

## ■ Testicular cancer

Testicular cancer accounts for 1.7% of all registrations, but less than 0.2% of all cancer deaths, reflecting its low case fatality compared to other types of cancer. This cancer has an unusual age distribution, affecting mainly young adult males. The risk for young adults (25–44 years) is two to three times higher than that for older age groups.

With the advent of effective therapy, testicular cancer is now curable in at least 90% of cases (especially if detected at an early stage) (Bayer 2002). The combination of a young age structure with the availability of effective treatment makes testicular cancer a more important public health concern than may otherwise appear from the relatively small counts involved.

Testicular cancer has been increasing rapidly in incidence over the past half century. The average annual age standardised incidence rate increased from 3.7 per 100,000 in 1956 to 9.0 per 100,000 in 1996, a 143% increase over the 40 year period. The annual number of registrations increased more than four-fold over this period, from 28 to 124. Approximately 60% of this increase was attributable to the growth in population size (but little or none to population ageing), especially that of the high risk young adult age group.

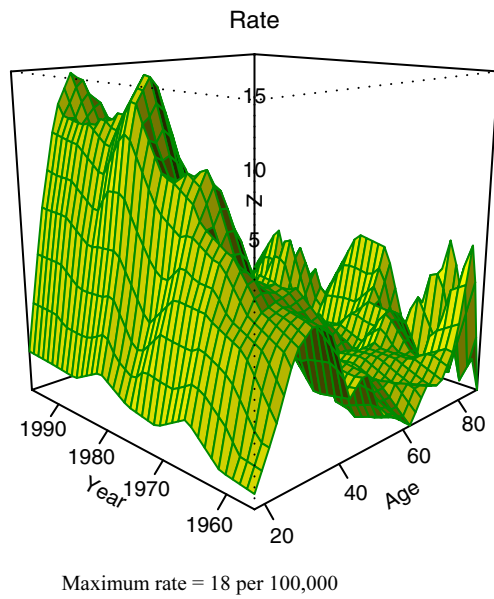
In contrast, the reduction in the testicular cancer mortality rate over the past three decades has been equally impressive. The average annual age standardised mortality rate decreased by over three-quarters between 1972 and 1997, from 1.7 per 100,000 to 0.4 per 100,000.

In the mid to late 1990s Māori experienced a higher risk of testicular cancer than non-Māori. There is also some evidence of a direct deprivation gradient in the incidence (but not mortality) of testicular cancer, with higher rates among the more deprived groups.

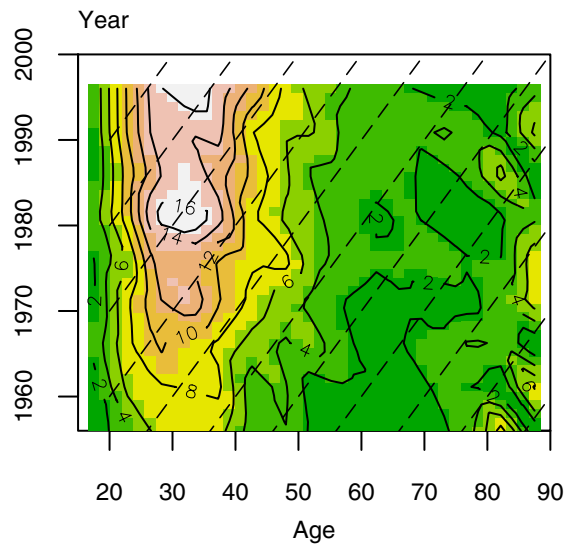
The contrasting historical trends in testicular cancer incidence and mortality rates are forecast to continue. By 2011 the age standardised incidence rate is projected to further increase by almost one-quarter from the 1996 level, reaching 11.1 per 100,000 (CI 7.7 – 13.3) or 163 registrations (CI 105 – 214). In contrast, the age standardised mortality rate is projected to reduce to half the 1997 level, reaching 0.2 per 100,000 (CI 0.1 – 0.3) by 2012. This would make testicular cancer a relatively rare cause of death, with three deaths projected in 2012.

