

Chapter 05:

Cancer of the head and neck (C00-C14, C30-C32)

KEY FINDINGS

- INCIDENCE AND MORTALITY

- There were on average 444 male and 171 female cases diagnosed each year between 2000 and 2004.
- During 1994-2004 male incidence rates decreased by an average of 2.6% each year, with no change for females.
- Incidence was higher among males during 1994-2004 in Belfast, Dublin, Longford, Cookstown, Derry and Galway. Among females incidence was higher in Coleraine, Derry and Belfast.
- During 2000-2004 there was a strong relationship between deprivation and incidence of the disease.
- Incidence was low compared to the European Union, USA, Australia and Canada for males and females.
- There were on average 191 male and 77 female deaths each year during 2000-2004.
- Mortality rates decreased among males and females in 1994-2004 by 2.5% and 2.0% per year respectively.

- SURVIVAL AND PREVALENCE

- Five-year (age-standardised) relative survival for patients diagnosed in 2000-2004 was estimated to be 52.1%, with no significant variations by sex.
- There was no change in survival for males or females between 1994-1996 and 1997-1999.
- For patients diagnosed during 1997-1999 survival depended upon cancer site with five-year (age-standardised) relative survival for laryngeal cancer 63.4% compared to 46.0% for oral cancer.
- At the end of 2004 3,151 people were living in Ireland having been diagnosed with the disease in 1994-2004.

- NORTH/SOUTH COMPARISONS

- There was no significant difference in incidence rates between Northern Ireland and Republic of Ireland during 1994-2004.
- Five-year (age-standardised) relative survival was 8.9% higher for patients diagnosed in 2000-2004 in Northern Ireland than Republic of Ireland.
- Mortality rates in Northern Ireland were 24.0% lower than in Republic of Ireland for males but were similar in both countries for females.
- There was no significant trend in mortality rates in Northern Ireland during 1994-2004, however in Republic of Ireland male and female mortality rates decreased by 2.6% and 2.2% per year respectively.
- At the end of 2004 the number of people per 100,000 members of the population who had been diagnosed with the disease in 2000-2004 was 31.2% higher in Northern Ireland than Republic of Ireland.

5.1: Incidence

In Ireland there were on average 444 male and 171 female cases of cancer of the head and neck diagnosed each year between 2000 and 2004, making it the sixth most common male and sixteenth most common female cancer diagnosed. It made up 2.9% of all cancers in Ireland (excluding NMSC). In the absence of other disease males had a 1.5% risk of developing cancer of the head or neck before the age of 75, three times the risk for females. (Tab. 5.1)

Among males European age-standardised incidence rates (EASIR) for cancer of the head and neck during 2000-2004 were three times higher among males than females. While this difference was higher in Republic of Ireland than in Northern Ireland there was no significant difference in male EASIRs between Republic of Ireland and Northern Ireland, although some weak evidence of a difference among females was apparent with EASIRs 15.3% higher in Northern Ireland, a difference that was not statistically significant (p=0.074). (Tab. 5.1)

Table 5.1: Summary statistics for incidence of cancer of the head and neck: 2000-2004

| | Northern Ireland | | | Republic of Ireland | | | Ireland | | |
|--|------------------|----------|-------------|---------------------|----------|-------------|--------------|----------------|--------------|
| | Male | Female | All persons | Male | Female | All persons | Male | Female | All persons |
| Number of cases per year | 145 | 61 | 206 | 299 | 110 | 409 | 444 | 171 | 615 |
| % of all cancer cases (ex. NMSC) | 4.4% | 1.8% | 3.1% | 3.9% | 1.6% | 2.8% | 4.0% | 1.6% | 2.9% |
| Rank (ex. NMSC) | 6 | 13 | 8 | 6 | 16 | 10 | 6 | 16 | 9 |
| Median age at diagnosis | 64 | 66 | 64 | 63 | 67 | 64 | 63 | 66 | 64 |
| Cumulative risk (Aged 0 to 74) | 1.5% | 0.5% | 1.0% | 1.5% | 0.4% | 1.0% | 1.5% | 0.5% | 1.0% |
| Crude rate per 100,000 persons | 17.5 | 7.1 | 12.2 | 15.4 | 5.6 | 10.4 | 16.0 | 6.0 | 11.0 |
| EASIR ± 95% CI | 18.2 ±1.3 | 6.3 ±0.7 | 11.7 ±0.7 | 17.5 ±0.9 | 5.5 ±0.5 | 11.2 ±0.5 | 17.7 ±0.7 | 5.7 ±0.4 | 11.4 ±0.4 |
| % difference (NI vs ROI) ± 95% CI (+ NI higher, - NI lower) | | | | | | | 3.7% ±9.3 | 15.3% ±16.8 | 4.8% ±8.0 |

EASIR: European age-standardised incidence rate per 100,000 persons; CI: Confidence interval

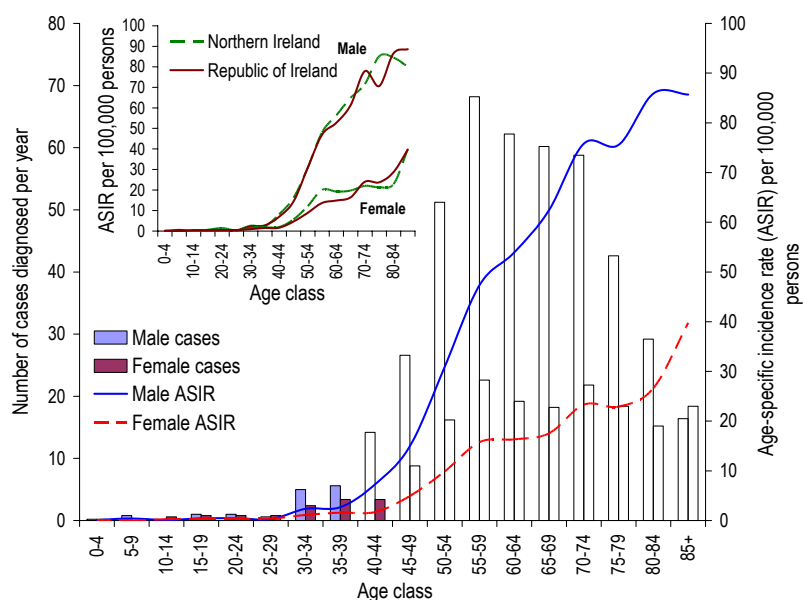
5.1.1: Age distribution

Half of the patients diagnosed with cancer of the head and neck in 2000-2004 were diagnosed with the disease before the age of 64, slightly younger than for most cancers. (Tab. 5.1)

The number of cases diagnosed each year was highest among males and females in the 55-59 age class with 68 male and 23 female cases per year. Age-specific incidence rates (ASIR) were highest among males aged 80-84 and females aged 85 and over. (Fig. 5.1)

