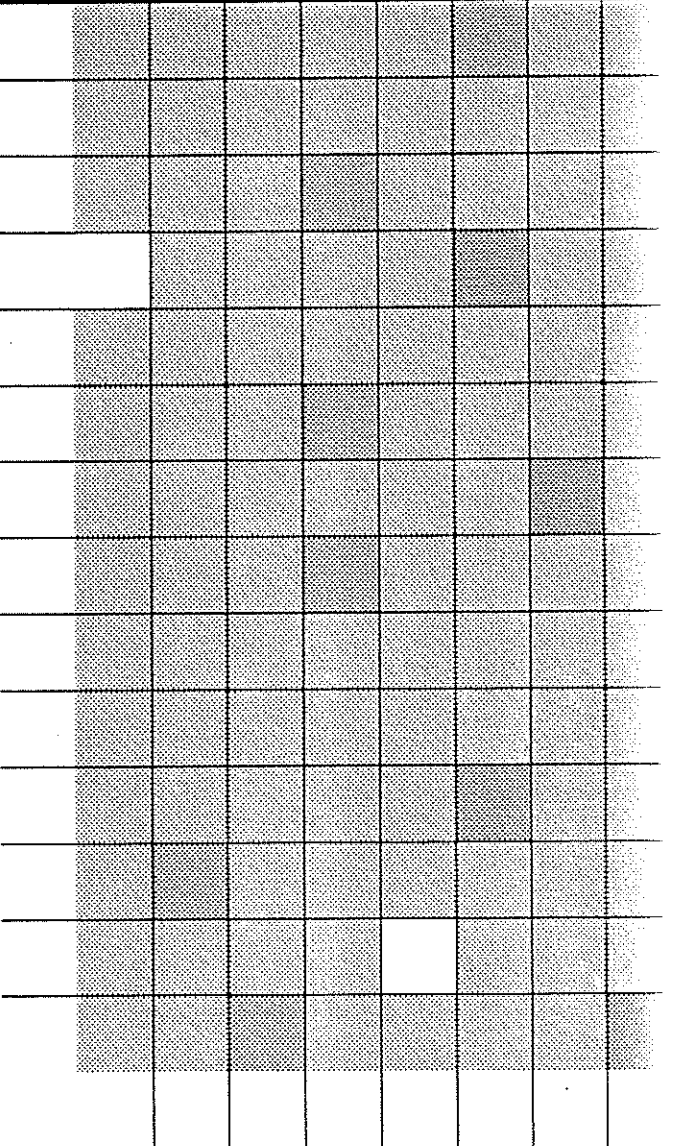




SMOKING IN QUEENSLAND AND AUSTRALIA



Information Circular No. 18



EPIDEMIOLOGY AND HEALTH INFORMATION BRANCH

EXECUTIVE SUMMARY

Tobacco is the major cause of preventable drug related mortality in Australia and Queensland. In 1990 approximately 18,000 deaths nationally (71% of all drug related deaths) and approximately 3,000 deaths in Queensland can be attributed to tobacco use. Cancer and ischaemic heart disease accounted for approximately 60% of all tobacco related deaths.

From 1940 to 1990 there has been a dramatic decrease in smoking prevalence for males while the trend for females has been more stable.

National Health Policy on tobacco aims to improve the health of all Australians by eliminating or reducing their exposure to tobacco in all its forms. Queensland Health has ongoing health promotion activities that are in line with the National Health Policy.

The prevalence of smoking among males and females in Queensland is similar to that for Australia as a whole.

Studies of secondary school youth show that the percentage of youth who have never smoked declines with age for both males and females. The Queensland experience is similar to the national experience.

A study of youth smoking habits in Perth indicated that smoking prevalence is higher among nonstudents and unemployed youth than for secondary school students. Also, youth who are current smokers view themselves as much more likely to smoke in the future than do youth who are non-smokers or past smokers.

Consumption patterns for Queensland males and females are similar to national consumption patterns.

There has been a dramatic decline in the amount of tobacco consumed per person aged 15 years and over since the mid 1970's.

