities surrounding Alice Springs demonstrated developmental vulnerability in two or more domains. These children are at greater risk of developing impulsivity, unhealthy brain development leading to poor school performance, alcohol and other drug addictions, and violent behaviours. As a result, they will be prone to higher rates of incarceration. We must do better at preventing this from occurring – and interventions in early childhood are key.

The Northern Territory is the only jurisdiction on track to Close the Gap by 2031 (COAG 2013). Since 2001, there has been about a 30 per cent improvement in the all-cause age standardised death rates for Aboriginal people (see Figure 2). This is primarily due to improvements in the health system, especially in primary health care. Funding has increased from an average of $700 per person to $3000 per person along with the implementation of core services and indicators. At the same time there has been a trebling of funding in the hospital system and a range of key system improvements.

Finally, effective supply reduction measures for petrol and alcohol have played an important role. Since OPAL unleaded was introduced in 2007 there has only been one death in seven years among young people from petrol sniffing; prior to this there were eight deaths per year. In addition, also since 2007, per capita alcohol consumption has declined by 15 per cent, leading to improved health outcomes.

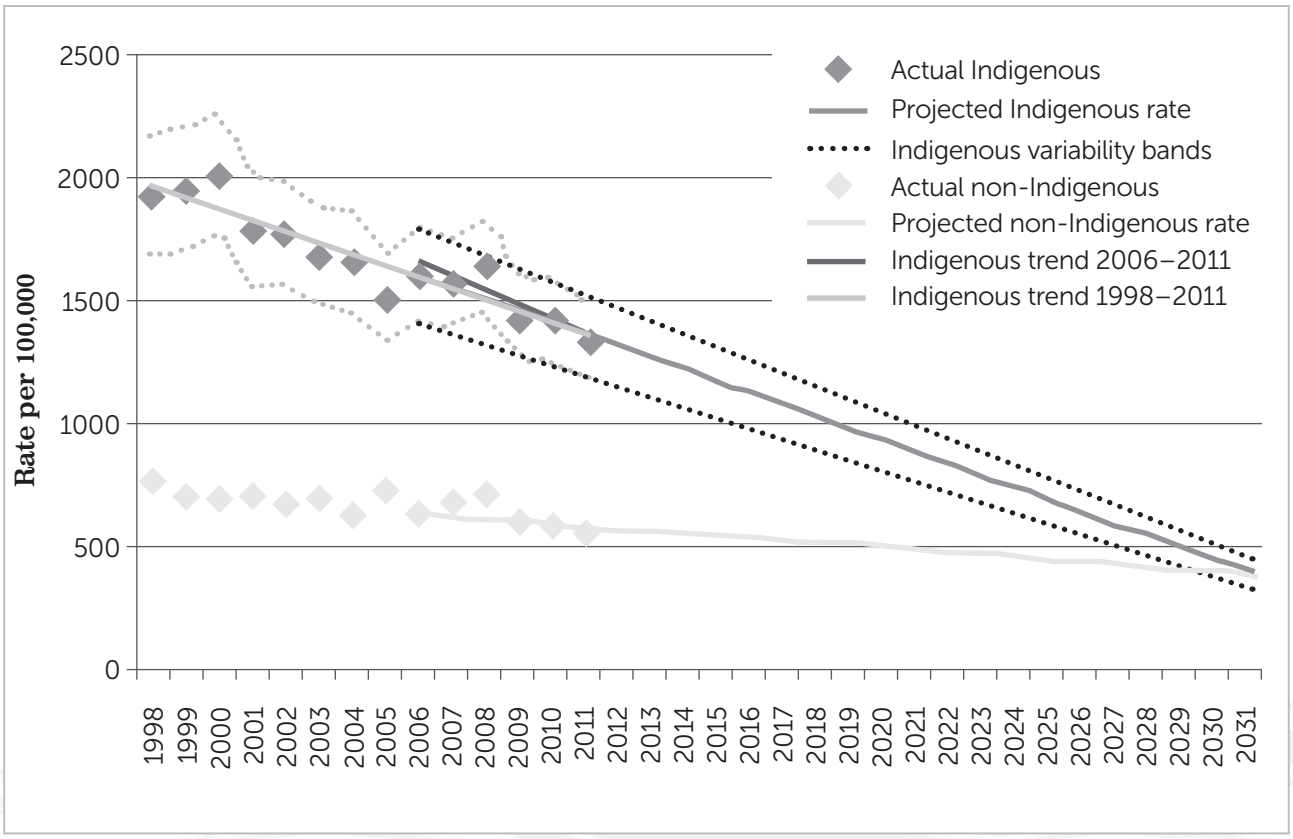

Figure 2: Death rates per 100,000 standard population, 1998–2031, NT (McCalman et al. 2014)

Developing skills and abilities is the best way to solve the problems of economic and social inequality

Income, employment, educational attainment and overcrowding, however, did not improve significantly in this period. Although there have been dramatic gains made through health system improvements, it has reached a limit in terms of its contribution. For ongoing progress in health outcomes, we need improvements in educational attainment and the availability of secure, well-paid employment. Early childhood development is the critical area of focus for achieving these.

Importantly, preventative strategies are vital for young children, as many of the three- to four-year-old Aboriginal children from the Northern Territory involved in the study have presented to primary health care services with one or more health concerns (see Figure 3). Although these may be attenuated with current initiatives, these same initiatives are acting in a preventative capacity. Oral health provides a good example, with half the sampled children having had preventable dental disease before the age of five. These health concerns are also not static, but change with time. Where once low weight was the primary concern among Aboriginal and Torres Strait Islander children, overweight children is now an emerging problem.

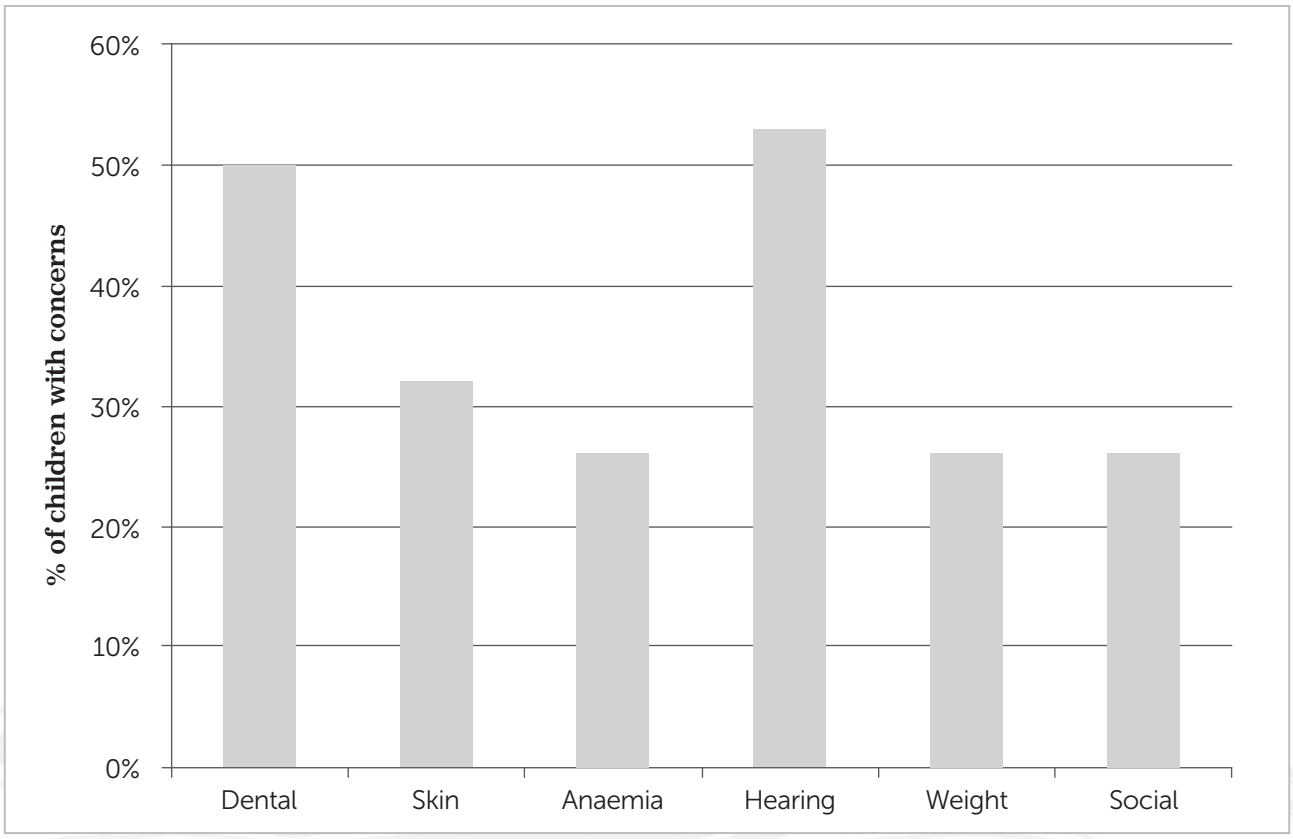

Figure 3: Health concerns in 3- and 4-year-olds, 2014 (CAAC, unpub. data)

An important aspect of a holistic response to health care in children is dose response – the more you provide, the more they learn and grow. Much intensive work contributes to successful 'normal development'. As an example, the process of learning to read successfully begins with being read to at an early age, and consolidated by instruction through regular attendance at school. Children who start behind tend to fall further behind. For example, children experience rapid improvement in age equivalent vocabulary – a highly sensitive measure of cognitive development – post-enrolment in pre-school. As a result these children will be much more school ready.

What can be done to minimise risks? A focus on the treatment of physical health problems is inadequate. It is equally important to focus on the development of the brain – including cognitive and emotional development at the most vulnerable period. To this end, the Central Australian Aboriginal Congress has been building its focus on child and family services over several years. The Healthy Kids Clinic is an important part of ensuring that children receive regular health checks and immunisations, and serves a critical function in connecting children at the earliest possible point with the right support services. These might include dental, hearing, or psychological support services for child and their parents to address developmental or behavioural concerns. Targeted Family Support Services works with children and families who are at risk of entering the child protection system, while Intensive Family Support Services works with children who are already engaged with the service.

