

# 19 Cancer of the thyroid

## Summary

Relative survival after diagnosis of thyroid cancer is high, when compared with other cancer sites. During 1992–1997, relative survival one year after diagnosis of cancer of the thyroid was 91.2% for males and 96.4% for females. Five-year relative survival was 87.9% for males and 95.6% for females (Table 19.1). Survival ten years after diagnosis was 79.8% for males and 92.2% for females in 1987–1991, the most recent period for which ten-year relative survival data are available (Figure 19.2; Tables 19.2 and 19.3).

Between 1982–1986 and 1992–1997, relative survival for females increased significantly with five-year relative survival increasing from 87.8% to 95.6%. For males the only significant increase was for relative survival three years after diagnosis, from 83.2% to 89.6% (Figure 19.2; Tables 19.2 and 19.3).

Five-year relative survival after a diagnosis of thyroid cancer was highest in the younger age groups and decreased as age increased. For females the numbers of new cases and deaths were small for age groups below 30 years, making survival estimates for these age groups less robust. Five-year relative survival was highest for males and females aged 30–39 years—98.6% and 99.3%, respectively. This decreased to 65.4% for males and 65.1% for females aged 80–89 years (Figure 19.3; Table 19.1).

For individual age groups, five-year relative survival increased significantly between 1982–1986 and 1992–1997 for males aged 40–49 years only. Five-year relative survival increased for females aged 40–49 years, 60–69 years, 70–79 years and 80–89 years (Figure 19.3; Tables 19.5 and 19.6).

**Table 19.1: Cancer of the thyroid: number of new cases and deaths, and five-year relative survival proportions, by age at diagnosis and sex, Australia, 1992–1997**

Age	New cases		Deaths		5-year relative survival (%)	
	Males	Females	Males	Females	Males	Females
0–19 years	31	74	1	1	*	*
20–29 years	99	451	3	1	*	*
30–39 years	203	808	4	10	98.6	99.3
40–49 years	247	815	14	15	95.6	98.8
50–59 years	189	501	33	26	86.5	97.2
60–69 years	207	391	59	58	76.4	89.6
70–79 years	147	269	71	97	66.9	76.4
80–89 years	55	112	35	68	65.4	65.1
90–99 years	5	14	5	11	*	68.7
<b>All ages</b>	<b>1,183</b>	<b>3,435</b>	<b>225</b>	<b>287</b>	<b>87.9</b>	<b>95.6</b>