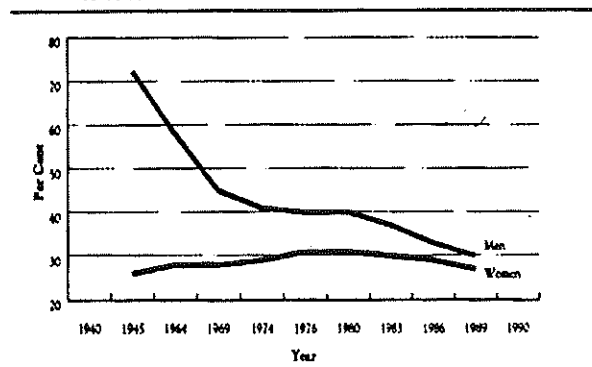
In 1990 approximately 18,500 hospital admissions and 148,000 hospital bed days were used to treat Queensland patients suffering from smoking related illnesses.

Between 1982 and 1991 Australians have reduced their per capita expenditure on tobacco by approximately 25%.

Adults

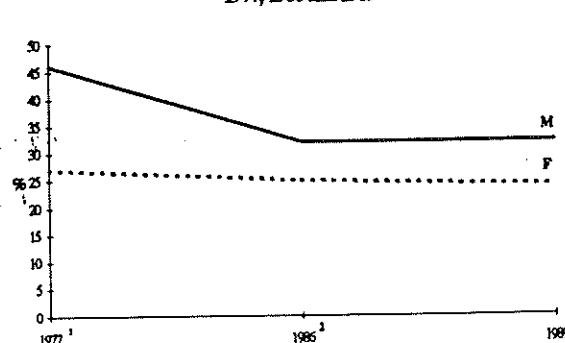
Nationally there has been a dramatic decrease in smoking among Australian men between 1945 and the present. Prevalence rates have declined from approximately 70% to 30%.

Figure 1. Current smoking (a) among Australian men and women (b), 1945 to 1989



(a) Includes smokers of pipes and cigars.
 (b) From 1974 covers persons aged 16 years and over, not age standardised.
 Source: Department of Health, Housing and Community Services, based on data from:
 Australian Gallup Polls - 1945 to 1969, Anti-Cancer Council Of Victoria - 1974 to 1989

Figure 2. Current Smoking amongst Queensland males and females 1977, 1986 and 1989

