

3.03 Early detection and early treatment

The early detection and early treatment of disease among the Indigenous population measured by the health assessment and disease screening of Aboriginal and Torres Strait Islander peoples

Data sources

Data for this measure come from the Medicare database, the AIHW BreastScreen Australia database and the Service Activity Reporting (SAR) database.

Medicare database

Medicare enrolment application forms are lodged by the Medicare offices in each state/territory or by mail. Information from these forms is entered directly into the Medicare database which is held by the Department of Health and Ageing.

In November 2002, the ABS standard question on Indigenous identification was included on this form. Because the Indigenous identifier was only introduced recently, the coverage of Indigenous Australians in this dataset is not complete. Aboriginal and Torres Strait Islander persons who had identified as Indigenous in this database as at 1 July 2005 numbered 80,658.

BreastScreen Australia

The BreastScreen Australia program consists of a network of dedicated screening and assessment services throughout urban, rural and remote areas of all states and territories. The program provides free biennial mammographic screening and follow-up of any suspicious lesions identified at screening to the point of diagnosis. It is aimed specifically at asymptomatic women aged 50–69 years, with a participation target of 70%. However, women aged 40–49 years and 70 years and older are able to attend for screening (AIHW 2006a). The national program was established in 1991. It is funded through the Australian Government Department of Health and Ageing (DoHA) and each of the state and territory governments, and is administered through state coordination units. The AIHW monitors and reports biennially on the performance of BreastScreen Australia.

The standard ABS question is used to record Indigenous status in this database. 'Not stated' values for Indigenous status are not separately quantified but are included in the 'non-Indigenous' numbers.

The participation rate for Indigenous women in breast screening should be treated with caution as it is not known how many women do not report their Indigenous status.

Service Activity Reporting database

The Service Activity Reporting database (SAR) collects data from approximately 140 Australian Government funded Aboriginal and Torres Strait Islander primary health care services and is held at DoHA. It is estimated that these services provide GP services to around 40% of the Indigenous population. Service-level data on health care and health-related activities are collected by survey questionnaire over a 12-month period.

Response rates to the SAR by Aboriginal and Torres Strait Islander primary health care services were between 97% and 99% during the period 2002–03 to 2004–05.

It should be noted that the SAR only includes Aboriginal and Torres Strait Islander health organisations that receive at least some Australian Government funding to facilitate access to primary health care.

Analyses

Medicare data

The Medicare database includes information on the number of health assessments for Indigenous and non-Indigenous Australians of different ages (Item numbers 704, 706, 708, 710, 700 and 702).

Medicare Benefits Schedule health assessments/checks

Over the last few years, the Australian Government has introduced a number of new Indigenous health checks and health assessments within the Medicare Benefits Schedule (MBS) to help improve early intervention and diagnosis for treatable conditions. The MBS now provides items specifically for regular health checks or assessments for Aboriginal and Torres Strait Islander people of all ages.

A health assessment includes an assessment of a patient's health and physical, psychological and social function and whether preventative health care and education should be offered to the patient. The assessment must also include keeping a record of the health assessment and offering the patient a written report about the health assessment, with recommendations about matters covered by the health assessment.

- Annual health checks for Aboriginal and Torres Strait Islander children aged 0–14 years were only introduced into the MBS in May 2006. For the two month period May 2006 to June 2006, there were 423 health assessments of Indigenous children (a rate of 14 per 1,000 Indigenous children) (Table 3.03.1).
- Two yearly health checks for Aboriginal and Torres Strait Islander aged 15–54 years were introduced in the MBS in May 2004. Between July 2005 and June 2006, there were 8,747 health assessments of Indigenous Australians aged 15–54 years, which was a rate of 32 per 1,000 population. The rate at which Indigenous Australians aged 15–54 years received health assessments under the MBS ranged from 1 per 1,000 in Tasmania to 51 per 1,000 in the Northern Territory.
- Annual health assessments for Aboriginal and Torres Strait Islander Australians aged 55 years and over were introduced in November 1999. Between July 2005 and June 2006, there were 2,517 health assessments of Indigenous Australians aged 55 years and over (a rate of 69 per 1,000 population). The rate of MBS health assessments for Indigenous Australians aged 55 years and over ranged from 9 per 1,000 in the Australian Capital Territory to 80 per 1,000 in the Northern Territory.
- Over the two-year period 2004–2005, Indigenous Australians aged 55 years and over received MBS health assessments at a rate of 58 per 1,000. This was much lower than the rate at which all Australians aged 75 years and over received MBS health assessments during this period (175 per 1,000) (Table 3.03.2).
- The rate of MBS health assessments for Indigenous Australians aged 55 years and over increased between the first quarter of 2000 and the second quarter of 2006 (from 27 per