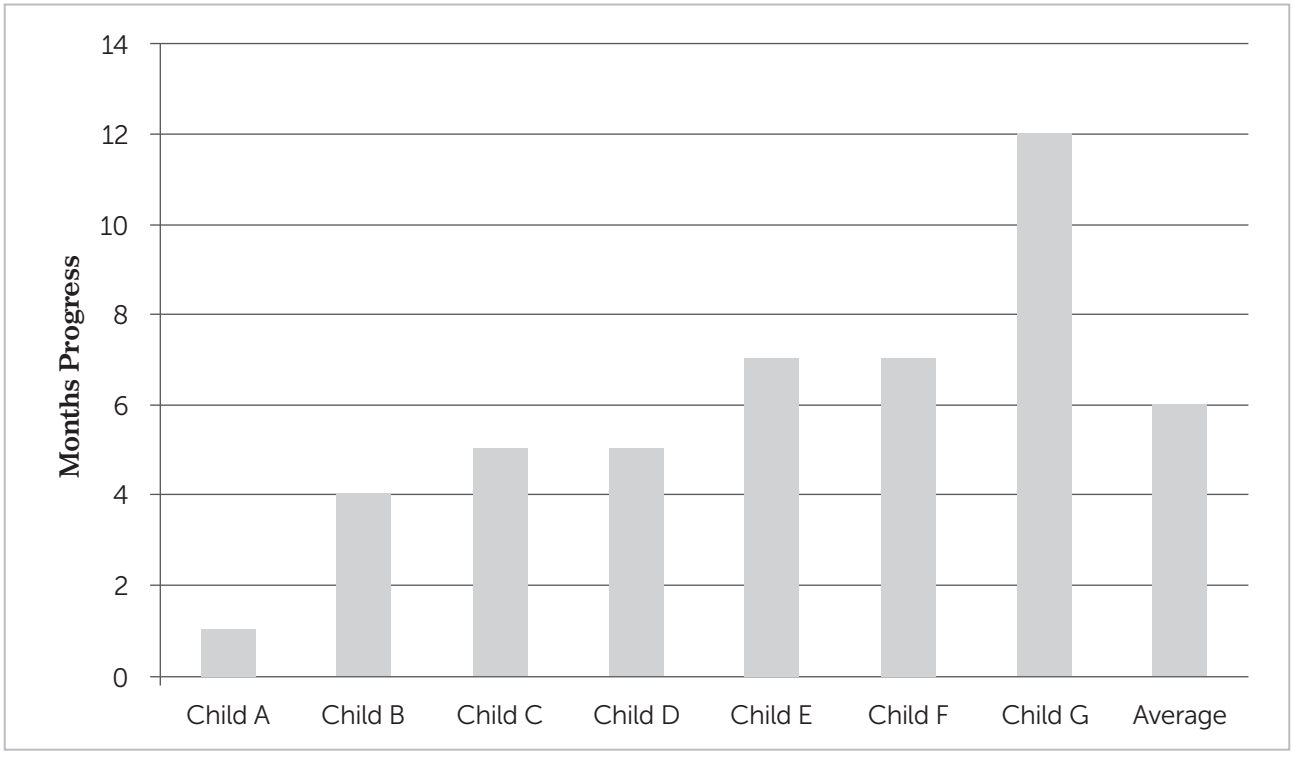

Figure 4: Outcomes for vulnerable children with 7-week Abecedarian pre-school intervention – Vocabulary progress from baseline to review

Finally, the CAAC is involved in two complementary preventative programs: the Nurse Family Partnership (NFP) Program and the Abecedarian Program. The NFP Program, which commenced in 2009, is an outreach program aimed at parents. Its focus is on the primary carer of the child, usually the mother, and is geared towards improving pregnancy outcomes, child health and development, and enhanced parental self-sufficiency. It achieves this by the establishment of a therapeutic relationship emphasising continuity of care between a nurse and the child's mother from 28 weeks gestation to two years of age.

Conversely, the Congress Preschool Readiness Program is a child-focused program, based on the Abecedarian approach (see pp.18–20). Child health checks with a special focus on developmental assessments are used to identify four-year-old children who are developmentally behind, and who subsequently enter a daily intensive seven-week program. Its aim is to increase school preparedness and participation among Aboriginal and Torres Strait Islander children through assisting with preschool choice, enrolment and the provision of practical support. The program has demonstrated remarkable gains, with rapid improvements in developmental outcomes among the majority of the children. Participation in the full seven weeks has yielded language developmental advances equivalent to six months duration, as measured using Bayley scores (see Figure 4). Critically, however, those children who were the most disadvantaged failed to demonstrate gains, indicating that interventions occurring at this stage of development may already be too late.

These programs emphasise the benefit of pre-distribution – targeting the child at the earliest stages of development – in conjunction with more traditional concepts of redistribution and remediation, to maximise potential.

Apunipima Cape York Health Council: Baby One Program

Johanna Neville and Faye Humphries, Apunipima Cape York Health Council, Cairns, QLD

The Baby Baskets program from Cape York was developed to promote better maternal and child health outcomes for women in the Cape York communities of Queensland. It was developed by the Apunipima Cape York Health Council, and as such reflects self-governance and local ownership. Baskets – with items supporting antenatal and postnatal care for the mother, infant and wider family – promoted engagement with health care workers and information exchange, trends that were borne out in subsequent evaluations.

The success of this program precipitated the genesis of the Baby One Program, which encourages holistic, family-based antenatal and postnatal care driven by Indigenous Health Workers and the local community. It focuses on enhancing engagement during the first 1000 days, from conception to age 2 and into subsequent pregnancies, between families, Health Workers and providers, the empowerment and education of Health Workers, and facilitating information exchange on health education and promotion. This is enabled through home-based visits that start during pregnancy with continuity of care achieved through engagement with the same Health Worker. Health Workers also benefit from participation in the program, through ongoing professional development and education on best practice models of care, which permit empowerment and capacity building.

Significantly, the program has identified the need for better engagement with fathers and their greater involvement in the early stages of parenting. This is being addressed through current efforts to source funding for the engagement of male Health Workers.

Background

The Apunipima Cape York Health Council Baby Basket program started in 2009 with funding from the Queensland State Government's initiative to 'Close the Gap' in health outcomes for Aboriginal and Torres Strait Islander people within a generation. The Baby Basket/Home Visiting Program's aim was to

provide all Cape York families with education about and resources for pregnancy, birth and infancy so as to give mothers and their children a better start in life. A home visiting schedule was subsequently developed in 2010, which was led by Maternal and Child Health Workers, and incorporated five additional antenatal visits, seven postnatal visits, and the distribution of three Baby Baskets, Fruit and Vegetable Vouchers and health messages.

However, the program was largely unsuccessful due to numerous factors which included staffing changes, numbers and capacity, lack of specific and appropriate support systems particularly in education, poor infrastructure, and differing organisational approaches and priorities. Despite this, aspects of the program, specifically the Baby Baskets and Fruit and Vegetable Vouchers, continued to be embraced by the community and remain popular and sustainable.

A subsequent evaluation of the Baby Basket Program in 2012 (McCalman et al. 2014), involving a literature review, qualitative and quantitative evaluation, and costing analysis, came up with the following findings.

Key findings of the Baby One Program
More than 98% of Baby Baskets (BBs) were distributed with accompanied health information/advice on smoking, alcohol, nutrition and SIDS
High proportion of women (79%) rated BBs as 'very useful'
Cost study showed program delivery cost approximately $874 per participant (based on 170 participants)
Increased time and frequency of early antenatal presentations (based on One21seventy data)
Reduced low iron levels in pregnant women (based on One21Seventy[1] data)
Declining trend of infants and children who are not thriving (based on One21seventy data)[2]

Overall, the program was found to be highly acceptable, appropriate, appreciated and replicable by the mothers and healthcare providers engaged in the program delivery. It also provided an excellent engagement tool, built relationships, promoted more empowered health consumers, and had the potential to be extended into a comprehensive home visiting program.

To me, being involved in this program is an act of caring. It is good to be from an Aboriginal Community, and to leave your office and go back into the community, to see how and where our parents and children are living, and you actually are in their environment and you see what they are going through. It may not be anything to do with child health. You're just sitting there, and they're young and you just have to listen to what people complain about. It may not even be relevant to your job but you're there, you're listening. Its good for them, they get to tell their story, reduce their stress and work out how they will deal with that problem. May not be directly related to the program but it sure helps those families. (Indigenous Health Worker)

1 One21seventy is the National Centre for Quality Improvement in Indigenous Primary Health Care.

2 While quantitative data trend changes cannot be conclusively attributed to the BB program alone, it is both feasible and likely that the program has contributed to these trend improvements since 2009.

The model for Baby Baskets and evaluation findings were subsequently reconfigured into a new program called Baby One, which is the common term used by Cape York women for the youngest in a family. This comprised a Maternal and Child Health Worker-led initiative, and was case-loaded with Medicare billing, thus facilitating accessibility.

The Australian Medical Association has identified access to appropriate programs, primary health care services and home visits as having an important role in improving outcomes for Aboriginal and Torres Strait Islander maternal and child health (AMA 2013). Apunipima's Maternal and Child Health Business Plan has similarly prioritised effective, culturally competent maternity care. The program is, therefore, culturally specific to Aboriginal and Torres Strait Islander people with a dedicated Indigenous workforce, and aligned to Apunipima's new Primary Health Care model of care (see Figure 5).

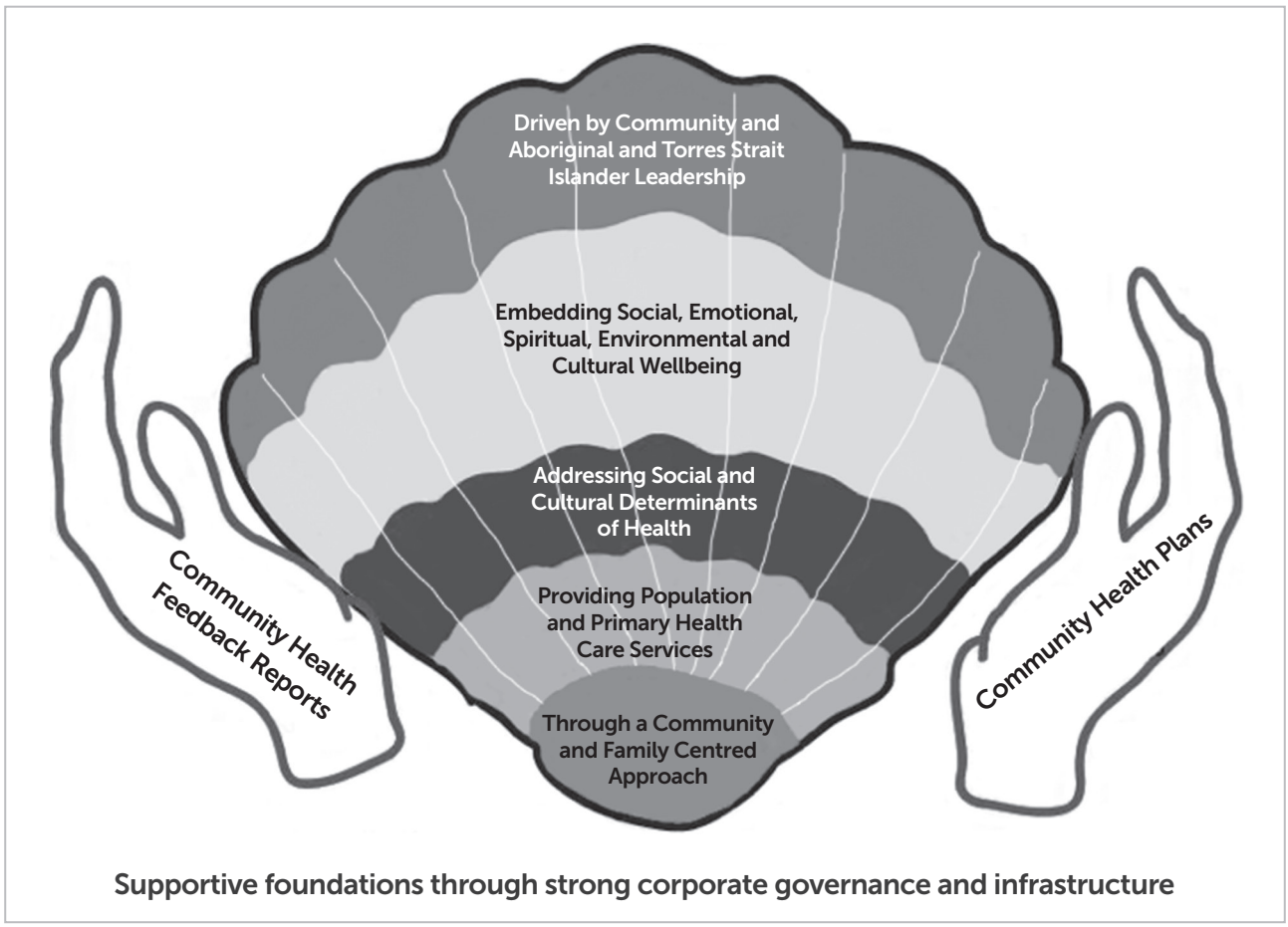

Figure 5: Apunipima's Primary Health Care model of care

The program is partnered with multiple government and community organisations including Queensland Health, community stores, the Aboriginal Literacy Foundation, and ACCHOs. Importantly, an emphasis is also placed on effective management using Aboriginal and Torres Strait Islander workers, with an Aboriginal and Torres Strait Islander Professional Leader and Baby One Project (BOP) Support Officer. Covering the period from the First 1000 Days for all families in the Cape, a prime objective is that empowered families would consequently maintain contact and engagement with health services by means of the Maternity and Child Health Nurse (MCHN) health check at three years of age (see Table 2, next page).