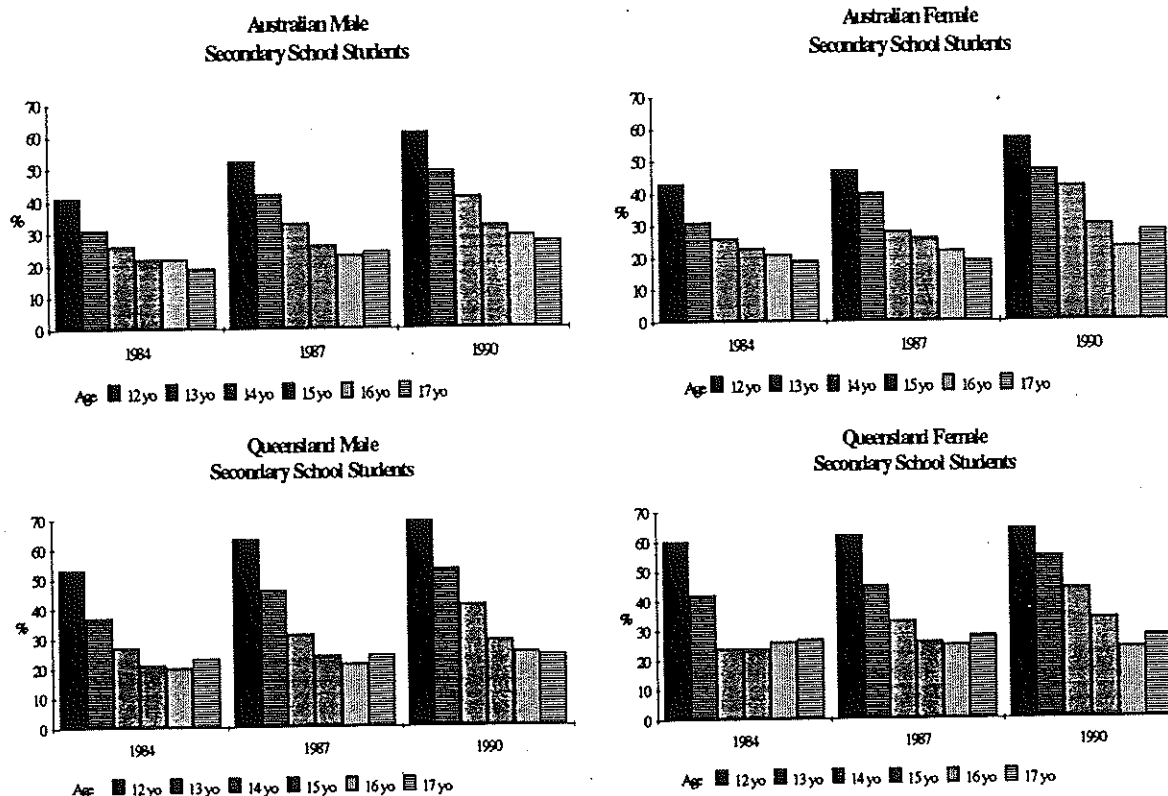


Sources: 1 Australian Bureau of Statistics, Alcohol and Tobacco Consumption patterns, February, 1977, ABS Canberra, 1978.
 2 Queensland Department of Health, State Wide Survey
 3 Australian Bureau of Statistics, 1989-90 National Health Survey, Health Risk Factors, Australia, ACOG, Canberra, 1992

For females there has been an increase in smoking during that period with levels peaking in the early 1980's. In 1989 there was no significant difference in smoking levels between the sexes. The Queensland data reflect the national trends for both adults and youth.

Youth

Figure 3. Australian and Queensland Youth Who Have Never Smoked, 1984, 1987 and 1990



Source: Bullard R, White VM, HEIDT. "Cigarette and alcohol consumption among Queensland secondary schoolchildren in 1990". Anti-cancer Council of Victoria, 1992.

COHORT ANALYSIS

Hyndman et al have analysed national smoking data by five year birth cohorts for each sex for the period 1925-1977. Each cohort (except for the youngest one) is now past its peak for smoking prevalence. The highest prevalence levels were for the 1923-27 cohort which peaked at 76% for males. For females the youngest cohorts have the highest peak with a prevalence of 40% for those born between 1953-57.

Table 1. Ages at which Smoking is a Maximum by Cohort, Australia

Birth Years	Males		Females	
	Age	Max Prev. (%)	Age	Max Prev. (%)
1958 - 1959	Not peaked			
1953 - 1957	21.0	46	20.0	40
1949 - 1952	22.5	53	24.5	36
1943 - 1947	25.0	59	25.0	40
1938 - 1942	25.0	61	30.0	37
1933 - 1937	27.5	65	33.5	34
1928 - 1932	25.0	69	30.0	36
1923 - 1927	28.5	76	40.0	38
1918 - 1922	28.5	73	45.0	32
1913 - 1917	32.0	76	32.5	30
1908 - 1912	34.5	75	38.5	28
1903 - 1907	37.0	74	41.5	22
Before 1903	c40.0	64	44.5	13

Source: Hyndman, J, et al, 1990

Table 2. Average Fall in Prevalence Per Year from Year of Maximum to 1977 by Cohort, Australia Birth Years, Average Fall per Year

Birth Years	Average Fall per Year	
	Males	Females
1958 - 1959	Still rising	
1953 - 1957	2.0	2.0
1949 - 1952	1.5	1.0
1943 - 1947	1.7	1.0
1938 - 1942	1.2	0.4
1933 - 1937	1.3	0.7
1928 - 1932	0.9	0.4
1923 - 1927	1.2	0.4
1918 - 1922	1.1	0.6
1913 - 1917	1.2	0.3
1908 - 1912	1.1	0.4
1903 - 1907	1.4	0.4
Before 1903	1.1	0.2

Source: Hyndman, J, et al, 1990

Table 1. shows that successive cohorts have tended to reach their peak prevalence at earlier ages. The number of years it has taken for the cohorts to go from a 5% to 25% smoking prevalence has decreased. For example, the cohort 1923-27 (cohort with highest male prevalence rate) took three years to go from 5% to 25% prevalence while

Table 3. Years to go from 5% to 25% Smoking Prevalence, Australia by Cohort

Birth Years	Years 5% to 25% Prevalence	
	Males	Females
1958 - 1959	2.4	2.3
1953 - 1957	2.3	2.9
1949 - 1952	2.9	3.1
1943 - 1947	2.3	3.0
1938 - 1942	2.4	4.2
1933 - 1937	2.5	4.4
1928 - 1932	3.4	5.8
1923 - 1927	3.0	5.4
1918 - 1922	3.3	6.4
1913 - 1917	*2.2	*7.1
1908 - 1912	*3.0	*7.8
1903 - 1907	*3.1	**
Before 1903	*3.0	**

* Duplicated NHF Start Distribution

** Not reached 25% prevalence

Source: Hyndman, J, et al, 1990

for the youngest cohort it took 2.4 years. For females the cohort with the highest smoking prevalence (1953-1957) took 2.9 years to go from 5% to 25% prevalence.

