Introduction

Nutrition is the study of food and how our bodies use the nutrients in food.

Nutrients are parts of food that are important to help our bodies function. The main nutrients found in foods are:

- proteins
- dietary fats (lipids)
- carbohydrates
- vitamins
- minerals
- water

Good nutrition (getting enough of the right nutrients) is necessary for growth, and for physical and mental health. Proteins, fats and carbohydrates are used by the body in everyday general activities, as well as assisting our bodies to recover from injuries or illness.

Vitamins and minerals are required by the body’s cells and organs, and lack of particular vitamins or minerals can lead to illness or disease. Poor nutrition (not getting the right mix of nutrients) increases the risk of a person getting diseases such as:

- heart disease
- kidney disease
- diabetes
- some cancers
- gall bladder disease

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More detailed information about nutrition in Indigenous people can be found at:
http://www.healthinfonet.ecu.edu.au/nutrition_review
Indigenous hunter-gatherers ate local plants, animals and fish. The men mostly hunted the large animals, while the women collected the small animals and plants. In places where there was plenty of food and water large groups might camp for weeks or months before moving on.

There is very little known about the health of Indigenous people before Europeans came to Australia, but it is understood that they were very healthy, fit and strong. The traditional diet was high in protein, complex carbohydrates (those that are digested slowly) and nutrients, and low in sugars. The types of foods that were eaten depended a lot on where the people were living and the time of year.

Torres Strait Islander people generally ate more seafood than the Aboriginal people, because seafood was so easy to collect and was always available. They were very knowledgeable about the sea, about the feeding patterns of the animals, tidal movements and such like. The foods available in the Torres Strait varied between the islands, and the Islanders depended partly on simple forms of agriculture and trade.

Indigenous nutrition after 1788
The hunter-gatherer lifestyle of Indigenous people changed after the arrival of Europeans in Australia in 1788. When their traditional lands were taken over by farmers and graziers, many Indigenous people were forced to live in settlements and to get food and other necessities from the Europeans.

The numbers of Indigenous people decreased after the arrival of the Europeans because of a number of factors: violence; diseases brought from Europe; and malnutrition (not enough healthy food). Many Indigenous groups settled on cattle stations, government settlements or missions (run by religious groups) where they ate mostly European food. This was before 1969 when Indigenous people did not receive all their pay as cash. Food was provided in exchange for work and there was often no choice in the food received. Some of these foods were highly processed (manufactured) so they could survive long periods of transport and storage, but they were often very high in fat, sugar and salt. When they did not receive enough food from their bosses, the Indigenous people would collect bush foods.

Communal feeding (in big groups) often occurred in these situations. One result of this was that mothers had less responsibility for feeding their own children and lost a lot of the knowledge they had about food and feeding.

This dependence on the European bosses gradually led to most Indigenous people converting to a ‘Western’ diet, with much less
physical activity involved. Women no longer needed to gather and prepare the food and spent more time sitting around camps and settlements. In the 1970s some changes occurred that led to big changes in men’s lifestyles as well:

- work opportunities in the countryside became fewer
- social welfare benefits (like the dole) became available
- alcohol became more freely available

The result of this was that many of the men were no longer working, leading to less physical activity, an increase in energy intake (food and alcohol), and continued lack of nutritious foods.

The fast rate of change of the Indigenous diet has increased the risk of diet-related diseases such as obesity and non-insulin-dependent diabetes (also called type 2 diabetes or adult-onset diabetes). The change has been from a fibre-rich, high protein, low-saturated-fat traditional diet to one high in refined carbohydrates (like white flour where most of the nutrients have been removed during processing) and saturated fats (which come from animal foods). Other groups that have been through similar rapid lifestyle changes include the Pima Indians and Native Americans. They too have seen an increase in the risk of these diseases.

### Assessing weight

The most commonly used measure of the appropriateness of adult weight is the body mass index (BMI), which is calculated by dividing a person’s weight (in kilograms) by their height (in metres) squared. For example, a woman who is 1.70 metres tall and weighs 65 kilograms would have a BMI of 22.5. As the table below shows, this lies within the normal range.

