

CHAPTER 7: HEALTH

The majority of information presented in this chapter provides a snapshot of information provided in the *Central Coast Regional Health Profile 2004*, prepared by Health Improvement and Information Services, Central Coast Health. If you would like further details and analysis on health related issues please refer to this document.

7.1 HEALTH STATUS INDICATORS

Health status can be directly linked to the level of affluence and poverty in a community.

Social determinants of health include:

- Social and economic circumstances (few family assets, poor education, insecure housing, living in poor housing);
- The importance of ensuring a good environment in early childhood;
- The impact of work;
- The experiences of violence and abuse;
- The problems of unemployment and job insecurity;
- The role of friendship and social cohesion;
- The dangers of social exclusion;
- The effects of drug and alcohol;
- The need to ensure access to supplies of healthy food; and
- The need for healthier transport systems (walking, cycling and public transport).

(Wyong Shire Council, Community Plan 2002)

7.2 LIFE EXPECTANCY

- Life expectancy at birth is an estimate of the average length of time (in years) a person can expect to live assuming that the currently prevailing rates of death for each age group will remain the same for the lifetime of that person.
- As no one knows for certain what the death rates for each age group or sex will be in the future, the common practice is then to use the current rates of death to calculate life expectancy.
- For the period 1998 to 2000, the life expectancy at birth for residents of the Central Coast was 76.0 years and 81.5 years for males and females respectively. This was insignificantly less than for NSW where life expectancy was 76.4 years and 81.9 years for males and females respectively.

(ABS, 2001 Demography, New South Wales, Catalogue No: 3311.1)

7.3 BIRTHS

In 2002, there were 3,557 births to mothers living in the region. Both LGA's had a higher average fertility rate for 2000 to 2002 than for NSW.

40% of mothers in Wyong Shire who gave birth were aged in their 20's with another 40% aged in their 30's.

In Gosford, 44% of mothers who gave birth were in their 20's and 48% were aged in their 30's.

Table 7.1: Births by Age of Mother and Total Fertility Rate

Age	Number of Births	
	Wyong	Gosford
20 years & under	101	63
20-24 years	322	268
25-29 years	550	572
30-34 years	503	635
35-39 years	172	274
40-44 years	28	62
45 years & over	40	3
Not Stated	0	0
Total	1,680	1,877
Average Total Fertility Rate 2000-2002*	2.02	1.90
NSW Average Fertility Rate	1.79	

Source: ABS Regional Profile 2004

Note:

- * *The sum of age-specific fertility rates (live births at each age of mother per female estimated resident population of that age). The rate represents the number of babies born to a woman throughout her reproductive life.*
- * *There is a discrepancy between ABS data and Health data in terms of the number of births. This could be due to not all births being registered.*

**7.4 HEALTH
RELATED
BEHAVIOURS**

- Health related behaviours play a major part in causing cardiovascular and respiratory diseases, some cancers and other health conditions which largely account for morbidity and mortality later in life. The most important health related behaviours include obesity, physical activity, smoking and alcohol abuse.

Obesity

- Obesity has reached epidemic levels in Australia and the World Health Organisation has identified increasing prevalence of obesity in developed countries as a major health problem. Overweight and obesity are key risk factors for preventable mortality and morbidity due to many diseases including hypertension, cardiovascular disease and non-insulin dependent diabetes mellitus.
- Since 1997 there has been an increase in the proportion of Central Coast residents who are overweight and obese. In the 2002 NSW Health Survey the rate of reported overweight and obesity by Central Coast residents was 51.7% compared with the NSW average of 46.2%. Males are more likely to be overweight and obese than females.
- The prevalence of overweight and obesity in Australian children is increasing. A Central Coast study of 268 primary school children found that 27.3% were overweight or obese. These rates were greater than those observed in previous national surveys and reflect the national trend.

