

■ Gallbladder cancer

When measured by number of annual registrations, gallbladder cancer is the least common among the selected sites for males and the fourth least common among females. This site accounts for approximately 0.5% of all cancers.

Since the early 1970s (the earliest date at which data for this site are considered to be reliable), both the incidence and the mortality rates of gallbladder cancer have decreased appreciably. The average annual age standardised incidence rate has dropped from 3.0 per 100,000 among males and 3.4 per 100,000 among females in 1971 to 2.3 per 100,000 for both genders in 1996.

A more rapid reduction was seen in the average annual age standardised mortality rate over the same period, from 3.1 per 100,000 to 1.4 per 100,000 among males and from 3.3 per 100,000 to 1.5 per 100,000 among females.

The risk of gallbladder cancer increases exponentially with age among adults. The incidence rate increases four-fold between middle (45–64 years) and old age (65 years and above), while the mortality rate increases six-fold.

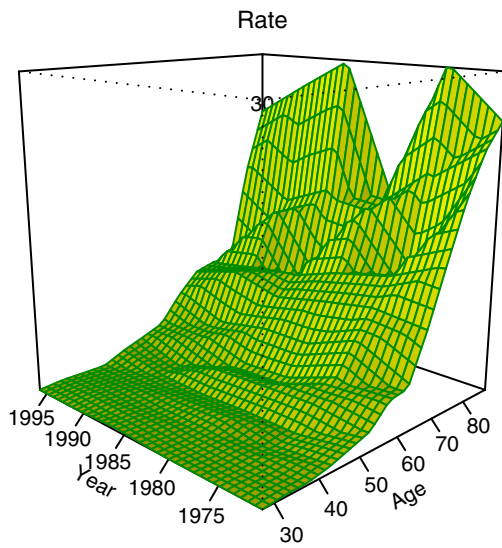
In the mid to late 1990s, Māori experienced consistently higher incidence and mortality rates than non-Māori. A possible direct deprivation gradient was observed for gallbladder cancer mortality rates among females (but not among males, nor for incidence in either gender).

Further reduction in both incidence and mortality rates are forecast. By 2011 the age standardised incidence rate is projected to reduce to 2.0 per 100,000 (CI 1.4 – 2.6) among males and 1.9 per 100,000 (CI 1.3 – 2.4) among females. The corresponding mortality rate in 2012 is projected to reach 1.0 per 100,000 among both males and females (CI 0.6 – 1.2 males, 0.7 – 1.3 females). However, the time series data on which this forecast is built do not capture recent trends in obesity prevalence, which could lessen the projected declines.

The impact on the burden of gallbladder cancer arising from the projected decline in incidence and mortality rates is expected to be more than offset by demographic trends over the forecasting period, so yielding a small net increase in the number of annual gallbladder cancer registrations and deaths by 2011/12. Population ageing is anticipated to make an increasingly important contribution to this burden.

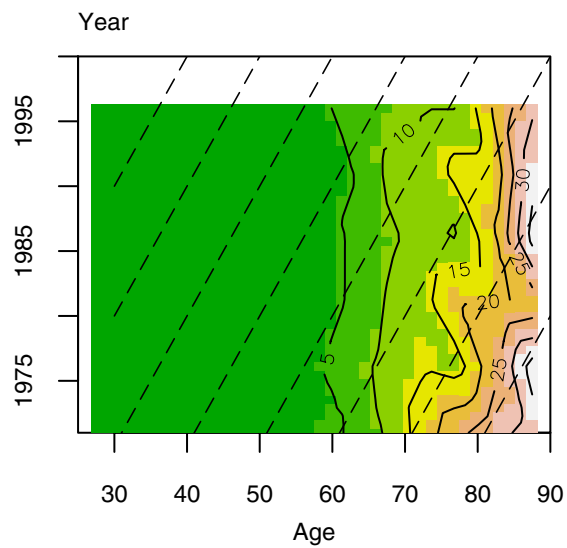
Figure 16.1 Historical trends in age specific rates, gallbladder cancer, males