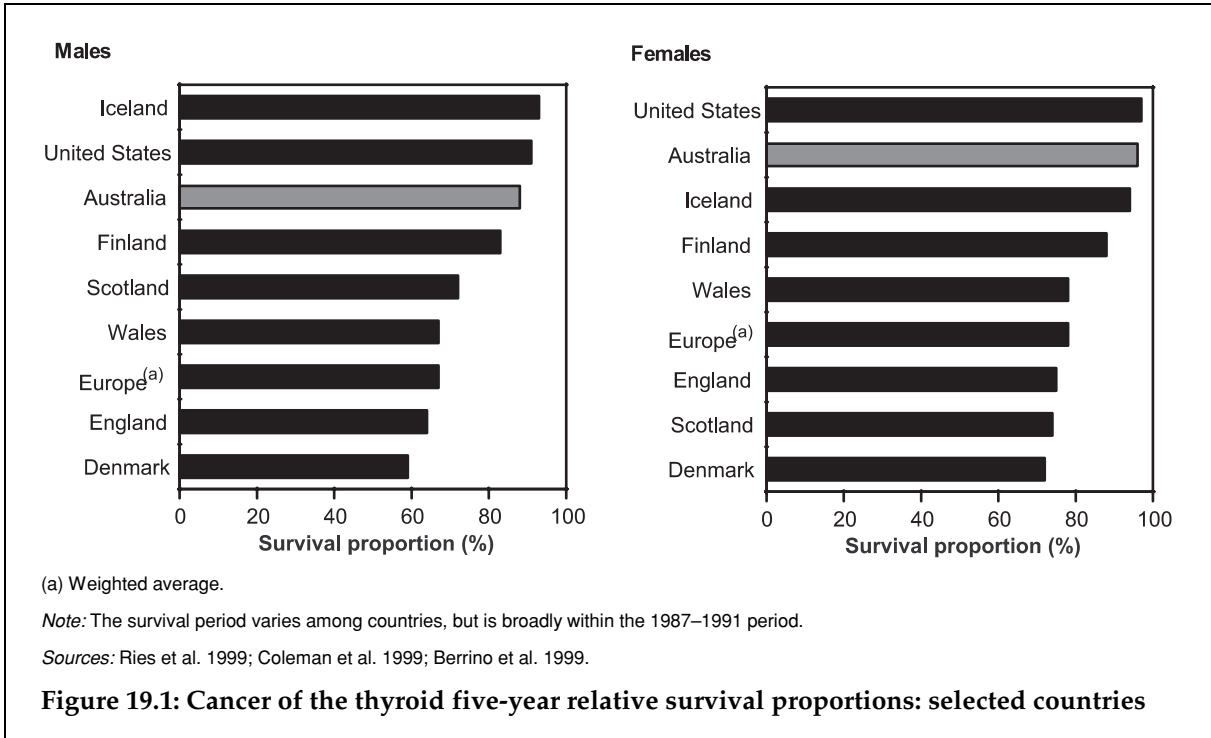
\* Interpretation difficult due to statistical instability. The instability in this age/sex/site group may be due to the survival model's handling a combination of small number of cases/deaths and or unstable background survival patterns resulting in invalid estimates. These results are therefore not presented here.

# Incidence and mortality

Cancer of the thyroid is a relatively uncommon cancer. During 1997, there were 859 new cases diagnosed. Of these, 228 were males and 631 were females. Thyroid cancer was the cause of 71 deaths in 1997—34 males and 37 females. It is estimated that there were 268 years of life lost due to thyroid cancer in males, and 248 years of life lost in females during 1997. For the six-year period 1992–1997, the age-standardised incidence rates for thyroid cancer increased by 6.0% and 3.8% per annum for males and females respectively. However, despite an increase in incidence, age-standardised mortality rates for thyroid cancer decreased by 4.6% per annum for males and 6.2% per annum for females.