(CCH, Regional Health Profile, 2004)

Did You Know:

In Australia adults from the most disadvantaged socio-economic areas (those in the lowest SEIFA quantile - See Chapter 14) were more likely to smoke, 35% in 2001 compared with 17% of adults in high SEIFA areas. Consistent with this, adults without a tertiary education were more than twice as likely to smoke (28% in 2001) compared with those with a tertiary qualification. Smoking was also more prevalent amongst the unemployed (ABS Australian Social Trends 2003).

Physical Activity

- Central Coast residents are less likely than the NSW population to engage in adequate physical activity each week. In the 2002 NSW Health Survey 39.4% of Central Coast residents reported adequate physical activity compared to 46.7% for NSW. A greater proportion of males were sufficiently active than females. A comparison of data from 1998 to 2002 shows a decrease in the proportion of males and females engaging in adequate physical activity.

(CCH, Regional Health Profile, 2004).

Smoking

- Cigarette smoking is a major cause of death and illness in NSW. Smoking causes coronary heart disease, cancers, stroke and chronic lung diseases.
- The Central Coast data from the NSW Health Survey 1997 and 1998 reported that overall 25.3% of all males and 25.3% of females were current daily or occasional smokers. Of the 17 Area Health Services the Central Coast recorded the highest rate of current smoking in females and the second lowest rate in males.
- In 2002 the reported rates were 23.1% for females and 27.2% for males. Smoking was more common among males than females across all age groups except those aged 45 to 64 years. Of concern were the rates of smoking by young adults:

18 to 24 years:	37.9% for males and 28.6% for females.
25 to 34 years:	37.9% for males and 36.9% for females.
35 to 44 years:	45.1% for males and 31.6% for females.

(CCH Regional Health Profile, 2004)

Alcohol Consumption

- There are a number of diseases attributable to excessive alcohol consumption including some cancers, heart disease and stroke, liver disease, gastritis and dementia. Misuse of alcohol is also a significant contributor to assaults, road injury, domestic violence and suicide.

- Alcohol consumption caused an estimated 1,189 hospitalisations among males and 572 hospitalisations among females on the Central Coast for the period 1999 to 2000. The age adjusted hospital separation rate between 1989 to 1990 and 1999 to 2000. An increase from 356 to 561 hospitalisations per 100,000 persons on the Central Coast. Alcohol related hospital separations for NSW for the period has increased from 399 to 454 per 100,000.

(CCH, Regional Health Profile, 2004).

7.5 CAUSES OF DEATH

- Overall cardiovascular diseases are the leading cause of death, responsible for 39.7% of all deaths in Central Coast residents in the years 1996 to 2000. This is similar to NSW rates. The next most common cause of death was malignant neoplasms (cancer) accounting for 27.2% of deaths.
- Table 7.2 below shows death rates by cause of death for the period 2000 to 2002.

Table 7.2: Death Rate by Cause of Death, 2000 to 2002

Cause	Wyong	Gosford	NSW
Malignant Neoplasms Rate	206.8	189.4	184.7
All Heart Disease Rate	176.6	159.1	177.5
Cerebra Vascular Diseases	87.1	63.9	68.0
Diseases of Respiratory System	76.6	63.6	57.3
Accidents Rate	28.3	18.5	23.9
Intentional Self Harm	11.8	11.1	11.1
Assault	1.6	1.1	1.6
All Causes	758.9	663.9	669.4

Source: ABS Regional Profile 2004.

Note: Standardised death rate based upon deaths for the period 2000 to 2002. Rate is per 100,000 of mid year 2001 population. Causes of death are classified according to International Classification of Diseases Version 10.