<table>
<thead>
<tr>
<th>BMI</th>
<th>Underweight</th>
<th>Normal</th>
<th>Overweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;18.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.5-24.9</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>25-29.9</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>≥30</td>
<td></td>
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</table>

### Growth in infancy and early childhood

Healthy growth before birth and after birth depends on:

- inherited factors - the average size and growth of our particular race or ethnic group
- environmental factors - a mother keeping healthy during pregnancy, feeding baby healthily before and after weaning

### Factors that can prevent or slow down growth:

- under-nutrition - not enough food
- malnutrition - not enough nutrients (can include over-nutrition and undernutrition)
- specific nutritional deficiencies - not enough of a particular nutrient
- anaemia - the blood is low in red blood cells or in haemoglobin (which carries oxygen)
- infections by viruses, bacteria or parasites

### Birthweights

An Australian study done in 2005 showed that the average weight of babies born to Indigenous mothers was lower than that of non-Indigenous mothers (3158 grams for Indigenous babies and 3375 grams for non-Indigenous babies). It also found that Indigenous mothers are more likely to have low birthweight babies than non-Indigenous mothers.

### Mother’s nutrition

A study was done in Darwin between 1987 and 1990 which looked at birthweights of 503 babies born to Aboriginal mothers. The study looked at the babies of mothers who were underweight, that is had a body mass index (BMI) of less than 18.5 (see box for an explanation of BMI). It found that:

- the babies born to these mothers were five times more likely to have a low birthweight
- the babies born to these mothers were two and a half times more likely to have had some growth restrictions in the womb
- more than a quarter of the low birthweight babies were caused by poor nutrition in the mother
almost a fifth of the cases of growth restrictions were caused by poor nutrition in the mother.

Table 1: How to calculate BMI

Box: How to calculate BMI

Source: WHO Consultation on Obesity (2000)

Body mass index (or BMI) is the measure used to calculate body weights. BMI can tell you whether a person is under weight, has a healthy weight, is overweight or is obese.

To calculate BMI you need to know a person's weight (in kilograms) and height (in metres).

The weight is divided by the height squared (the number times itself). For example to calculate the BMI of a woman who weighs 65 kilograms and is 1.70 metres tall: 65 (weight in kilograms) divided by 1.70 x 1.70 (height squared) = 22.5

As seen below a BMI of 22.5 is considered ‘normal’.

Classification of BMI and risk of disease

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI</th>
<th>Disease risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>Less than 18.50</td>
<td>Low</td>
</tr>
<tr>
<td>Normal</td>
<td>18.50–24.99</td>
<td>Average</td>
</tr>
<tr>
<td>Overweight</td>
<td>25.00–29.99</td>
<td>Increased</td>
</tr>
<tr>
<td>Obese</td>
<td>30.00 or more</td>
<td>Further increased</td>
</tr>
</tbody>
</table>

Smoking

Smoking also has a big impact on birthweight. From 2001-2004, babies born to Indigenous women who smoked were, on average, lighter than babies born to Indigenous women who did not smoke (3037 grams compared with 3290 grams). Almost double the number of women who smoked had low birthweight babies compared to women who didn't smoke, in both Indigenous and non-Indigenous women.

How we measure growth and weight in children

Measuring a child's growth is an important way to measure their overall health and development.

Charts of children's heights and weights have been produced by the World Health Organisation (WHO) and the US Centre for Disease Control. These can be used to follow a child's growth and weight over years to see whether they are developing as expected.

When a child does not develop as well as expected by the chart, this is probably because of poor nutrition and/or living conditions. The child can then be identified for treatment to improve their nutrition, which leads to better growth and improved long-term health.

Growth charts are developed by getting information on heights and weights of lots of children at different ages. Information from whole populations can be used to work out the ‘usual’ weight or height of children at a particular age. There are separate charts for boys and girls because they grow at different rates. Individual children can then have their weight and height compared to these charts to see if they are less than, the same as, or greater than the charts.

The WHO has also recently developed BMI charts for school children and teenagers.

Breastfeeding

Introduction

For newborn babies and small children, breast milk is the best food they can have:

- it contains all the nutrients they require in the right amounts
- it is always at the right temperature
- it gives the baby protection against many diseases and infections such as diarrhoea and breathing problems

For mothers the advantages of breastfeeding are:

- it is convenient and always available
- it requires no special equipment, gas or electricity
- it is free

Healthy babies are more likely to grow into healthy adults, so encouraging good health early, through breastfeeding, is a wise thing to do.