(a) Male incidence rates, perspective plot

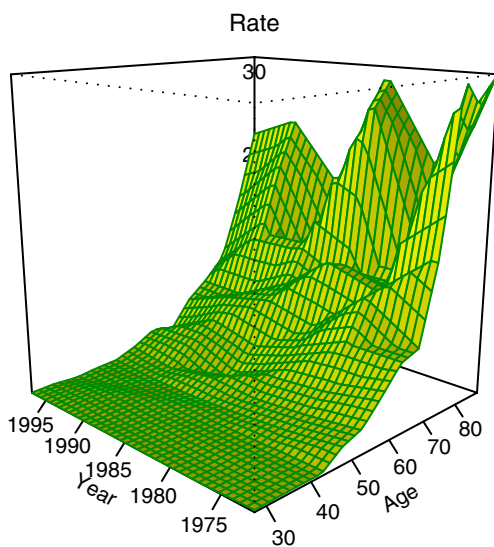


Maximum rate = 37 per 100,000

(b) Male incidence rates, contour plot

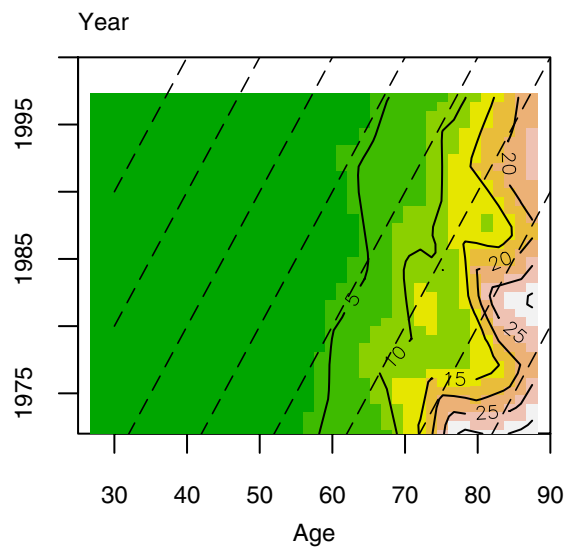


(c) Male mortality rates, perspective plot



Maximum rate = 32 per 100,000

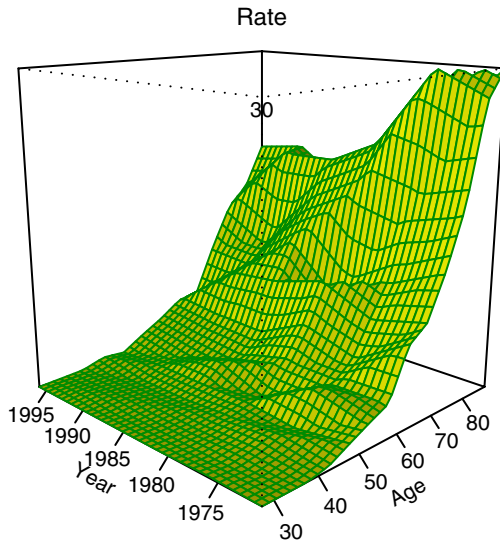
(d) Male mortality rates, contour plot



Please refer to Chapter 2 for interpretation of charts

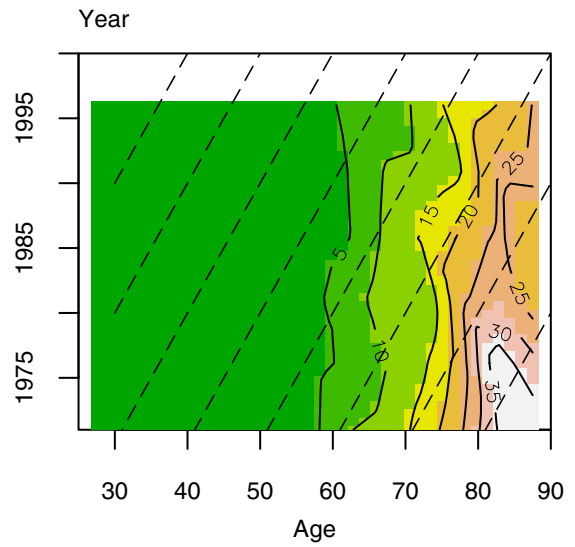
Figure 16.2 Historical trends in age specific rates, gallbladder cancer, females

