Cassowary Coast Community

Lifestyle and Wellbeing Profile

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CASSOWARY COAST

2010

Acknowledgements & Authors

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1. Introduction

This report is a profile of the lifestyle and wellbeing of the Cassowary Coast Region.

The Cassowary Coast Lifestyle and Wellbeing Profile analyses selected socio-economic characteristics[1] identified as key indicators of health status. The analysis assumes that *patterns of disease prevalence are strongly based on age and sex* in addition to *Indigenous and socio-economic status* (in particular, comparative socio-economic disadvantage) (Queensland Health 2004:118).

The health status of the Cassowary Coast Region is presented relative to the health status of all Queenslanders identified in Health Determinants Queensland 2004, The Health of Queenslanders 2008, Queensland Regional Profiles (2009) and other publications noted in the reference list.

2. Methodology and Definitions

The methodology employed in this study includes:

- the identification of lifestyle and wellbeing issues and priorities for the general population and particular population groups
- identification of environmental and population health issues and priorities
- validation of these priorities through key informant consultations.

The method for identifying the Cassowary Coast Region's lifestyle and well-being (health) priorities is consistent with small area health profiling promoted by Queensland Health and involves analysing the Region's community's health in comparison to the whole of Queensland community's health (Queensland Health, 2003).

There are three steps to identifying the health status of the Cassowary Coast Region.

1. Identify and analyse key socio-economic characteristics of the Cassowary Coast Region's population that are known to impact health status:
    - Age structure
    - Sex distribution
    - Proportion of Indigenous people
    - Socio-economic features including SEIFA index
    - Urban, rural, remote classification

[1] Age and sex distribution, proportion of Indigenous people, socio-economic disadvantage profile

2. Determine the health burdens and health and social determinants for these socio-economic groups for Queensland (such as smoking, overweight and obesity, housing security and others)

3. Align the socio-economic characteristics of the Cassowary Coast with the health burden and health and social determinants for Queensland.

This methodology provides a sound, broad indication of the health issues and health priorities for the Cassowary Coast community. Once the health issues and priorities are identified, they will be reviewed with key informants to ensure that broad results align with local knowledge and local experiences.

In addition to the individual and population health issues distilled from the population analysis, key environmental factors that impact on lifestyle and well-being are interrogated to identify the challenges for the Cassowary Coast Region.

2.1 Definitions

Health determinants- individual characteristics and behaviours that, through evidence and the literature, are shown to be linked to health outcomes such as tobacco smoking, harmful use of alcohol, nutrient intake, obesity, physical inactivity and others.

Social determinants- the socio-economic circumstances of the individual and the population that are known to be associated with health outcomes such as secure and suitable housing, income, education, employment, family characteristics and others.

3. Profile of Key Socio-economic Indicators of Health

The Cassowary Coast Region profile of selected socio-economic indicators of health status is presented using data from the Australian Bureau of Statistics 1996, 2001 and 2006 Census and population projections.

To assist in the development of the health profile for the Cassowary Coast Region, the socio-economic indicators are compared to the same indicators for Queensland.

3.1 Age Profile

The Queensland Health Determinants framework identifies the following age groupings for life stages in the Cassowary Coast Region.

- *Children = 0-14 years*
- *Young people = 15-24 years*
- *Adults = 25-64 years*
- *Older People = 64 years+*

Table 1 presents the current (2006) and projected (2006-2031) growth of these age groups for the Cassowary Coast and Queensland.

Table 1 Current and Projected Growth in Age Groups, Cassowary Coast and Queensland, 2006 and 2031.

Age Group	Cassowary Coast Regional Council		Queensland	
	2006	2031	2006	2031
% aged 0-14 years	21.3%	15.5%	20.4%	17.7%
% aged 15-24 years	11.4%	8.9%	14.1%	12.1%
% aged 25-64 years	53.1%	43.9%	53.0%	29.9%
% aged 65+ years	14.2%	31.7%	12.1%	20.3%
Median Age (years)	40	52	36	41

Source: Department of Planning, 2008a.

It is evident that the Cassowary Coast Region has a higher median age compared to Queensland. A large increase in the median age of the population of the Cassowary Coast is expected. A significant growth in the 65+ years age group is expected to 2031.

3.2 Other Socio-economic Characteristics

Table 2 identifies other characteristics of the Cassowary Coast Region and Queensland communities that are relevant to health status.

Table 2 Key Socio-economic Characteristics, Cassowary Coast Regional Council and Queensland, 2006

Socio-economic Characteristic	Cassowary Coast Regional Council	Queensland
% Males	51.4%	49.6%
Index of Socio-economic Advantage/Disadvantage % population in lowest 30% disadvantaged quintile % population in advantaged quintile % unemployed % low income earners % single parent households with dependent children	 4.5% 15.3%	 4.7% 15.9%
% Aboriginal and Torres Strait Islander	8.3%	3.3%
% Australian Born	88.1%	75.2%
% Speaks a main language other than English at home	7.2%	13.6%
% Speaks English not well or not at all	8.7%	5.1%%

Source: Australian Bureau of Statistics, Census of Population and Housing, 2006

Tables 1 and 2 provide an overview of the profile of the Cassowary Coast community and position that community in relation to the whole of Queensland.

The population profile of the Cassowary Coast Region is similar to the population profile for Queensland and includes:

- Hazardous and harmful consumption of alcohol[2]
- Tobacco smoking
- Overweight and obesity
- Poor nutrition
- Physical inactivity
- Risk and protective factors for mental illness (Queensland Health, *Innisfail Health Service District,* 2004:3).

The risk factors associated with these health determinants vary for different population groups.

Due to the combined effect of socioeconomic disadvantage and rurality in this district, the health issues and their determinants listed above are likely to be exacerbated. In addition, in comparison to urban populations, rural and remote populations in Queensland will have greater death and illness due to injury and

[2] More than 1 drinks per day for females and more than 2 drinks per day for males

poisoning, particularly road transport injury. (Queensland Health, *Innisfail Health Service District,* 2004:3).

The Cassowary Coast socio-economic characteristics that differ from Queensland and that impact the health profile of the Region are:

- A higher proportion of older people and projected high growth in the older population age groups
- A higher proportion of Indigenous people
- Evidence of socioeconomic disadvantage
- A culturally diverse population with evidence of poor proficiency in English (Queensland Health, *Innisfail Health Service District,* 2004:2).

While identified in 2004 and 2006, these characteristics remain true for the Cassowary Coast Region.

A report on Cardwell and Johnstone Statistical Local Area Mortality (2003-2006) reported Johnstone SLA having significantly higher mortality rates for all causes of death compared with Queensland as a whole. Mortality rates were 16% higher for Johnstone SLA compared with Queensland for all cause mortality. Cardwell SLA has significantly higher mortality rates from external causes (injuries) compared with Queensland. Rates are 72% higher in Cardwell SLA compared with Queensland. While the mortality rate for injury in Johnstone SLA was similar to Queensland. Cardwell SLA has significantly higher mortality rates from respiratory disease compared with Queensland. Rates are 54% higher in Cardwell SLA compared with Queensland. The mortality rate for respiratory conditions in Johnstone SLA was similar to Queensland. These rates need further investigation and better management of risks at a local level and disease prevention strategies put in-place.

An interrogation of the health status of older people, children, socio-economically disadvantaged residents and Indigenous people will assist in further understanding the health priorities for Cassowary Coast Region.

4. Older People

'Healthy ageing means that older people are able to be independent and active participants in Australian society.'

The proportion of the population aged over 65 years has increased in the Cassowary Coast Region from 12.2% in 2001 to 14.6% in 2006. In the Cassowary Coast Region, the older aged groups (those 75 years and over) are

growing at a steady rate, increasing from 5.2% of the population of the Region in 2001 to 6.2% of the population of the Region in 2006. Population projections indicate that there will be an on-going increase in this older population.

Table 3 Proportion of Older People (over 65 years) in the Cassowary Coast Region, 2001 and 2006.

Year	65-74 years	74-84 years	85+ years	Cassowary Coast Population
2001	7.7%	4.0%	1.2%	28,877
2006	8.4%	4.8%	1.4%	27,786

(DIP, 2008b).

Rate of ageing is similar to other parts of Queensland.

4.1 Illness, Injury and Older People

Older Queenslanders remain in good health until a relatively short period before their death. Evidence indicates that it is the older age groups (those over 75 years) that have a greater number of acute illnesses as well as functional, behavioural, social and economic needs compared to those aged between 65 and 75 years (Queensland Health, 2004, *Older People*: 1).

The most common causes of early death and disability for older Queenslanders are:

- *Coronary heart disease*
- *Type 2 diabetes*
- *Lung cancer*
- *Adult onset hearing loss*
- *Dementia*
- *Stroke* (Queensland Health, 2008, *The Health of Queenslanders*, 91).

4.1.1 Disabling Illnesses

Alzheimer and other dementias, hearing loss, stroke, vision disorders and osteoarthritis contribute the greatest proportion of years of life lost due to disability. In 2000, 25% of Queenslanders aged over 74 years were diagnosed with diabetes as were 20% of women and 12% of men aged between 65 and 74 years.

4.1.2 Falls

Falls are the most common cause of serious injury for older Queenslanders. It is estimated that the number of hip fractures will double by 2026. Most falls occur in the private home and most are predictable and preventable.

4.2 Gender Differences and Health Outcomes for Older People

There is evidence that health burdens and some health determinants are different for men and women. This section will briefly review the health issues for older men and older women.

4.2.1 Older Men

The top three causes of early death and disability for older men (65-74 years) are:

- *Coronary heart disease*
- *Lung cancer*
- *Adult onset hearing loss* (Queensland Health, 2008, *The Health of Queenslanders*, 91).

The disease and injury burden for older men and women varies. Men are more likely to die prematurely than women and older men are more likely to die from lung cancer, coronary heart disease, suicide and chronic obstructive pulmonary disease than older women. Hospitalisation and death from hazardous and harmful alcohol consumption and tobacco smoking is twice as common in older men then in older women.

4.2.2 Older Women

The top three causes of early death and disability for older women (65-74 years) are:

- *Coronary heart disease*
- *Type 2 diabetes*
- *Lung cancer* (Queensland Health, 2008, *The Health of Queenslanders*, 91).