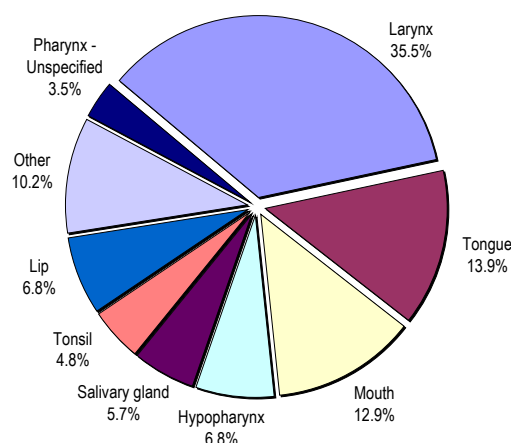
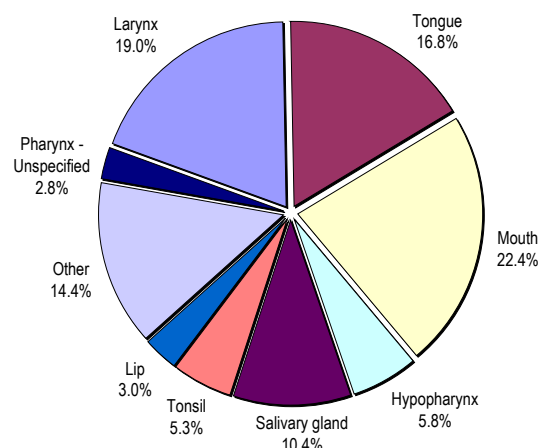
There was on average one boy and one girl (aged 0-14) diagnosed with the disease each year during 2000-2004. (Fig. 5.1)

Figure 5.1: Number of cases of cancer of the head and neck diagnosed per year by sex and age with age-specific incidence rate (ASIR) per 100,000 persons: 2000-2004



5.1.2: Cancer site

Cancer of the head and neck encompasses cancers of many different unique parts of the body. The most common head and neck cancer site diagnosed among males during 2000-2004 in Ireland was laryngeal cancer which made up 35.5% of male head and neck cancers, while cancer of the mouth was the most common among females making up 22.4% of female cancers of the head and neck. Only a small proportion of cancers of the pharynx had an unspecified type with a similar proportion in Northern Ireland and Republic of Ireland (NI: 3.8%; ROI: 3.0%). (Fig. 5.2)

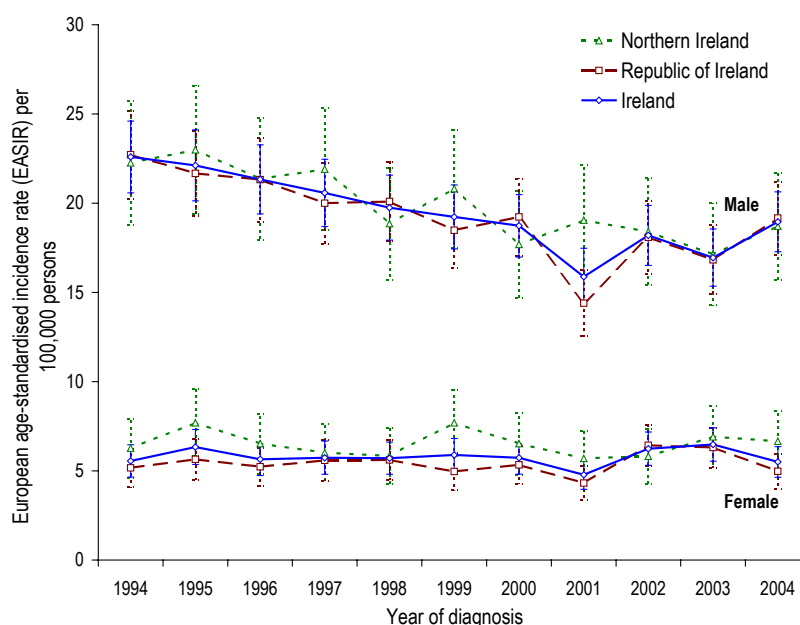
Figure 5.2: Types of cancer of the head and neck diagnosed in Ireland: 2000-2004**(a) Male****(b) Female****5.1.3: Trends**

Among males European age-standardised incidence rates (EASIR) decreased by 2.6% ($p=0.001$) each year in Ireland during 1994-2004 with an accompanying decrease of 4.1 cases diagnosed each year. This pattern was seen throughout Ireland with an annual decrease in EASIRs of 2.5% ($p<0.001$) in Northern Ireland and 2.6% ($p=0.01$) in Republic of Ireland. The annual number of cases diagnosed in each country also decreased; by 1.5 per year in Northern Ireland and 2.5 per year in Republic of Ireland. (Fig. 5.3, Tab. 5.2)

Female rates of head and neck cancer (EASIR) however did not change significantly during the period either in Ireland as a whole, or in each country.

However while the number of cases

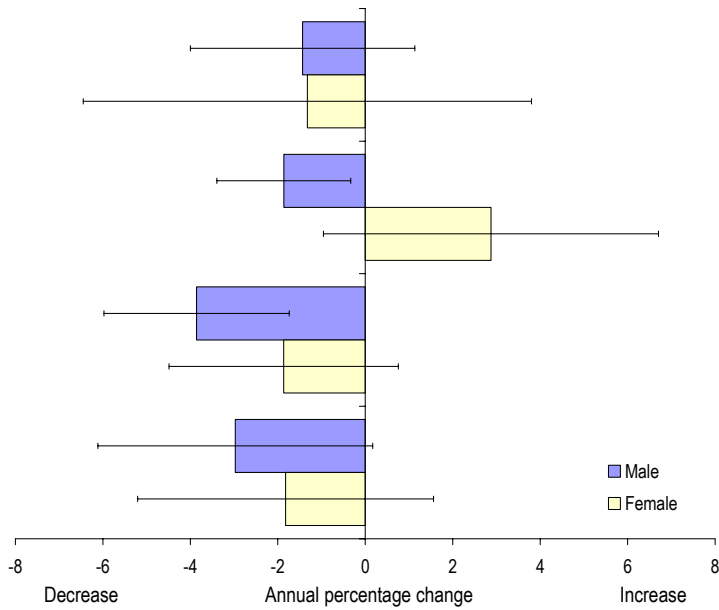
diagnosed annually remained virtually static between 1994 and 2004 in Northern Ireland, there was an annual increase of 1.8 female