(a) Female incidence rates, perspective plot

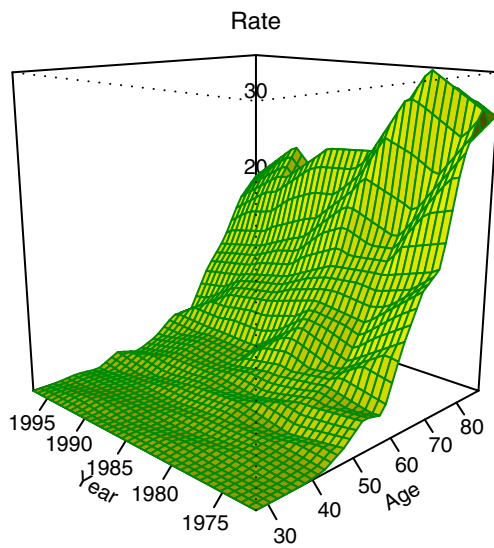


Maximum rate = 39 per 100,000

(b) Female incidence rates, contour plot



(c) Female mortality rates, perspective plot



Maximum rate = 35 per 100,000

(d) Female mortality rates, contour plot

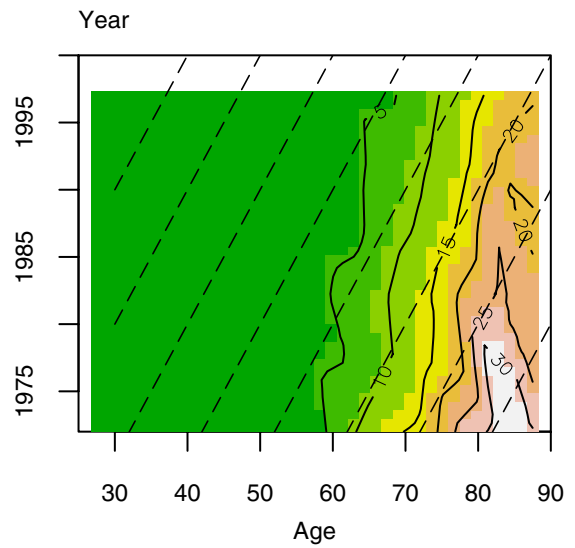
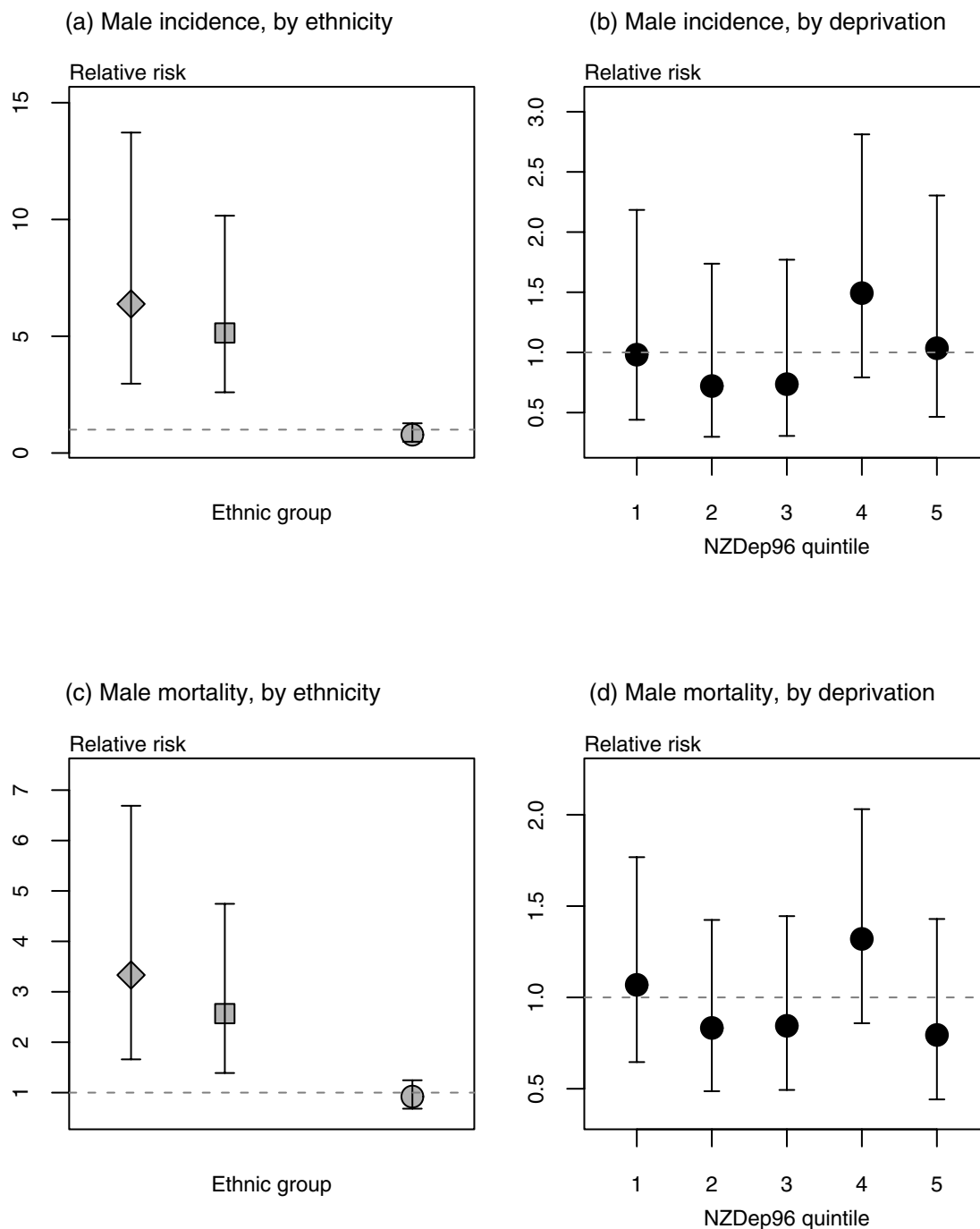


