

7. Melanoma of the Skin in South Australia

Melanoma is an important cancer in South Australia, usually ranking fourth in incidence for men and third or fourth in women. It ranks much lower for mortality with survival rates for this cancer being higher than many other cancers.

Regarding melanoma mortality, men are nearly twice as likely to die as women, there is an increasing risk of death with age, and people living near the coast have an increased risk.

Melanoma is an interesting cancer in that incidence does appear to be related to physical location. Also, with global warming, it is one cancer for which we can expect higher incidence rates in the future.

7.1 Location of Melanoma, Breslow Thickness and Level of Invasion

The location of a melanoma varies greatly between men and women. Men are much more likely to develop melanomas on the face, head and trunk, whereas women are more likely to develop melanomas on the upper and lower limbs (see Table 1, Figures 1 & 2).

Table 1: Melanoma cases by body part 2004

<i>Body Part</i>	<i>Male</i>	<i>Female</i>
Ear	4	2
Other Face	54	40
Scalp/Neck	38	12
Trunk	125	39
Upper Limb	73	82
Lower Limb	51	110
Other	0	1
Unspecified	15	5
Total	380	291

Figure 1: Melanoma Location Males 2004

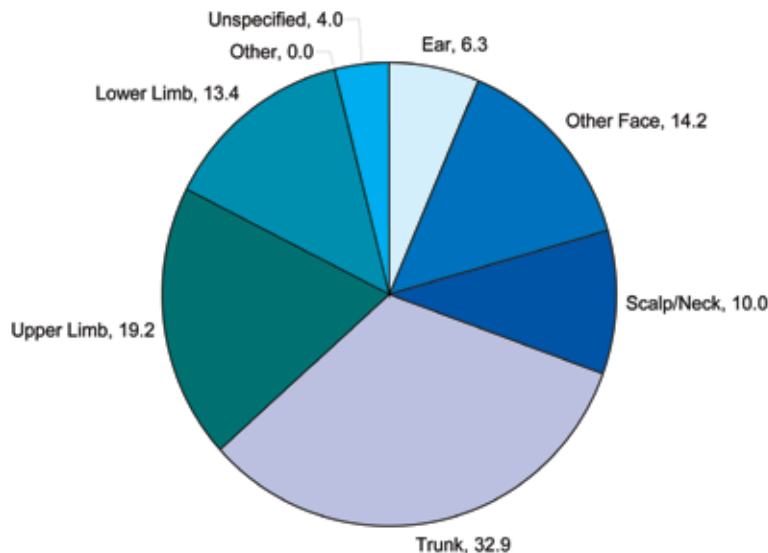
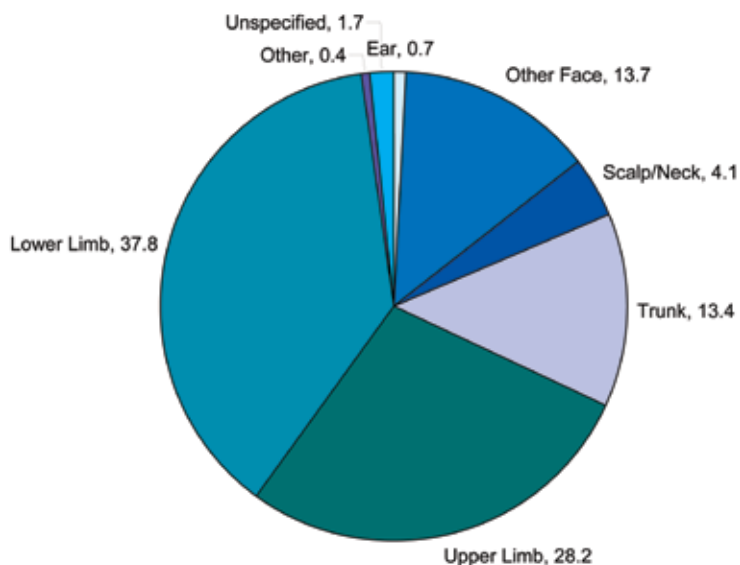


Figure 2: Melanoma Location Females 2004



The majority (76%) of invasive melanomas detected in South Australia in 2004 were less than 1.5mm thick, indicating that most melanomas are detected at an early stage (see Table 2). Men are much more likely to present with thicker melanomas than women, which equates with the higher mortality rate that men have compared with women.