Summary of Cardiovascular Diseases (CVD)

- In 2000, there were 1,065 deaths of Central Coast residents attributable to cardiovascular disease.
- 553 (51.9%) were caused by coronary heart disease and 285 (26.8%) were caused by stroke. The most next common causes were heart failure and peripheral vascular disease. These proportions are similar to NSW.
- Death rates for CVD have halved over the 20 year period for both sexes due to reductions in some risk factors (smoking, diet and blood pressure) and improved medical treatments. Males remain at a higher risk than females.
- CVD accounted for 9,860 hospital admissions in 1999 to 2000. 40% were for coronary heart disease and 11% for stroke. Hospital use for CVD increases with age, with people over 60 years contributing about 60% of hospitalisations. The hospitalisation rates for coronary heart disease and strokes are steady and hospitalisation rates for males and females are above the State average.

(CCH, Regional Health Profile, 2004)

Summary of Cancer

- In 2000, there were 1,634 new cases of cancer (55% in males) and 750 deaths from cancer (57% in males). Four cancers accounted for 59% of new cancers in males: prostate cancer (18%), large bowel (16%), lung (13%) and melanoma (12%). Four cancers accounted for 65% of new cancers in females: breast cancer (28%), large bowel (15%), melanoma of the skin (9%) and lung cancer (7%).
- For males, three cancers accounted for 46% of cancer deaths: lung cancer (23%), large bowel (14%) and prostate cancer (9%). For females, three cancers accounted for 40% of deaths: lung cancer (14%), breast cancer 14% and colorectal cancer (12%).
- Between 1990 and 2000, the age-standardised incidence of breast cancer increased by 33%. The mortality rate fell by 18%. For the same period both the age-standardised incidence and death rates of cervical cancer were halved.
- Central Coast residents have significantly higher age-standardised incidence rates for melanoma compared with NSW rates, in common with other coastal health areas.

(CCH, Regional Health Profile, 2004)

Infant Mortality Rate

- The infant mortality rate refers to the number of deaths in children aged under one year per 1,000 live births. In 2001, the Central Coast infant mortality rate was 4.6 per 1,000 compared to the NSW rate of 4.8 per 1,000.
- The majority of infant deaths occur in the neonatal period (up to 28 days) and the main causes are respiratory conditions and infections and congenital malformations. The single most common cause of death outside the perinatal period is sudden infant death syndrome.

(CCH, Regional Health Profile, 2004)

Suicides

- Suicide continues to be a major public health issue, not only from a human perspective (an individual's loss of life and a difficult situation for family and friends) but also an economic perspective.
- Suicide can be defined as the deliberate taking of one's life. A coronial inquiry must establish that the death results from a deliberate act of the deceased with the intent of ending his or her own life.
- For 2001, (the latest year available) 24 suicide deaths were registered on the Central Coast equating to a standardised incidence rate of 9.0 per 100,000. This however, was slightly lower than the NSW average of 11.0 suicide deaths per 100,000 people for the same period.
- Over the period 1991 to 2001, approximately 80% of all suicide deaths on the Central Coast were male (male deaths: 312, female deaths: 83). In 2001, young people aged 15 to 24 years of age accounted for approximately 30% of all suicide deaths, where young males equated to 38.0 per 100,000 while females were 6.5 per 100,000.

Impact

- Central Coast Health report that many deaths on the Central Coast are preventable and that health risk factors are known. These include lack of exercise, smoking, drinking and over eating.

7.6 CAUSES OF HOSPITAL SEPARATIONS

- Overall the most common cause of hospitalisation on the Central Coast during 1999 to 2000 was "factors influencing health". This category includes symptoms and signs without a specific cause, admission of live-born infants and admission for rehabilitation, nursing home and respite care. Unintentional injuries were the next biggest cause of hospitalisation. These include admissions for injuries sustained in falls by older people.
- Amongst Central Coast males the top 5 specific causes of hospital admissions were cardiovascular disease (heart attacks, strokes), digestive system diseases and nervous system diseases.
- Amongst Central Coast females the top 5 causes of hospitalisation were maternal conditions (pregnancy and childbirth), diseases of the digestive system and cardiovascular disease.

