

■ Laryngeal cancer

Cancer of the larynx is relatively rare, and is often analysed within the group of head and neck cancers (in this report, head and neck cancers are separated into cancer of the larynx and cancer of the lip, mouth and pharynx for modelling purposes). Pooling genders, laryngeal cancer accounts for approximately 0.5% of all cancer registrations and 0.4% of all cancer deaths. The main risk factors are believed to be tobacco and alcohol consumption, especially the former (Forastiere et al 2001).

Both the incidence and mortality rates of laryngeal cancer peaked in the 1980s. By 1996, the average annual age standardised incidence rate had fallen to 4.5 per 100,000 for males and 0.7 per 100,000 for females, corresponding to 68 and 12 registrations respectively. The average annual age standardised mortality rates also declined over the 1990s, but more slowly, to reach 1.4 per 100,000 among males and 0.2 per 100,000 among females in 1997.

The risk of laryngeal cancer is concentrated in older ages. The incidence rate increases three-fold between 45–64 years and 65 years and above age groups, while the mortality rate increases seven-fold.

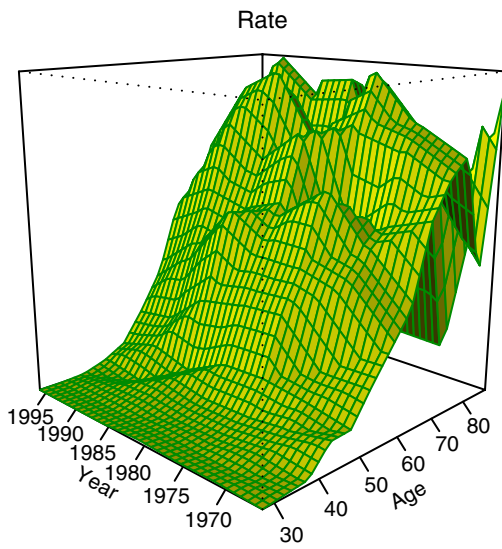
Rates of laryngeal cancer for males are six to seven times higher than those for females. There is some evidence of a direct deprivation gradient of laryngeal cancer risk among males, and of an ethnic disparity among females, though the number of cases is too small to support a robust analysis of risk differentials by ethnic and socioeconomic groups.

By 2011/12 the risk of laryngeal cancer diagnosis or death is forecast to decrease by approximately 40% among males. The male age standardised incidence rate is projected to fall to 2.5 per 100,000 (CI 2.0 – 4.7) by 2011, while the corresponding fall in mortality is to a rate of 0.8 per 100,000 (CI 0.6 – 1.5).

Much slower movement is forecast in female rates. By 2011/12 the female age standardised incidence and mortality rates are projected to have declined to slightly below the levels reached in the late 1990s, at 0.6 per 100,000 (CI 0.5 – 1.3) and 0.2 per 100,000 (CI 0.1 – 0.4), respectively. The difference in trends for males and females probably reflects different tobacco and (to a lesser extent) alcohol consumption patterns (appropriately lagged) between the two genders.

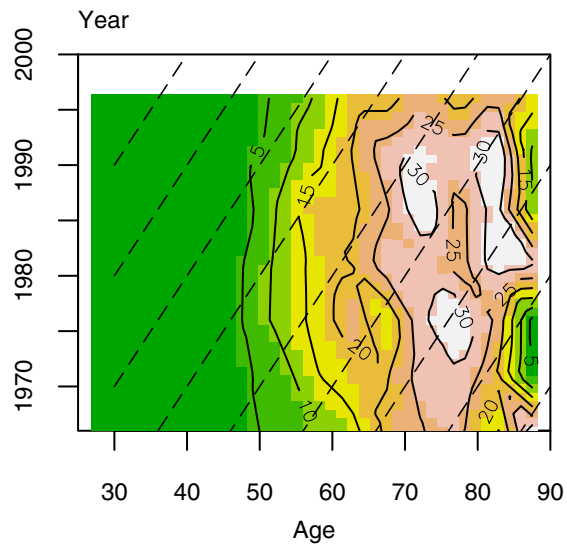
Figure 19.1 Historical trends in age specific rates, laryngeal cancer, males