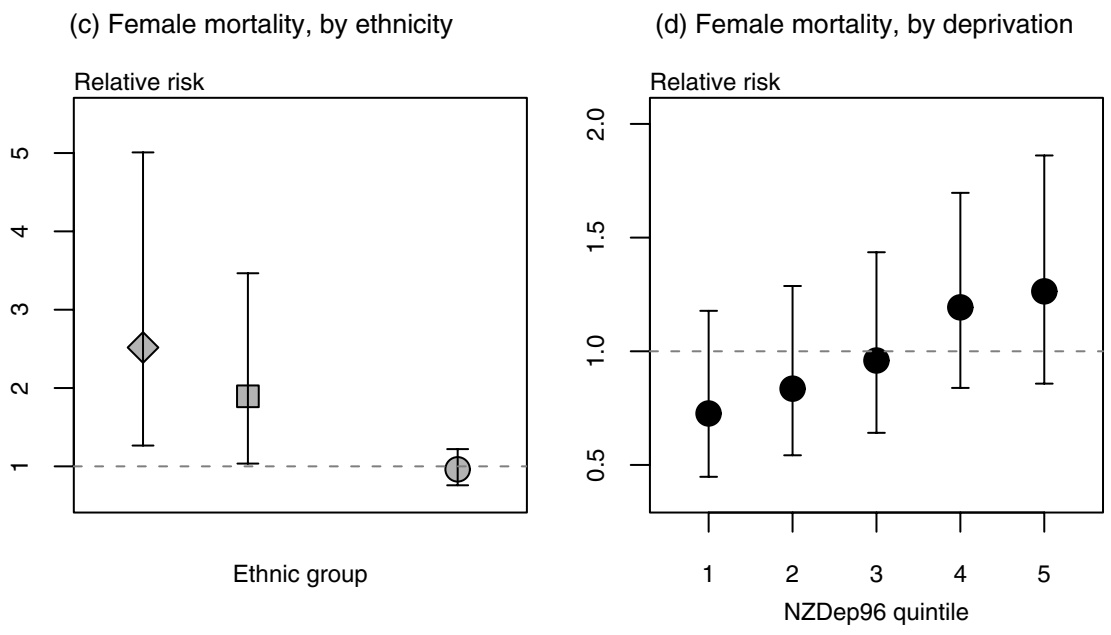
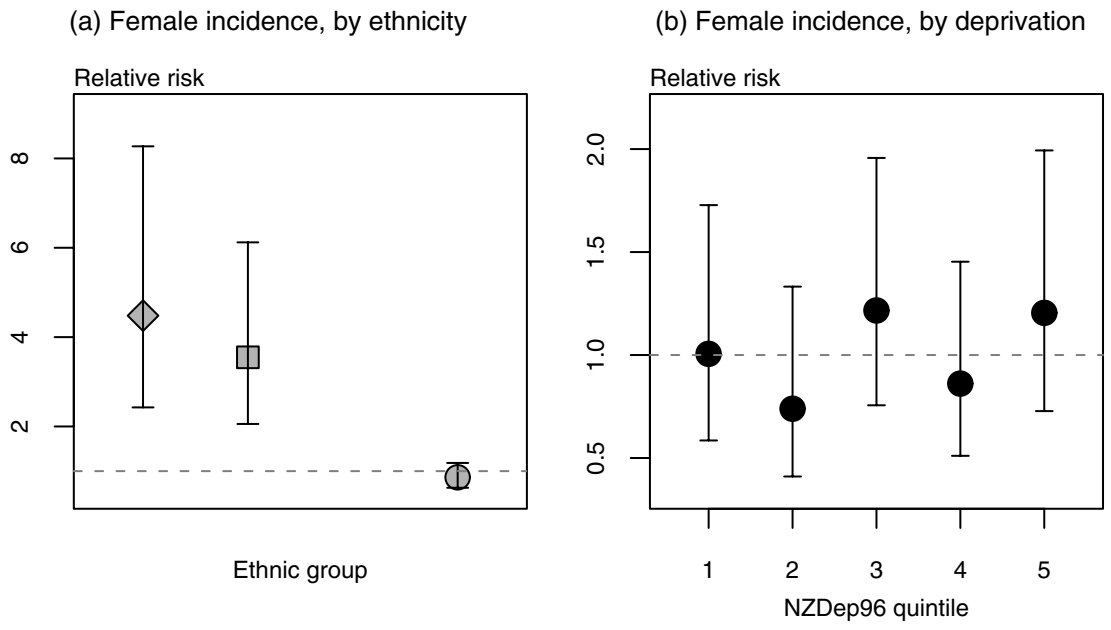
Figure 16.3 Relative risk 1996/97, gallbladder cancer, males