Table 2: Breslow thickness 2004 (invasive only)

Thickness (mm)	Male	Female
0.01-0.75	198	159
0.76-1.50	63	62
1.51-3.00	46	36
3.01+	48	19
Total	355	276

Not all invasive melanomas had a reported level of thickness

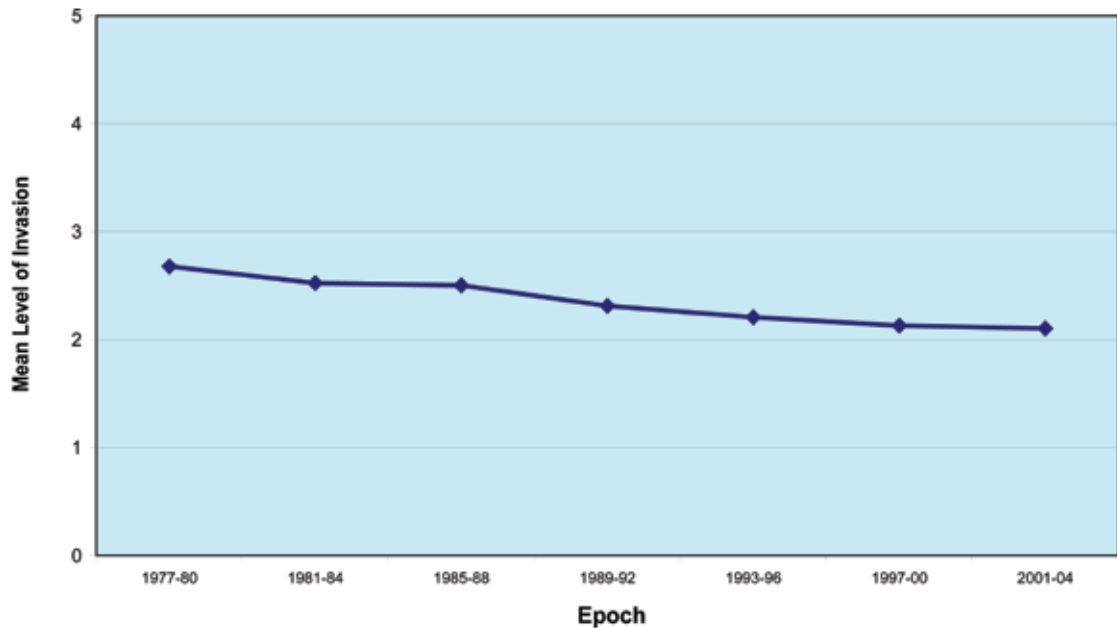
Non-invasive melanoma notifications represented 41% of all melanoma notifications in 2004. Males were over-represented in the most deeply invasive melanoma group (see Table 3). The level of invasion of melanomas has decreased over time, as screening for melanomas has become more common in the community (see Figure 3). This trend is significant $P < 0.001$.

Table 3: Level of invasion 2004

Level	Male	Female
1. intra-epidermal (non-invasive)	252	213
2. papillary-dermal	166	128
3. papillary-reticular interface	72	68
4. reticular-dermal	98	79
5. subcutaneous fat	13	5
Total	601	493

Not all invasive melanomas had a reported level of invasion

Figure 3: Mean Level of Invasion of Melanomas in South Australia over 28 years



7.2 Regional Differences

The incidence of melanoma is influenced more by geographical location than virtually any other cancer. Melanoma is more common in coastal and river areas, with the coastal strip of metropolitan Adelaide (1995-2004) having some of the highest rates in the state – Holdfast Bay South 73.7/100,000; Port Adelaide-Enfield Coast 65.4/100,000 (State Average 1995-2004 41.0/100,000). Coastal Adelaide also has a significantly higher rate of death from melanoma than Northern Adelaide (Salisbury, Elizabeth, Munno Para). Regional centres on the coast or the River Murray have some of the highest mortality rates in the state. Of note are Kingston-Tatiara (10.6/100,000) and Port Lincoln (10.3/100,000) – both well above the state average (4.42/100,000). The tendency for rural and regional areas to have disproportionately high mortality rates from melanoma is in line with findings in other states.