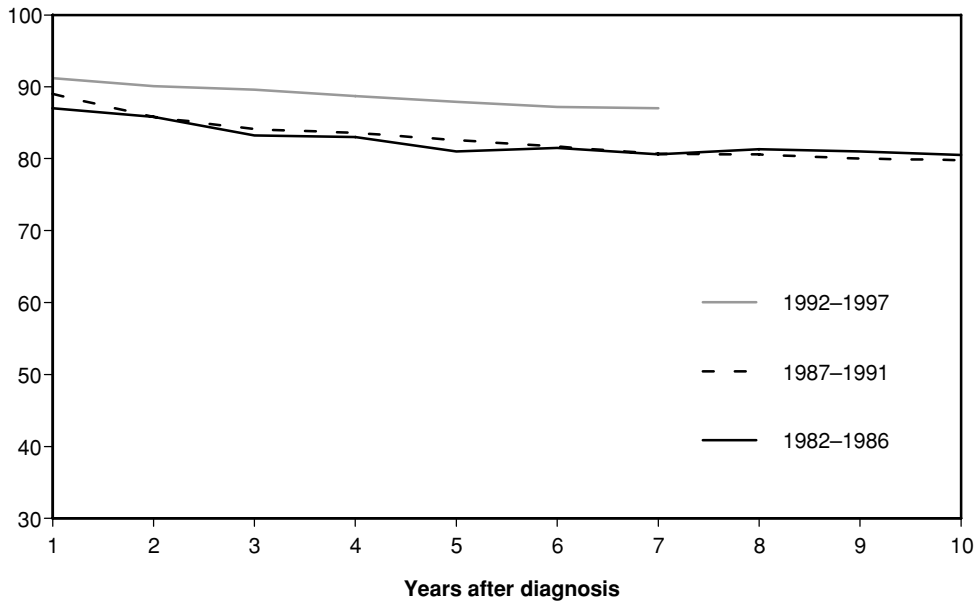
# International comparisons

Five-year relative survival after diagnosis of thyroid cancer in Australia is relatively high compared with relative survival after thyroid cancer in selected countries for which relative survival data were available. Five-year thyroid cancer relative survival proportions in Australia during 1987–1992 were lower than in Iceland for males, but not for females. Australian relative survival proportions were also lower than those in the United States for both males and females (Figure 19.3; Table 19.8). Australian proportions were higher than those in countries such as Wales, Scotland, England, Denmark and Finland. The change in relative survival pattern over the diagnosis period is consistent with those found in England and Wales; however, the United States rates show consistent but not significant improvement. Examination of five-year relative survival by age group for the United States, England and Wales showed similar consistent decreases in relative survival rates as age increased (Ries et al. 1999; Coleman et al. 1999).



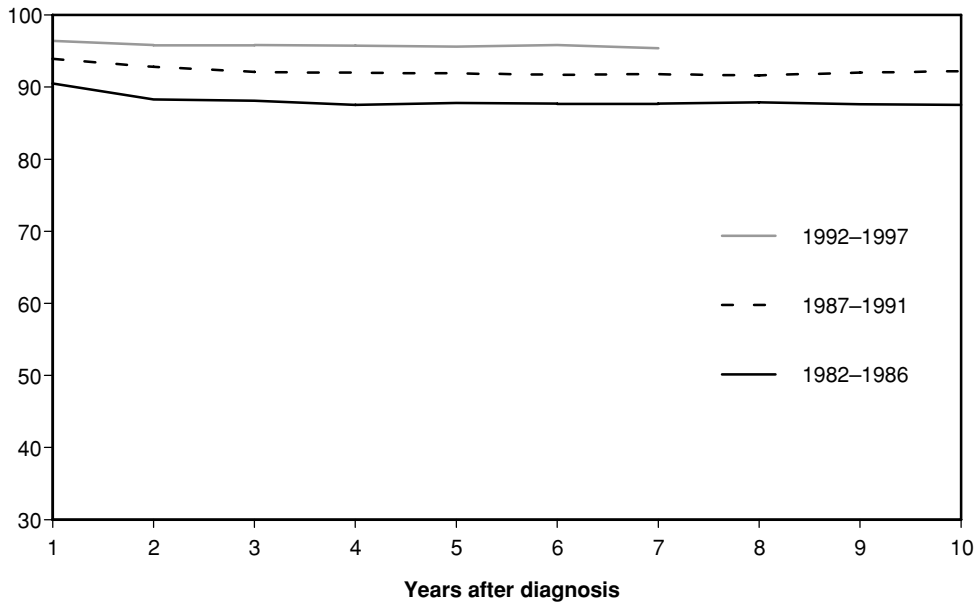
**Males**

Relative survival (%)