The program aims to increase engagement between Health Workers and health providers and parents, children and families, thereby allowing for greater opportunities for the latter to impart timely health promotion messages during the antenatal

period, the early years of the child's life and on into subsequent pregnancies. It also aims for the empowerment of, and provision of standardised education, to Health Workers, and increased opportunities to improve community advocacy, leadership, partnerships and knowledge exchange. The program provides a family-centred approach, which includes the infant and supports carer/s in addition to the mother, and by aiming for continuity within and between pregnancies, it promotes care provision and consistent health support that may extend over many years.

A further focus of the program is the provision of supports and capacity building for Heath Workers. These include skills building in the development of best practice resources, research literacy and engagement tools, as well as clinical supervision in partnership with MCHN mentoring programs. The efficacy of skills acquisition is monitored through ongoing evaluation.

Table 2: Baby One Project – Schedule of complementary visits

	Pregnancy and Birth	Postnatal
Family visit by Health Worker (BOP)	4	11
Clinic visit by Midwife/CHN and Health Workers	7	13
Total = 35 contacts	11	24

The First 1000 Days: Life stages approach

Abecedarian approaches

Professor John Sparling, Faculty of Education, The University of Melbourne, Melbourne

The role of development and intervention within the first three years is critical in terms of impact on the life-course. Early interventions with proven efficacy demonstrate benefits right across the lifespan, including educational outcomes in middle age. The Abecedarian approach is grounded on the three interlinked domains of learning games, conversational reading and enriched care giving, which are unified through the overarching concept of language priority.

Improved cognitive outcomes in vulnerable children have been demonstrated in those exposed to the Abecedarian approach during the first four years of life compared with their control peers (see Figure 6).

Among vulnerable children with baseline normal cognitive function at six months of age, those exposed to the Abecedarian approach maintained cognitive function at four years of age, whereas the control group demonstrated a decline in cognitive function of up to 60 per cent.

WHAT WE REALLY HADN'T APPRECIATED BEFORE WAS HOW **SUBSTANTIAL** THE **HEALTH IMPACTS** WOULD BE.

James Heckman
Novel Laureate in Economics

On his recent study examining the health effects of quality early childhood development

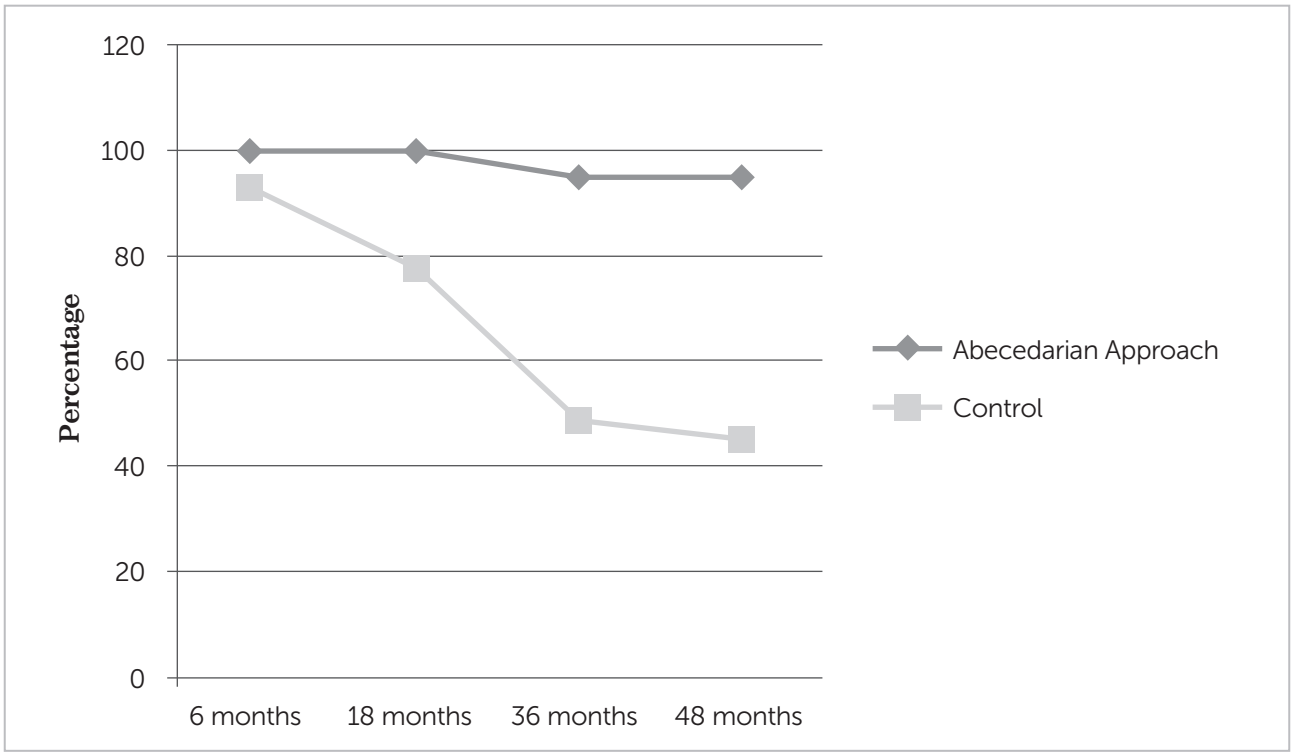

Figure 6: Proportion of vulnerable children in the normal cognitive range (IQ>84)
(adapted from Martin, Ramey & Ramey 1990)

The enduring effects of this exposure were also reflected in an almost fourfold increase in university graduation by age 30 compared with control subjects (see Figure 7). Application of the Abecedarian approach in Canada and the USA has so far yielded very promising outcomes.

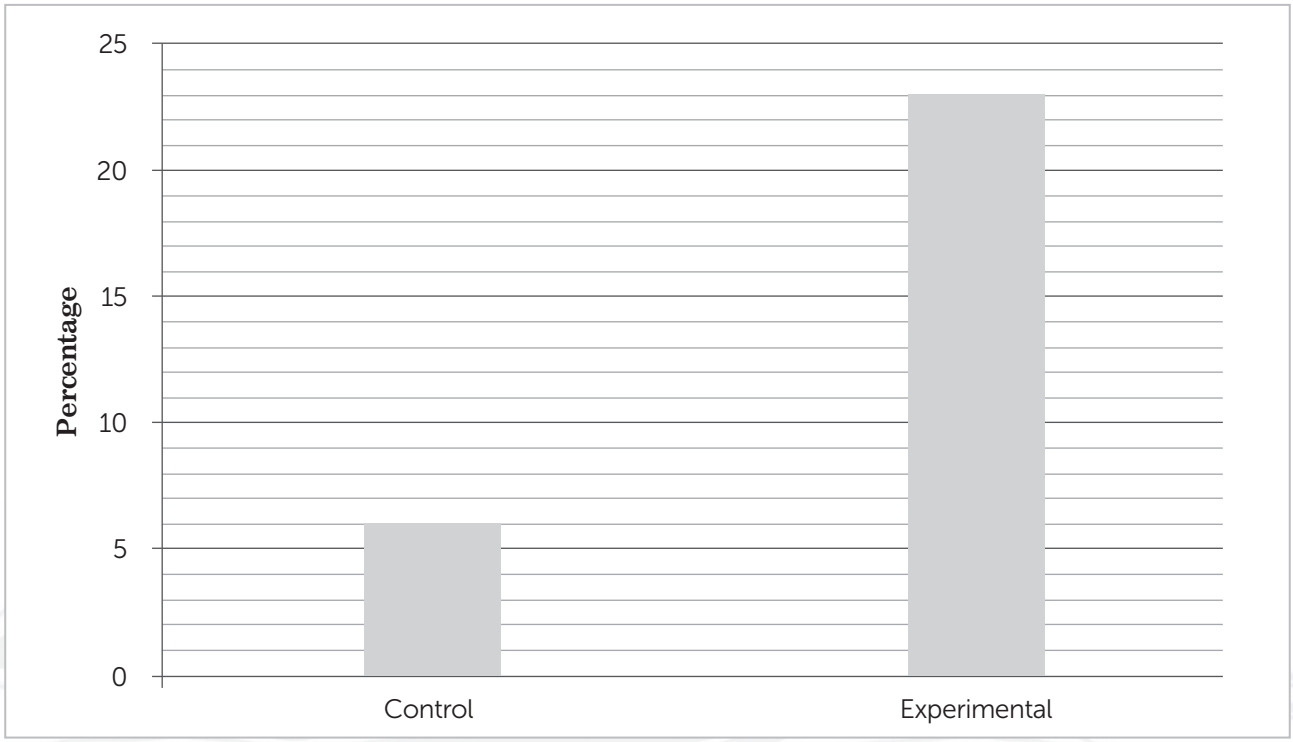

Figure 7: Educational attainment – percentage university graduation by age 30 (adapted from Campbell et al. 2012)

The Northern Territory Research Project in Maningrida and Galiwin'ku involves a three-year quasi-experimental intervention using the Abecedarian approach through parent–child playgroups, compared against a control who are not accessing the Aberciderian program, with each group comprising 40 children. The primary outcome measured is the children's level of school readiness. Early findings indicate the importance of engagement with and use of literacy and language, as language development scores for under-stimulated children were enhanced by increased exposure to reading conversational sessions.

For more information go to: http://abc.fpg.unc.edu.

The First 1000 Days and the health of adolescents

Dr Peter Azzopardi, Centre for Adolescent Health, Murdoch Childrens Research Institute and Wardliparringa Aboriginal Research Unit, South Australian Health and Medical Research Institute, Adelaide

Health and development during the first 1000 days directly impacts on the health of adolescents (for example, cognitive outcomes, stature, metabolic health etc) and conversely that the health of adolescents and young adults impacts on the health of children in the first 1000 days, especially given that the median age of pregnancy amongst Aboriginal and Torres Strait Islander women is 24 years, and that many fathers are adolescents and young adults too. Adolescence is a period of great physical, neurocognitive, emotional, spiritual, cultural and social change that harbours many great opportunities for health and wellbeing across the life course as shown in Figure 8.

