Healthy Under 5 Kids Program

Education Package
Healthy Under Five Kids Education Package

Written by Sue Kruske and Jenny Donovan

Acknowledgements to Tina McKinnon and Lesley Nuttall

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Module One: Introduction to Healthy Under 5 Kids

The Healthy Under 5 Kids (HU5K) Program is a Department of Health and Families (DHF) initiative. It builds on the existing programs that remote health centres offer young children and families including the Growth Assessment and Action (GAA) and the Healthy School Aged Kids (HSAK) programs. This new program encompasses more lifestyle factors that affect children’s growth and development, anticipatory guidance (age appropriate health education) and some points about child development, which have not existed in previous standard programs for young children living in remote areas.

This module outlines the key rationale for this type of program in remote areas of the NT and the purpose of this training package.

Learning Outcomes

Upon the successful completion of this module you should be able to:

- Understand the connection of the first years of a child’s life to their long-term health and well being;
- Examine the context of Indigenous child health in remote areas of the NT; and,
- Understand the importance of implementing the HU5K program across the NT.

Introduction

The importance of the early years of a child’s life has gained increasing attention over the last 10-15 years. This is in response to strong scientific evidence being produced through a range of disciplines including neuroscience, psychology, education and others. A landmark study by Shonkoff and Phillips (2000) showed that virtually every aspect of a child’s capacity to function is influenced by his or her environment beginning with conception and continuing most strongly until around three years of age. Beyond this time problems are still able to be remediated but it is much more difficult.
Supporting the growth and development of children is therefore becoming a greater priority in health programs. Three main approaches promoted by the World Health Organisation (WHO) include:

- Monitoring the child’s progress on developmental milestones;
- Screening for developmental delays, and
- Educating families on how to support the development of their children (WHO 1999).

This package is designed to provide health providers working in remote areas with key knowledge and skills to incorporate into their health service delivery. It is comprised of adapted materials from the CDU Graduate Diploma in Child and Family Health and incorporates Department of Health and Families and other materials. The materials are organised into the following modules:

- **Module One:** Introduction to Healthy Under 5 Kids Program
- **Module Two:** Primary Health Care
- **Module Three:** Overview of child development and assessment tools
- **Module Four:** Physical and cognitive development including language, hearing, vision and/oral health
- **Module Five:** Social and emotional: including attachment and Aboriginal child rearing practices
- **Module Six:** Psycho-social Aspects of Parenting: Perinatal Mental Health, Family Violence and Child Abuse
- **Module Seven:** Working in partnership and brief intervention strategies
- **Module Eight:** Healthy Under 5 Kids Program Schedule.

**How to Incorporate the Healthy Under 5 Kids Program in Remote Areas**

Children form a large part of the health service population in remote areas. The majority of the Indigenous population (81.2%) live in remote or very remote locations (Quin Li, Guthridge et al. 2006, p.v). Almost 40% of people living in remote Aboriginal
communities in the NT are under the age 25 and they are more susceptible to injury, illness and chronic disease (Quin Li, Guthridge et al. 2006).

Traditionally health services in remote areas have concentrated on dealing with the overwhelming morbidity that children under five suffer. Details around the high levels of illness are discussed later in this module.

In the mid 1990s the Growth Assessment and Action Program (GAA) was implemented to address one of the major causes of morbidity found in remote area children under five years of age – poor nutrition that leads to poor growth and anaemia. It was hoped that if we could address some of the nutritional issues in remote areas, childhood development overall would improve.

It is now recognised that growth monitoring and surveillance alone does not improve growth outcomes. Evidence suggests that children need psycho-social stimulation as well as growth interventions to improve health outcomes. The HU5K Program provides a standardised approach for the provision of routine health care to children under five living in remote areas of the Northern Territory utilising current available evidence. This schedule of care covers key areas of anticipatory guidance (age appropriate education and support), social and emotional health, child growth and nutrition, child development and timely identification and management of common treatable health problems such as ear disease.

This package provides the background material to support the HU5K Program. It is divided into a number of modules as outlined above. You are encouraged to read, reflect and incorporate this information into your practice as much as possible. Throughout the package there are frequent activities that are aimed to help you reflect on key aspects of the package. We encourage you to maximise the effectiveness of the package by completing these activities.

Working in the area of child and family health is different from working in the area of paediatrics. The specialty area of child and family health involves working with parents to maximise their capacity to provide the best environment they can so their children grow up to reach their best possible potential. Paediatrics tends to involve the management of the sick child, either in the acute or community setting. Child and
family health providers, on the other hand, work within a paradigm of prevention of illness through screening, surveillance and the promotion of health.

In remote areas, it is difficult for health providers to only work in one speciality area. Indeed remote area health providers are required to work at an advanced level across many specialities and sub-specialities of health. This package is not designed to make remote area health providers experts in child and family health. Rather it is designed to increase their knowledge and skills in the area of child and family health to a level that makes them as effective as possible whilst working in the challenging environment of remote area health care. For those who are interested in learning more about this area of practice, lists of additional readings are provided at the end of each module. Interested staff can also access the Graduate Diploma in Child and Family Health at Charles Darwin University. Evidence of completion of this package (and the optional submission of a 5000 word essay critiquing and applying aspects of the package to your own area of practice) will earn academic credit to the equivalent of 10 credit points (one subject) of the 80 credit point (8 subject) Graduate Diploma in Child and Family Health.

(Activity)

Reflect on your reaction to the information provided so far. Is child health an area that you currently work in or are interested in? Do you recognise that there are currently limitations in your area of practice that hinder your effectiveness? Write down some areas you would like some more information about.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Think about these things because they will influence your engagement in the package and effect how well the program is implemented in your community. We all know there is enough work to do to sit in the Health Centre day after day and diagnose and

1 For more information contact gshp@cdu.edu.au
treat the problems that present. But after a while many remote area health providers experience a sense of frustration in their inability to make a difference given that this style of working lends itself to repeating the same information over and over again in one off clinical interactions. The aim of this package is to assist you to work within a model that goes beyond the acute presentations that individuals present with. It encourages you to work with the wider community and the individuals in your community to facilitate change at the broader community level using primary health care and health promotion.

We propose that by paying more attention to the first few years of life and working more effectively with parents and families we can make a difference to the health of Indigenous children and families living in remote area communities. It is the parents and families who have control over the environment their children develop in. They decide when to bring the child to the health centre, what information they will share with the remote area health provider and what treatment or advice they will comply with.

By knowing how children develop, by understanding factors that influence development, what the risk and protective factors of childhood development are, what informs behaviour, and how we can work with parents to increase their capacity, remote area health providers can positively impact on the lives of children and their families to maximise their potential and be well prepared for school and later life.

To appreciate the state of health and vulnerability of Australian Aboriginal and Torres Strait Islander children read the following Report Card from the Australian Medical Association (AMA 2008). Click on the link below and scroll down to the PDF link at the bottom of the page if you would like to access this document on the internet.


If you are reading this package as a hardcopy, a copy of the reading is provided at the back of this package.
Reading One


Issues in Remote Areas that Impact on Child Development

Many of you may have worked in remote areas for many years. Some of you may be new to this exciting area of practice. If you have worked out bush for any length of time you will be aware of the alarming state of health that is suffered by many children and families. However, to orientate you to the area of child development it is useful to review some of the key issues that impact on the ability of families to provide the type of environment we now know children need to thrive.

The following summary is a snapshot of some of the key issues. Due to their relevance to childhood development many of these topics will be expanded upon throughout the modules. As you read the materials below remember that many families in remote communities are strong and functional. It is easy to become overwhelmed by the problems we see out bush but it is important to remind ourselves that many of the problems are found in the minority of families, rather than the majority. It is also important in this work to look for the resilience and strengths of individuals, families and communities rather than to only focus on the problems.

Many of the problems experienced in remote communities are social and historical in origin and cannot be remedied by the local health staff. But being aware of the key influences on childhood development is a start in raising awareness both amongst ourselves and our health colleagues and also the wider community.

Environment

Understanding the impact of the living conditions in remote areas is essential if we are to be effective in our support of families. As outlined in a Commonwealth document on overcoming Indigenous disadvantage:
It would be difficult to overstate the central importance of sound environmental health practice in relation to Indigenous communities. Improvements in sanitation, drinking water quality, food safety, disease control and housing conditions are major contributory factors to improving health and quality of life (SCRGSP 2005, p. 330).

Water and food borne diseases, tuberculosis and rheumatic heart disease can lead to premature death and temporary or permanent disability, which affects people’s ability to work, study and engage in family and community activities. Trachoma can lead to blindness. Overcrowding in housing and poor water quality and sanitation have been identified as causes of respiratory diseases, urinary tract infections and kidney stones, intestinal worms, trachoma and infectious diarrhoeas (SCRGSP 2005, p. 329).

Environmental health concerns such as inadequate fresh water or sewerage systems relate primarily to remote communities. However, there is ample evidence in the literature of poor living conditions in remote, rural and urban areas. While housing standards are worse in some areas, living conditions are also influenced by a complex mix of factors that include: the ready availability of alcohol, access to fresh food, access to services, and access to education, training and employment (Scougall 2008, p. 25).

**Poor Growth and Malnutrition**

Many Indigenous children suffer poor nutritional intake as everyday occurrences in their lives. Physical growth is one of the more obvious components of development. **Poor physical growth = poor brain growth = poor overall development.** Health services have a long history of plotting poor growth from generation to generation.

Inadequate nutritional intake has been a common problem in remote areas for many years. Now known as ‘under-nutrition’ and expressed as low weight for age, low height for age or low weight for height, this is reported in many remote communities across the NT. Under-nutrition is directly related to increased rates of hospitalisation for infectious diseases in early life and chronic diseases in adult life. Low birth weight and growth retardation in Aboriginal infants is also a significant problem with long term health consequences.
Over-nutrition and obesity are also increasingly becoming a serious problem in some remote communities. Over-nutrition needs to be seriously addressed because it is leading to a dramatic increase in chronic diseases such as Type 2 diabetes, cardiovascular disease and some forms of cancer.

Both under-nutrition and over-nutrition can be addressed by strong prevention programs that engage families before they become an issue.

**Violence**

Violence is another common occurrence in many remote area communities. Of particular concern is the impact that traumatic experiences, such as being a frequent witness to or victim of violence, has on childhood development, mental health and wellbeing. It is now known that exposure to ongoing violence (even witnessing, not only being direct victims) has extremely negative consequences on the developing child. Raising awareness of the negative impact of violence on children should become an important component of remote area practice.

As described in a recent paper by the Commonwealth on overcoming Indigenous disadvantage:

*All forms of violence (family violence, interpersonal violence, child abuse, self harm and suicide) tend to be prevalent (in Indigenous communities) because the living environment often displays many of the characteristic features of families and communities that are vulnerable to such patterns of behaviour (SCRGSP 2005, p. 27).*

These include:

- An intergenerational history of abusive behaviours
- High levels of stress
- Alcohol and substance abuse
- Socioeconomic disadvantage
- Inadequate housing
- Physical illness.
Other contributing factors include an inability to control emotions such as jealousy and long running inter-family feuds (Gordon, Hallahan et al. 2002, p. 20-21).

**Morbidity**

You will quickly recognise the huge burden of disease suffered by Aboriginal children living in remote communities. These children suffer higher rates of illness and injury in almost EVERY recordable health issue including skin disease, oral health, hearing loss, respiratory and gastrointestinal illness, accidental injury, tuberculosis, rheumatic heart disease and others. ALL of these conditions, and more, influence child development. Higher burden also equates with poorer long term outcomes. In other words risk factors are **cumulative** – the more you have, the higher the burden.

It is hard to ignore the burden of disease when working in remote area health centres. Being aware of how these illnesses influence physical and overall development is essential if you are to be an **effective** practitioner. For example, it is a common perception that the high rates of under-nutrition in remote areas is due to lack of appropriate nutritional intake – simply put the families just don’t give their kids enough food to eat. While this is the case for some families, for most families there are many other contributing factors. The presence of infection/s cause an increase in caloric demands in a child but the sick child is often anorexic or has poor appetite. Repeated episodes of diarrhoea will impede absorption of nutritional elements through the lining of the intestine. Add to this a high burden of pathogens and we have a perfect recipe for poor growth. Blaming the parents or carer for not feeding their child is unproductive and ineffective.

**School Readiness**

The poor educational attendance and achievements of school aged children in Aboriginal communities is no secret. What is less known is the link between the first five years of life as the pre-cursor to having children READY to enter the school system. Many factors impact on the readiness of remote Aboriginal children to start, and stay engaged in the education system. Ear disease and hearing loss is a major factor, as is chronic anaemia, poor physical growth and other delays in development. The violence children witness as described above will also impact on their ability to cope with stress and may impact on their social and emotional development. All of
these factors influence how children succeed in the education system. Remote area health providers are required to assist parents and families, become aware of the links between the health of young children and their readiness for school and encourage them to become active agents helping their children be ready for school.

Cultural Differences

Very little research has been performed around the contemporary child rearing practices and parenting beliefs in remote Aboriginal communities. There are obvious differences that are evident to remote health providers working in communities. These include: common behaviours observed in the health centre such as a mother asking a three year old boy if he wants oral medicine or a needle; the parent telling the nurse what they think the nurse wants to hear; and, the carefree lives of children who do not appear to be disciplined in the same way non Indigenous children are. All of these aspects of care are informed by child rearing beliefs and world views that are different to mainstream Australian beliefs. It also makes sense that these behaviours may influence child development differently as well. To be effective in supporting parents to provide the best environment for their children to develop, we need to consider these key philosophical differences in child rearing. We also need to be cognizant of our own values and beliefs on parenting and child development.

Overview of the Healthy Under 5 Kids Program and the GAA Schedule

In 2008, a review of under-five ‘well child’ services in the NT demonstrated that whilst the GAA program was having some impact, a more comprehensive model was required. As demonstrated throughout this education package, much evidence supports a wider approach to supporting families and children need psychological stimulation and supportive environments as well as adequate amounts of the right foods to grow well. The HU5K program was developed with the knowledge that many remote health centres rely on mixed staffing skills and not all staff will have background in paediatric or child health, though they are expected to work within this field. The HU5K program supports the standardised practice of comprehensive well-child health assessments, in a format that can be utilised by all staff.
Utilising best available evidence and where there is no research-based evidence, expert opinion was sought and included. A broad cross-section of people from across the Northern Territory participated in the development of the HU5K program.

The HU5K Program works alongside the GAA Schedule. Remote health providers should continue using the GAA Schedule while integrating the HU5K Program. For instance, you are already seeing children and their families at nominated times within the GAA schedule. In addition to what you will do for GAA (weight, height and haemoglobin for example), you will now do a more comprehensive check, based on the additional components of the HU5K Program.

The following diagram illustrates how the GAA Schedule and the HU5K Schedule complement each other and can be incorporated into existing services including GAA and the immunisation schedule. We revisit the HU5K Schedule and its various components in Module Eight.

### New GAA Schedule

<table>
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<tr>
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<th>Weight</th>
<th>Length/Ht</th>
<th>Head circ</th>
<th>Hb</th>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>0-2 months</td>
<td>✓ Every 2 wks</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
</tr>
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<td>8 wk check</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
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<td>2-6 mths</td>
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### Under 5 Schedule

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<tr>
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<td>4 months</td>
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<tr>
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Summary

This module provided an overview of the context of child health in remote Aboriginal communities in the Northern Territory. The HU5K Program is designed to work more effectively with parents and family members to strengthen their capacity to provide the environment that will enable children to reach their full developmental potential.

Additional Resources

Additional information on the GAA program and other DHF programs is provided in the ATLAS and is available on both the intranet and the internet.


The ATLAS is a living document that is regularly updated. It provides governance for staff in remote areas by providing guidelines using the latest available evidence to support best practice.

Additional information on GAA can be found through the GAA reports on the link below:

The Public Health Bush Book is another excellent resource for remote health providers and covers many of the social and environmental factors that influence the capacity of families to care for children and promote their development. It is also available electronically at:


Further Reading (optional)


Module Two: Primary Health Care

The previous module set the context for the HU5K program in remote communities in the NT. To implement this program effectively requires a new way of thinking about families and working with them to address the social, environmental and other aspects of parenting. This module provides an overview of Primary Health Care (PHC). For most of you this will be a revision and perhaps you believe you don’t need to read it. However, it provides us with an opportunity to reflect on PHC and consider how effectively we currently work within a primary health care approach in remote areas.

Learning Outcomes

Upon the successful completion of this module you should be able to:

- Define and understand the principles of primary health care within global and local contexts;
- Differentiate between primary health care as a philosophy; an approach; a range of strategies; and a level of care;
- Review and reflect upon the social determinants of health; and
- Identify the importance of incorporating primary health care principles when working with children and families in remote areas.

Introduction to Health and Primary Health Care

The World Health Organisation’s Declaration of Alma Ata (WHO 1978) states that (PHC) is based on a number of principles that encompass health promotion, illness prevention, care of the sick, advocacy and community development (CHETRE 2008). Primary Health Care is therefore a philosophy that should encompass a range of strategies through a level of service provision as outlined in the following table.
Primary Health Care Philosophy

- Holistic understanding of health
- Recognition of multiple determinants of health
- Community control over health services
- Health promotion and disease prevention
- Equity in health care
- Research-based methods
- Accessible, acceptable, affordable technology

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<td>Decentralised management</td>
<td>Affordable and accessible</td>
</tr>
<tr>
<td>Education</td>
<td>Well integrated</td>
</tr>
<tr>
<td>Inter-sectoral coordination and cooperation</td>
<td>Health care teams</td>
</tr>
<tr>
<td>Balance between health promotion, prevention and</td>
<td>Health promotion</td>
</tr>
<tr>
<td>treatment</td>
<td>Disease prevention</td>
</tr>
<tr>
<td>Multi-disciplinary health workers</td>
<td>Illness treatment</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation services</td>
</tr>
</tbody>
</table>

(CHETRE 2008, p. 2-3).

Many of you will have studied PHC and/or feel that you are already working in primary health care services and incorporate the principles into your everyday practice. But we challenge you to critically analyse your own practice and the service in which you work. To work effectively with children and families to maximise childhood development each one of us must have an in-depth understanding of what PHC care is and how most of our services find it difficult to fully implement the principles of PHC.

Activity

Consider your own definition of PHC. Write it down in the space below. How does your definition fit with how you work in your current health setting?

____________________________________________________________________

____________________________________________________________________
Primary Health Care is particularly suited to working with children and their families as it supports a holistic model of health that is influenced by the social and economic inequalities that exist in society (WHO 1978). Primary Health Care is also concerned with prevention and early intervention through community-based services (WHO 1978).

Community participation is an essential component of PHC (Werner and Sanders 1997). It extends from the involvement of the community to genuine ownership and control by community members. Thus, the implementation of primary health care relies on the shift of power and control from the health system to the community and the individual client. The difficulty of this occurring has been identified as a major reason for the lack of success of PHC (Werner and Sanders 1997). An increasing dilution of PHC has occurred since 1978 as government and health services have chosen to adopt selective PHC rather than comprehensive PHC as it was originally intended. Some of the key differences between Comprehensive and Selective PHC are outlined in the table below (CHETRE, 2008, p3).

<table>
<thead>
<tr>
<th>View of Health</th>
<th>Comprehensive PHC</th>
<th>Selective PHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control over Health</td>
<td>Communities and individuals</td>
<td>Remote area health provider</td>
</tr>
<tr>
<td>Major Focus</td>
<td>Health through equity and community empowerment</td>
<td>Medical solutions for disease eradication</td>
</tr>
<tr>
<td>Health Care Providers</td>
<td>Multi-disciplinary teams</td>
<td>Medical doctors</td>
</tr>
<tr>
<td>Strategies for Health</td>
<td>Multi-sectoral collaboration</td>
<td>Medical interventions</td>
</tr>
</tbody>
</table>
Determinants of Health

Determinants of health are categorized by their influence on health as either structural (poverty or unemployment) or specific (tobacco use or physical activity) (WHO 1998). People’s health can be influenced positively by PHC and health promotion. All remote health providers within a multi-disciplinary team require a sound understanding of these concepts and their application along the continuum of care within the multiplicity of services not necessarily only health services.

Reading Two


As you read this chapter, think about the social determinants that may impact on the health of the family of Rob and Stella (Dade-Smith 2007). Then think about what social determinants may contribute to families where you are currently working. Record your findings for personal reflection.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Why is it so difficult to make healthy choices sometimes? Think of something you have been trying to change and have found it almost impossible to do it. Write down your answer. Do you have to go outside of the health system to make the change? If so, where and what would the change entail? Who would be involved? What helps to make it happen?
A recent publication on behalf of leading nursing and midwifery organisations across Australia called for a reorientation of health services in Australia to include PHC as a central policy platform. This would be demonstrable through:

*a person centred, holistic approach incorporating body, mind, spirit, land, environment, culture, custom and socio-economic status to the provision of accessible, essential, integrated, quality care based upon practical, scientifically sound and socially acceptable methods and technology for all in the Australian community.*

(Adrian 2009).

This requires increased investment in health promotion and the prevention of illness and injury, the establishment of respectful partnerships between communities and individuals and health centre providers, engaging all citizens of Australia in participating individually and collectively in the planning and implementation of health care (Adrian 2009). The DHF attempts to implement these principles though the HU5K program.

**Summary**

This module discussed the principles of PHC and some of the reasons why it has not been fully implemented in many health services. Having a critical understanding of the principles of PHC and its appropriateness when working in remote areas will assist remote health providers understand the ineffectiveness of some of the practices we undertake when working in remote Aboriginal communities. Through critical reflections it is hoped that remote health providers will try new ways of working with families that will in turn support the philosophies, strategies and principals of PHC.
Further Reading (optional)


Additional Resources


- Centre for Health Equity Training, Research & Evaluation (CHETRE), UNSW Medicine www.phcconnect.edu.au/defining_primary_health_care.htm
Module Three: An Overview of Child Development and Assessment Tools

Many health providers working in remote areas are very experienced working with children under five. Through experience with the GAA program you may consider yourself familiar with the assessment of childhood development. However, childhood development is much broader than the GAA program. This module provides an overview of childhood development including the science that now informs development, the domains of development and tools to assess development.

Learning Outcomes

Upon successful completion of this module you should be able to:

- Understand essential components of early childhood development;
- Understand the domains of development; and
- Distinguish between screening, surveillance and the variety of development assessment tools.

The Early Years

In recent years there has been significant advancement in our understanding of brain development and the importance of the early years on long-term health and well being. Experiences in the first years of life physically determine the wiring of a child’s brain by strengthening synapses within it. The old belief that babies were passive underdeveloped beings that had no capacity to engage has been refuted. The table below demonstrates the science that has radically changed the way we think of the early years of a child’s life.
<table>
<thead>
<tr>
<th>Old Thinking</th>
<th>New Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>How a brain develops depends on the genes you are born with.</td>
<td>How a brain develops hinges on a complex interplay between genes you are born with and the experiences you have.</td>
</tr>
<tr>
<td>The experiences you have before age three have a limited impact on later development.</td>
<td>Early experiences have a decisive impact on the architecture of the brain and on the nature and extent of adult capacities.</td>
</tr>
<tr>
<td>A secure relationship with a primary caregiver creates a favorable context for early development and learning.</td>
<td>Early interactions don’t just create a context; they directly affect the way the brain is “wired.”</td>
</tr>
<tr>
<td>Brain development is linear: the brain’s capacity to learn grows steadily as an infant progresses toward adulthood.</td>
<td>Brain development is non-linear: there are prime times for acquiring different kinds of knowledge and skills.</td>
</tr>
<tr>
<td>A toddler’s brain was much less active than the brain of a college student.</td>
<td>By the time children reach age three, their brains are twice as active as those of adults. Activity levels drop during adolescence.</td>
</tr>
</tbody>
</table>

(McCain and Mustard 1999).

The physical, neurological, cognitive, language, social and emotional development of children undergoes rapid change in the first years of life. All of these aspects of growth and development are programmed by brain development, and all are interconnected. Development occurs in a strict hierarchical nature in the form of a ‘bottom up’ sequence – this means that neural circuits that process basic information are wired earlier than those that process more complex information. The brainstem is well developed at birth and is responsible for basic functioning such as sleep, hunger, pain etc. The cortex however is not as developed. Over time cortical areas can inhibit
these lower, more primal areas and impulses such as anger, aggression and frustration are controlled.

Newborns are born with millions of nerve cells but these cells have minimal connections (see diagram below). These interconnections cause circuits and highways for later use. They occur through **Synaptic Density** where synapses are created with astonishing speed in the first three years of life. For the rest of the first decade of life, children’s brains have twice as many synapses as adults’ brains. The following diagram demonstrates the rapid creating of pathways and networks from birth until six years. The pathways and networks that are used remain strong but the ones that are not used are pared back and so the 14 year old brain has less (Shore 1997).

From **Rethinking the Brain: New Insights into Early Development** by Rima Shore (NY: Families and Work Institute, 1997).

**Reflection**

How does this new knowledge of the early years and early brain development influence your practice with children under five years in your workplace? How will it influence how you monitor children’s development?
Activity

So what is child development? How do you know when the child is developing normally? What are you currently doing to monitor child development in your community? Is this the best way to do it? What gets in the way? How else could you do it? Think back to the section on PHC and write down your brief thoughts to these questions.

Domains of Development

Child development is the steady attainment of new abilities by children as their nervous system matures and their body grows in size. The crucial time for this development is during the first two to three years.

Childhood development is divided into domains, or areas of development. Some authors talk about FOUR major areas (Gross Motor, Fine Motor, Emotional and Social or Self Help), others categorise them into THREE main areas (Physical, Cognitive and Social and Emotional). We have chosen to present the latter domains but this is not dismissing the validity of the other categories. Regardless of the categories, all major areas of development are covered.

Physical or motor development: ‘encompasses both gross motor (the control of large groups of muscles involved in walking, sitting or transferring from one position to another) and fine motor abilities (the manipulation of objects with the hands in order
to eat play draw etc)’ (Rydz, Shevell et al. 2005, p. 4). Physical development results in changes in body size, proportions, appearance and functioning of various body systems: brain development, perceptual and motor capacities and physical health.

*Cognitive Development:* is the development of thought processes and intellectual capacities including attention, memory knowledge, problem solving, imagination, creativity and language.

*Social and Emotional Development:* comprises developmental emotional communication, self understanding, ability to manage one’s own feelings, knowledge about other people, interpersonal skills, empathy, friendships and moral reasoning and behaviour.

Each area of development influences and is influenced by one another during a child’s development.

There are also several principles of development that assist us in interpreting the changes that occur in the early years of life. The nine principles are:

- Growth and development is orderly and sequential. Maturation is predictable and follows a generally universal timetable – e.g. rapid growth occurs during the first year of life. Most infants double their birth weight around four to six months and have tripled it by one year. It then slows down dramatically.

- Growth and development is related to, and dependent on, the environment. This includes family, community and culture.

- Growth and development occurs in a cephalo-caudal (head to toe) direction. Progress follows nervous system myelinisation and muscle maturation. Control moves from head to trunk to lower extremities in a progressive, predictable sequence. This progression differs between infants and children who have individual variations in achieving different tasks (Pillitteri 2007). For instance, one child will roll over before another; or another child will sit without support earlier than another. Some children miss crawling and start to walk while another child around the same age will be crawling on all fours before pulling to stand and then standing alone. Another child will only sideways
crawl before pulling to stand. In other words, the sequence is predictable yet the timing varies between infants and children.

- Growth and development occur in a proximo-distal (inside out) direction – controlled movements closest to the centre of the body occur before those distal to the body axis – for example, babies roll over before they develop a voluntary hand grasp.

- The pace of growth and development is specific for each child – whilst they are continuous, they are not synchronous. Not all children do exactly the same as each other.

- Growth and development become increasingly differentiated – movements and responses progress from generalised gross responses to skilled or specific responses. For example, a newborn cries with the whole body and an older child cries with the eyes and face.

- Growth and development become increasingly integrated – behaviour and function progress from simple to complex as the child gains new skills and combines previously learnt skills to accomplish more complex tasks such as drinking from a cup.

- Certain periods are critical during growth and development.

- Growth and development are continuous and influenced by many factors.

(Mott, Fazekas et al. 1995, p. 132).

The following diagram illustrates the sensitive periods in development in the first years of life. Although the potential to address problems through interventions outside the critical period can still lead to improved outcomes, the effectiveness of the intervention is significantly reduced. Therefore the time to promote development and detect any problems is within these critical periods.
Milestones

In order to assess a child’s developmental progress we usually look for particular milestones. Milestones are particularly recognisable achievements e.g., the demonstrated ability to use the pincer grasp by picking up a sultana with the forefinger and thumb. When assessing milestones it is important to recognise that there is a wide normal variation in the achievement of some milestones and that the achievement of many milestones can depend on the environmental situation and stimulation. For example, infants and young children in Romanian orphanages spent the majority of time alone in their cots. This led to a delay in all developmental domains due to an environment that did not promote the exposure of the infant to the necessary environment and stimulation required to develop normally.

It is impossible for any remote area health provider to remember every single milestone at every age of a child’s life. An excellent resource to have on hand when doing developmental assessments is: Sheridan, M, 2007, From Birth to Five Years: Children’s Developmental Progress, Acer Press, Melbourne (Sheridan 2007). We recommend you buy a copy (cheap at around $25) and keep it as a resource. In
Modules Four and Five we provide an overview of some of the more common milestones as we discuss the different domains of development in more depth.

Depending on how often you undertake developmental assessments, you will soon start remembering what milestones are expected at what age. The Assessment Forms available as part of the HU5K Program include a few of the key milestones as part of the ‘Developmental Pointers’ section of the forms (see Module Eight). If the child you are assessing has not achieved the milestones included in the Developmental Pointers or the parents are concerned in any way, please refer the child to a medical officer/paediatrician, a child and family health nurse, or the visiting allied health team member.

Developmental assessment is not just about looking for milestones – it is about getting a good history, knowing what children to worry about by assessing for both risk and protective factors and working with parents and eliciting their concerns. We further discuss the wider aspects of developmental assessment throughout this training package. Module Eight further outlines each aspect of the assessment forms you are required to complete as part of the HU5K Program.

**Activity**

The following two websites will assist you in your daily practice and understanding of child development. The first one is a national website called ‘Raising Children’ – it is a very comprehensive, evidence based and an essential resource when working with children and families. The second website is NT based and includes the new Tip Sheet library from the NT Families webpage. Record what you like about these websites and print off pages you find useful. Write down any others you find helpful.

http://raisingchildren.net.au


The following Tip Sheet provides an overview of the major milestones for you additional information.

www.families.nt.gov.au/data/portal/00000005/content/49999001079934268982.pdf
Take note of the sections in the Tip Sheet with the heading ‘Out of step’? These sections provide useful developmental pointers to know when things aren’t quite right in the particular age group.

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Developmental Assessment Tools

Screening and surveillance are terms often used interchangeably but their definitions are quite different.

**Screening:** is the presumptive identification of unrecognised disease or defect by application of tests, examinations or procedures, which can be applied rapidly. Screening sorts out apparently well persons who probably have a disease from those who probably do not. A screening test is not intended to be diagnostic (NHMRC 2002, p. 20).

**Surveillance:** is a flexible, continuous process that is broader in scope than screening. In the context of child health, it involves knowledgeable, skilled observation of children by professionals, in partnership with parents throughout all encounters. It aims to optimize the health of children through the ongoing overview of the physical, social and emotional health and development of all children (NHMRC 2002, p. 20).

The components of surveillance include:

- Measurement of physical growth
- Monitoring of developmental progress
- Administration of screening tests
- Prevention of disease (e.g., immunisation)
- Provision of information to support parents
- Health education
- Eliciting and responding to parental concerns


**Activity**

Do you find that some parents engage in surveillance activities in the health centre more readily than others? Can you explain why this is so? What is it about your approach and relationship that is essential to engage parents and to ensure that they will come back comfortably when they have more concerns or you have asked them to return?

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The HU5K Program is a surveillance program and has many advantages over one off screening activities. It involves parents, takes note of the context in which the child is assessed, is flexible, ongoing and continuous and seeks not only to detect problems but to promote health.

**Tools for Assessing Development**

It is generally advocated that all health providers working with young children utilize standardized instruments to assess a child’s developmental status due to the increased accuracy in identifying developmental problems.

There are many tools available though these can generally be categorised into *two* main areas, or types.
The first is the more traditional tool where the health professional attempts to get the infant or child to demonstrate skills in the various domains that are measured against the recognised milestones in development. Examples of these tools include the Brigance, Bayley Infant Neuro-developmental Screener, Stycar (Sheridan), Denver II, Woodside, and others. Many of these, particularly the Denver II and Woodside are no longer recommended for use because they fail to meet the recommended 70% sensitivity and specificity accepted by the NHMRC (2002) as the minimum level for screening tools to be useful.

The Brigance is being increasingly used in Australia as it meets the recommended minimum of 70% sensitivity and specificity. When using the Brigance tools, the health provider attempts to get the child to demonstrate a particular age appropriate skill such as hopping on one foot or describing the action of a particular picture.

The second type of assessment tool involves eliciting the parent’s concerns to identify delays through a series of appropriate, targeted questions (see ‘Engaging parents in developmental concerns’ below). The more common examples of these tools used in Australia include the Parent Evaluation of Developmental Status (PEDS) and the Ages and Stages (discussed in more depth below).

Currently in Australia, some states and territories (including the regional and urban areas of the NT) are using the PEDS as a primary and Brigance as a secondary screen on children from birth to seven and a half years. Brigance can also be used as a stand alone screening test. Remember, remote area health providers are not expected to diagnose developmental delay – but rather only to identify those children who require a more specialised assessment.

Engaging Parents in Developmental Concerns

Engaging parents in assisting with the developmental assessment process recognises that although the primary aim of the screening program is to facilitate early identification and intervention of delays, parents often know their child’s capabilities more than can usually be elicited in a 15 minute ‘test’. Other advantages are to raise parents’ awareness about the importance of early child development and to increase the capacity of families and the community to support healthy childhood
development. Combined growth and development interventions that help families practice ‘responsive parenting’ have the potential to promote better psychological development, as well as physical growth (WHO 1999).

A structured approach to developmental assessment using a questionnaire acts both as a communication tool between providers and between providers and parents, as well as having psychometric properties (the ability to assess certain psychological properties). This enables it to be used as a developmental screening tool in the context of services that are already providing a system of care (Glascoe 2000).

The advantages of using parents’ concerns include:

- They are easy to elicit
- Take only a few minutes of professional time
- Eliminate the challenges of assessing children who are often inhibited and uncooperative
- Provide a family focused and collaborative approach between the professional and the carers
- Capitalise on questions often asked at most visits to child and family services
- Provide the opportunity to discuss and promote development in children and their families

(Glascoe 2000, p. 139).

Examples of parental concern tools include the Parent Evaluation of Developmental Status (PEDS) tool and the Ages and Stages Questionnaire (ASQ). The PEDS Form comprises 10 questions, eight of which elicit parental concern about specific domains of learning, development and behaviour. The remaining two questions are about more general concerns. The Ages and Stages Questionnaire (ASQ) is longer and uses age specific questions that address communication, gross motor, fine motor, problem solving and personal-social developmental areas.

However, reliance on parents concerns will not detect some children with problems (Glascoe 2000). Many of the new developmental assessment forms using parental
concerns including PEDS and Ages and Stages have been tested on a wide range of socially and culturally diverse communities that support the use of these tools. To date these tools have not been tested in remote Aboriginal families. As you read in Module Six in the section on Aboriginal child rearing practices there appear to be some fundamental differences around how remote Aboriginal and non-Aboriginal parents raise their children. One of the fundamental differences is that Aboriginal families appear to see the child as the active agent, rather than the parent (as seen in Western parenting styles). This means that the parent responds to the child’s needs, as expressed by the child, rather than predicting what those needs are. This fundamental difference could significantly impact on the reliability of tools such as PEDS or Ages and Stages. Therefore further research is required to test and validate these tools on remote Aboriginal children.

The decision not to include PEDS or Ages and Stages in the provision of health services in remote areas does not preclude staff from engaging parents and determining their concerns. As you will see throughout the HU5K assessment forms (see Module Eight), prompts for assessing parental or carer concerns appear on every contact visit as part of the HU5K program.

**Activity**

What are your thoughts on relying on parents to assist in the identification of problems? Do you trust that they know their children better than you? Your approach and communication style is very important when engaging with families who are concerned about their child’s development. What communication style do you use and how do you approach challenging issues?

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Summary

This module provided the basis of understanding childhood development and the rationale for ongoing monitoring through surveillance programs such as the HU5K. It is important for remote health providers to have an understanding around the relationship between childhood development and health. We now move onto Module Four where we begin to look at the domains of development in more depth.
Module Four: Physical and Cognitive Aspects of Growth and Development

The last module provided a sound rationale for health providers to promote, assess, monitor, and support childhood development. This module provides an overview of the physical and cognitive components of childhood development and the main components of the assessments that you will be undertaking as part of the HU5K program.

Learning Outcomes

Upon the successful completion of this module you should:

- Understand the components of monitoring growth and the use of growth charts;
- Have developed an in-depth understanding of normal physical and cognitive development;
- Describe the key components of assessment including gross motor, fine motor, hearing, and vision;
- Identify ways you can work with parents to optimize physical growth and development; and,
- Describe the important aspects of oral health care in children under five.

Child Development: Physical and Cognitive

Physical growth is essential for children to develop normally and to reach their maximum potential. According to Bee and Boyd (2004), understanding physical growth is essential because:

- The child’s growth makes new behaviours possible.

Some physical characteristics are obviously necessary to allow them to mature. The lack of physical development will set limits on what the child is capable of performing – for example a ten month old infant is not able to be toilet trained due to immaturity of the anal sphincter.
- The child’s growth determines experience.

The range of physical capabilities and skills influences the range and variety of experiences the child is exposed to and consequently the cognitive and social development. A child who learns to ride a bike also explores their neighbourhood.

- The child’s growth affects other’s responses.