For both sexes the average fall in smoking prevalence per year has generally increased for successive cohorts. (Table 2)

Figure 4 (1913-17 cohort) shows the differences in smoking behaviour among males and females. Females lagged behind males in their uptake of smoking and smoking prevalence was much higher for males than females. Figure 5. (1953-57 cohort) shows that females still lag behind males in their uptake of smoking but the peak prevalence rates are much more similar than for earlier cohorts.

Figure 4.

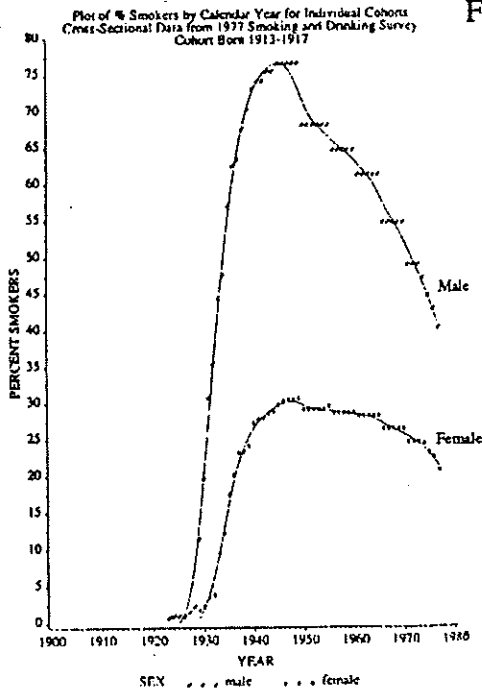
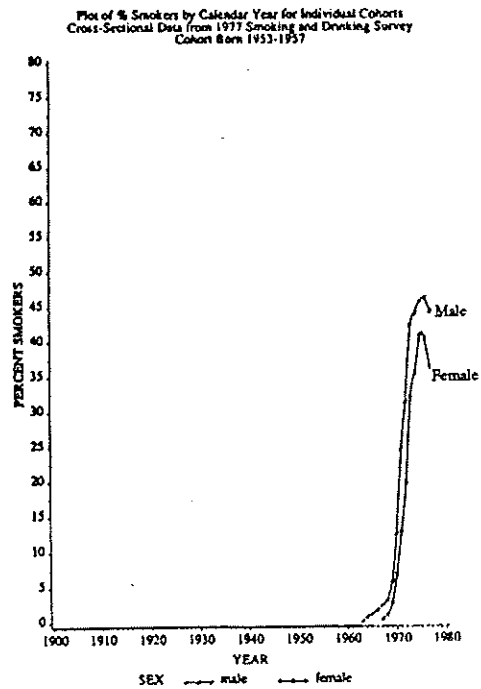


Figure 5.