(a) Male incidence rates, perspective plot

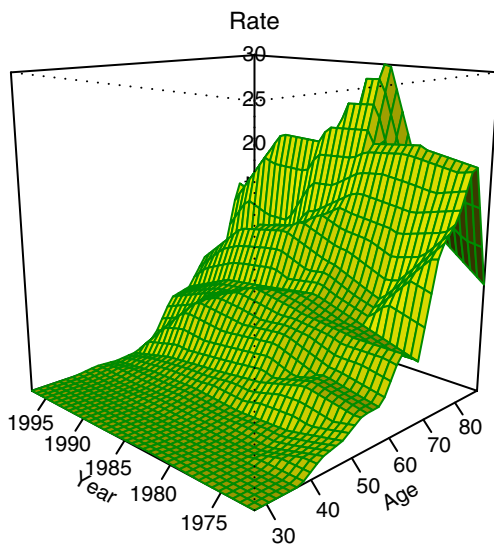


Maximum rate = 37 per 100,000

(b) Male incidence rates, contour plot

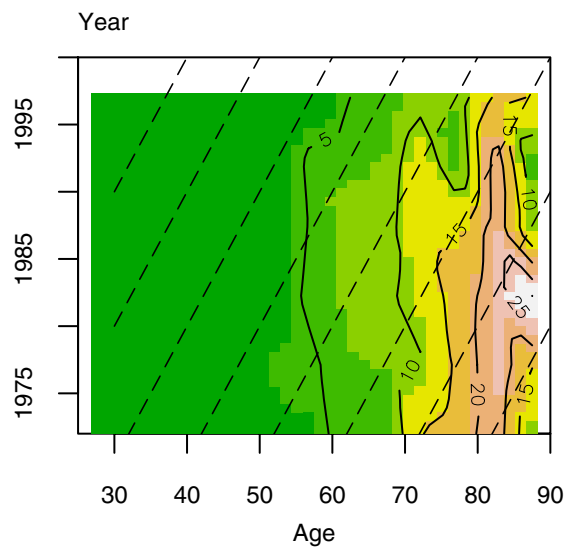


(c) Male mortality rates, perspective plot



Maximum rate = 31 per 100,000

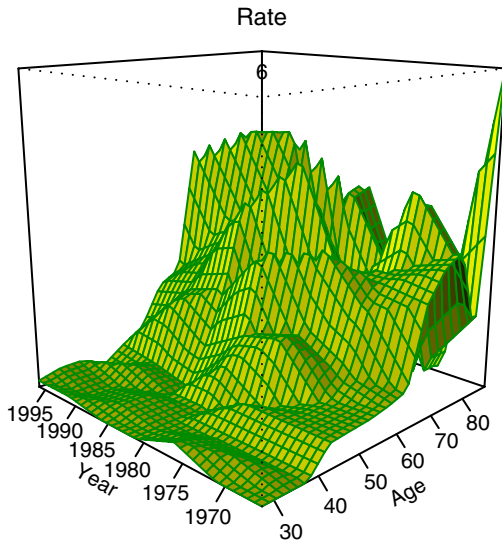
(d) Male mortality rates, contour plot



Please refer to Chapter 2 for interpretation of charts

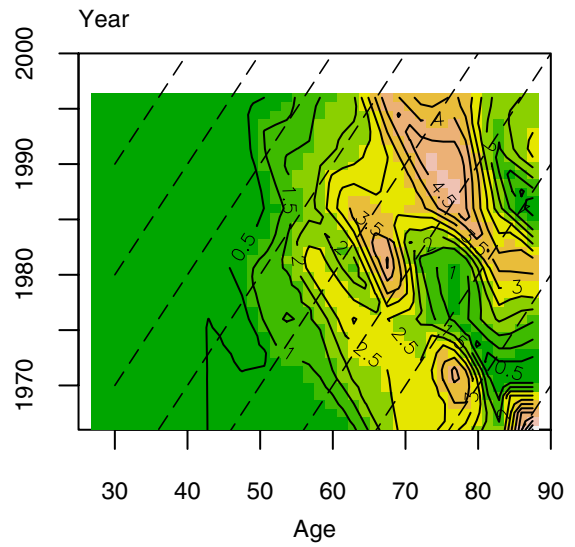
Figure 19.2 Historical trends in age specific rates, laryngeal cancer, females