Figure 5.3: Trends in European age-standardised incidence rates (EASIR) for cancer of the head and neck by sex and country: 1994-2004**Table 5.2:** Number of cases and European age-standardised incidence rates (EASIR) for cancer of the head and neck by year of diagnosis, sex and country: 1994-2004

| Year | Male | | | | | | Female | | | | | |
|------|------------------|-----------|---------------------|-----------|---------|-----------|------------------|----------|---------------------|----------|---------|----------|
| | Northern Ireland | | Republic of Ireland | | Ireland | | Northern Ireland | | Republic of Ireland | | Ireland | |
| | Cases | EASIR | Cases | EASIR | Cases | EASIR | Cases | EASIR | Cases | EASIR | Cases | EASIR |
| 1994 | 161 | 22.3 ±3.5 | 336 | 22.7 ±2.5 | 497 | 22.6 ±2.0 | 62 | 6.3 ±1.7 | 96 | 5.2 ±1.1 | 158 | 5.6 ±0.9 |
| 1995 | 161 | 23.0 ±3.6 | 327 | 21.7 ±2.4 | 488 | 22.1 ±2.0 | 71 | 7.7 ±1.9 | 105 | 5.7 ±1.1 | 176 | 6.3 ±1.0 |
| 1996 | 154 | 21.4 ±3.4 | 323 | 21.3 ±2.4 | 477 | 21.3 ±1.9 | 64 | 6.5 ±1.7 | 95 | 5.2 ±1.1 | 159 | 5.6 ±0.9 |
| 1997 | 159 | 21.9 ±3.4 | 305 | 20.0 ±2.3 | 464 | 20.6 ±1.9 | 59 | 6.0 ±1.6 | 99 | 5.6 ±1.1 | 158 | 5.7 ±0.9 |
| 1998 | 142 | 18.9 ±3.1 | 318 | 20.1 ±2.2 | 460 | 19.8 ±1.8 | 59 | 5.8 ±1.6 | 108 | 5.6 ±1.1 | 167 | 5.7 ±0.9 |
| 1999 | 156 | 20.8 ±3.3 | 297 | 18.5 ±2.1 | 453 | 19.2 ±1.8 | 74 | 7.7 ±1.8 | 93 | 5.0 ±1.0 | 167 | 5.9 ±0.9 |
| 2000 | 136 | 17.7 ±3.0 | 311 | 19.2 ±2.2 | 447 | 18.7 ±1.7 | 59 | 6.5 ±1.7 | 106 | 5.3 ±1.1 | 165 | 5.7 ±0.9 |
| 2001 | 148 | 19.0 ±3.1 | 237 | 14.4 ±1.8 | 385 | 15.9 ±1.6 | 56 | 5.7 ±1.6 | 83 | 4.3 ±1.0 | 139 | 4.8 ±0.8 |
| 2002 | 147 | 18.4 ±3.0 | 309 | 18.1 ±2.0 | 456 | 18.2 ±1.7 | 59 | 5.8 ±1.6 | 129 | 6.4 ±1.1 | 188 | 6.2 ±0.9 |
| 2003 | 141 | 17.1 ±2.9 | 295 | 16.8 ±1.9 | 436 | 17.0 ±1.6 | 67 | 6.9 ±1.7 | 128 | 6.3 ±1.1 | 195 | 6.5 ±0.9 |
| 2004 | 153 | 18.7 ±3.0 | 343 | 19.2 ±2.0 | 496 | 19.0 ±1.7 | 65 | 6.7 ±1.7 | 104 | 5.0 ±1.0 | 169 | 5.5 ±0.9 |

EASIR: European age-standardised incidence rate per 100,000 persons with 95% confidence interval

Figure 5.4: Annual percentage change (APC) in European age-standardised incidence rates (EASIR) for cancer of the head and neck by sex and age: 1994-2004



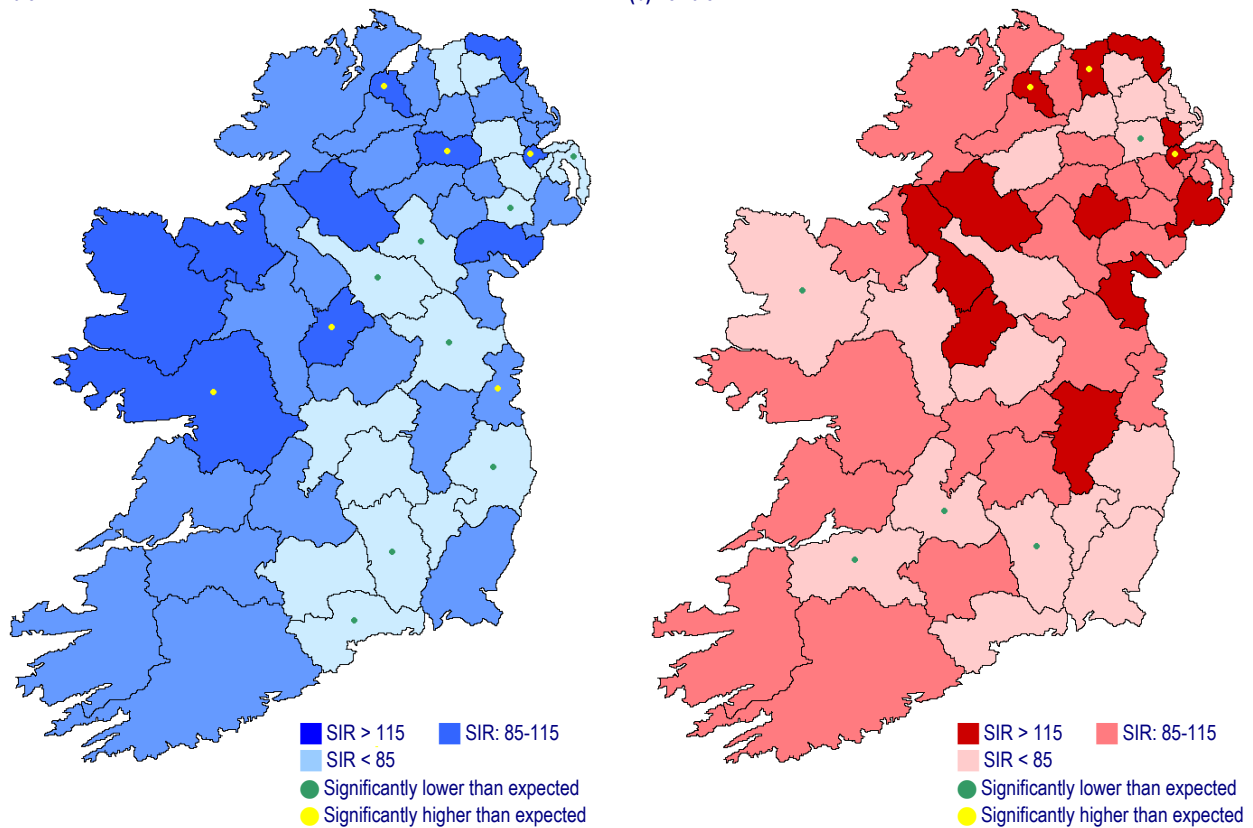
cases per year in Republic of Ireland as a result of population growth. (Fig. 5.3, Tab. 5.2)