1,000 in January–March 2000 to 77 per 1,000 in April–June 2006). The average yearly increase in the rate was around 7 per 1,000 (Figure 3.03.1). The rate of MBS assessments for Indigenous Australians aged 15–54 years increased between the third quarter 2004 and the second quarter 2006 (from 232 per 1,000 to 264 per 1,000).

Table 3.03.1: Medicare Benefits Schedule health assessments and health checks for Indigenous Australians aged 0–14 years, 15–54 years and 55 years and over, by state/territory, various years

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Aboriginal and Torres Strait Islander child health checks aged 0–14 years (MBS Item 708)^(a)									
Number	166	9	124	70	6	0	0	48	423
Rate per 1,000	18.3	5.0	14.1	16.2	3.6	0.0	0.0	13.9	13.9
Aboriginal and Torres Strait Islander health checks aged 15–54 years (MBS Item 710)^(b)									
Number	1,658	386	2,752	1,667	452	10	9	1,813	8,747
Rate per 1,000	20.9	22.1	36.1	41.2	28.5	1.0	3.6	50.8	31.5
Aboriginal and Torres Strait Islander Health Assessments aged 55 years and older (MBS Item 704/706)^(c)									
Number	800	158	713	394	92	13	2	345	2,517
Rate per 1,000	71.5	69.2	75.5	76.0	45.1	9.8	9.4	79.6	69.8

(a) Child health checks commenced in May 2006 and therefore these data are only for the two-month period May and June 2006. Rates are calculated using the 2006 Indigenous population projections for those aged 0–14 years divided by 6 to calculate an estimate for May–June. Issues of take-up and administrative requirements will affect these data.

(b) These adult health checks were introduced in May 2004 as a biennial assessment. Data provided are for the period 1 July 2005 to 30 June 2006. Rates are calculated using the average of 2005 and 2006 Indigenous population projections for those aged 15–54 years. Monthly patterns of take-up for this item had become more stable by July 2005.

(c) Health assessments for older patients were introduced in November 1999. Data provided are for the period 1 July 2005 to 30 June 2006. Rates are calculated using the average of 2005 and 2006 Indigenous population projections for those aged 55 years and over.

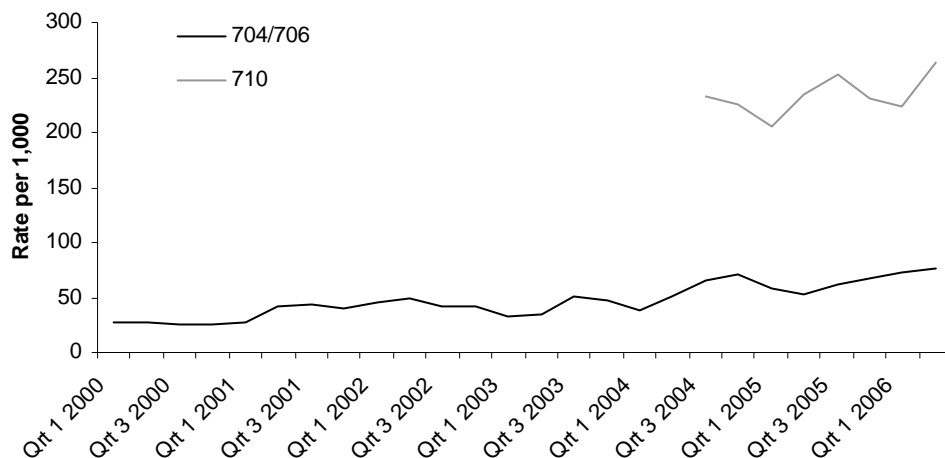
Source: AIHW analysis of Medicare data.