**Figure 32.1** Historical trends in age specific rates, testicular cancer

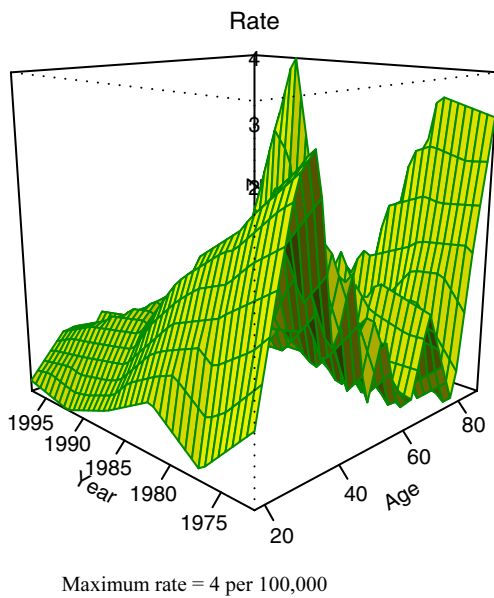
(a) Incidence rates, perspective plot



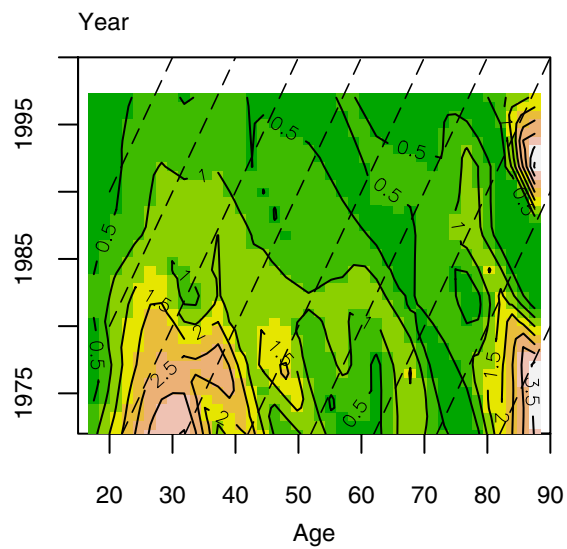
(b) Incidence rates, contour plot



(c) Mortality rates, perspective plot

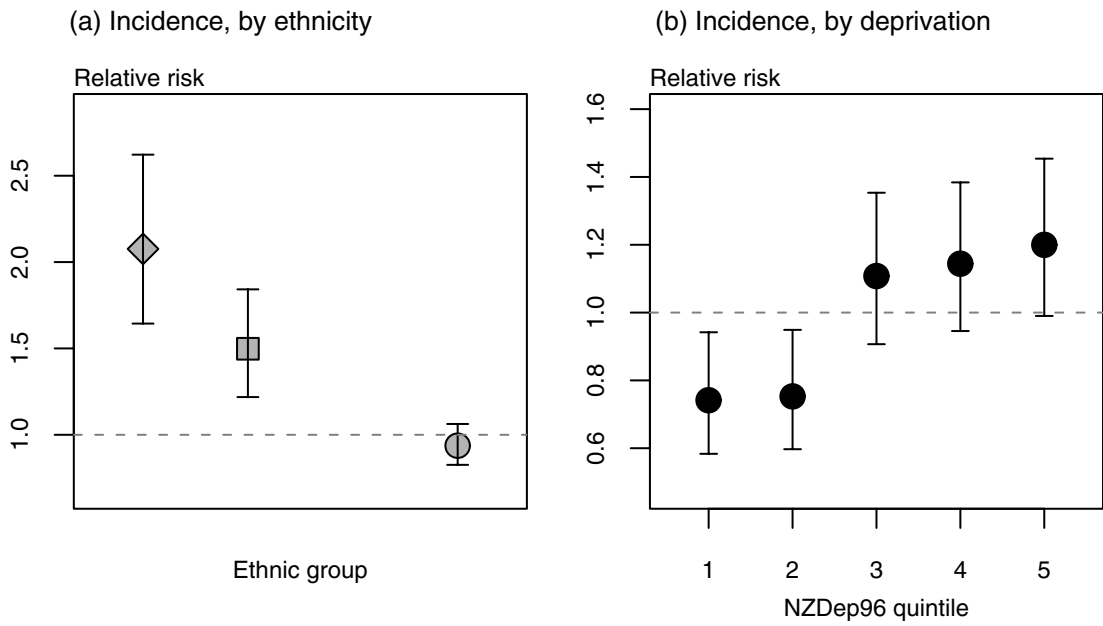


(d) Mortality rates, contour plot



Please refer to Chapter 2 for interpretation of charts

**Figure 32.2** Relative risk 1996/97, testicular cancer



(c) Mortality, by ethnicity

Robust rate ratios cannot be calculated because of the small number of cases in some ethnic groups.

(d) Mortality, by deprivation

Robust rate ratios cannot be calculated because of the small number of cases in some deprivation quintiles.