Trends in EASIRs of head and neck cancer in Ireland for different age groups were mostly inconclusive during 1994-2004 with no significant change for any female age group. However while the changes were not statistically significant the 0-49, 65-74 and 75+ age classes appeared to exhibit decreases in EASIRs while the 50-64 age class showed an increase. Among males there were decreases of 1.9% ($p=0.024$) and 3.9% ($p=0.003$) in the 50-64 and 65-74 age groups respectively while there were no significant changes among those aged 0-49 or 75 and over. (Fig. 5.4)

5.1.4: Geographic analysis

Compared to all of Ireland incidence of cancer of the head and neck was higher among males during 1994-2004 in Belfast, Dublin, Longford, Cookstown, Derry and Galway. Among females incidence was higher in Coleraine, Derry and Belfast. Nine of the counties/councils in Ireland had lower than expected (based on all of Ireland) levels of the disease among males compared to five among females. (Fig. 5.5)

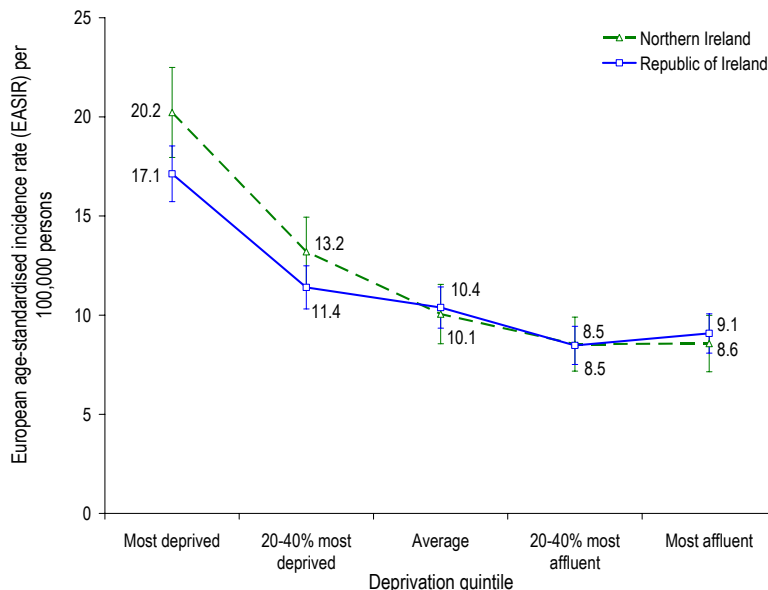
Figure 5.5: Significant differences in county/council standardised incidence ratios for cancer of the head and neck compared to Ireland as a whole: 1994-2004
(a) Male (b) Female



5.1.5: Socio-economic factors

During 2000-2004 there was a strong relationship between socio-economic factors (based upon area of residence) and incidence of cancer of the head and neck with European age-standardised incidence rates (EASIR) 2.4 times greater in deprived areas in Northern Ireland than in the most affluent areas. In Republic of Ireland the difference was smaller but still considerable with incidence 1.9 times greater among the 20% of the population resident in the most deprived areas compared to the 20% of the population resident in the most affluent areas. (Fig. 5.6)

Figure 5.6: European age-standardised incidence rates (EASIR) for cancer of the head and neck by country specific deprivation quintile: 2000-2004



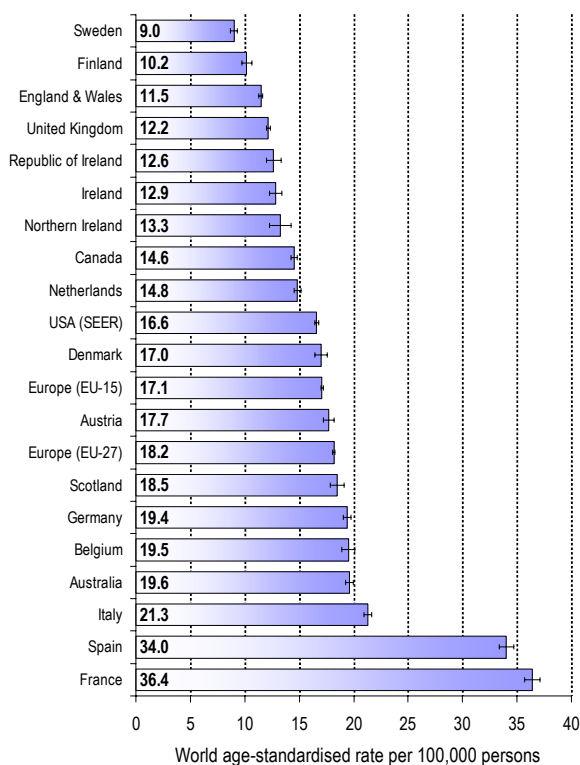
Incidence of cancer of the head and neck was 18% higher in the most deprived areas of Northern Ireland than in the most deprived areas of Republic of Ireland ($p=0.032$). There was no significant difference for the other deprivation quintiles. (Fig. 5.6)

5.1.6: International comparisons

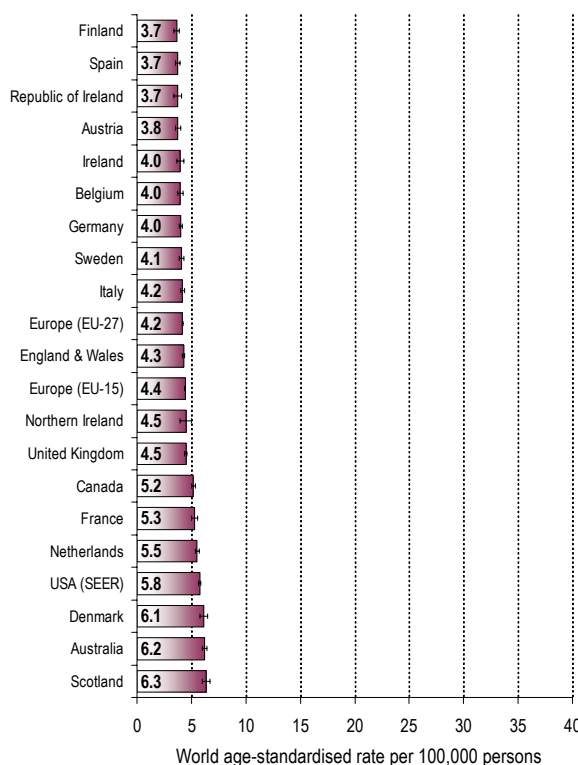
Incidence of cancer of the head and neck was low compared to the European Union during 1998-2000, with world age-standardised incidence rates (WASIR) in Ireland 24.6% lower among males and 9.1% lower among females than rates in the EU (measured using the 15 member countries at the end of 2004). Rates were also lower than those in USA, Australia and Canada for both males and females and than in the UK for females. (Fig. 5.7)