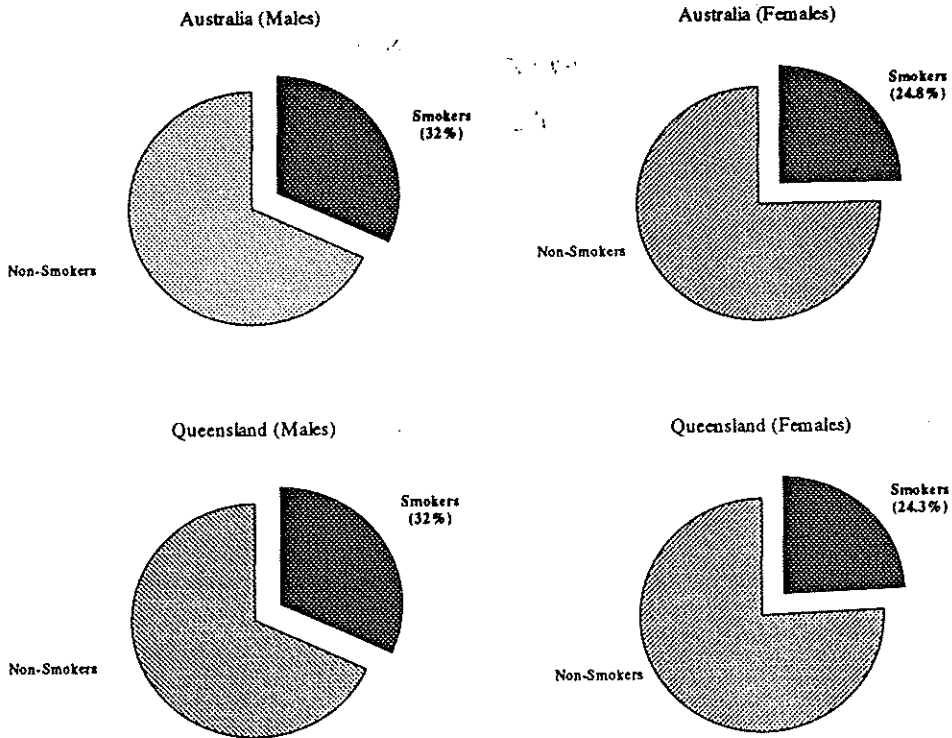


Source: Hyndman, I, et al., 1990

Adults

The prevalence of smoking in Queensland for males and females is no different from the prevalence for all Australians.

Figure 6. Adult Smoking Status by Sex, National and Queensland Comparisons, 1989 - 90.

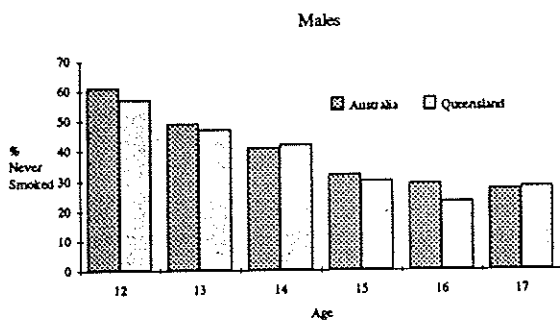


Source: National Health Survey, 1989-90.

Youth

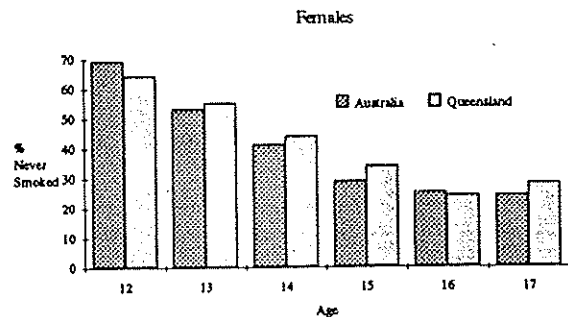
Among secondary school youth the percentage of Queenslanders who have never smoked is similar to that for all Australian secondary school youth.

Figure 7. Youth Smoking Status (Never Smoked) Males by Age, 1990



Source: Ballard, et al., 1992 and Hill, et al., 1993.

Figure 8. Youth Smoking Status (Never Smoked) Females by Age Sex, 1990



Perth Study

A household survey in Perth examined the smoking behaviour of all youth, those in school as well as those out of school. It found that current tobacco use was significantly more prevalent among nonstudents aged 16 and 17 than among students of the same age. Significantly more unemployed than employed youths were current smokers.

For each age group current smokers were much more likely to see themselves smoking in the future than were past smokers or non smokers. (Figure 9.)

Figure 10. shows that smoking prevalence increased with age. Also there were more female current smokers than males in most age groups.