7.7 HEALTH SERVICE USE

- Health service use in hospitals is commonly measured by three indicators: episodes of care, bed days and length of stay. These terms are defined in the Glossary.
- Central Coast Health is one of 17 areas in NSW. The service manages four hospitals: Gosford Hospital, Wyong Hospital, Woy Woy Hospital, the Health Centre at Long Jetty; and eight community health centres located at Lake Haven, Long Jetty, Toukley, Wyong Central, Kincumber, Woy Woy, Erina and Mangrove Mountain.
- There are also a number of private health care facilities on the Central Coast. These include:

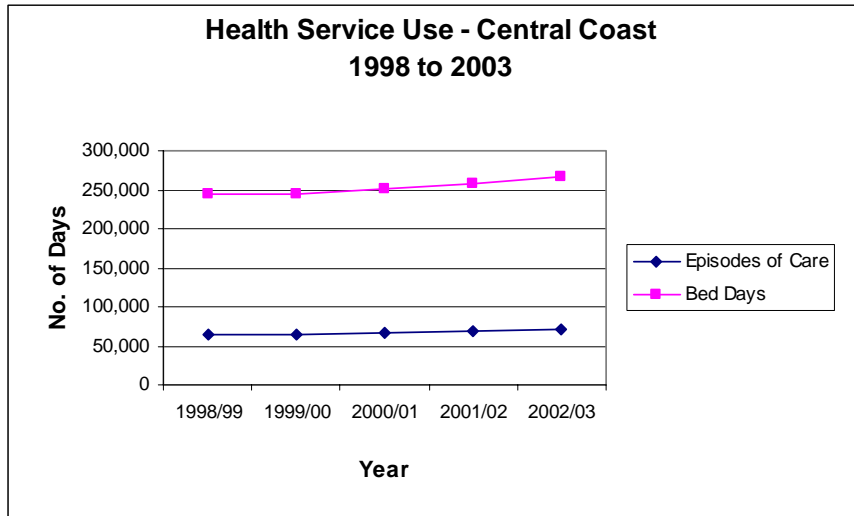
North Gosford Private Hospital.
Brisbane Waters Private Hospital (Woy Woy).
Berkeley Vale Private Hospital.
- Table 7.3 summarises the health service use for the region over the five year period 1998 to 2003. Both episodes of care and bed days have increased, the average length of stay has decreased slightly during the five year period.

Table 7.3: Total Health Service Use, 1998 to 2003

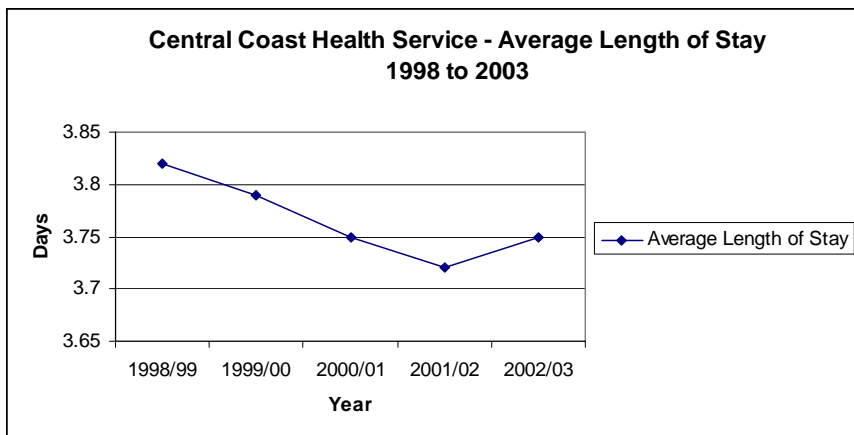
Year	Episodes of Care	Bed Days	Average Length of Stay
1998/99	64,147	244,798	3.82
1999/00	64,347	244,000	3.79
2000/01	67,169	251,782	3.75
2001/02	69,189	257,117	3.72
2002/03	71,207	267,268	3.75

Source: CCH, 2004.