Older women are more likely to be hospitalised and die from falls than older men and older women are ten times more likely to have osteoporosis than older men. More than 10% of females older than 64 years have osteoporosis. In the last decade, lung cancer has increased as the cause of death for older women, most likely due to increased rates of smoking in women. Improved breast cancer screening and treatment could be responsible for a decline in female deaths from breast cancer.

For the older cohort (75 years and older), the top three causes of disease burden for both males and females were coronary heart disease, dementia and stroke (Queensland Health, 2008, *The Health of Queenslanders*, 91).

4.3 Health Determining Behaviours for Older People

Health outcomes are linked to the behaviour of individuals and populations. A review of the key health determinants (those behaviours that strongly relate to health outcomes) for older people, highlight the importance of healthy lifestyle and preventative strategies (such as health screenings and vaccinations) for healthy ageing. The prevalence of risk factors for older people are presented in Table 1.

The following analysis will be based on this table.

Table 1: Prevalence of risk factors, older people, 2005, 2007, 2008.

		65-74 years			75+ years		
	Year	Persons	Males	Females	Persons	Males	Females
Smoke daily	2007	9.5 (7.1-12.7)	10.1 (6.6-15.2)	8.9 (5.9-13.2)	4.4 (2.6-7.6)	4.2 (1.9-9.3)	4.6 (2.2-9.4)
Risky alcohol consumption-long term harm*	2007	6.5 (4.9-8.5)	7.5 (5.2-10.6)	5.5 (3.5-8.6)			
Risky alcohol consumption-short term harm*	2007	8.1 (6.3-10.3)	12.3 (9.2-16.1)	4.0 (2.4-6.6)			
Overweight, obese or severly obese	2008	65.5 (59.2-71.4)	68.3 (58.9-76.4)	62.7 (53.8-70.8)	45.3 (38.3-52.6)	48.3 (36.6-60.1)	43.1 (34.6-52.0)
Not sufficient physical activity	2008	60.2 (54.2-66.0)	61.0 (52.8-68.6)	59.1 (50.5-67.3)	n/a	n/a	n/a
Insufficient fruit	2008	34.9 (27.3-43.3)	42.5 (30.7-55.3)	27.4 (18.5-38.5)	39.0 (30.2-48.7)	40.9 (26.7-56.8)	37.7 (27.0-49.7)
Insufficient vegetables	2008	83.2 (76.4-88.3)	93.6 (84.5-97.5)	72.9 (61.7-81.8)	88.9 (81.1-93.7)	90.0 (76.5-96.1)	88.1 (77.1-94.2)
High blood pressure	2005	55.2 (47.6-62.6)	49.1 (37.5-60.7)	61.0 (51.3-69.8)	55.9 (47.1-64.3)	48.9 (36.0-62.0)	60.8 (48.9-71.5)
High blood cholesterol	2005	44.0 (36.6-51.8)	44.1 (32.8-56.1)	43.9 (34.5-53.9)	34.9 (27.0-43.8)	36.8 (25.1-50.3)	33.6 (23.4-45.6)
Poor/fair self reported health	2008	27.6 (22.2-33.6)	30.8 (23.1-39.8)	24.2 (17.3-32.8)	34.8 (28.4-41.7)	27.9 (18.7-39.4)	39.9 (31.7-48.6)
High/very high psychological distress	2008	12.8 (9.0-17.8)	8.3 (4.3-15.2)	17.5 (11.6-25.5)	10.4 (7.0-15.2)	6.0 (2.3-14.8)	13.7 (8.9-20.3)

*65 years and older

(Queensland Health, 2008, *the Health of Queenslanders*, 1995).

4.3.1 Alcohol and Tobacco Use

Excessive alcohol consumption is a major risk factor for morbidity and mortality (AIHW, 2008, 139). In 2003, alcohol consumption caused a total of 2.3% of the

burden of disease (Queensland Health, 2008, *The Health of Queenslanders*, 60). In 2007, about 1 in 20 older Queenslanders drank hazardous and harmful levels of alcohol. Alcohol consumption is influenced by a combination of health and social determinants and individual risk and protective factors (Queensland Health, 2008, *The Health of Queenslanders*, 60).

Tobacco smoking is the single most preventable cause of ill health and death in Australia (AIHW, 2008). Tobacco smoking is a major risk factor for coronary heart disease, stroke, peripheral vascular disease, cancer and a variety of other diseases and conditions (AIHW, 2008, 132). In 2007, 1 in 10 older Queenslanders smoked daily.

4.3.2 Physical Activity

Physical activity is important for maintaining good health and for reducing the risk of a range of diseases. Regular physical activity has been found to protect against some forms of cancer, and strengthens the musculoskeletal system, which in turn reduces the likelihood of osteoporosis and bone fractures (Australian Institute of Health and Welfare, 2006). A lack of regular physical activity is directly linked with cardiovascular disease, Type 2 diabetes, high blood pressure, colon cancer, depression, obesity, and osteoporosis (Australian Institute of Health and Welfare, 2006).

In 2003, physical inactivity was the third largest determinant the burden of disease for Queensland. Physical inactivity accounted for 6.6% of the burden of disease, 6.4% of the burden of disease for males and 6.9% for females (Queensland Health, 2006). From 65 years of age, the incidence of hospitalisation and death from insufficient physical activity increases sharply. Older people are the least active of any age group in Queensland (Queensland Health, *Older People*, 2004:4). In 2008, one in two older Queenslanders are insufficiently active.

4.3.3 Weight and Diet

Excess body fat increases the risk of developing a range of health problems, including Type 2 diabetes, cardiovascular disease, high blood pressure, certain cancers, sleep apnoea, osteoarthritis, psychological disorders and social problems (AIHW, 2008, 158). In Queensland in 2003, poor diet was estimated to cause approximately 16% of the total burden of disease and injury, assessed by the contribution of overweight and obesity, high blood cholesterol, high blood pressure and inadequate consumption of fruit and vegetables (Queensland Health, 2008, *The Health of Queenslanders*, 53). Of older Queenslanders it is those aged 65-74 who are more likely to be overweight or obese than those aged 75 years and older. An alarming 75% of Queensland women and 61% of men aged 65-74 were reportedly overweight or obese in 2001.

Diet plays a major role health and can reduce or increase the risk of various diseases (AIHW, 2008). A healthy diet can play a role in preventing diseases such as cardiovascular disease, Type 2 diabetes and certain types of cancer (AIHW, 2008). All older Queenslanders consume too few fruit and vegetables. In 2008, about one in three are not eating sufficient fruit per day and one in eight are eating recommended number of vegetables per day (Queensland Health, 2008, *The Health of Queenslanders*, 94).

High blood pressure is a risk factor for cardiovascular disease, stroke, heart failure and kidney failure (AIHW, 2008, 153). In 2003, an estimated 6.6% of the total burden of disease and injury was due to high blood pressure (Queensland Health, 2008, *The Health of Queenslanders*, 65). The major causes of high blood pressure are diet, obesity, excessive alcohol consumption, and insufficient physical activity (AIHW, 2008, 154). In 2005, one in two older Queenslanders had high blood pressure.

High blood cholesterol is a major risk factor for coronary heart disease and ischaemic stroke. In 2003, an estimated 6.2% of the total burden of disease and injury in Queensland was due to high blood cholesterol. In 2005, one in two or three have elevated total cholesterol levels (Queensland Health, 2008, *The Health of Queenslanders*, 94).

4.3.4 Dental Health

Queensland Health report that about half of older people aged 60-69 years have a functional dentition (good dental health) though this decreases to one-third for those aged 70 years and older. About 20% of those aged 60-69 have no natural teeth and this increases to more than 30% for those aged 70 years and older. Socio-economic disadvantage is a major factor in functional dentition, particularly for those Queenslanders over 50 years of age.

4.3.5 GP & Dentist Attendance, Health Screenings, Vaccination, First Aid Certificates

Queensland Health research indicates that older people are regular visitors to general practitioners (GP) with about two thirds of older people surveyed in 2001 indicating they had attended a GP in the last 2 weeks. Dentist attendance is less common for older people with almost one third of those aged between 60 and 69 years reporting regular dental check-ups. For those aged over 70 years, regular dental check-ups are less frequent.

Information on screening for breast (mammograms) and cervical (pap smear tests) cancers indicates that older women are more likely to have breast

screening than pap smear tests. In 2001, women aged over 65 years were less likely to have had a pap smear than all other age groups.

In 2003, three quarters of people aged 65 years and older had a flu vaccination. That research found that the rate of flu vaccination for older people decreased with increased household income (Queensland Health, *Older People*, 2004:44).

The percentage of Queenslanders with first aid certificates appears to decrease with age. Costs and accessibility have been identified as barriers to older people undertaking first aid training (Queensland Health, *Older People*, 2004:45).

4.4 Social Determinants of Health for Older People

Queensland Health, guided by the *National Health Performance Framework* has derived social and environmental determinants of health for older people. These include:

- *Housing- tenure and type*
- *Household Safety Devices - anti-slip mats, handrails, alarms and others*
- *Income, Pensions and Disability Support- income level and security of income*
- *Employment - labour force status*
- *Education - level of education and literacy*
- *Social Participation - participation in sport, recreation and leisure activities*
- *Volunteerism - voluntary and caring activities*
- *Carers- support needs and caring roles of older people*
- *Sense of Control - control over decisions that affect your life*
- *Living Arrangements - household characteristics*
- *Transport- public and private*
- *Safety and Crime - perceptions of safety and crime rates*
- *Computer and Internet Access - use rates*

Together, these factors provide an indication of likely health outcomes for older people. For example, there is evidence that older people in rented accommodation have higher death rates than owner occupiers, even after other socio-economic variables are considered (Queensland Health, 2001).

In addition, living arrangements can exacerbate social isolation for older people and social isolation has health implications (Queensland Health, 2002).

4.4.1 Location and Design of Housing

The location and design of housing for older people can have implications for health outcomes. For example, environments that maximise safe movement, public transport, service accessibility and social interaction for older people will reduce the risks of disease by increasing opportunities for physical activity and

reducing social isolation through effective transport access and opportunities for social interaction.

An ageing population has implications for a range of planning and design matters, such as residential design and provision of transport, and community and health services (DIP, Regional Plan: 60).

5. Children's Health

Childhood sets the foundation for future health and wellbeing. Genetic, social, environmental, economic and cultural influences during childhood impact on the physical, emotional and mental health of children (Queensland Health, *The Health of Queenslanders*, 2008:76).