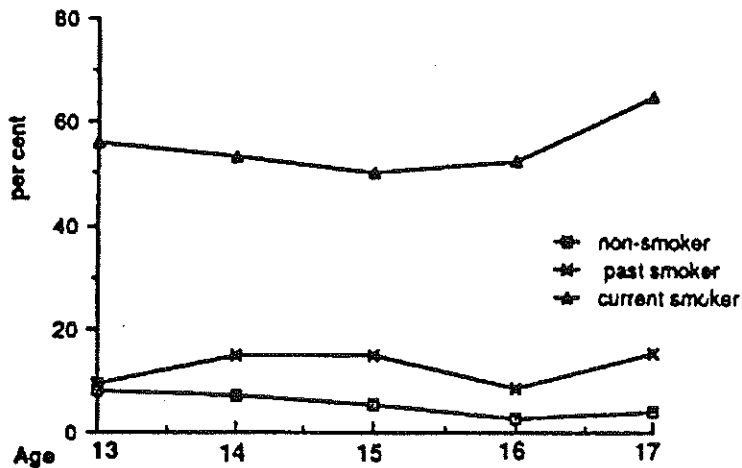


Figure 9. Likely to Smoke by Smoking Status

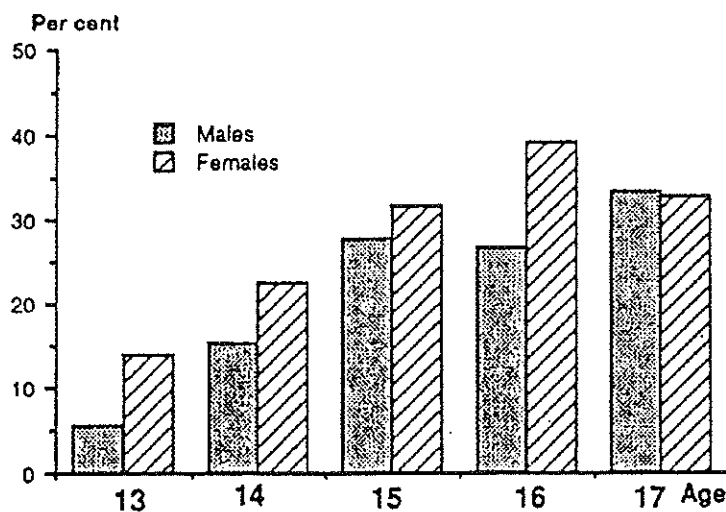


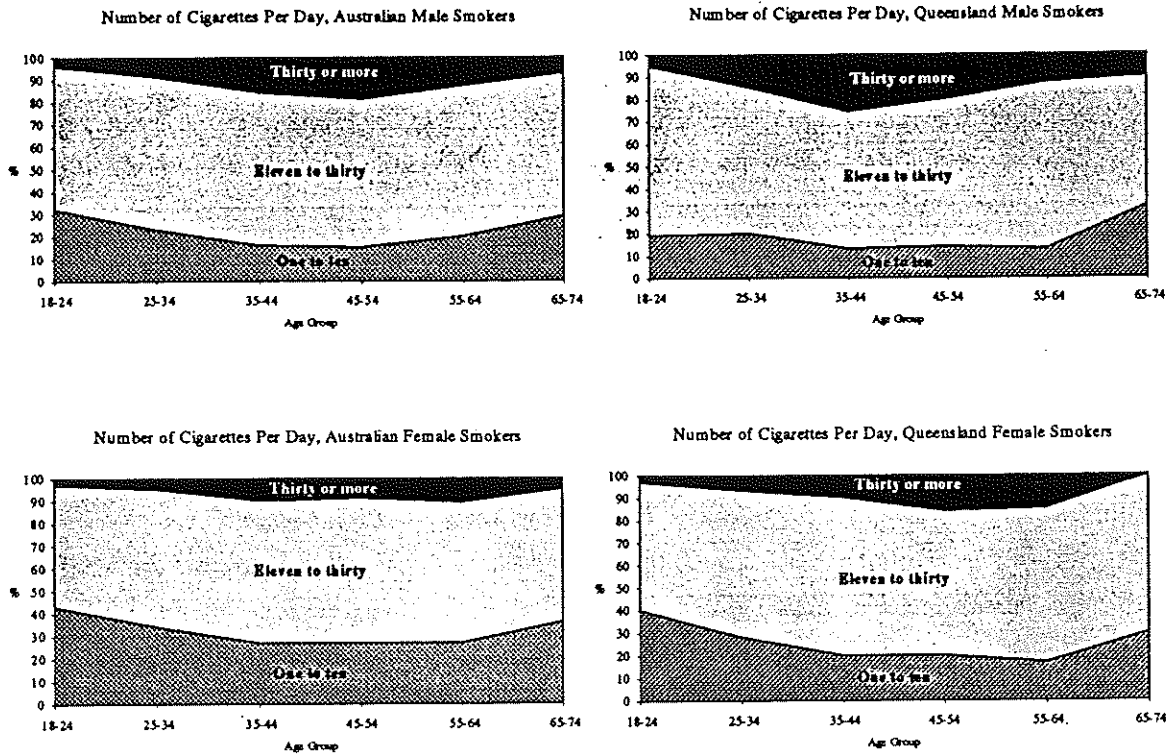
Figure 10. Smoking Prevalence: Current Users by Sex

Source: Blaze-Temple, et al., 1990.