Graph 7.1: Central Coast Health Service Use, 1998 to 2003



Graph 7.2: Central Coast Health Service - Average Length of Stay, 1998 to 2003



Source: CCH 2004.

- Gosford Hospital is the main acute hospital with 460 beds. It provides 24 hour access to the Emergency Department and operating theatres. It has a fully equipped Intensive Care, Coronary Care and Maternity Units with all major specialties except Immunology, Neurosurgery and Cardiothoracic surgery. Nuclear medicine is available immediately adjacent to the hospital. Interventional diagnostic cardiology became available in 2003. A huge rebuilding program is underway with the development of a new emergency department, operating theatres and new wards.

Between 1998 and 2003, the episodes of care and average length of stay at Gosford Hospital remained relatively constant while bed days showed a slight increase.

- Wyong Hospital is designated as a Major Metropolitan Hospital with 160 beds. It provides inpatient, outpatient and emergency services for the northern part of the Central Coast. The hospital provides Aged Care Medicine, Emergency Medicine, General Medicine, Low Risk Maternity, Rehabilitation Medicine, General Surgery and sub-specialties. The rapid expansion of the area is stretching the health service. A new hospital is currently being built with 200 extra beds, mental health services, new theatres and a new Emergency Department to be provided over the next two years.

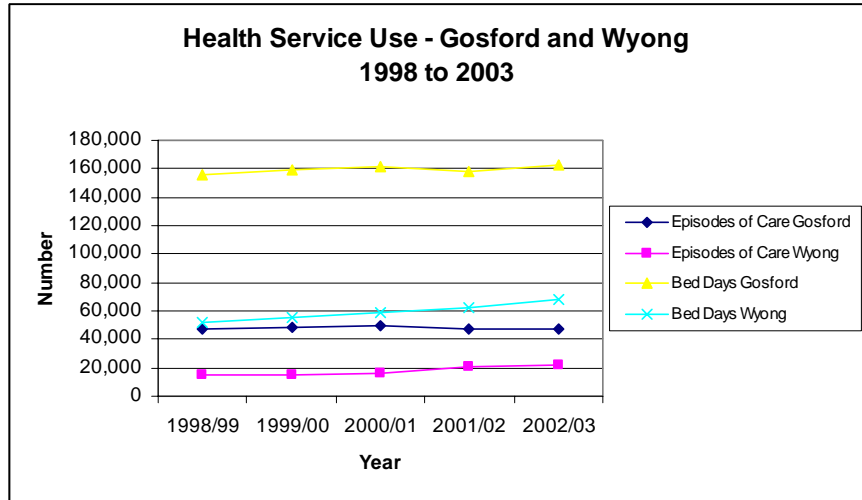
Episodes of care and bed days showed a marked increase at Wyong Hospital over the last five years. This can be attributed to the opening of the maternity unit and rapid population growth.

Table 7.4: Health Service Use Gosford and Wyong Hospitals, 1998 to 2003

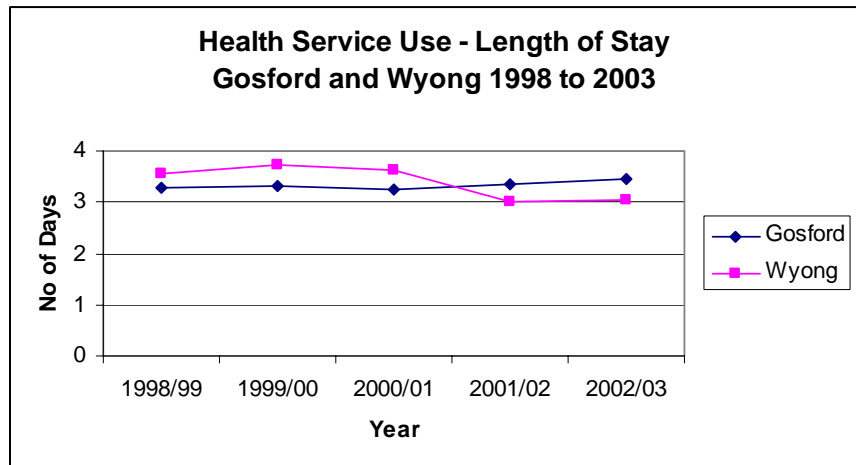
Year	Episodes of Care		Bed Days		Average Length of Stay	
	Gosford	Wyong	Gosford	Wyong	Gosford	Wyong
1998/99	47,621	14,804	155,677	52,496	3.27	3.55
1999/00	48,411	14,746	159,735	54,829	3.30	3.72
2000/01	49,538	16,161	161,017	58,861	3.25	3.64
2001/02	47,098	20,597	158,431	62,143	3.36	3.02
2002/03	47,365	22,287	162,793	67,743	3.44	3.04