Table 3.03.2: Health assessments for older patients: Indigenous persons 55 years and older and all Australians aged 75 years and older, 2004–2005

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Aboriginal and Torres Strait Islander health assessments aged 55 years and older (MBS Item 704/706)									
Number	1,282	275	1,030	648	230	25	8	551	4,049
Rate per 1,000 ^(a)	59.2	63.0	56.5	64.9	58.3	9.8	20.4	66.2	58.2
All Australian health assessments aged 75 years and older (MBS Item 700/702)									
Number	162,235	107,777	81,475	27,260	42,848	11,860	3,105	90	436,650
Rate per 1,000 ^(a)	184.6	167.6	187.7	128.7	184.2	182.4	112.4	14.7	174.7

(a) Rates are calculated using the 2004 and 2005 Indigenous population projections for those aged 55 years and over and the total Australian population estimates for those aged 75 years and over.

Source: AIHW analysis of Medicare data.



Notes

1. Rates for Item 704/706 were calculated using the Indigenous population estimates for 2000–2006, divided by 4 to obtain quarterly rates for each year.
2. Rates for Item 710 were calculated using the Indigenous population estimates for 2004–2006, divided by 4 to obtain quarterly rates for each year.
3. The rate for Item 708 was calculated to be 69 per 1,000 for the two month period May 2006–June 2006.

Source: AIHW analysis of Medicare data.

Figure 3.03.1: Rate of MBS health checks/assessments for Indigenous Australians aged 15–54 years (Item 710) and Indigenous Australians aged 55 years and over (Item 704/706), January–March 2000 to April–June 2006

Breast screening

BreastScreen Australia, jointly funded by the Australian, state and territory governments, undertakes nationwide breast cancer screening. It targets women aged 50–69 years for screening once every two years. The program aims to have 70% or more of women aged 50–69 years participating in screening over a 24-month period. All recruitment activities undertaken by BreastScreen Australia specifically target women in this age group, although women aged 40–49 years and those over 70 years may also use the service.

- Of the 1,618,306 women aged 40 years and over participating in screening through the BreastScreen Australia program in 2002–2003, there were 12,354 (0.8%) who identified themselves as Aboriginal or Torres Strait Islander. While 29,380 women in 2002–2003 were classified as not stating their Indigenous status, the true figure is higher because some jurisdictions classified these women as ‘non-Indigenous’ (AIHW 2006b).
- For the two-year period 2003–2004, the participation rate for BreastScreen Australia programs was highest among those aged 60–69 years for Indigenous women. The participation rate measures the proportion of the eligible population attending the screening program within a 24-month period.
- The age-standardised participation rate for Indigenous women aged 50–69 years was 38% which was also markedly lower than the national rate for all females in that age group (55%). The participation rate for Indigenous women aged 40 years and over was

also lower than for non-Indigenous women of the same age (26% compared to 36% for all women) (Table 3.03.3).

- The breast screening participation rates for Indigenous women aged 50–69 years ranged from 19% in the Northern Territory to 50% in Queensland.
- The participation rates for Indigenous women aged 40 years and over and 50–69 years were slightly higher in 2003–2004 (26% and 38%) than in 1999–2000 (24% and 35%). There was little change in the participation rates for all women over the period 1999–2000 to 2003–2004 (Figure 3.03.2).

Care needs to be taken when comparing Indigenous and non-Indigenous participation rates due to under-identification of Indigenous women in the BreastScreen Australia program. Caution also needs to be taken in comparing data across jurisdictions, given differences in the collection of data by Indigenous status across jurisdictions.