**Females**

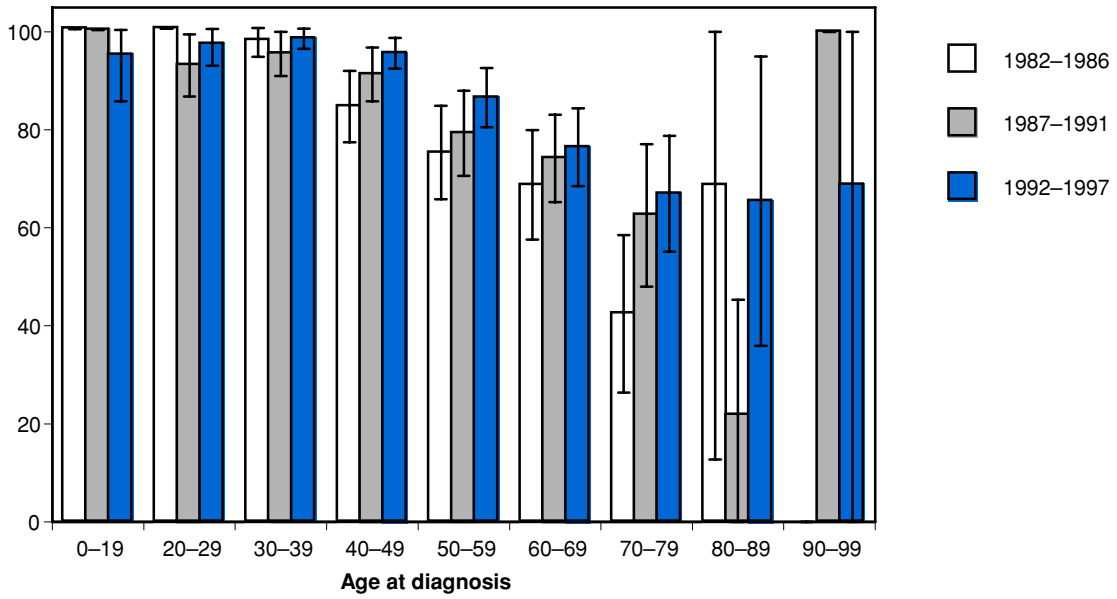
Relative survival (%)



**Figure 19.2: Cancer of the thyroid relative survival proportions: period of diagnosis, Australia**

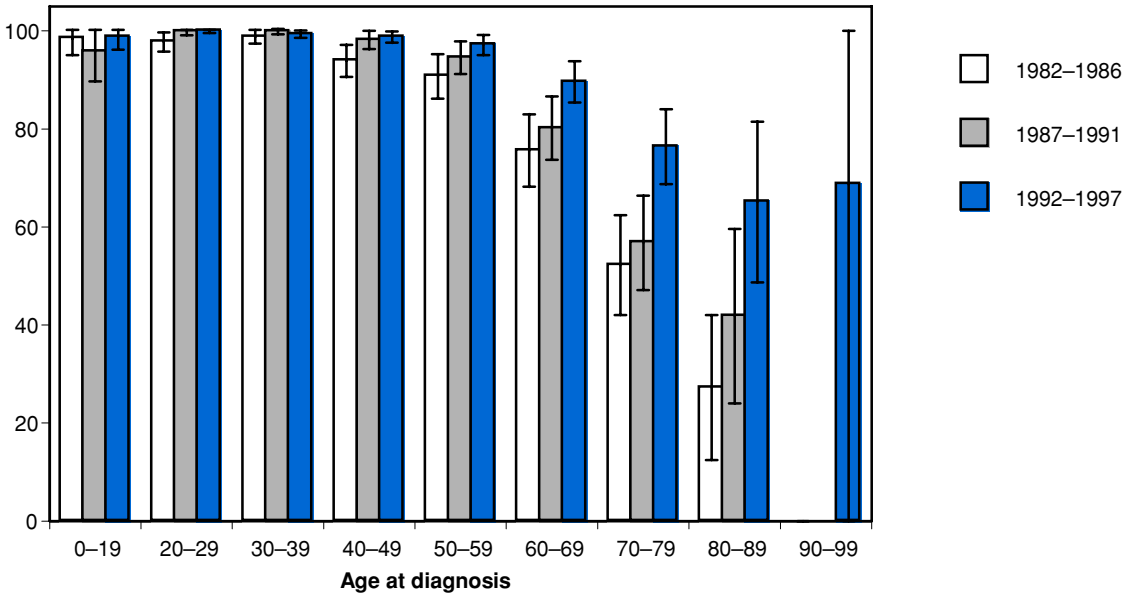
**Males**

Survival proportion (%)



**Females**

Survival proportion (%)



Note: 95% confidence intervals are shown for each age group.

**Figure 19.3: Cancer of the thyroid five-year relative survival proportions: age at diagnosis by period of diagnosis, Australia**