CONSUMPTION

For each age group males tend to be heavier smokers than females. This is true both nationally and for Queensland.

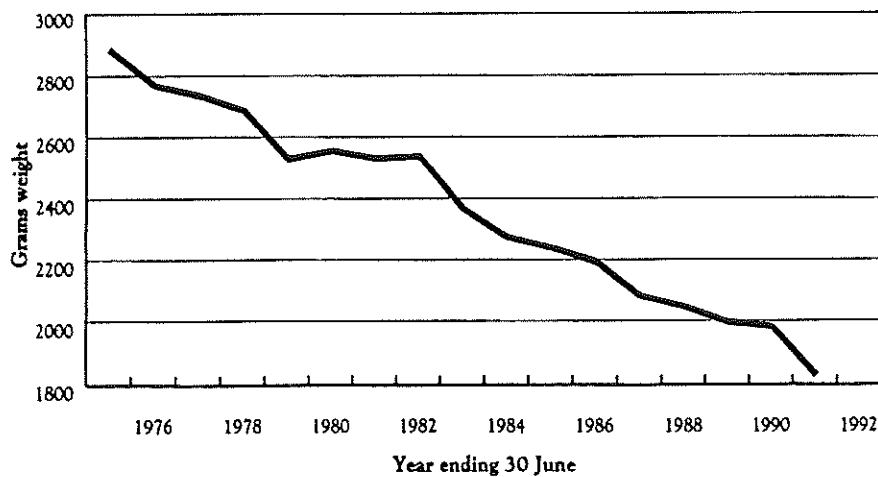
Figure 11. Australian and Queensland Cigarette Consumption Rates by Age Group and Sex



Source: National Health Survey, 1989-1990.

From 1976 to the present there has been a dramatic decline in per capita consumption of tobacco.

Figure 12. Estimated consumption of tobacco used in cigarettes, by weight (grams), per person aged 15 years and over, 1974-75 to 1990-91

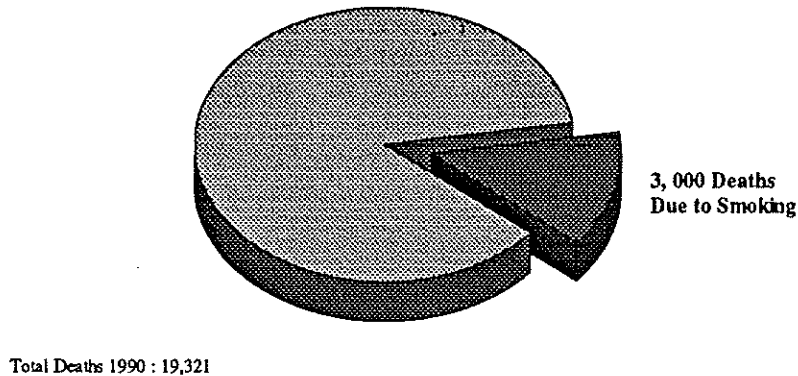


Source: Department of Health, Housing and Community Services, based on ABS Customs and Excise data

Mortality

Smoking related illness is responsible for approximately 15.5% of all deaths in Queensland. This translates into 3,000 smoking related deaths in Queensland for 1990.

Figure 13. Queensland Mortality 1990

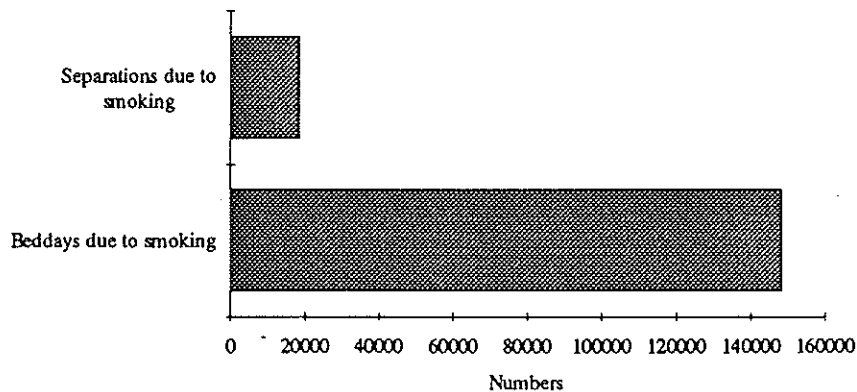


Source: Queensland Health Department, 1993.