Parental/caregiver responses have a major bearing on the child’s early years and have long term consequences for the child’s development. Adults’ expectations are also affected by the child’s size, temperament or physical skills.

- The child’s growth affects his/her concept of ‘self’.

Physical characteristics and skills will influence the child’s self concept. A child’s self image is not simply a direct reflection of observable reality. It is instead, an internal model shaped by a variety of things including direct experience, what the child overhears from others and the child’s ideas about the current cultural image of what the body should look like and achieve.

- Motor development usually follows the same organized sequences as physical growth, but does not follow a fixed maturational timetable.

Each child’s development is different, influenced by the central nervous system development, the movement capacity of the body, the child’s choice of task, emotional and environmental stimulation.

**Measuring and Monitoring Growth**

Child Growth Standards are widely used as a tool in public health, medicine and by governmental and health organisations for monitoring the well-being of children and for detecting children or populations not growing properly who may require specific medical or public health responses. The GAA and HU5K Programs carefully monitor normal growth and development as a strategy, designed to reduce child mortality and disease. Growth references are the values of weight and height for each age against which health providers measure the growth of the children.
As an indicator of health, measuring growth is most useful if it is done over a period of time with a series of weights that are plotted on a growth chart. There is a common misconception that the expected growth curve is race or ethnicity specific – e.g. little parents have little children. This is true to a certain extent but the curve of the child’s growth should be the same, regardless of ethnicity, socioeconomic status and type of feeding.

In 2006, the World Health Organisation released a new set of growth charts based on reference data from 8500 children over six counties (Brazil, Ghana, India, Norway, Oman and the United States). These charts are considered the most reliable of all growth charts to date and the majority of the world is now using them or is in the process of introducing them. For more information on these recent charts refer to the following DFH document: *Child Growth Charts in the Northern Territory: a discussion paper, 2008* available on the DHF website.

**Measuring Growth in the NT**

The WHO charts have been introduced into the NT replacing the previous CDC and Road to Health Charts. The WHO charts selected for use in the NT are available through the links below, as hardcopies through DHF Stores, or on the DHF electronic ATLAS ([http://www.health.nt.gov.au/RemoteHealthAtlas/](http://www.health.nt.gov.au/RemoteHealthAtlas/)).

<table>
<thead>
<tr>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 yrs weight for age</td>
<td>0-2 yrs weight for age</td>
</tr>
<tr>
<td>0-2 yrs length for age</td>
<td>0-2 yrs length for age</td>
</tr>
<tr>
<td>2-5 yrs weight for age</td>
<td>2-5 yrs weight for age</td>
</tr>
<tr>
<td>2-5 yrs height for age</td>
<td>2-5 yrs height for age</td>
</tr>
<tr>
<td>5-10 yrs weight for age</td>
<td>5-10 yrs weight for age</td>
</tr>
<tr>
<td>5-19 yrs height for age</td>
<td>5-19 yrs height for age</td>
</tr>
<tr>
<td>5-19 yrs BMI for age</td>
<td>5-19 yrs BMI for age</td>
</tr>
<tr>
<td>0-5 yrs Head Circumference</td>
<td>0-5 yrs Head Circumference</td>
</tr>
</tbody>
</table>

There are some criticisms of an overemphasis on growth monitoring in many health services though with the high levels of malnutrition in the NT, the activity is easily justified. However, it is important to do more than *just* measure. Growth monitoring should be accompanied by health promotion and anticipatory guidance activities.
At a population level, NT growth data are used in a number of ways including:

- As a surveillance tool to monitor the pattern of an individual child's longitudinal growth. Aiming to identify growth faltering which may indicate underlying physical ill-health, deprivation or neglect and allow early intervention,

- As a screening test at a single point of time to indicate possible abnormalities, e.g. short stature may indicate investigation for Turner's Syndrome,

- As an eligibility criteria for growth hormone replacement,

- As a surveillance tool for individual children aiming to identify early features of obesity and allow intervention to occur and

- For analysis and reporting of population growth data and trends.

(DHF 2008).

‘Remote Indigenous children represent a significant proportion of the NT population. Data from Indigenous children in remote communities, and some urban communities show high rates of growth faltering in the first few years of life. Growth monitoring programs with intervention for children failing to thrive are in operation. Monitoring and accurately identifying individual children who are not growing normally is important, as is having the best population data about rates of inadequate growth. The accurate and early identification of overweight is also important because of the prevalence of obesity, early onset of type 2 diabetes and other chronic diseases.’

(DHF 2008)

The Growth Assessment and Action (GAA) Program

The aim of the Northern Territory GAA program is to improve the growth and nutritional status of children 0-5 years living in remote communities. The GAA program involves regular monitoring of growth and implementation of early action if growth falters.

GAA has three main objectives:

- Timely and accurate growth and anaemia monitoring of individual children.
- Appropriate and timely intervention of growth faltering i.e. Action Planning.
- Reporting nutritional status, including anaemia prevalence at community, district and Territory level.

The GAA program collates growth and haemoglobin data from all participating communities once a year. Results are released as a series of reports that provide population level information on the growth status of Indigenous children under five in remote communities across the NT. Between 78-80 communities participate in each collection. The report includes details of the program coverage, reporting the number of children measured compared with the number of resident children. The report also provides rates of stunting, wasting, underweight and anaemia for the whole NT and by broad geographical regions.

Trend data of parameters from the previous five years and comparisons by age groups are also presented. There has been a slight but steady decrease in underweight and anaemia over the past six years. For more information on GAA refer to the ATLAS (details in Modules One and Eight), CARPA Standard Treatment Manual or contact the MCYH Team Child Health Nurses (see Module Eight).

**Under-nutrition / Malnutrition**

Poor growth in remote areas is often nutritional in origin – this means the infants do not get offered sufficient nutrients after six months due to the delay in introducing complementary foods. However, this problem is compounded by the high burden of co-morbidity including parasitic infestation, anaemia, infections (skin, ear, respiratory, gastrointestinal), and eventually gut mal-absorption.

As most of the brain growth occurs in the first three years of life, prolonged poor growth during this time has serious consequences. The best thing we can do as health providers is to prevent growth faltering but this is difficult to achieve when Aboriginal children are faced with the many contributing factors to poor growth.

The following terms are used to categorise the nutritional status of children (CDC, 2000):

- Acute Malnutrition
- Severe Acute Malnutrition
- Moderate Acute Malnutrition
- Chronic Malnutrition
- Moderate Chronic Malnutrition
- Growth Retardation
- Stunting
- Wasting
- Underweight
- Adult and Prevalent Malnutrition
- Adult and Prevalent Moderate Acute Malnutrition
- Adult and Prevalent Severe Acute Malnutrition
- Adult and Prevalent Moderate Chronic Malnutrition
- Adult and Prevalent Severe Chronic Malnutrition
Underweight is defined as ‘below minus two standard deviations from median weight for age of reference population’. This is the first indicator to fall when a child is not growing well and can occur in a short term illness and then recover.

Wasting is defined as ‘below minus two standard deviations from median weight for height of reference population’. This is the second indicator that falters when a child does not receive or utilise adequate nutritional intake. They are not putting on the weight but their long bones are continuing to grow so they will appear thin.

Stunting is defined as ‘below minus two standard deviations from median height for age of reference population’. This is the third indicator to fall and is considered the most significant indication of long term nutritional problems. The growth of the child’s bones have slowed and over time these children will look short and of normal weight.

The most important preparation for strong growth begins in utero so supporting women to be healthy in pregnancy will maximise birth weight and iron stores. The WHO recommends that from birth to six months infants should be given breast-milk and nothing else. This is also supported by the NT Infant feeding guidelines (2007 – see additional reading list at the end of this Module). Remote Aboriginal communities fortunately have high levels of breastfeeding and mothers should be congratulated for this. Parents and carers should also be informed about the importance of good growth in the first few years of life and the links to brain development. Unfortunately, many parents and carers know that the remote health providers are concerned with weight and the line on the graph but it has been shown that the ‘clinic story’ is not the same as the ‘community story’ around growth (Smith, Mununggurr et al. 2001). It is important if we are to be effective in supporting families to give the required nutritional content to their children that we aim to understand THEIR story.

It is also important to remember that just because a child’s growth is faltering, it does not mean that the family is not giving the child enough food. Don’t forget the social and environmental factors. Many remote children suffer overwhelmingly high rates of infections. Children with an infection will commonly experience anorexia and may simply refuse to eat. This is often compounded by infestation of parasites in the Top End, particularly Strongyloidiasis which can be very difficult to eradicate. Furthermore frequent episodes of diarrhoea will also lead to flattening of the villi that line the
intestine which in turn leads to mal-absorption. Finally there is anaemia, which can also decrease a child’s appetite and make them lethargic. It is therefore important to look for any medical causes that may be contributing to poor growth and that may respond to treatment. The medical checklist is outlined in the GAA guidelines and CARPA manual.

Finally, there are many social issues that may influence growth. The GAA programs provide guidelines around the sort of social factors you can discuss with families, though to date this has not been well implemented in remote areas. Many remote health providers aren’t comfortable talking about financial stress, or domestic violence, or they feel that there is no point in discussing them because they can’t change these things. But by avoiding these aspects of the GAA program we will continue to see very little improvements in under-nutrition across the NT. So we have to start doing things differently and the HU5K program offers the opportunity to do this.

And remember, it is not ONLY under-nutrition that we need to worry about. OVER-nutrition is also a significant problem in some remote communities and this will only continue with obesity being described as Australia’s next epidemic. Again it is all about good food habits and prevention before intervention.

**Other Aspects of Physical and Cognitive Development**

The physical and cognitive domains of development incorporate *gross motor, fine motor, hearing, language and vision*. We will also include *oral health* as an important component of physical development.

**Gross Motor Development**

Gross motor development incorporates the control over actions that will allow the infant and child to get increasingly more mobile. In contrast *fine motor development* (see next section) refers to the smaller or finer movements including reaching, grasping and manipulating objects. Remember, development is *sequential* – that is it follows a sequence. Whilst some children may *skip* a particular milestone (crawling for example) they would not do things back to front – in another example, stand before s/he could sit unsupported. We have an idea of when children should be doing
what— but whilst most children will develop along the same sequence, the *timing* of the development varies considerably. Most children who are slow to sit or walk, in the absence of any *other* concern, do not go onto have any developmental problems.

The following table shows the type and age range of gross and fine motor milestones in the first two years of life.

<table>
<thead>
<tr>
<th>Motor Skill</th>
<th>Average Age Achieved</th>
<th>Range in which 90% achieve the skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>When held upright, holds head steady and erect</td>
<td>6 weeks</td>
<td>3 wks – 4 months</td>
</tr>
<tr>
<td>When prone, lifts self by arms</td>
<td>2 months</td>
<td>3 wks – 4 months</td>
</tr>
<tr>
<td>Rolls from side to back</td>
<td>2 months</td>
<td>3 wks – 5 months</td>
</tr>
<tr>
<td>Grasps cube (smallish objects)</td>
<td>3 months, 3 weeks</td>
<td>2 – 7 months</td>
</tr>
<tr>
<td>Rolls from back to side</td>
<td>4 ½ months</td>
<td>2 – 7 months</td>
</tr>
<tr>
<td>Sits alone</td>
<td>7 months</td>
<td>5 – 9 months</td>
</tr>
<tr>
<td>Crawls</td>
<td>7 months</td>
<td>5 – 11 months</td>
</tr>
<tr>
<td>Pulls to stand</td>
<td>8 months</td>
<td>5 – 12 months</td>
</tr>
<tr>
<td>Stands alone</td>
<td>11 months</td>
<td>9 – 16 months</td>
</tr>
<tr>
<td>Walks alone</td>
<td>11 months, 3 weeks</td>
<td>9 – 17 months</td>
</tr>
<tr>
<td>Stacks two objects</td>
<td>11 months, 3 weeks</td>
<td>10 – 19 months</td>
</tr>
<tr>
<td>Jumps in place</td>
<td>23 months, 2 weeks</td>
<td>17 – 30 months</td>
</tr>
<tr>
<td>Walks on tiptoe</td>
<td>25 months</td>
<td>16 – 30 months</td>
</tr>
</tbody>
</table>

Adapted from Bayley 1993 in Berk 2005 p187.
You can see the huge range in age of some of these milestones. You should also see both the organisation and direction that is cephalo-caudal (head downwards) – so control of the head comes before control of the arms and legs and also that it is proximodistal (inside out) – that control of the head, trunk and arms occur before coordination of the hands and fingers is evident.

Each milestone is cleverly connected to the last one and is a precursor to the next one. These achievements are highly individualistic and are influenced by the amount of exposure a child gets to using the particular muscles or strengthening a particular body part.

Mainstream parents are currently encouraged to put their babies on their abdomen (tummy time) from as early as a few weeks of age to promote neck and upper body development and facilitate development. This activity is readily accepted by many Western parents who are very active in providing opportunities for children to be exposed to activities that will get them to their next stage. But this is not universal. Many cultures do not believe in consciously encouraging their children to develop – they believe that this occurs naturally (DeLoache and Gottlieb 2000).

**Reflection**

Watch carefully how Aboriginal families in remote areas carry their children. Do you see babies crawling or moving about on the floor or ground? If babies are mostly carried what impact would you expect this to have on the child’s gross motor development?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
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Aboriginal babies in remote areas are commonly carried by a family member; although the use of prams and strollers is being increasingly seen in recent years. As we will discuss in Module Five on Aboriginal child rearing practices, little is known
about contemporary development in remote children. Observations though will show you that infants and children out bush do develop a bit differently. They may not spend much time on their tummies but they are generally held much more erect than mainstream babies. They can see the world and very young children are often seen perched on top an adults shoulders holding onto the adults’ hair. So when you are encouraging developmental activities remember to think about the context in which these babies are growing up in and the traditional practices that inform the child’s environment.

**Fine Motor Development**

The development of the infants’ ability to reach out and grasp and manipulate objects opens a whole new way of exploring the environment. The newborn’s motor skills start out as poorly co-ordinated swipes, called *pre-reaching*, and newborns commonly hit or scratch themselves in the face. They are born with the *grasping reflex* (the infant’s hand will close over and grasp anything put in his or her palm, commonly a finger). This is replaced by the ‘ulnar’ grasp by three or four months where the infant has more control though will still clumsily grasp objects. Around four or five months they are able to coordinate both hands and can transfer objects from one hand to another. By twelve months of age you will observe most infants using a well controlled *pincer grasp* where they use the thumb and index finger to pick up very small objects such as a sultana. These skills occur in association with their developing cognitive abilities – where infants are beginning to anticipate and problem solve.

**Reflexes of the Newborn**

A reflex is the inborn, automatic response to a particular form of stimulation (Berk 2005). It is the responsibility of the midwife or paediatrician at the hospital to check for abnormal reflexes in the newborn infant. The absence of a reflex can be a significant sign and the role and function of many of the reflexes form the basis of future development. For example, the tonic neck reflex (see table below) is thought to prepare the infant for voluntary reaching. The stepping reflex seems to be a primitive walking response.
Other reflexes appear to be survival in nature or were related to survival in our earlier evolutionary stages. The grasp reflex, for example, is thought to have assisted the infant to cling to their mothers when they were carried about all day. The rooting reflex assists the newborn find the nipple of the mother’s breast.

The following table provides information for your interest. You are not required to memorise this information but it may be a useful resource for you.

<table>
<thead>
<tr>
<th>Reflex</th>
<th>Stimulation</th>
<th>Response</th>
<th>Age of disappearance</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye blink</td>
<td>Shine bright light at eyes or clap hand near head</td>
<td>Infant quickly closes eyelids</td>
<td>Permanent</td>
<td>Protects infant from strong stimulation</td>
</tr>
<tr>
<td>Rooting</td>
<td>Stroke check near corner of mouth</td>
<td>Head turns toward source of stimulation</td>
<td>3 weeks (becomes voluntary head turning at this time)</td>
<td>Helps infant find the nipple</td>
</tr>
<tr>
<td>Sucking</td>
<td>Place finger in infant’s mouth</td>
<td>Infant sucks finger rhythmically</td>
<td>Replaced by voluntary sucking after 4 months</td>
<td>Permits feeding</td>
</tr>
<tr>
<td>Moro</td>
<td>Hold infant horizontally on back and let head drop slightly, or produce a sudden loud sound against surface supporting infant</td>
<td>Infant makes an “embracing” motion by arching back, extending legs, throwing arms outward, and then bringing arms in toward the body</td>
<td>6 months</td>
<td>In human evolutionary past, may have helped infant cling to mother</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------</td>
<td>------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Palmar grasp</td>
<td>Place finger in infant’s hand and press against palm</td>
<td>Spontaneous grasp of finger</td>
<td>3-4 months</td>
<td>Prepares infant for voluntary grasping</td>
</tr>
<tr>
<td>Tonic neck</td>
<td>Turn baby’s head to one side while infant is lying awake on back</td>
<td>Infant lies in a “fencing position”. One arm is extended in front of eyes on side to which head is turned, other arm is flexed</td>
<td>4 months</td>
<td>May prepare infant for voluntary reaching</td>
</tr>
<tr>
<td>Stepping</td>
<td>Hold infant under arms and permit bare feet to touch a flat surface</td>
<td>Infant lifts one foot after another in stepping response</td>
<td>2 months in infants who gain weight quickly; sustained in lighter infants</td>
<td>Prepares infant for voluntary walking</td>
</tr>
<tr>
<td>Babinski</td>
<td>Stroke sole of foot from toe toward heel</td>
<td>Toes fan out and curl as foot twists in</td>
<td>8-12 months</td>
<td>Unknown</td>
</tr>
</tbody>
</table>


**Cognitive Development**

Cognitive development refers to ‘the changes in the intellectual abilities, including attention, memory, academic, and every day knowledge, problem solving, imagination, creativity and language’ (Berk 2005, p. 6). Whilst being discussed here as a distinct developmental domain, remember that all domains integrate and influence each other. So when an infant develops physically to sit up and crawl and explore the world, this will contribute greatly to their understanding or **cognition** of their environment.
Jean Piaget (1896-1980) is the most noted cognitive theorist. He recognised that the child interacts directly with his/her environment to develop intellectually. He proposed a number of psychological structures or schemes that adapt, assimilate, accommodate and/or organise thought to make sense of the world (Berk 2005).

A newborn’s reflexes quickly develop to more intentional movements which in turn become specific functional play. This leads to the toddler being able to solve problems and undertake imaginary play. As infants grow in their first year they take in information more quickly and begin to shift their attention from one stimulus to another. During the second year, the child can sustain his or her attention for longer periods.

Similarly with memory, young infants soon remember familiar faces through recognition memory. This matures into recall memory when between 1 to 2 years of age they increasingly recall names, places and people. The final stage is the emergence of autobiographical memory where a child is able to recall events that are long lasting due to their personal significance. For example, as an adult you may remember the birth of your sibling, or a particularly traumatic event. For this to happen the child must have a well developed sense of self (see Module Four) as well as the ability to integrate experiences into a meaningful time-organised life story (Burke 2005).

Stimulating and promoting cognitive development should be centred on play and daily activities. Any activity that stimulates the senses – particularly sound, touch, vision and hearing will assist in cognitive development. Whilst there is a multi billion dollar industry offering parents toys, materials and games to buy their children, many household items and things in nature can adequately stimulate a child. Touch, faces, smiles, voice, flowers, wind, food, pots, cups, songs, sticks, sand, leaves all can contribute to play time and childhood development.

Reflection

What about the health centre? What does it have to stimulate children when they are waiting to see you? How can you assist families to think about what is in their environment to use in playing with their infants and children? What strategies might you suggest that could be culturally acceptable?
Language Development

Children usually have spoken their first word by the age of 12 months (range 8-18 months). However, they have begun to learn to talk way before the utterances of these first words. Indeed we now know that at birth babies begin to move their mouth and make sounds that are vital to language development.

Babies begin cooing at around two months of age and start babbling at around four months. By six months they begin vocalising in a sing song way often muttering to themselves or others in both single or double syllables such as ‘muh’, ‘goo’, ‘adah’, ‘er-leh’ and ‘aroo’. By nine months infants are using sound to communicate, both to indicate pleasure or annoyance. They will shout to attract attention and their babbling now is more purposeful. They will loudly and repeatedly use long strings of syllables such as ‘dad-dad’, ‘mam-mam’, ‘agaga’ etc. By 12 months their ‘babbling’ is becoming more conversational in form though not understandable to anyone. Single words though may now be understood by the family.

By 18 months they are usually making speech like sounds to themselves and can now indicate something they want by pointing and making loud urgent vocalisations and single words. By two years of age the average child will use 50 or more recognisable words and start putting two or more words together to form simple sentences.

And so this vast expansion of vocabulary continues until they are able to communicate and converse with most people, albeit with some phonetic errors and other immaturities.

These language achievements come from mainstream literature, though some language development work has been undertaken in remote areas. As most of you
will easily observe, Aboriginal families in remote areas use non verbal signs and gestures much more often than non Aboriginal groups. Lowell and colleagues (Lowell, Gurimangu et al. 1996) observed extensive use of sign language and non verbal communication but alongside verbal instruction, not instead of. Other authors have suggested that Aboriginal children have slower language development because of the use of observational learning and the increased use of non verbal communication. Lowell, Gurimangu and others (Lowell, Gurimangu et al. 1996) disagree and suggest that the reason non Aboriginal researchers may have observed less verbal instruction and communication was because of the presence of the researcher. They suggest if Indigenous researchers are used, who are known to the family, children can be observed having highly developed language skills.

Aboriginal children learn to use gesturing and non-verbal cues to communicate from a young age but this is used to complement verbal communication, not replace it. The use of the eyes or lips to point or indicate another person seems more utilised in remote Aboriginal groups compared to mainstream Australian groups. There is also a wide range of non-verbal gestures that indicate family members. For example, in the Burrarra language in central Arnhem Land touching the left cheek indicates poison cousin, touching the forehead refers to the grandfather etc.

Young children are taught to speak through ‘modelling’ and being assisted where necessary (Lowell, Gurimangu et al. 1996). From birth babies are spoken to and taught about their relationship with family members and what role particular family members have in the infants’ upbringing.

Cheek pinching and gentle teasing appears widespread in the both Central Australian and Top End communities. Jacobs (1988) noted that cheek pinching seemed more obvious in unresponsive babies and was done to encourage the development of an ‘independent and responsive baby’.

**Reflection**

How do we assess language development in remote areas? How can you assist families to think about or promote language development in a way that is culturally acceptable?
Hearing

Babies can hear and distinguish different voices and sounds while in utero. Within the first hour of birth babies have been observed turning their head to locate the familiar sound of a parent. Newborns can hear a wide variety of sounds but prefer noises and voices, over pure tones, particular the sound of the human voice. The ability to identify the precise location of sound improves dramatically over the first six months and shows further maturity into the second year of life.

Adults automatically adapt their voice when communicating with babies. We use high pitched tones with more expression and a rising tone at the end of phrases. Aboriginal families in Galiwinku use five different stages of language complexity when communicating with their infants (Lowell, Gurimangu et al. 1996) – simple ‘baby talk’ is used with very young children with increasing complexity until the older child is capable of participating in full adult conversation. When a child or adult has language or hearing delay, family members will use the simpler form of language – the same was observed by Lowell when communicating with non Aboriginal people who had learned to speak Yolgnu Matha (Lowell, Gurimangu et al. 1996).

Hearing Loss

‘Deafness’ is the traditional term used to describe loss of hearing but ‘hearing impairment’ is the preferred term that encompasses the fact there are different degrees of hearing loss. Hearing impairment/loss is a full or partial decrease in the ability to detect sounds. It is caused by a wide range of biological and environmental factors. Loss of hearing can happen to any organism that perceives sound. Sound waves vary in amplitude and in frequency. Amplitude refers to loudness and frequency to pitch. Therefore, losing the ability to detect some frequencies, or very
soft sounds, that a person naturally detects, creates some form of hearing impairment.

**Signs and Symptoms of Hearing Loss in Children**
- Does not turn to the source of a sound by three to four months of age
- Pays attention to vibrating noises or noises that can be felt, rather than heard
- Does not say single words, such as "dada" or "mama" by one year of age
- Turns head when he or she sees you but not if you only call out his or her name: this usually is mistaken for not paying attention or just ignoring, but could be the result of a partial hearing loss
- Hears some sounds but not others
- Delayed speech and language
- Unclear speech
- Behaviour problems
- Learning difficulties at school.

**Types of Hearing Loss**

*Sensorineural*

Hearing loss caused either by problems in the cochlea, or by the auditory portion of the central nervous system, is categorized medically as sensory or sensorineural hearing loss. The great majority of human sensorineural hearing loss is caused by abnormalities in the cochlea. There are also very unusual sensorineural hearing impairments that involve the VIIIth cranial nerve or the auditory portions of the brain. In the rarest of these sorts of hearing loss, only the auditory centres of the brain are affected. In this situation, central hearing loss, sounds may be heard at normal thresholds, but the quality of the sound perceived is so poor that speech can not be understood.

There are external causes of damage, including:
- Noise trauma (explosions), noisy work environment-boiler makers, firearm trainers or recreational-personal ipods, MP3 players
Infection: measles, mumps, HIV, autoimmune disorders, foetal alcohol syndrome,

Ototoxicity - some medications cause irreversible damage to the ear, and are limited in their use for this reason. The most important group is the aminoglycosides, in particular Gentamicin.

Physical trauma: head injuries.

Intrinsic abnormalities such as deafness genes: dominant or recessive genes can result in mild to profound hearing loss:

- Abnormalities of the VIIIth cranial nerve: tumours
- Abnormalities of the central auditory system
- Hearing loss due to insensitivity of the inner ear/ cochlea can also be only mild or moderate but can also be much more severe, causing insensitivity to even the loudest sounds (total deafness).

**Screening for Sensorineural Loss in Newborns**

Universal neonatal hearing screening programs such as the Universal Newborn Hearing Screen (UNHS) test have been established in most states and territories across Australia. The program involves testing the newborn hearing response to a range of tones. The two Darwin hospitals (public and private) introduced the program in 2008 and will be extending across the Northern Territory birthing services in 2009 and 2010. For infants discharged without the test, an appointment can be made for a screen up to 12 weeks of age.

The results of the UNHS test are provided on the discharge summary when mothers and babies are discharged from the hospital following birth.

**Conductive**

Conductive Hearing Loss is a significant problem in Aboriginal children, particularly in remote areas of Australia. It is therefore important that anyone working in this field is aware of this issue, along with prevention, screening, treatment and management strategies. In a recent survey, only eight percent of children under 2.5 years of age living in remote Indigenous communities of the NT were found to have bilateral
‘normal’ ears. Twenty percent of the children were likely to have normal hearing and would not require medical or audiological treatment. These results indicate high rates of all types of otitis media, including 15% with chronic suppurative otitis media (CSOM) (Morris, Leach et al. 2005).

This ongoing assault on the inner ear with chronic recurrent ear disease throughout the critical pre-lingual period of language development is significant given that it lasts on average for more than two and a half years (NT Health, 2007). It is therefore very important that effective management occurs as early as possible to maximise the potential of early learning before children reach school age. Refer to the CARPA Treatment Manual for additional information on management.

Activity

Remember, the HU5K Program is about prevention. What health promotion strategies might you use with parents/carers to promote ear health in your community? How might you work with members of your community to promote ear health?

____________________________________________________________________
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____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Proficient use of otoscopy is an important skill when working in remote communities. It is good clinical practice to check ears at every visit. Are you happy with your clinical skills in using otoscopy? Check them out with someone in your team if you need extra practice. Also, refer to the CARPA Standard Treatment Manual for ear drum diagrams and other useful information.

For children who have acquired progressive hearing loss (e.g. chronic persistent otitis media) a delay in developmental milestones can indicate a hearing loss. All children with language delay should have their hearing assessed to see if hearing loss is a contributing factor. Currently the recommendation for routine, universal hearing screening is at birth with the universal newborn screening test and at four years of
age with audiometry. However, the remote population have many more risk factors contributing to conductive hearing loss than mainstream children. The HU5K assessment forms ask for otoscopy and ear inspections on every visit with referral pathways provided in the CARPA Standard Treatment Manual.

In addition, all infants with hearing risk factors (i.e. NNICN, jaundiced excreta) are required to be recalled for formal assessment, even if they pass the Newborn Hearing Screening test. Current recommendation is for this to occur at nine months but discussions under way that may bring this forward to 3 months of age. Check with the Maternal Child and Youth Health Team.

**Tissue Spearing**

Tissue spears (made with absorbent tissue or toilet paper) are the safest and most effective way of dry mopping ears. Common practice promotes dry mopping at least twice a day when ears are discharging pus and continued until the ear has been dry for at least three days. Ear drops are used each tissue spearing to treat bacterial infection and help resolve discharge. Refer to the Healthy School Aged Kids (HSAK) Manual for diagrams of tissue spearing and further information about how to do tissue spearing (DHF and DEET 2007).

**Vision**

In the newborn infant a pupillary response to light should be present (that is the pupils should constrict equally when a torch light is shone in their eyes). The newborn should be able to look or fixate on a face 30 seconds after birth but due to the immature musculature, they are only able to sustain this for a moment or two.

At six weeks the infant is able to direct their eyes towards light, usually turning their head as well. They may move their eyes to locate a noise and should fix their gaze on the carer’s face whilst feeding and are fascinated by facial movements. At this time the eye movements are still jerky though random eye movements are reduced and eyes may deviate intermittently. Pupillary reaction is well developed and the *Blink* reflex (rapid closing of eyes to a loud noise or threatening movement in front of eyes) should be present.
By six months the infant should be visually alert and curious about all aspects of environment. They follow adults’ movements across the room and use vision to locate and reach for objects of interest. The visual acuity (ie the acuteness or clearness of vision) at this age is approximately 6/36.

At twelve months, infants can see small detailed objects well. They should recognise familiar figures from a distance and will have a visual acuity of approximately 6/12. By two years the child’s binocular vision (using both eyes together) is well established. The child will show interest in aeroplanes and flying birds and will avoid obstacles readily.

The four to five year old child is old enough to comply with formal vision screening. Visual acuity is considered normal when measured at 6/9 by an experienced practitioner. By eight years the eye has reached the adult size and visual development is complete.

**Symptoms and Signs that Indicate Possible Ocular Problems**

There are a number of symptoms that indicate possible ocular problems and the child should be referred to a specialist for further investigation. Main symptoms that may cause concern include:

- Sore/watery/itchy eyes
- Headaches related to close work
- Double vision
- Photophobia, i.e. worried excessively by glare
- Blurred vision with close work
- Signs of discomfort or resistance to the covering of their ‘good’ eye during vision screening.
Similarly there are a number of *signs* that may indicate possible ocular problems:

- Obvious strabismus or turned in eye (squint) or ocular condition on observation, e.g. white pupil (see below)
- Obvious discomfort during vision screening
- Attempt to brush away blur
- Closes or covers one eye
- Turns face to one side
- Tilts head
- Rubs eyes excessively
- Puts face very close to book or near work
- Excessive blinking
- General clumsiness
- Poor reading skills for age
- Recurring presence of Blepharitis (inflammation of the eyelid)/conjunctivitis.

**Common Visual Conditions in Childhood**

There are several common visual conditions in childhood. The features of these conditions are described below. A suspicion of any of these conditions warrants prompt referral to an optometrist or ophthalmologist.

**Amblyopia:** is poor vision in one or both eyes that results from a disturbance to normal visual development. The prevalence is approximately five percent of the population and is caused by many conditions including refractive errors, strabismus (squint), and conditions that block light to the retina, e.g. cataract. If not detected and treated before the child is approximately seven years of age the child will either lose complete sight or have dramatically reduced vision in the affected eye.

**Refractive errors:** are abnormal curvature or length of the lens causing blurred vision. Common refractive errors include Myopia (short-sightedness) and
Hypermetropia (long-sightedness). Refractive errors can only be detected by specialist testing.

**Strabismus (Squint):** is due to an abnormality of the extraocular muscles causing lack of alignment in one or both eyes. Eyes most commonly turn inwards (Esotropia) but can in fact turn any direction including outwards (exotropia), upwards (hypertropia), downwards (hypotropia), or even a combination of all three.

The photo of the child below is an example of an exotropic squint where the right eye is turned outwards and the child can only see clearly with his left eye. Not all squints are this obvious though.

![Child with exotropic squint](image)

Any strabismus requires immediate referral to ophthalmologist.

**Pseudo-squint** occurs when it appears a strabismus is present however the eyes are straight. This is due to broad epicanthal folds – the skin located in the inner corners of the eyes, and is most common in young babies and in people of Asian origin.

**Nystagmus:** is an involuntary to and fro movement of the eyes. It is usually congenital, but may also be caused by brain trauma or eye defects which prevent a child from gazing steadily at an object. The vision will always be adversely affected and the child may use a head posture to maximise their vision. This condition requires immediate referral to ophthalmologist.

**Congenital cataracts:** is any opacity in the lens of the eye. It can be associated with congenital rubella and requires immediate referral to ophthalmologist.
**Leukocoria (white pupil):** As the name suggests the pupil appears white in colour. It only occurs when a condition is severe and will often be associated with an early onset strabismus. Leukocoria can be caused by congenital cataracts, retinopathy of prematurity and retinoblastoma (a tumour of the retina occurring usually in children less than two years of age). For these reasons it requires immediate referral to ophthalmologist. This condition is excluded by the **RED REFLEX** and is part of the newborn check undertaken by hospital staff prior to discharge. However it can be repeated by other qualified health staff if they have been suitably trained (see screening section below).

**Ptosis:** Is the drooping of the upper eyelid which usually occurs at birth and maybe present in one or both eyes. Ptosis is often a congenital condition but may be associated with other eye conditions. It requires immediate referral to ophthalmologist.

**Activity**

When do you refer to the Ophthalmologist for eye issues? Make a list summarised from the above readings.

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____________________________________________________________________
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**Screening for Visual Problems in Infants and Children**

Understanding the rationale and correct process of routine vision screening is important when working with children under five years of age. When reviewing the birth discharge summary, details of the newborn check should be reported. This should include the inspection of the eyes and red reflex. In remote areas, visual inspection of the child’s eyes should be part of your routine examination. Appropriately trained staff (visiting child health nurses or medical officers) can assist in showing you how to use the ophthalmoscope and checking the red reflex (see
below). Simple observation of the child may also provide possible signs of an ocular problem.

**Red Reflex**

This test ensures that there is no obvious obstacle to light reaching the retina and should only be carried out by suitably trained and skilled personnel as part of the neonatal examination. It is recommended to be done routinely on all newborns and forms part of the newborn check done in hospital. However there may be cause to undertake the test in the remote area.

The reason the Red Reflex is checked is to exclude cataract or a retinoblastoma (see above). The test should be carried out in a dimmed room with the tester holding the ophthalmoscope (a torch does not work) about 30 to 40cms away from the infant’s eye. The light will shine into the pupil while looking through the ophthalmoscope. The red reflex is seen most easily with the ophthalmoscope lens set at + 3.00. You should be able to see a “red or chocolate” coloured light reflected of the layers of the retina. This is normal. A white or opaque reflection is not normal. Darker pigmented infants including Aboriginal babies often show slightly paler reflexes than fairer skinned babies.

**Preschool Visual Acuity Screening**

In the Northern Territory the Lea Chart is the screening tool of choice for visual acuity. The HSAK manual contains guidelines on how to carry out vision testing using the Lea Chart (DHF and DEET 2007).

The Lea Chart can only be used in children old enough to cooperate (generally from 3.5 to 4 years). The purpose of vision screening at four or five years of age is to check for amblyopia (see page 54) that may be due to a squint (see above) and results in a difference in vision between the two eyes. If picked up early it can be treated. However if it is not detected and treated the affected eye will go blind or have significantly reduced vision. The cut off age for the correction of amblyopia is now around seven years of age.

Children born prematurely or children with multiple disabilities are at greater risk of developing vision conditions and it is therefore recommended that these children
receive close monitoring and in-depth assessment, rather than screening. Such children should be monitored closely by your visiting paediatrician who will advise what surveillance is required.

**Oral Health**

Oral Health is essential for health and wellbeing and the first years of life is the time when most lifetime habits are established. There has been increasing attention given to oral health in health services over recent years and we now know that oral health in remote dwelling Aboriginal children is seriously compromised.

There is a known association between oral infections and conditions such as: diabetes; cardiovascular disease; stroke; and adverse pregnancy outcomes, which affect general health status. Good oral health throughout infancy and early childhood contributes to better health in adulthood. There are also identified links between poor maternal oral health and prematurity. Therefore all pregnant women should have a dental review during (or ideally before) pregnancy.

Primary (*baby*) teeth are important for normal development, function and health. If children lose their baby teeth too early there can be an adverse effect on self-esteem, eating and the position of the adult teeth. Many Aboriginal children have extensive dental decay in both their primary and secondary teeth. The identification of children at risk of oral disease and the detection of early childhood caries at an early age can prevent widespread destruction of the baby teeth and is critical to good oral health outcomes for children (NSW Department of Health 2007).

Early childhood caries (ECC) begin as white marks (lesions) or lines that progressively become larger, turning yellow or brown. These appear on the front or back smooth surfaces of the tooth near the gum line or between adjacent teeth. Upper front teeth are usually affected first followed by the first molars. Lower front teeth are typically free of decay. Over time enamel breaks down with loss of tooth structure. Signs and symptoms of ECC include tooth sensitivity, irritability, pain, infection and facial swelling. Aboriginal children rarely complain of any of these signs or symptoms making it important for remote health staff to provide good anticipatory guidance and frequent oral examination.
It is essential for remote area health providers to take a more active role in the promotion of oral health and the early detection of early childhood caries. As you will see in the HU5K program schedule in Module Eight, there are a series of prompts for staff to *Lift the Lip* of children to detect and early signs of dental decay.

**Teeth Varnish**

The NT DHF has introduced recommendations for the application of fluoride varnish to all children every six months from 18 months of age. This is in response to the several studies that has shown that application of fluoride varnish is an effective strategy in the prevention of dental caries. It should, however, always occur in conjunction with the provision of other health promotion messages and anticipatory guidance for parents and carers.