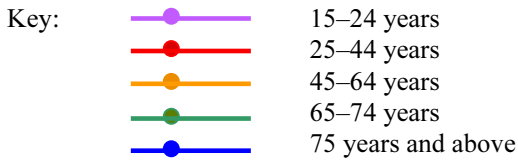
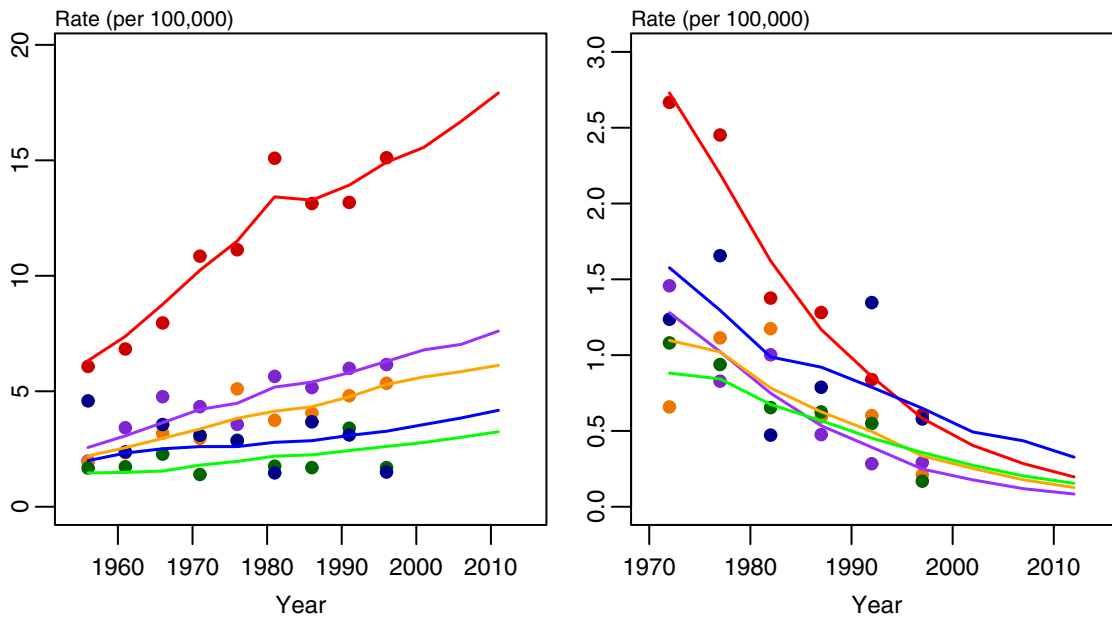
Ethnic group key:

- ◆ sole Māori
- total Māori
- non-Māori

**Figure 32.3** Trends and projections of life cycle stage specific rates, testicular cancer

(a) Incidence rates

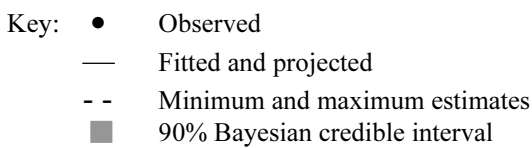
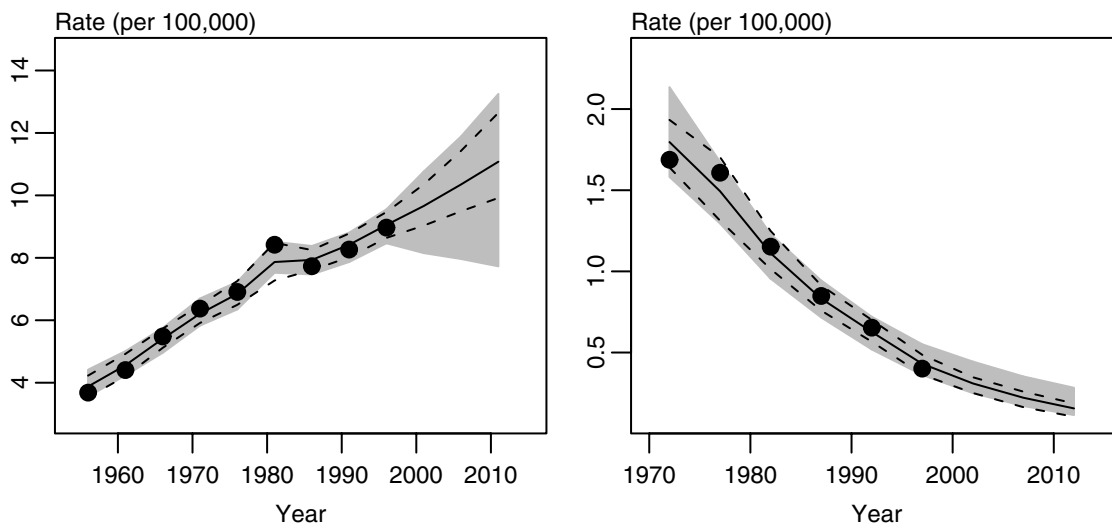
(b) Mortality rates