Developments in the First 1000 Days and throughout childhood influence, and are consolidated in, adolescence. As such, investment in this early period is likely to positively impact on the health of Aboriginal and Torres Strait Islander adolescents and adults. Adolescents don't automatically benefit from services designed for children or adults- health and wellbeing services for adolescents should address the unique needs of adolescents and involve young people in their design, implementation and evaluation. In places where services are under resourced, vulnerable adolescents might be missing out on their basic right to health. Adolescents form a key demographic within the Aboriginal and Torres Strait Islander population. To consolidate gains made in child health and modify future health-related behaviours that will negatively impact on health and

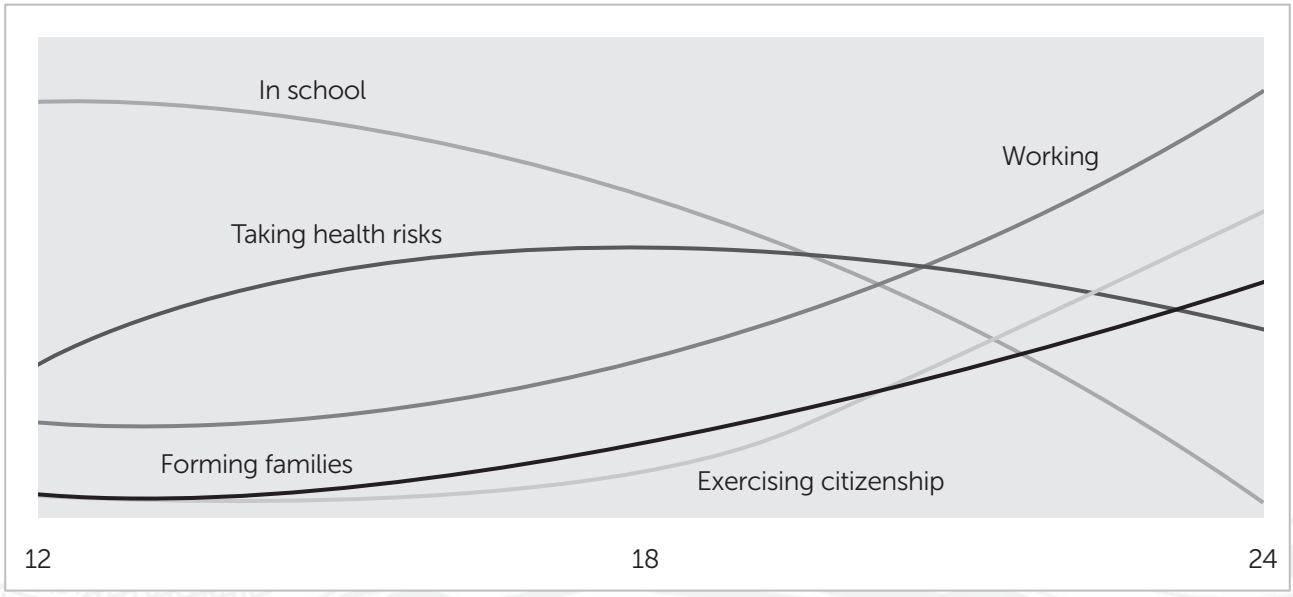

Figure 8: Changing roles and responsibilities during adolescence (originally described in The World Bank 2006 and cited recently in Haswell et al. 2012)

wellbeing, we need to consider adolescence as a key to an important developmental window in a person's life. This phase of life has a large influence on the socioeconomic development of the individual, the family and the community and, the role of young people as the future leaders.

Indigenous young people's health is a critical target for health system reform

Source: Azzopardi et al. 2013

Various factors in the First 1000 Days impact on growth and development in adolescence; for example, intra-uterine growth trajectories affect cognitive outcomes. However, the residual negative effects of intra-uterine growth retardation (IUGR) on cognitive outcomes in adolescence can be mitigated by a supportive environment in infancy and childhood. Similarly, while opportunities exist for 'catch-up growth' after IUGR in the First 1000 Days, these are limited if the child continues to live in the environment that promoted the IUGR in the first place. Furthermore, rapid growth and weight gain in later childhood and adolescence following initial under-nutrition is associated with increased risks of chronic disease in adulthood. The different disease profiles of Aboriginal and Torres Strait Islander Australians add further complexities to the interpretation of current research. Cognitive impairments secondary to IUGR have clear and enduring implications from a social, reproductive, and inter-generational standpoint.

Adolescence also forms the foundations for the prenatal and antenatal health of the subsequent generation (see Figure 9). Adolescent pregnancy is more common among Aboriginal and Torres Strait Islander Australians compared to the general population, with the peak birth rate occurring prior to 20–24 years of age for Aboriginal and Torres Strait Islander mothers compared to the national average of 30–34 years of age (ABS 2010). Adolescent pregnancy does, however, carry an increased risk of low birth weight infants, prematurity and increased neonatal mortality. These effects are exacerbated if birth spacing is less than two years apart – a common scenario for adolescent mothers. Furthermore, the political, social and economic disadvantage affecting many Aboriginal women is compounded when they become mothers under the age of 18 years.

The determinants of adolescent pregnancy are multi-factorial and operate at multiple levels when mapped using an ecological model (Williamson & Blum 2013). They might include influences at the individual level – such as age at sexual debut and socialisation for girls that encourages motherhood as the sole option in life – through to family and education factors – such as negative expectations of, and little emphasis on education for, daughters, and inadequate or absent sex education. Community level factors could include negative attitudes to contraception and the role of girls, and poor antenatal and postnatal supports for young parents. Finally, national targets might include poverty and disadvantage overall and under-investment in girls as human capital. Thus, adolescent pregnancy arises due to a complex interplay of individual, familial, cultural and national influences.

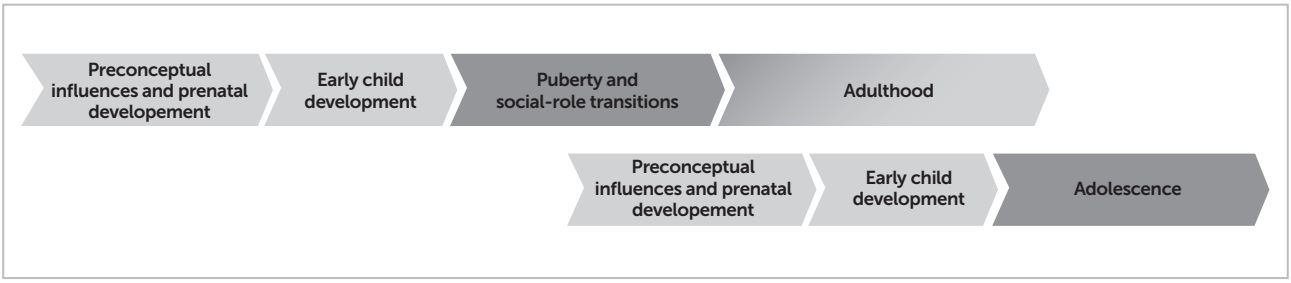

Figure 9: Relationship between adolescence to the early years and adulthood (modified from Sawyer et al. 2012)

Understanding context is critical for both the mother and her partner. Young Aboriginal and Torres Strait Islander parents and their children are likely to have distinct health needs as compared to older parents. Although data are lacking, it is clear that young parents have other important health needs, which subsequently impact on the health of their children. The rate of mental health problems as indicated by levels of psychological distress, for example, is almost 2.5 times higher among Aboriginal and Torres Strait Islander 18–24 year olds than non-Indigenous young people. Suicides and assaults are 4 and 6 times higher respectively for Aboriginal and Torres Strait Islander versus non-Indigenous young Australians, and rates of sexually transmitted diseases (STDs) are significantly greater among Aboriginal and Torres Strait Islander young people, with clear implications for sexual health and pregnancy outcomes.

It is clear, however, that young, Aboriginal and Torres Strait Islander parents require additional supports – such as equitable access to First 1000 Days interventions and information on and support for breastfeeding and delaying and spacing births. Specific interventions geared toward sexual and reproductive health rights are also required. These should focus on sexual health education outside the school system, information on and access to contraception, safe abortion and STD counselling and testing, skill development for negotiating healthy relationships for all genders, and adolescent-friendly health services.

The lack of detailed data regarding the health impacts particular to Aboriginal and Torres Strait Islander Australians also requires attention. Particular areas of focus for healthy adolescent development, include cultural wellbeing and development, enabling environments that support aspirations around education and employment, the provision of basic needs, support around issues of justice, good nutrition, social and emotional wellbeing, sexual health and parenting supports.

Kooris Growing Old Well: The First 1000 Days as a public health intervention for healthy ageing

Professor Tony Broe, Neuroscience Australia, Sydney

Growing old well involves the interplay of many factors. A lifecycle approach considers that growing old well, that is, ageing without disability or dementia, involves the entire lifespan – including the lifecycle of parents and forebears, and the culture passed on through the generations. By contrast, a brain growth approach recognises that although brain growth and neuroplasticity peak in childhood and adolescence, these factors determine important life events, the likelihood of successful ageing, the onset of dementia and one's lifespan.

The Koori Growing Old Well (KGOW) study focuses on urban and regional Koori communities from New South Wales. The study involved 336 participants aged over 60 years from five communities, of which three were regional (Coffs Harbour, Nambucca Heads and Kempsey) and two urban (La Perouse and Campbelltown). This number represents 60 per cent of the total Aboriginal and Torres Strait Islander population aged over 60 years from these communities.

The study detected some notable features of dementia prevalence and types. Age-standardised dementia prevalence from these communities has been found to be 21 per cent, three times the rate of the general Australian population. These rates were consistent across both the urban and rural communities, and comparable to those found in the remote Aboriginal and Torres Strait Islander communities studied using the Kimberley Indigenous Cognitive Assessment (KICA) tool.[3]

Dementia was also found to be generally earlier in onset compared with national averages, with almost half of cases occurring before 65 years of age. Finally, the types of dementia detected and their relative rates were also consistent between urban and more remote communities (see Figure 10). Of note, there were no cases recorded of alcohol-induced dementia. Reasons for these results are likely to be complex and multi-factorial.

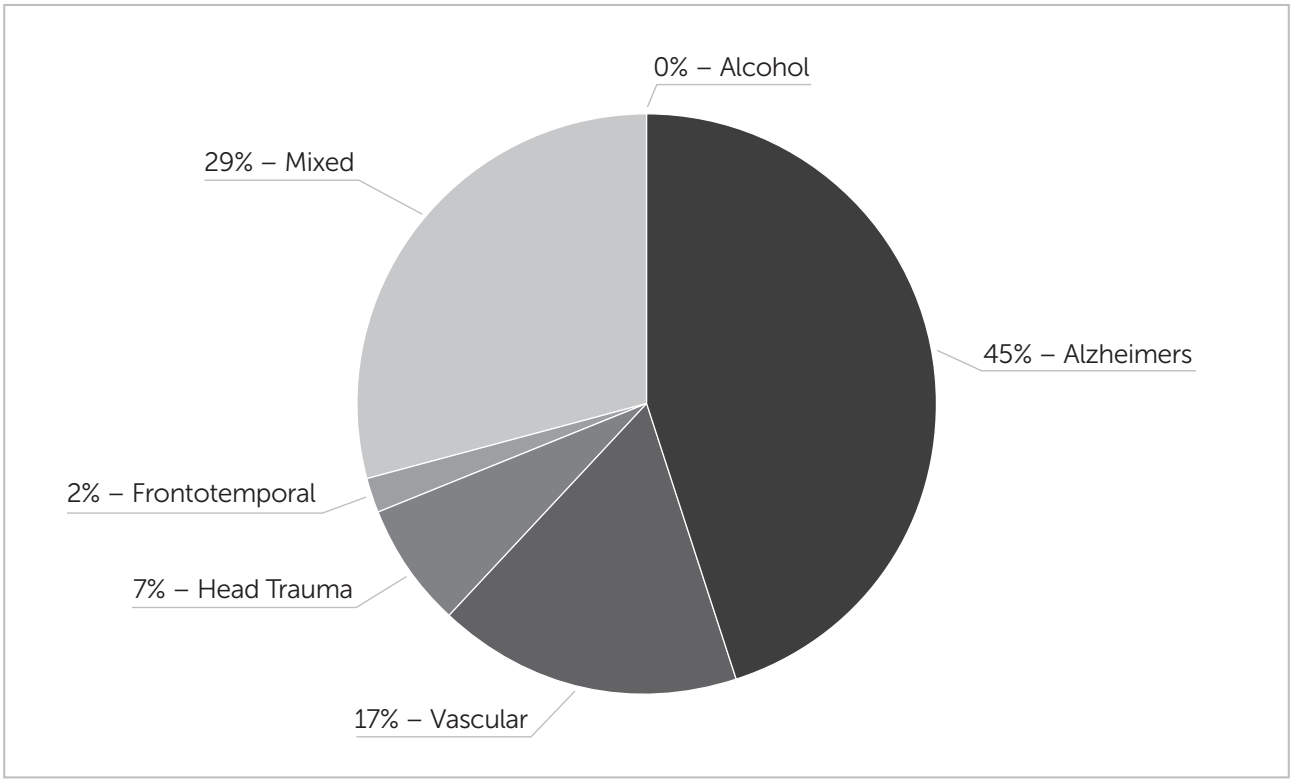

Figure 10: Dementia types and prevalence among participants in the Koori Growing Old Study

To begin disentangling influences and determine which measures correlate with late-life dementia, successful parenting was explored through the proxy measure of the Childhood Trauma Questionnaire.