The Australian Dietary Guidelines for children and adolescents has ‘encourage and support breastfeeding’ at the top of its list of guidelines. The recommendations are that babies should be breastfed only (no food) for the first six months, with breastfeeding continuing to 12 months or beyond along with solid food.

Breastfeeding among Indigenous people

Before the arrival of Europeans, all Indigenous mothers breastfed their babies. Babies would be carried and fed while their mothers...
gathered food. If necessary, other women who were also breastfeeding could feed a child whose mother could not feed for some reason. The traditional way was to breastfeed for up to four years, sometimes longer, gradually introducing nutritious bush foods.

These days Indigenous people have lower breastfeeding rates than non-Indigenous people (less Indigenous people breastfeed their babies), except for those still living in remote areas.

An Australian survey in 2004-05 of breastfeeding showed:

- 92% of Indigenous women in remote areas breastfed their babies
- 81% of Indigenous women in non-remote areas breastfed their babies
- 88% of non-Indigenous women in non-remote areas breastfed their babies

- the number of Indigenous women in non-remote areas who had breastfed their babies had increased slightly from 2001 (77% to 79%)
- the number of Indigenous women in non-remote areas who had breastfed their babies for more than six months had increased slightly from 2001 (24% to 30%)

There are a lot of reasons why mothers give up breastfeeding or choose not to in the first place:

- no support from partners, family and/or friends
- going back to work
- not producing enough milk (this may be a real problem or a belief that is actually not true)
- difficulties in getting the baby to attach or suck
- sore nipples
- being frowned upon when in public

With Indigenous mothers, studies in Victoria and the Northern Territory found that the most common reasons for stopping breastfeeding were:

- cracked or sore nipples
- not producing enough milk
- tiredness

Other reasons (not so common):

- having a low birth-weight or pre-term baby
- the baby being bottle fed in hospital when it was sick

the child being adopted or fostered by another family member
the baby was unwanted
the mother was taking drugs or alcohol

When a child is being weaned, the risk increases of them developing infections and malnutrition. In some Indigenous communities where living conditions are not very hygienic or there is a lot of contamination (e.g. rubbish lying around, food is not refrigerated), the risk for a child is much greater than in other communities:

- replacement foods that are not very nutritious can lead to malnutrition and deficiencies, such as iron deficiencies
- if breastfeeding is being replaced with bottle feeding the mother needs proper infant formula (powdered milk is not suitable), clean water and properly sterilised bottles

For a long time the Australian government has recognised that there needs to be a strategy to encourage mothers to breastfeed for longer, and to promote appropriate foods for Indigenous infants. In 1997 two reports were produced on this topic. Areas that were identified as needing special attention were:

- antenatal (before birth) and postnatal (after birth) care and advice
- counselling and problem-solving skills
- advice on feeding choices and the benefits of breastfeeding
- the need for appropriate cultural and community support

More recently (in 2007) the Australian Parliament had an inquiry into breastfeeding, with special attention on breastfeeding by Indigenous mothers. The recommendations included:

- national monitoring of breastfeeding (keeping track of how many mothers do it, for how long, etc)
- the ‘baby friendly hospital initiative’ (the hospital does not accept free or low-cost breast milk substitutes, feeding bottles or teats, and has implemented 10 specific steps to support successful breastfeeding)
- monitoring of breastfeeding (as above) specifically in Indigenous communities, both remote and non remote
- promotion of breastfeeding in Indigenous communities as way of keeping healthy in later life

Growth of Indigenous infants and young children

In the 1960s it was accepted that Indigenous infants and young children did not show the same patterns of growth as most other Australian children:
The results showed:
about one in ten of these children (11%) were considered 'stunted'
(a long way below their expected heights)
more than one in ten children (14%) were underweight
one in ten children (10%) were 'wasted', which means they weighed
a lot less than they should have for their particular height

According to the international organisation UNICEF (the United
Nations Children's Fund), wasting rates of 10% or more require
urgent action. Other countries that have similar rates include Niger
and the Central African Republic.