Figure 5.7: International comparisons of world age-standardised incidence rates for cancer of the head and neck: 1998-2000

(a) Male



(b) Female



Source: IARC²¹

5.2: Survival

Relative survival (age-standardised) from cancer of the head and neck was moderate with an estimated 74.0% of patients diagnosed in 2000-2004 surviving one year and 52.1% surviving five years. (Fig. 5.8, Tab. 5.3)

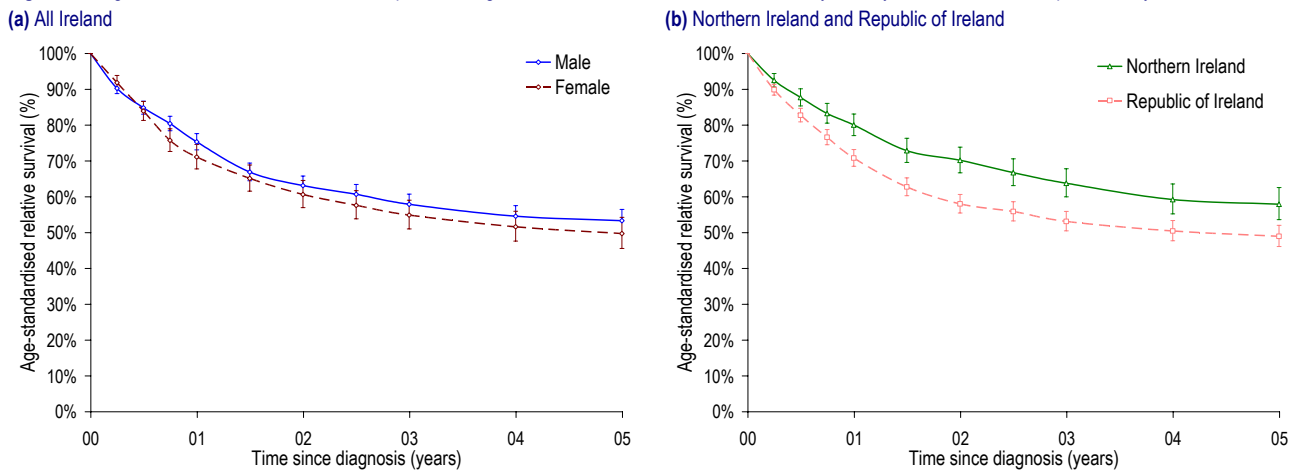
Age-standardised relative survival did not vary significantly by sex. However five-year (age-standardised) relative

survival from the disease was 8.9% ($p=0.018$) higher for all persons in Northern Ireland than Republic of Ireland, although differences by sex were not statistically significant. The survival differences were likely related to variations in survival depending upon the type of head and neck cancer, the levels of which vary slightly in each country. (Fig. 5.8, Tab. 5.3)

Table 5.3: Age-standardised relative survival for patients diagnosed with cancer of the head and neck by country and sex: 2000-2004 period analysis estimates

| | | Age-standardised relative survival (95% CI) | | |
|--------|---------------------|---|----------------------|----------------------|
| | | Male | Female | All |
| 1-year | Northern Ireland | 81.1% (77.5%, 84.8%) | 77.8% (72.4%, 83.5%) | 80.1% (77.1%, 83.1%) |
| | Republic of Ireland | 72.5% (69.7%, 75.3%) | 67.6% (63.5%, 72.1%) | 70.8% (68.5%, 73.2%) |
| | Ireland | 75.3% (73.1%, 77.6%) | 71.1% (67.8%, 74.6%) | 74.0% (72.1%, 75.9%) |
| 5-year | Northern Ireland | 58.9% (53.6%, 64.7%) | 55.8% (48.6%, 64.0%) | 57.9% (53.6%, 62.6%) |
| | Republic of Ireland | 50.4% (46.9%, 54.2%) | 46.8% (41.9%, 52.4%) | 49.0% (46.1%, 52.0%) |
| | Ireland | 53.3% (50.4%, 56.5%) | 49.8% (45.6%, 54.3%) | 52.1% (49.7%, 54.6%) |

Figure 5.8: Age-standardised relative survival for patients diagnosed with cancer of the head and neck by country and sex: 2000-2004 period analysis estimates