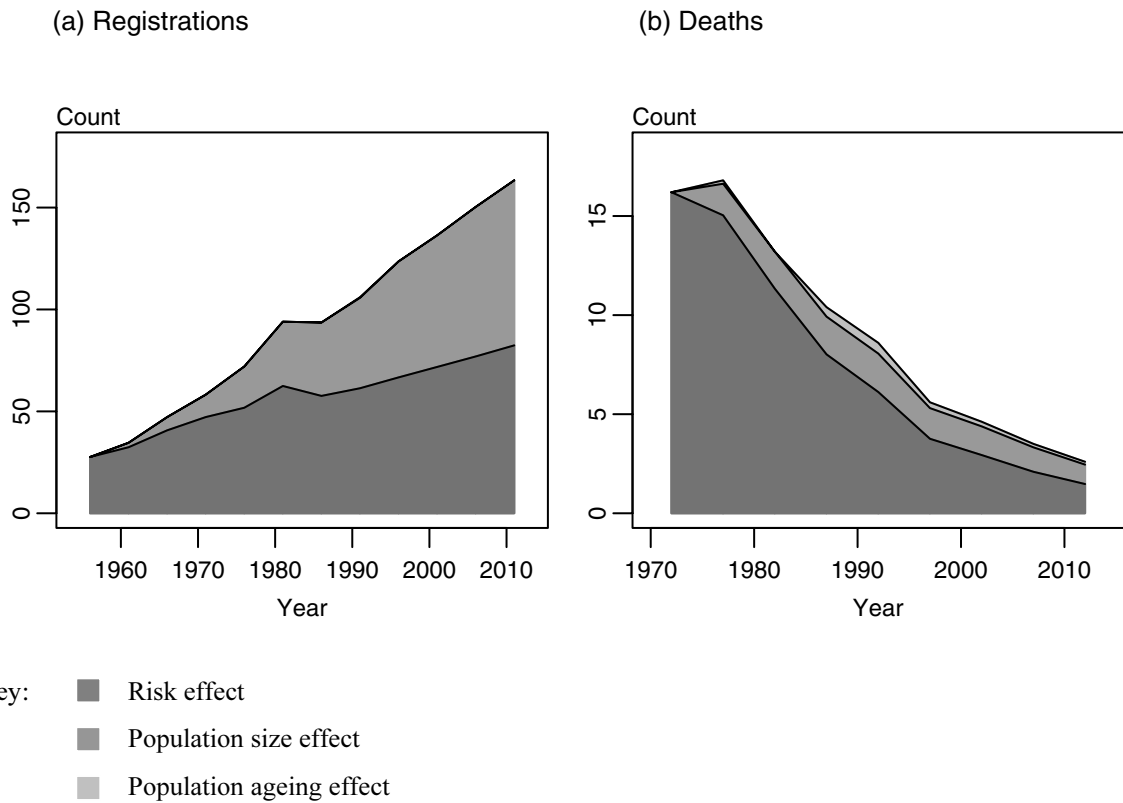
**Figure 32.4** Trends and projections of age standardised rates, testicular cancer

(a) Incidence rates

(b) Mortality rates



**Figure 32.5** Drivers of change in the cancer burden, testicular cancer



**Table 32.1** Key results, testicular cancer

	Incidence			Mortality		
	1996	2011 (CI)	change (%)	1997	2012 (CI)	change (%)
<i>Age standardised or age specific rate (per 100,000)</i>						
15+	9.0	11.1 (7.7 – 13.3)	24	0.4	0.2 (0.1 – 0.3)	-
15–44	12.1	14.2 (9.0 – 18.1)	17	0.5	0.2 (0.1 – 0.3)	-
45–64	5.3	6.1 (4.2 – 8.6)	15	0.2	0.1 (0.1 – 0.2)	-
65+	1.6	3.6 (2.2 – 5.7)	-	0.3	0.2 (0.1 – 0.4)	-
<i>Number of cases</i>						
15+	124	163 (105 – 214)	31	6	3 (1 – 5)	-
15–44	101	121 (76 – 154)	20	4	1 (1 – 3)	-
45–64	20	33 (23 – 46)	65	1	1 (0 – 1)	-
65+	3	9 (6 – 14)	-	1	1 (0 – 1)	-

CI = 90% Bayesian credible interval

Percentage change omitted when estimate is not robust because of small numbers.