**Lift the Lip**

As part of the HU5K program you will be asked to do an oral examination on children at regular intervals. To examine the child, lie them flat on the examination table (ideally at the same time you are measuring the length if the child is under two years of age) OR sit two adults on chairs and place them in a ‘lap-to-lap’ position (see photos below).
Look for:

- The presence of plaque
- White spot lesions (especially on the upper front teeth)
- Gross cavities (holes) in any teeth

A healthy mouth will have:

- Pale pink, moist gums and mucous membranes (Note: in dark skinned Aboriginal children the gums are more deeply coloured)
- Whitish teeth that are smooth and free of plaque
- No unusual lumps, ulcers and/or sores.

Factors that may increase the risk of early childhood caries include:

- Pacifying a child with bottles of juice, milk or artificial baby milk, and soft drink or cordial for prolonged periods, especially at night (not too much of an issue in remote communities as fortunately not many children have bottles or dummies);
- The frequency of simple sugars in the diet (coke cola and sweet tea are common problems in remote communities);
The availability of fluoride (in remote areas there is varying fluoridation, both naturally occurring and added);

- Oral hygiene behaviours such as lack of regular brushing and flossing;
- The flow and composition of the child’s saliva;
- The structure of tooth mineral in a given individual; and
- Bacteria transmitted from mother to infant (this is a big issue in remote areas – not only from the mother but from extended family members who love to kiss young babies!!). Hence the important of good oral hygiene for mothers and families.

**Activity**

Which of the above risk factors are more likely to be seen in remote areas? What do you think you can do about reducing remote children being exposed to these risk factors? How might you work collaboratively with families, child care centres, schools and the dental services to promote oral health?

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**Reading Three**

Oral Health - Anticipatory Guidance for Parents and Caregivers, page 211

**Summary**

This module has covered the main aspects of physical and cognitive development in children. Newborn reflexes have been discussed and the important components of hearing and vision screening covered. Oral health and *lifting the lip* is also an
important component of services to ensure children have the best chance to meet their full potential. Now it is time to move onto the social and emotional domains of childhood development.

**Further Reading (optional)**

For further information on the WHO growth standards and growth charts:

http://www.who.int/childgrowth/en/


The NT Infant Feeding Guidelines (2005)


Infant Feeding for Health Professionals (2007)


A thorough review of Indigenous ear health and hearing can be found at:


NSW Messages for a Healthy Mouth:


Module Five: Social and Emotional Development

Introduction

This module explores social and emotional development and how remote area health providers can more effectively support families to help their children develop along this sequential process. The areas of infant attachment and human relationships are explored and the context of parenting in remote Aboriginal communities is discussed through the observation of some of the differences between Aboriginal and mainstream child rearing practices.

Learning Outcomes

Upon the successful completion of this module you should be able to:

- Demonstrate an understanding of attachment theory and attachment classifications;
- Understand social and emotional development in children;
- Identify ways you can work with parents to optimize social and emotional development and attachment relationships in your work in remote areas; and,
- Understand some of the key differences in Western and Aboriginal child rearing practices.

Attachment

Human relationships, and the effects of relationships, are the building blocks of healthy development. In the last 10-15 years there has been a significant amount of attention on the early experiences of children in relation to their social and emotional development (Shonkoff and Phillips 2000). We now know how these early experiences impact on the ability of these children to grow into adults that are socially accepted and acceptable to the community.

The environmental and social context of the first years of life directly influences the moulding and sculpting of the brain, which affects all aspects of the infant/child’s life. Furthermore, consistent and responsive care by the caregiver to the infant directly
impacts on the development of physical, cognitive, social and emotional characteristics.

Babies are born ‘pre-programmed’ to seek out and adapt to the relationship that they have with their carers. This is ‘natures’ answer to the prolonged period of helplessness in childhood and the need to adjust to the infinite possibilities created within a family in interaction with the wider environment.

The child’s first relationship, (usually with the mother), acts as a template, as it permanently moulds the individual’s capacity to enter into all later relationships. These early experiences shape the development of a unique personality, its adaptive capacities as well as vulnerabilities to and resistances against particular forms of future pathologies (Schore 1994).

The remote area health provider can provide support and guidance to those carers who are challenged in meeting their infant’s or child’s needs, with the aim of enhancing the situation for the infant and carer. For this to occur it is important that remote area health providers are aware of the infant’s physical, social, emotional and developmental needs as well as the degree of attachment the infant or child has with his or her caregiver.

**Attachment Theorists**

There have been a number of important theorists who have contributed to the body of knowledge around infant-carer relationships and attachment. The ‘father’ of attachment theory was John Bowlby – his initial theory of attachment was proposed in the 1960s and further refined in his later analyses (Bowlby 1988). Other major contributors include Mary Ainsworth (Ainsworth, Blehar et al. 1978) and Margaret Main (Main, Kaplan et al. 1985). Both of these researchers further developed the work around the classifications of secure and insecure attachment. For those of you who are interested in reading more about the attachment and other early theorists, a list of further reading is provided at the end of the module.

Attachment has been defined as:
the deep and enduring connection established between a child and caregiver in the first several years of life. It profoundly influences every component of the human condition – mind, body emotions, relationships and values (Levy and Orlans 1998).

Attachment is the unique and lasting emotional tie between the infant and his or her carer/s. All infants will develop attachments to their parents, even if the parenting style is harsh or abusive. The only exception to this rule is children reared without parents or specific primary caregivers (such as children in some orphanages). Thus, rather than describing a child as being attached or not, attachment theory and research focus on the quality of the relationship between the child and parent. An attachment usually takes the first year of life to develop, through repeated interactions between the child and carer.

Attachment differs from bonding. Bonding refers to the parent’s tie to the infant which develops in the first few hours of life – that is the parents’ response to the infant versus the infants’ relationship with the parent. Infants are capable of developing multiple attachments (e.g., to mothers, fathers, grandparents). Usually, however, they have one parent who is their “primary attachment figure”.

Secure Attachment
An infant who experiences nurturing, positive care by a consistent carer will develop what is referred to as “a secure attachment”. This is demonstrated in the child who, having developed trust in the reliability and predictability of his/her world, can set off to explore their environment, embark on play that involves new learning, (even with some inherent risk), and proceed to the more complex stages of development. Their personality is likely to be characterized by:

Self esteem, independence and autonomy, resilience in the face of adversity, ability to manage impulses and feelings, long-term friendships, relationships with parents, caregiver and other authority figures, pro-social coping skills, trust intimacy and affection . . . behavioural performance and academic success in school, and promote secure attachment in their own children when they become adults (Levy and Orlans 1998).
It is obvious that such characteristics support the individual’s healthy functioning throughout life. In direct contrast, when attachment is not secure, or when subsequent experiences such as family or community violence or bereavement extinguish or diminish the child’s security, these competencies fail to be optimally achieved (WHO 2004).

**Insecure Attachment**

As well as the ‘secure attachment’ noted above, categories of insecure, or flawed attachments have been further defined by Osmond and Darlington (2001) as follows:

- **Avoidant attachment** is evident in a child who is observed with the primary carer in ‘The Strange Situation’\(^2\) is unaffected or not distressed by a caregiver’s departure. When they return, they may ignore them and keep their distance... There is also the likelihood of longer term dysfunction in that the child, among other traits, “does not seek out emotional care from others … appears detached, emotionally inhibited and unresponsive” (Osmond and Darlington 2001).

- **Anxious resistant attachment** (also known as resistant/ambivalent) is characterized by a child who becomes “distressed when the significant caregiver leaves … but becomes angry and not easily comforted or reassured” on their return … They are more likely to have mothers whose care is characterized by “withdrawal, uninvolvment and inconsistency” (Osmond and Darlington 2001).

- **Disorganized or disorientated attachment** is manifested in an infant by confused, conflicting or contradictory behaviours in the presence of a significant caregiver, both seeking attachment and avoiding it (Osmond and Darlington 2001). The child is caught in a paradox when the parent becomes a source of danger rather than a haven of safety. This classification is the most severe of all the insecure classifications and the most damaging to the developing child. Other key features evident as the child grows older are that the child:

\(^2\) A technique developed by Mary Ainsworth for classification of attachment
May be parental in their interactions with the significant caregiver – this means that the child becomes the ‘carer’ of the adult and assumes responsibilities beyond children of similar ages

May have a negative self image and basically see themselves as unworthy and undeserving of care

May be fearful of being abandoned, rejected or harmed from aggression

May not perceive or engage with their own and other’s emotional feelings/reactions particularly well and therefore can exclude or ignore these reactions

As the child gets older they may attempt to control their environment and others and, as such, can be experienced and observed by other as controlling.

From the conscientious attention paid to attachment theory over recent decades, it is reasonable to accept that when a child has a secure, that is, a nurturing and positive, attachment to a significant other in the early years of life, that child will be better placed to undertake subsequent developmental tasks, and has a much stronger likelihood of optimal performance across the spectrum of adult functioning.

Attachment is not the singular phenomenon in a child’s development. Other features such as changes in family circumstances and the environment also influence outcomes. Other influences also include those from outside the family system, such as school, community and broader societal culture and more. However, it is within the family that the most potent forces for good or poor outcomes for the child exist. The family guides the child’s development of empathy and morality, a lack of which can threaten a child’s positive potential. Furthermore when a child has secure attachment, he or she is more likely to be able to absorb short term stress such as the loss of a family member or a natural disaster.

It is not the responsibility of the remote area health provider to identify children who may be insecurely attached. Rather our role is to identify mothers or carers who may have difficulties in caring for their infant in the consistent and nurturing way that we
now know is so important. Once identified the remote area health provider can implement a range of strategies that will assist these families including seeking the support through additional family, community and health service structures. If ever you have concerns that a child may be having problems attaching, it is the responsibility of the remote area health provider to refer that child and carer to secondary or tertiary services. These services include the mental health team, NT Families and Children (previously FACS) or paediatrician. Be sure to discuss any referral queries you have with the local medical officer or DMO as well as the visiting outreach child health nursing and allied health staff. This ensures the family gets access to the best support available and is multi-disciplinary in nature.

Circle of Security

The Circle of Security is a US-based early intervention program that utilises attachment theory to strengthen a parent’s ability to observe and improve their caregiving capacity. Useful diagrammatic representations (including the one below) show how the infant uses the attached parent as a secure base in which to explore the world, all the time knowing they can return to a ‘safe haven’ they become stressed.

![Circle of Security Diagram](image-url)
Cross Cultural applicability of attachment theories

Whilst much of the research into attachment has occurred in Western cultures there has also been substantial work into other cultural groups. Mary Ainsworth’s first substantial work was done with families in Uganda and there have since been a number of studies with different cultural and ethnic groups (WHO 2004).

Whilst there is no dispute over the differences in child-rearing practices across these groups and practices such as carrying, co-sleeping, autonomy etc will impact on early childhood behaviour, caregiver child interactions support attachment theory (WHO 2004). Whilst no specific attachment studies have occurred with Aboriginal or Torres Strait Islander families, in similar societies where children are carried and cared for by multiple families members, infants usually retain primary relationships with the mother through demand breastfeeding. Studies with these ‘polymatric’, as opposed to ‘monomatric’ societies, report that the development of attachment follows the same sequence in both situations.

All indications from systematic reviews on these studies support attachment classifications and suggest that intra-country variation exceeds inter-country variations. Numerous studies across the world all concluded that ‘emotionally expressive interactions with a fundamentally common dialogue structure takes place between infants and their primary caregivers’ (WHO 2004, p. 33).

Factors That Influence Attachment

Consistent, responsive and empathetic parenting occurs when the caregivers have the necessary love and affection that promotes the child’s optimal outcomes. However the ability of the parent to provide this type of parenting is influenced by the caregiver’s characteristics and a supportive environment.

Characteristics of the caregiver (age, state of health, parenting knowledge, their own experiences etc) will impact on the quality of interaction between the carer and the infant. As discussed earlier, interactions are also determined by both external conditions such as family structure, income, features of the home environment (e.g. levels of crowding, presence of books, noise); child characteristics (temperament, health and developmental status). These factors all interrelate with resources and support networks to determine the ability of the caregiver-child dyad to engage in
‘mutually rewarding developmentally appropriate and reciprocal interactions’ (WHO 2004).

Recognised indicators or risk factors that contribute to insecure attachment in children include:

- Perinatal Stress, Prematurity and Low Birth Weight
- Poor growth and failure to thrive
- Child’s characteristics/temperament
- Caregiver’s characteristics
- Depression and mental illness in the carer/s
- Alcohol and substance misuse
- Inconsistent primary care figures
- Isolation
- Family disharmony, conflict and violence
- Lack of stimuli
- Low socioeconomic status and poverty
- Child abuse and neglect

(Department of Health and Human Services 2006).

Fathers and Attachment

It has been established that babies develop attachments to a variety of people, including in addition to the mother, fathers, grandparents, uncles, aunts, siblings etc. Bowlby believed that the infant can and does attach to the father figure, but is inclined to direct their attachment behaviours to a main single person (the primary carer), especially when distressed. The preference for the primary carer declines over the second year of life, as toddlers becomes aware of their widening social and emotional world. Changing social norms in Western society have seen many more men taking the role of primary carer. This will inform future research on the roles of fathers and attachment.
Although little is officially documented around the role of Aboriginal men in parenting and child rearing, remote area health providers may notice that many men appear very involved with their children and can often be seen carrying infants and young children on their shoulders. As with the role of aunties as second mothers, biological uncles also have significant roles as second fathers. Fathers and uncles often have responsibility for teaching children at particular times, especially boys (Warrki Jarrinjaku 2002). The father also appears to have the responsibility of ensuring the mother is attending to her infant’s needs (Hamilton 1981).

**Reflect**

Who will you refer to in your remote area when you are worried either about the infant or the parent or other primary caregiver? What resources are you aware of and how might you co-opt their assistance? What kind of other programs might you implement with other professionals in your community to assist particular caregivers with issues of their own?

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If a mother or father is having difficulties in being emotionally available to their infant they will require particularly sensitive and supportive services. Remember when working with identified risks it is important to integrate the family’s strengths and protective factors into a management plan for the infant and caregiver. Often this requires additional support for both you as the primary remote area health provider and also for the family.

Remember, your job is not to diagnose attachment disorders. This module has given you a VERY BRIEF overview of attachment. Additional references are provided at the end of the module for those who are interested and there are a number of tertiary
programs you could enrol in. For the majority of remote staff, this information should be sufficient for you to understand the importance of attachment in the first few years and to recognise why some families may have difficulties in responding appropriately and consistently to the needs of their child. These issues found in complex families will be further discussed in Module Six.

**Social and Emotional Development**

Until recently, the social and emotional development of children rarely received the same recognition in policy or service areas as the developmental domains of physical and cognitive development. We now know that the way we function within our social environment as adults has foundations in our early childhood experiences. Our social and emotional development as children influences how we establish and maintain relationships, our capacity as parents and our ability to participate in employment and community activities (Shonkoff, Cameron et al. 2004).

Now build on this knowledge by clicking on the following reading by Shonkoff and others (2004).

*Reading Four*


The core features of emotional development include the ability to identify and understand one’s own feelings; to accurately read and comprehend emotional states in others; to manage strong emotions and their expression in a constructive manner; to regulate one's own behaviour; to develop empathy for others and to establish and sustain relationships (Shonkoff, Cameron et al. 2004, p. 1). Now undertake the following activity.
Activity

What were the major points for each age group discussed in Children’s’ emotional development is built into the architecture of their brain? Write briefly in the space below.

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It is important to remember that the evidence presented in Shonkoff et al (2004) does NOT mean that ALL young children who have had negative parenting or violence will invariably grow up to be dysfunctional or violent adults themselves. It does however, suggest that they are more at risk of later problems but like other forms of resilience, some children survive adverse childhood experiences and do not appear to be permanently affected.

What it does tell us is, that more than ever, practitioners who work with families must be aware of the evidence around emotional development so we can assist families to promote this aspect of their children’s development as well as identify when families may need extra support.

Reflect

Reflect back on the Shonkoff article. How does this statement fit within Aboriginal culture in the remote area you are working? Which parts of the family take active involvement in the emotional needs of their children in your community? How will you change your practice given this awareness?

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Now, we move to understanding the types of temperament children demonstrate. Think about particular children you know who seem to fit the various types discussed.

**Temperament**

As we all know, no two human beings are the same, and this includes babies. The characteristics or *temperament* of an infant can influence the degree of attachment that is made between the infant and his caregiver.

Temperament describes the stable individual differences in quality and intensity of emotional reaction, activity level, attention and emotional self-regulation (Berk 2005). Early temperamental characteristics tend to be stable indicators of later personality.

**Types of temperament**

- The easy child (flexible temperament). These are the calm, happy, adaptable children who have regular sleeping and eating patterns and are not easily upset. Approximately 40% of children are considered to have this type of temperament.

- The difficult child (feisty temperament) – 10% of children. These children tend to be seen as having negative moods, dislike new experiences, find it difficult to adapt to change and have irregular sleeping and eating patterns.

- The slow-to-warm-up child (cautious temperament) – 15% of children. Typically these children have slow reactions to new situations, are initially negative, tend to withdraw from the unfamiliar and will become less fussy as they get more comfortable with increased familiarity.

- The remaining 35% of children who do not fall in the above classifications tend to fall somewhere on the continuum and are not specifically classified.

(Talay-Ongan 2005).
Emotional Development

Babies are born with two basic emotions – attraction to pleasant stimulation and withdrawal from unpleasant stimulation. Happiness is expressed by smiling to a responsive mother or carer who in particular, speaks in high pitched tones. Newborns can be seen to smile in a range of settings including when asleep. The intentional broad grin, known as the ‘social smile’ generally occurs between six and ten weeks and encourages caregivers to be more affectionate and stimulating, thus providing more smiles (Berk 2005).

Around the middle of the first year infants smile and laugh during interactions with familiar people and start to have a preference for main caregivers. Crying and generalised distress from unpleasant experiences from birth evolve into angry reactions when displeased or distressed. For example, around six to eight months the infant may respond to being restrained or the caregiver leaving the room. These expressions of distress or displeasure motivate the caregiver to respond and relieve the cause of the distress.

Fear like anger, rises during the second half of the first year and in particular is witnessed in stranger anxiety. Infants develop a sense of wariness which makes them check out frequently where their main caregiver is in relation to themselves and where they want to move to in their environment from their secure base. It’s a form of checking out that their environment is safe to move around in.

Initially the infant is sensitive to the structure and timing of face-to-face interactions and later on they use others’ emotional messages to guide their own actions and to find out about others’ intentions, preferences and desires. During the second year of life they refine these experiences along with cognitive and language development (Saarni et al. 2006).

Self-conscious emotions appear in the middle of the second year around 18 – 24 months when the child becomes very aware of the self as a separate, unique individual. Toddlers begin to show shame and embarrassment by lowering their eyes, hanging their heads, and hiding their faces with their hands. They also show guilt in
reaction to situations. This occurs alongside the development of emotional self regulation.

**Emotional Self Regulation**

Emotional self regulation refers to the strategies we use to adjust our emotional state to a comfortable level of intensity so we can comfortably accomplish our goals (Berk 2005). In other words you make choices on what activities you choose to participate in by the level of anxiety the activity produces. For example, you may refuse to see horror films for the response they produce OR you may know that public speaking will create anxiety but you feel able to control it and consciously decide it will be good experience for you to do it. Both of these are examples of emotional self regulation. The ability to self regulate emotions is present from birth but gradually becomes more sophisticated. Newborn babies can turn away from unpleasant events (Berk 2005). Their ability to remove themselves from unpleasant events increases for the more mobile crawling or walking infant and toddler. Caregivers assist in the development of emotional self regulation by responding to their distress and by reassuring them. Parents who wait until the child is at high levels of distress maybe less able to soothe the child in the future (Berk 2005).

In the second year the child’s increasing vocabulary further assists in the development of emotional self regulation. Caregivers again, assist in this by helping toddlers make sense of their emotion by telling them that they are sad, or things are scary etc. Therefore the development of a child’s ability to control and articulate their feelings starts in infancy and toddlerhood.

**Self Awareness – ‘I-self’ and ‘Me-self’**

Even young (i.e. 3 month old) babies have a sense of their own bodies as distinct entities. By four months of age babies have been shown to prefer images of others more than images of themselves. This indicates an early desire to establish social connections with others (Berk 2005).

- The earliest aspect of the development of self is the ‘I-self’ – this is the sense of self as agent. This involves an awareness that the self is separate from the surrounding world and can control it’s own thoughts and actions. The
beginnings of the I-self lie in the infant’s recognition that their own actions cause objects and people to react in predictable ways. This includes kicking a toy to create movement or sound, or crying to induce attention and occurs in the first six months of life.

- The second aspect of self is the ‘Me-self’ – a sense of self as an object of knowledge or evaluation. It consists of all qualities that make the self unique including physical characteristics, possessions, and (as the child gets older) attitudes, beliefs and personality traits. In the second year of life toddlers become aware of their own physical features. By two years of age, almost all children use their name or a personal pronoun (such as ‘I’ or ‘me’) to refer to themselves.

- By the end of the second year, language becomes a powerful tool in self-development. It permits children to represent the self more clearly, it greatly enhances self-awareness. Between 18 months and 30 months, children develop a categorical self as they work out whether they are a girl or a boy. They also start to categorise their own behaviour according to gender-stereotyped responses.

- During the second year children gain in emotional understanding and the ability to talk about their feelings and to respond appropriately to other’s emotional signals. They also become better at regulating their own emotions – emotional competence. Their competence increases if they are in environments where mothers and primary caregivers label emotions and explain them to them.

- By three to four years children have learned how to verbalize a variety of strategies for changing their emotional arousal to a more comfortable level. For instance, blunting emotions by restricting sensory input (covering their eyes or ears to block out a scary sight or sound) or by talking to themselves (Berk 2005, p. 371).

Self awareness is an important component to the child’s social and emotional development. As the sense of self becomes stronger in the second year of life, so too does the ability to express the higher level emotions of pride and embarrassment.
Self awareness also leads to the child’s first attempts at understanding another’s perspective, which is known as **empathy**.

**Empathy**

Empathy is the ability to understand another’s emotional state and feel with that person or respond emotionally in a similar way (Berk 2005).

Empathy has two components:

- A cognitive component – being able to take another person’s perspective; and
- An affective component – being able to understand and be concerned about others’ emotional states.

According to Berk, empathy is of crucial significance in fostering ‘prosocial’ and ‘altruistic’ behaviour—*that is, actions that benefit another person without any expected reward for the self* (Berk 2005). Researchers believe that an empathic response is possible at any age, even in infants who will cry in response to the cry of another infant, and that there is an incremental capacity to discern the feelings of others and imagine oneself in another’s place throughout the developmental processes of childhood.

The development of empathy is enhanced through attachment relationships that are collaborative and non-intrusive. Parents who are nurturing and encouraging and who show a sensitive, empathic concern for their offspring have children who are more likely to react in a concerned way to the distress of others (Berk 2005).

Having preschool friendships serve as important contexts for emotional and social development – being accepted by classmates and having the ability to make new friends helps the young child to integrate into their environment (Berk 2005).

It is important to recognise that the lack of empathy has far reaching implications for children who have not been able to securely attach to a caregiver/s. This is usually the extreme end of insecure attachment – ‘disorganised’ attachment where the child experiences confusing, conflicting or contradictory behaviours and the significant caregiver becomes both a source of danger and a haven of safety (Osmond and
Darlington 2001). These children can have difficulty developing empathy. This in turn will impact on their development of morality (see below). These children cope in an uncertain world and learn from an early age that attack becomes the best form of defence. This extends into adulthood where these children often end up in the justice system and have trouble relating to others and maintaining relationships.

**Morality**

The young child develops foundations in morality around the age of two years. Around this time, the young child begins to evaluate their own and others’ actions; e.g., “I naughty. I wrote on the wall”.

The development of morality recognises that conscience begins to take shape in early childhood – in the beginning this is controlled outwardly by adults and later on it becomes regulated by ‘inner standards’ (Berk 2005, p. 380). It is very important that the young child has appropriate parental modelling to help them with their moral development. The behaviour of the child’s caregivers both towards the child and in relationship to other family members and wider society plays an important role in the social and emotional development of a child.

**Effects of Punishment**

In Western societies there has been a move away from harsh punishment such as criticism, slaps and spankings. This is because it is believed to promote short term immediate results but has negative long term consequences. These include mental health disorders, depression, aggression, antisocial behaviour and poor academic performance (Berk 2005).

Today’s experts support models of discipline that promote a mutually respectful bond with the child, setting limits and praising mature behaviour (Slee 2002). When sensitivity, cooperation, and shared positive emotion are evident in joint activities between carers and their toddlers or preschoolers, children show more favourable conscience development – expressing empathy, behaving responsibly, playing fairly in games, and considering others’ welfare (Berk, 2005).
Development of Aggression

The expression of aggression begins in late infancy when children have the opportunity to interact with siblings and peers. Two types of aggression emerge in the early preschool years.

Instrumental aggression is where the child wants an object, privilege, or space and tries to get it by being aggressive either by pushing or shouting to get their own way. The other type, hostile aggression is meant to hurt the person and the child will display one of the following forms of aggression:

- Physical aggression;
- Verbal aggression; and,
- Relational aggression (covert bullying or attempts to damage social relationships and status, for example spreading rumours).

While the occasional occurrence of aggression is normal in preschoolers, continued aggression is predictive with violent delinquency as adolescents, particularly in boys. For both boys and girls, childhood relational aggression predicts later difficulties with internalizing and externalizing, including loneliness, anxiety, depression and antisocial activity (Berk, 2005).

Sexual Development

Throughout the early years of life children have intense curiosity about nearly everything, including their bodies, and are often happier with no clothes on (Pithers 1993). When children are about one year old, many parents teach them parts of their body while overtly forgetting to mention genitalia (depending on cultural variations about who does this teaching). Some parents use special words to describe genitalia. In recent times there has been a trend towards encouraging parents to teach children the correct names of all body parts including their genitalia.

Sexual self-stimulation, or masturbation, normally begins during infancy and continues throughout development as both a self-soothing and an exciting behaviour. In addition to their own bodies, children of these ages also are curious about others’ bodies. Their curiosity may lead then to try to look at or touch others’ genitalia. This is
exploratory looking and touching, typically accompanied by giggling and amusement rather than coercion. When clear limits are set, young children take redirection easily and soon learn this behaviour is not socially acceptable (Pithers 1993).

There are many cultural variations on how families talk and respond to sexuality issues. While there is no published material on sexual development in remote Aboriginal communities, it is logical to assume that there are acceptable and unacceptable ways of discussing sexual development in this group.

Unlike mainstream Western children, Aboriginal children are rarely excluded from community or family activities, unless it is around formal ceremonies when only specific parts of the population have access. Aboriginal children therefore participate or are observers in all aspects of life including funeral business and ceremonial business (where other restrictions do not apply). Children also share the bedroom with their parents and other family members. One can therefore assume they may have the opportunity to witness sexual activity between consenting adults. This practice would be found in many traditional societies who share rooms with family members. It does not appear to be damaging to children in those societies, nor would one expect it to be damaging to Aboriginal children.

Remote health providers must be aware of normal sexual development in order to identify abnormal behaviour that may be suggestive of sexual abuse. These behaviours are covered in Module Six.

**Behavioral Disorders**

In this section we briefly cover Autism and Aspergers Syndrome, complex lifelong developmental disabilities that affect the way a person communicates and relates to people around them. There is a spectrum of autistic disorders which includes Autistic Disorder, Aspergers Syndrome, Retts Syndrome, Childhood Disintegrative Disorder, and Pervasive Developmental Disorders Not Otherwise Specified (PDD-NOS) which is also known as Atypical Autism. Some people with Autistic Disorder with IQ in the typical range may also be described as having High Functioning Autism, (HFA).

Children with Autism have difficulties with everyday social interaction. Their ability to develop friendships is generally limited as is their capacity to understand other
people's emotional expression. People with Autism can often have accompanying learning disabilities but everyone with the condition shares a difficulty in making sense of the world.

The Autism spectrum is defined by the presence of impairments affecting social interaction, social communication and social imagination, known as the triad of impairments. This is always accompanied by a narrow, repetitive range of activities.

- **Social interaction** - difficulty with social relationships, for example appearing aloof and indifferent to other people
- **Social communication** - difficulty with verbal and non-verbal communication, for example not fully understanding the meaning of common gestures, facial expressions or tone of voice
- **Social imagination** - difficulty in the development of interpersonal play and imagination, for example having a limited range of imaginative activities, possibly copied and pursued rigidly and repetitively

Individuals who are considered to be on the Autistic spectrum are all very different. The range of intellectual ability extends from severely learning disabled right up to normal or even above average levels of intellect. Similarly, linguistic skills range from those who are mute to those who display complex, grammatically correct speech.

In most cases the age of onset is within one to two years, although many children take over three years to gain a diagnosis. However, because Autistic Spectrum Disorders are complex it is easy to miss early clues. Although the characteristics of Autism are generally evident in the first few years of life, the condition can go undetected for many years especially in those who are at the more able (high functioning) end of the spectrum where the signs are more subtle.

**Aspergers Syndrome**

Aspergers Syndrome is a form of autism and as such is covered in the information provided above. The triad of impairments outlined above (social interaction, social communication and social imagination) are also involved resulting in difficulties with social relationships, difficulties in communicating and lack of social imagination and
creative play. Another key characteristic for children with Aspergers is their love of routines. These children will adhere to a strict routine of doing things and do not cope with sudden change.

People with Aspergers Syndrome usually have fewer problems with language than those with autism, often speaking fluently, though their words can sometimes sound formal or stilted. People with Aspergers Syndrome do not usually have the accompanying learning disabilities associated with Autism; in fact, people with Aspergers Syndrome are often of average or above average intelligence. Because of this many children with Aspergers Syndrome enter mainstream school and, with the right support and encouragement, can make good progress and go on to further education and employment.

Autism or Aspergers Syndrome is not commonly seen in remote areas. However this may be because we have not been looking for it!

**Aboriginal Child Rearing Practices**

The literature available around contemporary child rearing practices in Aboriginal Australian families is limited. However traditional Aboriginal child rearing practices, still influencing Aboriginal families living in remote and some urban parts of Australia, demonstrate significant differences between Aboriginal and mainstream Australia.

The Aboriginal perspective of child rearing appears to be based on a collectivist view of family and social life that sees responsibility for the growing up of children invested in many people. The work of Hofstede and Hofstede (2005) provides a useful insight into the key differences between collectivist and individualist societies. Although Hofstede and Hofstede have not worked directly with Aboriginal Australians, their observations of other collectivist societies appear to be highly relevant when working in remote Aboriginal communities.

Individualism is a western cultural approach that focuses on individual gain and self gratification. In contrast, a collectivist society depends on their relationships and obligations to significant others. Collectivists are very family orientated and describe themselves by referring to the groups they belong to, the land which they are from, and not their individual rewards or results (Hofstede and Hofstede 2005).
In collectivist societies personal opinion does not exist - if there is no established group opinion a family or group conference is necessary. Decisions are made collectively to benefit the entire group, rather than the individual. When considering these two different cultural frameworks in a problem solving scenario such as malnutrition or developmental delay, it is evident that within a community that values collectivism, an individualist approach may not be productive.

All children learn how to relate to the world through their family – thus the child who grows up in a large extended family will learn the ‘we’ concept much earlier than the single child in the nuclear family. Aboriginal children develop within the seeming (to Western Individualists) chaotic environment of extended family life. Children learn from a young age to consider that the family is indeed an extension of themselves.

Communication styles also differ, with more use of silence and much of the message left unsaid. This is in stark contrast to Western groups who believe in verbal questioning to clear up any confusion or inconsistency. Westerners not sure of something will ask for clarification. The other (Western) person will then respond. Such direct confrontation is considered rude and offensive in collectivist societies.

Aboriginal communities can be observed using many more non verbal gestures than mainstream groups. These gestures include the use of the lips to point, pointing to certain parts of the body to indicate a relationship or relative (e.g. quick successive strokes under the chin represents grandfather in yolgnu matha) and extensive use of whistling to communicate as seen in Wadeye.

Aboriginal infants in remote communities are highly prized and never left alone. All family members show interest, even the youngest of siblings and the infant is commonly squeezed, pinched and played with as a sign of affection. Young infants can be woken from sleep to be ‘introduced’ to an important family member, their relationship between the person and the infant repeated over and over again.

In remote Aboriginal communities the mother or other female relative is more commonly the primary caregiver. The fathers’ role is to ensure the mother is able to fulfil her role as primary carer (Warrki Jarrinjaku 2002). Grandmothers have always had an important role in the support of younger mothers in caring for infants, though
these senior women have expressed concern that in recent times, young mothers are not fulfilling their responsibilities in caring for their children. They complain these young girls are gambling too much and not caring for the young children sufficiently (Kildea 1999).

A significant difference seen in remote Aboriginal communities and observed in other collectivist societies is around the capacity of the child to determine what they need. In collectivist societies the child is the active agent. This means that the child will communicate to the parent what he or she needs and the parent will then respond. This is in stark contrast to Western groups where the focus is parent is the active agent. That is, parents work out (or are taught) what their child needs and will care for them accordingly. This spills over into routine, boundaries, timed feeds, or three meals a day. Examples of some of the behaviours promoted in mainstream Australian families include: tummy time to promote head control, regular sleep patterns, assisting toddlers to make sense of their emotions, teaching them about the dangers of life. The next time you are with a non Aboriginal family, observe how many times they say ‘no’ to the child. In collectivist societies, the word ‘no’ is rarely used (Hofstede and Hofstede 2005).

Aboriginal children are seen as more self-reliant than mainstream children and are encouraged to regulate their own behaviour and development (Kearins 1984; Kearins 2000). Independence in learning is highly regarded and developmental skills and behaviour is determined by the child rather than directed by the adult, as highlighted above (Kearins 1984). Western children are raised to be obedient and defer to authority figures. Infants are considered helpless and are subject to an overly protective regime of regulated feeding and sleeping, often removed from the family group. Aboriginal infants however, are viewed as autonomous individuals capable of indicating their own needs. Signals provided by the infant determine a response such as feeding or the need for comfort (Brown 2000).

Western children receive significant verbal direction from their parents from an early age and this continues to adulthood within a hierarchical structure where verbal communication results in instruction and direction to adults and children alike (Kearins 2000). Aboriginal groups in contrast, communicate within a much less hierarchical framework, with all individuals, including children, being free to make
their own decisions (Kearins 2000). Hence the Aboriginal mother who will ask her three year old child if he would like a needle or medicine for his thin blood (anaemia). Within her society, the child is able to make this decision. In mainstream society, the parent would always make such a decision.

Traditionally, Aboriginal children are not required to stay in close proximity to their carers and hence have more freedom to explore their world. Though traditionally this may have occurred without the presence of cars, strangers and other modern day dangers, the dangers of fires, water, animals and other dangers of nature would have been considerable. Parents or older siblings will distract a child from danger or use fear of bad spirits to encourage the child to avoid dangerous activities or places (Warrki Jarrinjaku 2002).

Aboriginal children are more likely to be willing participants within the family and wider community, caring for younger children, collecting firewood etc without coercion or direction from adults (Kearins 2000). These essential differences have been characterized as ‘independence’ child rearing (as found in hunter-gatherer societies) versus ‘compliance’ rearing (as evolved from the agricultural societies from which Western culture has originated). In other words, Western parenting appears to use overt adult control of children to promote the necessary development of the child, whereas Aboriginal parenting styles similarly believe that autonomy is necessary for the proper development of the child (Kearins 2000).

Due to the independent style (outlined above) of child development, Aboriginal children are more likely to be independent in developmental tasks such as interaction, self dressing and self feeding (Brown 2000). They are less likely however, to receive direction from an imposed authoritative adult as often seen in the Western schooling system (Brown 2000). Other barriers to school education in Aboriginal children include limited knowledge around numeracy or literacy on school entry compared to non Aboriginal children (Kearins 2000).

If the child is viewed as autonomous, and required to determine his or her own needs, overt control is seen as being damaging to children’s autonomy and health. Therefore if the three year old child with anaemia referred to above does not want to have the
needle, the mother will not force him to. Similarly if the child does not want to go to school, the family cannot make him or her.

We have much more to learn about Aboriginal parenting styles. The above information though should tell us that we must take care not to impose the way we think children should be raised. The interesting thing about the Hofstedes’ work is that they demonstrate that the majority of the world is actually collectivist in nature. However, as individualists, who strive for individual gain and who therefore do not share as much, the Western world naturally has the most wealth, and therefore the most power (Hofstede and Hofstede 2005).

Reflect
How does what you have read above fit in your experience of working with Aboriginal or Torres Strait Island families? How does it appear to be different to mainstream Australian parenting?

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Summary
This has been a big module. We have discussed important information around attachment and the significant consequences of inadequate relationships in the first year of life on the child’s long term social and emotional development. We have tried to place this new knowledge into the context of Aboriginal child rearing practices. There are many things we need to understand so we can assist parents to provide the environment we know is so important for children to thrive.

Further reading (optional)


Circle of Security handouts [http://www.circleofsecurity.org](http://www.circleofsecurity.org)
Module Six: Psycho-social Aspects of Parenting: Perinatal Mental Health, Family Violence and Child Abuse

This module explores the impact of stress on the developing child before discussing the influences of perinatal mental health and psycho-social factors on parenting and childhood development. An overview of the Edinburgh Depression Scale is briefly provided and it’s applicability to Australia’s Indigenous women outlined. Psycho-social assessment is discussed to assist the remote area health provider in identifying social and environmental risk and protective factors in family functioning. The issue of child abuse and neglect and the responsibilities of all staff regarding mandatory reporting is also discussed.

Learning outcomes

Upon the successful completion of this module you should be able to:

- Understand the consequences of perinatal mental health disorders on the developing child;
- Recognise the importance of both protective and risk factors in influencing vulnerability and resilience in families;
- Identify families with complex needs and initiate interventions that support parents and protects children;
- Identify the impact of domestic and family violence on the child and family; and,
- Understand the legal implications of notification of suspected child abuse and neglect and domestic violence (mandatory reporting).