Ethnic group key:

- ◆ sole Māori
- total Māori
- non-Māori

Figure 16.4 Relative risk 1996/97, gallbladder cancer, females

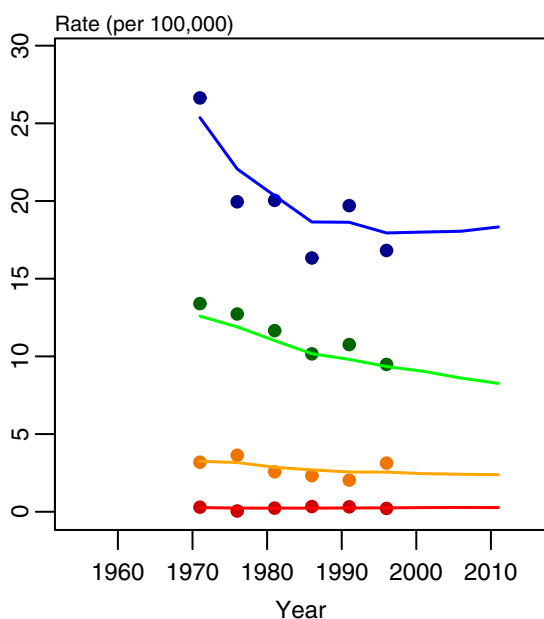


Ethnic group key:

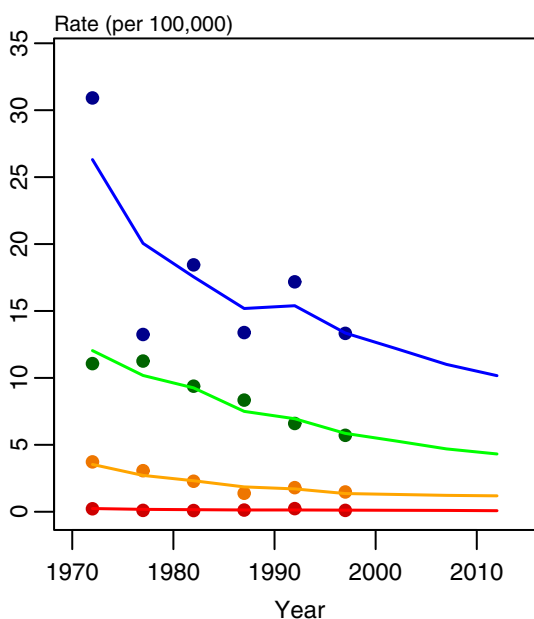
- ◆ sole Māori
- total Māori
- non-Māori