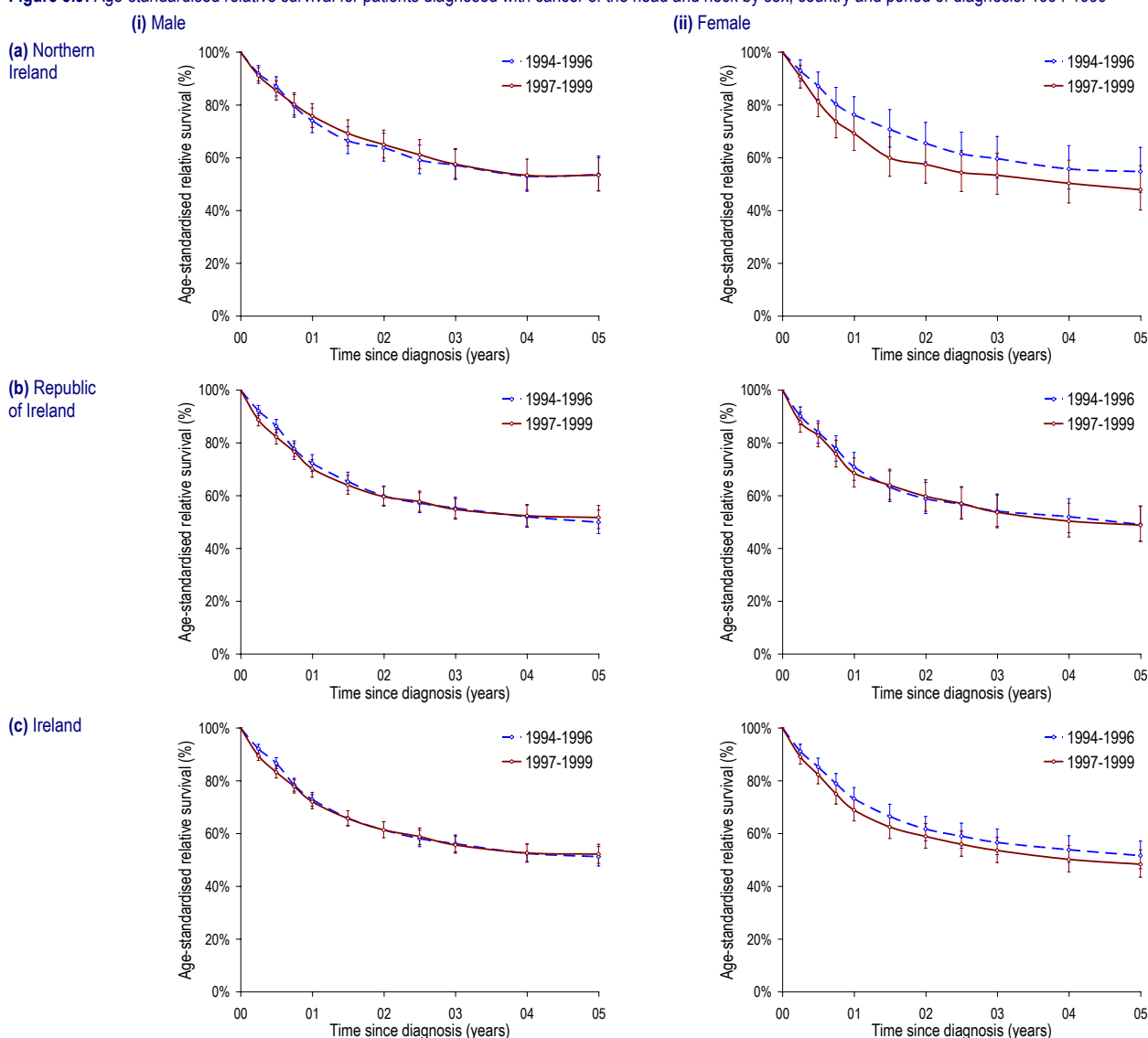
5.2.1: Changes in survival over time

There was no significant variation in one or five-year (age-standardised) relative survival for males or females between those diagnosed in 1994-1996 and 1997-1999. This was apparent in Northern Ireland and Republic of Ireland as well as Ireland as a whole. However the difference in the estimates of relative survival for patients diagnosed in 2000-2004 between the two countries was not present for patients diagnosed in 1994-1996 and 1997-1999. (Fig. 5.9, Tab. 5.4)

Table 5.4: Age-standardised relative survival for patients diagnosed with cancer of the head and neck by sex, country and period of diagnosis: 1994-1999

| | | Age-standardised relative survival (95% CI) | | | |
|-------------|---------------------|---|----------------------|----------------------|----------------------|
| | | 1-year | | 5-year | |
| | | 1994-1996 | 1997-1999 | 1994-1996 | 1997-1999 |
| All persons | Northern Ireland | 74.8% (71.2%, 78.6%) | 73.9% (70.3%, 77.8%) | 54.2% (49.4%, 59.5%) | 51.9% (47.1%, 57.1%) |
| | Republic of Ireland | 71.9% (69.2%, 74.6%) | 69.6% (66.9%, 72.5%) | 49.4% (45.9%, 53.2%) | 50.8% (47.3%, 54.6%) |
| | Ireland | 73.0% (70.8%, 75.2%) | 71.1% (68.8%, 73.4%) | 51.2% (48.3%, 54.2%) | 51.0% (48.2%, 54.1%) |
| Male | Northern Ireland | 74.1% (69.6%, 78.9%) | 75.9% (71.4%, 80.6%) | 53.6% (47.4%, 60.6%) | 53.4% (47.5%, 60.0%) |
| | Republic of Ireland | 72.3% (69.2%, 75.5%) | 70.3% (67.0%, 73.7%) | 49.9% (45.7%, 54.6%) | 51.7% (47.5%, 56.3%) |
| | Ireland | 73.0% (70.4%, 75.6%) | 72.1% (69.5%, 74.8%) | 51.3% (47.7%, 55.1%) | 52.2% (48.8%, 56.0%) |
| Female | Northern Ireland | 76.3% (70.0%, 83.1%) | 69.3% (62.8%, 76.5%) | 54.8% (46.9%, 64.0%) | 47.9% (40.2%, 57.1%) |
| | Republic of Ireland | 70.9% (65.9%, 76.4%) | 68.6% (63.3%, 74.3%) | 49.1% (42.9%, 56.2%) | 48.9% (42.7%, 55.9%) |
| | Ireland | 73.2% (69.3%, 77.4%) | 68.9% (64.8%, 73.3%) | 51.7% (46.7%, 57.2%) | 48.4% (43.5%, 53.9%) |

Figure 5.9: Age-standardised relative survival for patients diagnosed with cancer of the head and neck by sex, country and period of diagnosis: 1994-1999



5.2.2: Observed survival

One-year observed survival (which takes account of causes of death other than cancer and is thus lower than relative survival) was 70.5% for males and 66.7% for females diagnosed in 1997-1999. Five-year observed survival was also average for those diagnosed in this time period at 43.8% for males and 42.0% for females. The variations by sex were not statistically significant, nor were any variations in observed survival between Northern Ireland and Republic of Ireland. Analysis of differences in observed survival over time did not reveal any significant change between 1994-1996 and 1997-1999. (Tab. 5.5)

Table 5.5: Observed survival for patients diagnosed with cancer of the head and neck by sex, country and period of diagnosis: 1994-1999

| | | Observed survival (95% CI) | | | |
|-------------|---------------------|----------------------------|----------------------|----------------------|----------------------|
| | | 1-year | | 5-year | |
| | | 1994-1996 | 1997-1999 | 1994-1996 | 1997-1999 |
| All persons | Northern Ireland | 73.2% (69.8%, 76.7%) | 71.9% (68.5%, 75.6%) | 46.0% (42.3%, 50.1%) | 43.9% (40.1%, 48.0%) |
| | Republic of Ireland | 70.1% (67.6%, 72.7%) | 68.2% (65.6%, 71.0%) | 40.2% (37.5%, 43.0%) | 43.1% (40.3%, 46.0%) |
| | Ireland | 71.1% (69.1%, 73.2%) | 69.5% (67.4%, 71.7%) | 42.1% (40.0%, 44.4%) | 43.3% (41.1%, 45.7%) |
| Male | Northern Ireland | 72.5% (68.4%, 76.8%) | 74.4% (70.4%, 78.7%) | 44.8% (40.4%, 49.7%) | 45.8% (41.3%, 50.8%) |
| | Republic of Ireland | 70.9% (68.1%, 73.9%) | 68.6% (65.6%, 71.8%) | 40.0% (37.0%, 43.2%) | 42.8% (39.7%, 46.3%) |
| | Ireland | 71.4% (69.1%, 73.9%) | 70.5% (68.1%, 73.0%) | 41.5% (39.0%, 44.2%) | 43.8% (41.2%, 46.6%) |
| Female | Northern Ireland | 74.7% (68.7%, 81.2%) | 66.1% (59.6%, 73.3%) | 48.9% (42.2%, 56.7%) | 39.3% (32.9%, 47.1%) |
| | Republic of Ireland | 67.2% (62.0%, 72.9%) | 67.0% (61.7%, 72.8%) | 40.8% (35.5%, 46.9%) | 43.7% (38.3%, 50.0%) |
| | Ireland | 70.2% (66.2%, 74.4%) | 66.7% (62.5%, 71.1%) | 44.0% (39.7%, 48.7%) | 42.0% (37.7%, 46.7%) |

