

Incidence of breast cancer, 1998 to 2002

Breast cancer is the most frequently diagnosed cancer, and is also the commonest cause of cancer death, in women in Australia. The incidence of breast cancer increases with age. Women of high socioeconomic status are at greater risk of breast cancer than women of low socioeconomic status with possible reasons including differences in reproductive and lifestyle factors. Other factors implicated in the development of breast cancer include family history, parity, length of menstrual cycle, breast feeding, diethylstilboestrol use during pregnancy, infertility, miscarriage, termination of pregnancy, radiation exposure, physical activity, stress, height, alcohol consumption, smoking and dietary factors (Kelsey 1993; Coates & Armstrong 1997).

The five-year survival rate for breast cancer is 78% (SA Cancer Registry 2005). The incidence of breast cancer in South Australia increased by 20.5% between the periods 1986 to 1993 (176 new cases per 100,000 women aged 30 years and over), and 1998 to 2002 (212 new cases per 100,000 women). The proportional change across Metropolitan Adelaide (20.7%) and country South Australia (21.1%) is almost identical (Table 6.41).

Table 6.41: Incidence of breast cancer
Age-standardised incidence rate per 100,000 women aged 30 years and over

Area	1986-1993	1998-2002	Per cent change ¹
Metropolitan Adelaide (incl. Gawler)	179	216	20.7
Country	166	201	21.1
South Australia	176	212	20.5

¹Per cent change over eleven years in the rate of breast cancer incidence

Metropolitan regions

There were 3,659 new cases of breast cancer recorded for females in the metropolitan regions (excluding Gawler) from 1998 to 2002, two per cent more than expected from the State rates (a standardised incidence ratio (SIR) of 102). There were nine per cent more cases than expected from the State rates in Southern Adelaide (an SIR of 109**, 1,187 cases), and one per cent fewer cases than expected in Central Northern Adelaide (99, 2,472 cases) (Table 6.42).

The overall pattern is suggestive of higher rates of new cases of breast cancer in areas of higher socioeconomic status (Map 6.38). This contention is supported by the correlation analysis, which shows breast cancer to be weakly correlated with variables reflecting relative advantage, such as female labour force participation; fulltime educational participation at 16 years of age; high income families and the Index of Relative Socio-Economic Disadvantage. Incidence was weakly correlated with rates of participation and cancers detected through screening (Table 8.1).

Central Northern Adelaide

There were 2,472 new cases of breast cancer in Central Northern (an SIR of 99). Unlike other patterns of disease mapped in this atlas, many of the most highly elevated ratios of breast cancer were mapped in the advantaged SLAs.

Walkerville had the highest standardised incidence ratio, with 32% more cases than expected from the State rates (an SIR of 132, 40 cases), followed by Burnside - South-West (120, 98), Unley - West (115, 67) and - East (114, 74), Tea Tree Gully -

North (114, 66) and - Central (112, 88), and Port Adelaide Enfield - Inner (112, 80).

There were large numbers of new cases of breast cancer in West Torrens - West (115 cases, 104), Tea Tree Gully - South (113 cases, 104) and Port Adelaide Enfield - Coast (103 cases, 104).

The SLAs with the lowest ratios were Playford - West (an SIR of 36**, eight cases), Salisbury Balance (41*, five), Playford - Hills (56, five), Salisbury - Central (75*, 55), Charles Sturt - North-East (71**, 80), Playford - East Central (an SIR of 82, 34), Charles Sturt - Inner East (an SIR of 83, 66), Norwood Payneham St Peters - West (an SIR of 83, 52), Campbelltown - East (an SIR of 83, 79), Playford - West Central (an SIR of 84, 26) and Norwood Payneham St Peters - East (an SIR of 88, 60).

Southern Adelaide

There were 1,187 new cases in Southern over the five years from 1998 to 2002 (an SIR of 109**). The most highly elevated ratio in this region was in Mitcham - North-East, with an SIR of 141** and 84 cases, followed by Marion - North (121*, 120), Onkaparinga - Hills (an SIR of 119, 45 cases), Marion - Central (118*, 159), Onkaparinga - Woodcroft (115, 102) and Onkaparinga - Reservoir (114, 77).

There were below average ratios in Onkaparinga - Hackham (an SIR of 78, 30 cases) and Marion - South (84, 44).

*** indicates statistical significance: see page 24**