Various social early-life factors provide potential precursors to medical mid-life factors (see Table 3, next page), all of which could potentially contribute to dementia type and prevalence.

3 The KICA tool was developed and validated in a number of Indigenous communities in the Kimberley region of Western Australia by Dr Kate Smith and Professor Leon Flicker.

Table 3: Measures that potentially correlate with late-life dementia

Social early-life factors	Medical mid-life factors
Family and culture	**Age**
Pregnancy / Birth experience	**Male sex**
Parenting – Childhood trauma	**Prior stroke**
Childhood separation	**Head injury**
Education / Employment	**Smoking** **Alcohol** Diabetes Obesity Heart disease High blood pressure

(NB: The measures shown in **bold** constitute statistically significant associations or possible risk factors for dementia based on preliminary data analysis from the KGOW and KICA studies)

The impact of adverse early-life experiences, such as poor parenting and childhood trauma, on late-life health outcomes in the Aboriginal and Torres Strait Islander population, and the subsequent risk of developing dementia was explored through use of the Childhood Trauma Questionnaire (CTQ). The CTQ items assess the frequency of both positive (loving, supportive family environment) and negative (neglect, abuse) childhood experiences. Positive questions are reverse scored and items added up to give a total score (possible range: 25–125), meaning the higher the score the worse the long-term effects of childhood trauma. The CTQ has strong psychometric properties – including the stability of reports overtime, invariant factor structure, and external validity ascertained with response verification techniques (e.g. self-report versus records – and has been validated in studies of Aboriginal and Torres Strait Islander youth (Kenny & Grant 2007). In the current study it was used as a proxy measure of parenting to assess the impact of adverse early life experiences on late-life health outcomes in this population.

The validity of the CTQ with older Aboriginal Australians was also examined. The tool was well accepted by older Aboriginal people in both the pilot and main studies, with a high participation rate (94% of those able).[4] For the 299 participants ultimately included in the analysis, the tool demonstrated good reliability (Chronbach's alpha = 0.95) and validity. The CTQ mean was 36.66 (SD = 16.79; range 25 – 117). Preliminary findings correlated with age (r = -0.18 (p = .002) and various mental illnesses including dementia (see Table 4), but not correlated with sex (r=.08) or education (r = .01).

4 Failure to participate was due to: 12 refusals; 10 unable (cognitive impairment); 9 missing data (e.g. family present).

Table 4: Correlations between various late-life outcomes and CTQ

Late-life outcomes	Correlation with CTQ score
Dementia	0.17*
Depression (current – mPHQ)	0.22*
Depression (life-time)	0.30*
Anxiety (life-time)	0.25*
Stress disorder (life-time)	0.14*
Alcohol abuse (current – AUDIT-C)	-0.13*
Smoking (current)	0.00
BMI (current)	0.06
• Disability (current – ADLs)	0.12*

(Scores *p<.05; controlling for age; sex and education not correlated to CTQ Score)

Preliminary findings indicate that childhood trauma and poor parenting are associated with adverse late-life outcomes including an increased risk of dementia. These may also include direct impacts through impairment of brain growth in terms of structure and function, which will consequently affect educational and employment prospects, and acceleration of the dementia process.

Indirect mechanisms may operate by determining mid-life risk factors for dementia including co-morbid mental health issues such as anxiety and depression, employment status and substance use. Interventions directed across the range of risk factors are, therefore, important. To Close the Gap, risk factors, which are similar for adverse ageing and the earlier onset of dementia, need to be addressed through social approaches with an emphasis on parents, parenting and early life.

Research Activity Enablers

Symposium participants were asked to discuss possible research areas or issues within the First 1000 Days Framework, potential collaborators, what would the engagement process look like, the methods that would be used to answer the research questions, and what potential impact the research could have. These discussions led to the following eight themes as possible areas of future research using the First 1000 Days approach (see also Appendix 2 for more details).

1. **Addressing family violence**
2. **Early nutritional interventions**
3. **Family mentoring**
4. **Raising motivated children**
5. **Developing a workforce focusing on family healing and First 1000 Days' interventions**
6. **Increasing antenatal and early years engagement**
7. **Developmental pathways: Department linkage to improve policy and practice**
8. **How to be the best parents we can be: What is good parenting?**

Addressing family violence

Research into family violence and violence interventions has direct implications for child protection and child deaths. There is a need to find out what works in family violence interventions, and to use an approach that recognises the spectrum of violence and addresses both physical and emotional violence. For example, empowerment is inversely related to levels of violence, but empowerment does not change negative attitudes to women.

An in-depth investigation into communities' needs and goals is required along with a scoping of what people are already doing in Aboriginal and Torres Strait Islander communities. Such an approach would enable a project to be tailored to the geographic area in which it is being implemented and address the community's needs and goals. This project could be integrated with, but not limited to, drug and alcohol services and housing services specific to the area in which it is being implemented in partnership with industry organisations and communities.

To assess barriers and current knowledge on family violence and violence interventions, a thorough literature review is required to identify gaps in this area, previous successful interventions and different models. Community consultation is needed to ensure that the community has input on their needs and goals, which are then included and embedded in the interventions. Measures of empowerment and wellbeing would be recorded rather than statistics on levels of violence. There could be an application of the same model in different contexts or with a different focus that is tailored to specific geographic areas.

Early nutritional interventions

Early childhood is a strong predictor of metabolic syndrome, and habits and lifestyle are the largest causal factors of obesity. There is an established link between Diabetes Mellitus (DM) and low socio-economic status and obesity, although no significant link has been found between childhood traumatic events and DM. However, using the Childhood Trauma Questionnaire, the topic would certainly benefit from further research.

Further research is also needed to address why Aboriginal and Torres Strait Islander people are more prone to DM and what can be done to prevent the disease by applying an early nutritional intervention. Consideration of other causal factors (such as smoking and alcohol) is still required.

Family mentoring

On offer across the country are a range of family mentoring programs that empower families to navigate the child and family service systems, and to access supports, facilities and resources for both parents and children. Some families need programs that will assist them to engage confidently in child and family services, and to participate in activities designed to support their child's development and their own understanding of parenting. The aim of a Family Mentoring Project to address social determinants could include:

- developing the leadership capacity of both mentors and families
- creating opportunities for collaboration and information sharing between organisations and families
- supporting members of local organisations or family support groups that may feel isolated or limited in developmental opportunities
- building capacity for regional collective action to support ever-improving service provision with families
- investigating whether there is a role for community in collective parenting
- establishing grandparents'/grandmothers' groups.

This component of the First 1000 Days would enable community people to become mentors who can share knowledge and provide guidance and direction to sector workers keen to expand their experience and skills in supporting vulnerable families. This in turn would provide an opportunity for the establishment and further professional growth of networks and relationships that can enhance inter-agency collaboration and family engagement.

Raising motivated children

Education and parenting are the biggest determinants as to whether young people flourish in the future, and the number of positive role models in their lives is critical. Nonetheless, aspirations for young people are quite subjective and research indicates that people who subjectively feel they have a purpose have a longer lifespan and better health outcomes. Currently, education attainment and employment are often used as proxy measures of aspirations and purpose, but individual aspirations are also important. And, indeed, how the aspirations of the previous generation affect later generations is unknown.

A major focus of this research would be to engage with Aboriginal and Torres Strait Islander communities in which young people are flourishing and not focus on communities that are struggling. Initially there would be a need to define aspirations, goals and future plans, and then determine what are the positive factors in communities where young people are flourishing and any other factors that contribute to this positive outcome. This would lead to an investigation of whether these young people describe a sense of purpose, connectedness and cultural identity with these positive outcomes.

Using the factors that contribute to good outcomes in communities where young people are succeeding can then be developed into a resource to implement and facilitate strategies for those in less connected communities to gain a greater sense of aspiration and purpose. Support for children is cyclical, that means, supporting the child means supporting the parents, and supporting the parents before they become parents.

Developing a workforce focusing on family healing and First 1000 Days' interventions

Workforce up-skilling and professional development for family healing and trauma is an issue, especially with the current lack of dedicated positions as family therapists for Aboriginal and Torres Strait Islander people. Potential collaborators to address this workforce need could include the University of Melbourne, the Bouverie Centre at La Trobe University, the Victorian Aboriginal Child Care Agency (VACCA) and the Secretariat of National Aboriginal and Islander Child Care (SNAICC).

By engaging workers already involved in family therapy, as well as current Aboriginal and Torres Strait Islander students, a postgraduate degree could be developed and offered. By creating a formal qualification, there would be up-skilling in trauma/family healing for the existing workforce and this could be included in professional development programs for current practitioners in this area. There would also be a transfer of knowledge to the non-Indigenous workforce.

Research area/issue

- What problems are we trying to solve?
- What do we need to do?
- What workforce skills are needed to deliver this?
- How is the workforce supported?
- How would the effects be measured?
- How would it be funded?
- Development of workforce models to meet need, with the exact skills required for First 1000 Days.

Increasing antenatal and early years engagement

Poor antenatal engagement among Aboriginal women in Victoria leads to poorer health at birth and throughout childhood, thus there is a need to identify ways to increase engagement. There is evidence that decreased self-efficacy leads to health service avoidance and that cultural strengthening leads to improved self-efficacy. Current research on the benefits of continuity of care with a midwife for Aboriginal and Torres Strait Islander women has shown decreased smoking rates, less formula use, possibly improved nutrition, and fewer low birthweight infants and specialist care nursery admissions. An example of a successful intervention is the Baby One project from Queensland with site-specific continuity of care with a midwife until the MCHN health check at three years of age.

An example intervention that could be developed and tailored to specific regions in Victoria would be to apply and extend the Baby One and MCHN model with midwife continuity of care with inclusion of the family and nutritional education. Potential collaborators include La Trobe University, services implementing key strategies under the Koolin Balit Strategy and health service providers such as Goulburn Health, Mercy Hospital, Western Health and Royal Women's Hospital. Projects offering strengths-based approaches are supported by VACCHO.

The intervention would need to incorporate a case-load approach with an evaluation embedded into the key initiatives for the first two years. Pre- and post-delivery outcomes for Aboriginal and Torres Strait Islander women that could be measured include birth weight, maternal smoking rates, attained height at two years of age, breast-feeding rates and specialist care nursery admissions. It is predicted that an intervention would see a decrease in low birthweights and in specialist care nursery admissions, and an increase in good nutrition. There would also be knowledge translation leading to increased antenatal engagement

Developmental pathways: Department linkage to improve policy and practice

Data containing information on the health and life events of Aboriginal and Torres Strait Island people are collected by various service providers under the auspice of State Government Departments, registries and other data custodians such as the Perinatal Data Collection, National Coroners Notification System and National Assessment Plan, Literacy and Numeracy (NAPLAN). Information collected includes, but is not limited to, hospital admissions data, mortality information, and birth events and outcomes. Having command of basic information across government sites allows modelling for the timing and potential impact of decision points within and between agencies.

With guidance from community, and using agreements across departments leading and informing governance and research questions, user-generated research questions can be developed. The potential impact of developing and connecting datasets from each site leads to harmonised data and pathways to breakdown 'silos'. It enables both epidemiological causal modelling and capacity building for Aboriginal and Torres Strait Islander researchers. This has implications for service delivery, surveys, evaluation management, continuous quality improvement (CQI), resource allocation and benefits to the community, general public, academics and State government through the return of meaningful information back to the community.

Equally, reliable data on Aboriginal and Torres Strait Islander children are needed to inform policy development and program delivery, and there is the well-known issue of ensuring that welfare, health, justice and education data contain clear information of a person's Indigenous identification. For example, as a result of under-identification of Aboriginal and Torres Strait Islander people in Victorian health data, Victorian hospital statistics are not included in national reports of Aboriginal and Torres Strait Islander health.

By creating a Memorandum of Understanding (MoU) between State departments, research institutes and community organisations, a longitudinal cohort dataset can be created by linking data collected under the custodianship of State departments, registries and other data custodians. This has the potential to lead to better identification of Aboriginal and Torres Strait Islander children, of allowing research over the life-course and for health service analysis, priority setting and program evaluation, thus informing policy-making.