Introduction

All parents want to be good mothers and fathers and want their children to have the best opportunities possible. But many factors make it difficult to parent well – poverty, access to family and community support, the parents’ own experiences of being parented, family disharmony and violence. This module explores the impact of some of these less than ideal environments that many children are exposed to.
The Effects of Stress and Trauma on the Developing Child


…‘the ability to cope with actual or potentially threatening situations, such as an unfamiliar environment or physical danger, is essential to survival. This capacity is built into specific brain circuits whose development is influenced by multiple experiences beginning early in life. Environmental stimuli that activate these circuits are often referred to as stressors, and stress reactions are the body’s chemical and neural responses that promote adaptation’.

It goes on to say:

Stressful events can be harmful, tolerable, or beneficial, depending on how much of a bodily stress response they provoke and how long the response lasts. These, in turn, depend on whether the stressful experience is controllable, how often and for how long the body’s stress system has been activated in the past, and whether the affected child has safe and dependable relationships to turn to for support. Thus, the extent to which stressful events have lasting adverse effects is determined more by the individual’s response to the stress, based in part on past experiences and the availability of a supportive adult, than by the nature of the stressor itself. This matters because a child’s ability to cope with stress in the early years has consequences for physical and mental health throughout life. Furthermore, categorizing the nature and severity of early stressful experiences helps us make better judgments about the need for interventions that reduce the risk for later negative impacts.

Positive Stress refers to moderate, short-lived stress responses, such as brief increases in heart rate or mild changes in the body’s stress hormone levels. This kind of stress is a normal part of life, and learning to adjust to it is an essential feature of healthy development. Adverse events that provoke positive stress responses tend to be those that a child can learn to control and manage.
well with the support of caring adults, and which occur against the backdrop of generally safe, warm, and positive relationships. The challenge of meeting new people, dealing with frustration, entering a new child care setting, getting an immunization, and overcoming a fear of animals all can be positive stressors if a child has the support needed to develop a sense of mastery. This is an important part of the normal developmental process.

**Tolerable Stress** refers to stress responses that could affect brain architecture but generally occur for briefer periods that allow time for the brain to recover and thereby reverse potentially harmful effects. In addition to their relative brevity, one of the critical ingredients that make stressful events tolerable rather than toxic is the presence of supportive adults who create safe environments that help children learn to cope with and recover from major adverse experiences, such as the death or serious illness of a loved one, a frightening accident, or parental separation or divorce. In some circumstances, tolerable stress can even have positive effects. Nevertheless, it also can become toxic stress in the absence of supportive relationships.

**Toxic Stress** refers to strong, frequent or prolonged activation of the body’s stress management system. Stressful events that are chronic, uncontrollable, and/or experienced without the child having access to support from caring adults tend to provoke these types of toxic stress responses. Studies indicate that such stress responses can have an adverse impact on brain architecture. In the extreme, such as in cases of severe, chronic abuse, toxic stress may result in the development of a smaller brain. Less extreme exposure to toxic stress can change the stress system so that it responds at lower thresholds to events that might not be stressful to others, thereby increasing the risk of stress-related physical and mental illness.


This module includes situations and conditions that can cause stress to the developing infant and child. It is important for remote area health providers to be aware of the negative impact these issues have on children and to use available resources to support families where possible.
Perinatal Mental Health

The term ‘perinatal’ has traditionally been used to refer to the period from conception to six weeks post partum. However, experts are now using a broader time frame to include pregnancy PLUS the full first year after birth. There are a variety of ways women can experience perinatal mental health problems during pregnancy or in the first year after birth.

- **Postpartum blues** is a relatively common emotional disturbance with crying, confusion, labile mood, anxiety and depressed mood. It occurs in up to 80% of new mothers and symptoms appear during the first week postpartum, last for a few hours to a few days and have no long-term negative outcomes.

- **Perinatal depression** can begin in pregnancy or the postpartum period. Core features include unpleasant (dysphoric) mood, fatigue, anorexia, sleep disturbances, anxiety, excessive guilt and suicidal thoughts. This is by far the most common condition (other than the blues which are generally not problematic). Hence this is the focus of discussions in this section of the module.

- **Postpartum (or puerperal) psychosis** is extremely rare (1 in 1000 new mothers) and usually occurs in the first two weeks postpartum. Symptoms are severe and include insomnia, agitation, delusions, hallucinations and gross impairment in functioning. Women experiencing these symptoms are at great risk of harming both themselves and their babies. Fortunately it is relatively easy to recognise as the symptoms are so severe. It is a psychiatric emergency requiring immediate hospitalization and maintaining safety for the mother and baby must be a priority.

- **Anxiety disorder** in the form of anxiety or panic attacks occurs in between 2 – 4% of pregnant women. The most common difficulties include nervousness and anxiety; sleep or appetite disturbances; over concern for the baby; poor concentration, confusion and memory loss; uncontrollable crying and irritability and panic attacks. Women with perinatal depression (in pregnancy or postnatally) can often suffer anxiety as well as depression.

- **Obsessive compulsive disorder** occurs in approximately 2-3% of new mothers and includes symptoms of anxiety and/or depression as well as a deep fear of
losing control and harming their babies. These women typically have intrusive thoughts about things that could hurt the baby. However, in this condition, as long as the woman is repulsed by these thoughts it is extremely unlikely that she would harm the baby (British Columbian Reproductive Care Program 2003). However the thoughts may interfere with her providing for her baby and interfere with attachment.

Reflect

Reflect on the perinatal health problems listed above and think about whether you would be able to recognise them in postnatal women you currently work with. Write some brief notes to help you consolidate these terms.

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Perinatal Depression

Perinatal depression is often missed, has negative and potentially long lasting effects on the woman, her family and her child and often responds well to early detection and intervention.

Perinatal depression includes women who develop depression during pregnancy, after childbirth and women with pre-existing chronic depression. The actual signs and symptoms of depression in the perinatal population is the same as the general population. However, women are more likely to get depression in the perinatal period than any other time. General population rates of depression are approximately 6-10%
whereas perinatal rates are between 12 and 15% (O’Hara and Swain 1996; Buist and Bilszta 2006).

If a woman has a history of depression prior to conceiving she has a 30% chance of developing perinatal depression (British Columbian Reproductive Care Program 2003). A woman who has had perinatal depression with a previous pregnancy has a 50-60% chance of it recurring in subsequent pregnancies (British Columbian Reproductive Care Program 2003).

Reflect

Reflect on the statistics we’ve discussed. How will you use them to help you to keep an eye on women who potentially may develop perinatal depression?

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The beyondblue study

The key national depression body beyondblue undertook a large national study from 2002-2005 called the National Postnatal Depression Program. The study had a number of sub-studies but a major component was to determine the prevalence of postnatal depression and to test the acceptability of the Edinburgh Postnatal Depression Scale (EPDS). Over 40,000 antenatal women and over 12,000 postnatal women participated and key findings included:

- High rates of depression in pregnant and postnatal women - 15.7%. This rate is similar to rates in other Westernised countries; and
- Antenatal rates of depression were lower than postnatal rates (5.4% - 8.9% depending on cut-off score used) and also similar to other Westernised countries.
The importance of psycho-social risk factors for the general Australian perinatal population was also confirmed in the beyondblue study. In particular, past history of abuse, prior history of depression, anxiety, lack of support, lower socio-economic status and a stressful pregnancy are all key risk factors for the development of perinatal depression. The beyondblue study also identified Indigenous women to be at heightened risk of depression, and the psycho-social factors noted above were all relevant to the higher rates of depression in Indigenous women (Buist and Bilszta 2006).

Reflect

What do you make of these points for the work you do with perinatal women in your remote community? Why do you think we worry about the mother’s mental health?

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Effects of Perinatal Mental Illness on Parenting

Not only does depression cause women to feel despair and hopelessness, but it also impacts on her relationship with her infant with long-term consequences on cognitive, behavioural and social development. Perinatal maternal mental illness can have long lasting effects on the developing brain that extends through childhood and into adulthood.

Women with mental illness caring for young children have been shown to:

- Attend more to their own problems with resulting decreased capacity to respond and attend to their child’s needs
- Show fewer contented facial expressions
- Have more negative face to face interactions with their infants in the first few months of life compared to non-depressed mothers
- Have decreased eye gazing during feeding
- Play less with their infants
- Seem angrier and handle their infants more roughly
- Are more withdrawn and less engaged with their infant

**Effects on the Infant and Child**

Infants of these mothers are more likely to:

- Display more negative expressions of their mother, are more temperamental and suffer more cognitive deficits.
- Display insecure attachment (either avoidant or ambivalent).
- Typically look away and protest more than infants with non-depressed mothers.
- Display less positive and more flat in affect in young as three months of age.

(British Columbian Reproductive Care Program 2003).

In addition to the risk of attachment disorders outlined above, children of women who suffer severe and ongoing postnatal depression are at risk for developing poor self-control, less creative play, difficulties in cognitive functioning and in social interactions with parents and peers. By school-age they are more at risk of conduct disorders, Attention Deficit Hyperactivity Disorder (ADHD), learning disabilities and lower IQ scores. By adolescence they are at increased risk of depression, anxiety disorders, phobias, substance abuse and alcohol dependence (Canadian Pediatric Society 2004). These conditions in turn will influence academic performance, social skills and their ability to find useful and meaningful employment.

It is therefore clear that early identification and treatment of maternal depression is highly beneficial for the infant, as well as the mother.

It should be noted that not all children of women who are depressed have negative trajectories. Contextual risk factors such as marital conflict, stressful life events,
limited social support, poverty, lower social class and lower maternal education all compound to exacerbate parental depression and maladaptive parenting. These risk factors cumulatively combine to place children more at risk whereas the presence of protective factors will counteract or offset the risk. It has also been reported that boys are more vulnerable and distressed by maternal depression than girls. Temperament of the child also plays a part (Canadian Pediatric Society, 2004).

Reflect

What kinds of strategies would you suggest for Indigenous women who have depression in your remote community? Who is around to give them a hand with their baby? Think about the structure of the family and how they might help. How do you work with the family in this scenario? Make some notes below.

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The Edinburgh Depression Scale

There are a number of tools available to assist the remote area health provider to identify women who MAY have depression. The Edinburgh Depression Scale (EDS) (previously known as the Edinburgh Postnatal Depression Scale or EPDS) is the most common tool used in pregnant and postnatal women because other tools use sleep disturbance as an indicator of depression. As sleep disturbance is a common feature of early parenting the EDS was developed to be used specifically on postnatal women. It is a 10 item self report scale devised as a screening questionnaire to improve early detection of depression in pregnancy and up to 18 months post birth. It was originally developed in Scotland in the 1980s (Cox, Holden et al. 1987) and is increasingly being used as part of routine practice in both midwifery (antenatal) services and child health (postnatal) services across Australia. The EDS does NOT
diagnose depression, but rather is available to screen women who, because they are pregnant or postnatal, are 'at risk' for depression.

**Depression in Remote Aboriginal Communities**

There is limited information regarding perinatal mental health issues in remote areas. As seen from the beyondblue study above, Aboriginal women report higher rates of depression than the general population. Part of the beyondblue project mentioned above included a separate piece of work carried out in Queensland with Indigenous women in the three communities, Palm Island, Mt Isa and Townsville. The EDS was adapted and tested and found to be useful. However the adapted form was in English – therefore there has been no testing of the EDS in remote areas where English is not the first language.

The EDS tool is not being used routinely in any remote communities in the NT. However, specialist staff (midwives, child health nurses and mental health staff) who have been trained in the use of the EDS may choose to use the tool if warranted. Remote area staff who have not received EDS education must discuss with a specialist staff member any women you are worried about or you believe should do the EDS. Using the tool accurately will assist in distinguishing between postnatal distress and postnatal depression.

An important finding in beyondblue project was that Indigenous women (irrespective of the level of professional preparation such as AHWs), found working in this area challenging and required professional supervision, including de-briefing, when involved in the direct emotional and mental health care of childbearing women. They stated:

> ‘All Indigenous women continue to experience the cumulative loss of culture, country and the effects of the Stolen Generations and often have not had the opportunity to process their own issues when they are confronted with the experiences of providing professional services to contemporary new mothers.’ (Buist and Bilszta 2006, p. 115).

As highlighted in the Women’s Business Manual (2008), Aboriginal women in remote areas have additional social issues that may influence their pregnancy and parenting experiences and may impact on their mental health. These include the occurrence of
‘wrong skin’ pregnancy where the mother and father of the child do not fit within the Aboriginal kinship systems that underpin their relationships. The high rates of violence and substance abuse in remote areas may also impact on the mothers’ emotional well being. These factors can be identified by talking to the woman, her family or local Aboriginal Health Workers but must be done in a way that does not seem intrusive or disrespectful of the woman’s situation.

Postnatal depression and perinatal mental health issues are therefore something you need to be on the lookout for in your remote community as well as supporting AHWs. Given the above information is there anything you want to jot down here? If you or a colleague were having some personal issues around this or any other of the issues raised in this package, where would you go to for support?

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The Bush Support Services (incorporating Bush Crisis Line) is a 24 hour a day telephone debriefing and psychological support service. Staffed by qualified psychologists with rural, remote and cross cultural experience, BCL aims to support multi-disciplinary health practitioners to successfully manage the stress associated with working in rural and remote practice. Indigenous co-counsellors are available to support Indigenous practitioners and the non-Indigenous psychologists strive to be as culturally safe as possible.

The Employment Assistance Scheme (EAS) is also available to government workers and provides a range of services to support the workforce including counselling training, mediation and consulting. See contact details at the end of this module.
**Response**

What are your thoughts on depression in Aboriginal mothers, particularly in the perinatal period? What have you observed in practice? What about the responses of Aboriginal fathers? Write your response below.

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**Psycho-Social Risk Factors**

Psycho-social risk factors impact significantly on a family’s ability to parent, and subsequently the baby’s development. Being aware of what factors will contribute to making a family more vulnerable to mental health or other parenting problems will make you a more effective remote area health provider who can identify which families require extra support. It is also a useful way to identify the strengths and resources of the family.

There are a number of domains or areas that we know contribute to a woman’s capacity to parent effectively including:

- Lack of social or emotional support – availability of practical and emotional support;
- Recent major stressors - recent (in the last 12 months) changes or losses e.g. financial problems, migration issues, someone close dying;
- Low self esteem – including self confidence, high anxiety and perfectionist traits;
- History of anxiety, depression or other mental health problems, substance misuse;
- Partner’s history of mental health problem, substance misuse;
- Adverse childhood experiences; and
- Domestic violence.
These factors indicate the psycho-social influences on family functioning. They should be addressed within the broader physical and medical history when caring for women and their families. Other aspects that will influence the ability of a family to provide the optimal environment of the child includes employment, financial stress and accommodation (NSW Health 2007).

**Response**

Reflect on the above areas you need to consider in the postnatal period and whether you adequately cover them. What kinds of questions are asked to try and identify the risk factors listed above?

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**Risk and Protective Factors**

Parental capacity and subsequent childhood development is a constant interplay between risks of vulnerability and protective factors. The capacity of families changes over time and depends on other factors, such as individual and family characteristics and the socio-cultural context in which the family lives. Intervening early in the life course has the greatest potential to prevent or significantly decrease some of the problems experienced in adult life.

**Protective Factors**

Protective factors are conditions in families and communities that, when present, increase the health and well being of children and families. Focusing on family protective factors is more useful than attempting to reduce risk factors alone. Some examples of protective factors seen in remote Aboriginal families may include having a strong cultural identity; having access to social support through the extended family; successfully breastfeeding without any stress or problems; having access to other family members for food or financial support if required.
Protective factors may not only make a child less likely to be neglected, but also may mitigate the effects of neglect on a child. The probability that a neglected child will be resilient increases, when there are enough protective factors to counteract risk factors. Just as some risk factors are associated with one another (e.g., poverty and living in an unsafe neighbourhood), the same is true of protective factors. Living and being part of a safe community where basic services such as police and sports facilities are provided are protective factors. Social cohesion within communities also protects families at risk.

**Protective Factors for Child health and Wellbeing (antenatal period to 5 years)**

<table>
<thead>
<tr>
<th>Prenatal and child characteristics</th>
<th>Parents and parenting styles</th>
<th>Family factors and life events</th>
<th>Community factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good antenatal care and maternal nutrition</td>
<td>Maternal health and well being is good</td>
<td>Family harmony and stability</td>
<td>Supportive social relationships and networks</td>
</tr>
<tr>
<td>Breast feeding</td>
<td>Healthy lifestyle</td>
<td>Consistency of primary carers</td>
<td>Participation in community activities</td>
</tr>
<tr>
<td>Full immunisation</td>
<td>Awareness and use of health and community services</td>
<td>Nurturing environment</td>
<td>Family friendly work and environments and culture</td>
</tr>
<tr>
<td>Social skills</td>
<td>Competent stable care</td>
<td>Positive relationships with extended family</td>
<td>Cultural identity and pride</td>
</tr>
<tr>
<td>Secure attachment</td>
<td>Positive attention from both parents</td>
<td>Small family size</td>
<td></td>
</tr>
<tr>
<td>Easy temperament, active, alert and affectionate</td>
<td>Supportive relationship with other adults</td>
<td>Spacing siblings &gt;2years</td>
<td></td>
</tr>
<tr>
<td>At least average intelligence</td>
<td>Positive communication between parent and child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment to family</td>
<td>Fathers involved in parenting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence, self help</td>
<td>Mothers education and competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good problem solving skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive self concept</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Achievement at school</td>
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</tbody>
</table>

(Centre for Community Child Health 2001)

**Risk Factors**

However, solely focusing on building up protective factors, while not resolving some of the risk factors, may not be a particularly effective strategy. Intervention strategies should address both risk and protective factors to provide the most help to families. There are many, many risk factors for suboptimal parenting and subsequent
childhood development. These are covered in sections of this package where we have looked at risk factors for poor physical growth, attachment disorders, child abuse and neglect, social and emotional development and perinatal mental health.

Risk factors for Child health and Wellbeing (antenatal period to 5 years)

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Parents and parenting style</th>
<th>Family factors and life Events</th>
<th>Community factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low birth weight</td>
<td>Single parent</td>
<td>Family instability, stress, conflict or violence</td>
<td>Socioeconomic disadvantage</td>
</tr>
<tr>
<td>Prematurity</td>
<td>Young maternal age</td>
<td>Marital disharmony</td>
<td>Housing – poor sewage, limited access to nutritious food</td>
</tr>
<tr>
<td>Prenatal exposure to toxins/infections</td>
<td>Postnatal depression or other mental illness</td>
<td>Poverty</td>
<td>Neighbourhood violence and crime</td>
</tr>
<tr>
<td>Poor maternal nutrition</td>
<td>Drug and alcohol misuse</td>
<td>Divorce</td>
<td>Lack of support services</td>
</tr>
<tr>
<td>Prone sleeping position</td>
<td>Tobacco smoking</td>
<td>Disorganised</td>
<td>Social or cultural discrimination</td>
</tr>
<tr>
<td>Birth injury</td>
<td>Harsh or inconsistent discipline</td>
<td>Large family/rapid successive pregnancies</td>
<td>Community behaviour norms</td>
</tr>
<tr>
<td>Disability</td>
<td>Lack of stimulation of child</td>
<td>Absence of father</td>
<td></td>
</tr>
<tr>
<td>Low intelligence</td>
<td>Lack of sensitivity, warmth &amp; affection</td>
<td>Low level of parental education</td>
<td></td>
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<tr>
<td>Chronic illness</td>
<td>Criminality</td>
<td>Social isolation</td>
<td></td>
</tr>
<tr>
<td>Delayed development</td>
<td>Separation from or rejection of child</td>
<td>Long term unemployment</td>
<td></td>
</tr>
<tr>
<td>Difficult temperament</td>
<td>Abuse or neglect</td>
<td>War/natural disasters</td>
<td></td>
</tr>
<tr>
<td>Poor attachment</td>
<td>Poor supervision</td>
<td>Death of a family member</td>
<td></td>
</tr>
<tr>
<td>Poor social skills</td>
<td>Lack of parenting knowledge</td>
<td>Family history of ADHD</td>
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</tr>
<tr>
<td>Poor problem solving</td>
<td></td>
<td>Frequent relocations</td>
<td></td>
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<tr>
<td>Disruptive behaviour</td>
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<td></td>
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<tr>
<td>Hazardous environment</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Unsupervised play</td>
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<td></td>
<td></td>
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<tr>
<td>Impulsivity</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Poor self esteem</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Alienation</td>
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</tbody>
</table>
Families with complex needs

Families with complex needs can be defined as families that, because of current circumstances and/or life history and personality vulnerabilities, are likely to require long-term input from a number of services and, or, agencies, to achieve best health outcomes in the early years of a child’s life (NSW Health 2007). These families tend to carry a persistent element of chaos and distress but can also cope relatively well for long periods of time. They can also relapse rapidly and unexpectedly if unanticipated trauma affects their life. For this reason, it is critical that strategies to address safety issues and ongoing vigilance by involved remote area health providers be permanently in place.

By the above definition, many would identify ALL Aboriginal families in remote areas as complex. It is true that these families face enormous challenges. BUT that does not make them universally complex. Many families, in spite of the social and environmental challenges, provide excellent loving and nurturing environments for their children. There are others however, who we can identify early and work with other agencies to support so together we can give their children a better chance in life.

As remote area health providers our job is not to take sole responsibility for the care and support of families with complex needs. Our role is to:

- Identify the risks;
- Identify the strengths and supports that the client/family may already have;
- Identify the need for ongoing support and where appropriate facilitate client access to needs specific services;
- Develop a management plan with the client/family;
- Support the family as the key primary health care worker and consult with specialist staff as necessary; for example, NT Families and Children and other allied health services to provide assistance for families; and,
- Provide ongoing care to clients.

(NSW Health 2007)
Domestic and Family Violence

Domestic and family violence spans all social, cultural and economic groups however this particular module focuses on a remote community context.

It is easy to become de-sensitised to the high levels of violence out bush. Many of us give up asking or talking about it in the belief that it won’t change anything, and that there is no point. But while we continue to do this we continue to support the behaviour. *Things must change*, if the Aboriginal kids of today are not going to be the perpetrators or victims of tomorrow.

Domestic and Family Violence (D&FV) recognises that violence in the family can occur beyond the ‘normal’ contextual environment of ‘domestic’ which tends to infer only the nuclear family unit.

Domestic and Family violence can be defined as:

> ‘Encompassing all forms of violence between intimate partners and family members. The most commonly acknowledged forms of domestic and family violence are physical and sexual violence; threats and intimidation; emotional abuse and social isolation; and financial deprivation. Domestic and family violence can involve a continuum of controlling behaviour and violence, which can occur over a number of years before and after separation’

(DHF 2008).

Common forms of violence in families include:

- Spouse/partner violence (violence amongst partners, male or female);
- Child abuse/neglect (abuse or neglect of a child by an adult);
- Elder abuse (abuse of older people by a person with whom they have a relationship of trust);
- Parental abuse (violence perpetrated by a child against their parent);
- Sibling abuse (violence amongst siblings)

(Royal NZ Plunket Society 2008).
However, in remote areas we know that these Western concepts of family do not apply and hence the NT Government definition that ‘encompasses all forms of violence between intimate partners and family members’ (DHF 2008).

Levels of violence in remote areas are extremely high. This is not because Indigenous families are traditionally more violent, but because these families suffer most of the social indicators that lead to alcohol and other drug abuse. Violence is so commonplace, it has become normalized for many remote area health staff and community members alike. But it is important to understand how significant the effects of violence are on the developing child.

Violence adversely affects children at all stages in their lives psychologically, physically and emotionally and these can all accumulate if the violence is a frequent occurrence. It can seriously affect women's capacity to parent effectively and there are strong links between domestic violence and child abuse (Taft 2002).

**Effects of Family Violence on Children**

It is an old myth that children who are not physically abused themselves are not affected by being exposed to violence through witnessing it or living in a household with family violence. The literature on domestic violence spans several decades and strongly indicates that domestic violence has long term negative implications for children who witness it, who may try to intervene to protect a parent, or who are themselves injured during the violence. Such an environment denies the child the safety and security of a protected and nurtured childhood and leads to heightened stress with associated disorders of anxiety and fearfulness in later life, as well as a modelling for children that conflict is resolved through violence.

As reported by Taft (2002) children who live in violent households are more likely to become violent perpetrators as adults. They are also more likely to become victims of child abuse, with an almost four times greater risk of partner abuse in adulthood or almost three times greater risk of adult rape.

**Activity**

Refer back to the beginning of this module when we discussed the effects of trauma and stress on the developing child. Remember the three types of stress – positive,
tolerable and toxic? Consider the effects the violence we see in remote areas may have on children. How would you classify this stress - positive, tolerable or toxic?

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**Types of Domestic and Family Violence**

Family violence can be:

- **Physical** – e.g. Punching, pushing, being injured with objects/weapons etc, biting, kicking;

- **Verbal** – e.g. Constant criticism and humiliation, name calling, threats or prolonged silence;

- **Sexual** – e.g. Any forced or unwanted sexual contact/activity etc.;

- **Social** – e.g. Controlling where you go, who you see, what you wear, keeping you isolated and away from friends or family;

- **Financial** – e.g. Being refused/denied access to money;

- **Damage to Property** – e.g. Kicking a hole in the wall, scratching your car, smashing belongings;

- **Psychological** – e.g. Behaviour and/or comments to undermine your sense of self, threatening suicide if you try to leave, constant criticism and belittling, stalking you, checking up on where you are and what you are doing all the time, being excessively jealous;

- **Spiritual abuse**: being forced to participate or undertake spiritual activities.


Reflect

Think about the types of things women (or men) say when they are frightened in their primary relationship. Do Aboriginal women indicate to you when this is happening in their lives?

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Mandatory Reporting of Domestic and Family Violence

In 2008 there were significant legislative changes in the NT Government through the Domestic and Family Violence Act 2007. Some of the major changes in the new legislation included:

- Young people aged 15 -18 years can obtain domestic violence orders on their own behalf with the leave of the Court and all children can obtain domestic violence orders through an authorised adult such as a relative or child protection worker;

- Domestic violence orders can be made against young people aged 15 -18 years where they perpetrate domestic and family violence;

- Other people in close relationships (carer relationships, betrothals, promised wives, dating relationships) can obtain domestic violence orders where they experience violence in their relationships;

- Domestic violence orders are granted when there are reasonable grounds for the protected person to fear domestic and family violence by the defendant;

- Economic abuse and intimidation are grounds for domestic violence orders;

- A child witnessing domestic and family violence can be grounds for seeking a domestic violence order on the child’s behalf by a police officer or child protection worker;
There is a presumption in favour of the victim with children remaining in the family home when a domestic violence order is made (so that it is the offender who must leave the family home);

The Court can make domestic violence orders mandating that an offender attend rehabilitation and treatment programs;

The vulnerable witness provisions similar to those in the Evidence Act apply to applicants and persons giving evidence when domestic violence orders are being sought;

The Court is required to impose a term of actual imprisonment for a breach of a domestic violence order for a second or subsequent offence unless it is of the opinion that such a penalty should not be imposed, with the exception being where harm has been caused to the victim and in which case a term of imprisonment is to be imposed on the first offence.

(DHF 2008)

This Act was further amended in 2009 to incorporate the introduction of mandatory notification of serious physical harm and/or serious or imminent threat to life and safety in domestic relationships. This now means that all adults over the age of 18 must report domestic and family violence involving serious physical harm and serious or imminent threat to life and safety.

Section 124A of the Domestic and Violence Act 2009 outlines that you need to report cases where: You believe on reasonable grounds either or both of the following exist:

Another person has caused, or is likely to cause, harm to someone else (the victim) with whom the other person is in a domestic relationship

The life or safety of another person (also the victim) is under serious or imminent threat because domestic violence has been, is being, or is about to be committed.

The type of harm must be physical. Section 1A of the Criminal Code defines physical harm as the unconsciousness, pain, disfigurement, infection with a disease and any
physical contact that a person might reasonably object to in the circumstances, whether or not the person was aware of it at the time.

It must also be serious harm. Section 1 of the Criminal Code defines serious harm as any harm (including the cumulative effect of more than one harm) that:

- Endangers or is likely to endanger a person's life OR
- That is, or is likely to be significant and longstanding.

Remote health providers therefore are required to make a professional decision to determine if the injury or circumstances fit within the definition of serious physical harm that is happening or about to happen if there is a serious and imminent threat to life and safety.

There is some concern amongst staff working with families that this new legislation will have a negative impact on victims of D&FV, particularly women, from presenting to the health service. It is not known if this will actually occur but it is hoped that the new legislation will help all communities recognise that D&FV should not be tolerated in our society. In addition, all remote health providers would ideally be talking with individuals, families and communities to encourage victims of D&FV to report the matter themselves to police, and therefore not require the remote area health provider report the matter without their consent and cooperation.

All health providers also have a responsibility to assess the risk of violence to the children in the family. Although there are limited resources in remote areas such as safe houses and other agencies to refer families to, there are also large networks of extended family that can assist in protecting the victim and any children involved.

However if you do believe the client in your care has someone who is in a domestic relationship with the client or victim who has caused, is causing or is likely to cause serious physical harm to that person AND/OR you are concerned that the life or safety of the client or victim is under serious or imminent threat because domestic violence is happening now or about to happen - you are obliged by law to report this to police as soon as is practicable.
Calling 000 for an urgent response OR 131444 to report your concern to Police and they will assess what the Police response will be.

Mandatory reporting of domestic and family violence does not change existing mandatory reporting obligations for child abuse or neglect. Contact the NT Families and Children Central Intake Team on 1800 700 250 if you are concerned about the safety or welfare of a child.

The information you will need to provide when making a report includes:

1. Belief that you have concerns, and
2. Any knowledge forming the grounds for the belief, and
3. Any factual circumstances on which that knowledge is based.

Fortunately, most health centres in remote areas have very good working relationships with the local police. It is possible to work collaboratively together with the police and the wider community to address domestic and family violence.

Many victims of domestic and family violence are not suffering serious physical harm. In these cases it is important that you discuss your concerns with the victim and highlight the impact the violence may be having on the children in the family. Offer to refer the victim to other agencies for additional support and help identify a safety plan if s/he chooses to remain in the situation. It is important that you also try and follow up with this person. This is easier to do in remote areas than in larger urban centres but needs to be addressed in a careful and sensitive way.

There are three instances that allow reasonable excuses for not reporting serious physical harm to Police:

- You reasonably believed someone else already reported the same belief about the circumstances;
- You are engaged in planning for the removal of the victim and intended to report your belief as soon as practicable after the removal; or
• You reasonably believe that if you make a report as soon as practicable, a serious or imminent threat to the life or safety of any person may result (for example, this includes threat to your own safety, your colleagues or to the client/patient).

In the last two situations above you still have to make a report to Police but when it is safe and practicable to do so.

Staff can still report domestic and family violence even if they have determined it does not fit within serious physical harm or serious or imminent threat to life and safety, it just means you are not mandated to do so. If you are unsure err on the side of caution and call the Police.

It is important that you familiarise yourself with the Domestic and Family Violence Risk Assessment as it forms part of the Healthy Under 5 Kids Program (See Module Eight). Most women are happy to be asked about violence and those who do not disclose report being fearful of being judged by the service provider (Taft 2002). See Module Eight for more information on the D&FV Risk Assessment.

Caring for Families Who Misuse Substances

There is a high rate of substance misuse in remote areas. This is largely due to the social distress many communities experience. The innocent victims in all families where substances are used and abused, are the children. It is not difficult to identify the consequences for children who live in environments where their carers are mood-affected by substances. Parents and carers are commonly not able to give these children the physical or emotional care they require. These children are also at an increased risk of trauma from neglect, sexual/physical abuse and exposure to violence (DHF 2007).

Common substances used to excess in remote areas include: tobacco, alcohol, marijuana (commonly called ganja, yarndi or waymie), kava, petrol and other inhalants.
**Tobacco**

Tobacco is the most common substance used in remote areas, particularly in women. Many health providers don’t even try to address the issues, due to the many other competing priorities in their workload. Here in the NT we have the highest tobacco smoking rates in Australia - in some areas over 60% of pregnant Indigenous women (DHF 2007).

However in the area of child health, tobacco is a significant problem. In pregnancy, toxic chemicals pass via the placenta and reduce the amount of oxygen available to the baby. This and the effects of the other chemicals found in tobacco smoke can affect the baby's growth and development, increasing the risk of low birth weight, premature birth and spontaneous abortions. Low birth weight, in turn, is directly related to chronic diseases in later life including diabetes, respiratory disease, kidney problems and asthma. Babies whose parents smoke also have an increased risk of sudden infant death syndrome (SIDS).

Nicotine and many of the other substances in tobacco smoke are passed through breast milk to the baby. These substances can reduce the supply of breast milk.

Exposure to passive smoking causes lower respiratory illness, asthma and otitis media in children (AIHW 2008). It is also estimated that the risk of heart attack or death from coronary heart disease was 24% higher in non-smokers living with a smoker (NHMRC 1997). The WHO state passive smoking may also contribute to learning and language difficulties, behavioural problems and increased dental decay in children (WHO 2007).

Children in remote areas are exposed to a LOT of smoke (cigarettes, campfires and burning off in the dry) and other respiratory irritants such as dust. In other states and territories there are strong campaigns to decrease the amount of smoke children are exposed to. It is illegal in South Australia to smoke in a car when children are present and health providers are encouraged to promote smoke-free house and car messages to clients.

In Module Seven we discuss some brief intervention strategies that should assist remote health providers talk to parents and carers about unhealthy behaviours.
Raising awareness is the easiest thing we can do (and not smoking ourselves in front of clients).

As health providers it is our duty of care to educate parents and carers about the effects of passive smoke on children, particularly if you are seeing a child with a respiratory complaint. Ask questions like who in the household smokes and if these smokers have close contact with the child or infant. Suggest easy strategies such as asking someone else to hold the baby when they are having a cigarette, and sitting upwind of the campfire, for example.

The following list outlines some of the resources available for staff in remote areas.

- The Cannabis Flip Chart;
- Tobacco Flip Chart for use in community settings;
- Felt Board Story – a culturally appropriate resource to engage community members around Tobacco use;
- Talking up Good Air;
- Nicotine patches are now available for indigenous people via the PBS;
- Support and education from Alcohol and Other Drugs Services;
- Smoke-free Pregnancy Assessment and Intervention Tool; and,
- Smoke-free Family Assessment and Intervention Tool.

**Alcohol**

Alcohol is another significant problem in remote areas. Although the percentage of people who drink in remote communities in relatively low compared to regional towns, those who drink, commonly binge drink large amounts. Across Australia, alcohol is linked to around 50% of all family violence and about 30% of child abuse cases. In the Northern Territory, the figures are thought to be a lot higher (DHF 2007).

Fetal Alcohol Spectrum Disorder (FASD) is a term that is used to cover a number of disabilities associated to the influences of alcohol during pregnancy on the developing fetus. There is considerable evidence showing the damaging effects that
alcohol has on the brain of a developing fetus, and the significant consequences for the child throughout their lifespan.

Alcohol passes readily across the placenta to the fetus. The blood alcohol level of a fetus will be the same as the woman, although it takes longer to be cleared from the baby’s system than the mothers.

Exposure to alcohol in pregnancy can result in:

- Dysmorphia through interference with nerve cell development and functioning;
- Alterations in the ability of cells to grow and survive;
- Increased formation of cell-damaging free radicals;
- Altered pathways of biochemical signals within the cells, and
- Altered expression of certain genes and genetic information.

(Streissguth 1997).

Alcohol also easily moves into breast milk and alcohol levels in breast milk is the same as the woman’s blood alcohol reading. Milk supply is decreased when alcohol is consumed and affects infant behaviour including more disrupted sleep/wake cycles. High exposure to alcohol in breast milk also affects the psychomotor development of the child.

The four characteristics of FASD include:

- Facial features;
- Growth deficiency – slow to grow;
- CNS damage – brain damage/abnormalities (microcephaly, partial or complete agenesis of the corpus callosum, cerebellar hypoplasia), learning difficulties, poor memory, hyperactivity, impaired fine motor skills, among others; and
- Confirmed alcohol exposure.

(O’Leary 2002).
Facial features that MAY be apparent include:

Not all children will have the obvious facial features of FASD. There seems to be a genetic susceptibility to FASD whereby some women may have a gene that affects their metabolism rate. Fraternal (non-identical) twins may have had the same exposure to alcohol in utero and be affected differently.

Many FASD children will have significant behaviour problems including:

- ADHD;
- Inability to foresee consequences or learn from previous experience;
- Don’t understand commands;
- Aggressive;
- Problems learning at school;
- Poor memory;
- Poor concentration;
- Lack of organisational skills;
- Poor adaptability;
- Poor judgement;
- Slow to grow;
- Sick more often; and
- Speech, hearing and vision problems.

(O’Leary 2002).

The ONLY way to suspect or diagnose FASD is to CONFIRM the consumption of alcohol during pregnancy, either directly from the mother herself OR through the confirmation of others. It is important that ALL pregnant women are screened for alcohol use antenatally and are aware that alcohol use WILL have a negative affect on their baby. The current recommendations around alcohol and pregnancy are that there is NO SAFE amount of alcohol intake during pregnancy. That means all pregnant women should be counselled against drinking ANY alcohol AT ALL.

The NHMRC Australian Alcohol Guidelines (2009) state: Maternal alcohol consumption can harm the developing fetus or breastfeeding baby.

- For women who are pregnant or planning a pregnancy, not drinking is the safest option.
- For women who are breastfeeding, not drinking is the safest option.

Remote health providers are not required to diagnose FASD – rather our job is to promote preventative messages, screen for use in pregnancy and REFER ALL children exposed to alcohol in pregnancy to the paediatrician as soon as they are born. Children who are diagnosed early should have better opportunities for support and will have better outcomes.

Marijuana

The following information was sourced from the Australian Drug Information clearing house (see www.druginfo.adf.org.au/).