7.3 Survival

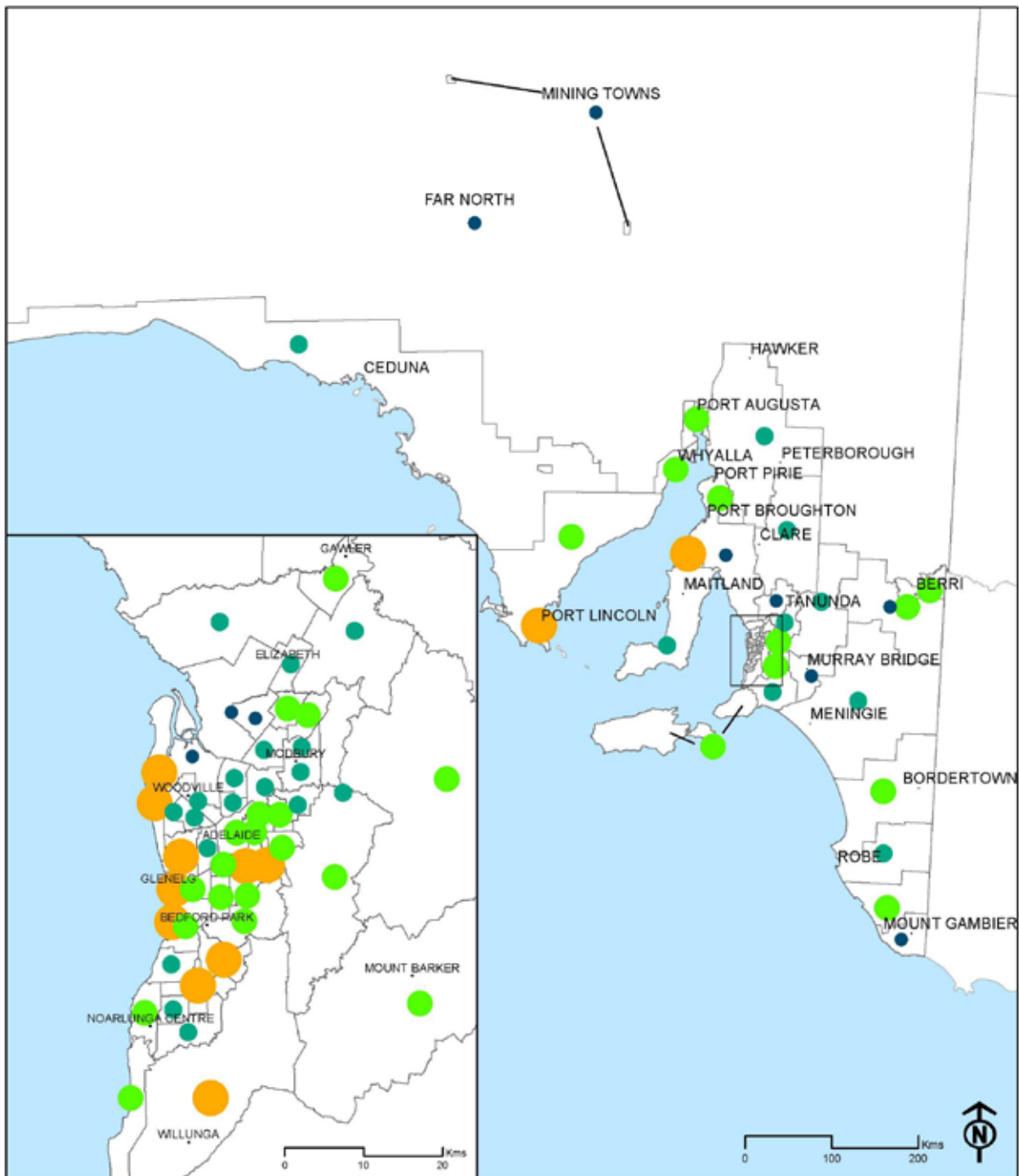
Five-year survival rates from melanoma are 89% for men and 92% for women. These rates are almost identical to New South Wales – 89% men, 93% women. Five-year survivals have improved over time in South Australia from 85% (both sexes) in 1977-1981 to 92% in 1997-2003.

7.4 Interstate and International Comparisons

Incidence rates per 100,000 in South Australia (adjusted to Australian population 2001) for 2003 were males 47.1 and females 32.8. These rates are significantly below New South Wales – males 58.2, females 37.6, and Queensland (2002) – males 84.9, females 57.5. Mortality rates for South Australia (males 5.4, females 2.7) are also below New South Wales – males 8.7, females 3.5 and Queensland – males 8.3, females 3.4.

South Australia has incidence rates well above those of the United States (males 22.5, females 14.8) and higher mortality rates (USA males 3.8, females 1.7) – SEER data 2003.