Figure 16.5 Trends and projections of life cycle stage specific rates, gallbladder cancer

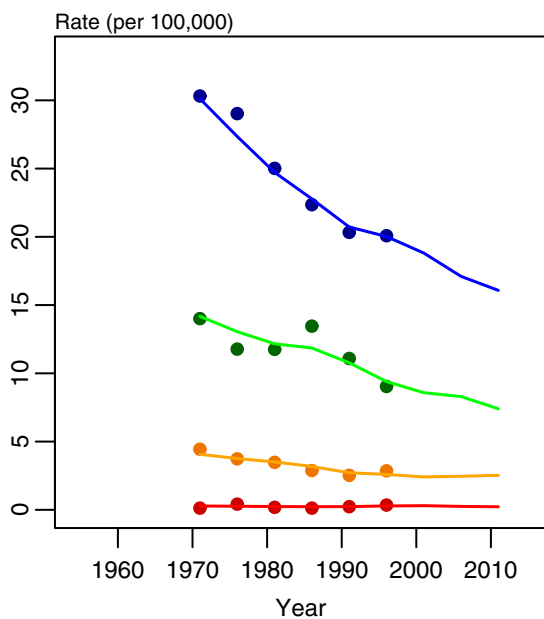
(a) Male incidence rates



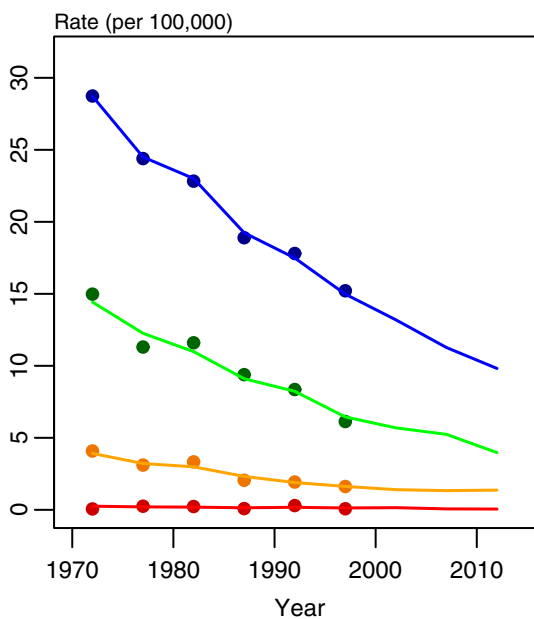
(b) Male mortality rates



(c) Female incidence rates



(d) Female mortality rates

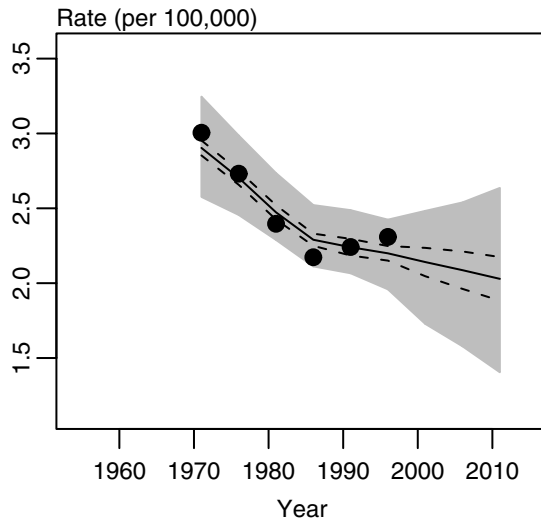


Key:

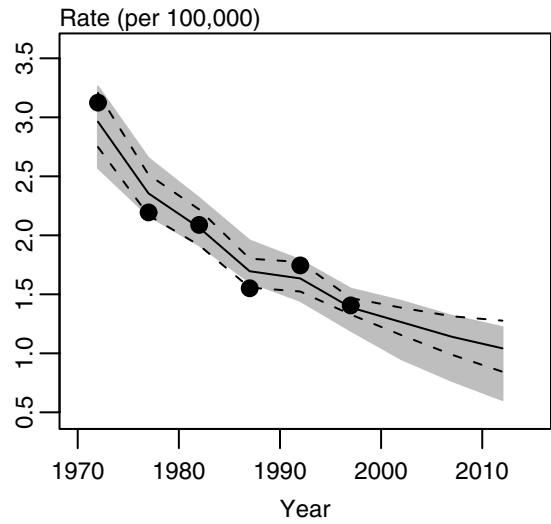
- 25–44 years
- 45–64 years
- 65–74 years
- 75 years and above