Marijuana is increasingly becoming a significant problem for families living in remote areas. Commonly called ‘ganja’, ‘yarndi’ or waymie in remote areas, marijuana is a depressant drug that does not necessarily make the person feel depressed. Rather, it affects the central nervous system by slowing down the messages travelling between
the brain and the body. The rise in marijuana induced psychosis is a big problem and appears to be related to the increased use of hydroponically grown marijuana which has replaced the ‘bush weed’ of the past.

Small doses of marijuana can have effects that last 2–4 hours after smoking. These effects include: relaxation and loss of inhibition; increased appetite; affected perception of sensations; impaired coordination and affected thinking and memory.

However it is the larger, ongoing intake of marijuana that is leading to the real health problems. Very large quantities of marijuana can produce:

- Confusion;
- Restlessness;
- Feelings of excitement;
- Hallucinations;
- Anxiety or panic, or detachment from reality;
- Decreased reaction time; and,
- Paranoia.

Long-term effects in some regular marijuana users include respiratory illness; reduced motivation influencing performance at work or school; brain function including concentration, memory and the ability to learn. Marijuana can also affect hormone production with some users having a lower sex drive. Irregular menstrual cycles and lowered sperm counts have also been reported. Finally, there is also concern that marijuana smoking may impair the functioning of the immune system.

The biggest concern however is the link between marijuana use and psychosis. It is believed that marijuana use - especially if heavy and regular - may be linked to a condition known as a drug-induced psychosis, or ‘cannabis psychosis’. This can last up to a few days. The episodes are often characterised by hallucinations, delusions, memory loss and confusion.

There is also evidence that regular marijuana use increases the likelihood of psychotic symptoms occurring in an individual who is vulnerable due to a personal or
family history of mental illness. Cannabis also appears to make psychotic symptoms worse for those with schizophrenia and lowers the chances of recovery from a psychotic episode.

Marijuana use is more prevalent in men than women in remote areas. However, heavy and prolonged use will still impact on family functioning and childhood development.

**Petrol and Other Solvent Inhalants**

Petrol and other solvent inhalants including glues, spirit-based paints, paint spray cans and other aerosols that are sniffed by inhaling the fumes from a small container or holding a saturated cloth over the nose and mouth. The chemicals are absorbed immediately and includes feeling ‘high’, happy, dizzy and disconnected from the environment.

Prolonged use causes significant health problems and include loss of appetite and immune suppression that results in a higher rate of all infections. Heavy users will also experience sleeping problems, central nervous system symptoms (fitting, impaired memory, poor coordination and mood swings), and cardiac and respiratory symptoms including cough, pneumonia, cardiac arrhythmias and infarction (DHF 2007).

Long term side effects in pregnant women include: miscarriage, birth defects, low birth weight, respiratory problems in the newborn and SIDS. Fortunately the incidence of solvent misuse is now not that common. Young women who have sniffed petrol often stop when they become pregnant. However, if a woman has stopped, she may still have a low birth weight infant and may need additional health care during and after the pregnancy. There is some evidence of birth defects and disabilities in babies born to women who sniffed petrol (DHF 2007).

Refer to the Public Health Bush Book and CARPA Standard Treatment Manual for more information.
Kava

In the NT, particularly Arnhem Land, the dry, powdered kava root from the South Pacific is mixed with water and drunk. Kava acts as sedative and muscle relaxant making people sleepy and wobbly – appearing ‘drunk’ even though there is no alcohol in Kava (DHF 2007).

More men than women tend to drink Kava in Arnhem Land. Approximately 100-150ml of Kava is strong enough to put some people into a deep, dreamless sleep within 30 minutes (DHF 2007). Therefore it should not be used by anyone who is responsible for the care of children.

It is not known what effect drinking Kava has on the developing baby. Until there is more information, it is recommended that pregnant or breastfeeding women do not drink Kava.

The biggest problem with Kava is the long-term individual, social and community effects. Chronic abuse of Kava will result in loss of weight; increased risk of infections, dry scaly skin, renal dysfunction, liver disease, CNS and respiratory problems (DHF 2007). Heavy Kava drinkers are also at risk of sudden death, particularly during heavy exercise. These deaths typically occur in young men who are diagnosed as having diseased hearts on autopsy (DHF 2007).

Family and community implications include the financial costs where some people spend large amounts of money to buy Kava, leaving no money for food and other essential items. These people will also spend large amounts of time drinking kava and neglecting family and community responsibilities.

These costs will all impact on the health and nutritional status of infants and children. For more information on Kava and other substances covered in this section refer to the Public Health Bush Book available in hardcopy in most communities but also electronically on the DHF intranet and internet. Also see Module Eight for other resources and details of support agencies to assist remote health providers when working with families who misuse substances.
Abuse and Neglect

The issue of child abuse and neglect in remote areas has received significant attention in recent times. The issues are complex, challenging and difficult to address. Ideally we would hope to prevent the abuse or neglect of children but sadly we all know this is not possible for all families.

Child abuse is usually a pattern or cycle, not a one-off incident. As distinct from the occasional verbal ‘outburst’ in a generally loving home, abuse is a pattern of negative and harmful interactions, which cause long-term damage unless there is intervention.

Reflect

Given your current experience, reflect on the differing forms of child abuse that you are aware of and have seen in the children in the population you work with.

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Child abuse takes many forms. Adults may harm children through actions (commission) toward the child, both in a verbal or physical way. They may also harm children through the neglect (omission) of their care. Rarely does a child experience only one form of abuse. Children who are being physically abused are often also being emotionally abused. Many children who are sexually abused are also being physically and emotionally abused. In remote areas it would be unusual for children to be physically abused in the way that is often seen in mainstream families in Australia. A more common scenario is neglect – that occurs when a parent is unable or unwilling to provide for a child so that the child can develop normally.

Neglect includes when a child does not have enough food to eat; or a place to live in; or is not provided with basic medical, dental and/or other health care. It also includes
being left alone in inappropriate or unsafe unsupported environments; or not having ‘good enough’ parenting; or abandoning the child through not organising appropriate care for them (Department of Health and Families 2009).

**Child Sexual Abuse**

Child sexual abuse is another issue that has received significant attention in recent times. It is generally accepted that the levels of sexual abuse in remote areas is higher than mainstream though it would be expected to have similar levels in any communities that suffer the same level of social and environmental disadvantage as seen in remote areas.

Physical evidence of sexual abuse in children can be extremely difficult to determine. Remember, it is not your role to diagnose but rather to refer to specialised services if you suspect abuse or neglect is occurring. To know when to involve specialist services, it is important for you to be aware of some of the behaviours of children who are suffering from sexual abuse.

Children who have been sexually abused are more likely than non-abused children to exhibit emotional distress such as anxiety, phobias, depression, embarrassment, anger and posttraumatic stress disorder. Feelings of powerlessness, helplessness, shame and guilt may contribute to a distorted sense of self and a diminished sense of self-esteem and self worth.

It is important that you do not mistake normal childhood sexual behaviour with sexual abuse (see Module Five). The following information on ‘Children’s Sexual Behaviour’ is taken from the South Australian website www.cyh.com.au and covers the signs that might indicate that there might be a problem.

- If the child appears to know more about sex than you would expect for the child’s age, e.g., preschool children knowing the details about or playing sexual intercourse;
- Unexplained redness, soreness or injury of the genital areas (vagina, anus, bottom, penis or mouth;
- Forcing others to play sex games;
- Playing sex games with much younger children;
- Talking about and playing about sex for a lot of the time, much more than other children;
- Masturbating so much that it interferes with their play, or in public after kindergarten age (4 years);
- Always drawing the sexual parts of bodies;
- Being afraid or upset when people talk about their bodies or sex;
- Showing extreme anxiety about being with a particular person without there seeming to be a reason;
- Signs of stress, such as a return to bedwetting, soiling their pants or hurting themselves may be signs of sexual abuse but these behaviours can also be caused by other worries.

There is little documented on how sexual abuse is manifested in Aboriginal children. The ‘Little Children are Sacred’ reported that child sexual abuse in remote Indigenous communities was:

- Widespread;
- Extremely difficult to detect; and
- Involved a range of covert activities.

They also reported that:

- Very young children were displaying inappropriate sexual behaviours;
- Some children were swapping sex for marijuana and other favours; and
- There was a high level of fear amongst victims with some protection offered to family members, however, on the whole community members wanted it to stop.

(Wild and Anderson 2007).

It must be remembered that the apparent high rates of child sexual abuse in remote communities should NOT be linked to Indigenous culture. Rather it is a symptom of a
society that has suffered in the long-term from a number of influencing factors including:

- Poor health
- Alcohol & drug abuse
- Unemployment
- Gambling
- Pornography
- Poor education
- Poor housing
- General loss of identity and control

(Wild and Anderson 2007).

It is important that, as with all other types of abuse, remote staff be aware of suspected child sexual abuse and to report concerns or suspicions with someone (see mandatory reporting information below).

If you suspect a child under the age of 16 years has been a recent victim of sexual assault that requires examination, this must be done by trained staff in either Darwin or Alice Springs. The Sexual Abuse Referral Centre (SARC) have on call medical and counselling staff 24 hours a day and are contactable through RDH or Alice Springs switch board or the DMO.

**Mandatory Reporting: the Role and Responsibilities of the Remote Area Health Providers Working with Children**

Most states and territories across Australia (including the NT) have legislated mandatory reporting and it is important you are aware of your local Acts. Reporting is mandatory and penalties apply for non reporting.

The purpose of imposing a legal obligation on people to report suspected child abuse and neglect to the department, is to protect children/young people from further harm. Identification and reporting of child abuse are the beginnings of intervention and
prevention of such abuse. By protecting the child/young person and helping the family, future abuse can be reduced, even eliminated.

**How do we Report Child Abuse in the NT?**

Telephone the 24 hour toll free number in the NT 1800 700 250.

Sometimes remote health providers are presented with grey areas in their practice, where family behaviours are not clear or where they may present as being borderline. When a health provider is unsure what may constitute abuse or neglect, they must be reminded that as practitioners we do not have to prove the abuse or neglect, you need only to notify your concerns. *Remember, you only have to suspect the abuse or neglect!*

**Reflect**

As practitioners how can we promote the positive contributions that NT Families and Children can offer the remote communities? Do you know your community’s NT Family and Children’s team?

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**Documentation**

Clear, precise and accurate documentation is a legal requirement for all remote area health providers but crucial if called into evidence in Court when charges are laid. Documentation must be objective and factual and not open to personal opinion. While professional opinion is valid, it should always be presented in conjunction with a clear description of events and facts documented in the third person.

Where at risk indicators present the possibility of or the potential for child abuse or neglect, clear and accurate documentation of attachment cues between parent and child may be invaluable when demonstrating positive aspects of a family’s relationship and dynamics.
Summary

This was a very large module where we covered a number of difficult and challenging issues that contribute to complex parenting with subsequent negative effects on the developing child. In the next module we discuss strategies that may help us work with families to make a difference. This includes working in partnership and using some brief intervention strategies as part of the plan to prevent some of the problems we have covered in this module.

Support Services for Staff

The Bush Support Services (incorporating Bush Crisis Line) 1800 805 391

The Employment Assistance Scheme (EASA) 1800 193 123

Further reading (optional)

Guidelines for the management of sexual health issues for children and young people:


The beyondblue website: www.beyondblue.org.au

The Little Children Are Sacred Report:


Secretariat of National Aboriginal and Islander Child Care:

http://www.snaicc.asn.au

NAPCAN: http://www.napcan.org.au
Through Black Eyes

The Australian Domestic and Family Violence Clearinghouse
http://www.austdvclearinghouse.unsw.edu.au/

Domestic Violence in Australia—an Overview of the Issues:
Module Seven: Working in Partnership with Parents and Brief Intervention

The last module reminded us of all the things that interfere with children achieving their optimal potential. Our role as remote health providers is to maximise the health and well being of children and families. Yet so many of the problems in communities appear to fall outside of the medical arena. Can we really fix all these problems? The answer is NO, we can’t. Only the parents, the family and the community can solve the problems we discussed in the last module. BUT, we can help. This module takes us through a number of ways we can work with parents and families. Firstly, we discuss the concept of working in partnership. We then discuss ways to address behaviours that are not helpful or healthy and that interfere with the children developing to their best potential.

Learning Outcomes

Upon the successful completion of this module you should be able to:

- Critique the limitations of working in the expert model when working with families to promote child development;
- Incorporate components of the partnership model when working with parents;
- Describe the key aspects of brief intervention as they relate to parenting issues; and
- Review motivational interviewing techniques when working with parents.

Working in Partnership with Families

The way we engage with parents and families is paramount if we are to be effective in supporting THEM to be the best parents they can be to their children. When working in remote communities we often get frustrated when it appears the parent says only what they think we want to hear. These responses have been formed over many years of health service delivery and will not change overnight but there is another way of engaging families.

As we discussed back in Module Two, the implementation of primary health care relies on the shift of power and control from the health system to the community and
the individual client (WHO 1978). For this to occur, it is necessary for remote area health providers to work in partnership with individuals, families and communities and to rely on the expertise and ability of these individuals and groups in understanding, learning and managing their own situation. To understand the key concepts of working in partnership it is useful to explore the key philosophical differences between the ‘expert model’ and the ‘partnership model’.

The Expert Model

The expert model originates from a health care system that relies on routine practices and applies a biomedical or disease model (Jiwani 2000). The ‘expert’ remote area health provider works with a set of physiological symptoms that inform a diagnosis based on deficits, disease or disorders. The expert model is synonymous with the ‘disease’, ‘problem-oriented’ and ‘biomedical’ models.

The expert model incorporates the ‘traditional’ components of remote area practice. Disease is viewed as an organic condition – the causes of disease or illness can be found within the body or biology and will respond to a medical intervention. Within this approach the practitioner determines the health needs of the clients and offers advice, education and other strategies to address these needs. The expert model assumes domination and control of the health interaction by the professional (Elkan, Kendrick et al. 2000).

Within the expert model the ‘patient’ must submit to the expertise of the practitioner. Often the only conversation between the two is the remote area health provider asking questions based on the history and symptoms of the presenting complaint. Medicine assumes an organic basis to all health problems and seeks pathological explanations for a range of social conditions and experiences such as alcoholism, homosexuality and childbirth.

There are, of course, components of remote practice where the traditional ‘expert’ model is appropriate to use. Medical emergencies are an obvious example where the expert skills of the remote area health provider are necessary to make rapid and well informed decisions as they manage effectively and efficiently clearly defined clinical imperatives. However in the area of parenting and child development this model or approach to health services is clearly deficient.
The Partnership Model

Other models have been proposed that provide an alternative to the expert model. These models all promote similar principles but draw from a variety of concepts including; ‘partnership’ (Davis, Day et al. 2002), ‘empowerment’ (Houston and Cowley 2002) ‘family-centred’ (Dunst, Boyd et al. 2002) and a ‘strengths-based approach’ (Darbyshire and Jackson 2004). Components of the partnership model can also be described as a ‘social model’ where remote area health providers working in communities appear to focus on support networks and empowerment (Craig 1998).

The shared characteristics of all these models transfer the focus of professional attention away from ‘problems’, ‘deficits’ and ‘weaknesses’ and instead towards the strengths or power of the client or community. This orientates the professional towards developing a collaborative and equal partnership with clients, focusing on building individual, family and community assets. A major assumption of the partnership model is that all clients have strengths and capabilities and are more likely to respond to interventions that build on these rather than identify weaknesses and deficits (Unger and Nelson 1990; Dunst, Boyd et al. 2002; Darbyshire and Jackson 2004).

Another important component of the partnership model is that, rather than the expertise lying with the professional, there is an increasing emphasis on the expertise of the client. The assumption is that, with support, she or he will discover their own way rather than learning to adopt some ‘right way’ defined by a remote area health provider (Barnes and Freude-Lagevardi 2003). Family-centred partnership involves professionals and family members working together in ‘pursuit of a common goal’ and is ‘based on shared decision making, shared responsibility, mutual trust and mutual respect’ (Dunst 2000).

The intention of the partnership model’s focus on strengths is to increase participants’ capabilities and feelings of self-worth (Darbyshire and Jackson 2004) rather than seeing themselves as ‘incompetent and dysfunctional’ (Alison, Stacey et al. 2003, p. 278) . Medicine by its very nature supports the notion that only medical practitioners can diagnose, treat and cure, and creates this dependence, often unconsciously.
Within the partnership model, the health professional assists with problem-solving, acting as a resource and facilitator but rarely as an expert.

Importantly, the practitioner cannot undertake the role of facilitator and resource person without the active participation of the client. Essential to the concept of the partnership approach is the quality of the interaction with the client. Often referred to as the ‘client-centred’ approach, it recognises client choice in an environment of clients’ perception and identification of health needs (Twinn 1993). Involving clients in actively creating their own resources is more likely to lead to sustained behaviour change and improved health (Davis et al., 2002). Dispensing advice and information without such involvement will likely inhibit development and independent mobilizing of internal resources (Houston and Cowley, 2002).

Some clients may prefer not to work in partnership with practitioners (Waterworth and Luker 1990). This may occur if they feel too overwhelmed to make any contributions of their own, or if they perceive self-participation as weakness, or incompetence, on behalf of the practitioner (Barnes and Freude-Lagevardi, 2003). They may never have had the opportunity to work in partnership and hence would not expect such behaviour from their local health provider.

Working in partnership should be ‘empowering’. The ‘empowerment’ term is losing favour in recent years, due to the questioning of whether one privileged group can empower others from its position of dominance or whether people have to take power and empower themselves. The concept of partnership is further challenged (Mowforth 1999) by arguing that the relationship between client and nurse can never be equal because one person is sharing vulnerability, and also because of professionalism and the assumed boundaries that constrain the professionals’ own behaviour. This could be applied to remote areas where Aboriginal people have suffered the effects of colonization that have disempowered the population and resulted in low self esteem in many individuals. To compound this, Aboriginal people communicate differently and have worldviews that often differ with the Western worldview that dominates health and health practices.

All remote area health providers should examine their own communication style and biases, for their own prejudices and judgements impact greatly on our ability to work
in partnership. If remote area health providers believe that their clients are unable or unwilling to take control of their own lives, long term health gains will be difficult to achieve. Working in partnership requires remote area health providers to assist individuals to develop, secure and use resources that will promote or foster a sense of control and self-efficacy (Gibson 1991; Rodwell 1996).

Working in partnership with clients requires a major paradigm shift from the traditional role of caring ‘for’ to working ‘with’ (Byrne 1999). Many remote area health providers would deny that they have power or exercise that power over clients. However, contemporary wisdom suggests we must acknowledge that power exists before they can redress the balance from the expert model and consider both partners equal (Davis, Day et al. 2002).

Health providers in remote areas have to be ‘experts’ at many things. Many remote nursing and medical staff come from an emergency or intensive care background where the partnership model is inappropriate. But to work effectively in remote areas we have to think differently. While we continue to try to solve the problems of Aboriginal people by looking for problems that are treatable by a tablet, vaccine or other prescriptive advice we are sure to fail. Working in partnership with parents and carers while discussing and monitoring childhood development may be the first step in making a real difference.

**Activity**

What is your response to the notion of working with parents in partnership versus the expert model? How do you juggle this with the high levels of illness and injury that confiscate the majority of your time? What do you do to build a relationship with the members of the community you work in including the children?

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One of the principles of partnership requires the remote area health provider to have *genuine respect* and a *positive regard* for their client (Davis, Day et al. 2002). This means that you genuinely believe this person is capable of improvement or change. Mutual respect also acknowledges that each person has their own perspectives, ideas and approaches. These perspectives are based on individual experiences, background, access to information and contacts. Recognising and acknowledging individual differences, including our own, is the basis for building mutual respect. This requires a person to:

- Be sensitive to differences and how they might have developed;
- Acknowledge these differences without judging or devaluing them;
- Encourage the person to share their perspectives, ideas and approaches;
- Explore the other person’s ideas and approaches; and
- See differences as an opportunity to learn and expand your own thinking.

Remember to be aware of your values and belief systems when working with all families – even those from your own culture may have different values and beliefs when it comes to parenting. If taken seriously the notion of partnership can be very confronting for remote area health providers. It may actually challenge your own value system.

**Activity**

How does this feel? Do we really respect the right for Aboriginal families to think and act differently than mainstream clients if the result is the poor health we see every day?

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Respecting individuals’ right to think and behave differently to ourselves must be balanced with what we know is going to lead to good or poor health outcomes. There are many unhealthy behaviours found in remote communities. Working in partnership does not mean we accept all of these behaviours as being ‘cultural’ in origin. However we must try and understand what informs the behaviour.

The following brief intervention framework, although Western in origin should help assist the remote area health provider work with individuals and families to bring about behaviour change.

**Brief Intervention**

Brief intervention is a directive, person centred, counselling style that enhances motivation for change by helping clients clarify and resolve ambivalence about behaviour change. The goal of brief intervention is to identify and resolve discrepancies between current behaviour and broader values and goals. Remember we have already established that many of the problems in parenting are beyond the control and expertise of the health provider. They are social or environmental in nature and only the PERSON can change the situation. This is where brief intervention strategies can help you help the person.

Brief intervention involves making the most of any opportunity to raise awareness or share knowledge with people thinking about making changes to improve their health. It can be done for ANY health-related behaviour (Babor and Higgins-Biddle 2001). It could be used as part of a prevention strategy such as informing families about the strategies to avoid Sudden Infant Death Syndrome by sleeping their baby on his or her back. It can also be part of an early intervention strategy such as encouraging families who smoke cigarettes that they do it outside or not near young children. Finally it can also be a treatment strategy such as providing a pregnant diabetic woman with information on diet, exercise and blood glucose control to minimise harm to the fetus. Some authors include motivational interviewing and strategies to support the brief intervention. These will be discussed in the latter part of this module.
Stages of Behaviour Change

In regards to behaviour change, all individuals are in one of four or six stages (depending on the variation of the model) when in the process of changing the behaviour. These include:

- **Precontemplation**: the person is not worried about the behaviour and is not even thinking of changing the behaviour. For example, smoking when holding their baby. Many women have not even thought about doing anything different.

- **Contemplation**: the person is still not particularly worried but they know the behaviour is not healthy. Smoking is a good example of this stage when many smokers know it is bad for their baby but just can’t imagine trying to stop.

- **Preparation**: the person really wants to change the behaviour and is thinking about how to go about doing this. For example, a victim of domestic violence wants to change her response to the perpetrator (because she can’t change HIS behaviour). So she starts thinking about her options.

- **Action**: the person changes the behaviour. S/he stops (or reduces) smoking; leaves her violent partner; gives her infant to a relative when she has a cigarette etc.

- **Maintenance**: the person keeps the change going – is ‘successful’.

- **Relapse (oops!)**: The person slips up and resumes the unhealthy behaviour. It might involve having a few cigarettes one night, to moving back home to her violent partner. The relapse can be short term or long term.

- **Returning to the maintenance stage or go right back to pre-contemplation.**

We know that some life style habits are hard to change and some people take many, many attempts at changing behaviour before they are successful. Other behaviours however are not that difficult – sometimes the person just never thought about it in a particular way or actually never knew the behaviour was unhealthy – either to themselves or to their child. Smoking around their infant is one example of this. Co-sleeping as a smoker or under the influence of alcohol or other drugs is another
example. Working with parents to share information with them in a way that does not diminish their self esteem is the key to helping them change unhelpful behaviours.

**Activity**

How do you determine what stage a person is up to when talking about unhealthy behaviours? Do we actually even try to establish what they know or don’t know about a particular behaviour?

The way we raise the issue is even difficult for many of us. Most remote health providers are not given the skills and knowledge to engage clients in this type of discussion. However we do it, it is important that any discussion around changing matches the person’s intent and is relevant to them personally. Motivational interviewing may assist in giving you clues to the type of questions to ask (Files, 2007). Once the person has decided on the change and has implemented the change, your role is to support them.

Once a parent has decided to make change, help them think about small goals that are SMART – that is:

- Specific
- Measurable
- Achievable
- Realistic; and
- Timely.
Reflect

Reflect about the stages of change mentioned above from your own perspective. Choose an example, for instance losing weight, cutting back on smoking or alcohol intake, increasing your physical exercise. Write down where you think YOU are in regards to behaviour change. What things would you find helpful (or not) if you were seeing a health professional about something else and they bought up one of your unhealthy behaviours?

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Putting it into Practice

Over the next few weeks try talking with clients about unhealthy behaviours. Try and determine what stage they are up to. Use the prompts below and record how you went.

Ideally this would be in the area of child health and involves behaviour of a parent that is not healthy for the child. It may be smoking around the infant, the delay in giving their six month old complementary foods, being in a violent household, even smoking gunja or drinking alcohol. But it does not have to be child health specific. The skills are the same for any client.

The tips below are adapted from the DHF ‘SNAPE program: A 4 Step Guide to Brief Intervention’. It outlines the sort of approach you could consider when talking with clients in the various stages.
**Stage One: Pre-contemplation - not worried**

This person is not thinking about changing.

- Find out what the person knows about the behaviour
- Share health information
- Avoid the ‘lecture’ – it is usually not helpful
- Make links between the behaviour and any health issues the person (or child) has.

In stage one, remember to:

- Establish rapport
- Explore their issues of concern
- Listen to their story (without judgement).

**Stage Two: Contemplation - thinking about change**

This person is thinking about changing – ask: is there anything that they want to change?

- Find out what the person knows about the issue
- Ask them what they think the pros and cons are about the issue, including how it affects their child and other family members
- Ask what gets in the way of making the change
- Link the behaviour to the person’s health behaviour e.g., smoking and the child’s cough
- Ask about the differences a change might make or suggest how change could make things better.
Stage Three: Action – the doing
This person is deciding to do something and is making changes – match the stage of change based on how the person described themselves in the previous stage.

- Acknowledge the difficulties and congratulate them on making the decision to change
- Reinforce small steps
- Discuss how they will make the change
- Encourage the person to identify personal avenues of support
- Discuss professional support available
- Provide ongoing information and support.

Stage Four: Maintenance - sticking to it
This person is maintaining the change – record their stage of change and what you discussed.

- Ask how they are going
- Give praise about how well they are doing
Highlight the benefits of the change they have made and talk about how much better things are, or how much better the person will feel soon.

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Relapse

If the person relapses, recognise that this is not unusual and do not pass judgement. Offer any support you can to help the person get through this difficult time, this may include talking about what stage they find themselves into now – are they ready to try again or have they reverted to the pre-contemplation phase again.

Next time you see the person, ask how they are doing. Reinforce the positive changes and revisit what stage they are in.

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How to ask the questions

No doubt you have studied basic communication but it always helps to check out how effective you think these skills are when engaging parents and families. How did you find your approach when practicing the Brief Intervention strategies above? What did you observe around your own communication style? We’ve included some basic interviewing suggestions if you think you need to refresh on them.

Use open-ended questioning to promote change through problems recognition, to express concern or optimism. Open-ended questioning includes questions beginning
with how, what, when, where? For instance, how do you feel about your health? What worries do you have about your health? What makes you feel that now is a good time to get started?

Having begun with open-ended questioning, it is then very important to WAIT for the client to make a response. After they have responded, try to interpret or ‘guess’ at what they mean. This is called forming reflections, while giving voice to this ‘guess’ in the form of a statement such as:

It sounds like you are…….It seems that you are having a problem …….From what you are saying, you are having trouble …..

Then you will move into repeating and rephrasing what the client says, moving into a summary of the situation once they agree with what you’ve said. As you repeat this process you will build on what the client has said.

**Activity**

Let’s revisit the health issue you identified above that you would like to or have tried to tackle for yourself. Write down which stage you think you are in – listen to the language you use in your head, around that issue. What needs to happen for you in order to move onto the next stage? Taking the time to do this activity across several weeks will help you to understand the challenges in making health behavioural changes. Keeping your own personal diary on the health issue you choose will assist you to translate any difficulties you had in achieving the change into your work practice and may help you to be more understanding with clients.

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Remember! Many people may try many times and over a number of years to change behaviour before they are able to maintain the change. These relapses are a normal part of the change process.

**Summary**

Some of the material in this module may seem too ‘western’, too ‘hard’ to implement in remote areas. However, what we are doing now is not that effective either. Working in partnership and implementing the principles of brief intervention can offer a new way of working with parents. The HU5K program asks you to consider the social and environmental influences on parenting and child development. This cannot occur within a biomedical ‘expert’ framework.

We now move on to discussing the components of the HU5K Schedule and Assessment forms to examine the rationale for complying with all components of the Schedule.
Module Eight: The HU5K Schedule

The previous seven modules have hopefully provided you with the evidence and rationale to prepare you to implement the Health Under 5 Kids program. This module goes through the relevant steps of the Schedule to give you a greater understanding of the various components that you are required to complete.

Learning Outcomes

Upon the successful completion of this module’s activities you should be able to:

- Understand the components of the Healthy Under 5 Kids Schedule;
- Critique the rationale for complying to all components of the Schedule;
- Critique the literature on co-sleeping whilst incorporating SIDS messages into your practice; and,
- Be familiar with the support agencies available to support you in implementing the HU5K program.

Introduction to the HU5K Schedule

A review of under-five ‘well child’ services in the NT demonstrated that whilst the GAA program was having some impact, a more comprehensive model was required. As demonstrated throughout this education package, much evidence supports a wider approach to supporting families and children need psychological stimulation and supportive environments as well as adequate amounts of the right foods to grow well. The HU5K program was developed with the knowledge that many remote health centres rely on mixed staffing skills and not all staff will have a background in paediatric or child health, though they are expected to work within this field. The HU5K program supports the standardised practice of comprehensive well-child health assessments, in a format that can be utilised by all staff.

Utilising best available evidence and where there is no research-based evidence, expert opinion was sought and included. A broad cross-section of people from across the Northern Territory participated in the development of the HU5K program.
The HU5K program identifies ten key contact visits where remote staff are required to review the child. The ages and activities of these contact visits are as follows:

<table>
<thead>
<tr>
<th>Age at contact</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>Birth (hospital)</td>
<td>Newborn examination</td>
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<td>Neonatal blood screening</td>
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<td>Neonatal hearing screening</td>
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<td>Breastfeeding</td>
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<td>First Visit</td>
<td>Hospital discharge info</td>
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<td>Parental concerns</td>
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<td>Weight</td>
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<td>Breastfeeding</td>
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<td>D&amp;FV, AOD, Mental health</td>
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<td>Smoking</td>
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<td>Eight Weeks</td>
<td>Parental concerns</td>
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<td>Developmental milestones</td>
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<td>Breastfeeding</td>
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<td>Bonding/Attachment</td>
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Assessment forms have been developed for each scheduled contact visit. At the top of the form is the age in which the check should be attended. Under this age a list of health disciplines are provided as a guide on who are authorized to carry out that particular check. Usually this would be a Child Health Nurse, Remote Area Nurse or Registered Aboriginal Health Worker. Some checks, however, including the newborn, eight week, 12 month, 2, 3 and 4 year checks incorporates skills usually only held by medical officers (such as heart sounds and hip checks). Therefore, this section of the checks must be completed by a medical officer as indicated by the ‘AND MO’ written under the age heading. Remember though, care for parents and their children is a team effort, so don’t skip this check just because a small section of it should be attended by a doctor.

We will now go through the first few forms to address the main components of the required activities and to provide a rationale and the relevant information for you to successfully undertake the activities.

**Demographics**

The beginning section of each form is the demographic details of the child – this information is consistent and can be generated by a sticky label if available or transferred from the previous form.

Remember to check the details of the carer as this may have changed since the last contact visit.

There is also a space to record if the immunisations are either given at these visits or are up to date. The HU5K Schedule has been developed to occur in conjunction with the times when immunisations are due to maximise efficiency for both staff and families.

**Parental Concerns**

Prior to undertaking any physical assessment it is good practice to check with the carer how things are going and if they have any concerns. As discussed in Module Three, there are many advantages of engaging parents with any concerns they may
have regarding their infant or child. If they do have any concerns, treat them seriously as research shows parental concerns are often well founded.

The assessment forms identify specific areas that we ask you to discuss with parents. These include general concerns, as discussed above, through to specific concerns around language, hearing or development. Be alert to the language you use. If you asked a parent if their three year old could hear, unless they were profoundly deaf, of course they would answer yes. But this does not tell you if there are concerns that perhaps their three year old does not hear well or does not listen.

If the parent or carer answers no, but you have concerns you may need to expand your questioning to other ways of enquiring such as ‘does XXX (child’s name) seem to do the same sorts of things that the other kids his age do’ OR ‘does XXX walk as well as his brothers or cousins did at his age’. The way you ask the questions and your non verbal messages will also influence the answer you will receive. Be available and demonstrate genuine interest in the parent and child and you are much more likely to get an accurate response. If this type of questioning still does not elicit the response you would like, proceed with the rest of the check involving the parent as much as possible. In this way you should be able to point out the particular problem you had identified or had concerns about.

There are many ways you can include the parents or carer in the assessment. Ask them to undress the infant and use this opportunity to observe for signs of attachment (as discussed in Module Five). Does the carer appeared engaged in the infant, is s/he interested, does she smile at the child when she is undressing her? Once you begin the assessment, tell the carer what you are doing, point out when the infant is trying to engage them with eye contact or communicating other cues, congratulate the parent or carer on how well the baby seems cared for, how healthy, or how strong. Use the opportunity to build the parent or carers confidence and develop a relationship with them.
History Taking, Screening and Assessment

Developmental assessment isn’t just about looking for milestones – it is about getting a good history, knowing what children to worry about by assessing for both risk and protective factors and working with parents and eliciting their concerns.

A good assessment informs the actions of the remote area health provider. Assessment may involve a comprehensive holistic review of the child and family’s health needs or it may be a brief check to address a specific concern. The assessment provides the information to facilitate the remote area health provider to work in partnership with the family to work out what needs to be done, when and by whom.

Remember the key person in a newborn’s life is usually the mother – a mother’s knowledge of her child is the most valuable information that you as a health professional can obtain – her story will provide a basis for the collection of information about the child’s growth and development. The mother’s story will enable you to create opportunities to provide encouragement and reassurance when necessary or suggest interventions with the agreement of the mother. Gathering a comprehensive history of the antenatal, perinatal and postnatal events from the mother, hospital and health centre records will help you determine the initial surveillance needs of the family.

In Aboriginal families the mother is supported by a well connected broader family group. These relations who support the mother including the father, grandmothers and aunties all have an important role in enabling and assisting mother to look after her new baby and other family. It is important that remote health providers engage these members as well, particularly when the mother or primary carer may be having difficulties.

Antenatal, Birth and Postnatal History

The intra-uterine environment and birth history are important predictors on the child’s development potential. The list of possible complications in the antenatal period is extensive and does not need to be memorised or even fully understood by remote health providers. What is important is that you carefully review the obstetric discharge
summary from the hospital as this should draw your attention to any problems, either social or medical that may influence the outcomes for the mother and the infant. If you can’t find a discharge summary, it is important you try to obtain one from the hospital and speak with a midwife or doctor on any relevant information that may be missing.

Major risk factors from the pregnancy and birth that require closer monitoring of the infant include:

- **Low Birth Weight** – either because of prematurity or intra-uterine growth retardation (though it is important to know which one it was due to). The cut off point for low birth weight is 2500 gms regardless of the gestation of the infant.

- **Prematurity** – defined by the gestation being less than 37 weeks.

- **Type of birth** – assisted (vacuum or forceps) or caesarean – why? Many Aboriginal women return to communities not really knowing why they had a caesarean or other procedure. The child may have moulding of the skull bones or markings that may concern family members. It is important that you take time to enquire about her birth experience and to provide any information she may need to understand what happened when she was in hospital.

- **Condition of the infant at birth** – usually assessed by the APGAR score. This score is given to all newborns at one and five minutes after birth and should be repeated every five minutes after if the score is less than 8. A score of 8-10 is normal and indicates a well infant at birth, a score between 4-7 indicates moderate asphyxia and the outcome depends on how long the scores stayed at this level (hence the need to repeat them every five minutes) and less than 4 indicates extreme asphyxia at birth and these infants require CLOSE monitoring in the first months of life and should be on the paediatrician list.

- **Admissions to Neonatal Intensive Care**: Why? How long for? What does the discharge summary say?

- **Multiple Births**: twins or triplets tend to be smaller and should routinely be monitored closely until advised by a paediatrician that it is not necessary.
Again it is important that you discuss any questions or concerns parents may have.

- **Known disability or illness:** anything documented on the discharge summary or that you know of that is out of the ordinary.

- **Siblings with a history of under-nutrition** (commonly called ‘Failure to Thrive’) or notification to NT Family and Children. Most infants in remote areas do not falter in their growth until after four-six months (and if they do it is usually due to a medical reason rather than nutritional and needs referral and close monitoring). However if a family has a history of severe failure to thrive or other parenting problems that required referral to NT Families and Children it makes much more sense to closely monitor the infant from birth and put in extra effort and resources to PREVENT this particular child following the same pathways as his or her siblings.

- **History of alcohol abuse or drug use in pregnancy.** Fetal Alcohol Syndrome is a real and serious condition. Although some children exhibit classic dysmorphic features, many others don’t. Therefore ALL infants who were exposed to alcohol during pregnancy should be closely monitored (see section on Substance Abuse in Module Six).

- **Social indicators;** there are a number of known risk factors from the mainstream literature that place infants and children more at risk. These include:
  
  - Lack of social support: it is a common perception that remote women have access to lots of family and other support. Whilst this is true for many women, there are some mothers who are isolated for a range of reasons. They may be from another community and living with their partner’s family; they may in a ‘wrong way marriage’ and have partnered with someone of the wrong skin group; they may be in a dysfunctional family and the other family members are using substances and are not available to support her emotionally. So don’t make assumptions and talk to the woman. Also don’t forget the Aboriginal Health Workers. They are an important source of knowledge and information.
  
  - **Exposure to family or domestic violence.**
- Young, single or first time mothers, or parents with illness or disability.
- Families who experience recent stressors (e.g. death in the family).
- Parents or carers with mental health illness or substance abuse.