Table 4 shows the proportion of children, that is, those aged from 0 to 14 years in the Cassowary Coast Region (and the percentage of the population they represent) from 2001 to 2006. Since 2001, there has been a decrease in children aged 0-9years. The 10-14 years group has remained steady.

Table 4 Proportion of Children (0-14 years) in Cassowary Coast 2001-2006

	0-4years (%)	5-9 years (%)	10-14years (%)	Cassowary Coast population
2001	7%	8%	8%	28,877
2006	6%	7.2%	8%	27,786

Source: DIP, 2008b

Though children are predicted to be proportionally less of the population in the next 20 years, it is important to understand their health issues as childhood health and early life experiences can impact health outcomes in later life.

The health of children is the result of a complex interplay of genetic, social, environmental, cultural and economic factors. The impact of these factors in childhood also affects health in later life (Queensland Health *Children*, 2004:1).

5.1 Infant Mortality and Childhood Deaths

Infant mortality is an internationally accepted indicator of the health of a nation and its children. The infant mortality rate in Queensland in 2000 was higher than Australia and all States and Territories (except the Northern Territory).

At 6.2 deaths per 1000 live births, the Queensland rate is 1 death per 1000 higher than the rate for Australia. Of Australian infant deaths there is up to 30% higher rate of infant mortality for boys and Indigenous infant mortality for

Queensland is more than twice that of non-Indigenous children (Queensland Health *Children*, 2004:11).

Of Queensland children who die, most die in the first year of life (consistent with national trends). Most of these deaths are due to perinatal and congenital conditions and sudden infant death (Queensland Health *Children*, 2004:11).

5.2 Disability and Children

In 2000 in Queensland, there were anomalies such as anatomical defects, chromosomal abnormalities or other genetic diseases for 42.4 per 1000 births.

While the causes of anomalies are not always known, preventative measures such as:

- *Care in prescribing drugs to pregnant women*
- *Immunisation against rubella before pregnancy and*
- *Increasing folate intake before conception*

can decrease their occurrence (Queensland Health *Children*, 2004:12).

At the time of the 2006 Census, 399 of the residents in the Cassowary Coast Region reported requiring some assistance due to a profound or severe disability. Twenty percent of these residents were children and this rate of disability is higher than the whole of Queensland (less than 9%).

5.3 Ilness, Injury and Children

While Queensland children enjoy relatively good health (compared to International standards) there are outstanding child health issues such as:

- *The poorer health of Indigenous children*
- *Asthma*
- *Autism and spectrum disorders*
- *Mental health problems and disorders*
- *Injury*
- *Inappropriate nutrition*
- *Overweight and obesity*
- *Physical inactivity (Queensland Health, The Health of Queenslanders, 2008:76).*

This section of the report explores these issues and highlights the relationship between children's health outcomes and environmental and social factors.

Indigenous health issues (including child health) are considered in Section 7 of this report.

5.3.1 Asthma

For all Australian children aged 0-14 years, asthma is the main burden of disease and the level of asthma in Australia is among the highest in the World. Asthma is one of the 7 national health priority areas and one of the main reasons for the hospitalisation of children. In Queensland, boys are more likely to be hospitalised for asthma than girls. In Queensland in 2006, 24.6% of the total burden of disease for children was due to asthma (Queensland Health, 2008). In 2004/05, the prevalence of asthma in Queensland children was 12.3% (Queensland Health, 2008).

While asthma rates increased (particularly for boys) in the decade from 1980 to 1990, rates appear to have declined in recent years. The cause of asthma is unknown, though a familial link has been observed and environmental factors such as:

- *Pollen*
- *Tobacco smoke*
- *Physical activity and*
- *Other respiratory conditions* (Queensland Health *Children*, 2004:15)

can trigger asthma.

5.3.2 Mental Health Problems and Disorders

Mental disorders are those that impair the ability of the sufferer to effectively function and mental health problems are of a lower order. Based on parents reports, 9.9% of Queensland children had a long-term mental or behavioural problem in 2004/05 (Queensland Health: 80). Risk factors can increase the likelihood of a disorder developing.

For Australian children aged between 5-14 years, mental disorders such as:

- *Depression*
- *Attention deficit hyperactivity disorder (ADHD) and*
- *Anxiety*

contribute significantly to the burden of disease. Boys are more likely to suffer depression, ADHD and conduct (or behavioural) disorders and girls are more likely to suffer eating disorders.

Risk factors for a mental health disorder include:

- Individual (low birth weight, physical and intellectual disability, chronic illness, low self esteem)
- Social (having a teenage mother, absence of father in childhood, family disharmony and violence, neglect in childhood)
- Life events (bullying, child abuse, poverty, family breakdown) and
- Community factors (isolation, social disadvantage, neighbourhood violence and crime).

5.3.3 Injury and Poisoning

Injury is the biggest cause of death of children in Australia and boys are more likely than girls to be hospitalised for injury. The risk of injury is strongly associated with gender (more likely in boys), location (more likely in remote areas), age (age differentiated injury types) and the socio-economic status of the family (children from lower socio-economic families are more likely to be injured and more likely to die from their injuries). The Cassowary Coast Region has a large proportion of farming industries and farming accident rates need monitoring.

Common injuries include:

- Drowning (*more likely in 0-4 year olds and domestic swimming pools, though Queensland rates for death and hospitalisation due to drowning have declined since uniform pool fencing legislation in 1992*)
- Falls (*more likely in 5-14 year old boys, most common cause of hospitalisation for Australian children*)
- Fire, burns and scalds (*more likely for 0-4 year old boys, there were 37 0-14 year old Queenslanders who died between 1992 and 2001 and in the same period, rates of hospitalisation increased, though this may be decreasing due to hot water thermostat control requirements for new hot water systems from 1998*)
- Poisoning (*average of 1 death per 0-14 year old Queensland children per year, no significant gender difference in sufferers*)
- Road traffic accidents (*there were 19, 0-14 year old Queenslanders who died in 2001, 68% were male and hospitalisation is significantly higher for boys than girls*) and
- Low speed run over (*the third most frequent cause of injury death in toddlers aged 1-4 years, the majority of vehicles involved in deaths were reversing in the family driveway and most children who died were 12 to 23 months*).

5.3.4 Inappropriate Nutrition

This section presents a brief overview of the main health issues for children associated with inappropriate nutrition:

- Tooth decay and

- Overweight and obesity

Tooth Decay
Tooth decay is the single most common chronic childhood disease and Queensland children are more likely to experience tooth decay than Australian children as a whole (Queensland Health, *Children*, 2004:1). The Queensland Sate Government is planning to implement fluoridation into community drinking supplies.

Overweight and Obesity
While it is not clear, there are indications that energy dense diets (in particular a diet high in sugar) could be a cause of obesity. National data indicate an increase of 20% in sugar intake for 10-15 year old children in the decade between 1985 and 1995 (Queensland Health *Children*, 2004:38). In that same time period, an increase in energy and protein intake was reported for boys and girls aged 10-15 years. On the day prior to the 1995 survey, 1/3 of the surveyed children had not eaten any fruit, though 1/3 had consumed snack food such as potato chips and 75% had eaten high fat foods such as commercial hamburgers and pastries. By contrast, in Queensland in 2003, 43% of parents reported that their children ate take away food once or twice a week and only 1% reported eating this type of food more than 3 times a week (Queensland Health *Children*, 2004:40). Queensland children consume too much sugar and fat, with low intakes of milk and dairy products and vegetables and relatively low intakes of fruit (Queensland Health, 2008:80).

Section 8.6 of this report overviews the relationship between nutritional intake and the urban 'car diet' phenomenon.

5.3.5 Diabetes

The rate of new cases of Type 1 diabetes in children is increasing. Queensland rates for children aged 0-14 years were higher than the national rate at 23.1 per 100,000 (Queensland Health, 2008:79). It is anticipated that type 2 diabetes will also increase among Queensland children due to lifestyle factors such as obesity and insufficient physical activity.

5.3.6 Physical Inactivity

A lack of regular physical activity is linked to Type 2 diabetes, depression and obesity, among other diseases. Queensland health recommends that children participate in 60 minutes of daily moderate to vigorous exercise (Queensland Health, 2006). Participation in physical activity in Queensland children is low and declines further throughout childhood (Queensland Health, 2008: 80).

The relationship between the structure and form of the urban environment and physical activity is explored in Section 8 of this report. Importantly, opportunities to participate in physical activity should be provided locally and close to homes, schools and work places. Connections between home and school must provide opportunities for safe alternatives to private car travel.

5.3 Invasive Disease and Vaccination

Babies and infants (0-4 years) make up the largest single age group for invasive meningococcal disease and invasive pneumococcal disease. Vaccination for these and other illnesses is freely available to the residents of the Cassowary Coast Region and data indicate that the Cassowary Coast region residents are responsive to these services and seek vaccination for their children.

Table 5 shows the immunisation rates for children fully vaccinated between the ages of 12 and 15 months. These children had received the required doses of DTP (Diphtheria Tetanus Pertussis Triple Antigen vaccine), MMR (Measles, Mumps and Rubella), Hib vaccine (Haemophilus influenza type B) and Poliomyelitis Vaccine, Hepatitis B, Pneumococcal Vaccine, and Menigococcal C on or before their first birthday.

The immunisation rate for the Cassowary Coast region for children fully immunised between 12 and 15 months was similar to that of Queensland. The vaccination rates for both the 24 to 27 month and 72 to 75 month age groups were similar for Cassowary Coast and Queensland.

Table 5 Percentage of fully vaccinated children at 12 months of age for Cassowary Coast and Queensland January 2007 to December 2008

Vaccination rates 12-<15 month olds (%)								
Reporting Area	Jan – Mar 06	Apr – Jun 06	July – Sept 07	Oct-Dec 06	Jan – Mar 07	Apr – Jun 07	July – Sept 07	Oct-Dec 07
Cassowary Coast								
Queensland								

Source: Immunisation data for children is derived from the Queensland Health Vaccination Information and Vaccination Administration System (VIVAS). This is a vaccination registry that records all vaccinations provided through Queensland's free childhood immunisation program (Queensland Health, 2001a).

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Table 6 Percentage of fully vaccinated children at 72 months of age for Cassowary Coast and Queensland January 2007 to December 2008.