How to be the best parents we can be: What is good parenting?

A generation of Aboriginal and Torres Strait Islander people lacked a parenting role model, but despite this absence, there is still a desire for the next generation to be the most effective parents they can be. Currently, there is a lack of strong data on Aboriginal and Torres Strait Islander parenting, however, without robust data funding for further research is difficult. There is a need for a home support program for Aboriginal and Torres Strait Islander (especially vulnerable) parents, and to consider the role of educating adults on parenting before they have children. There are also issues around the sensitivity of discussions about parenting with Aboriginal and Torres Strait Islander parents.

There is some evidence that effective parenting programs already exist, but that there are problems with parents engaging with the current programs. Most models of parenting are based on middle-class, non-Indigenous family life, which can be alienating and intimidating for some Aboriginal and Torres Strait Islander people. Another identified weakness is the lack of knowledge as to the role of the community and of fathers, aunties and uncles in the current models. Successful Aboriginal and Torres Strait Islander parenting programs recognise the benefit of on-site learning and have involved a music-based playgroup. Such programs were popular with parents and, therefore, had high retention rates.

Parenting programs that coordinate research with Aboriginal and Torres Strait Islander knowledge and community could address the following research questions:

- How do Aboriginal and Torres Strait Islander people define good parenting?
- What is the role of parenting in Attention Deficit Hyperactivity Disorder (ADHD)?
- How do effective parenting programs engage with vulnerable families?
- What gaps exist in the community regarding Aboriginal and Torres Strait Islander parenting?
- What gaps need to be filled in the current services for parents?
- What strengths-based approaches can be used to develop models of good parenting specific to Aboriginal and Torres Strait Islander contexts?
- How can we identify effective parents within communities and create enablers for them?
- What factors contribute to ineffective parenting, such as the Stolen Generation and child removal and institutionalisation?
- Can parenting programs be embedded in programs directed at children to facilitate engagement?
- How can there be an integration of services for parents and parents-to-be to ensure continuity for all stages of life?
- What are the cultural barriers and challenges?
- Can models be developed that are flexible enough to address the isolation of children from community?

Active engagement with communities would be required as would a recognition of the importance of on-site learning, including having Aboriginal and Torres Strait Islander staff and students. Good parenting is multi-factorial and involves the home, extended family, community, antenatal and early postnatal care, engagement with allied health and health professionals. The potential of this research would provide a definition of good parenting, identify challenges faced by Aboriginal and Torres Strait Islander people in achieving good parenting, increase parental confidence especially among vulnerable parents, create recognition and valuing of Aboriginal and Torres Strait Islander parenting models, build an understanding of the strengths of community and family in successful parenting, and facilitate engagement between Aboriginal and Torres Strait Islander parents and programs and services to promote good parenting.

The Scientific Committee on the 1000 First Days: Development of Terms of Reference and Working Methods

Participants at the First 1000 Days Scientific Symposium were invited to discuss the structure and role of the Scientific Committee on the First 1000 Days, propose and comment on its Terms of Reference, and nominate possible principal areas of focus for the committee over the coming five years. The following section summarises the comments and suggestions made by Symposium participants. The raw table summaries of these participant discussions can be found in Appendix 1, while the Research Activity Enablers are documented in Appendix 2.

Aims and objectives

The Scientific Committee on the First 1000 Days is to be charged with initiating, developing and coordinating high-quality scientific research into the First 1000 Days of life – from conception to age two. The business of the Scientific Committee is conducted by its Standing Scientific Groups, which will be representative of the disciplines that are active in the First 1000 Days research and report to the Scientific Committee.

In addition to carrying out its primary role, the Scientific Committee should:

- provide objective and independent scientific advice to the program's consultative committees and other organisations on issues affecting outcomes for children during the First 1000 Days
- make recommendations on program implementation, service design and practice
- formulate policy and strategies for the consideration of delegates.

Structure

The Scientific Committee on the First 1000 Days should be an interdisciplinary committee comprised of:

- researchers
- policymakers
- member of community organisations
- community representatives
- community Elders.

Governance

The Scientific Committee on the First 1000 Days should be independent and have Aboriginal and Torres Strait Islander leadership. It should ensure community consultation and adequate Aboriginal and Torres Strait Islander representation with the overall governance of the committee and ensure that the individual working groups remain focused on rigour and proven methodologies. The Scientific Committee should ensure a clear framework for the intended constituency.

Transparency was highlighted as part of the Scientific Committee and the governance processes. There was a call for transparent appointment processes for all committees. There was an emphasis on clear communication and decision making and transparency between governance and the committees to ensure consensus of objectives and goals.

Engagement

All engagement activities of the programs with Aboriginal and Torres Strait Islander communities contained within the First 1000 Days Framework, including activities of the scientific committee itself, should be transparent and embody the spirit of reciprocity. This includes the involvement of multiple agencies such as government, non-government organisations, communities and individuals. There should also be linkages with the front-line organisations directly working on issues affecting outcomes for children during the First 1000 Days. To enable this, key players can be used to facilitate engagement with the maximum number of stakeholders.

The targets for engagement should be approved by Aboriginal and Torres Strait Islander representatives, along with program approval by community, and include community participation. Principles for stakeholder engagement and involvement in all stages of the planning process should be developed and assembled with appropriate ethical and legal approvals.

The First 1000 Days scientific review, advocacy and recommendation framework

To enable the initiation, development and coordination of high-quality scientific research into the First 1000 Days of life, the Scientific Committee on the First 1000 Days should provide objective and independent scientific advice to the program's Consultative Committees and other organisations on issues affecting outcomes for children during the First 1000 Days. The Scientific Committee's role would be to assess and review all programs developed and implemented under First 1000 Days framework.

Programs reviewed by the First 1000 Scientific committee should include the current initiatives in this field of research and identify gaps in knowledge. Programs should have an Australian focus, be impact focused, evidence based and avoid unnecessary replication. In addition programs should have an ecological approach, consider the pertinent social, biological and psychological factors, and adhere to and promote best practice approaches. There was also a call for a focus on validated national and international research programs that can be adapted, reframed and translated. There should be a push for collaborations and linkages with pre-existing projects and funding to minimise delays in program development.

The Scientific Committee should encourage involvement from multidisciplinary experts/key players and support the use of programs approved by Aboriginal and Torres Strait Islander communities. All projects and programs should be linked by the overarching theme of closing the gap in Aboriginal and Torres Strait Islander disadvantage.

Research areas

The Symposium identified and prioritised the following key themes in addition to including research areas that are currently poorly represented:

- pregnancy – antenatal and postnatal
- cultural strength
- identity
- parenting, especially recognition of Aboriginal and Torres Strait Islander parenting
- nutrition
- home supports.

Methodologies

Participants at the First 1000 Days Scientific Symposium identified the following key methodologies to complete the raised research and program areas:

- data linkage and working with statutory data custodians
- Indigenous research methodologies that are informed by and inclusive of Aboriginal and Torres Strait Islander knowledge
- research methods of evaluation
- systematic reviews
- validated tools
- peer-reviewed processes.

Evaluation

In terms of program evaluation, participants at the First 1000 Days Scientific Symposium workshop identified the following key areas that should be addressed:

- general promotion of program evaluation
- focus on measuring process, progress and outcomes
- endorsement process including benchmarks
- allow scope to adapt and reframe.

Education and capacity building

Participants at the First 1000 Days Scientific Symposium workshop suggested the following key areas in education and capacity building that should be addressed:

- promote education to key population groups in adolescents and expectant parents
- support the development of skills to address barriers to enabling programs.

Information exchange and translation

Information exchange and research translation were discussed by the participants at the First 1000 Days Scientific Symposium workshop. They identified and suggested the following:

- dedicated knowledge translation and implementation group
- application of sound knowledge translation/ implementation strategies
- using the First 1000 Days as a vehicle to inform current programs and increase capacity
- continuing to break down silos between departments, stakeholders and key players.

Participants at the at the First 1000 Days Scientific Symposium workshop identified a need for continual use and expansion of the evidence base for working on issues affecting outcomes for children during the First 1000 Days. The programs and research projects under the auspice of the First 1000 Days had the potential to maximise data usage and engage with policy makers and groups implementing programs to ensure data is being used in practice.

List of References

1,000 Days 2014, 'Why 1,000 days?'. Accessed on 12 July 2015 at: http://www.thousanddays.org/about.

Arabena, K. 2014, 'The First 1000 Days: Catalysing equity outcomes for Aboriginal and Torres Strait Islander children', *Medical Journal of Australia*, 200(8):442.

Australian Bureau of Statistics (ABS) 2010, 'One for the country: Recent trends in fertility'. Available at: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features10Dec+2010.

Australian Medical Association (AMA) 2010, 'Developmental health and wellbeing of Australia's children and young people – Revised 2010'. Available at: https://ama.com.au/position-statement/developmental-health-and-wellbeing-australia's-children-and-young-people-revised.

Australian Medical Association 2013, *Aboriginal and Torres Strait Islander Health Report Card 2012–2013: The Healthy Early Years – Getting the Right Start in Life*, AMA, Canberra.

Azzopardi, P. S., Kennedy, E. C., Patton, G. C., Power, R., Roseby, R. D., Sawyer, S. M. & Brown, A. D. 2013, 'The quality of health research for young Indigenous Australians: Systematic review', *Medical Journal of Australia*, 199:57–63.

Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B. H., Barbarin, O. A., Sparling, J. J. & Ramey, C. T. 2012, 'Adult outcomes as a function of an early childhood educational program: An Abecedarian project follow-up', *Developmental Psychology*, 48(4):1033–43.

Center on the Developing Child at Harvard University (CDCHU) 2011, *Building the Brain's 'Air Traffic Control' System: How Early Experiences Shape the Development of Executive Function, Working Paper 11*, CDCHU, Cambridge, MA. Accessed 7 March 2013 at: <http://developingchild.harvard.edu/resources/reports_and_working_papers/working_papers/wp11/. Viewed in Aitkinson, 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, Canberra and Australian Institute of Family Studies, Melbourne. Available at: http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Publications/2013/ctg-rs21.pdf.

Center on the Developing Child at Harvard University 2015, *Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper 13*, CDCHU, Cambridge, MA. Available at: www.developingchild.harvard.edu.

Council of Australian Governments (COAG) Reform Council 2013, *Indigenous Reform 2011–12: Comparing Performance across Australia*, COAG, Sydney.

Cummins, P., Scott, D. & Scales, B. 2012, *Report of the Protecting Victoria's Vulnerable Children Inquiry*, Department of Premier and Cabinet, Victorian State Government, Melbourne.

Haswell ,M., Blignault, I., Fitzpatrick, S. & Jackson Pulver L. 2013, *The Social and Emotional Wellbeing of Indigenous Youth: Reviewing and Extending the Evidence and Examining its Implications for Policy and Practice*, Muru Marri, University of New South Wales, Sydney.

Illig, D. C. 1998, *A Comprehensive Review of the Literature and a Series of Policy Options for Early Childhood Interventions in Response to a Request by Senator Dede Alpert*, California Research Bureau, California State Library, Sacramento, CA. Available at: https://www.library.ca.gov/CRB/98/01/98001.pdf.

Johnston, E. 1991, *Royal Commission into Aboriginal Deaths in Custody: National Report*, Australian Government Publication Service, Canberra.

Kenny, D. & Grant, J. 2007, 'Reliability of self-report of health in juvenile offenders', *Vulnerable Children and Youth Studies*, 2(2):127–41.

Leadsom, A., Field, F., Burstow, P. & Lucas, C. 2014, *The 1001 Critical Days: The Importance of the Conception to Age Two Period* [online]. Accessed 13 July 2015 at: http://www.thehealthwell.info/node/844910.

Leadsom, Andrea, Field, Frank, Burstow, Paul & Lucas, Caroline [n.d.], *The 1001 Critical Days: The Importance of the Conception to Age Two Period*. Available at: http://www.andrealeadsom.com/downloads/1001cdmanifesto.pdf.