Figure 16.6 Trends and projections of age standardised rates, gallbladder cancer

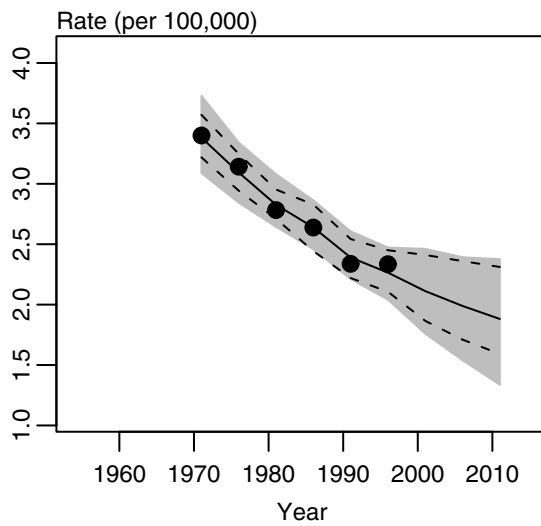
(a) Male incidence rates



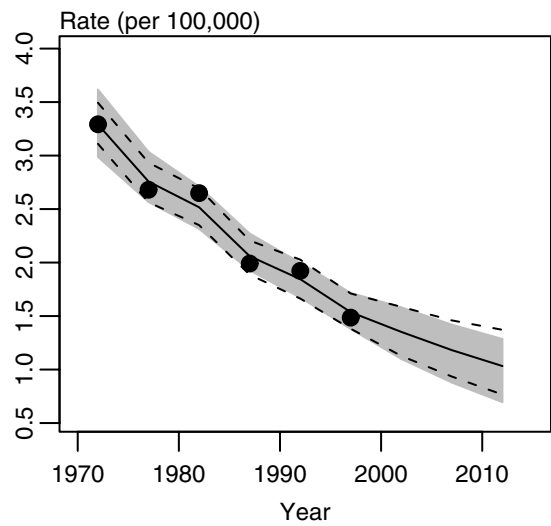
(b) Male mortality rates



(c) Female incidence rates



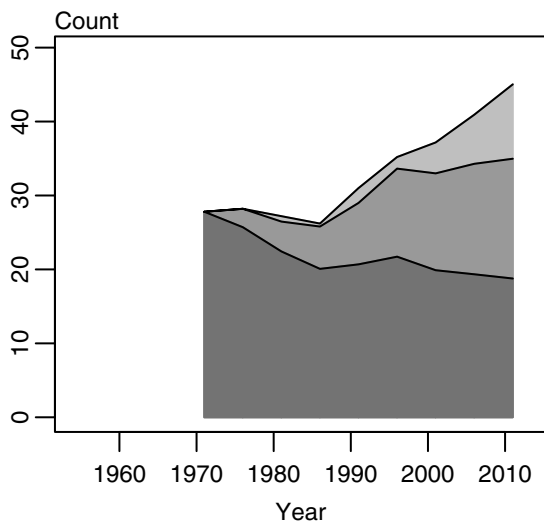
(d) Female mortality rates



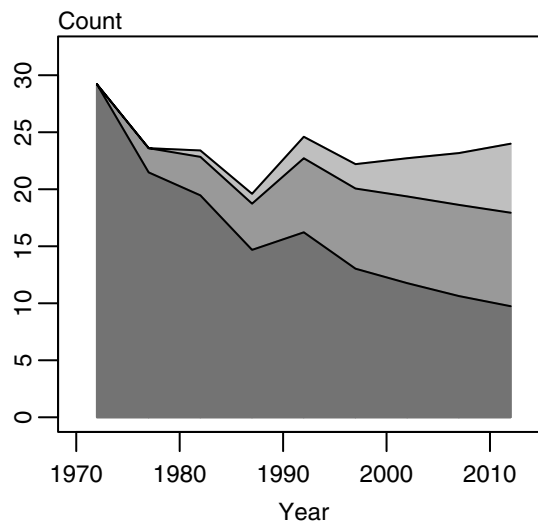
Key: ● Observed
 — Fitted and projected
 - - Minimum and maximum estimates
 ■ 90% Bayesian credible interval