Vaccination rates -72 -<75 month olds- (%)								
Reporting Area	Jan – Mar 06	Apr – Jun 06	July – Sept 07	Oct-Dec 06	Jan – Mar 07	Apr – Jun 07	July – Sept 07	Oct-Dec 07
Cassowary Coast								
Queensland								

Source: Immunisation data for children is derived from the Queensland Health Vaccination Information and Vaccination Administration System (VIVAS). This is a vaccination registry that records all vaccinations provided through Queensland's free childhood immunisation program (Queensland Health, 2001a).

5.4 Social Determinants of Health for Children

Many of the social and environmental determinants of health for children indicated below are similar to those for older people and other groups.

- *Household Safety Devices*
- *Homelessness*
- *Exposure to Environmental Tobacco Smoke*
- *Drugs and Poison Storage*
- *Parental Income*
- *Literacy and Numeracy*
- *Parental Unemployment*
- *Families and parenting*
- *Behavioural problems*
- *Child care services*
- *Participation in out of school activities*
- *Abuse and neglect*
- *Safety and crime*

Section 8 of this report provides information about household safety devices and homelessness and Section 10 outlines the Government's response to environmental tobacco smoke.

Section 6 profiles socio-economic disadvantage in the Cassowary Coast Region through a combined index of income, unemployment, housing, occupation and other measures for the Cassowary Coast community.

This section of the report will provide an overview of those social determinants that are particular to children such as:

- *Abuse and neglect and*

- *Families and parenting.*

5.4.1 Abuse and Neglect

In Queensland, the most common type of substantiation of child abuse is neglect.

In this State, between 1997 and 2002, the rates of substantiation of abuse of children aged 0-16 years increased from 5.1 per 1000 to 8.3 per 1000 due partly to a broadened definition of abuse and neglect. Of the children who were the victims of substantiated abuse, the highest rate occurred in infants aged one year and younger (15.6 per 1000) and Aboriginal and Torres Strait Islander children were almost twice as likely to be the victims of substantiated abuse.

Abuse and neglect can result in short (medical attention to injuries) and long term (impaired developmental outcomes and poor social skills) consequences for children. This report does not include data on child protection applications or orders.

5.4.2 Families and Parenting

'*Family is the most important factor in children's lives and development. Supporting families is therefore central to ensuring longer term outcomes for children*'

In the Cassowary Coast community in 2006, 64% of households were family households. This rate is slightly lower than Queensland (67%). The literature suggests that conflict between partners can be a factor in child behaviour problems (Queensland Health *Children*, 2004:33). In Queensland in 1999, nearly 23% of parents of children aged 0-12 years reported that they had participated in a parenting program. Increasing the access to parenting programs is important.

6. Socio-Economic Disadvantage and Health

Socio-economic disadvantage accounts for at least 17% of the burden of disease and injury in Australia and 20% in Queensland.

For the total population, on every rung of the socio-economic disadvantage ladder from least disadvantaged to most disadvantaged, people experience more sickness, shorter life expectancy and poorer health. The greatest differences in burden between the least and most socio-economically disadvantaged groups were for diabetes, intentional and unintentional injuries and mental disorders (Queensland Health, *Older People* 2004:3).

There is a substantial body of evidence that shows that the socio-economically disadvantaged *experience more ill health and their use of health care services suggests they are less likely to act to prevent disease or to detect it at an asymptomatic stage* (Queensland Health, *Whole of Population*, 2004:61).

Key socio-economic factors that influence health are:

- Income- *lower income households report difficulty in buying additional food when usual supply runs low. Income is the single most important modifiable determinant of health.*
- Income inequality- *is correlated with all-cause mortality*
- Pension and disability support- *lower income and disability can impact access to goods and services for maintaining good health and feelings of empowerment and social status which can affect mental health*
- Education- *literacy influences access and use of medication and health services. Less formally educated adults have the highest rates of cardiovascular disease and diabetes, tobacco and alcohol abuse.*
- Employment- *unemployment reduces ability to buy goods and services such as adequate nutrition and housing and limits participation in society* (Queensland Health, *Indigenous Peoples*, 2004:4 and *Whole of Population*, 2004:61-66).

For the purpose of the Lifestyle and Wellbeing Profile, the Index of Relative Socio-Economic Advantage and Disadvantage is used as it combines these and other factors to 'rank' locations in the Cassowary Coast region on a spectrum of disadvantage and advantage.

6.1 SEIFA Index

> *While our socio-economic position connects us to the physical and social resources that can make our life better, it is also feelings of empowerment and status that go with the connection to these resources that are important. This second dimension is important as people who feel in control of their lives also are more likely to take control of their health* (Queensland Health, *Indigenous Peoples*, 2004:4)

Socio-Economic Indexes for Areas (SEIFA) is a summary measure of the social and economic conditions of geographic areas across Australia. SEIFA comprises a number of indexes, which are generated at the time of the ABS Census of Population and Housing. In 2006, a Socio-Economic Index of Disadvantage was produced, ranking geographical regions to reflect disadvantage of social and economic conditions. The index focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage.

To understand the health status of the Cassowary Coast community, it is important to identify those areas of high socio-economic disadvantage in the Region.

The Socio-Economic Indexes for Areas (SEIFA) 2006 are a series of 4 indexes compiled by the Australian Bureau of Statistics using Census data (Australian Bureau of Statistics, 2006).

The Index of Relative Socio-Economic Advantage and Disadvantage looks at the whole continuum of advantage to disadvantage and ranks communities according to their level of advantage and disadvantage compared to other communities. The index is comprised of a number of indicators including:

- *Income*
- *Education*
- *Employment*
- *Occupation*
- *Housing and*
- *Others relevant to advantage and disadvantage.*

The Index of Relative Socio-Economic Advantage and Disadvantage for the Cassowary Coast indicates that, overall,

There are several indicators of social disadvantage identified and described in the Queensland Regional Profiles Cassowary Coast Regional Council, based on local government area (reform) Profile generated on 29 October 2009. See Appendix 1.

Firstly social disadvantage can be calculated as a percentage of the population in each quintile (one-fifth or 20 per cent of the population) according to the Socio-Economic Index of Disadvantage. Quintile 1 represents the most disadvantaged group of persons, while quintile 5 represents the least disadvantaged group of persons. By definition, Queensland has 20 per cent of the population in each quintile. In comparison, 42.9 per cent of the population of Cassowary Coast Regional Council Local Government Area (LGA) were in the most disadvantaged quintile. This level of disadvantage requires immediate local, state and regional action through appropriate planning and program delivery. Compared with the 20 per cent average across Queensland, 0.4 per cent of the population of Cassowary Coast Regional Council LGA were in the least disadvantaged quintile.

At the time of the 2006 Census in Cassowary Coast Regional Council Local Government Area (LGA), there were 580 unemployed persons. With a labour force consisting of 12,770 persons, Cassowary Coast Regional Council LGA had

an unemployment rate of 4.5 per cent; similar to unemployment rate for Queensland was 4.7 per cent.

Secondly, interestingly when comparing Employment by Occupation, this Region has nearly twice the level of labourers compared to other regions of Queensland representing 17% of the population (probably involved in farm labour at low salary rates contributing to social disadvantage). The total value of agricultural production is important to lifestyle in the Cassowary Coast Regional Council Local Government Area in 2005–06 and reported at $463.3 million, 5.3 per cent of the total value of agricultural production in Queensland, a significant contribution to the State. Crops accounted for $454.0 million or 98.0 per cent of the regions total value of agricultural production, livestock slaughtering accounted for $8.9 million (1.9 per cent) and livestock products were valued at $0.3 million (0.1 per cent of the total). The region produced 10.9 per cent of the total value of crops in Queensland, and 0.2 per cent and 0.1 per cent of the total value of Queensland livestock slaughtering and livestock products respectively. This industry is the key industry but other sectors may need to be developed to support a sustainable community in the future.

There are nearly half the State's average of Professionals (9%) employed in the Cassowary Coast Region and only 7% Community and Personal Service Workers marginally less that the States average of 9%. This may be demonstrated by less medical and community health workers employed in the Region compared to other communities in Queensland, and by implication a reduced level of health services which are not adequately servicing disadvantaged groups.

Third, at the time of the 2006 Census, there were 2,311 persons in Cassowary Coast Regional Council Local Government Area who stated they were of Aboriginal or Torres Strait Islander origin. These persons made up 8.3 per cent of the total population (compared with 3.3 per cent in Queensland). Of the 2,311 persons who stated they were of Indigenous origin, 1,614 persons stated they were of Aboriginal origin, 378 persons stated they were of Torres Strait Islander origin, and 319 persons stated they were of both Aboriginal and Torres Strait Islander origin. Indigenous persons have a higher level of disadvantage particularly a higher unemployment rate which adds to their economic disadvantage (see Section 7 for more information).

Fourth, at the time of the 2006 Census, in Cassowary Coast Regional Council Local Government Area, there were 8,216 persons aged 15 years and over with year 11 or 12 (or equivalent) stated as their highest level of schooling (37.6

per cent of all persons aged 15 years and over). This corresponded with 49.5 per cent in Queensland. The youth need to be encouraged to complete high school education.

Finally, at the time of the 2006 Census, in Cassowary Coast Regional Council Local Government Area (LGA), there were 9,803 persons aged 15 years and over with a qualification, 44.9 per cent of the population in this age group. This percentage was less than the Queensland rate of 50.4 per cent. In Cassowary Coast Regional Council LGA there were 1,396 persons with a bachelor degree or higher, 936 persons with an advanced diploma or diploma and 4,198 persons with a certificate. Of persons aged 15 years and over with a qualification, 14.2 per cent had bachelor degree or higher (26.0 per cent in Queensland), 9.5 per cent had an advanced diploma or diploma (13.1 per cent in Queensland), and 42.8 per cent had a certificate (35.5 per cent in Queensland). On all levels of post schooling qualifications the Region (and particularly youth) has a lower level of participation in certificate and university education and training. Many youth leave the Region to complete university studies in other centres, sometimes not returning to the Region to seek employment. Innovative solutions are required to attract business and people to live and work in this Region.