Although there are many factors involved in the poor rates of
growth of Indigenous children, the most important appear to
be living in overcrowded, unhygienic conditions, with repeated
infections and poor nutrition. This highlights the fact that improved
growth and getting rid of malnutrition in Indigenous communities
requires these changes:
better food supplies
improved housing
health and nutrition education
better health care and medicines

Indigenous babies were usually lighter and smaller than non-
Indigenous babies

Indigenous babies often showed similar growth patterns to
non-Indigenous babies over the first four to six months, but their
growth rate would usually drop off until about three years of age

Indigenous babies' head growth patterns were the same as for
general growth

For a long time it was believed that this growth pattern was genetic,
that it was the way all Indigenous babies grew. Studies carried out
in the 1980s, however, showed that Indigenous children brought
up in good living conditions showed similar growth patterns to
non-Indigenous Australian children.

Studies in the 1970s and 1980s identified this same pattern of
growth in Indigenous children in rural and remote areas of the
Northern Territory and Western Australia.

Around this time, however, health workers in the Kimberley began
to notice improvements:
during the 1970s the growth of town-living Indigenous children
improved more than the children in remote areas
from the mid 1980s the growth of remote Indigenous children
improved so that there were no differences between the town-
living and remote children

Kimberley Indigenous children at 12 months of age were still
smaller than non-Indigenous children

In 1987 the Aboriginal Birth Cohort study began in the Top End in
the Northern Territory. The aim was to collect information (height,
weight, and health information) on Indigenous babies born in NT
from 1987 to 1989 and to continue to collect information over a
long period of time (after 11 years, 20 years and 25 years). This type
of study, known as a longitudinal study, allows the researchers to
investigate causes of diseases and other health issues.

Results from this study in 1987-1989 showed a similar pattern of
growth for Indigenous babies as was seen in the Kimberley, but
after 11 years the growth of urban-dwelling children had improved
while that of the remote children had not.

The results of this study led the government in the 1990s to set up
the Growth Assessment and Action (GAA) program. The GAA keeps
track of the growth of Indigenous children up to five years of age in
about 80 remote communities in NT and takes action if the growth
rate seems to be falling.

The most recent review by the GAA in April 2007 measured the
growth of 3000 children aged less than five years (out of a total
number of 4064 children), living in rural and remote communities.

Overweight and obesity

When the amount of food eaten by a person (measured as energy
in kilojoules) is greater than the amount of energy being used
(through daily activity and exercise) the extra energy is stored as
fat and the person puts on weight. Excess body fat leads to being
overweight (a bit too much fat) or being obese (too much fat). A
person's BMI (see above for calculating BMI) will tell you whether
he/she is overweight or obese, normal weight or underweight.

Obesity is often caused by eating too many refined carbohydrates
(foods made from white flour or containing lots of sugar), drinking
too much alcohol, and not getting enough exercise. It can lead to
high insulin, cholesterol, lipid and blood pressure which are all risk
factors for heart disease.

The main diseases that affect the health of indigenous people are
diseases caused by obesity:
heart disease
diabetes
kidney diseases
breathing problems
digestive problems
difficulties in pregnancy

A recent survey by the National Aboriginal and Torres Strait Islander Health Service (NATSIHS) in 2004-05 found that obesity is an increasing problem in the Australian Indigenous population. Over a quarter (28%) of Indigenous people aged 15 years or older were overweight and over a quarter (29%) were obese. This adds up to more than half the population (57%) being either overweight or obese.

In the non-indigenous population more than half the population (52%) was also found to be overweight or obese. The main difference between the two populations was the greater proportion of obese Indigenous people (29%) than non-Indigenous people (17%). This difference was especially true for females.

Environmental factors

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Socioeconomic factors

Indigenous Australians are generally less well off than other Australians when we compare socioeconomic factors such as:

- a person’s level of education
- whether a person has a job
- how much money a person earns

Education

The Census (a survey that measures all the socioeconomic factors of people all over Australia) in 2006 showed the following education results:

Comparison in percentages of education levels of Indigenous and non-Indigenous people aged 15 years or older

Employment

The 2006 Census compares the employment status of Indigenous and non-Indigenous Australians.