Table 3.03.3: Age-specific participation rates^(a) in BreastScreen Australia programs of Indigenous and all women, by state/territory, 2003–2004 (per cent)

Age group	NSW	Vic ^(b)	Qld ^(c)	WA	SA	Tas	ACT	NT	Australia
Indigenous women									
40–49 years	12.2	5.5	28.3	10.3	6.1	15.1	4.2	6.4	14.8
50–59 years	31.8	45.7	49.8	28.7	32.9	38.8	28.9	19.0	35.7
60–69 years	41.9	44.1	50.0	43.0	38.7	37.2	47.8	18.0	40.7
70–79 years	29.4	28.2	37.1	23.9	14.3	n.a.	n.a.	12.5	27.3
80+	10.6	2.4	3.3	5.5	1.6	n.a.	n.a.	6.2	5.7
40+ (age-standardised rate)^(d)	25.2	26.4	37.5	22.7	20.1	n.a.	n.a.	12.8	26.3
50–69 years (age-standardised rate)^(d)	35.8	45.1	49.9	34.3	35.1	38.2	36.3	18.6	37.7
All women									
40–44 years	13.6	5.5	24.0	10.2	10.0	16.1	2.8	8.4	12.8
45–49 years	26.4	10.6	37.9	22.6	21.1	30.3	15.3	19.1	23.7
50–54 years	45.2	57.5	54.2	53.7	61.8	52.1	45.6	39.4	52.3
55–59 years	51.1	58.7	59.4	57.7	63.4	60.4	54.3	49.4	56.5
60–64 years	53.0	60.6	60.7	59.3	65.3	59.7	57.6	47.4	58.2
65–69 years	50.9	57.8	60.8	56.5	62.3	59.8	52.9	42.6	56.2
70–74 years	39.6	50.5	53.2	18.4	22.9	43.7	16.2	29.9	41.2
75–79 years	29.0	14.5	18.1	8.8	11.7	9.2	6.4	17.7	19.3
80–84 years	14.2	2.7	5.0	3.3	3.8	3.3	3.0	12.9	7.4
85+ years	3.5	0.5	1.4	0.6	0.6	0.5	0.6	2.5	1.7
40+ (age-standardised rate)^(d)	34.6	34.1	42.1	33.1	36.4	37.8	28.3	28.7	35.9
50–69 years (age-standardised rate)^(d)	49.5	58.5	58.2	56.5	63.1	57.3	51.8	44.4	55.4

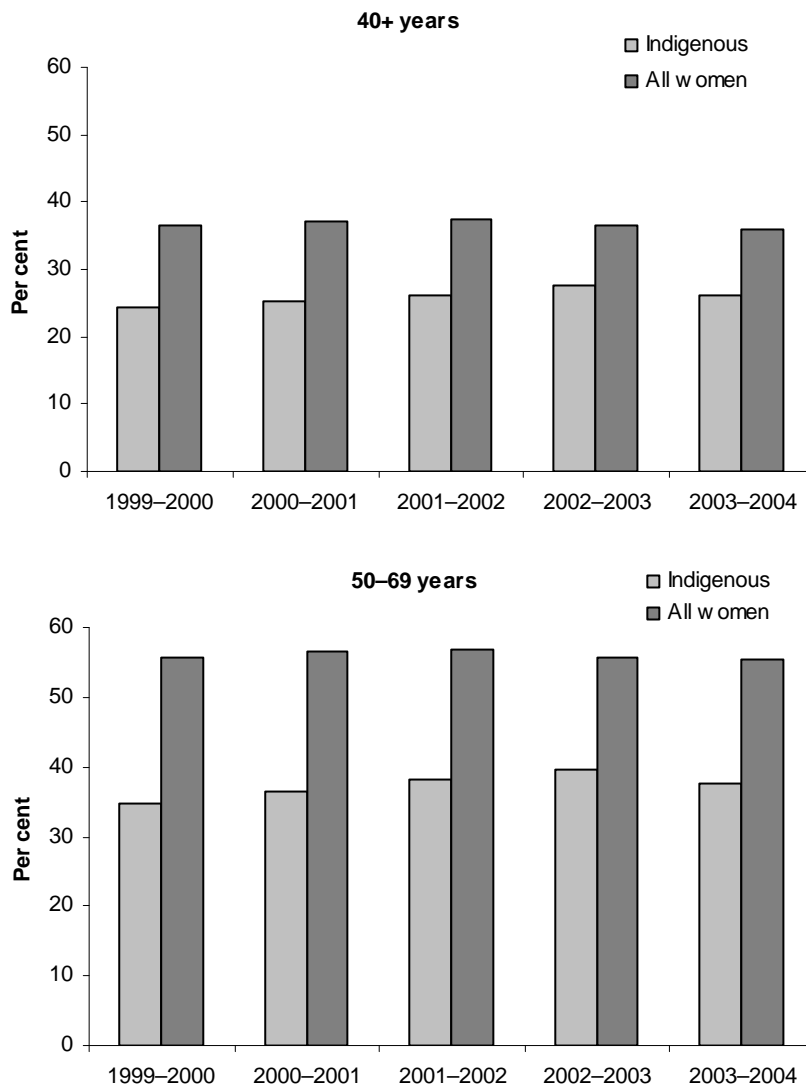
(a) The participation rate is the number of women screened in the reference period, divided by the number of women in the reference period based on ABS Estimated Resident Populations.