The Cassowary Coast has a productive business sector. In 2006–07, there were 3,525 businesses in Cassowary Coast Regional Council Local Government Area (LGA), 0.9 per cent of all Queensland businesses. Of these the region contained 1,545 businesses with a turnover under $100,000 and 1,692 businesses with a turnover between $100,000 and $1 million. There were 288 businesses with a turnover of $1 million or more (8.2 per cent compared with 11.1 per cent for Queensland). Cassowary Coast Regional Council LGA contained 0.9 per cent of all businesses in Queensland with a turnover less than $100,000 and 0.6 per cent of all businesses with a turnover of $1 million or more. In order to sustain the region there is a need to link education and training opportunity with employment in local business for indigenous and non-indigenous residents.

7. Indigenous Residents and Health

> *By almost any measure, the health of Indigenous people is poorer than that of non-Indigenous people* (Queensland Health *Indigenous Peoples*, 2004:1).

It is important to interrogate the health of the Indigenous residents of the Cassowary Coast as the literature and published evidence shows that they are more likely to experience poor health outcomes and require culturally appropriate service responses. Of particular concern is the low life expectancy of Indigenous

people, compared to non-Indigenous people. More than half of the Indigenous people who died in the years 1999- 2001 in Queensland were aged 54 or younger. In the same period, over half of the non-Indigenous Queenslanders who died were over 78 years. Chronic disease hospitalisations occur earlier in Indigenous Queenslanders (Queensland Health *Indigenous Peoples*, 2004:1).

> *Indigenous status and level of socio-economic disadvantage and to a lesser extent rural or remote location have a major impact on health…the effect of each of these factors is unable to be separated from the effects of the other factors*

Indigenous people experience very high levels of socioeconomic disadvantage. Recent data from Queensland demonstrates the divide between Indigenous and non-Indigenous peoples' health outcomes and risk factors (Queensland Health, 2008: 98). In particular, coronary heart disease death rates, diabetes death rates, and hospitalisation rates for asthma and chronic obstructive pulmonary disease were higher in areas of greater Indigenous people (Queensland Health, 2008: 98). These health outcomes are reflective of higher rates of risk behaviours. Indigenous people have higher rates of smoking, lower rates of breastfeeding, higher levels of risky alcohol consumption and poor nutritional status (Queensland Health, 2008:99).

Improvements to the health of the Indigenous population need to address the underlying social determinants including: poverty, disrupted family and community cohesion, social marginalisation, lower level of education, unemployment, overcrowding, inadequate sanitation, water supply and hygiene, other housing issues, limited access to healthy affordable food, transport issues and discrimination (Queensland Health, 2008:100).

7.1 Indigenous Residents' Profile

In 2006, 2311 residents in the Cassowary Coast identified as Indigenous (Aboriginal, Torres Strait Islander and both Aboriginal and Torres Strait Islander). The most significant communities (proportions of Aboriginal and Torres Strait Islander residents) of Indigenous people were located at Webb, Tully, Goondi Beach and various suburbs of Innisfail. Table 8 shows the number, percentage and location of Indigenous residents in selected areas of the Cassowary Coast. The residents identified as Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander in the Australian Bureau of Statistics 2006 Census of Population and Housing.

Table 8 Indigenous Residents in Selected Locations in Cassowary Coast, 2006

Location	Total Population	No identifying as either A & TSI	% of Total Population Indigenous
Webb	719	131	18.2%
Tully	2457	384	15.6%
Goondi Bend	887	130	14.7%
South Innisfail	532	78	14.7%
East Innisfail	1608	231	14.4%
Innisfail Estate	1307	174	13.3%
Innisfail	1450	192	13.2%
Mighell	420	51	12.1%
Jarra Creek	571	65	11.4%
Queensland	3904534	10488	3.3%

Source: Australian Bureau of Statistics Census 2006

The inclusion of Indigenous Queenslanders in planning processes, decision making and management processes is one step toward improving the health of the Indigenous population.

Summary Table Cassowary Coast Residents & Health

Table 9 presents the population groups in the Cassowary Coast region, their respective disease and injury burden and health and social determinants.

The table is informed by Queensland Health's *Social Determinants of Health* (2004) analysis, the *Innisfail Health Service District* (2004) profile and other information collected for this project.

Table 9 Burden of Disease and Injury, Health and Social Determinants in Population Groups in the Cassowary Coast.

Resident Groupings	General Population *(Enjoy general good health)*	Older people (65 years+) *(Increasing proportion of the Region's population)*	Young children (0-14 years) *(Decreasing proportion of the Region's population)*	Young people (15-24 years) *(Decreasing proportion of the Region's population)*	Indigenous people *(high proportion of Aboriginal & Torres Strait Islander people)*	Socio-economic disadvantaged *(Areas of high socio-economic disadvantage)*
Burden of disease and injury	CHD Stroke COPD Depression Lung Cancer Dementia Diabetes Colorectal cancer Asthma Osteoarthritis	CHD Stroke Alzheimer & other dementias COPD Lung cancer Colorectal cancer Diabetes Vision disorders Prostate cancer Hearing loss	Asthma Low birth weight Attention deficit hyperactivity disorder Birth trauma & asphyxia Chromosomal abnormalities Congenital heart disease SIDS Depression Road traffic injury Autism & Asperser's syndrome	Road traffic injury Depression Bipolar affective disorder Heroin dependence & harmful use Suicide & self-inflicted injury Social phobia Schizophrenia Borderline personality disorder Alcohol dependence & harmful use Eating disorders	All causes CHD Diabetes & complications including renal failure Unintentional injury Suicide & self-inflicted injury Mental health	All causes Diabetes Diseases of the digestive system Intentional injury Unintentional injury Mental disorders Musculoskeletal diseases Chronic respiratory disease Infectious & parasitic diseases & acute respiratory infections Neonatal causes Endocrine & metabolic disorders
Health Determinants	**Harmful alcohol consumption** **Tobacco smoking** **Poor nutrition** **Overweight & obesity** **Physical inactivity** **Breast cancer screening** **Cervical screening** **Vaccination**	Poor nutrition Overweight & Obesity Physical inactivity Cervical cancer screening Falls Flu vaccination	Poor nutrition Overweight & obesity Physical inactivity Sun protection Vaccination Oral health	Harmful alcohol Consumption Illicit drugs Sexual health	Harmful alcohol Consumption Smoking Overweight & obesity	Same as for general population Plus Sexual health Illicit drugs
Social Determinants	**Income** **Education** **Employment** **Socio-economic disadvantage** **Sense of control** **Transport** **Crime and safety** **Computer and internet access** **Gambling**	Same as for general population plus: Pensions & disability support Housing security Household safety devices Social participation	Same as for general population plus: Housing security Exposure to environmental tobacco smoke Maternal health Breastfeeding Families & parenting Abuse and neglect	Housing Income Education Employment Family relationships Community involvement Teenage pregnancy	Housing Income Education Employment Social exclusion Relative deprivation	Housing Income Education Employment Relative deprivation

Source: Queensland Health (2004)

8. Environmental Factors and Health Outcomes

This section of the report presents the environmental characteristics of the Cassowary Coast with particular attention to those features likely to impact the health of residents.

There is an evidence based relationship between certain environmental factors and health outcomes. The environmental factors identified by Queensland Health as important to individual and population health are:

- *Air quality*
- *Water quality*
- *Water fluoridation*
- *Food safety and security*
- *Healthy food access*
- *Physical activity environment*
- *Housing*
- *Homelessness*
- *Household safety devices*
- *Mosquitoes*
- *Exposure to tobacco smoke (especially children)*
- *Ultraviolet radiation (UVR) exposure (Queensland Health, 2004).*

This list can be extended to include environmental factors of particular relevance to the Cassowary Coast such as:

- *Coastal management*
- *Disaster Management*

These environmental factors provide the lens to interrogate the Cassowary Coast environment and assess the environmental assets and challenges for the Region that relate to the health of the community. The FNQ Regional Plan 2009-2031 is a key source document for this assessment at a regional level.

8.1 Key Findings

The key findings of this assessment of the environmental factors that impact health in the Cassowary Coast are:

- *The natural environment of the Cassowary Coast is an important asset that contributes to individual, economic and community health*
- *Motor vehicle emissions are a major contributor to greenhouse gas and climate change*

- *Cassowary Coast contribution to greenhouses gases is increasing over time as population increases or decreases*
- *Burn offs are a potential threat to the air quality enjoyed by Cassowary residents*
- *There are few potential pollutant emitters in the Council area and related businesses e are registered and closely monitored*
- *Quality of water in the Cassowary Coast waterways needs monitoring to assess its suitability for further urban development*
- *Access to local, healthy food supplies will decrease the ecological footprint of the Cassowary Coast community*
- *Housing stress in the Cassowary Coast community should be monitored, homelessness numbers are difficult to establish*
- *Household safety devices reduce the risk of unintentional injury at home and are important to individual health (including anti-slip surfaces and handrails)*
- *UVR exposure has short and long term health impacts and continuing awareness raising of the effects of exposure to UVR and sun safe practices is needed.*

The Cassowary Coast environmental assets and challenges are presented at section 13.

8.2 Climate Change and Oil Vulnerability

Climate change and oil vulnerability (peak oil) are two critical issues in determining the future ecological sustainability of FNQ (DIP, 2009, 35).

8.2.1 Climate Change

The impact of climate change such as extreme weather events (heatwaves, storms and associated flooding, extended periods of drought and others) is a key issue for communities and Governments. Measures to monitor the effects of climate change on weather patterns are being developed and investment in disaster management planning such as disaster response and recovery is increasing. The likely impacts of climate change are significant for the FNQ region's environment, economy and communities (DIP, 2009, 38).

General awareness of the public health implications of climate change does not appear to extend beyond knowledge of the potential impacts of single catastrophic events. Some diseases and health risks identified in the literature as associated with climate change due to increased global temperatures include:

- *Malnutrition*
- *Diarrhoeal disease*
- *Injury*
- *Heat stress*

- Exacerbation of sensitive cardiac and respiratory medical conditions such as asthma (Research Australia, 2007:15)
- Exposure to blue-green algal blooms
- Microbial food-borne disease
- Malaria, Dengue (Research Australia, 2007:19) and
- Other vector-borne diseases (Craig, Hall and Russell, 2007:243)

Perhaps the most immediate disease risks of climate change to the Cassowary Coast community is through increased exposure to mosquito borne diseases, more heat-related health problems and increased exposure to catastrophic events such as cyclones, flooding and droughts (DIP, 2009).

8.2.2 Greenhouse Gas Emissions

While the impact of climate change on the Cassowary Coast is not certain, the contribution of the Cassowary Coast community to greenhouse emissions can impact on climate change.