Source: CCH, 2004.

Graph 7.3: Health Service Use - Gosford and Wyong, 1998 to 2003.



Graph 7.4: Health Service Use - Length of Stay - Gosford and Wyong, 1998 to 2003.



- Woy Woy Hospital is designated a Community Non-Acute hospital with 63 beds serving the Woy Woy Peninsula and southern part of the region. Services include general medical and designated rehabilitation units, outpatient, hydrotherapy services, physiotherapy, occupational therapy, speech pathology, nutrition, pathology, pharmacy, dementia day care and social work.
- Episodes of care and bed days showed a slight decrease at Woy Woy Hospital for the period 1998 to 2003. The average length of stay is much longer than for the acute hospitals.

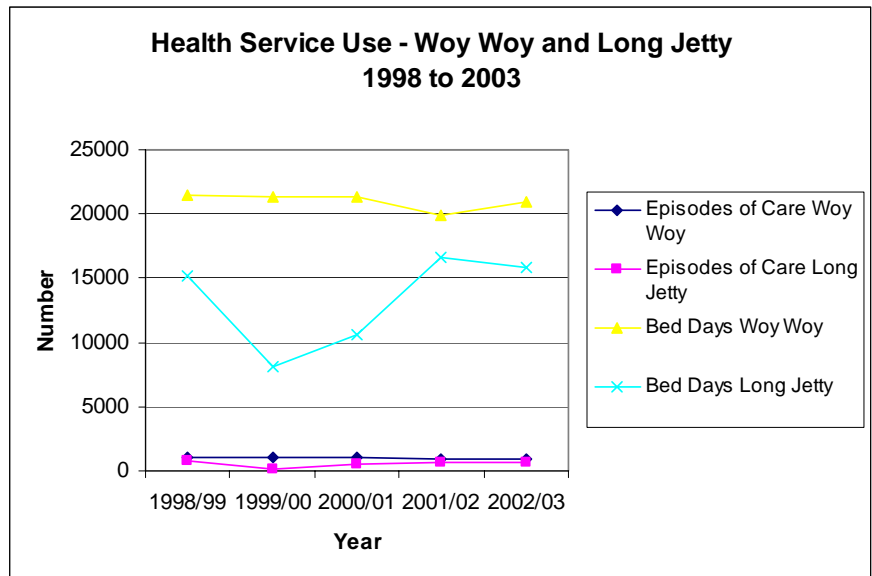
- Long Jetty Healthcare Centre is a designated Community Non-Acute hospital with 46 beds. Inpatient services include a 30 bed continuing care unit for sub-acute medical, palliative and post-surgical patients as well as a 16 bed residential care unit for the care of confused and disturbed elderly residents. Outpatient services include adult and paediatric physiotherapy, podiatry, extended day care, dementia day care, adult training centre and palliative care. Health service usage shows a variable picture due largely to the closure of the health care centre during 1999/2000 for repairs.