5.2.3: Cancer site

Survival from cancer of the head and neck depended upon cancer site with five-year (age-standardised) relative survival for patients diagnosed in Ireland during 1997-1999 with laryngeal cancer 63.4% compared to 46.0% for patients diagnosed with oral cancer. (Fig. 5.10, Tab. 5.6)

There was no significant variation between Northern Ireland and Republic of Ireland for oral cancer, cancer of the nose & sinuses or laryngeal cancer during 1994-1996 or 1997-1999. Additionally there were no changes in five-year (age-standardised) relative survival for any head and neck cancer site between 1994-1996 and 1997-1999. (Tab. 5.6)

Figure 5.10: Age-standardised relative survival for patients diagnosed with cancer of the head and neck by cancer site: 1997-1999

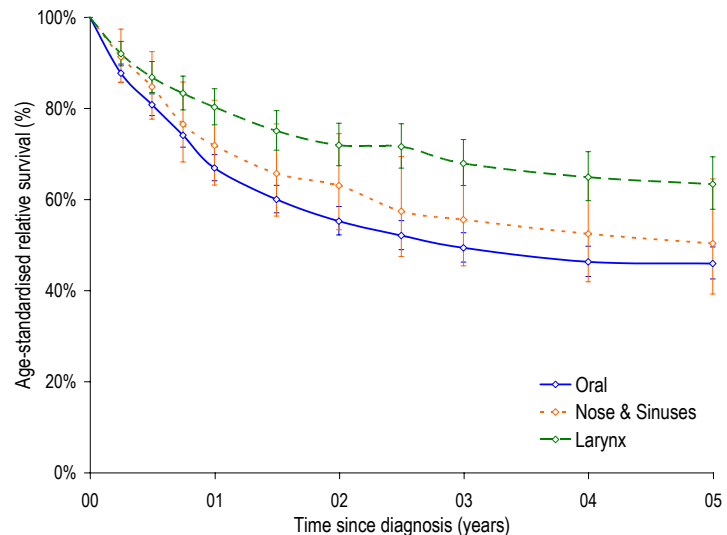


Table 5.6: Five-year age-standardised relative survival for patients diagnosed with cancer of the head and neck by cancer site and period of diagnosis: 1994-1999

| | Five-year age-standardised relative survival (95% CI) | | | | | |
|---------------------|---|----------------------|--------------------------|----------------------|----------------------|----------------------|
| | Oral (C00-C14) | | Nose & sinuses (C30-C31) | | Larynx (C32) | |
| | 1994-1996 | 1997-1999 | 1994-1996 | 1997-1999 | 1994-1996 | 1997-1999 |
| Northern Ireland | 50.1% (44.3%, 56.7%) | 43.9% (38.5%, 50.0%) | 53.2% (36.4%, 77.8%) | 59.3% (41.7%, 84.4%) | 62.6% (53.4%, 73.3%) | 65.1% (55.1%, 76.8%) |
| Republic of Ireland | 47.1% (42.9%, 51.6%) | 47.5% (43.3%, 52.2%) | 35.1% (24.1%, 51.3%) | 41.3% (29.1%, 58.5%) | 58.9% (51.9%, 66.8%) | 62.1% (55.6%, 69.3%) |
| Ireland | 48.3% (44.9%, 52.0%) | 46.0% (42.6%, 49.6%) | 41.7% (31.4%, 55.5%) | 50.4% (39.3%, 64.5%) | 60.3% (54.6%, 66.6%) | 63.4% (57.9%, 69.4%) |

5.3: Mortality

There were on average 191 male and 77 female deaths from cancer of the head and neck each year during 2000-2004. This made up 3.2% of all male cancer deaths (excluding NMSC) and 1.4% of all female cancer deaths (excluding NMSC). It was the ninth most common male cancer death with a cumulative risk of dying from the disease before the age of 75 of 0.6%. Among females it was the seventeenth commonest cause of cancer death, with a lower risk than males of dying from the disease of 0.2%. (Tab. 5.7)

The number of male deaths from cancer of the head and neck was almost 2.5 times higher than the number of female deaths with European age-standardised mortality rates (EASMR) over three times higher among males than females. Mortality rates from cancer of the head and neck (EASMRs) in Northern Ireland were 24.0% (p<0.001) lower than in Republic of Ireland for males but mortality rates in both countries were similar for females. (Tab. 5.7)

Table 5.7: Summary statistics for deaths from cancer of the head and neck: 2000-2004

| | Northern Ireland | | | Republic of Ireland | | | Ireland | | |
|---|------------------|----------|-------------|---------------------|----------|-------------|--------------|-------------|-------------|
| | Male | Female | All persons | Male | Female | All persons | Male | Female | All persons |
| Number of deaths per year | 51 | 25 | 75 | 140 | 52 | 192 | 191 | 77 | 267 |
| % of all cancer deaths (ex. NMSC) | 2.7% | 1.4% | 2.1% | 3.5% | 1.5% | 2.5% | 3.2% | 1.4% | 2.4% |
| Rank (ex. NMSC) | 11 | 17 | 14 | 8 | 16 | 12 | 9 | 17 | 12 |
| Median age at death | 68 | 72 | 69 | 67 | 74 | 68 | 67 | 73 | 68 |
| Cumulative risk (Aged 0 to 74) | 0.5% | 0.2% | 0.3% | 0.6% | 0.2% | 0.4% | 0.6% | 0.2% | 0.4% |
| Crude rate per 100,000 persons | 6.1 | 2.8 | 4.4 | 7.2 | 2.7 | 4.9 | 6.9 | 2.7 | 4.8 |
| EASMR ± 95% CI | 6.3 ±0.8 | 2.3 ±0.4 | 4.1 ±0.4 | 8.3 ±0.6 | 2.4 ±0.3 | 5.1 ±0.3 | 7.6 ±0.5 | 2.4 ±0.2 | 4.8 ±0.3 |
| % difference (NI vs ROI) ± 95% CI (+ NI higher, - NI lower) | | | | | | | -24.0% ±11.1 | -4.1% ±21.8 | -20.4% ±9.7 |