Monitoring greenhouse gas emissions and responsible settlement planning including investment and support for local employment, alternative transport modes and local food production and distribution will assist in managing these impacts.

8.2 Oil Vulnerability

Oil vulnerability is the point at which production in an oil well, field or region begins to decline and is typically reached when one-third to one-half of the oil in a reserve has been extracted (DIP, 2009:36). Once production peaks, demand for oil will outstrip supply. Future oil shortages and sustained high fuel prices are realities that face Queensland. While impacts will be felt by all sectors of the economy, transport, tourism and agriculture will hit the hardest (DIP, 2009:36). Queensland is particularly vulnerable to peaking world oil supplies given supply and demand trends and the regional distribution of the population, tourism and industrial base (DIP, 2009:36).

The challenge for the community for tackling the impact of oil vulnerability and climate change is to make the transition to a low-carbon economy, reducing atmospheric carbon concentrations and managing the decline availability of oil, which will require a fundamental lifestyle change for the entire community (DIP, 2009:36).

8.3 Air Quality

Respiratory health is the primary health outcome related to exposure to a range of air pollutants. A number of health endpoints such as lung function, respiratory

> *symptoms and exacerbations of respiratory disease, hospital admissions and mortality are commonly used when investigating relationships between air pollution and health* (Queensland Health, 2004 *Whole of Population*:54).

While local air quality modelling is not yet available for the Cassowary Coast region, indications are that the community and FNQ enjoys good to very good ambient air quality (DIP, 2009:44). This is primarily due to the extent and health of the natural environment as well as the lack of major industrial development compared to other Australian cities (DIP, 2009:44). Concentrations of pollutants in the ambient air in FNQ are generally below concentrations permitted in national air quality standards. However, issues may arise where industrial pollution or uncontrollable events, such as fire, leaks or explosions, cause air-quality indicators to exceed ambient air-quality standards (DIP, 2009:44).

8.3.1 Transport

A key emitter and threat to air quality is the motor vehicle. Motor vehicles (incorporating cars, trucks, buses, commercial vehicles and motor cycles) contribute the greatest quantity of oxides of nitrogen, carbon monoxide and volatile organic compounds of all emitters. It is clear that motor vehicle emissions are a main source of air pollution in the region. The contribution of motor vehicles to air pollution varies with fuel type, vehicle technology and the number and length of trips (Queensland Health, *Whole of Population*, 2004:55)

It was found that:

- *66% of workers travelling to work by car as a driver (57%) or a passenger (9%) in 2006*
- *Despite a railway line in the area, only 2% of workers travelling by train for any part of their journey to work*
- *Cycling and walking to work in 2006, accounted for 7.1% of travel to work*

Public Transport Investment

> *If urban designs or environmental solutions can reduce time demands they may directly improve health and social outcomes. However, where they increase time demands they may have unanticipated health costs, create disincentives for the uptake of interventions and disadvantage those who are most time poor* (Strazdins and Loughrey, 2007:219).

8.3.2 Population Growth

As at June 2008, the population of the Cassowary Coast Regional Council was 30,356, an increase of 1.2% over the year (DIP, 2008). The population projections for the region indicate that by 2016, the population of the Cassowary Coast Regional Council will be between 29,280 and 31,210 people. By 2031, the expected population will be between 30,250 and 36,570 people (DIP, 2008).

Table 2: Projected population, 2011-2031.

Year	Projected population (medium series)	Average annual change
2011	29,623	0.0%
2016	30,104	0.3%
2021	30,945	0.6%
2026	31,873	0.6%
2031	32,923	0.7%

Source: Department of Planning, 2008a.

The FNQ region has been identified as one of the fastest growing populations in Queensland (DIP, regional plan). This creates continuous change and challenges for communities. An increase in the population of the Cassowary Coast, while relatively small, will increase greenhouse contributions from all sectors. The FNQ Regional Plan 2009-2031 has identified building strong communities in FNQ as important and this will be assisted by improving the quality and safety of the built environment through sensitive urban design, strengthening regional activity centres, ensuring housing meets demand and adequately planning for community services and facilities.

8.4 Water Quality

Water contamination has the potential to present a significant risk to human health and the greatest risk comes from contamination of drinking water (Queensland health, 2004 *Whole of Population*:55).

> *Desired regional outcome: water for the region is safe, reliable and adequate for community needs and water quality meets human use and environmental requirements through the ecologically sustainable development of the region's water resources* (DIP, 2009:113)

Microbiological and chemical pollutants in drinking water pose a serious health hazard. However local water supplies meets guidelines, seasonal water quality is an issue historically in this Region and risks are managed in local water assets.

While drinking water contamination provides the most significant and direct relationship between water quality and health, other aspects of water quality are also important to community health such as:

- The quality of water for recreational purposes
- Availability of uncontaminated water for crop irrigation and
- Water run off from urban activities that can impact the health of the waterways

8.5 Water Fluoridation

Tooth decay is the single most common childhood disease for Queensland children and Queensland children have significantly higher rates of tooth decay than the Australian average (Queensland Health, *Children*, 2004:1 and 22).

> *The prevalence of tooth decay (sic) is lower where infants and children have access to fluoridated water…Queensland has the lowest proportion of population living with fluoridated water in Australia……both children and adults benefit from fluoridation* (Queensland Health, *Children*, 2004:23).

The State Government is rolling out a program to add fluoride to the State's water supply, including Cassowary Coast Region's water supply. Evidence from Queensland Health supports the introduction of fluoride to water supply to combat tooth decay for all age groups.

8.6 Food

The obvious links between food and health outcomes are nutritional intake and the safe handling and storage of food items. The less obvious link relates to the production and distribution of food and the emergence of a 'car oriented' diet in urban areas. This section provides an overview of these aspects of food as they relate to health.

8.6.1 Safety and Security

Safe food handling practices are essential to minimising the occurrence of food-borne illness. Commercial and institutional settings such as nursing homes, hostels, child care centres, schools, cafes and restaurants, supermarkets, food manufacturers, food processors, road side food vendors and catering businesses must meet the requirements of the *Food Act 2006* and Food Safety Standards. The Cassowary Coast Regional Council is responsible for ensuring compliance with these standards.

In 2002, Queensland Health surveyed over 400 businesses to assess compliance with safe food handling practices. While most business met the standards, only 64%

had hand washing facilities that met all requirements. Transporting of food offered the greatest opportunity for breaches of food safety guidelines. While it is not a legislative requirement, Queensland Health advocate that food businesses prepare food safety plans (Queensland Health, *Whole of Population*, 2004:56).

There does not appear to be a particular issue with food handling in the Cassowary Coast Region and the Council's environmental health team licence and monitor food businesses in the Region. Increasing tourism may require more regular food premises auditing.

8.6.2 Healthy Food Access

Basic healthy food costs more in rural and remote locations than in urban centres (Queensland Health, *Whole of Population*, 2004:56). To effectively promote healthy eating, it is essential to provide:

- *access to healthy food*
- *literacy in interpreting food labels*
- *knowledge of the benefits of good nutrition*
- *housing and household facilities (effective refrigeration) for safely storing and preparing food.*

There is considerable research to support the contention that an urban *nutrition transition* (diets high in meats, fats, sugars and refined carbohydrates and low in vegetables and legumes) has resulted from, among other things, the way that urban living is less compatible with home food production and consumption.

> *....local food systems existed until quiet recently. Less than 50 years ago in Australia large numbers of suburban residents produced vegetables, fruit and eggs in their backyards…delivery vans plied suburban streets with milk, fish and bread….supplemented by walking to the local, suburban strip shops…..feeding cities in a sustainable and equitable fashion requires the relocalisation of production and distribution* (Dixon and Capon, 2007:210).

This report will not detail local farming infrastructure.

8.7 Physical Activity Environment

In 2002, half the population of Brisbane (53.3%) reported that availability of facilities influenced their participation in recreational physical activity. Specifically, easy access to bike paths, walking trails, gyms and swimming pools were reported as influencing physical activity levels. (Queensland Health, Whole of Population, 2004:57).

This and other research affirms the strong association between the physical environment and physical activity.

Baumann et al (1999) analysed a survey of over 16000 adults in New South Wales and concluded that adults resident in coastal areas are less likely to be sedentary and more likely to participate in exercise considered adequate for good health. The Cassowary Coast has a publicly accessible coastline conducive to outdoor exercise such as walking.

The development of infrastructure such as cycle paths, footpaths, health clubs and swimming pools appears to relate strongly to physical activity as does lighting, frequent observation of others engaging in physical exercise and enjoyable scenery (Queensland Health *Whole of Population*, 2004:57).

Integrating physical activity into daily life is the most effective way to sustain that activity. The design and delivery of lit, safe walking and cycling paths that connect residents to desired destinations (local shops, schools, parks and services) will increase walking and cycling as daily activities.

8.8 Housing

The relationship between housing and good health outcomes is characterised by:

- *access to quality housing*
- *housing design and construction*
- *adequate maintenance of housing*
- *use of household safety devices and*
- *appropriate use of household appliances.*

Queensland Health cites evidence from research that:

- *housing tenure is directly linked to mortality rates (renters have higher death rates than home owners, even after other factors are considered)*
- *housing insecurity increases relocation rates and educational attainment rates for children*
- *people living in overcrowded, damp and poor quality housing are more likely to have both mental and physical health problems*
- *inadequate and expensive housing (over 30% of household income in housing costs) can result in family conflict and breakdown (Queensland Health Whole of Population, 2004:58)*

The Cassowary Coast has higher rates of home ownership (38%) compared with Queensland (31.6%) but lower rates of home purchase (22.7% compared with 33.8% for Queensland). In 2006, median housing loan repayments (monthly) were

$921 for the Cassowary Coast compared with $1300 for Queensland. The median weekly rent for the Cassowary Coast was $137.

Increasing home mortgage interest rates and rental costs are impacting the Cassowary Coast community and housing stress (where housing costs exceed 30% of household income).

8.8.1 Quality Housing, Design and Construction

The quality of housing is determined by adequate living space, number of bedrooms, general comfort of the house, distance from public transport, access to services normally used and general housing needs (Queensland Health *Whole of Population*, 2004:59).