Many of these risk factors are commonly found in remote areas and both families and health staff easily become ‘de-sensitised’ to the issues to the point where it almost seems normal. It is not normal, and it is detrimental to the opportunities of infants and children. There are increasing resources and support becoming available to families experiencing these problems in remote areas. But even if there are no resources, or the waiting list is long, or the effects of available treatments seem ineffective ASKING families about the issues and TALKING about the negative effects they have on the child is RAISING AWARENESS. One day, one woman might decide to remove her child and family from a violent household. Refer to Module Seven and review the concepts of working in partnership and brief intervention strategies.

The First Visit

The ‘First Visit’ refers to the first visit to the health centre in the remote community following discharge from the referral hospital in the regional centre. If the birth has occurred in the local health centre or at home both the mother and the newborn will need a full assessment by the midwife and/or doctor. However the HU5K Program assumes most infants will be born in the referral hospital. Therefore the infant will also have had a comprehensive newborn check by paediatric resident or registrar prior to discharge – evidence of this should be provided in the discharge summary. It is therefore not necessary for you to repeat a thorough newborn check.

In addition to the history taken based on the above information you are also required to undertake a physical examination of the infant and offer a few health promotion messages.

Physical Assessment

General head to toe examination: all babies should have a visual inspection from head to toe including the back and buttocks. Refer anything that appears out of the ordinary.
Fontanelles: newborns have two fontanelles. The anterior fontanelle is located on the top of the baby’s head and is known to mothers and lay people as the ‘soft spot’. This fontanelle should be assessed by softly feeling it with your fingers. It should be neither too depressed nor should it be bulging. Some clinicians will document the estimated size of the anterior fontanelle (such as two fingers wide or 2cms etc) – this is to indicate the normal size of an anterior fontanelle which is approximately 2.5 wide and 3cm long at birth and then slowly recedes.

Umbilicus: the umbilicus is clamped at birth and the clamp removed around day three. The cord will dry and fall off, usually between seven to ten days after birth. The umbilical stump should be checked for redness, moistness or swelling. Some babies have a very protruding umbilicus which is a small hernia. These are not a concern and usually self correct as the musculature closes. We used to clean the umbilicus stump with an alcohol preparation. However current recommended management is to keep the umbilicus clean and dry and needs no special solutions applied.

Weight: infant must be naked and placed on calibrated scales. Newborns normally lose up to 10% of their birth weight by three days of age but beyond day three the weight should then increase until the infant has regained his or her birth weight by day 10. Infants who WEIGH LESS than their birth weight by day 14 require immediate discussion with the doctor or midwife.

Signs of attachment: as outlined in Module Five, the relationship and interaction the infant has with his or her carer/s has profound consequences on later development. As outlined earlier, involving the mother or carer in the consultation is a good way of observing the parent-child interaction and signs that the carer is engaged with her infant.

SIDS prevention: Aboriginal infants are at greater risk of dying from SIDS (see Anticipatory Section later in this Module). You are encouraged to use the good Indigenous specific resources available but, as a minimum, follow the prompts provided in the HU5K assessment form.

There are a number of other assessments attended in the newborn check including the red reflex of the eyes (see Module Four); hip check for Developmental Dysplasia
of the Hips, and auscultation of the heart sounds. These should have been attended as part of the newborn check in hospital. It requires additional training that falls outside the knowledge and skill requirements of Remote Area Nurses and Aboriginal Health Workers and should not be attended unless you have received additional training in this area. If these assessments are required it is important they are referred to a doctor to have these issues excluded.

The Eight Week Check

The eight week check is designed to correspond with the two month immunizations. It is also a good time to check if the mother has had her six week postnatal check. In addition to the relevant questions around parental concerns, developmental pointers and anticipatory guidance prompts, the eight week check involves a formal physical assessment. This assessment requires particular skills including:

- Heart sounds
- Femoral pulses
- Hip check for Developmental Dislocation.

Therefore it is recommended this component of the check is completed by a medical officer. The first page of the eight week check can still be carried out by the nurse or health worker.

Increasingly remote area Health Centres are using electronic records such as PCIS in DHF health centres. The PCIS care plans have been divided into 2 parts - one for the RAN or AHW and 2\textsuperscript{nd} separate assessment for the medical officer. For assessments that require a medical assessment, the Doctor is encouraged to access the Medicare 708 rebate. These assessments are scheduled to occur at 8 weeks, 1 year, 2 years 3 years and 4 years (see schedule)

Developmental Pointers

The HU5K assessment forms include some key milestones in the ‘Developmental Pointers’ section. As mentioned previously, as a remote area health provider you are not expected to know all the expected milestones at all ages. The DHF have selected a number of key basic milestones across the domains that an average child of this
age should be achieving. This should give the remote area health provider some idea of the sorts of things that you can comment on in most children and point out to the parent or carer how clever their child is at achieving these milestones.

The assessment forms also list some key milestones that would indicate further investigation. If the child you are assessing has not achieved the milestones included in the Developmental Pointers or the parents are concerned in any way, please refer the child to a medical officer, a child and family health nurse or the visiting paediatrician via referral from the DMO/GP.

**Key Anticipatory Guidance Pointers**

One of the key aspects of promoting child development is assisting parents to understand normal development and participate in activities that we now know are so important to optimal health. There are many, many topics that health staff could raise with parents and carers. The purpose of anticipatory guidance is to choose relevant topics, given at the appropriate time, that will promote development or reduce poor outcomes. The HU5K program has selected key, relevant topics to introduce at various ages across the child’s first few years of life.

It is important to determine WHAT the parent or carer knows about a particular subject before we launch into our education spiel. We should not assume that parents and carers know nothing about a particular subject. It is easy to do this in a way that does not intimidate or embarrass families. For example, when wanting to approach feeding the baby solid foods, one way to ask would be ‘how does your baby let you know when s/he is hungry for food?’ OR ‘how do you and your family play with your baby?’

Most of the infant and small child’s developmental needs can be met through activities designed around play and communication. If parents and carers can undertake appropriate play activities, this will stimulate development. The HU5K assessment forms make suggestions around the type of play activities you can recommend to parents. Things like ‘clean safe household items’ for the infants or children to ‘handle, bang and drop’. This allows you, as the health provider, to suggest appropriate things you know the family will have access to. For some families
this maybe cups, plates and spoons. For others it may be pots, pans and Tupperware. Think laterally. Small stones in plastic drink bottles with screw top lids make a great noise. Sand castles and mud puddles are also fun games for young children. Remember, parents don’t need to buy expensive toys to be fun or aid development.

As discussed in Module Five, communication is another fundamental component of childhood development. In remote communities infants and children are exposed to a range of company and stimulation from extended family members. Reassure families how lucky their babies are to have all of these faces for their babies to enjoy. Talking and responding to children from birth is important so babies learn who they can trust and how they can communicate their needs.

Another component of anticipatory guidance is the health promotion and injury prevention aspect that you are expected to cover. Therefore the assessment forms have key messages around things like hygiene and injury prevention. Being aware of the living environment of remote families is important so you provide relevant appropriate information. There are many ways remote staff can begin to highlight key areas that can protect and promote their child’s health. Recognising that many families socialise around fires can lead to the sharing of information that fire smoke is irritating to baby’s small airways and parents can be alert to their babies being downwind of the smoke from the fire or asking another family member to hold the baby when the parent or carer chooses to have a cigarette. Fires also pose the threat of burns so asking parents how they keep their children safe around fire is also a way of promoting safety in a way that recognises parents and carers strengths.

Messages around injury prevention are an important component of remote area practice. Remote health providers often ignore many behaviours that would warrant attention in mainstream services. The use of car capsules and seat belts is one example. It is important that remote staff are realistic in the information they give to families and promoting the use of car capsules may seem ridiculous to many. However, it is against the law and Aboriginal babies are dying because they are not appropriately restrained in cars. Again it is about raising awareness but doing so in a way that does not appear punitive or judgmental to families.
**SIDS and Co-Sleeping**

It is important that remote health providers take the time to provide information to parents and carers in remote areas is around the area of Cot Death – or Sudden Infant Death Syndrome (SIDS). We know that across Australia Aboriginal and Torres Strait Islander babies are at higher risk of dying of SIDS. Research has shown that the health promotion campaigns that have been successful in changing the sleeping practices of non-Indigenous babies have not been as successful in Indigenous families and many Indigenous parents have not been informed of SIDS messages.

There should be many opportunities to discuss with parents the guidelines for the prevention of SIDS. Take time to refresh your knowledge about current best practice by accessing the website: [http://www.sidsandkids.org/safe_sleeping.html](http://www.sidsandkids.org/safe_sleeping.html)

The main SIDS messages are:

- Sleep baby on the back from birth and **not** on the tummy or the side;
- Sleep baby with face uncovered;
- Avoid exposing infants to cigarette smoke before birth and after; and
- Sleep baby in its own safe sleeping environment next to the parents’ bed for the first six to twelve months of life.

There is an Indigenous specific brochure and poster that you can order for free or download from:


Many families (and health providers) used to worry that putting babies on their back to sleep increases the risk of aspiration. However, SIDS research has shown that healthy babies put on their backs are less likely to choke on vomit than tummy sleeping infants.

The chances of babies dying from SIDS are greater if they sleep on their tummies or **sides**. The side position is not recommended for babies as they may roll onto their abdomen. If parents choose to sleep their baby on its side, encourage parents to make sure that his or her lower arm is well forward to stop rolling onto the abdomen.
This is not fail safe and the best option is for the infant to be placed on their back to sleep.

The other message of the SIDS campaign is the recommendation that babies do not co-sleep with their parents. This has significant consequences for cultural groups (including Aboriginal and Torres Strait Islander families) who have co-slept with their babies and children for generations and continue this practice today.

Some supporters of co-sleeping believe the practice actually protect infants from SIDS due to the reduced time babies spend in deep sleep due to the stimulation of other people nearby - see McKenna and McCade (2005).

However, we also have to be guided by the SIDS Australia guidelines and their position statement on sleeping with infants on the following link:


SIDS Australia states that babies who are most at risk of SIDS or sleeping accidents whilst co-sleeping, are babies who are less than four months of age, and infants who are born pre-term or small for gestational age (SIDS and Kids 2009).

They go on to state that the conditions where babies are at higher risk of SIDS or sleeping accidents when sharing a bed includes:

- Where the baby shares the sleep surface with a smoker;
- Where there is adult bedding, doonas or pillows that may cover the infant;
- Where the baby can be trapped between the wall and bed, can fall out of bed, or could be rolled on;
- Where the parent is under the influence of alcohol or drugs that cause sedation or is overly tired;
- Where babies are sharing beds with other children or pets; and
- Where the baby is placed to sleep on a sofa, beanbag, waterbed or sagging mattress.
Clearly some of the above behaviours are practiced in remote Aboriginal communities and there are others that do not apply to this population at all. It is hard to imagine recommending that remote Aboriginal parents put their infant in another bed. So rather than promoting the bed sharing message, another alternative would be to encourage behaviour change around some of the risks that we know are associated with bed sharing including smoking and substance misuse. Give people the information and help them to make safe choices for their family.

Hygiene

Anticipatory prompts around hygiene are also included in the HU5K assessment forms. Promoting good hygiene practices in remote communities is essential to reduce some of the high rates of infection in children under five. There are a number of ways we can work with families to improve hygiene practices.

What sort of hygiene stock is available at the local store and how expensive are items such as toilet paper, soap, shampoo, face washers, towels etc? How can we make opportunities to raise awareness around the community about the importance of washing children’s face, hands and bodies? Talk with the Aboriginal Health Workers about the best way to give messages about washing children and adults.

What is the health hardware like in the house of the child you give ANOTHER bicillin to for ANOTHER bout of infected sores? Can you work with local council and health boards to have these houses repaired as a matter of priority?

Many remote families have become used to getting infected sores dressed and we promote the behaviour. Pause the next time you put a dressing on infected sores when it is not a dressing that is required but rather daily baths using soap. Hand out soap instead.

Encourage parents and carers to bath their babies and children with soap and water. The health centre may have appropriate facilities if adequate supervision is available for the children. Use this opportunity to offer hygiene education with carers of children and school children. Highlight the need to use soap at home and not just water when they wash the children.
There are many ways to raise awareness. Sometimes we just have to remind ourselves.

**Nutrition**

Breastfeeding rates are generally high in remote areas. However recent trends are suggesting there is an increase in babies being given artificial baby milk. Therefore it is important for staff to congratulate ALL women who breastfeed and reinforce why it is so important. For women who are choosing to artificially feed, it is not helpful to make them feel chastised or negative – however where possible you should establish why they are choosing to bottle feed – if they are doing both (i.e. breast and bottle) you can encourage a move to exclusive breast feeding.

You will notice a number of questions regarding the type of oral intake babies have had in the last 24 hours. This is to determine the levels of breastfeeding in the community in line with national and international definitions. It also provides an opportunity to discuss and promote breastfeeding. By documenting what type of oral intake we can compare NT data with national and international standards. *We are also interested in WHEN children start eating foods other than fluids.* Many infants in remote Aboriginal communities delay introducing other foods, but not all. It also raises the opportunities to reinforce recommended guidelines on infant nutrition.

Key aspects of these guidelines include:

- Exclusive breast feeding until around six months of age (unless there is a clinical indication and this should be on the advice of a doctor or nutritionist).
- Complementary (solid) foods should be introduced gradually from around six months of age. Babies often will indicate when they are ready to eat when they show interest in the food that others are eating.
- Start with foods that are low-allergenic foods such as single-grain baby cereals – including rice and wheat cereals. Weet-bix is a commonly available and acceptable cereal in remote areas and should be encouraged from six months of age.
- Other early foods should include vegetables and fruits and then finally meats. Add only one food at a time and wait several (ideally five to ten) days before
introducing a new food. To prevent iron deficiency, iron-containing foods such as iron-fortified cereals are recommended as the first foods, followed later by foods containing meats and other protein-rich foods.

- To prevent botulism, unpasteurised honey should not be given to infants under twelve months of age.
- To prevent salmonella poisoning, cook all eggs well and do not use products containing raw eggs.
- Hard, small and round, smooth and sticky solid foods are not recommended because they can cause choking and aspiration.
- Avoid feeding an infant using a ‘propped’ bottle.

NHMRC (2002).

Some of this health advice may seem inappropriate for remote Aboriginal families. But are we to judge that some families should have access to mainstream information and others aren’t? We can still give high quality information in a way that does not alienate families so consider what information we choose to give, or not give to remote families.

Foods Not Suitable for Infants or that should be used with caution (based on NHMRC national guidelines) include:

HONEY: Honey can contain the spores of Clostridium botulinum and it is recommended that it not be given to children aged less than two years. Previously, honey was prohibited in foods for infants in Australia but it is now permitted providing it has been treated to inactivate C. botulinum. This is indicated on the label by the term sterilised honey. After the age of twelve months, children are less susceptible to this bacterium.

TEA: Tea contains tannins and other compounds that bind iron and other minerals, thereby reducing their bioavailability and increasing the risk of iron deficiency anaemia. Furthermore, sugar is often added to tea, increasing the risk of dental cavities. Tea is commonly given to children in remote areas so this is one area we should pay particular attention to. We recommend you encourage parents not to give
their children tea to drink and point out that warm milk or water could be a suitable alternative.

NUTS: Nuts are a problem with small children because of the risk of inhalation. For this reason, they should not be given to children aged less than five years. In addition, peanuts pose a risk of allergy.

FRUIT JUICES: Juices made from compressed fruit contain all the nutrients present in fruits but not the dietary fibre. They have historically been given to children to prevent vitamin C deficiency and scurvy. Juice is commonly given to infants by parents who often mistakenly believe that juice is good for their child. However, fruit juice contains high levels of sugar and offers no real nutritional benefits to infants. Under six months the infant should only have breast milk or artificial baby milk. Beyond six months, drinking water or breast or artificial baby milk and consuming whole fruit are preferable to fruit juice. Excess consumption of fruit juice by young children has been associated with gastrointestinal symptoms, failure to thrive, decreased appetite, loose stools and failure to gain weight.

Other drinks such as soft drinks (Coke Cola is very popular in remote areas) and cordial have no nutritional value. Flavoured milks have little nutritional value and due to the level of caffeine in Iced Coffee (another popular drink) this should be discouraged. These drinks are not appropriate for very young children and should be seen as an occasional treat (once a week or less) for older children.

COW’S MILK: It is recommended that children under the age of twelve months not be given cow’s milk. This is because of the immature gut of the infant cannot easily break down the constituents in cow’s milk until around one year of age. Early introduction of cow’s milk can also increase the chances of allergies developing.

REDUCED-FAT MILKS: In Australia reduced-fat milks are recommended for older children and for all adults as part of a healthy diet. They are not recommended for children aged less than two years.
Social Determinants

A number of questions on some key social determinants of health are provided in several of the assessment forms. This is to assist remote health providers to identify some of the contributing factors to poor health that health staff may be able to assist to remediate. For example if a house has lots of people living in it there is more chance that it will require maintenance. If you can identify issues that will influence the ability of the parents and family to provide the type of environment we know is required for children to receive optimal health, we have a responsibility to work with the various other agencies to try to address the problem.

Number of people living in the house: overcrowding can play a major role in the ability of a family to care for their infant. Many families in remote communities live in unacceptable housing conditions. It is important to check with the parents or carers how many people live in the house and if they have the essential hardware necessary to care for a young infant – this includes a working toilet and shower; running water, power etc. If there are problems with the housing hardware talk to the local council or health board. It is hoped that a family with a newborn would receive priority in any housing repairs.

Does anyone smoke in the house or car? Exposure to passive smoke is detrimental to all people but particularly babies and young children who have such small airways. Aboriginal babies and young children have rates of lung problems unseen in mainstream populations. Increased risk of respiratory infections which is one of the largest medical health problems found in Aboriginal Children. It is important to reduce the exposure they have to cigarette smoke and other lung irritants. The question ‘does anyone smoke in the house or car’ comes from national recommendations to raise awareness of the problems and encourage parents and carers to think before they smoke in front of children. Exposure to camp fire smoke is also important to discuss.

Domestic and Family Violence:

As discussed in Module Six, exposure to violence has serious negative consequence to the developing infant and child. The DHF have developed a policy and guidelines
around responding to domestic and family violence, screening and reporting of domestic and family violence (see Module Six).

**Asking about Family Violence**

To assist in the identification of children and families at risk of violence, the HU5K Schedule prompts the use of the Domestic and Family Violence Risk Assessment that should be done every six to twelve months. These questions are designed to both raise awareness of family violence and to offer additional resources for clients who disclose information about their safety. Clients need to be reassured that they don’t have to answer the questions if they do not want to. But don’t assume that they will not want to answer them. Many remote area health providers are uncomfortable raising these issues but surveys have found that women do not mind being asked the questions, and in fact, some women report that they feel relieved (Taft 2002).

You can minimize the discomfort for both you and the woman by informing them that these questions are asked of ALL women, as part of routine service provision. The reason we ASK these questions is that we know now that many people (women if you are talking with a woman) feel scared of their partners and there is support available. We can then offer additional information on the effects violence has on children and that we know most mothers (if the person is a mother) do not realize the negative implications violence have on children. Even this short conversation will raise awareness of Domestic and Family Violence and could lead to positive change for victims and their children.

When completing the **Domestic and Family Violence Risk Assessment** as part of the HU5K program, pay particular attention to the three main areas you need to be aware of when clients present for your assistance and you suspect they have been a victim domestic and family violence.

- Encourage all clients experiencing domestic and family violence to report this to police;
- Listen to and believe what is being told to you; check to see if children are involved; check safety;
- Document all assessment, injuries, information and referral.
We are also bound by the Domestic and Family Violence Amendment Act 2009 and are required by law to report any situation where there is an actual or likely event of serious physical harm or the life or safety of a person is under serious or imminent threat as domestic violence has happened, is happening or is about to happen (see Module Six).

The following flow chart outlines the appropriate decision making process around mandatory reporting.
There is no mandatory reporting obligation for domestic and family violence that falls outside ‘serious physical harm’.

This does not change your professional obligations to provide support, safety planning and referral to patients/clients affected by domestic and family violence. If sexual assault is involved, refer to the Sexual Assault Referral Centre (SARC) in your area.

Mandatory reporting of serious physical harm does not change child protection reporting requirements. If children are present and they have suffered or likely to suffer harm, you will need to report to NTFC Centralised Intake Team 1800 700 250 or Police 000 (emergency), 131 444 (non emergency).
Assessing Safety

The key factor to establish when a client has disclosed family violence is if she and her children are safe to go home. If not, does she have a safe place to go to or can you assist in finding somewhere for her. If she does feel she is able to go home, does she have a ‘safety plan’ if she requires one in the future.

All of these questions and enquiries must be offered slowly and quietly, regardless of how busy you may be. If the woman feels rushed or that you have other commitments, she is hardly going to feel safe in discussing these issues with you.

Safe houses or women’s shelters are not available in the majority of remote communities. But you can still discuss with women where they do feel safe and what member of their family they can go home with. At times, the safest option may be removing the woman from the community (where possible). Always go to the police in these situations.

D&FV Resources

The NT DHF have produced a tool kit for services and agencies on Domestic and Family Violence. The tool kit is a resource for services to not only consider how you might implement mandatory reporting but also how they respond to domestic and family violence. It covers areas such as staff safety, risk assessment and safety planning.

All NT remote health services should have a D&FV Toolkit in their Health Centres. Additional tool kits can be obtained through the Domestic and Family Violence Policy Unit, Department of Health and Families.

There is also a webpage on the DHF intranet with valuable information.

Further information about mandatory reporting of domestic and family violence can be obtained from the Domestic and Family Violence Team, Department of Health and Families Ph: 8924 4162; 8924 4161.

However it is most likely staff will need to discuss a particular case which is best done at a local level/regional level. Make sure processes are developed within your
workplace that enables and supports staff to discuss their concerns or decision-making process for reporting domestic and family violence.

Oral Health

The HU5K assessment forms introduce prompts around oral health from the first visit. Many carers (and health staff) would think it odd to start to talk to families about oral health in very young babies who don’t have teeth yet! However, we are only just realizing how important oral health is to childhood development (see Module Four). You are not asked to ‘Lift the Lip’ until the nine month check whereas anticipatory guidance prompts begin from the first visit. We ask you to follow the prompts on the forms and share the information with the parents or carers. See Module Four on instructions on how to ‘Lift the Lip’ and what to check for.

Otoscopy and Otitis Media

As outlined in Module Four, ear disease and hearing loss is a significant problem in remote communities. The HU5K assessment forms frequently prompt you to look in the child’s ears and document the condition of the tympanic membrane and other signs of ear pathology. Recurrent and persistent Otitis Media (with perforation) requires a response. Please identify and refer these problems as per the CARPA Standard Treatment Manual. Utilising visiting specialists will assist you in your learning and improve your technique.

Chronic Cough

Chronic Suppurative Lung Disease and Bronchiectasis are respiratory diseases characterised by frequent infection and chronic moist or productive cough. It is becoming increasingly recognised in Aboriginal children living in remote areas.

For this reason assessment of chronic cough has been included in the HU5K program from six months onwards. You are prompted to ask the questions ‘does the baby/child have a chronic (on most days) moist or productive cough?’ This gives the opportunity for the family to think about the frequency of any cough and to express any concerns. It also provides an opportunity to discuss the child’s exposure to harmful cigarettes and other smoke. In addition to asking the parent or carer it is
important to check the child’s health record for any information that could indicate CSLD. Signs or symptoms that could increase the development of CSLD include:

- Two or more chest infections in last year
- Moist or productive cough on most days
- Episode of severe pneumonia (admission to ICU)
- Chest deformity (‘puffed up’)
- Unusual features of asthma
- Recurrent crackles, unilateral wheeze OR unequal air entry.

These children need a medical review - see CARPA Standard Treatment Manual for more information.

**Support, Referral and Follow up**

Health providers working in remote areas commonly feel very isolated and complain that there are just not the resources to help families in some of the social and environmental problems that have been raised throughout this package. Visiting health staff coming from the regional centres are often considered more of a burden than an asset with communities having a never ending stream of visitors who all want your attention. It is up to the remote health staff to work with these visiting teams in a way that assists you, not causes you more work. Remember the HU5K program is about working differently. Think about how you can work together with visiting support services to make a difference to kids and families in remote areas. There are increasing support services and agencies to help you do this.

The following positions/teams are available to assist you:

**Regionally-based outreach teams include:**

- Remote Outreach Child Health Nurses (Maternal Child Youth Health Team):
- Remote Outreach Midwives (Maternal Child Youth Health Team)
- Public Health Nutritionist (Nutrition and Physical Activity)
- Child Health Nutritionist (Maternal Child and Youth Health)
- Visiting Community Paediatrician
- Local Medical Officer or visiting DMO
- Remote Allied Health Team (including Physiotherapist, Occupational Therapist, Speech Pathologist)
- Northern Territory Families and Children (formally Family and Community Services (FACS) outreach)
- Oral health promotion team:
  - Ear health including the Ear Health staff within MYCH, Menzies Ear Health Team, NT Hearing and the ‘EarInfonet’ [www.healthinfonet.ecu.edu.au](http://www.healthinfonet.ecu.edu.au)
- Health Promotion Workers – found across a number of teams including MYCH and Preventable Chronic Disease Teams
- Domestic and Family Violence Team
- Alcohol and Other Drugs Team
- Mental Health Remote Outreach
- Environmental Health Team
- Student Services through the Department of Education and Training provide early intervention services to children with identified disabilities before school.

Locally available support could include:

- Aboriginal Health Workers
- Community-based workers (including Strong Women Workers and Community Nutrition workers)
- Violence Workers support team
- Community based child care centre
- Women’s centre
- Local staff working for a number of Non Government Agencies including Australian Red Cross, Mission Australia, the Smith Family, World Vision, Fred Hollows Foundation. These agencies run a number of high quality programs across remote areas and it is important that remote health staff are aware of
what services and agencies operate in their community. Find out who is in yours and go and introduce yourself and find out what they offer so you in turn can promote the service with the families you see in the health centre.

The best source of information is the community people, and the best of them are the Aboriginal Health Workers. So talk to them and watch and listen. The very best teachers of Aboriginal child health are Aboriginal people themselves. But remember, before you barrage them with a thousand questions, some questions are hard to answer. Not because they are complex (though some aspects of Aboriginal culture is extremely complex, such as the kinship system). But it is often hard to describe parts of your parenting and family behaviour that is second nature. Consider someone asking you about what informs your parenting practice? Why do you put your baby to sleep in the room next door? Why you believe they should eat certain foods, or need to sleep at certain times. Many of these behaviours are just because. We do things because they make sense to us, because it seems right and normal. If we come to believe it is not right or not for the best, we will change the practice – putting babies in capsules in the car is now second nature to mainstream families but it was not in our parents’ time. Think carefully when we judge people who behave differently than we do. It is usually because they are doing what they think is the best and most correct thing to do. Other times it is because they are coping as best they can and perhaps may be influenced by social circumstances that may contribute to unhealthy behaviours. But when it is not unhealthy, but it is just different, who is right? Maybe we both are.

Summary

This package is designed to support remote health providers to implement the HU5K program. By incorporating the components of the HU5K program into their practice, remote staff should be able to increase their engagement and support of parents, carers and families so that they can maximise their capacity to provide the environment for their children to develop and prosper. To be effective, remote staff are encouraged to access other members of the team including the parent or carer and wider family, other Indigenous workers, non-government agencies and the wider health team.
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Reading One: AMA Report Card

“Ampe Akelyerneman Meke Mekarle – Little Children are Sacred” – In our Law children are very sacred because they carry the two spring wells of water from our country within them. (Wild & Anderson 2007)

“The true measure of a nation’s standing is how well it attends to its children – their health and safety, their material security, their education and socialization, and their sense of being loved, valued, and included in the families and societies into which they are born” (UNICEF 2007)

Aboriginal and Torres Strait Islander children throughout Australia are in urgent need.

The Australian Medical Association’s 2008 Aboriginal and Torres Strait Islander Health Report Card – the AMA’s seventh annual Report Card – reveals the plight confronting these most vulnerable of citizens. This Report Card presents a snapshot of the health of Indigenous children, using the most recent and relevant data. It also maps out a range of solutions and measures to assist in the public effort to improve the health of Indigenous people and, in turn, their life prospects and opportunities.

Poor access to the basic socio-economic and environmental conditions for good health, inadequate health services and infrastructure, a history of under-resourcing in Indigenous health and, until recently, a lack of strong political commitment at a national level, have all contributed to a disturbing picture of health conditions and outcomes more commonly associated with the Third World than with a wealthy nation such as ours.

Tackling the poor health outcomes experienced by Indigenous children is essential if Australia is to significantly reduce the health gap between Indigenous and non-Indigenous Australians. This is a matter of human rights.

2008 began with a renewed commitment in Australia to ‘close the gap’ in Indigenous health. The Council of Australian Governments (COAG) has agreed to work with Indigenous communities to close the 17-year life expectancy gap within a generation and halve the mortality gap for children under five within a decade. The Prime Minister has committed to work to achieve Indigenous health equality by 2030. A coalition of Indigenous and mainstream organizations agreed at the 2008 HREOC National Indigenous Health Equality Summit to a comprehensive set of policy and program targets to achieve COAG’s goals for Indigenous health.

The policies and programs recommended in this Report Card constitute significant steps that the Government and its partners can take to eliminate the health gaps experienced by Indigenous children. The benchmarks and health dimensions this Report Card focuses on also provide a framework for tracking national progress in addressing Indigenous child health. The AMA believes these benchmarks and health dimensions should also be central in the Federal Government’s evaluation of the Northern Territory Emergency Response. This intervention is now in its second year, and we will watch closely at how its outcomes measure against the issues, benchmarks and recommendations the AMA highlights in the following pages.

The solutions proposed in this Report Card are not cheap; nor are they easy. Australia needs to develop a substantial national investment strategy in Indigenous health, involving proper resourcing, community support and social capital building. Ending the cycle of vulnerability among Australia’s Indigenous children is necessary. It is also achievable.

Dr Rosanna Capolingua
President, Australian Medical Association

Compared with their non-Indigenous Australian counterparts, Indigenous children are:

- 2 to 3 times more likely to die in the first 12 months of life, and 11 times more likely to die from respiratory causes;
- more likely to be still-born, to be born pre-term, to have low birth weight, or to die in the first month of life;
- nearly 30 times more likely to suffer from nutritional anaemia and malnutrition up to four years of age;
- at a much higher risk of suffering from infectious and parasitic diseases, diseases of the respiratory and circulatory system, hearing loss, rheumatic fever, dental caries, injuries, and clinically significant emotional and behavioural difficulties; and
- cared for by significantly fewer adults, who are also at higher risk of premature death, serious illness, substance abuse, imprisonment, major social and emotional stress, lower household income, lower educational attainment, lower employment, and lower access to appropriate sanitary and household conditions, than other Australian adults.
An Indigenous child born between 1996 and 2001 can, on average, expect to live approximately 17 years less than a non-Indigenous child born in this period (AIHW & ABS 2008). Indigenous child mortality and disease contribute to this gap. Part 1 of this Report Card draws together the most recent available data relating to the health and well-being of Indigenous children compared to non-Indigenous children.

**BIRTH, INFANCY AND CHILDHOOD**

**Birth**

Between 2001 and 2004, Indigenous women gave birth to pre-term babies at nearly twice the rate of non-Indigenous women (14% of births compared to 8% respectively) (Laws et al. 2007). Pre-term babies are significantly more likely to experience considerable illness and a higher risk of death in the neonatal period.

Between 2001 and 2004, 13% of all Indigenous births involved babies with low birth weight. This was more than double the proportion born to non-Indigenous mothers (6.1%) (Pink & Albion 2008), and mirrors the rate of low birth weight babies in developing countries such as Angola, Cambodia, Cameroon, Congo, Guatemala, Jamaica, Malawi, Nicaragua, Niger, Solomon Islands, Timor-Leste, and Uganda (UNICEF 2007).

In the period 2001-2004, approximately 23% of Indigenous females who gave birth were less than 20 years old compared with around 4% of non-Indigenous females (AIHW & ABS 2008).

**Infancy**

Indigenous infants and children are 2-3 times more likely to die compared with non-Indigenous infants and children. The main causes of infant and childhood death are low birth weight and pre-term birth, infections (predominantly respiratory), accident and injury (Freemantle, C. J., et al. 2006a).

Over the period 2003-2005, the rate of stillbirths and deaths of newborns in the first 28 days of life was 15.7 per 1000 births for Indigenous babies, compared with 10.3 per 1000 births for non-Indigenous babies (AIHW & ABS 2008). Between 2001 and 2005, Indigenous infants in Queensland, Western Australia and South Australia were 2-3 times more likely to die in the first year of life than non-Indigenous infants. An Indigenous boy was also 2.5 times more likely to die in the first year of his life than a non-Indigenous boy, and an Indigenous girl 3.5 times more likely to die than a non-Indigenous girl (AIHW & ABS 2008).

Data from Western Australia indicates that the post-neonatal death rate is higher than the neonatal death rate for Indigenous infants, and the disparity between Indigenous and non-Indigenous post-neonatal mortality rates is increasing. This is a pattern found in less developed countries (Freemantle, et al. 2006a).

**Childhood**

Between 2001 and 2005, Indigenous boys aged 1-4 years were 2.5 times more likely to die than non-Indigenous boys. Indigenous girls of this age were 3.5 times more likely to die than non-Indigenous girls. In the 5-14 year age range, Indigenous boys were 2.2 times more likely to die than non-Indigenous boys, and Indigenous girls 2.4 times more likely to die than non-Indigenous girls (AIHW & ABS 2008).

The Major Causes Of Death Compared

Between 2001 and 2005, Indigenous children died predominantly from infectious and parasitic diseases (such as septicaemia, meningococcal infection and congenital syphilis), and diseases of the respiratory and circulatory system at 4-5 times the rate of non-Indigenous children. Indigenous children were also 5 times more likely than non-Indigenous children to die from causes such as transport accidents, accidental drowning, assault, intentional self-harm and preventable diseases (AIHW 2005). Although the risk of Sudden Infant Death Syndrome (SIDS) among Indigenous infants has declined significantly since 1991, the rate of deaths from SIDS among Indigenous infants between 2004 and 2006 remains 5 times higher than for other Australian infants (AIHW 2008b). 71% of children under one year of age who were provided with child health checks in the Northern Territory in 2007-2008 were at risk of SIDS (AIHW & Dept. of Health and Ageing 2008).
CHRONIC HEALTH CONDITIONS IN CHILDHOOD

There is a continuing presence of Third World diseases among Indigenous children, including rheumatic fever, trachoma and otitis media. These conditions can, and do, impact on educational attainment and employment.

Ear Health

Indigenous children are twice as likely to experience ear and hearing problems compared with non-Indigenous children. This is due, in part, to the high rates of otitis media (middle ear infection) among children in many Indigenous communities (Couzos et al. 2001). The prevalence of hearing loss/diseases of the ear was 10% for Indigenous children aged 0-14, compared with only 3% of non-Indigenous children (ABS 2006).

Eye Health

Australia is the only developed country in the world to still have blinding endemic trachoma. Trachoma is a disease of early childhood and, if untreated, leads to significant vision impairment and blindness. One study indicates that rates of active trachoma in Indigenous communities in northern and western Australia in 2003 were similar to those of 30 years ago (Taylor, V et al. 2003). Studies have also identified that 20% to 30% of Indigenous children in rural and remote areas have active trachoma, despite the fact that trachoma is treatable with antibiotics and is preventable through health education and promotion regarding facial cleanliness, and through improved environmental health conditions and health hardware (Taylor, H.R. 2008).

Oral Health

A higher percentage of Indigenous children between 4 and 14 years experience dental caries than other Australian children. Most affected are those living in rural/remote areas. Indigenous children also had consistently higher levels than their non-Indigenous Australian counterparts of dental caries in the deciduous (extensive in many remote communities) and permanent dentition. The prevalence of caries is rising, particularly in the deciduous dentition (AIHW 2007). On average, 6 year old Indigenous children had 2.5 times as many decayed, missing or filled teeth than non-Indigenous children, and 12 year old Indigenous children had 1.8 times as many decayed, missing or filled teeth (AIHW 2008c).

Mental Health

The Western Australian Aboriginal Child Health Survey, conducted in 2001 and 2002, found that 24% of Aboriginal children were at high risk of clinically significant emotional or behavioural difficulties compared with 15% of non-Indigenous children (Zubrick et al. 2005). This survey also identified that 9% of females and 4.1% of males between 12-17 years who were surveyed had attempted suicide in the previous 12 months (Zubrick et al. 2005).

Injuries

Indigenous children aged 0-14 years had a 2.5 times higher average injury mortality rate than other children between 2001 and 2003 (AIHW 2005). In 2004-05, Indigenous children under 4 years were nearly 1.5 times more likely to be hospitalised as a result of injuries, poisoning and other external causes than non-Indigenous children (SCRGSP 2007). Indigenous children had a higher hospitalisation rate for injuries from burns and scalds (approximately 2.3 times higher), for assault, and traffic-related pedestrian injury (2 times higher) compared with other Australian children (AIHW 2005).

Other Health Conditions

Indigenous children are more likely to suffer from asthma (14% compared to 11% in 2004-05) and/or bronchitis (2% compared to 1%). Diseases of the respiratory system were the major cause of admission to hospital in 2005-06 for Indigenous children aged 1-14 years. In the same years, there were 3-4 times more admissions of Indigenous infants to hospital for skin diseases, respiratory conditions, and infectious and parasitic diseases, than for non-Indigenous infants (SCRGSP 2007). There also continues to be a high rate of acute rheumatic fever among Indigenous children (Currie & Brewster 2002).

Nutritional anaemia and malnutrition were also prominent in Indigenous children under 4 years admitted to hospital. They suffered from these conditions at 29.6 times the rate for non-Indigenous children (3.6/1,000 compared with 0.1/1,000) (Laws, et al. 2007). Indigenous children are also more than twice as likely as other children to be hospitalised for diabetes (AIHW 2008c).
These disturbing facts about Indigenous child deaths and illness occur in the context of an array of environmental, social, economic and family factors that associate with poor health outcomes. Many Indigenous children experience multiple risk factors, and their effect compounds with each additional risk (Daly & Smith 2005). The following describes the particular factors that are very likely to sustain the Indigenous child health gaps detailed in the first part of this report.