(b) Victorian postcodes allocated to the Albury/Wodonga area (NSW jurisdiction) are included in Victoria's jurisdiction and account for the slight decrease in participation rates when compared to participation rates published by BreastScreen Victoria.

(c) For Indigenous women in Queensland the 70–79 years category includes all women aged over 70 years.

(d) Rates are directly age standardised to the Australian 2001 Standard population.

Source: SCRGSP 2006.



Source: SCGRSP 2006- Report on Government Services 2006

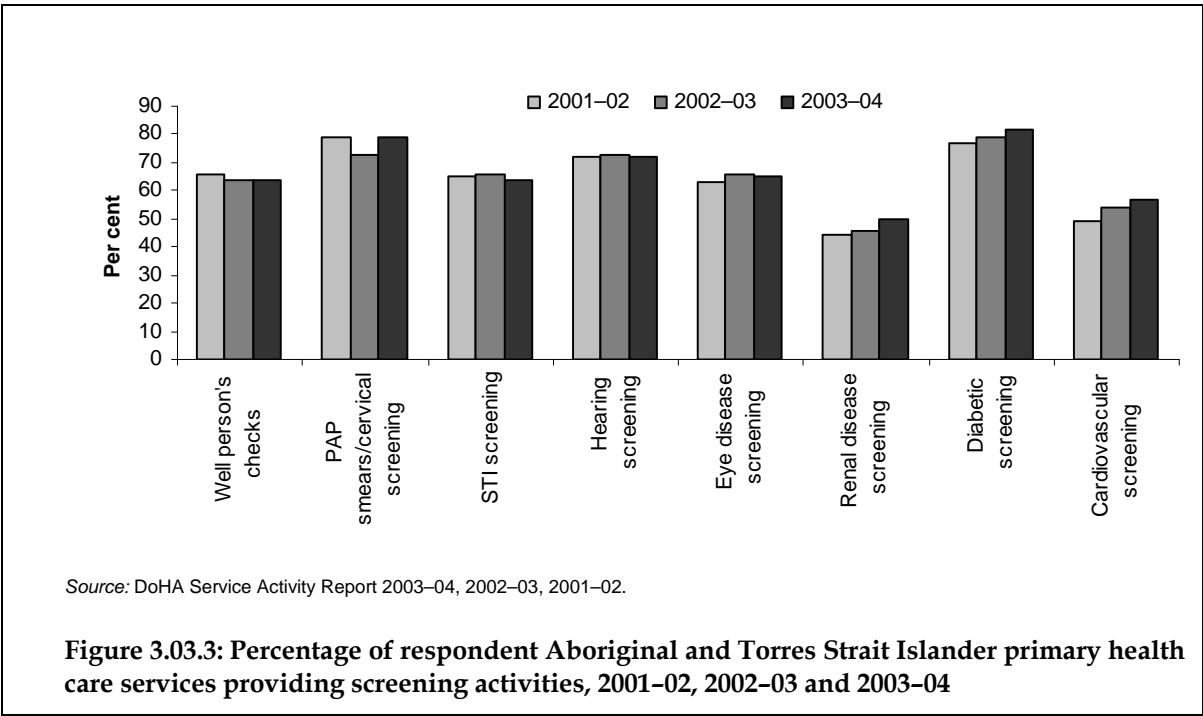
Figure 3.03.2: Participation rates BreastScreen Australia programs of women 40+ years and women 50-69 years, Indigenous and all women 1999-2000 to 2003-2004.