(a) Female incidence rates, perspective plot

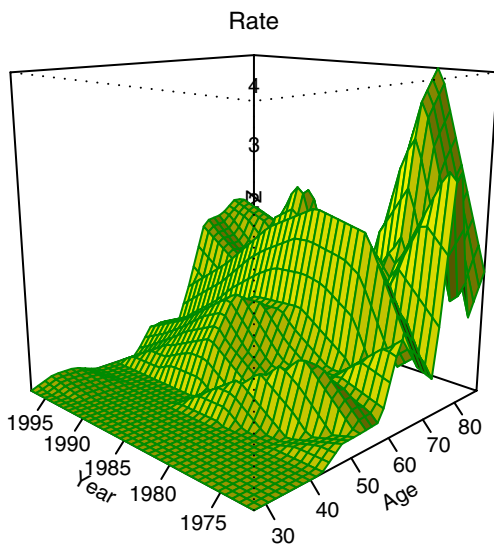


Maximum rate = 7 per 100,000

(b) Female incidence rates, contour plot



(c) Female mortality rates, perspective plot



Maximum rate = 5 per 100,000

(d) Female mortality rates, contour plot

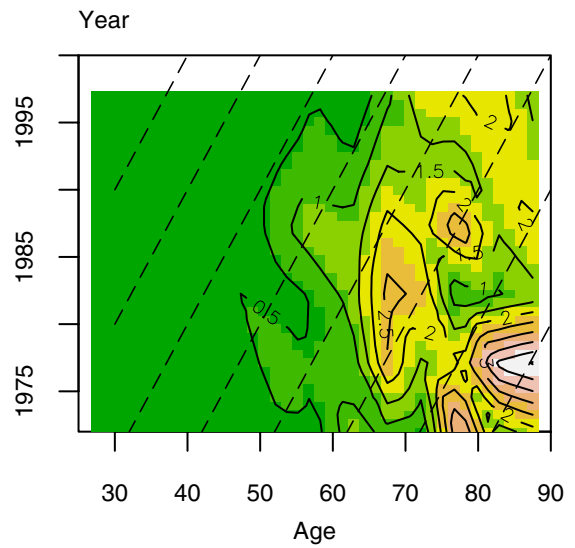
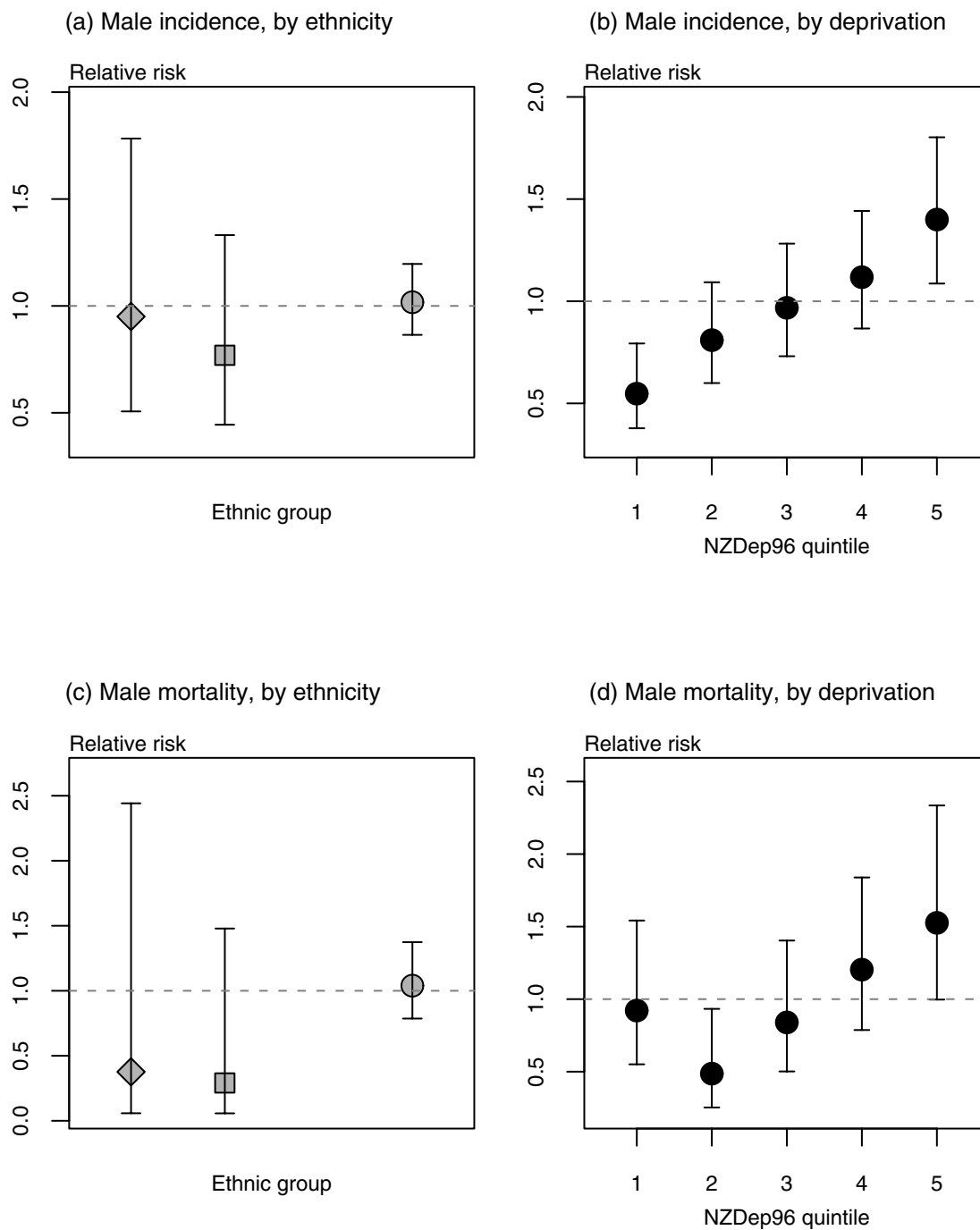