**Smoking and Alcohol Use**

Smoking during pregnancy is associated with poor perinatal outcomes such as low birth weight, pre-term birth and perinatal death. For the period 2001-2004, 51% of all Indigenous women reported smoking during pregnancy. Indigenous mothers were about three times more likely to smoke in pregnancy compared with non-Indigenous mothers (AIHW 2005). The recent 2008 progress report on the Northern Territory Emergency Response indicated that 77% of the 7,733 children provided with child health checks lived in a household with a smoker (AIHW & Dept of Health and Ageing 2008). Exposure to environmental tobacco smoke, commonly referred to as passive smoking, increases children’s risk of ear infections and respiratory illnesses such as asthma. In 2004-05, 66% of Indigenous children aged 0-14 years lived with a regular smoker.

Alcohol use in pregnancy is associated with an increased risk of foetal alcohol syndrome and perinatal death. The Western Australian Aboriginal Child Health Survey reported that the mothers of an estimated 23% of Indigenous children reported they drank alcohol during their pregnancy (Zubrick, et al. 2004). Risky alcohol consumption has not abated for men and has increased for women.

**Nutrition**

A good diet and nutrition in the early years can have a significant effect on childhood development, growth, functioning and health (Tomkins 2001). In 2004-05, among Indigenous children aged 12-14 years in non-remote areas, only 24% met the recommended daily fruit intake of three or more serves and 59% met the recommended daily vegetable intake of three or more serves.

**Poor Environmental Conditions**

A poor living environment with low or no access to clean water, functional sewerage systems or appropriate housing conditions, has been reported to be associated with tuberculosis, rheumatic heart disease, respiratory diseases, urinary tract diseases, intestinal worms, trachoma and intestinal infections (Pholeros et al. 1993). Many rural and remote Indigenous communities still do not have access to the basic level of environmental health experienced by the rest of the population. Overcrowded housing, in particular, remains a significant problem. In 2006, an estimated 25% of Indigenous people lived in overcrowded accommodation (AIHW 2008).

**Poor Social and Emotional Well-being**

The mental well-being of children is closely associated with the emotional and physical well-being of their parents (British Medical Association 2006). The Western Australian Aboriginal Child Health Survey found that more than one in five Indigenous children aged 0–17 years lived in families in which a number of major life stress events (such as family break-up, arrests, death of a family member, job loss, financial difficulty) had occurred in the 12 months prior (Silburn et al. 2006). The Western Australian survey has also identified certain intergenerational health effects of forced removal. Indigenous children whose carers had themselves been forcibly separated from their family were more likely to be at high risk of clinically significant emotional and behavioural problems, and had twice the rate of alcohol and other drug use than those who had not been forcibly separated. Indigenous Australians were twice as likely as non-Indigenous Australians to report high or very high levels of psychological distress (AIHW 2008).

**Early Loss of Adult Carers**

The premature death, higher morbidity and higher imprisonment rates of Indigenous adults impact on the health and well-being of Indigenous children. For every Indigenous child in 2001, there were 1.19 Indigenous adults. For every non-Indigenous child, there were nearly three times as many non-Indigenous adults (2.95). Compared with other Australian children, Indigenous children were less likely to be living with a parent. Incarceration rates for adults have increased, and the gap between Indigenous and non-Indigenous juvenile detention rates is substantial. In 2006, Indigenous youths between 10 and 17 years were nearly 21 times more likely to be in juvenile detention than non-Indigenous youths of the same age (Taylor, N 2007). The difference between Indigenous and non-Indigenous juvenile detention rates has also increased since 2001 (SCRGSP 2007).

**Abuse and Neglect**

Indigenous children are significantly over-represented in most statutory child protection systems. From 1999-2000 to 2005-06, the rate of substantiated notifications of child abuse or neglect increased for both Indigenous and non-Indigenous children. In 2005-06, Indigenous children were nearly four times as likely as other children to be the subject of substantiation of abuse or neglect (SCRGSP 2007). Indigenous children are also six times more likely to be removed from their families than other Australian children (Edwards & Madden 2001).
Family Poverty, Economic Dependence, and Low Educational Attainment and Employment

Compared with other Australian families, the families of Indigenous children had significantly lower weekly household incomes, and were more than twice as likely to rely on income support. Indigenous children were also more than twice as likely to have parents who left school early, and significantly less likely to have a parent in paid employment (In 2006, 42% of Indigenous children lived in jobless families, which was 3 times higher than non-Indigenous children) (AIHW 2008c). Children of educated mothers appear to experience lower mortality than do children of uneducated mothers (Caldwell 1979). Investments in women’s education may be important for improving the health of children and for preventing childhood and infant deaths (The World Bank 1993).

Childhood Literacy, Numeracy and School Retention

Positive relationships have been observed between level of educational attainment and positive health outcomes (Bauert, P et al. 2001). Between 2001 and 2007, on average, 78% of Year 3 Indigenous students met the reading benchmark and 79% on average met the numeracy benchmark. However, at Year 7 level in the same period, an average of 65% of Indigenous students met the reading benchmark, and 49% met the numeracy benchmark. Between Year 3 in 2003 and Year 7 in 2007, the rate of attainment of the numeracy benchmark had almost halved among Indigenous students, from 80.5% to 46%. Rates of attainment of the reading benchmark dropped from 79% to 65% among these students (MCEETYA 2008).

Incomplete Data and Information on Indigenous Health

Substantial gaps in the data describing Indigenous health, particularly child health, is a critical issue when it comes to appropriately funding, developing and targeting policies and programs. Currently, Indigenous mortality data from only Western Australia, South Australia, the Northern Territory and (for a limited period) Queensland, are available to inform policy Australia-wide. This constitutes only 59% of Australia’s Indigenous population. Given the acknowledged heterogeneity of that population, individual state data cannot be taken as representative of the total Australian Indigenous population. As Indigenous health policy is increasingly formulated and funded federally, complete data becomes even more important (Freemantle et al. 2007).

The expertise and assistance of Associate Professor Jane Freemantle and Professor Sandra Eades have been greatly appreciated.
END THE CYCLE OF VULNERABILITY

RECOMMENDATIONS

Addressing the Indigenous child health gap is not just a matter of child-specific health checks and follow-up interventions. It is a long-term matter of comprehensively addressing the broader contextual factors and intergenerational health influences in Indigenous children’s lives. This cannot be achieved without the engagement and participation of Indigenous communities and Indigenous health organisations in the development of health policy and programs.

1. The AMA believes that the health of Australia’s Indigenous children will be improved through the establishment of a national network of Aboriginal community controlled primary health care services specifically for Indigenous mothers and children. Through this, universal access to a comprehensive range of services can be provided, including:
   - antenatal services;
   - childhood health monitoring, screening and access to specialists;
   - early childhood outreach and family support interventions, including home visiting, and nutritional risk identification;
   - health promotion and interventions targeting smoking and substance abuse in mothers and pregnant women;
   - dental and oral health services;
   - immunisation and affordable medicines; and
   - parenting education and life skills, including for teenage parents.

The AMA acknowledges and strongly supports the first steps being taken by the Federal and State Governments to establish Indigenous child and maternal health services. The AMA would also encourage State, Territory and Federal Governments to partner with Indigenous health organisations and representative bodies in the design and implementation of these services, and to maximise the use of knowledge and capacities already available within Indigenous communities. The influence of women elders, for example, can be used effectively with younger women around early teenage pregnancy prevention, antenatal care, and ensuring that younger women have access to health care services.

The AMA believes that appropriate Indigenous mother and child-specific services should be made available in all areas of need throughout Australia as soon as possible.

There are other measures that the AMA believes COAG needs to adopt in consultation with the Indigenous and mainstream health sectors, to end the cycle of vulnerability.

2. Culturally appropriate services addressing mental health and social and emotional well-being should be established within 2 to 5 years in urban, regional and remote locations, to identify and respond to the mental health needs of Indigenous children and adult carers. These services should be tied to referral pathways to specialised services such as drug and alcohol, family violence, trauma and grief counselling, psychiatric services and suicide prevention programs. Funding should also be targeted to initiatives which build capacity within Indigenous communities to understand and respond to mental health issues and to promote well-being.

3. The AMA recognises that health and medical care is often best delivered to Indigenous people through an Indigenous medical and health workforce. Developing this workforce will inevitably be a long-term process. A strategy needs to be developed to maximise the engagement of the mainstream medical and health workforce. This strategy should include a focus on closing the salary gap between doctors working in Aboriginal Medical Services and doctors employed in state systems.

4. A national audit of the living environment conditions in Indigenous communities should be conducted by the Federal Government, to measure housing conditions, access to clean water, sanitation facilities and the conditions for safe and healthy living. Based on the audit, programs of housing and community maintenance should be implemented to ensure that within five years critical health living conditions exist in 75% of all housing, and that appropriately-sized housing is available where needed. These programs should be coupled with sanitary and environmental health education and promotion in Indigenous communities.
5. The Federal Government should coordinate national improvements in data management to ensure that comprehensive information is recorded and made available regarding Indigenous identification and health within the Indigenous populations of all Australian jurisdictions.

6. The AMA believes that a major focus in closing the Indigenous child health gap should be capacity building within Indigenous communities to promote good health, to identify and monitor emerging health issues and to develop local responses. Many of the success stories about improvements in Indigenous people’s health are stories about local initiatives that have been developed and sustained by Indigenous people in their local communities. Some of these successes are reflected in the Good News and Best Practice 2008 insert with this Report Card.

The AMA believes that, in pursuing these recommendations and other reforms, Australian Governments should set and achieve the following targets for improved Indigenous child health (Close the Gap Campaign Steering Committee 2008):

- a 50% reduction in the difference between Indigenous and non-Indigenous Australians’ rates of premature birth and low-birth weight within 10 years;
- a 50% reduction in the difference in hospital rates for acute respiratory infections, and more than 90% of Indigenous children diagnosed with those infections receiving full treatment and follow-up within 10 years;
- 70% of Indigenous children by aged 2 years have a child health assessment within 10 years;
- 90% of Indigenous children have a hearing assessment prior to entering school within 10 years;
- Immunisation rates sufficient to achieve herd immunity and national targets within 10 years;
- a 20% reduction in child hospitalisation rates for gastroenteritis within 5 years;
- more than 90% of Indigenous families to access a standard healthy food basket at a cost of less than 25% of their available income within 5 years;
- a reduction in smoking rates to parity with non-Indigenous Australians within 10 years, with a 4% annual reduction among pregnant women;
- Indigenous communities with a population of more than 1,000 to have a fluoridated water supply within 7 years, and communities with a population of between 500 and 1,000 to have fluoridation within 12 years; and
- specified levels of completeness of identification in health records, and recording of Indigenous status in every jurisdiction to achieve 80% accuracy within 5 years.
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Remote Indigenous health

Janie Dade Smith and Jacinta Elston

Remote Australia makes up over three-quarters of the landmass of this great nation. It is a place of enormous diversity, and just like the temperature everything is magnified in the remote context. Remote communities are characterised by geographic isolation, cultural diversity, socioeconomic inequality, health inequality, resource inequity and a full range of climatic conditions. Floods, cyclones and a lack of transport, resources and the political will to change, further heighten the isolation experienced by these communities.

Those four per cent of the population who live in these small, mobile and highly dispersed remote areas of Australia include: generational station families, transient mine workers, short- and long-term professional people, industry-employed people and seasonal tourism workers. The largest population, some 39 per cent, is Aboriginal and Torres Strait Islander. Of this population 81 per cent live in discrete Indigenous communities; that is, 108,085 people, over half of whom live in the Northern Territory (ABS 2002d; 2003c; Strong et al. 1998).

There are 1216 discrete Indigenous communities in Australia. These communities are defined by their ‘geographic location, bounded by physical boundaries and made up of predominantly Indigenous people’ (ABS 2002d; 2003c). The locations are either part of these people’s original homelands, or they are the places where the policies of the day forcibly removed them to missions and reserves. This differs greatly between the states. One thing that does not differ greatly is the much poorer health status of the people, which worsens with remoteness.
INDIGENOUS HEALTH

The health of Indigenous Australians, no matter how one tries to view the statistics, is a national and international embarrassment. When compared with that of other international indigenes like Canada’s First Nations people and New Zealand’s Maoris, who were colonised under the same ethnocentric principles, the health status of Australian Indigenous peoples remains the worst in the world (Kunitz 2000). It is almost as if Australia has two nations: the haves and the have-nots (O’Donoghue 1999, p 64).

Why today, in a First World country, are Indigenous Australians so impoverished, especially those living in remote areas? How has this situation been allowed to become so serious? Why do Indigenous Australians have the worst health in the world on some indicators?

In chapter 2, I delved into some of Australia’s Indigenous history. The legacy of this history lives on today in the health of many remotely located Indigenous Australians. Rather than reciting a continual mantra of statistics to try to explain the health of Indigenous Australians, in this chapter I will use a story to demonstrate how these statistics impact upon the daily lives of remote people, to illustrate the burden of disease they carry. I will then examine why these health inequities exist by comparing Australian Indigenous conditions with those affecting indigenous peoples in other First World countries. Finally, I will explore the reasons why investigations into the issues have been ineffective in changing the health status of remote Indigenous Australians.

The story ‘Stella and Rob live in Nabvana’ is based on the latest statistics available, largely from the Australian Institute of Health and Welfare and the Australian Bureau of Statistics, as well as on scenarios that are common in many discrete remote Indigenous communities in northern Australia today. The characters and the community, however, are fictitious. The story is based on a primary health care approach to health, which emphasises equity, equality, affordability, appropriateness, accessibility and social and economic justice, as discussed in the previous chapter.

Note: This story could be used as a teaching tool, for example by reading it out in a lecture theatre and displaying the FACTS in a PowerPoint presentation, discussing it further in a tutorial, or reading the story out independently.
Story 3: The remote scenario – Stella and Rob live in Nabvana

Part 1: Welcome to Nabvana

Nabvana is a small community in the tropical coastal country of Northern Australia. The community was established as an Aboriginal reserve in 1949 under state government rule. It was reclassified in 1985 as a Deed of Grant in Trust (DOGIT*) community. Nabvana has a population of about 1200 people. Ninety-five per cent are Indigenous and come from five different clan groups who were historically grouped together ‘under the Act’, when the government formed the reserve. The remaining 5 per cent of the population are non-indigenous; they provide some of the educational, health and other services in the town. Nabvana looks picturesque on the ocean with lots of palm trees blowing in the breeze. The community has a local council building, a community store that sells food and a few kids’ clothes, a takeaway shop, a flash new hospital building surrounded by a big fence, and a police station. Opposite is a school that takes students up to year 10, a big football field, a post office that also provides banking services between 10 am and 3 pm Monday to Friday (there are no EFTPOS facilities), a club that is open from 6 pm to 8 pm, a wharf for fishing, and about 150 houses and around 30 other dwellings. Electricity and water are available in most of the houses, but they are constantly unreliable, and Nabvana did not pass the water safety testing in 2001. There are four new big houses in town: one for the chairperson of the community council, one for the visiting doctor who works there three days a week, one for the nurse who works at the hospital, and one for transient church people, teachers, linguists and other visitors who come in and out of the community. There is an airstrip, which was sealed in 2003 and will have lights for night-time landings and medical evacuations very soon. There is a big building out near the airport for the new electricity supply, though as it keeps breaking down, most people haven’t changed over and still rely on the community generator, or their own diesel generators, for electricity.

* DOGIT communities: In 1984 the running of the Aboriginal reserves was handed back to local Indigenous people instead of being administered by state governments. That year, Queensland established a system of community-level land trusts to own and administer former reserves under a special title called Deed of Grant in Trust (DOGIT). Each trust area became a local government area with incorporated Aboriginal councils, with representatives who were elected every three years to manage the community’s affairs (ACC 2002).
Remote infrastructure: the facts

**FACT: Housing** In 2001, 16,960 permanent dwellings existed in discrete remote Indigenous communities to house 108,085 people (ABS 2002b). The remaining 13 per cent were temporary – mostly caravans, tin sheds and humpies* – and housed over 7000 people (ABS 2001b). Sixty-seven per cent of remote Indigenous households are renters of community or state/territory housing; only 14 per cent of remote Indigenous households are occupied by homeowners compared to 34 per cent in non-remote areas (ABS & AIHW 2005). Rents increased by 15 per cent between 1999 and 2001 (ABS 2002a). Only 1 per cent of houses are privately owned (ABS 2001b).

**FACT: Water** In 62 per cent of remote communities, bore water is the most common form of drinking water, with only 10 per cent connected to the closest town water supply (ABS & AIHW 2005). Water restrictions are frequently reported in 36 per cent of remote communities due to equipment breakdown (ABS 2001b).

**FACT: Electricity** Domestic generators are the most common source of electricity supply in remote communities, and are used by 29 per cent; 25 per cent have community generators. Only 16 per cent have state-supplied electricity and 11 per cent have no electricity supply at all. Power interruptions occur in 85 per cent of remote communities (ABS & AIHW 2003).

**FACT: Sewerage** Forty-six per cent of remote community houses have septic tanks with leach drains and 25 per cent have pit toilets. 59 per cent of communities reported sewerage overflows or leakages due almost entirely to maintenance and support problems (ABS & AIHW 2003). Any overflow or leakage of sewage can impact on the health of a community by providing conditions where diseases spread rapidly.

**FACT: Basic maintenance** One-third of community-owned or managed dwellings either needed repairs or replacement in 1999. Equipment breakdown of community electricity supply affected 52 per cent of remote Indigenous communities (ABS 2001b). Electrical breakdown affects refrigeration of food, lighting, washing of clothes and contact with the outside world. Expenditure on maintenance and repairs increased by only 1 per cent between 1999 and 2001 (ABS 2002a).

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* Humpy: A lean-to or shack.
There is no particular industry in Nabvana, though there is good fishing and a small and growing craft centre. Two artists in the community have made it big in the city and act as mentors for some of the gifted young people. There is a mine about 150 kilometres away, though it has not employed many local people for the past 20 years. Apart from those who are employed to provide the services in the community, most people are unemployed, work for the Community Development Employment Program (CDEP), or are on a pension. On the CDEP program they do a variety of work, such as community development work and council work, two or three days per week.

The local shop tries hard and flies in fresh fruit and vegetables every Thursday. Usually by Monday or Tuesday there are only a few very ripe bananas left, along with the tinned or frozen food. The diabetes workers from the health centre have been working with the shop manager to improve its food selection, though many of the old people still buy what they have always bought over the years. There is another shop called Nick’s Place, run by an ex-miner. He sells smokes, bread, milk, lollies, cold soft drinks, hot chips and fried chicken legs. Recently, the diabetes workers told him that they would get the whole community to boycott his shop if he didn’t start selling some healthier takeaway foods. Nick now sells hamburgers and sandwiches and does a roaring trade at night around suppertime, especially on pay week.

On pay week about half of the men and a third of the women have a drink at the local club, which is open for two hours, five days a week. The grog is twice the price that it is in Fairville, the closest regional town. Sometimes some of the men drive down and pick it up in their truck and sell it at greatly inflated prices to the people in the town. The community council members get very angry and come down heavily on sly groggers. Some of the men drink too much, and many become violent. There is a safe house for women to go to when their husbands have been drinking and become violent. It is run by a small group of older, respected women known as the Night Patrol.
Employment, food and grog: the facts

FACT: Unemployment The unemployment of Indigenous Australians is about 18 per cent – three times the national average of 6 per cent (ABS & AIHW 2005). The unemployment rate in remote communities would be up to 90 per cent without the CDEP* program (Abbott 2002).

FACT: CDEP Thirty thousand Indigenous Australians work for the CDEP program compared with fewer than 1 per cent of other Australians (Edwards & Madden 2001). CDEP accounts for 6 in 10 jobs held by Indigenous people in remote areas (ABS 2004).

FACT: Access to food Indigenous Australians have undergone rapid dietary change from a fibre-rich, high-protein, low saturated fat ‘traditional’ diet to one that is high in refined carbohydrates and saturated fats. Remote communities often do not have access to an affordable healthy diet such as basic fruit and vegetables. This has led to a predisposition to obesity and Type 2 diabetes, cardiovascular disease and renal disease (ABS & AIHW 2005), which are reaching epidemic levels.

FACT: Cost of food Basic food costs in remote areas range from 150 to 180 per cent of capital city prices, due primarily to high transport costs. Expensive foods and low incomes mean that the food budget can represent from 56 to 89 per cent of the total Indigenous household income in remote areas, compared with a national average of 18 per cent (Australian Indigenous HealthInfoNet 2003).

FACT: Alcohol consumption Only half of Indigenous men and one-third of Indigenous women drink alcohol compared with two-thirds of non-indigenous men and almost half of non-indigenous women (Edwards & Madden 2001). Of those who do drink, more are inclined to drink to dangerous levels. Fifteen per cent of Indigenous adults report drinking at high-risk levels, comparable with 14 per cent of non-Indigenous adults (ABS 2006b).

FACT: Violence against women Remote Indigenous women are 19 times more likely to be admitted to hospital due to assault, and 10 times more likely to die due to assault, than other Australian women (AIHW 2002a).

* CDEP: Community Development Employment Project, a program similar to the work-for-the-dole program, conducted in rural and remote communities.
Part 2: Rob and Stella’s house

At No. 12 Third Street, on the outskirts of Nabvana, live a couple called Stella (aged 26) and Rob (aged 30). They have two children, George (four) and Henrietta (seven). Stella is 35 weeks pregnant with their third child, whom she secretly hopes will be another lovely little girl just like Henrietta. Also living with them are Stella’s mother Doris and her brother Julian, who is 18 years old and always in trouble. Sometimes on pay week her sister Rowena comes and stays over with her two kids. Stella’s Dad died from a heart attack last year. He was 52 years old.

Rob’s family all live in Nabvana too, and sometimes his relatives and their kids come over and stay, but not so often since Doris has been living there. You see, Stella fell in love with Rob but he was from a different clan group, and at times there is a lot of fighting between the families, as they think Stella should have married the man her parents chose for her to marry, an old man from her own clan group. It caused a lot of trouble at the time.

Stella works part-time at the local school as a teacher’s aide and she loves her job. She went up to year 10 at school and always wanted to be a teacher. She enrolled in the remote area teacher education program to gain a teaching qualification but a lot of it was done over the Internet, which was very slow and unreliable and she could only access it at the local school. It was just too hard with the kids to look after as well. Stella would love Henrietta to be a qualified teacher one day, and come back and work in Nabvana. But that would mean she would have to leave her family and community to do years 11 and 12 and then go to university for an additional three years, plus she’s heard it’s really expensive, so it probably won’t happen. Rob works for the CDEP three days a week. This week he’s working with the community council painting the new hoist they have installed on the wharf.
Lifestyle and education: the facts

FACT: Overcrowding  An average of 6.3 people lived in each permanent remote Indigenous dwelling in 1999 – double the national average (ABS 2002a). Overcrowding at home is the second-most reported stressor (42 per cent) by Indigenous people in remote areas, second only to the death of a relative or a friend (ABS & AIHW 2005). Overcrowding is linked to the spread of infection and disease and adds pressure to living facilities such as sewerage (ABS & AIHW 2005).

FACT: Life expectancy  The average life expectancy for Indigenous Australian men is 59 years and 64 years for women, compared with 76 years and 82 years respectively for other Australians (ABS & AIHW 2005). This varies greatly between the states and with geographical location, with life expectancy reducing with remoteness. The average life expectancy for men in some communities in the Northern Territory is as low as 33 years. For Torres Strait Islander men, life expectancy is 56 years and for Torres Strait Islander women it is 61 years (ABS & AIHW 2005).

FACT: Cardiovascular disease  Indigenous Australians die at twice the rate from cardiovascular disease as other Australians, and it causes Indigenous men to die 21 years younger than other Australian men (ABS 2003a). Cardiovascular disease is the primary cause of death for Indigenous Australians (Australian Indigenous HealthInfoNet 2005).

FACT: Family violence  Twenty-three per cent of remote Indigenous people over 15 years old reported being subject to physical or threatened violence in the previous 12 months, compared with 2.5 per cent of Australians aged over 15 years (AIC 2004). Indigenous people aged 18 years or over experience double the victimisation rate of non-Indigenous people (AIC 2004).

FACT: Access to education  To access late secondary and tertiary education, remote children have to leave their families and live in larger regional towns or cities. In 2004, 86 per cent of Indigenous 15-year-olds were in full-time education compared with 92 per cent of all 15-year-olds, and this is increasing (ABS & AIHW 2005). There has been a 10 per cent increase in the number of students in the past decade. In 2004 the retention rate for Indigenous students in Year 10 was 12.7 per cent less and 37.5 per cent less in Year 12 than that of non-Indigenous students. Indigenous Australians are half as likely as non-Indigenous Australians to have completed Year 12 in 2004 (ABS & AIHW 2005). Urban Indigenous people were more likely to have a qualification than those in other areas.

FACT: Maternal education  Every additional year of maternal education increases the health status of the child (WHO 1998). One per cent of the higher education student population is comprised of Indigenous students, of whom two-thirds are female (ABS & AIHW 2005).

FACT: Internet access in remote communities  Remote Australians were only half as likely to be able to access the Internet as those who lived in metropolitan areas in 1999 (ABS 2001a).
Stella is becoming anxious because next week she has to go into town and wait until her baby is born. All women in remote communities have to go into town at 36 weeks and wait in a hostel until they go into labour. But today Stella has had a few pains and fears it will be like the time she had George and that the baby will come early. Maybe that will be good, she thinks, as she is nervous about having to stay in a hostel with all those other people for such a long time. She also worries about who will look after Henrietta and George properly, because even though Rob has stopped drinking, last time when she wasn’t there he started again.

Her Mum, Doris, is too sick and cranky to look after the kids properly. She is a diabetic with kidney problems and poor eyesight and she has trouble getting around. She also has to come into Fairville for a few days herself during that time for an appointment with the renal specialist. The specialist thinks Doris will probably have to start on dialysis soon, like several of her relatives from Nabvana South where they have their own dialysis unit.

Also, without Stella’s income it will be difficult to cope financially. However, she doesn’t want to go in yet, not before Rob’s Auntie’s funeral on Friday.
**Disease of poverty: the facts**

**FACT: Income** In 2002, the mean gross household income for Aboriginal people was $394 per week and $377 per week for Torres Strait Islanders. In remote areas it was $354 per week compared with $474 per week in major cities. This represents an increase of only $20 per week in the previous eight years (ABS 1999a; ABS & AIHW 2005). Compared with non-Indigenous Australians, this represents only 59 per cent of their corresponding income of $665 per week. This differs between regions and states, resulting in 73 per cent of remote Indigenous people reporting severe financial stress and having to go without meals compared with 40 per cent in cities (ABS & AIHW 2005). There are also state variations: Indigenous Australians living in the Northern Territory receive only 47 per cent of the median income of other Territorians, yet Indigenous Tasmanians receive 84 per cent of the median income of other Tasmanians (ABS 1999a).

**FACT: Diabetes** Diabetes has doubled world-wide since the 1980s and Aboriginal people in central Australia have the highest incidence of diabetes in the world (ABS & AIHW 2003). One in 13 Australian adults suffer from diabetes (Diabetes Australia 2006). Indigenous Australians suffer four times this incidence, with 75 per cent of Indigenous diabetics having Type 2 diabetes (ABS 2006c). In remote areas diabetes is almost twice as prevalent among Indigenous people (9 per cent) as it was in Indigenous people in city areas (5 per cent) (ABS 2006b). In non-remote areas Indigenous people were seven to eight times more likely to have diabetes than non-Indigenous people and this differs greatly between localities and cultures. Twenty-four per cent of Torres Strait Islanders over 15 years of age, 58 per cent of older women and 36 per cent of older men suffer from diabetes (ABS 2006c). Diabetes is the second most common cause of kidney failure; it can also cause cardiovascular disease, eye damage, ulceration and gangrene (AIHW 2002a).

**FACT: Renal disease** Indigenous Australians suffer epidemic proportions of renal disease, which is strongly associated with socioeconomic disadvantage. In remote areas rates of end-stage renal disease are up to 30 times higher for Indigenous Australians (ABS & AIHW 2005). In 2004 Indigenous patients accounted for 85 per cent of all newly registered dialysis patients in the Northern Territory, 20 per cent in Western Australia and 12 per cent in Queensland. Diabetes is also much more likely to be reported for Indigenous patients (70 per cent) than non-Indigenous (27 per cent) (ABS & AIHW 2005).
Stella sees the visiting aero-medical doctor on Thursday afternoon. The doctor tells Stella that she needs to come back on the plane with her that night, as she may be in very early labour and it will be safer and more cost-effective to transport her then. Stella goes home to get her things and say goodbye to her family, who come to wave her off. Henrietta cries; she will miss her mother, but George is fascinated by the aeroplane and wants to go too.

Stella delivers her baby boy, Arnold Francis Luke, at 2 am on Friday. He is a lovely little boy who weighs 1650 grams. Stella thinks he looks just like George when he was born. He has a bit of trouble breathing, so he has to go to the neonatal nursery where they put tubes all over his body. Stella is very worried about him. When they move her down to the ward, she goes out on the veranda for a smoke and bumps into a relative of Rob’s who is a patient in one of the other wards. ‘It’s nice to see a familiar face,’ she thinks. Stella tries to ring Rob and tell him about the baby. She has to ring Marcie at the Community Council office and leave a message for Rob, as they don’t have the phone on at home. She knows the whole community will know by the end of the day, now that Marcie knows. She misses her family and is very worried about Rob now, especially with his Auntie’s funeral that afternoon. Marcie tells Stella that her brother Julian has been arrested again, this time for taking the police paddy wagon for a drive when he was stoned. She knows that this means he will probably go to jail this time. She worries for him, as he has been very down lately.

The next ten days are touch-and-go for Arnold. He is more premature than anticipated, and he is having some breathing problems. Because of this he is having trouble breast-feeding and is fed via a naso-gastric tube. The midwife makes sure Stella expresses her breasts because it is important for Arnold’s survival that he is breast-fed when he goes home. As Stella is just a bit anaemic, the doctor says she can go home and come in to feed Arnold. ‘Doctors never understand that it’s not quite that easy if you don’t come from Fairville,’ she thinks as she averts her eyes. She reluctantly goes off to live at the hostel and come in to visit Arnold during the day.
Birth, lifestyle and death: the facts

FACT: Maternal mortality  Stella, as an Indigenous woman, was three-and-a-half times more likely to have died during childbirth than other expectant mothers (Australian Indigenous HealthInfoNet 2002).

FACT: Premature birth incidence  Arnold was twice as likely as other Australian babies to be of low birth weight. Low birth weight is associated with socioeconomic disadvantage, maternal nutrition, smoking and illness. These babies are more prone to ill health during childhood and more vulnerable to illness such as kidney disease in adulthood (AIHW 2002a).

FACT: Smoking incidence  Fifty-one per cent of Aboriginal Australians and 44 per cent of Torres Strait Islanders smoke tobacco, compared with 24 per cent of non-Indigenous Australians (ABS 2005a). Smoking is more prevalent in men, with 51 per cent of Indigenous men and 47 per cent of Indigenous women being current daily smokers (ABS 2006b).

FACT: Substance abuse  Indigenous Australians have twice the rate of death due to psychoactive substance use. The rate of hospitalisation due to self-harm is twice that of other Australians – this is an indicator of psychological illness and distress in a community (AIHW 2002a).

FACT: Detention  Indigenous Australians are overrepresented in Australian prisons and are 12 times more likely to be jailed than other Australians, accounting for 21 per cent of the prisoner population in 2003. Twenty-five per cent of female prisoners and 20 per cent of male prisoners are Indigenous, yet Indigenous Australians make up only 2.4 per cent of the Australian population (ABS & AIHW 2005).

FACT: Suicide  Suicide has increased in the general Australian population by 24 per cent over the past decade (ABS 2002e). Numerous studies have found that suicides often take place in remote communities in clusters, commonly known as ‘cluster suicides’, and they are much higher between the 25–34 year-old age group (SCRGSP 2005). Indigenous males are three times more likely to suicide, and Indigenous females are five times as likely to suicide as the general community (ABS & AIHW 2005). This incidence increases with remoteness. Homicide and suicide account for 70 per cent of all injury-related Indigenous deaths in rural and remote areas (ABS & AIHW 2005).
PART 3: Arnold’s remote health story – looking through the crystal ball

During the next 28 days, the neonatal period, Arnold is three times more likely to die than other Australian babies. If he was born in Western Australia or the Northern Territory, the likelihood of his dying increases by four or five times respectively (Australian Indigenous HealthInfoNet 2005). By the time he reaches his first birthday he will be four times more likely to have contracted meningococcal disease; 13 times as likely to suffer from pneumococcal disease (as high an incidence as anywhere in the world); and three to four times more likely to have been hospitalised for respiratory conditions, parasitic and skin infections and malnutrition, than other Australian infants (ABS & AIHW 2005).

Between his first and his fifth birthdays, Arnold will be six times more likely to contract hepatitis A; twice as likely to be admitted to hospital for asthma or bronchiectasis; and seven times more likely to contract rheumatic heart disease, if he lives in the Northern Territory, which has one of the highest incidences in the world (AIHW 2002b). He will have an almost 100 per cent chance of contracting otitis media (Coates et al. 2002), which will contribute towards his 79 per cent chance of developing a hearing loss (Bauert et al. 2001) by the time he starts school.

Between his fifth and fourteenth birthdays Arnold will be growing more slowly and be shorter than his cousin who lives in the city (Mackerras et al. 2003), have a 60 per cent chance of suffering from malnutrition, and a one in five chance of being anaemic (Mackerras et al. 2003). He has a 50 per cent chance of suffering from scabies (Bauert et al. 2001), which may become infected and lead to glomerulonephritis or rheumatic heart disease. He will have a much greater likelihood of suffering learning difficulties at school due to his hearing problem and, along with 86 per cent of his Indigenous classmates, he will not complete secondary schooling and will have an 80 per cent chance of not achieving the national reading benchmark, compared with 20 per cent of non-indigenous students (Bauert et al. 2001). He will also be two-and-a-half times more likely to die before the age of 14 than other Australian males (AIHW 2002b).

Between receiving a new football for his 14th birthday and adulthood, Arnold will be twice as likely to be a smoker; 18 to 20 times more likely to suffer from gonococcal infection and syphilis respectively; 45 per cent more likely to have been involved in family violence (AIC 2004); six times more likely to be admitted to hospital due to assault; twice as likely to use an illicit substance; 12 times more likely to be jailed and two-and-a-half times more likely to commit suicide, probably by hanging, than other Australian males (ABS & AIHW 2005).
Should he survive, by the time Arnold marries his true love, Cynthia, at 25 years and they settle in Nabvana and have their four children, there is a 90 per cent chance that he will mostly work for the CDEP. Throughout his adult life Arnold will be four times more likely to suffer from Type 2 diabetes and be hospitalised 10 to 15 times more often than other Australians for this disease (AIHW 2002a), which could also lead to renal disease. Arnold will be eight times more likely to die from kidney failure (Australian Indigenous HealthInfoNet 2005), for which he will be treated with long-term haemodialysis, as he is only a quarter as likely to receive a renal transplant as other Australians. If he lives in the Northern Territory he will die at about 51 years; if he lives in other states he will die at about 59 years (ABS & AIHW 2005).

During Arnold’s lifetime he is likely to have attended more than 40 funerals. He will have earned 65 per cent less than the average Australian and have paid twice the price for his food and goods during his life. Despite the fact that Arnold has lived with three to four times the amount of health disadvantage that other Australians have, and has had far less access to health care professionals throughout his life, the amount that has been spent on his health care is similar to that for other Australians in low-income groups (Australian Indigenous HealthInfoNet 2002). Like his parents before him Arnold is less likely to ever get to play on a level playing field unless something is done to break the cycle of poverty and disadvantage – the poverty trap – that he was born into (Brennan 1989).

**SPINNING OUT OF SIGHT**

Arnold’s remote health story is demonstrated in figure 9.1. It is largely generic for Indigenous people in remote Australia in that it demonstrates:

- The initial predetermining factors that will impact upon the health of a child, which are compounded by racism – and in this instance remoteness and access to services.
- The impact that the social determinants have upon the health status of a child and throughout their life cycle.
- The downward and increasing spiral that spins out of control if something isn’t put into place to break the cycle of poverty and disadvantage.
- The resulting health effects and early death.
Figure 9.1 Spinning out of sight (Developed by Elston & Smith)
HEALTH EXPENDITURE

It would seem from the above story that the cost of providing health care to Arnold and his family would be considerably more than is spent on other Australians, due to the burden of disease he suffers and his remote geographical location. That would seem like a ‘fair go’. However, this is not the case.

In 2001–02 an estimated $1789 million was spent on health services by, and for, Aboriginal and Torres Strait Islander peoples (AIHW 2006a). This amount represents 2.8 per cent of the health expenditure for all Australians for 2.4 per cent of the population, or $1.22 for every $1 spent (AIHW 2006a). Yet Indigenous Australians are two to twelve times sicker on every health indicator, are twice as likely to be hospitalised, and are much more likely to live further from a range of health services and facilities than other Australians (AIHW 2006a).

Figure 9.2 describes the inequities in the total public and private health expenditure whereby $1.22 is spent on Indigenous Australians for every $1 spent on other Australians, and yet the mortality levels of Indigenous populations are three times higher than those of the total Australian population.

Indigenous Australians also access health services in different ways from other Australians. Larger amounts are spent on patient transport, public hospital care, mental health and public health services (AIHW 2006a). Smaller amounts are spent on Medicare, the Pharmaceutical Benefits Scheme, residential aged care and private health services than for other Australians (AIHW 2006a). These three factors combined – inequitable levels of health, different health service access patterns and holistic understandings of health – indicate the critical need for different approaches to be used.