Aboriginal and Torres Strait Islander primary health care services

Screening activities

The Service Activity Report includes data on health-related activities undertaken or facilitated by Aboriginal and Torres Strait Islander primary health care services, including a range of 'screening' programs.

- In 2003-04, approximately 82% of respondent Aboriginal and Torres Strait Islander primary health care services provided diabetic screening, 79% provided Pap smear/cervical screening, 72% provided hearing screening, 65% provided eye disease screening, 64% provided regular age/sex appropriate well persons checks and Sexually transmitted infection (STI) screening, 57% provided cardiovascular screening and 50% provided renal disease screening (Figure 3.03.3).
- Between 2001-02 and 2003-04, there was little change in the proportion of Aboriginal and Torres Strait Islander primary health care services providing most screening services. Over this period there was a slight increase in the proportion of Aboriginal and Torres Strait Islander primary health care services providing diabetic screening and cardiovascular screening.



Additional information

Cervical cancer

No data are currently available on cervical cancer screening by Indigenous status. Data on the mortality of Indigenous women from cervical cancer are presented below.

- Over the period 2001–2004 in Queensland, Western Australia, South Australia and the Northern Territory combined there were 27 deaths of Indigenous women from cervical cancer. Indigenous women died at around five times the rate of non-Indigenous women in these states and territories (11 per 100,000 compared to 2 per 100,000) (AIHW 2006c).
- The age-standardised rate for Indigenous women aged 20–69 years, which is the target age for cervical cancer screening, was 9.9 per 100,000 compared to 2.0 per 100,000 for non-Indigenous women of the same age.

Studies on early detection, diagnosis and survival rates for cancer in Indigenous Australians

There have been a number of studies that have investigated the stage of diagnosis and survival rates for cancer for Indigenous Australians.

A study by Condon et al. (2005) on the stage at diagnosis and cancer survival of Indigenous and non-Indigenous people in the Northern Territory between 1991 and 2000 found that Indigenous people were more likely than non-Indigenous people to be diagnosed with advanced disease for cancers of the colon and rectum, breast, cervix and non-Hodgkin's lymphoma. The difference in the proportion of people diagnosed with localised disease ranged from 13 percentage points for cervical cancer (Indigenous 63% compared with non-Indigenous 76%) to 29 percentage points for non-Hodgkin's lymphoma (6% compared with 35%). However, for cancer of the lung, Indigenous people were more likely to be diagnosed with localised disease (41% compared with 31%), possibly because many older Indigenous people have regular chest X-rays for clinical management of chronic respiratory disease and as part of contact-tracing and long-term follow-up by the tuberculosis control program.

Indigenous people had lower cancer survival than non-Indigenous people for all five cancer sites. The difference in age-stage-adjusted five-year survival rates was greatest for non-Hodgkin's lymphoma (Indigenous 16% compared with non-Indigenous 65%) and least for lung cancer (5% compared with 12%). With few exceptions, Indigenous people had lower survival than non-Indigenous people with the same stage at diagnosis for each cancer site. The relative risk of cancer death (Indigenous compared with non-Indigenous) was greater for people diagnosed at younger than older age for cancers of the colon and rectum, lung and breast, but not for cervical cancer or non-Hodgkin's lymphoma. For colorectal and lung cancers the relative risk was greater for people diagnosed with localised compared to advanced disease; this was not the case for the other three cancer sites.