Figure 19.3 Relative risk 1996/97, laryngeal cancer, males

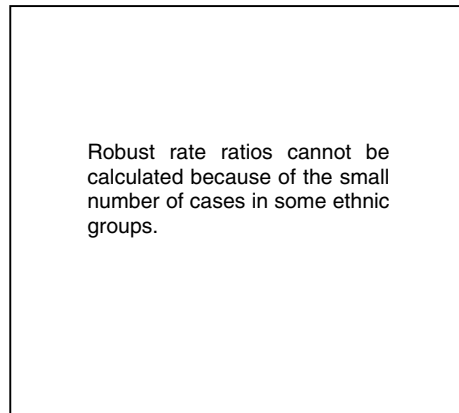


Ethnic group key:

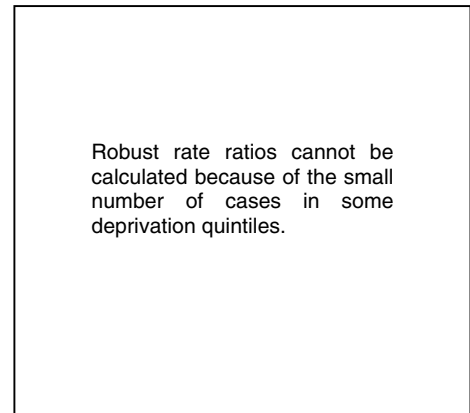
- ◆ sole Māori
- total Māori
- non-Māori