Comparison of employment status in percentages between Indigenous and non-Indigenous Australians

Income

The 2006 Census showed:

- the median family income for Indigenous Australians was $460/week
- the median family income for non-Indigenous Australians was $740/week

Community Development Employment Projects (CDEP) were the main source of income 76% of employed Indigenous people in very remote areas

Community Development Employment Projects (CDEP) were the main source of income for 14% of employed Indigenous people in remote areas

Environmental factors

The food we choose eat is partly affected by what foods are available to us.

The main factors that determine what food is available to us (to be discussed in detail below) are:

- socioeconomic factors (how much we can afford to spend)
- environmental factors (how we store and cook our food)
- geographical factors (how far we live from the cities)

The diets of many Indigenous people are high in energy, fat, refined carbohydrates and salt, and low in fibre and certain essential nutrients (such as folate, retinol and other vitamins). This is because healthy foods are not readily available.
The environmental factors that play a part in our nutrition and growth are the physical environment in which we live:

- housing
- cooking facilities
- water for drinking and washing
- plumbing
- garbage disposal/collection

The living conditions for many Indigenous people, especially those living in remote areas, are not very good. Their homes are overcrowded, they do not have safe, clean drinking water, the plumbing is not safe, there is little room to store food, and no proper equipment to cook it on.

**Housing**

The 2006 Census showed:
- just over one third (36%) of Indigenous people owned their own homes or had a mortgage
- almost three quarters (71%) of non-Indigenous people owned their own homes or had a mortgage
- almost three in every twenty (14%) Indigenous homes needed at least one more bedroom (because there were so many people living in the home)
- only three in every hundred (3%) non-Indigenous homes needed at least one more bedroom
- four in every ten (40%) Indigenous homes in very remote areas needed at least one more bedroom

**Water and electricity**

A discrete Indigenous community is a community with physical or legal boundaries, and one which is to be used by mostly Aboriginal or Torres Strait Islander people. A survey was done in 2006 in 1187 discrete communities showed:
- bore water was the main source of drinking water for more than half (58%) the communities
- the usual number of people living in these communities was 92,960
- generators were the main source of electricity for 50,317 people in 377 communities
- almost 68,000 people had their electricity interrupted (turned off) at least once in the previous year
- more than 13,000 people had their electricity interrupted 20 times or more in the last year
- in almost half the communities (48%) rubbish was dumped in an unfenced community tip

**Cooking and storage**

The freshness of the food and its variety are affected by the need for food to be stored suitably and protected from contamination. This means that if there is no refrigeration fresh meat and milk will not be available, only canned meats and long-life milk. Likewise if mice or weevils are a problem, foods must be in sealed containers.

There has not been any information collected on cooking arrangements and food storage conditions in Indigenous communities, but these are thought to be ‘inadequate, and sometimes dangerous’ for many Indigenous people living in remote areas.

**Geographic factors**

Where we live makes a big difference to what foods are available to eat.

Many Indigenous people live in rural or remote areas where fresh, nutritious food is not always available, and the community store is the only place to shop. In many cases the store gets new supplies only once a week, or, as in some areas of the Torres Strait, even less often than that.

After long journeys in trucks, the food arrives in poor condition and some has to be thrown away. Transport is expensive so the food costs a lot.

Those foods that don’t need much or any preparation (and are less nutritious) are often preferred because they are convenient. The fruit and vegetables are less popular because they have been bruised and damaged during the trip, and also need more preparation.

In 2006 a survey was done in Queensland - the 2006 Healthy Food Access Basket Survey. It showed that food costs were a lot higher in rural and remote communities than in metropolitan and regional centres:

- in stores more than 2000 km from Brisbane the cost of a basket of groceries was $146 more than in the major cities
- in stores more than 2000 km from Brisbane the cost of fruit, vegetables and legumes was $59 more than in the major cities
stores in remote places were less likely to have basic food items
stores in remote places were less likely to have healthy food options
(such as reduced-fat milk, wholemeal bread, fruit and vegetables)
A similar survey in the Northern Territory found that prices at remote stores were higher than in supermarkets and corner stores in Darwin.

Comparison of food prices between Darwin stores and remote communities

Graph 6 Comparison of food prices between Darwin stores and remote communities

Community stores have a big influence on the diets of the people living in the community. For example, in some communities the stores support healthy nutrition programs. By providing a wider variety of healthy foods and healthy ideas in their stores, the store owners also benefit by selling more of these products.