Lee, Ellie & Macvarish, Jan 2014, *The Uses and Abuses of Biology: Neuroscience, Parenting and Family Policy in Britain – A Key Findings Report*. Available at: http://blogs.kent.ac.uk/parentingculturestudies/files/2014/03/UAB-Key-Findings-Report.pdf.

Malekpour, Mokhtar 2007, 'Effects of attachment on early and later development', *The British Journal of Developmental Disabilities*, 53(105), Part 2, July:81–95.

Martin, S. L., Ramey, C. T. & Ramey, S. 1990, 'The prevention of intellectual impairment in children of impoverished families – Findings of a randomized trial of educational day-care', *American Journal of Public Health*, 80(7):844–7.

McCalman, J., Searles, A., Edmunds, K., Jongens, C., Wargent, R., Bainbridge, R., Ling, R., Tsey, K. & Doran, C. 2014, *Evaluating the Baby Basket Program in North Queensland: As Delivered by Apunipima Cape York Health Council, 2009 to 2013 – Qualitative and Quantitative Evaluation*, James Cook University, Cairns, Qld.

McHugh, A.-M. & Hornbuckle, J. 2010, *Maternal and Child Health Model of Care in the Aboriginal Community Controlled Health Sector 2011*, Aboriginal Health Council of Western Australia, Perth. Available at: http://www.kemh.health.wa.gov.au/services/amssu/docs/AHCWA_Model_of_Care.pdf.

Morgan, Anthony & Chadwick, Hannah 2009, *Key Issues in Domestic Violence, Research in Practice Summary Paper No. 07, December 2009*, Australian Institute of Criminology, Australian Government, Canberra. Accessed 14 July 2015 at: http://www.aic.gov.au/media_library/publications/rip/rip07/rip07.pdf.

National Aboriginal and Torres Strait Islander Health Equality Council (NATSIHEC) 2009, *Indigenous Youth Health and Wellbeing Roundtable Outcomes: December 2009* (draft report), NATSIHEC, Canberra.

O'Connell, Mary Ellen, Boat, Thomas & Warner, Kenneth E. (eds) 2009, *Preventing Mental, Emotional, and Behavioral Disorders among Young People: Progress and Possibilities*, The National Academies Press, Washington, DC. Accessed 15 July 2015 at: http://www.whyy.org/news/sci20090302Mentalprepub.pdf.

Productivity Commission 2015, *Report on Government Services 2014*, Australian Government, Canberra.

Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S. J., Dick, B., Ezeh, A. C. & Patton, G. C. 2012, 'Adolescence: A foundation for future health', *Lancet*, 379(9826):1630–40.

Secretariat of Aboriginal and Torres Strait Islander Children (SNAICC) 2013, *Policy Priorities for Aboriginal and Torres Strait Islander Children*, SNAICC, Nth Fitzroy, Vic. Available at: http://aboriginalchildrensday.com.au/wp-content/uploads/2014/05/Policy-Priorities-for-Aboriginal-and-Torres-Strait-Islander-Children.pdf.

Silburn, S., McKenzie, J. & Moss, B. 2009, *Northern Territory Results for the Australian Early Development Index 2009*, Northern Territory Department of Education and Training, Darwin.

Teaching and Learning Research Programme (TLRP) [n.d.], *Neuroscience and Education: issues and Opportunities*, TLRP Seminar Series, TLRP, University of London, London. Available at: http://www.tlrp.org/pub/documents/Neuroscience%20Commentary%20FINAL.pdf.

The Lancet 2013, *Executive Summary of the Lancet Maternal and Child Nutrition Series*. Available at: http://www.unicef.org/ethiopia/Lancet_2013_Nutrition_Series_Executive_Summary.pdf.

The Save the Children Fund 2013, *Food for Thought: Tackling Child Nutrition to Unlock Potential and Boost Prosperity*, Save the Children, London. Available at: http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0df91d2eba74a%7D/FOOD_FOR_THOUGHT.PDF.

The University of Melbourne 2015, 'The difference 1000 days make in the life of a child', *Voice*, p. 3. Available at: http://onemda.unimelb.edu.au/first-1000-days-cover-voice.

The World Bank 2006, *Development and the Next Generation*, The World Bank, Washington DC.

Victorian Department of Justice 2004, *Victorian Aboriginal Justice Agreement*, Victorian Department of Justice, Melbourne.

Victorian State Government 2015, 'Closing the Gap – Premier's speech'. Available at: http://www.premier.vic.gov.au/closing-the-gap-premiers-speech.

Vimpani, G., Patton, G. & Hayes, A. 2004, 'The relevance of child and adolescent development for outcomes in education, health and life success', in A. Sanson (ed.), *Children's Health and Development: New Research Directions for Australia*, Research Report No. 8 – July 2004, Australian Institute of Family Studies, Melbourne. Available at: https://aifs.gov.au/publications/childrens-health-and-development/2-relevance-child-and-adolescent-development-outcomes.

Williamson, N. & Blum, R. 2013, *Motherhood in Childhood: Facing the Challenge of Adolescent Pregnancy*, United Nations Population Fund, New York.

Appendix 1: Scientific Committee on the First 1000 Days

Structure

The Scientific Committee on the First 1000 Days is an interdisciplinary committee charged with initiating, developing and coordinating high-quality scientific research into the First 1000 Days – from conception to age two. The business of the Scientific Committee is conducted by its Standing Scientific Groups, which represent the disciplines that are active in the First 1000 Days research. The responsibilities of the Standing Scientific Groups can be found in Table 5, next page.

In addition to carrying out its primary role, the Scientific Committee provides objective and independent scientific advice to the program's Consultative Committees and other organisations on issues affecting outcomes for children during the First 1000 Days. The Scientific Committee could also makes numerous recommendations on a variety of matters, many of which will be incorporated into program implementation, service design and practice.

Terms of Reference for the Scientific Committee

Participants were invited to nominate appropriate Terms of Reference for the Scientific Committee, which are summarised in Table 6. It should be noted that a number of participants felt the term 'scientific' did not accommodate the holistic nature of the work required in the First 1000 Days program.

Discussion

The Principles of Focus and key themes for the Scientific Committee and Scientific Standing Committee

Participants at the Symposium were invited to nominate key themes that would form the focus of research for the Scientific Committee and the Scientific Standing Committees for the next five years.

Parenting and data linkage emerged as the predominant themes. Data linkage was thought to be essential as it allows for the implementation of current knowledge into practice and provides an evidence-based foundation for future research. The accurate identification of Aboriginal and Torres Strait Islander populations was considered a key element to enable this to occur. The input of current and relevant health data was also deemed to be important.

Themes of *parenting, prevention and early childhood education* were emphasised because of their crucial role in impacting upon the life-course. Parenting was viewed in a broad sense to encompass antenatal health and wellbeing, nutrition, post-natal care and child rearing. Issues raised included the need to recognise Aboriginal and Torres Strait Islander models of parenting versus mainstream models, family and parent support, awareness of the role of trauma in family structure and parenting capacity (including the impacts of policies such as the Stolen Generation), the relationship of parenting to family and the community, and the role of resilience and capacity building. One participant summarised these themes through the concept of healing the family inter-generationally.

Family violence was identified as being intricately intertwined with issues surrounding drug and alcohol abuse, while also involving therapy and healing. *Workforce* issues included capacity building, training for nurses and family childhood workers, and increasing research literacy. Several participants highlighted the essential interrelatedness of the themes, thereby permitting a holistic approach to health. A *strengths-based approach* was also considered critical to guide the focus of the Committees.

Table 5: Standing Scientific Groups' responsibilities

Sharing information on the disciplinary scientific research being conducted by the national First 1000 Days program
Identifying areas or fields where current research is lacking
Coordinating proposals for future research by national programs to achieve maximum scientific and logistic effectiveness
Identifying research areas or fields that might be best investigated by a First 1000 Days Research Program and establishing Program Planning Groups to develop formal proposals to the Executive Committee
Establishing action and expert groups to address specific research topics

Table 6: Terms of Reference for the Scientific Committee on the First 1000 Days

Symposium-generated Themes	Symposium-generated Comments These themes will be addressed in the Terms of Reference and implementation principles for First 1000 Days' projects.
Aims and Objectives	• Determined by Aboriginal and Torres Strait Islander communities/ stakeholders • Key focus on consultation and engagement • Emphasis on maintaining the integrity and fidelity of the First 1000 Days program • Need to emphasise a holistic approach to the First 1000 Days • Translation of research/evidence into real-world outcomes • A focus on capacity building • Forging partnerships between academic, policy makers and non-academic stakeholders • Programs geared towards an efficient and effective hand-over once children reach 3 years of age
Structure	• Committee comprised of: o researchers o policy makers o community organisations o communities o Elder community representatives
Governance	• Overall governance with individual working groups focused on rigour and proven methodologies, and a clear framework for the intended constituency • Community consultation and adequate representation • Independence • Aboriginal and Torres Strait Islander leadership

Table 6 cont...

Symposium-generated Themes	Symposium-generated Comments These themes will be addressed in the Terms of Reference and implementation principles for First 1000 Days' projects.
Transparency	• Transparent engagement with Aboriginal and Torres Strait Islander communities • Transparent appointment process for all committees • Emphasis on clear communication and decision making • Transparency between governance and the committees to ensure consensus of objectives and goals
Engagement	• Reciprocal engagement • Targets for engagement approved by Aboriginal and Torres Strait Islander representatives • Principles for stakeholder engagement and involvement in all stages of the planning process • Community approvals and participation • Ethical/legal approvals • Use key players to facilitate engagement with the maximum number of stakeholders • Involvement of multiple agencies including government, non-government, communities, individuals • Linkages with the front-line workers in services
Program Development	• Impact focused • Evidence based • Avoid duplication of effort across regions – build on success from other programs • Include a review of current initiatives in this field of research and identify gaps in knowledge • Consider the social, biological and psychological factors • Encourage involvement from experts/key players to maximise outcomes • Use of programs approved from the perspective of the relevant communities
Evidence-based Data	• Maximise existing data usage • Engage with policy makers and groups implementing programs to ensure data are being used in practice • Create, use and validate tools • Use of systematic reviews where possible

Table 6 cont...

Symposium-generated Themes	Symposium-generated Comments These themes will be addressed in the Terms of Reference and implementation principles for First 1000 Days' projects.
Research Areas	• Projects linked by overarching theme of closing the gap in Aboriginal and Torres Strait Islander disadvantage • Projects informed by and inclusive of Aboriginal and Torres Strait Islander knowledge • Skills needed by workforce to address barriers and initiate First 1000 Days programs • Formalise a list of key aims and outcomes • Identify and prioritise key themes/areas for research, including on: o pregnancy – antenatal and postnatal o cultural strength o identity o parenting – especially recognition of Aboriginal and Torres Strait Islander parenting o nutrition o home supports • Focus on validated national and international research programs that can be adapted, reframed and translated • Australian focus • Multidisciplinary • Linkages with pre-existing projects and funding to minimise delays in program development • Data linkage • Include research areas that are poorly represented
Education	• Promote education to key population groups, such as: o adolescents o expectant parents
Information Exchange	• Dedicated knowledge translation and implementation group • Application of sound knowledge translation/implementation strategies • Use the First 1000 Days as a vehicle to inform current programs and increase capacity • Break down silos
implementation	• Adhere to and promote best practice approaches
Evaluation	• Promote evaluation • Research methods of evaluation • Focus on measuring process, progress and outcomes • Endorsement process including benchmarks • Encourage peer-reviewed processes • Allow scope to adapt and reframe

Appendix 2: Research Activity Enablers

The Scientific Symposium also provided the fora to initiate group discussion on possible research projects and topics that can be developed and facilitated under the umbrella of the Scientific Committee on the First 1000 Days. Discussion of potential research areas ranged from family supports, the role of the First 1000 Days in the development of chronic disease, community and family supports to promote aspirational children, workforce development, and data linkages (see Table 7, on the following pages).