Figure 19.4 Relative risk 1996/97, laryngeal cancer, females

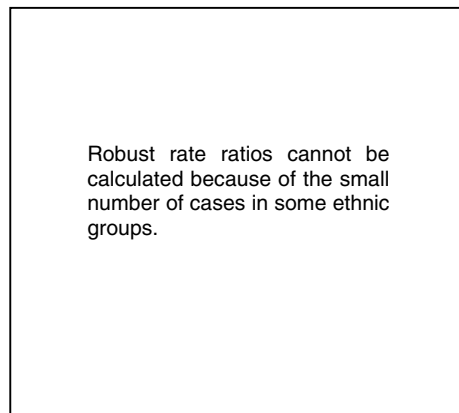
(a) Female incidence, by ethnicity



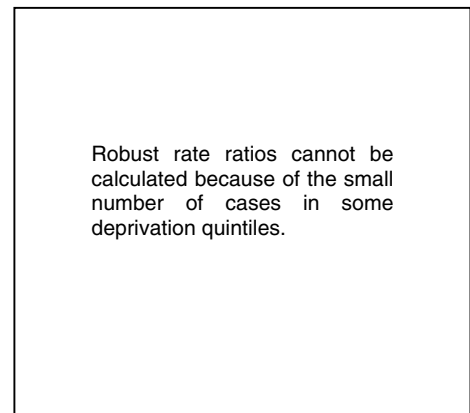
(b) Female incidence, by deprivation



(c) Female mortality, by ethnicity



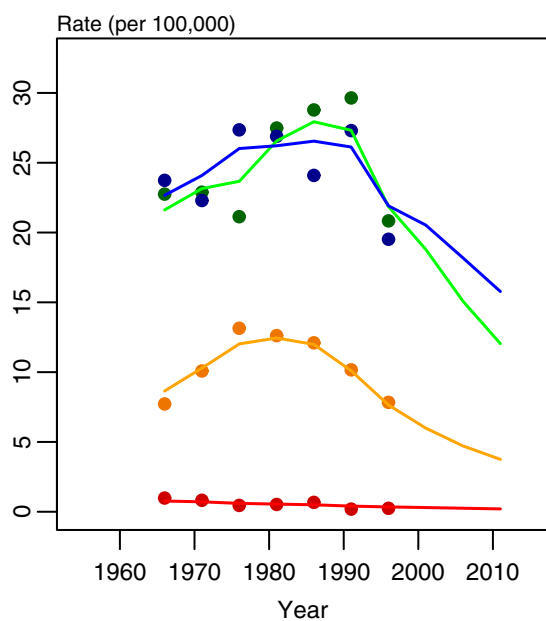
(d) Female mortality, by deprivation



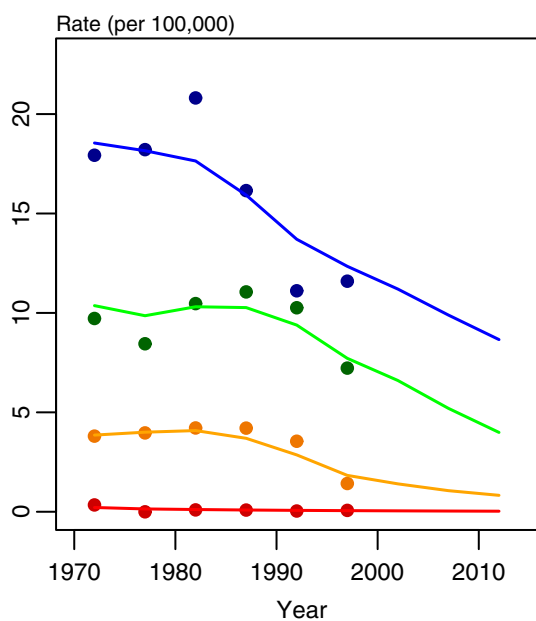
Ethnic group key: ◆ sole Māori
 ■ total Māori
 ● non-Māori

Figure 19.5 Trends and projections of life cycle stage specific rates, laryngeal cancer