Morbidity

Smoking related illnesses are responsible for significant amounts of morbidity in the Queensland population. Approximately 18,500 hospital separations in 1990 were due to treatment for smoking related illnesses. Over 148,000 hospital bed days were used to treat Queensland patients suffering from smoking related illnesses in 1990.

Figure 14. Public Hospital Admissions and Beddays Used Due to Smoking, Queensland, 1990

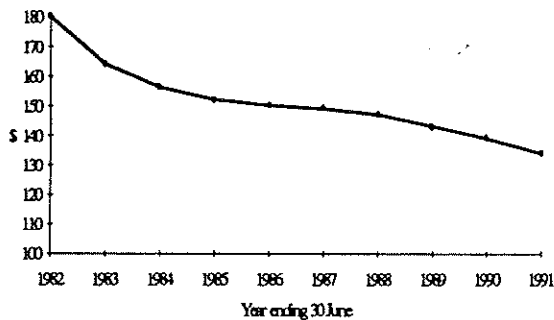


Source: Queensland Health Department, 1990.

ECONOMIC COSTS

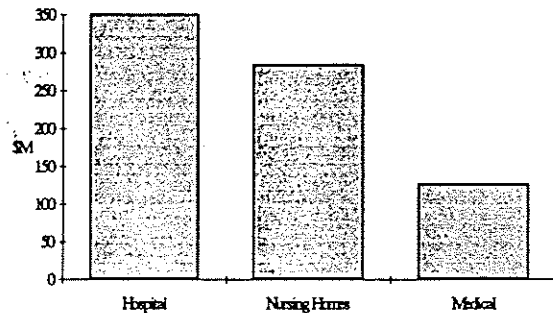
Nationally, per capita expenditure for tobacco products has declined by \$46 during the past decade.

Figure 15. Per Capita Expenditure on Tobacco
Australia, 1981-82 to 1990-92



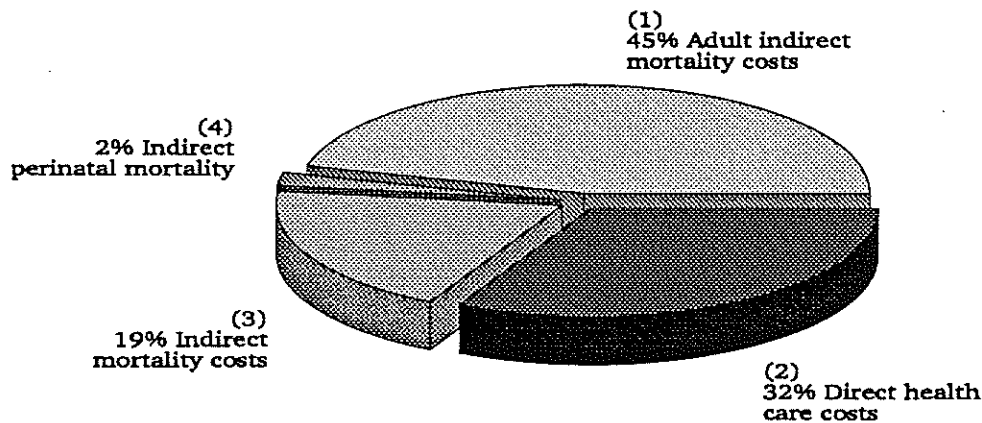
Source: Department of Health Housing and Community Services, 1992

Table 16. Net Health Care Costs
Resulting from Tobacco Abuse, Australia, 1988



Health care costs resulting from tobacco related illnesses totalled \$760m with hospital expenditures accounting for nearly half of the total.

Figure 17: Economic costs of smoking in Queensland:
estimates for 1990.



- (1) \$294.40 million in adult indirect mortality costs - lost productivity of smokers who die.
- (2) \$208.64 million in direct health care costs - hospital, medical and ancillary costs.
- (3) \$123.88 million in indirect mortality costs - lost productivity of smokers who are unable to work.
- (4) \$13.04 million in perinatal indirect mortality costs - indirect costs associated with death in the newborn.

Source: Queensland Health 1990

In Queensland only 1/3 of the total economic costs of smoking was due to direct health care costs. Nearly 2/3 of total costs are indirect mortality costs.

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