Table 7.5: Health Service Use Woy Woy Hospital and Long Jetty Health Care Centre, 1998 to 2003

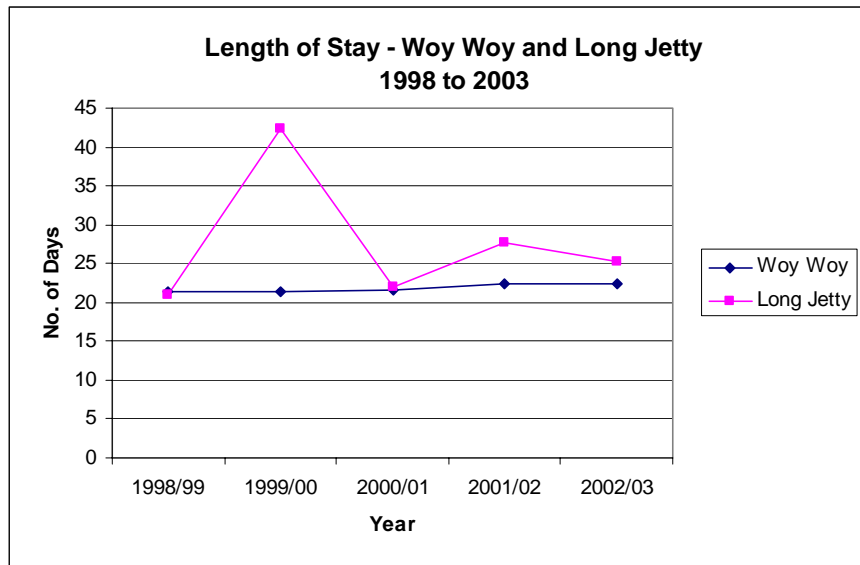
Year	Episodes of Care		Bed Days		Average Length of Stay	
	Woy Woy	Long Jetty	Woy Woy	Long Jetty	Woy Woy	Long Jetty
1998/99	997	724	21,418	15,207	21.48	21.00
1999/00	999	191	21,361	8,075	21.38	42.28
2000/01	987	483	21,306	10,598	21.59	21.94
2001/02	893	601	19,916	16,627	22.30	27.67
2002/03	932	623	20,957	15,775	22.49	25.32

Source: CCH, 2004.

Graph 7.5: Health Service Use - Woy Woy and Long Jetty, 1998 to 2003.



Graph 7.6: Length of Stay - Woy Woy and Long Jetty, 1998 to 2003



Impact

- Rapid population growth and the ageing of the population places considerable pressures upon the resources of Central Coast Health to meet the changing needs of the area. The State Government has injected \$190 million to upgrade Gosford and Wyong hospitals.

7.8 GENERAL PRACTITIONERS

- General Practitioners are the main providers of primary health care and are responsible for referring patients elsewhere in the health system, in particular to specialists.
- The following information has been provided by the Central Coast Division of General Practice (CCDGP's), March 2004.
- The Commonwealth Department of Health's guide for good doctor-to-patient ratios is 1:1,100 to 1:1,200 persons.
- Table 7.6 shows that this ratio is substantially exceeded in Wyong while in Gosford it is approximately the same. Full-time equivalent GP's (FTEGP) better describes the true supply and demand of services. Of particular note is the FTEGP to population ratio in Wyong. While the GP to population ratio is 1,614.52, the FTEGP to population ratio is actually 1,866.73, which takes into account that not all GP's work full-time. While this strongly suggests a workforce shortage in Wyong a larger proportion of services in Gosford are provided by GP's working in excess of a full-time workload compared with Wyong (Table 7.7). This is likely due to be partly due to the need for service provision to the Wyong population by GP's located in Gosford.