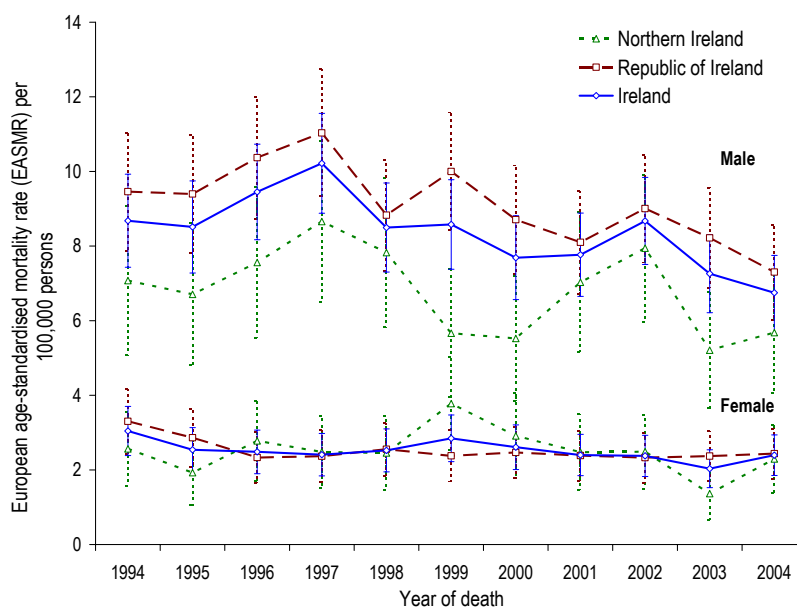
EASMR: European age-standardised mortality rate per 100,000 persons; CI: Confidence interval

5.3.1: Trends

European age standardised mortality rates (EASMR) in Ireland for cancer of the head and neck decreased among males and females during 1994-2004 by 2.5% ($p=0.015$) and 2.0% ($p=0.036$) per year respectively. The reduction in mortality rates translated to annual decreases of 1.5 male and 0.7 female deaths per year. (Fig. 5.11)

Considering each country separately, there was no significant trend in EASMRs for cancer of the head and neck in Northern Ireland during 1994-2004. In Republic of Ireland however male EASMRs decreased by 2.6% ($p=0.011$) per year while female EASMRs decreased by 2.2% ($p=0.024$) per year. (Fig. 5.11)

Figure 5.11: Trends in European age-standardised mortality rates (EASMR) for cancer of the head and neck by sex and country: 1994-2004



5.4: Prevalence

Between 1994 and 2004 there were 6,900 people diagnosed with cancer of the head and neck. Of these 45.7% (3,151 people) were still alive at the end of 2004. The majority of these (1,858 people) were diagnosed in the 2000-2004 period, which was 60.4% of all those diagnosed during 2000-2004. (Tab. 5.8)

73.3% of those alive at the end of 2004 having been diagnosed within the previous five years were male (1,361

males compared to 497 females) while 663 survivors were resident in Northern Ireland compared to 1,195 in Republic of Ireland. At the end of 2004 the number of people per 100,000 members of the population who had been diagnosed with the disease in the previous five years was 31.2% higher in Northern Ireland than Republic of Ireland. (Tab. 5.8)

Table 5.8: Prevalence of cancer of the head and neck in Ireland at the end of 2004 by country, sex and period of diagnosis

| | | Diagnosed 1994-2004 | | Diagnosed 2000-2004 | |
|---------------------|-------------|---------------------|------------------------------------|---------------------|------------------------------------|
| | | Prevalence | % of cases diagnosed during period | Prevalence | % of cases diagnosed during period |
| Northern Ireland | Male | 806 | 48.6% | 475 | 65.5% |
| | Female | 319 | 45.9% | 188 | 61.4% |
| | All persons | 1,125 | 47.8% | 663 | 64.3% |
| Republic of Ireland | Male | 1,509 | 44.4% | 886 | 59.3% |
| | Female | 517 | 45.1% | 309 | 56.2% |
| | All persons | 2,026 | 44.6% | 1,195 | 58.4% |
| Ireland | Male | 2,315 | 45.8% | 1,361 | 61.3% |
| | Female | 836 | 45.4% | 497 | 58.1% |
| | All persons | 3,151 | 45.7% | 1,858 | 60.4% |

5.5: Discussion

Cancer of the head and neck includes both oral and laryngeal cancer and cancers of the nasopharynx and sinuses. Oral cancer specifically refers to cancer of the mouth (including the lips and tongue) and the throat (also known as the pharynx) while the larynx (or voice box) is a part of the body located in the neck at the beginning of the wind pipe that channels air to the lungs rather than allowing it to enter the stomach. Symptoms of these types of cancer differ slightly. For oral cancer symptoms include persistent red or white patches, lumps on the lip, throat or in the neck, bad breath, unusual bleeding or numbness in the mouth, difficulty with chewing, swallowing or moving the jaw, speech difficulties, hearing loss, headaches and/or blood discharge from the nose.^{22,23}

Cancer of the larynx presents itself through hoarseness, bad breath, difficulty in swallowing, shortness of breath, and/or a persistent cough.²⁴

Tobacco and excessive alcohol consumption are linked with cancers of the lip, oral cavity and pharynx^{25,26} and with cancer of the larynx, with the risk of developing the later increasing as the length of time a person has smoked increases.²⁷ Alcohol consumption also increases risk of developing laryngeal cancer with heavy drinkers having 2-5 times the risk of non drinkers of developing this disease.²⁸ Both smoking and drinking heavily can interact to give an even higher risk than either on their own.^{27,28}

Diet can also affect the risk of developing cancer of the head and neck with a deficiency in zinc or Vitamin A increasing the risk and a diet high in fresh fruit and vegetables reducing the risk.^{29,30} A weakened immune system, caused for example by medicines taken after an organ transplant, can increase the risk of developing all types of head and neck cancer^{31,28} and a possible link with human papillomavirus (HPV) has recently been reported.^{28,32} Exposure to UV radiation from sunshine or sunbeds is also known to be a risk factor for cancer of the lip³³ while regular exposure to certain chemicals such as wood dust, paint fumes or soot increase the risk of cancer of the mouth, nasal cavity or pharynx.³¹

Worldwide there are approximately 450,000 new cases of cancer of the head and neck diagnosed each year with high incidence of oral cancer found in India, Australia, Hungary, France, Brazil and Southern Africa, while incidence of laryngeal cancer is high in Southern and Eastern Europe, Latin America and Western Asia. Geographic patterns are linked to the prevalence of smoking and alcohol abuse or chewing of tobacco in less developed countries.

Due to the accessibility of head and neck cancers, surgery, usually combined with radiotherapy, is the main form of treatment for this cancer. However early diagnosis is essential for this to be effective. In more advanced cases a combination of chemotherapy and radiotherapy is used to control symptoms, however survival from late stage disease is poor. Control of this disease is thus best achieved through preventative measures, particularly in the areas of tobacco control and alcohol abuse. However early detection of the disease, requiring greater public awareness about symptoms, can often lead to successful treatment of the disease.