A brief assessment of housing in the Cassowary Coast community can be summarised as:

- *70% of Cassowary Coast families live in detached (separate) houses compared to 86% of Queensland families*
- *Only 7.2% of all Cassowary Coast households live in flats, units or apartments compared to 4.3% of Queensland households and*
- *A high 8.5% of Cassowary Coast households live in impoverished home, caravans, tents, cabins or homes attached to shops (compared with 1% for Queensland), in the event of further cyclone events this group will be at risk.*

The adequacy of housing may be an issue for the Cassowary Coast community, though further investigation is needed to interrogate the relatively high number of households living in caravans, tents, cabins or homes attached to shops and impoverished housing (for example, it is unclear whether people counted in tents and cabins on census night were tourists or residents).

8.8.2 Household Safety Devices

Many unintentional injuries occur in the home. According to Injury Bulletins published in 2001, 38% of adults and 57% of children who presented at a selection of emergency departments in Queensland with unintended injuries, had incurred the injuries in their home.

In the 1990s, a number of legislative changes were introduced in Queensland to improve the safety of houses. The installation of hard wired smoke alarms (1994) and hot water tempering devices for bathrooms (1997) are a requirement for new dwellings constructed in Queensland and most Queensland houses have circuit breakers on the electrical system.

In 2001, the majority of Queensland households (69%) had smoke alarms or smoke detectors. In the same year, 49% of Queensland households had adjustable hot water thermostats.

Less common in Queensland households are anti-slip surfaces and handrails in bathrooms and toilets. These are not required by statute (Queensland Health *Whole of Population*, 2004:60). Cassowary Coast Regional Agencies could investigate opportunities for funding to provide a means tested service to assist the installation of anti-slip surfaces and handrails in homes in the Region. This program is a practical response to the known risks of falls from slippery and wet surfaces in homes, particularly for older people.

In addition to fitting household safety devices to houses, awareness of the safe use of everyday household appliances such as heaters can keep occupants safe.

8.8.3 Homelessness

Homelessness in childhood can contribute to ill health, behavioural problems and poor educational outcomes. Homeless young people have a much higher prevalence of physical and psychological problems (including sexual health, nutrition and oral health problems as well as higher rates of substance abuse than the general population (Queensland Health Whole of Population, 2004:59).

While homelessness does not appear to be a significant issue in the Cassowary Coast now it is increasing as indicated by service providers, the increasing costs of housing (purchase and rental) combined with limited crisis and public housing accommodation increases the risk of homelessness.

9. Mosquitoes and Vector Bourne Diseases

Mosquito borne diseases are likely to increase with rising global temperatures (Craig, Hall and Russell, 2007).

Increasing levels of endemic dengue need constant surveillance from all levels of government. Cassowary Coast Regional Council have a disease control system in place for managing vector borne disease. This is a high risk area. The Public Health Unit in Queensland Health based in Cairns has reported on the incidence of vector disease.

10. Environmental Tobacco Smoke

The Queensland Government has recently introduced new tobacco laws that restrict tobacco access and expand ‘no-smoking’ areas. The laws apply equally in the Cassowary Coast Region to other areas of the State. In summary, the laws are:

- *no smoking anywhere inside pubs, clubs, restaurants and workplaces*
- *no smoking in commercial outdoor eating or drinking areas*
- *no smoking in outdoor public places such as children's playgrounds and within 4 metres of non-residential building entrances*
- *no sale of tobacco to children under 18 years of age.*

These laws are intended to minimise the exposure of children and others to environmental tobacco smoke in public and private commercial spaces (including public outdoor spaces). These laws represent a radical departure from previous standards and public attitudes to smoking.

The laws are an expression of Government and industry's duty of care to the community and are a response to the emerging body of evidence showing a link between exposure to environmental tobacco smoke and respiratory health, particularly for children.

11. UV Radiation Exposure

Damage to the skin occurs as soon as skin is exposed to ultraviolet radiation (UVR). While sunburn is a short term health impact of over exposure to ultraviolet radiation (UVR), longer term exposure can cause skin cancer and cataracts.

There is growing awareness in the community of the impacts of overexposure to UVR and campaigns in Queensland promote sun protection and avoidance between 10am and 3pm daily.

Like the rest of Queensland, the Cassowary Coast community is exposed to high levels of UVR all year around, even in winter. The ongoing promotion of sun safe practices by Governments and other agencies accords with awareness raising and responsible leadership.

Some facts about UVR that are reported by Queensland Health could be promoted directly to the Cassowary Coast community such as:

- *UVR cannot be seen, it is not related to sunlight*
- *UVR cannot be felt, it is not related to temperature*
- *UVR is present on a cloudy day*
- *The effects of UVR on the skin are cumulative, so damage builds up even without burning* (Queensland Health, *Ultraviolet Radiation*, nd).

12. Other Potential Health Risks

There has been speculation about other health risks in the Cassowary Coast Region, although the actual risks are uncertain and require further investigation and ongoing monitoring.

13. Environmental Characteristics

The environmental assets and challenges presented in this section of the report are primarily informed by Cassowary Coast and Queensland Health research and pertain to those environmental factors most likely to impact health outcomes.

Assets

- *Public open space for physical activity and sociability,*
- *High rates of home ownership*
- *Mosquito control programs in-place*
- *Strong 'Sense of Community'*
- *Cultural heritage*
- *Lifestyle and natural recreation facilities*

Challenges

- *Reducing impacts of government policy on the farming community*
- *Investigating the link between urban development and water quality and changing development practices where necessary to improve water quality*
- *Increasing the physical activity of the Cassowary Coast residents*
- *Encouraging local nutritional food production and distribution*
- *Raising awareness of the impacts of Ultraviolet Radiation (UVR) exposure*
- *Monitoring the levels of housing stress of the Cassowary Coast community*
- *Consider more accessible housing for the healthy ageing*
- *Promoting disabled access to buildings, anti-slip surfaces and handrails in all Cassowary Coast households to reduce falls injury*
- *Monitoring Cassowary Coast's greenhouse gas emissions*
- *Preserving endangered species with the Region*
- *Preserving forests in the Region*

14. Cassowary Coast Health System

The local health services are situated in Innisfail and provide health services to an estimated population of 36,400 people. The Cassowary Coast Regional Council and the southern portion of the Cairns City Council fall within the Innisfail Health Service area boundary. Major towns within the District are Babinda, Innisfail Tully and Cardwell. The area offers a wide range of health services.

The three public hospitals are located in Babinda, Innisfail and Tully. Community Health centres are co-located in Innisfail and Tully Hospitals, and at Mission Beach, and Primary Health Care centres operate from Jumbun and Cardwell. Outreach primary health and mental health services are provided across the area following the

Enhanced Model of Primary Health Care and Chronic Disease Strategy. Mental Health services are located within the Tully and Innisfail hospitals. A variety of visiting specialist services are also provided on a regular basis. A multi-disciplinary approach is utilised in the delivery of care Innisfail Health Services.

The following lists of services are provided: -

Innisfail Health Services	**Hospital**	**Outpatients**	**Visiting Specialists**	**Community**	**Visiting Community**
Innisfail Hospital 87 Rankin Street, INNISFAIL QLD 4860	Acute Medical and Surgical; Accident and emergency; Obstetrics and Gynaecology; Operating Theatres services; Aged Care Assessment and Restorative Care Services & Transition care; Palliative Care; Alcohol, Tobacco and other Drug; Allied Health including Speech Pathology, Social Work, Occupational Therapy, Physiotherapy; Oral Health; Pathology; Radiography; Pharmacy and clinical support services; Renal Dialysis - Satellite service of Cairns Base Hospital; Chemotherapy; Specialist clinics.	Antenatal and antenatal classes; Obstetric occasions eg, CTG monitoring, neonatal screening; Wound Management / Dressing clinic; Anaesthetic clinic; Diabetes foot clinic.	Obstetrics and Gynaecology clinic every 6 weeks; Surgical - once per month; Vascular Surgeon - once per month; Gastroenterologist - once per month; Paediatric Services - once per month; Consultant physician - once very six to eight weeks; Foot clinic - 1 day per fortnight.	School/Child Health Screening & Immunisation Clinics; Parent Education; Palliative Care; Aged Care Assessment; Cardiac Rehabilitation; Drug and Alcohol services; Mental Health Promotion; Multicultural Mental Health; Community Mental Health- Adult and Child & Adolescent; Dental Clinic; Diabetic Education; HACC Assessment; Home Care; School Based Youth Health; Primary School Health Promotion ; Health Promotion; Continence Assessment; Occupational therapy	Visiting Psychologist - weekly; Community Rehabilitation Service - weekly.

Tully Hospital Bryant Street, TULLY Qld 4854	Accident & Emergency Care Services; Acute Medical; Obstetrics and Gynaecology (low risk maternity services, visiting Obstetrics and Gynaecology clinic) ; Aged Care Assessment (Outreach service across Innisfail Health Services) and Restorative Care Services; Palliative Care; Alcohol, Tobacco and other Drug; Allied Health including Speech Pathology, Social Work, Occupational Therapy, Physiotherapy; Oral Health; Pathology; Radiography; Pharmacy and clinical support services; Specialist clinics.	Antenatal Clinic and antenatal classes; Well Women's Clinic (an outreach service to Jumbun Community is also provided from Tully Hospital). Obstetric occasions eg, CTG monitoring, Neonatal screening; Wound Management / Dressing clinic; Anaesthetic clinic; Diabetes foot clinic.	Obstetrics and Gynaecology clinic every 6 weeks. Consultant physician (weekly). Outreach medical service to Jumbun Aboriginal Community weekly provided by Tully Hospital medical staff.	School/Child Health Screening & Immunisation Clinics; Parent Education; Palliative Care; Aged Care Assessment; Cardiac Rehabilitation; Drug and Alcohol services; Mental Health Promotion; Multicultural Mental Health; Community Mental Health- Adult and Child & Adolescent; Dental Clinic; Diabetic Education; HACC Assessment; Home Care; School Based Youth Health; Primary School Health Promotion; Health Promotion; Continence Assessment; Occupational therapy.	
Babinda Munro St , BABINDA. 4861	Accident & Emergency; Acute Medical; Restorative Care Services; Palliative Care; Emergency in-hospital Respite Care; Pharmacy; Radiography;	Including Ongoing Needs Assessment and referral to appropriate services, Continence Assessment & support, processing of MASS	Psychiatry (intermittent)	School/Child Health Screening & Immunisation Clinics; Parent Education; Aged Care Assessment; Mental Health Promotion; Community Mental Health -	ATSI Health Service - outreach service from Chronic Disease Program (HGGW); Chronic Disease Management

	Physiotherapy - limited inpatient physiotherapy (16 hours per fortnight).	applications for equipment & participation in Health Promotion Programs.		Adult, Child and Adolescent; Diabetic Education; HACC Assessment; Home Care; Primary School Health Promotion ; School Based Youth Health; Nutrition; ATSI Health Service - outreached from the Healthier Great Green Way Team); Diabetes Clinic - (outreach service from Healthier Great Green Way Team); Women's Health - (visiting service from Cairns); Breast Screening - (visiting service from Cairns).	support with - outreach from Innisfail; Aged Care Assessment - outreach service from Innisfail; Community Mental Health - outreach service from Innisfail; Alcohol and Drug - outreach from Innisfail; Speech Pathology - outreach from Innisfail; Social Work - outreach service from Innisfail; Occupational therapy - outreach service from Innisfail; Child Health - outreach service from Innisfail.