Store managers have a big influence on what foods are available in remote Indigenous communities and so play a big part in improving the nutrition of the customers. A project at Minjilang (Croker Island, Northern Territory) showed that improvements of this kind only work when the community members are involved. A study in New South Wales found that the main factors that made a difference to what the community members bought were:

the amount and type of advertising of foods
the price of the foods
how much take-away food was available

Some other factors that affect remote community stores are:
tax changes, such as introduction of the goods and services tax (GST) which resulted in price increases of take-away and fast foods
national food safety legislation, which creates rules for the food industry on keeping foods safe and secure, can improve the way foods are produced, processed, delivered, stored and sold

National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan (NATSINSAP)

The National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000-2010 was developed as part of the nutrition strategy for all Australians called Eat Well Australia: a national framework for action in public health nutrition, 2000-2010. Both strategies were endorsed (put into action) by the Australian Health Ministers’ Conference in August 2001.

The federal government recognised that poor diet is a major reason why many Indigenous people have poor health and why so many Indigenous people suffer from chronic diseases.

The NATSINSAP identified seven important areas to be improved:
food supply in remote and rural communities
food security and socioeconomic status
nutrition promotion for families
nutrition issues in urban areas
living conditions in the homes and communities
increasing the number of Aboriginal and Torres Strait Islanders in the nutrition workforce
systems for the national distribution of food and nutrition information

They also paid for a NATSINSAP Project Officer to do this work.

Summary

Throughout their lives, many Indigenous people suffer from major health problems because of poor nutrition. At birth Indigenous babies are generally much lighter than non-Indigenous babies.

After birth most Indigenous babies grow well until they can no longer survive on breast milk alone. At this time they need some solid food as well. Sometimes what they are given is not enough or not healthy, or perhaps is contaminated if they live in areas where there is inadequate housing, no sewerage, or no fresh water. At this time the children are at risk of catching infections. This can develop into a vicious cycle: the children are undernourished so their bodies cannot fight the infections, so they get sick, and when they are sick they are at risk of getting more infections because the food they eat is not making them strong enough to fight the infections. All this can prevent them from growing as big and strong as they could have been. This in turn can mean that mothers are not as strong and healthy as they could be, and this will have a bad effect on their babies.

From the time they become young adults, many Indigenous people start to gain a lot of weight, eventually becoming overweight or obese. Being overweight or obese is linked to many chronic diseases, especially cardiovascular disease and diabetes.

The main reason for these problems of growth and nutrition is the social disadvantage many Indigenous people experience, namely low levels of education, high levels of unemployment, low incomes and an unsatisfactory environment.

Two of the targets for ‘closing the gap’ between the health of Indigenous and non-Indigenous Australians - to increase Indigenous life expectancy and to reduce child and infant mortality
are related to nutrition and diet. However, improvements in nutrition will need to be accompanied by improvements in social disadvantage (mentioned above). For this reason NATSINSAP remains as important today as it did in 2001.
The Australian Indigenous HealthInfoNet is an innovative Internet resource that contributes to ‘closing the gap’ in health between Indigenous and other Australians by informing practice and policy in Indigenous health.

Two concepts underpin the HealthInfoNet’s work. The first is evidence-informed decision-making, whereby practitioners and policy-makers have access to the best available research and other information. This concept is linked with that of translational research (TR), which involves making research and other information available in a form that has immediate, practical utility. Implementation of these two concepts involves synthesis, exchange and ethical application of knowledge through ongoing interaction with key stakeholders.

The HealthInfoNet’s work in TR at a population-health level, in which it is at the forefront internationally, addresses the knowledge needs of a wide range of potential users, including policy-makers, health service providers, program managers, clinicians, Indigenous health workers, and other health professionals. The HealthInfoNet also provides easy-to-read and summarised material for students and the general community.

The HealthInfoNet encourages and supports information-sharing among practitioners, policy-makers and others working to improve Indigenous health – its free on line yarning places enable people across the country to share information, knowledge and experience. The HealthInfoNet is funded mainly by the Australian Department of Health and Ageing. Its award-winning web resource (www.healthinfonet.ecu.edu.au) is free and available to everyone.