Table 7.6: Summary of GP information for Central Coast (February, 2004)

Postcode	Population	GP's*	FWE GP's	FTE GP's	FTE Excess	GP/Pop	FWE GP/Pop	FTE GP/Pop
Gosford:								
2250	63,844	87	84.05	69.09	-14.73	733.84	759.59	924.08
2251	29,830	23	32.62	29.68	-2.94	1,296.96	914.41	1,005.00
2256	14,891	12	10.87	9.46	-1.41	1,240.92	1,369.40	1,573.89
2257	26,868	27	30.00	23.98	-6.02	995.11	895.67	1,120.42
2260	20,103	19	18.49	16.31	-2.18	1,058.05	1,087.30	1,232.76
Total 01 Gosford	155,536	165	176.03	148.52	-27.28	942.64	883.56	1,047.24
Est. 02 Gosford	162,184	165	176.03	148.52	-27.28	982.93	921.33	1,092.00
Est. 03 Gosford	167,228					1,013.50	949.98	1,125.96
Wyong:								
2258	4,945	5	3.09	3.05	-0.04	989.00	1,600.76	1,620.89
2259	38,950	26	28.09	23.78	-4.31	1,498.08	1,386.46	1,637.72
2261	48,622	44	38.13	34.58	-3.71	1,105.05	1,275.12	1,406.13
2262	17,938	3	4.50	3.00	-1.50	5,979.33	3,986.55	5,979.33
2263	21,786	20	17.10	14.29	-2.81	1,089.30	1,273.71	1,524.29
Total 01 Wyong	132,241	91	90.92	78.70	-12.37	1,453.20	1,454.51	1,680.21
Est. 02 Wyong	138,215	91	90.92	78.70	-12.37	1,518.85	1,520.22	1,756.12
Est. 03 Wyong	146,921					1,614.52	1,615.98	1,866.73
Total CC	287,777	255	266.95	227.22	-39.65	1,128.54	1,078.01	1,266.49
Est. 02 CC	300,399	255	266.95	227.22	-39.65	1,178.04	1,125.30	1,322.03
Est. 03 CC	314,149					1,231.96	1,176.80	1,382.55

* 1 GP registered in both Gosford and Wyong.

Source: CCDGP, 2004.

Notes:

- 1 Number of GP's the physical number of GP's registered in the Central Coast Area.
- 2 Full Time Equivalence (FTEGP): the number of full-time equivalent GP's, excluding service provision in excess of a full-time work-load. A GP cannot be counted as more than one full-time equivalent as FTEGP does not take into account the overtime worked by some GP's to meet population demand.
- 3 Full-time Workload Equivalent (FWEGP): the sum of the full-time equivalent GP's and service provision in excess of a full-time work-load.

Table 7.7: Percentage of Workload Contributed by GP's Working More Than a Full-Time Workload Equivalent*

Gosford	15.63
Wyong	13.43
Central Coast	14.88

Source: CCDGP (2004).

* $(\text{FWEGP} - \text{FTEGP}) / (\text{FWEGP} \times 100)$

Impact

- The number of doctors, their distribution and the balance of general and specialist medical practitioners are basic considerations affecting access to health care.
- In 1992, the Central Coast Region had 310 GP's. In 2004, there are 255 GP's. As many as 20% of Central Coast doctors have left their practice since 1992 and another third are set to retire in the next five years. The average age of doctors in Wyong Shire is 54 years. The Central Coast Division of General Practice stress that this will leave the region with as few as 153 practicing doctors, less than half the region had in 1992.
- Indications are that 60 to 70% of doctors have closed their books to new patients and residents who have a GP have only a one-in-two chance of securing an appointment the same day.
- Another important issue is the lack of GP's who bulk bill. Most doctors on the Central Coast have stopped billing the standard consultation, regardless of their patients ability to pay. The Central Coast Division of General Practice estimate that only 7% of doctors now bulk billed patients for all services. Residents are travelling to find a doctor who does bulk bill.
- A survey of 11 district doctors in Wyong township, by the Central Coast Combined Pensioners and Superannuant's Association, found that 63% of doctors charge pensioners and other social security holders the full price of up to \$38 for a consultation.