Map 1: Melanoma Incidence in South Australia, 1995 - 2004 by grouped Statistical Local Areas



Annual Incidence/ 100,000

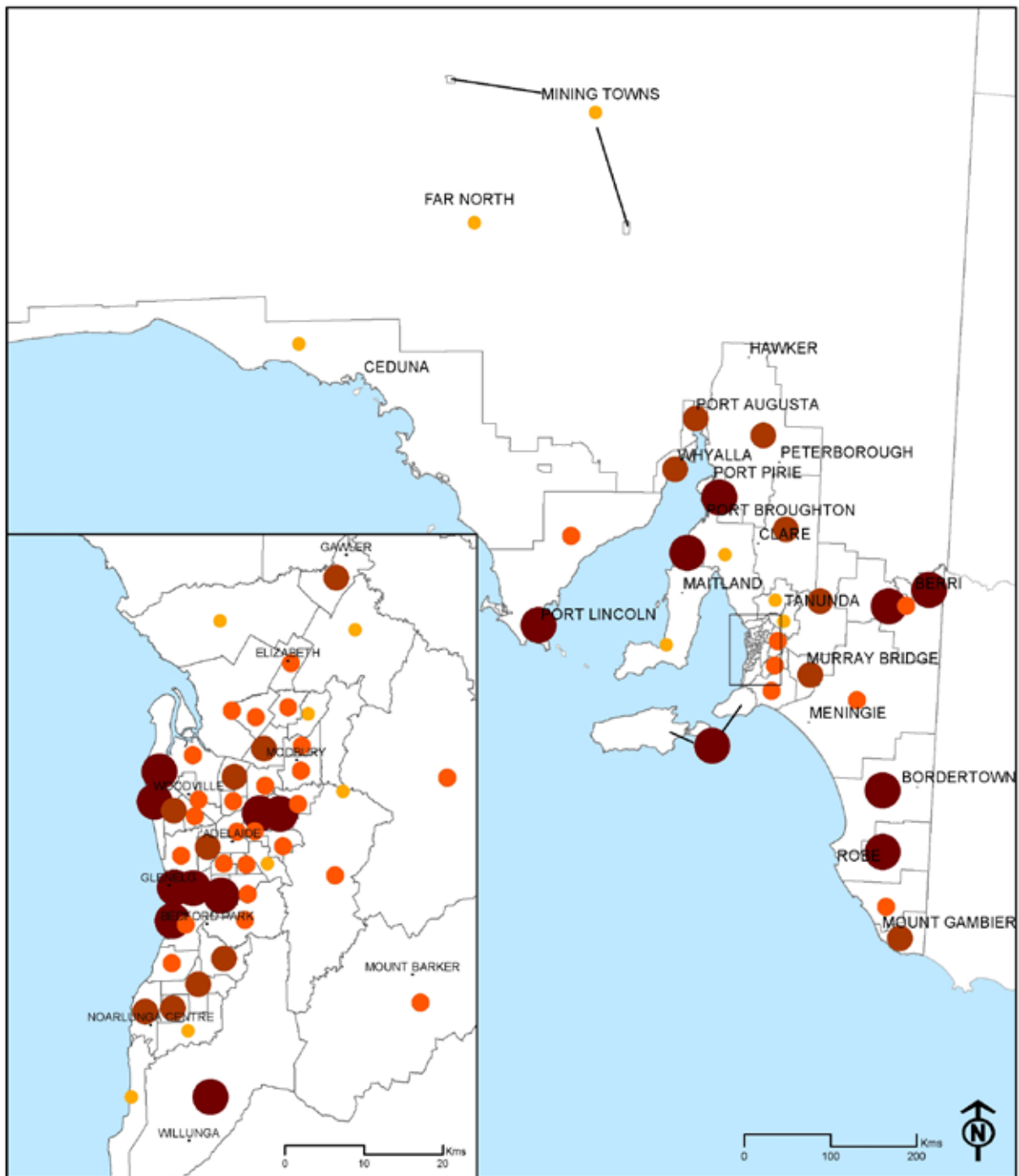
- less than 30
- 30 - 40
- 40 - 50
- more than 50

Produced by:
Business Intelligence and Data Warehousing
with Epidemiology Branch, Department of Health
Data Sources:
Based on Statistical Local Areas - Australian Bureau of Statistics 2001
Cancer Data - South Australia Cancer Registry 1995 - 2004
Map Projection: Lamberts Conformal Conic, GDA94

All data is age and sex adjusted to the standard Australian population 2001.

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Map 2: Melanoma Mortality in South Australia, 1995 - 2004 by grouped Statistical Local Areas



Annual Mortality / 100,000

- Less than 2.5
- 2.5 - 4.5
- 4.5 - 6.0
- More than 6

Produced by:
 Business Intelligence and Data Warehousing
 with Epidemiology Branch, Department of Health
 Data Sources:
 Based on Statistical Local Areas - Australian Bureau of Statistics 2001
 Cancer Data - South Australia Cancer Registry 1995 - 2004
 Map Projection: Lambert's Conformal Conic, GDAG4

All data is age and sex adjusted to the standard Australian population 2001.

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