Figure 16.7 Drivers of change in the cancer burden, gallbladder cancer

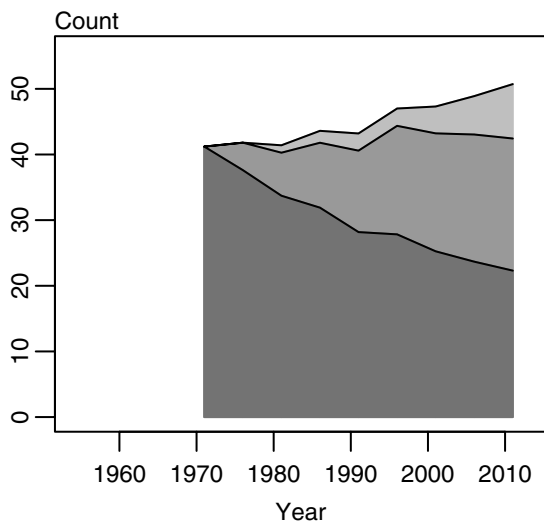
(a) Male registrations



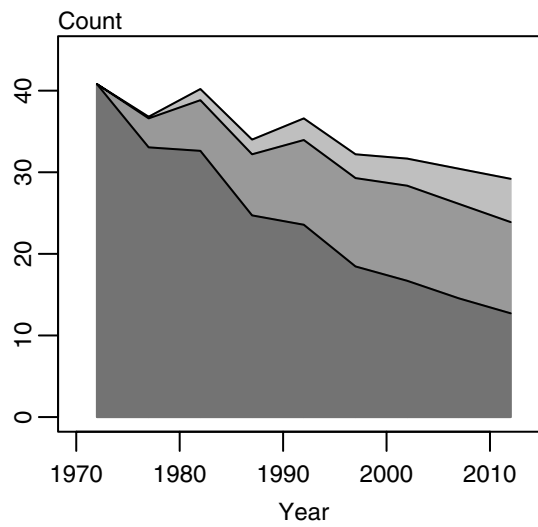
(b) Male deaths



(c) Female registrations



(d) Female deaths



Key:
 Risk effect
 Population size effect
 Population ageing effect

Table 16.1 Key results, gallbladder cancer

Males

	Incidence			Mortality		
	1996	2011 (CI)	change (%)	1997	2012 (CI)	change (%)
<i>Age standardised or age specific rate (per 100,000)</i>						
15+	2.3	2.0 (1.4 – 2.6)	-	1.4	1.0 (0.6 – 1.2)	-
25–44	0.2	0.3 (0.1 – 0.4)	-	0.1	0.1 (0.0 – 0.1)	-
45–64	3.1	2.4 (1.4 – 3.5)	-	1.5	1.2 (0.5 – 1.4)	-
65+	12.1	12.3 (7.7 – 17.2)	2	8.5	6.6 (3.6 – 8.6)	-22
<i>Number of cases</i>						
15+	35	45 (28 – 64)	29	22	24 (12 – 31)	9
25–44	1	1 (1 – 2)	-	1	0 (0 – 1)	-
45–64	12	13 (8 – 19)	8	6	6 (3 – 8)	0
65+	22	31 (19 – 43)	41	16	17 (9 – 22)	6

Females

	Incidence			Mortality		
	1996	2011 (CI)	change (%)	1997	2012 (CI)	change (%)
<i>Age standardised or age specific rate (per 100,000)</i>						
15+	2.3	1.9 (1.3 – 2.4)	-	1.5	1.0 (0.7 – 1.3)	-
25–44	0.3	0.2 (0.1 – 0.3)	-	0.1	0.1 (0.0 – 0.2)	-
45–64	2.9	2.5 (1.4 – 3.1)	-	1.6	1.4 (0.6 – 1.6)	-
65+	14.1	11.5 (8.1 – 16.7)	-18	10.4	6.7 (4.5 – 9.5)	-36
<i>Number of cases</i>						
15+	47	51 (33 – 70)	9	32	29 (18 – 40)	-9
25–44	2	1 (1 – 2)	-	0	0 (0 – 1)	-
45–64	11	14 (8 – 17)	27	6	8 (4 – 9)	33
65+	34	35 (25 – 51)	3	26	21 (14 – 30)	-19

CI = 90% Bayesian credible interval

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