![Figure 9.2 Comparing the total public and private health expenditure and mortality levels between the total Australian and Indigenous populations](image-url)

*Based on information taken from Australia’s Health 2006 (AIHW 2006a)*
INTERNATIONAL COMPARISON

Looking at Indigenous health statistics it is difficult to really understand how they compare with those for other Australians, as they are so high on all indicators. In order to gain some perspective, let us look at an international comparison with other indigenous groups.

There are 300 million indigenous people in the world. They make up about 6 per cent of the world’s population and come from around 5000 separate groups (Horton 2006). Their life expectancy at birth is 10 to 20 years less than the rest of the population and infant mortality is between 1.5 and 3 times greater than the national average (McMurray 2003). The state of health of indigenous people worldwide shows a consistent pattern of lower life expectancy. It also shows that those in rich countries have higher life expectancies than those in poor countries. In First World countries these life expectancies have all increased significantly over the past 20 years. The striking exception is Australia (Kunitz 2000).

Australia is the only industrialised country in the world to have a sector of its population facing a shrinking life expectancy (McMurray 2003). Why is this so? Why does a First World country, one that prides itself on a ‘fair go’, still have significant sections of its population living with contaminated water, poor sanitation, unsafe housing, lack of basic food, and poverty? These are the very conditions that we know contribute to ill health, and can be prevented. Yet our governments continue to do what their forebears did and minimise or gloss over the magnitude of the problems.

Native Americans in the United States and Canada, Maori people in New Zealand and Indigenous Australians all have similar histories. They were all colonised and dispossessed of their land; they all make up a minority of the total population and became displaced and marginalised within what is now a First World nation. They also all suffer excessive levels of cardiovascular disease, diabetes and renal disease.

Mortality rates

Mortality rates are only one indicator of the health of a population, but death rates are important indicators of health (AIHW 2006c). When we compare the mortality rates of the three groups to those of all Australians (see figure 9.3), we find that the Maori people and Native Americans have made rapid gains in health and life expectancy over the past two decades, though new evidence is emerging that this is plateauing. This is largely due to the increasing incidence of diabetes in Indigenous populations (Elston & Ring 2005).

Comparable mortality rates for Indigenous Australians, however, are equivalent to those observed 30 years ago in Maoris and Native Americans. Death rates for Indigenous Australians are currently three times those of the Native Americans and Canadian First Nations people, and 2.5 times those of the New Zealand Maori (AIHW 2006b). Australian Indigenous mortality rates for circulatory disease are
also 1.5 times and 2.6 times higher than the New Zealand Maori and the Native Americans respectively; 3.1 and 4.5 times respectively for respiratory disease; and 2.8 times and 1.3 times the rate for injury and poisoning (Ring & Firman 1998; Couzos & Murray 2003).

The only similarity to these type of mortality patterns anywhere in the world has recently been found in Russian men (Paradies & Cunningham, cited in Couzos & Murray 2003). In the early 1990s it was found that there was an increased mortality in middle-aged Russian men, which has been linked to ‘rising economic and social instability, high unemployment, loss of income, high rates of alcohol and tobacco use and deterioration of the health system’ (Couzos & Murray 2003, p 55). This sounds remarkably familiar to the Australian situation, with the exception of the weather conditions. The much higher death rates among Aboriginal and Torres Strait Islander peoples are demonstrated in figure 9.3, when compared to that of all Australians (AIHW 2006b).

These death rates worsen with geographical location in Australia. For example, in 2003 the median death rate for Indigenous men in New South Wales was 56.8 years, whereas in the Northern Territory the rate was 46.3 years. The median death rate for Indigenous women in Queensland was 62.1 years, whereas in South Australia it was 50 years (Australian Indigenous HealthInfoNet 2005; Anderson et al. 2006).
Infant mortality

Infant mortality is an internationally recognised measure of the general health and wellbeing of a population. It is a good indicator of the health of the mother, the quality of her antenatal care, obstetric services and the care of the infant in hospital and at home in the community (AIHW 2006b). High infant mortality is directly associated with poor socioeconomic conditions, meaning that babies born into poor families are more likely to die in infancy than those from richer families.

Indigenous infant mortality rates in Australia are double the New Zealand Maori and Canadian First Nations people’s rate and 50 per cent higher than American Indians (AIHW 2006b). Australian Aboriginal and Torres Strait Islander babies are also dying at two to three times the rate of all Australian babies (AIHW 2006b). This again differs between Australian states, with extremely high rates of infant mortality found in Western Australia and the Northern Territory. Yet again this only includes data from four states due to the dearth of data collection systems. This also changes with geographical location. Research undertaken in Western Australia between 1980 and 2001 found that Indigenous infants living in remote areas die from infection at 7.5 times the rate of other remote infants and 5 times the rate of rural infants (Freemantle et al. 2006). The authors – one of whom was Australian of the Year in 2004, Professor Fiona Stanley – call for immediate implementation of ‘policies to reduce the continuing social and economic disadvantage faced by Aboriginal families’ (Freemantle et al. 2006, p 1758).

BREAKING THE POVERTY CYCLE

When we examine the possible reasons for these enormous discrepancies, we find a few key issues that together can contribute to the cause. First is the issue of a treaty. The Treaty of Waitangi, signed in 1840, is central to the relationship between Maoris and other New Zealanders. The United States and Canada also established treaties for Native Americans. While these were often abused, they played a useful role in the development of health services and in social and economic issues for the indigenous people in those countries (Ring & Firman 1998).

Australia has no such treaty, since the land was regarded as terra nullius. The issue of a treaty is now on the agenda, 227 years after settlement.

Second, Kunitz (1992) identified several aspects of Australian postcolonial Indigenous experience that may have contributed to the lack of improvement in health status. These are largely related to government input (Ober et al. 2000). Kunitz (1992) describes how handing over the responsibility for native affairs to the state governments was rather like using a fox to guard the chickens, as state governments have even more direct conflicts of interest over land rights than do federal governments. In particular he notes the long-term effect of the official assimilation policy, which gathered different tribal groups together, removed their
children and actively discouraged the establishment of specialised Indigenous health programs. This has resulted in a lack of Indigenous control over health and health services (Kunitz 1992). These factors are compounded in more recent times by the poorly coordinated state-versus-federal competition for funds for Indigenous health (Ring & Firman 1998).

Thus we have an Indigenous Australia where there is no formal treaty, managed by policies that have been described as both racist and genocidal in nature (Hollinsworth 1998). This results in poorly coordinated state and federal programs that provide insufficient funding to deal with the problem and show a lack of commitment to change. Ring and Firman (1998) argue that Indigenous Australians therefore lack control over their lives and the sense of hope that such control creates, which in turn determines their health status. Consequently there has been a forced abandonment of social practices and a breakdown in culture, line of authority and traditional law, resulting in a soul-destroying dependency (Swan 1988).

INDIGENOUS STATISTICS

To add insult to injury, the data that are used to allocate resources for Indigenous health in Australia include only 31 per cent of the Indigenous population. This has several causes. First, ‘before 1971 people who were considered to be more than 50 per cent Aboriginal (in terms of their genetic profile) were excluded from the official population figures’ (ABS 2000, p 1). Second, unlike in other First World nations, the ‘race’ of the population was not recorded until the 1986. Consequently, what is available only goes back 20 years and there are enormous state variations. This is in spite of the Taskforce on Aboriginal Health Statistics in 1984, which reached agreement with all states and territories, except Queensland, to identify Aboriginal Australians in a number of health statistics collections (Couzons & Murray 1999; Thompson 1991).

Yet in 2006, many reports from our two major sources of information – the Australian Bureau of Statistics and the Australian Institute of Health and Welfare – still only include Indigenous data from three or sometimes four Australian states. In all of their reports they state that ‘the information may not be accurate for Indigenous people’ or that data used is only from three or four states as they were the only ones with ‘reliable data’ or ‘of a publishable standard’ (AIHW 2006b; AIHW 2006c). Of considerable concern is the fact that the included states are those with the lowest Indigenous populations, representing only 31 per cent of the total Indigenous Australian population. The current data in most of these reports excludes 69 per cent of the Indigenous population and excludes data from those states with the highest Indigenous populations: Queensland and New South Wales (ABS 2002g). Therefore, most reports state that there are variations and probable under-estimations and that it is difficult to point to trends with confidence (Edwards & Madden 2001). While the two key statistical bodies, the Australian Bureau of Statis-
tics and the Australian Institute of Health and Welfare, are undertaking some initiatives to improve the quality and availability of data (Edwards & Madden 2001; ABS 2006b), and in 2003 Torres Strait Islanders were included as a separate entity for the first time (ABS 2003c), this remains an issue of natural justice. This lack of data raises the risk that attention and resources will be directed at the problems measured in those states with the lowest population size, instead of in those that constitute the greatest burden of disease (Couzos & Murray 1999).

Why, after 20 years of trying, are only one-third of the sickest people in this country recorded in the national health statistics? One can only interpret this as being of some advantage to a government whose responsibility it is to allocate resources and who have a history of institutional processes that has been described as both racist and genocidal in nature (Hollinsworth 1998). The Social Justice Commissioner (Jonas 2003, p 2) has called on government to commit to explicit targets for improvement in Indigenous livelihood that are linked to results and achievement, stating: ‘We don’t want to hear any more about record levels of expenditure.’

GOOD REMOTE STORIES

Much good work is being done in some of these remote communities. At the Cherbourg community in Queensland, the state school principal used a new approach with the motto ‘strong and smart’, which introduced a number of new ways of approaching education. This was mostly done through the expectation that the students could and would achieve academic outcomes that were just as good as any other child in the state. This has seen a 94 per cent reduction in absenteeism and dramatic improvements in literacy levels within two years (Sarra 2006). The ‘Strong Women, Strong Babies, Strong Culture’ project in the Northern Territory targets young pregnant women through education that promotes better health and nutrition in order to reduce the incidence of low birth weight babies. This project is proving very successful; it is operated by a whole network of Indigenous workers in bush communities and camps assisted by dietitians (O’Donoghue 1999). The Cape York Substance Abuse Strategy, which takes substance abuse as the starting point for holistic strategies to increase the Aboriginal quality of life and life expectancy and to keep people out of the criminal justice system, is on the uptake in some communities in 2003 (Alcohol and Drugs Working Group 2002). Osborne (2003) reports how, on Badu Island in the Torres Strait, interagency partnerships have strengthened primary school students’ educational outcomes by creating real employment for their families. Through the work of the Council and others in training and employing local people in areas such as carpentry, 133 new houses have been built on the island in the past decade. This has reduced their CDEP payments by almost 20 per cent; also, local money is staying in the community rather than disappearing down south to southern crews (Osborne 2003). This activity
provides role models for the children, who then work harder, as it gives them a sense of purpose in life. This results in better educational outcomes, reduced poverty and restored community self-esteem. Initiatives such as these are successful because they start from the local Indigenous people’s needs as determined by them, and put the control for the everyday outcomes in their hands. The people can consequently measure their own success.

CONCLUSION

Remote Australia is the place that thousands of people visit each year due to its rich heritage, fascinating animals and diversity of nature. One would think, therefore, that Australian governments would invest in and nurture remote Australia for future generations to enjoy. Yet it is the place of the have-nots. ‘Remote’ means ‘a far away place’, and remote health is easy for governments to ignore, since it happens in a far-away place. It is not something they have to drive past every day on their way home.

These 1216 discrete remote Indigenous communities are largely a result of restrictive and paternalistic government policies that placed different clan groups of Indigenous Australians together on the assumption that they were going to die out. There was little consideration that the clan groups (over 500 of them) were different, with different laws and cultural practices that prevented them from intermarrying and living harmoniously together. The policies of the day saw that everyone should be the same; there was no place for difference. Yet it was on the basis of difference – cultural difference – that these clan groups were moved together in the first place.

Pearson (2000) tells us that these factors have taken a decisive toll on his people, their relationships and their values; and that these remote communities have become havens of social problems, violence and passive welfare dependency, which seem too overwhelming for anyone to know where to begin. In the past decade these communities have largely been handed back to Indigenous control. However, along with their children, traditions and rich cultural practices, the communities have also had their laws, self-respect, dignity and health stolen. As Johnson (1992, p 157) reminds us, without the basic ingredients for health – such as dignity and self-respect – ‘then no matter what services are supplied their health status will not change’. Nor will health care if it is imposed and does not deal with the societies’ priorities, as set by them and in partnership with them.

What is required are poverty cycle breakers if overall health outcomes are to be improved. This means health dollars need to be spent in those areas that can actually affect health and reduce poverty. Health systems need to be restructured in consultation with some of the best Indigenous thinkers in this land to ensure they meet the real needs of Indigenous peoples. This means a national approach that minimises the levels of bureaucracy, makes our systems appropriate and contributes
towards those factors that actually affect health – the social determinants of health. This will mean a real commitment to being prepared to treat cultural, geographic and health difference with difference, and handing back control of health to the people whose health is being acted upon, supported by a strong leadership. Funding should be invested based on ‘real’ population numbers as determined by Indigenous inhabitants; the different morbidity and mortality levels, which are three times greater than other Australians; geographic and cultural difference; different health access patterns and processes that enable people to make their own mistakes, warts and all. This does not mean more research, but real action.

Obvious starting points include:

- fully implementing the National Aboriginal Health Strategy
- ensuring the national health statistics are accurate and include all Australian states and territories
- getting children back into schools where there is an expectation by both students and teachers that they will strive and be successful
- prioritising and supporting initiatives that provide ‘real’ work opportunities that can create real long-term sustainable employment in remote communities, where people can also learn their trade
- developing positive discrimination policies whereby government tenders for remote communities can only be won by those who employ local Indigenous people as they work towards a qualification
- investing in the provision of education and training that results in real qualifications in areas of need – plumbing, technicians, builders, electricians, teachers, small business entrepreneurs, health professionals and child care workers
- supporting these initiatives with career structures that recognise ‘culture’ as a qualification, and award wages and conditions that provide long-term work and treat difference with difference
- providing tax exemptions for those working in remote communities to help reduce the cycle of poverty
- supporting fully government-subsidised transportation costs for food, goods and services
- prioritising the educational opportunities of girls
- building infrastructure in remote communities – swimming pools and shared walkways to encourage physical activity
- educating health professionals in using a population health model and providing appropriate prevention, early detection and management of chronic disease
- providing significant government and industry investment.

As a minimum this must include: working towards safe living and housing environments such as a clean water supply, affordable nutritious food, adequate educational opportunities and the provision of basic services, which are managed by the Indigenous people at affordable prices.
This translates as community-controlled services that are run by and managed by Indigenous people, for Indigenous people, based on the community’s needs, as determined by them. A ‘warts-and-all’ approach that gives Indigenous people control over their own affairs and allows them to make their own mistakes is what is needed. We could learn from the National Movement of Tanzania, which found that ‘any action that reduces their say in determining their own affairs or running their own lives is not development and retards them, even if action brings them a little health and a little more bread’ (1972, cited in Johnson 1992, p 157).

These are some of the early steps that can be taken to improve the health of Aboriginal and Torres Strait Islander Australians, to bring them out of the spiral of disadvantage and poverty and back onto a level playing field. It is the decent, fair and ‘just’ thing to do.

DISCUSSION POINTS

1 Discuss the story ‘Rob and Stella Live in Nabvana’.
   ■ Discuss the facts that surprised you in this story.
   ■ Why do you think the people had not been employed at the local mine site for 20 years?
   ■ Discuss the role of the diabetes workers and the night patrol.
   ■ Why is it so important that Arnold is breast fed when he returns to the community?

2 What are the differences in the New Zealand and Canadian indigenous experiences that have resulted in improved health outcomes? What does Australia have to learn from these initiatives? Discuss.

3 Why don’t Indigenous Australians have a treaty? How could a treaty contribute towards improved Indigenous health status in Australia? What are the major obstacles to success? Discuss.

4 How could primary health care and community-controlled approaches to health contribute to improvements in remote Indigenous health? Discuss.

5 Why do you think the National Aboriginal Health Strategy was never fully implemented in Australia? Discuss.
# Reading Three: Oral Health - Anticipatory Guidance for Parents and Caregivers

<table>
<thead>
<tr>
<th>Child’s Age</th>
<th>Oral Health Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenatal</td>
<td><strong>Questions:</strong></td>
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<tr>
<td></td>
<td>Do you (parent) have a toothbrush and fluoride toothpaste?</td>
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<td></td>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td></td>
<td>Have you seen the dentist for a check up since you got pregnant?</td>
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<tr>
<td></td>
<td><strong>Advice:</strong></td>
</tr>
<tr>
<td></td>
<td>Brushing your teeth twice a day with fluoride toothpaste will help stop tooth decay and gum disease.</td>
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<tr>
<td></td>
<td>It’s important that you see the dentist for a check-up and any treatment you need, once you know you are pregnant.</td>
</tr>
<tr>
<td></td>
<td>If mother’s teeth and gums are healthy, the baby can be healthy too!</td>
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<tr>
<td>First visit</td>
<td><strong>Questions:</strong></td>
</tr>
<tr>
<td></td>
<td>Do you (parent) have a toothbrush and fluoride toothpaste?</td>
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<tr>
<td></td>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td></td>
<td>Have you seen the dentist for a check up since you got pregnant?</td>
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<tr>
<td></td>
<td>Does your baby have a dummy?</td>
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<tr>
<td></td>
<td><strong>Advice:</strong></td>
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<tr>
<td></td>
<td>Brushing your teeth twice a day with fluoride toothpaste will help stop tooth decay and gum disease.</td>
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<tr>
<td></td>
<td>It’s important that you see the dentist for a check-up if you haven’t gone recently.</td>
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<tr>
<td></td>
<td>Dummies aren’t good. If you use a dummy, don’t dip it in sweet foods or liquids.</td>
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<tr>
<td>8 weeks</td>
<td><strong>Questions:</strong></td>
</tr>
<tr>
<td></td>
<td>Do you (parent/carer) brush your teeth in the morning and evening?</td>
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<tr>
<td></td>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td></td>
<td>Do you need to see a dentist for a check-up?</td>
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<td></td>
<td>Does your baby have a dummy?</td>
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<tr>
<td></td>
<td><strong>Advice:</strong></td>
</tr>
<tr>
<td></td>
<td>Breastfeeding is good for your baby’s health.</td>
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<tr>
<td></td>
<td>Giving your baby a bottle isn’t a good idea unless you have to.</td>
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<tr>
<td></td>
<td>Brushing your teeth twice a day and eating healthy food will stop bad germs growing in your mouth and causing tooth decay and gum disease.</td>
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<tr>
<td></td>
<td>Bad germs can go from your mouth to the baby’s mouth in your spit, so a healthy mouth for you and your child starts with you.</td>
</tr>
<tr>
<td>6 month health check</td>
<td>Questions:</td>
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<tr>
<td></td>
<td>Do you (parent/carer) brush your teeth in the morning and at night?</td>
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<td></td>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td></td>
<td>Do you need to see a dentist for a check-up?</td>
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<tr>
<td></td>
<td>Does your baby use a dummy or a bottle?</td>
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</tbody>
</table>

**Advice:**

A healthy mouth for you and your child starts with you – brush your teeth twice a day with fluoride toothpaste and see the dentist. Start caring for your baby’s new teeth when they first come. Clean them every day with a damp clean cloth or use a very small soft toothbrush. Lift the lip and check your baby’s teeth and gums each day when cleaning. Look for any colour changes in your baby’s teeth – white, brown or black spots. See the Health Worker, nurse or doctor if any spots come.

Start baby drinking from a cup at 6 months. Don’t use a baby bottle. If you do, don’t put any juice or sweet drinks in it.

<table>
<thead>
<tr>
<th>12 months health check</th>
<th>Questions:</th>
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<tbody>
<tr>
<td></td>
<td>Do you (parent/carer) brush your teeth in the morning and at night?</td>
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<tr>
<td></td>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td></td>
<td>Do you need to see a dentist for a check-up?</td>
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<tr>
<td></td>
<td>Do you clean your child’s teeth and check them each day?</td>
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</tbody>
</table>

**Advice:**

Use a damp clean cloth or a very small soft toothbrush to clean your child’s teeth but don’t use fluoride toothpaste until 18 months old. Lift the lip and check your baby’s teeth and gums each day when cleaning. Look for any bad colour changes in your baby’s teeth – white, brown or black spots. See the Health Worker, nurse or doctor if any bad spots come.

Ask them to check your baby’s teeth and help you to see the dentist or dental therapist (dental team) if necessary.

Don’t use a baby bottle. Give your child a clean cup to drink water or milk from. Don’t give juices or sweet tea.

<table>
<thead>
<tr>
<th>18 months health check</th>
<th>Questions:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Do you (parent/carer) and your child have a toothbrush?</td>
</tr>
<tr>
<td></td>
<td>Are you (parent/carer) brushing your teeth in the morning and evening?</td>
</tr>
<tr>
<td></td>
<td>Do you think your teeth and gums are healthy? Do you need to see a dentist?</td>
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<tr>
<td></td>
<td>Are you brushing your child’s teeth and checking them each day?</td>
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</table>

**Advice:** Brush your child’s teeth twice a day. Use a small soft toothbrush and a small (pea-size) amount of child’s fluoride toothpaste. Lift the lip and check your baby’s teeth and gums each day when brushing. Look for any bad colour changes in your baby’s teeth – white, brown or black spots. See the Health Worker, nurse or doctor if any bad spots come.

See the dentist or dental therapist (dental team) if necessary.

If you put your baby to bed with a bottle, fill it with water only. Milk or juices stick to the baby’s teeth and cause tooth decay. Make sure that your own mouth is healthy by going to the dentist for a checkup. Don’t forget that your child can get germs that cause tooth decay from your spit and other people.
<table>
<thead>
<tr>
<th>2 year health check</th>
<th>Questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you (parent/car) and your child have a toothbrush?</td>
<td></td>
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<tr>
<td>Do you (parent/car) brush your teeth in the morning and evening?</td>
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<tr>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td>Do you need to see a dentist for a check-up?</td>
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<tr>
<td>Are you brushing your child`s teeth and checking them each day?</td>
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<tr>
<td>Advice:</td>
<td></td>
</tr>
<tr>
<td>Brush your child`s teeth twice a day. Use a small soft toothbrush and a pea-size amount of fluoride toothpaste. Offer your child healthy food everyday, drink water and limit sugary food and drinks. See the dentist or dental therapist when they visit next.</td>
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<thead>
<tr>
<th>3 year health check</th>
<th>Questions:</th>
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<tbody>
<tr>
<td>Do you (parent/car) and your child have a toothbrush?</td>
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<tr>
<td>Do you (parent/car) brush your teeth in the morning and evening?</td>
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<tr>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td>Do you need to see a dentist for a check-up?</td>
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<tr>
<td>Are you brushing your child`s teeth and checking them each day?</td>
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<tr>
<td>Advice:</td>
<td></td>
</tr>
<tr>
<td>Help your child to brush their teeth at least twice a day. Use a small soft toothbrush and pea-size amount of toothpaste. Healthy teeth help your child to chew and speak. Decayed teeth are painful and need immediate treatment. Offer your child healthy food and drinks. See the dentist or dental therapist for a checkup.</td>
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<thead>
<tr>
<th>4 year health check</th>
<th>Questions:</th>
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<tbody>
<tr>
<td>Do you (parent/car) and your child have a toothbrush and fluoride toothpaste?</td>
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<tr>
<td>Do you (parent/car) brush your teeth in the morning and evening?</td>
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<tr>
<td>Do you think your teeth and gums are healthy?</td>
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<tr>
<td>Do you need to see a dentist for a check-up?</td>
<td></td>
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<tr>
<td>Are you brushing your child`s teeth and checking them each day?</td>
<td></td>
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<tr>
<td>Advice:</td>
<td></td>
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<tr>
<td>Help your child to brush their teeth at least twice a day. Check to make sure that the teeth are brushed well. Use a small soft toothbrush and a pea size amount of toothpaste. All children need a dental checkup before they start school. See the dentist or the dental therapist. Toothache can cause missed days from school and can affect your child’s ability to concentrate and enjoy school. Healthy teeth help your child chew and speak. Reinforce good eating and brushing habits.</td>
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</tbody>
</table>

Source: [www.metrokc.gov/health/kgc](http://www.metrokc.gov/health/kgc)
Further areas for guidance: Includes injury prevention

<table>
<thead>
<tr>
<th>4 – 12 months</th>
<th>Feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Encourage drinking water for thirst.</td>
</tr>
<tr>
<td></td>
<td>Don’t put sweet liquids in a bottle.</td>
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<tr>
<td></td>
<td>Avoid long periods with the bottle in the mouth, especially at night and during sleep. Frequent sugary drinks and long periods when sugar is in contact with the teeth will cause teeth to decay.</td>
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<tr>
<td></td>
<td>Start using a cup from about 6-8 months</td>
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<td></td>
<td>Sugar, salt and fats should not be added to solid foods or drinks.</td>
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<td></td>
<td>Don’t dip a dummy in any food or liquid.</td>
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<td></td>
<td><strong>Cleaning Teeth</strong></td>
</tr>
<tr>
<td></td>
<td>Start cleaning the teeth each day as soon as the teeth erupt.</td>
</tr>
<tr>
<td></td>
<td>Use a clean damp cloth or a very small soft toothbrush. Only use water on the toothbrush until about 18 months of age.</td>
</tr>
<tr>
<td></td>
<td><strong>Injury prevention</strong></td>
</tr>
<tr>
<td></td>
<td>Warn about injuries to the face and teeth once the child is pulling themselves up onto things, learning to crawl, walk and run.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>12 months to 2 years</th>
<th>Feeding</th>
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<tbody>
<tr>
<td></td>
<td>Discourage the use of a dummy.</td>
</tr>
<tr>
<td></td>
<td>Encourage use of a cup as main drinking vessel from 12 months of age and discontinue the bottle.</td>
</tr>
<tr>
<td></td>
<td>Nutritious food and drink</td>
</tr>
<tr>
<td></td>
<td>Encourage water as preferred drink for thirst.</td>
</tr>
<tr>
<td></td>
<td>Encourage nutritious healthy foods at all times. The key factor is frequency of sugar intake and the period of time that the teeth remain in contact with sweet or acidic food.</td>
</tr>
<tr>
<td></td>
<td><strong>Cleaning teeth</strong></td>
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<tr>
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<td>Around 18 months - 2years of age is the best time to commence the use of toothpaste. Fluoride in toothpaste prevents dental caries. A pea-sized amount of toothpaste should be smeared on the toothbrush. Children should be encouraged to spit toothpaste out and not swallow it.</td>
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<td>Dental checkups start with toddlers.</td>
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<td><strong>Injury prevention</strong></td>
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<tr>
<td></td>
<td>Warn about injuries to the face and teeth once the child is walking, running and climbing.</td>
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</tbody>
</table>

<p>| 3 years | Discourage use of a bottle and dummy. |
|         | Encourage nutritious food and drinks; encourage water as preferred drink for thirst. |
|         | <strong>Cleaning teeth</strong> |</p>
<table>
<thead>
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<th>Healthy Under 5 Kids Education Package</th>
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- **Encourage use of a small, soft toothbrush twice a day.**
- **Use a pea sized amount of fluoride toothpaste smeared onto the toothbrush.**
- **Encourage children to spit toothpaste out and not swallow it.**
- **Visit the dentist or dental therapist for a dental checkup.**

**Injury prevention**
- Warn about injury to face and teeth during play.

<table>
<thead>
<tr>
<th><strong>4-5 years</strong></th>
<th>Encourage nutritious foods and drinks at all times.</th>
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<tr>
<td><strong>Cleaning teeth</strong></td>
<td>Help the child to clean teeth twice a day with small soft toothbrush. Use a pea sized amount of fluoride toothpaste smeared onto the toothbrush. Encourage children to spit toothpaste out and not swallow it.</td>
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Reading Four: Emotional Development

THE ISSUE

A growing body of scientific evidence tells us that emotional development begins early in life, that it is a critical aspect of the development of overall brain architecture and that it has enormous consequences over the course of a lifetime. These findings have far-reaching implications for policy makers and parents, and therefore demand our attention.

From birth, children rapidly develop their abilities to experience and express different emotions, as well as their capacity to cope with and manage a variety of feelings. The development of these capabilities occurs at the same time as a wide range of highly visible skills in mobility (motor control), thinking (cognition) and communication (language). Yet, emotional development often receives relatively less recognition as a core emerging capacity in the early childhood years.

The foundations of social competence that are developed in the first five years are linked to emotional well-being and affect a child’s later ability to functionally adapt in school and to form successful relationships throughout life. As a person develops into adulthood, these same social skills are essential for the formation of lasting friendships and intimate relationships, effective parenting, the ability to hold a job and work well with others, and for becoming a contributing member of a community.

Disregarding this critical aspect of the developing child can lead parents and policy makers to underestimate its importance and to ignore the foundation that emotions establish for later growth and development. Thus, it is essential that young children’s feelings get the same level of attention as their thinking. In fact, learning to manage emotions is more difficult for some children than learning to count or read and may, in some cases, be an early warning sign of future psychological problems. The failure to address difficulties in this equally important domain can result in missed opportunities for interventions. Had they been initiated early, these interventions could have yielded tremendous benefits for large numbers of children and for society.
WHAT SCIENCE TELLS US

The core features of emotional development include the ability to identify and understand one’s own feelings, to accurately read and comprehend emotional states in others, to manage strong emotions and their expression in a constructive manner, to regulate one’s own behavior, to develop empathy for others and to establish and sustain relationships.17–19

Emotional development is actually built into the architecture of young children’s brains in response to their individual personal experiences and the influences of the environments in which they live. In fact, emotion is a biologically based aspect of human functioning that is "wired" into multiple regions of the central nervous system that have a long history in the evolution of our species.15,14,13,16,17 These growing interconnections among brain circuits support the emergence of increasingly mature emotional behavior, particularly in the preschool years. Stated simply, as young children develop, their early emotional experiences literally become embedded in the architecture of their brains. Here is what we know:

1. The emotional experiences of newborns and young infants occur most commonly during periods of interaction with a caregiver (such as feeding, comforting and holding).8,11,18,19 Infants display distress and cry when they are hungry, cold, wet or in other ways uncomfortable, and they experience positive emotions when they are fed, soothed and held. During this early period, children are incapable of modulating the expression of overwhelming feelings, and they have limited ability to control their emotions in the service of focusing or sustaining attention.19 Associations between positive emotions and the availability of sensitive and responsive caregiving are strengthened during infancy in both behavior and brain architecture.20

2. The emotional states of toddlers and preschoolers are much more complex.21 They depend on their emerging capacities to interpret their own personal experiences and understand what others are doing and thinking, as well as to interpret the nuances of how others respond to them.21,14,22,23 As they (and their brains) build on foundations that are established earlier, they mature and acquire a better understanding of a range of emotions. They also become more capable of managing their feelings, which is one of the most challenging tasks of early childhood.24,25,26,27

3. By the end of the preschool years, children who have acquired a strong emotional foundation have the capacity to anticipate, talk about and use their awareness of their own and others’ feelings to better manage everyday social interactions.25,26 Their emotional repertoires have expanded dramatically and now include such feelings as pride, shame, guilt, and embarrassment — all of which influence how individuals function as contributing members of a society.21,29 Throughout the early childhood years, children develop increasing capacities to use language to communicate how they feel and to gain help without "melting down," as well as to inhibit the expression of emotions that are inappropriate for a particular setting.2,29
Children’s emotional development is built into the architecture of their brains

- When feelings are not well managed, thinking can be impaired. Recent scientific advances have shown how the interrelated development of emotion and cognition relies on the emergence, maturation and interconnection of complex neural circuits in multiple areas of the brain, including the prefrontal cortex, limbic cortex, basal forebrain, amygdala, hypothalamus and brainstem. The circuits that are involved in the regulation of emotion are highly interactive with those that are associated with “executive functions” (such as planning, judgment and decision making), which are intimately involved in the development of problem-solving skills during the preschool years. In terms of basic brain functioning, emotions support executive functions when they are well regulated but interfere with attention and decision making when they are poorly controlled.

- We now know that differences in early childhood temperament — ranging from being extremely outgoing and adventurous to being painfully shy and easily upset by anything new or unusual — are grounded in one’s biological makeup. These variations lead to alternative behavioral pathways for young children as they develop individual strategies to control their emotions during the preschool years and beyond. They also present diverse challenges for parents and other adults who must respond differently to different kinds of children. When it comes to finding the “best” approach for raising young children, scientists tell us that one size does not fit all.

- Young children are capable of surprisingly deep and intense feelings of sadness (including depression), grief, anxiety and anger (which can result in unmanageable aggression), in addition to the heights of joy and happiness for which they are better known. For some children, the preschool years mark the beginning of enduring emotional difficulties and mental-health problems that may become more severe than earlier generations of parents and clinicians ever suspected.

- The emotional health of young children — or the absence of it — is closely tied to the social and emotional characteristics of the environments in which they live, which include not only their parents but also the broader context of their families and communities. Young children who grow up in homes that are troubled by parental mental-health problems, substance abuse or family violence face significant threats to their own emotional development. In fact, the experience of chronic, extreme and/or uncontrollable maltreatment has been documented as producing measurable changes in the immature brain.

Children’s early abilities to deal with their emotions are important not only for the foundation these capacities provide for the future, but also for the children’s current social functioning with their parents, teachers and peers. In fact, differences in how young children understand and regulate their own emotions are closely associated with peer and teacher perceptions of their social competence, as well as with how well-liked they are in a child-care setting or preschool classroom.
UNFOUNDED ASSERTIONS IN THE NAME OF SCIENCE

As the public's appetite for scientific information about the development of young children is whetted by exciting new findings, the risk of exaggerated or misleading messages grows. Within this context, it is essential that scientific fact be differentiated from popularly accepted fiction.

There is no credible scientific evidence that young children who have been exposed to violence will invariably grow up to be violent adults themselves. Although these children clearly are at greater risk for adverse impacts on brain development and later problems with aggression, they are not doomed to poor outcomes, and they can be helped substantially if provided with early and appropriate treatment, combined with reliable and nurturing relationships with supportive caregivers.54

Science does not support the claim that infants and toddlers are too young to have serious mental-health problems. In fact, young children who have experienced significant maltreatment exhibit an early childhood equivalent of post-traumatic stress disorder, which presents a predictable array of clinical symptoms that are amenable to successful therapeutic intervention.55
THE SCIENCE-POLICY GAP

The fact that young children have feelings is old news. The extent to which infants can experience deep emotional pain as a result of early traumas and losses is less understood. The realization that young children can have serious mental-health problems, including anxiety disorders and signs of depression accompanied by the same kind of brain changes seen on electroencephalograms in clinically depressed adults, is startling news to most people. The fact that significant and prolonged emotional distress can affect the emerging architecture of a young child’s brain should be a sobering wake-up call for society as a whole.

Despite the availability of rich and extensive knowledge on the emotional and social development of young children, including its underlying neurobiology, current early-childhood policies focus largely on cognition, language, and early literacy. Policies addressing children’s emotional and behavioral needs have been the exception, not the rule. This gap between what we “know” about healthy emotional development and the management of behavioral difficulties, and what we “do” through public policies and programs, is illustrated by the following examples:

- Uneven availability of support for parents and providers of early care and education to deal with common, age-appropriate behavioral challenges, such as discipline and limit setting.

- Limited caregiver and teacher training to evaluate and deal with children who present significant emotional and/or behavioral problems in early care and education programs. This is particularly alarming in the face of recent evidence of dramatic increases in prescriptions for behavior-modifying medications to treat preschoolers.

- Minimal expertise in early childhood development or “infant mental health” within child-welfare agencies that assess and treat children who have been the victims of serious maltreatment, despite extensive evidence that very young children can experience debilitating anxiety and trauma from parental abuse or neglect or from witnessing violence in their family or neighborhood, as well as data illustrating that early interventions can moderate the effects of these traumas.
IMPLICATIONS FOR POLICY AND PROGRAMS

The science of early childhood development is sufficiently mature at the present time to support a number of well-documented, evidence-based implications for those who develop and implement policies that affect the health and well-being of young children. Five compelling messages are particularly worthy of thoughtful consideration:

- All early childhood programs, including Head Start, must balance their focus on cognition and literacy skills with significant attention to emotional and social development. Children clearly need the social and emotional capabilities that enable them to sit still in a classroom, pay attention, and get along with their classmates just as much as they need the cognitive skills required to master the reading and math concepts taught in kindergarten.⁶²

- The rich and growing science of early emotional and social development must be incorporated into services to support parents who are struggling to manage routine behavioral difficulties in their young children, as well as those who are trying to figure out whether, when and how to deal with more serious social or emotional problems.⁶³

- Providers of early care and education must have sufficient knowledge and skills to help children who present common behavior problems early on, particularly those who exhibit significant aggression or difficulties with attention and “hyperactivity.” The achievement of this goal requires a two-pronged approach. First, greater attention must be focused on the social and emotional development of children in both pre-professional training programs and continuing professional education. Second, all early childhood programs must have access to specialized mental-health services that have professionals available to meet the needs of young children whose problems cannot be addressed adequately by front-line staff.¹⁹

- Expertise in early identification, assessment and clinical treatment must be incorporated into existing intervention programs to address the complex and currently unmet needs of young children with serious mental-health problems such as depression, anxiety and significant antisocial behaviors. Central to this challenge is the need to accurately differentiate transient emotional difficulties that reflect a “phase” that the child will outgrow from diagnosable disorders that require clinical treatment.¹⁹

- All child-welfare agencies that have responsibility for investigating suspected abuse or neglect must include a sophisticated assessment of the child’s developmental status, including cognitive, linguistic, emotional and social competence. This could be accomplished through closer collaboration between child-protective services and early intervention programs for children with developmental delays or disabilities, as mandated by the recently enacted Keeping Children and Families Safe Act of 2003 (Public Law 108-36).⁶⁴
These implications for policy and practice are striking in their simplicity, the extent to which they reflect common sense and their solid grounding in the science of early childhood and brain development. Closing the science-policy gap as it affects the future of our children, and therefore our society, should be an important priority for all who are engaged in public life.
REFERENCES