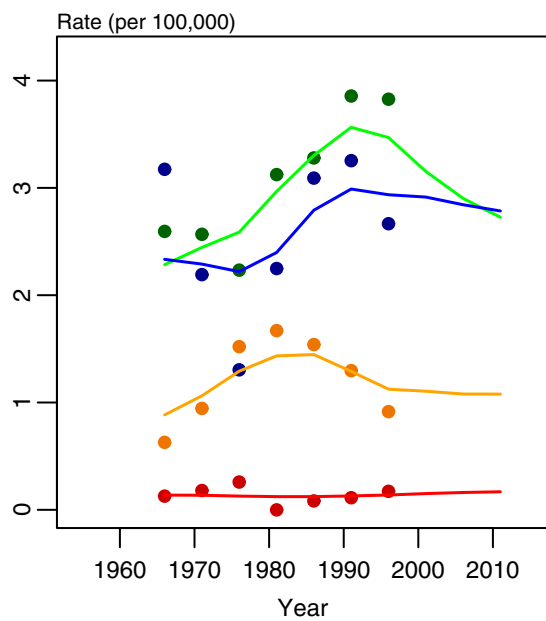
(a) Male incidence rates



(b) Male mortality rates



(c) Female incidence rates



(d) Female mortality rates

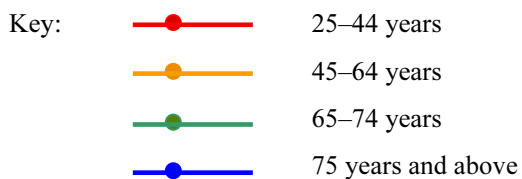
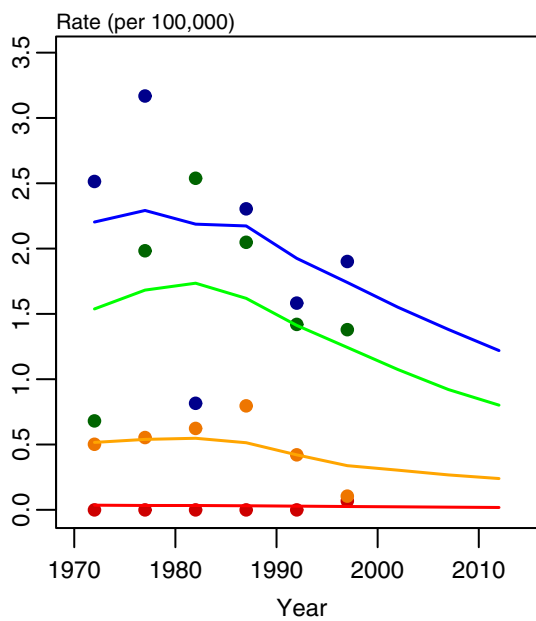
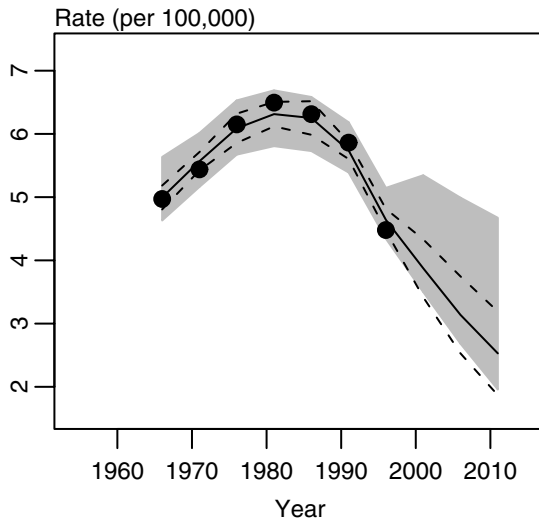
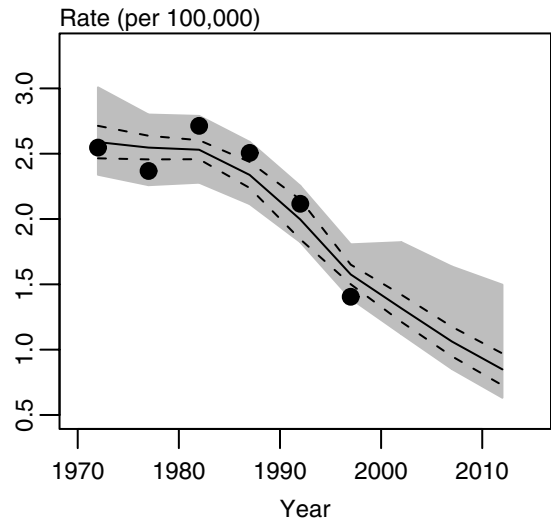