Table 7: The First 1000 Days Research Activity Enablers

Research area/issue	Collaborators	Engagement process	Methods	Impact
Addressing family violence				
• What works in family violence? • An approach to address both physical and emotional violence • Empowerment is inversely related to levels of violence, but empowerment does not change negative attitudes to women – how can this be addressed? • Recognise the spectrum of violence • Child protection, child death, family violence	• Important to scope what people are already doing in Aboriginal and Torres Strait Islander communities • Integration with, e.g. drug and alcohol services and housing services, specific to the area in which it is being implemented • In-depth investigation of the community's needs and goals	• Integration with relevant services e.g. alcohol and other drugs, housing • Tailored to the geographic area in which it is being implemented to address the community's needs and goals • Partner with industry organisations • Partner with communities • How to involve others in research on family violence and violence interventions?	• Assess barriers and current knowledge • Literature review to identify gaps in this area, previous successful interventions and different models • Community input • Applying the same model in different contexts or with a different focus	• Measures of empowerment and wellbeing rather than violence statistics

Early nutritional interventions
• Previously no significant link found between childhood traumatic events and Diabetes Mellitus in Childhood Trauma Questionnaire research but would benefit from further research • Why are Aboriginal and Torres Strait Islander people more prone to DM and what can be done to prevent it? • Consideration of causal factors (e.g. smoking, alcohol) • Established link between DM and low socio-economic status and obesity • Habits/lifestyle are the largest causal factors of obesity • Early childhood is a strong predictor of metabolic syndrome
Family mentoring
• The role of support networks for parents engaging with Child Protection Services • The role of community in collective parenting • The role of grandparents'/ grandmothers' groups

Table 7 cont...

Raising motivated children				
• Defining aspiration and purpose • Education and parents are the biggest determinants • Support is cyclical: supporting the child means supporting the parents, and supporting the parents before they become parents • Education and employment often used as proxy measures • Individual aspirations are also important: what do they want in life? • How do the aspirations of the previous generation affect later generations? • Many life plans are culturally understood by the age of 5 • The number of positive role models is critical • Aspirations are quite subjective but research indicates that people who subjectively feel they have a purpose have a longer lifespan and better health outcomes		• Engage with Aboriginal and Torres Strait Islander communities where young people are flourishing NOT focus on struggling communities	• Initially define aspirations, goals, future plans • Determine the factors in communities where young people are flourishing that are contributing to this positive outcome • Investigation of whether these young people describe a sense of purpose, connectedness, cultural identity	• Use the factors that contribute to good outcomes in communities where young people are succeeding as a resource to implement strategies that facilitate those young people in less connected communities to gain more sense of aspiration and purpose
Developing a workforce focusing on family healing and First 1000 Days' interventions				
• Workforce up-skilling and professional development for family healing and trauma • Lack of dedicated positions as family therapists for Aboriginal and Torres Strait Islander people	• Bouverie Centre at La Trobe University, Melbourne • VACCA • SNAICC	• Engage workers involved in family therapy	• Postgraduate degree • 74 Aboriginal and Torres Strait Islander students	• Up-skilling in trauma/family healing for the existing workforce • Professional development program • Transfer of knowledge to non-Indigenous workforce

Increasing antenatal and early years engagement				
• Poor antenatal engagement among Aboriginal women in Victoria leads to poorer health at birth and throughout childhood • Need to identify ways to increase engagement • Evidence that decreased self-efficacy leads to health service avoidance • Cultural strengthening leads to improved self-efficacy • Current research on the benefits of continuity of care with midwife for Aboriginal and Torres Strait Islander women: o Decreased smoking rates o Decreased formula use (in trial) o ? improved nutrition o decreased Low Birth Weight infants/ Specialist Care Nursery admissions	• La Trobe University • Koolin Balit • Health Services e.g. Goulburn Health, Mercy Hospital, Western Health, Royal Women's Hospital • VACCHO – have funding for projects offering a strengths-based approach	• Baby baskets (from Qld), site-specific • Continuity of care with midwife until the MCHN check at 3 years of age	• Case load approach: evidence based • Evaluation for key initiatives for the first two years • Identify key sites for evaluation • Bottom-up projects • Strengths-based approach • Ecological model of interventions • Possible methods: o Baby baskets (from Qld) site-specific o Continuity of care (midwife) o Family involvement o Nutrition/education • Currently Victorian data available for pre- and post-delivery outcomes for Aboriginal and Torres Strait Islander women • Methods to be individualised to site • Extend to MCHN model • Quantify outcomes: o birthweight o maternal smoking rates o height at age 2 o breast-feeding rates o SCN admissions	• Decrease in low birth weight • Decrease in special care nursery admissions • Increase in good nutrition • Knowledge translation leading to increased antenatal engagement

Table 7 cont...

Developmental pathways: Department linkage to improve policy and practice				
• Linkage data for policy guidance • Having command of basic information across government sites allows modelling for the timing and potential impact of decision points within and between agencies • Leads to a deeper analysis • Need a universal Data Dictionary to inform research into the life-course • Aim for ownership by the States • MoU • Clear data needed on identification	• State departments • Victoria data linkage • Community involvement • State departments: welfare, health, justice, education • Government policy makers	• Agreement across departments leading and informing governance and research questions • Linkage with services	• User-generated research questions • Return of meaningful information back to the community • Identify what is already known • Incremental approach • Datasets from each site to harmonise data • Model adaptation over time • Identify causal inferences • Evaluation • To build on existing research (WA) • To create a longitudinal cohort dataset • Linking NAPLAN • Consultation • Health Service Analysis	• Pathways, silo breakdown, causal modelling • Capacity building for Aboriginal and Torres Strait Islander researchers • Benefits to the community, general public, academics and State government • Implications for service, surveys, evaluation management, CQI, resource allocation • Better identification • Allows for priority setting and program evaluation • To inform policy-making

How to be the best parents we can be: What is good parenting?				
• Currently lack strong data on Aboriginal and Torres Strait Islander parenting • Without strong data, cannot get funding for further research • Need home support program for Aboriginal and Torres Strait Islander (especially vulnerable) parents • Consider the role of educating adults on parenting before they have children • Issues around sensitivity of discussions about parenting with Aboriginal and Torres Strait Islander parents • How do we define good parenting? • Some effective parenting programs already exist • Problems with parents not engaging with current programs • What is the role of parenting in ADHD? • A generation of Aboriginal and Torres Strait Islander people lacked parenting by their birth parents or had poor parenting role models. • Aim for the next generation to be the most effective parents they can be • The role of the community in parenting • Parents have difficulty accessing services specific to their needs	• Communities	• Active engagement with communities • Importance of on-site learning, including Aboriginal and Torres Strait Islander staff and students • Realisation that good parenting is multi-factorial and involves the home, extended family, community, antenatal and early postnatal care, engagement with allied health and health professionals	• Identify what gaps exist in the community regarding Aboriginal and Torres Strait Islander parenting • Develop models of good parenting • Use of existing evidence where possible • Identify effective parents within communities and create enablers for them • Identify the factors contributing to ineffective parenting o Stolen Generation o child removal and institutionalisation • Consider placing parenting programs inside programs directed at children to facilitate engagement • Integration of services for parents and parents-to-be so there is continuity for all stages of life • Aim for parenting programs to coordinate research with Aboriginal and Torres Strait Islander knowledge and community • Consideration of cultural barriers and challenges • The development of models specific to Aboriginal and Torres Strait Islander parenting contexts • Develop flexible models that address isolation of children from their community • Strengths-based approach	• To define good parenting • To identify challenges faced by Aboriginal and Torres Strait Islander people in good parenting • To increase parental confidence especially among vulnerable parents • To create recognition and valuing of Aboriginal and Torres Strait Islander parenting models • To build an understanding of the strengths of community and family in successful parenting • To facilitate engagement between Aboriginal and Torres Strait Islander parents and programs and services to promote good parenting

Table 7 cont...

• Recognised benefit of on-site learning • How to engage with vulnerable families • Models of parenting based on middle-class, non-Indigenous family life can be alienating and intimidating for some Aboriginal and Torres Strait Islander people • The importance of community for Aboriginal and Torres Strait Islander parenting • A successful Aboriginal and Torres Strait Islander parenting program involved a music-based playgroup which was popular among parents – thus high retention rates • Lack of knowledge on the role of fathers/ aunties/ uncles

Appendix 3: Program of the First 1000 Days Scientific Symposium

8.30am	*Registration and Refreshments*	
9.00am	Welcome to Country	Wurundjeri Elder
9.10am	Welcome from First 1000 Days Symposium Chair	Professor John Mathews Symposium Chair
9.20am	Overview of Symposium	Professor Kerry Arabena Chair of Indigenous Health The University of Melbourne
Session 1	**Targeting Community: Realities and Facts**	**Keynote Address**
9.35am	Task Force 1000: A focus on vulnerable Aboriginal children across Victoria	Mr Andrew Jackamos Victorian Commissioner for Aboriginal Children and Young People, Melbourne, VIC
Session 2	**Regional Responses: Strengthening Families**	**Presentations**
10.00am	Family Strengthening and Coordinated Services	Dr John Boffa CMO Central Australian Aboriginal Congress, Alice Springs, NT
10.30am	Apunipima Cape York Health Council: Baby One Program	Ms Che Stow and Ms Johanna Neville, Apunipima Cape York Health Council, Cairns, QLD
11.00am	*Morning Tea*	
Session 3	**First 1000 Days: Life Stages Approach**	**Presentations**
11.15am	Abecedarian Approaches	Professor Joseph Sparling Faculty of Education University of Melbourne, Melbourne, VIC
11.30am	The First 1000 Days and the Health of Adolescents	Dr Peter Azzopardi Centre for Adolescent Health, MCRI and Wardliparringa Aboriginal Research Unit, SAHMRI, SA
11.45am	Kooris Growing Old Well: First 1000 Days as a public health intervention for healthy ageing	Professor Tony Broe Neuroscience Australia, Sydney, NSW
12.00pm	Panel Discussion	Question and Answer

Session 4	Scientific Committee Discussion	Group Work
12.15	Strategic Discussion: Academia 1. How can academia maximise our relevance and contribution to the First 1000 Days in the next five years? 2. What informs our approach/intervention? Strategic Discussion: Scientific Committee 3. What are appropriate Terms of Reference for the Scientific Committee? 4. What could be the principle areas of focus for the Scientific Committee and Scientific Standing Committees over the next five years? 5. What structure will facilitate academic excellence and contribution? 6. How do we manage translation and reduce duplication of effort?	Early Childhood Education Prevention Data Linkage Parenting Family Violence Workforce Clinical Interventions Hospital Interventions Transitional Health Life Span Approaches Other
1.15pm	*Lunch*	
Session 5	**Research Activity Enablers**	**Group Work**
2.00pm	Lowitja Institute Early Childhood Roundtable and Funding Round EOI	Dr Michael Tynan, Director of Research, The Lowitja Institute, Melbourne, VIC
2.20pm	Group Discussion: Research, Intervention and Applications Discussion Identifying Areas for Further Investment and Opportunity Identifying Potential Partners for First 1000 Days Collaborations	Group Work
Session 6	**Closing the Symposium**	**Presentation**
3.15pm	Closing of the Symposium by Symposium Chair	Professor John Mathews The University of Melbourne Symposium Chair
3.30pm	*Afternoon Tea and Close*	

Onemda VicHealth Koori Health Unit
Indigenous Health Equity Unit
Centre for Health Equity
Melbourne School of Population and Global Health
Level 4, 207 Bouverie Street
The University of Melbourne
Vic. 3010 Australia

T: +61 3 8344 0813
F: +61 3 8344 0824
E: onemda-info@unimelb.edu.au
W: www.onemda.unimelb.edu.au

Artwork by Michelle Smith, Kevin Murray and Shawana Andrews