The Innisfail Placed Based Initiative

For the purposes of this Profile the Innisfail Placed Based Initiative is described.

The Innisfail Placed Based Initiative, known locally as the Healthier Great Green Way (HGGW), is a collaborative community-based initiative involving a range of private and public providers focussing on integrated service delivery models across the continuum of care. The governing alliance, made up of key partners of the Initiative, has consulted with a broad range of expertise in clinical and service delivery settings and will be held accountable for the key deliverables of the 10 highest priority strategies and community wide health outcomes.

This Initiative is focussed on the prevention, early detection and management of chronic disease and its key risk factors which will be achieved through innovative service delivery and partnership approaches with a broad range of stakeholders including the General Practitioners, Commonwealth Govt, other Queensland government departments, public and private health professionals, non-government and community organisations, consumer representatives and the academic sector.

By improving the sharing of services and information, reducing the duplication of services, simplifying referral mechanisms and encouraging patient self management the Initiative hopes to reduce avoidable hospital admissions and improve quality of life for people with chronic disease in the short to medium term and, in addition, reduce the incidence and prevalence in the medium to longer term.

A district wide willingness to work together and an enthusiasm for resource sharing to address skill shortages, regardless of disparate funding mechanisms, promises to deliver major gains for this regional area in addressing the burgeoning burden of chronic disease.

The HGGW aims to develop structured partnerships between health service providers (private and public) and accessing additional resources to deliver a range of services, across the continuum of care, to address the chronic diseases and their associated risk factors.

Priority Initiatives

1. *Deliver evidence based health promotion and prevention programs aimed at changing community behaviours towards health.*
2. *Healthier Men – tailoring approaches to engage men earlier in the disease continuum*
3. *Healthier Schools – Health Promotion Schools*
4. *Increasing physical activity levels in the community*
5. *Risk factors management and reduction in GP via the increased provision of Allied Health Services*
6. *Encourage self-management support for chronic conditions*
7. *Multi-disciplinary chronic disease clinics*
8. *Increase prevalence of SNAP brief interventions, life scripts and system support*
9. *Facilitate an increase in Indigenous health checks within General Practice*
10. *Pulmonary Rehabilitation*
11. *Cardiac Rehabilitation*
12. *Evaluation*

Strategies address the particular needs of people in low socio-economic circumstances, Aboriginal and Torres Strait Islander peoples, culturally and linguistically diverse populations and people who live in rural and remote areas.

Paradigms underpinning the Initiative

- Shift district focus towards a *GP centred primary health care model* with increased emphasis on health promotion, early identification, management and ongoing rehabilitation of people living with and at risk of developing chronic disease.
- Develop *multi-disciplinary, inter-organisational teams* of health service providers to manage those already diagnosed with the most significant chronic diseases affecting Queenslanders including type II diabetes, coronary heart disease, stroke, chronic obstructive pulmonary disease, asthma, renal disease and associated depression.
- Form a collaborative between local private and public health service providers *to improve the sharing of services and information*, reduce the duplication of services, simplify referral mechanisms and encourage patient self management.
- Increase the scope and level of *health promotion and prevention activities* within hospital, general practice and community settings to address behavioural risk factors that significantly contribute to the development of chronic diseases such as: tobacco smoking, nutrition, physical activity and alcohol consumption.
- Increase the scope and level of early *intervention and screening activities* within hospital, general practice and community settings to address behavioural risk factors that significantly contribute to the development of chronic diseases such as: tobacco smoking, nutrition, physical activity and alcohol consumption.
- Increase the scope and level of *rehabilitation and ongoing management* activities within the hospital, general practice and community settings to address behavioural risk factors that significantly contribute to the development of chronic diseases, such as: tobacco smoking, nutrition and physical activity and alcohol consumption.
- Facilitate General Practice in the *uptake and development of multidisciplinary care* plans, case conferencing, SNAP implementation, RACGP Red and Greenbook protocols, disease specific clinics, pre-planned visits and patient recall mechanisms.

- Where suitable *incorporate existing* assessment, screening and health promotion tools, (e.g. Care Plans, RACGP Redbook, EPC Well Persons Checks etc) programs (Healthy Weight, 10 000 Steps, Cardiac Rehabilitation) and resources into the individual strategies.

- *Develop community capacity* and capability to ensure the sustainable delivery of the Chronic Disease Initiative. Provide opportunities for existing staff to develop new skills, reorient existing roles, and encourage mentoring schemes by empowering and enabling opinion leaders to champion specific strategies.
- Contribute to the *process, impact* and *outcome evaluation* of the Initiative, to ensure it is sensitive to and reflective of, local, environmental and social contexts.
- Use a combination of traditional evaluation methods and action research to define a process of reflective practice which encourages continuous improvement.

15. Cassowary Coast Lifestyle and Well-being Priorities

The collection and analysis of information for the Profile indicates the following priority areas for Council to maintain the sense of community, connectiveness and lifestyle and well-being of the Cassowary Coast community:

Illness and Health Priorities:

- *The poorer health of Indigenous children*
- *Increasing asthma*
- *Increasing mental health problems and disorders*
- *Higher injury rates in Cardwell*
- *Inappropriate nutrition*
- *Overweight and obesity*
- *Physical activity*
- *Address high rates of cardiovascular disease*
- *Address the need for emergency housing and services for the homeless*

Address high rates of key socio-economic factors that influence health by:

- *Improving resident incomes*
- *Reducing Income inequality*
- *Supportive programs for pension and disability groups*
- *Education opportunity*
- *Address unemployment*

Reduce risk factors for mental health disorders by providing support services for the following factors and categories:

- *Individual (improve programs to reduce low birth weight, support families with physical and intellectual disability, address chronic illness, programs for youth with low self esteem)*
- *Social (having a teenage mother, absence of father in childhood, family disharmony and violence, neglect in childhood)*
- *Life events (bullying, child abuse, poverty, family breakdown)*
- *Community factors (isolation, social disadvantage, neighbourhood violence and crime)*

Location of Aged Housing:

- *The location and design of housing for older people can have implications for health outcomes. For example, environments that maximise safe movement, public transport, service accessibility and social interaction for older people will reduce the risks of disease by increasing opportunities for physical activity and reducing social isolation through effective transport access and opportunities for social interaction.*
- *Local land use planning that considers the needs of the elderly is the solution*

Address high injuries rates:

- *Reduce drowning*
- *Reduce injury from youth falls*
- *Educate communities about the danger of fires, burns and scalds*
- *Prevent poisoning (*
- *Reduce road traffic accidents*
- *Introduce lower speed zones*
- *Educate parents and prevent toddlers being run over when reversing in the family driveway*

Environmental and Natural Assets Challenges:

- *Plan public open space for physical activity and sociability, increasing bike tracks*
- *Maintain high rates of home ownership*
- *Mosquito control programs in-place*
- *Support strong 'Sense of Community'*
- *Protect cultural heritage*
- *Plan and mange and Improve lifestyle and natural recreation facilities*
- *Reducing impacts of government policy on the farming community*
- *Investigating the link between urban development and water quality and changing development practices where necessary to improve water quality*
- *Increasing the physical activity of the Cassowary Coast residents*
- *Encouraging local nutritional food production and distribution*
- *Raising awareness of the impacts of Ultraviolet Radiation exposure*
- *Monitoring the levels of housing stress of the Cassowary Coast community*
- *Consider more accessible housing for the healthy ageing*
- *Promoting disabled access to buildings, anti-slip surfaces and handrails in all Cassowary Coast households to reduce falls injury*
- *Monitoring Cassowary Coast's greenhouse gas emissions*
- *Preserving endangered species with the Region*
- *Preserving forests and other natural assets*

Smoking Laws need enforcement:

- *no smoking anywhere inside pubs, clubs, restaurants and workplaces*
- *no smoking in commercial outdoor eating or drinking areas*
- *no smoking in outdoor public places such as children's playgrounds and within 4 metres of non-residential building entrances*
- *no sale of tobacco to children under 18 years of age*

Planning:

- *Attention to urban form, structure and value open space to maximise opportunities for walking, cycling*
- *Improve public transport use with attention to youth access to transport alternatives and the ageing of the community; with an emphasis on appropriate travel times for public transport*
- Review of urban development processes to minimise detrimental environmental (particularly air and water) impacts

- Affordable housing
- Increase opportunities for professional and technical occupations

Deliver evidence based health promotion and prevention programs aimed at changing community behaviours towards health:

- *Healthier men – tailoring approaches to engage men earlier in the disease continuum*
- *Healthier schools – Health Promotion in Primary Schools*
- *Increasing physical activity levels in the community to address obesity rates*
- *Risk factors management and reduction in GP via the increased provision of Allied Health Services*
- *Encourage self-management support for chronic conditions*
- *Multi-disciplinary chronic disease clinics*
- *Increase prevalence of SNAP brief interventions, life scripts and system support*
- *Facilitate an increase in Indigenous health checks within General Practice*
- *Pulmonary rehabilitation*
- *Cardiac rehabilitation*
- *Increase health program evaluation*

Employment, Education and Training:

- *Recognise the cultural diversity of the Region as an asset not a challenge*
- *Increase levels of English proficiency*
- *Better access to post school qualifications*
- *Increase employment opportunities via improved support for local business*
- *Address indigenous employment and training*
- *Introduce training for the growing services sector eg tourism*

Environmental Health Services to be provided by the Council

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