Figure 19.6 Trends and projections of age standardised rates, laryngeal cancer

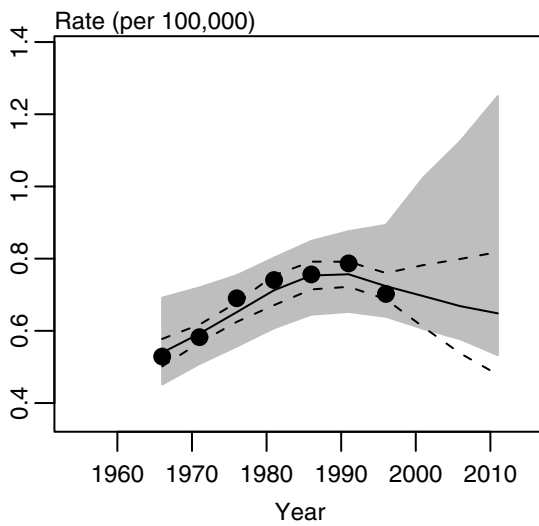
(a) Male incidence rates



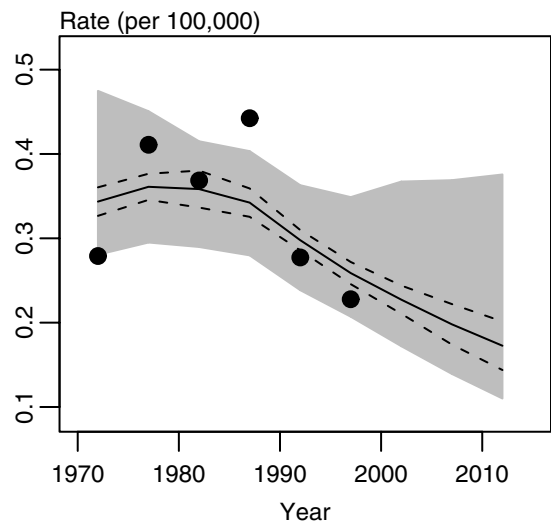
(b) Male mortality rates



(c) Female incidence rates



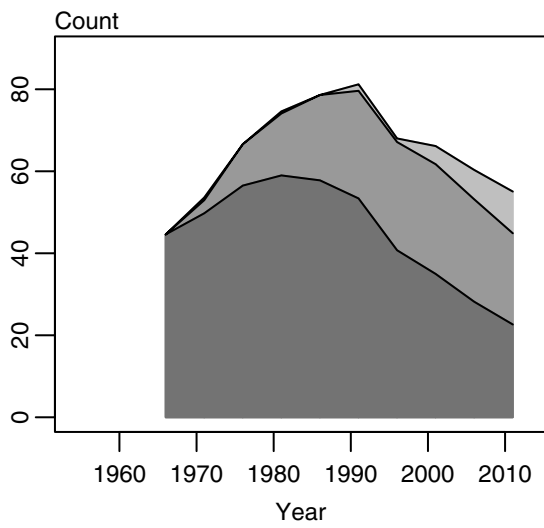
(d) Female mortality rates



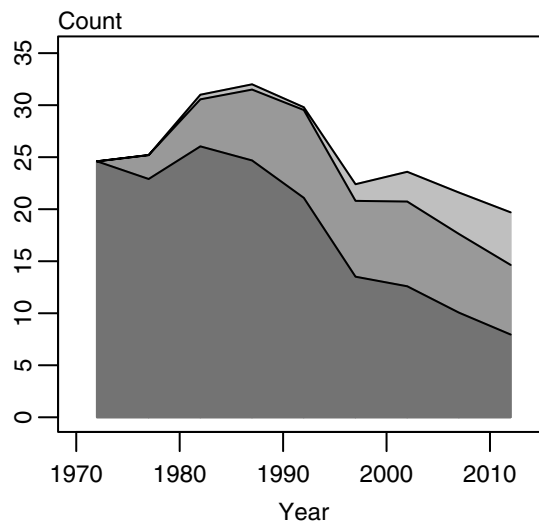
Key: ● Observed
 — Fitted and projected
 - - Minimum and maximum estimates
 ■ 90% Bayesian credible interval

Figure 19.7 Drivers of change in the cancer burden, laryngeal cancer

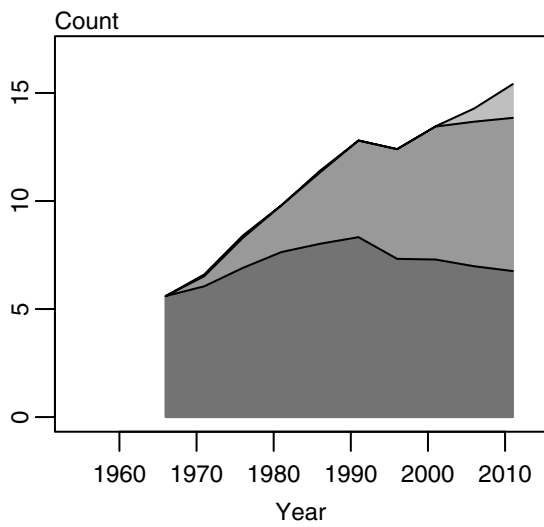
(a) Male registrations



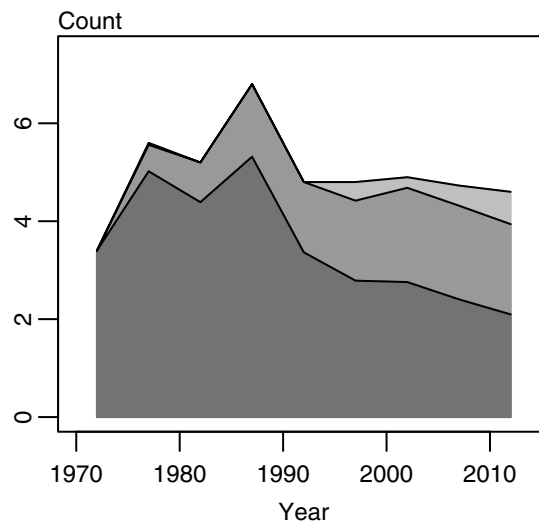
(b) Male deaths



(c) Female registrations



(d) Female deaths



Key:
 Risk effect
 Population size effect
 Population ageing effect

Table 19.1 Key results, laryngeal cancer

Males

	Incidence			Mortality		
	1996	2011 (CI)	change (%)	1997	2012 (CI)	change (%)
<i>Age standardised or age specific rate (per 100,000)</i>						
15+	4.5	2.5 (2.0 – 4.7)	-	1.4	0.8 (0.6 – 1.5)	-
25–44	0.3	0.2 (0.1 – 0.4)	-	0.1	0.0 (0.0 – 0.1)	-
45–64	7.8	3.8 (2.6 – 8.1)	-	1.4	0.8 (0.5 – 2.2)	-
65+	20.4	13.6 (9.7 – 26.3)	-33	8.8	5.8 (3.5 – 10.4)	-34
<i>Number of cases</i>						
15+	68	55 (39 – 111)	-19	22	20 (12 – 39)	-9
25–44	1	1 (0 – 2)	-	0	0 (0 – 1)	-
45–64	29	20 (14 – 44)	-31	5	4 (3 – 12)	-
65+	38	34 (24 – 66)	-11	17	15 (9 – 27)	-12

Females

	Incidence			Mortality		
	1996	2011 (CI)	change (%)	1997	2012 (CI)	change (%)
<i>Age standardised or age specific rate (per 100,000)</i>						
15+	0.7	0.6 (0.5 – 1.3)	-	0.2	0.2 (0.1 – 0.4)	-
25–44	0.2	0.2 (0.1 – 0.3)	-	0.1	0.0 (0.0 – 0.1)	-
45–64	0.9	1.1 (0.7 – 2.4)	-	0.1	0.2 (0.1 – 0.6)	-
65+	3.3	2.8 (2.0 – 5.9)	-	1.6	1.0 (0.6 – 2.4)	-
<i>Number of cases</i>						
15+	12	15 (11 – 33)	25	5	5 (2 – 11)	0
25–44	1	1 (0 – 2)	-	0	0 (0 – 0)	-
45–64	3	6 (4 – 13)	-	0	1 (1 – 3)	-
65+	8	8 (6 – 18)	0	4	3 (2 – 8)	-

CI = 90% Bayesian credible interval

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