Compared with non-Indigenous people diagnosed with the same cancer, Indigenous people are doubly disadvantaged because they are not only diagnosed later, with more advanced disease, but also have lower survival for every stage at diagnosis (Condon et al. 2005).

In relation to the cancer survival differential it is relevant to note that the 'absolute difference in cancer survival is greatest for cancers with the highest survival in non-Indigenous people – cancers of the thyroid, breast, prostate and bowel. For cancer of the thyroid, five-year survival for all Australian cases is over 90% and for breast cancer over 80%, compared with only 60% and 42% respectively for Indigenous cases in the Northern Territory. These

cancers are amenable to early diagnosis, effective treatment and a high probability of cure. Better access to, and higher quality of, health care offers the possibility of disease cure for many Indigenous people with these cancers' (Condon 2004).

A recent study of 815 Indigenous and 810 non-Indigenous patients diagnosed with cancer in Queensland between 1997 and 2002 found that after adjustment for stage at diagnosis, treatment and comorbidities, non-Indigenous Australians had better survival than Indigenous patients (hazard ratio = 1.3, 95% CI 1.1-1.5). The stage at diagnosis was significantly different with 47% of Indigenous patients with localised cancers compared with 53% of non-Indigenous patients. Comorbidities such as diabetes or chronic renal disease were more common in Indigenous patients. Indigenous patients were less likely to have had treatment for cancer (surgery, chemotherapy, radiotherapy) and waited longer for surgery (hazard ratio = 0.84, 95% CI 0.72-0.97) than non-Indigenous patients (Valery et al. 2006).

Exploring the experience of Indigenous people and their outcomes in relation to cancer incidence, stage of disease at presentation, access to treatment, survival and mortality can help illustrate aspects of Indigenous Australians' access to and interaction with the health system. This provides an opportunity to monitor health system performance for Indigenous Australians in relation to both primary care and specialist services, and the interaction between them (Condon 2004).

Data quality issues

Medicare data

MBS items

The MBS items included in this measure have been introduced over the last few years with the child health check item commencing in May 2006. The take-up of new MBS items is influenced by the speed at which practitioners and the population become aware of the new items and how to use them. Also take-up can be influenced by administrative processes and the time taken to change computer systems to incorporate these new items. Analysis of monthly statistics on Items 704 and 706 suggest that it took several years for these statistics to stabilise into a fairly regular pattern. Item 710 was introduced in May 2004 and within 12 months monthly statistics had become relatively stable.

Standard Indigenous status question

In November 2002, the ABS standard question on Indigenous identification was included on Medicare enrolment forms.

Under-identification

Because the Indigenous identifier was only introduced recently, the coverage of Indigenous Australians in this dataset is not complete. Aboriginal and Torres Strait Islanders who had identified as Indigenous in this database as at 1 July 2005 numbered 80,658.

Breast screening

Data are available on breast screening from the BreastScreen Australia program by Indigenous status. It would also be useful to have Indigenous data for the other breast cancer indicators monitored nationally including breast cancer incidence, detection rate of small invasive cancers, interval cancer rate, program sensitivity (screen-detected cancers), detection of ductal carcinoma in situ, recall to assessment and mortality rates for breast cancer.

Under-identification

The AIHW reports that the participation rate for Indigenous women in breast screening should be treated with caution as it is not known how many women did not report their Indigenous status. The comparison of participation rates between Indigenous and non-Indigenous women should therefore be treated with caution (AIHW 2006b).

Service Activity Reporting data

Response rates to the SAR by Aboriginal and Torres Strait Islander primary health care services were between 97% and 99% during the period 2002–03 to 2004–05. The SAR collects service-level data on health care and health-related activities by survey questionnaire over a 12-month period. While this data collection provides valuable information, it needs to be recognised that there are limitations that have to be considered when using these data. Particular issues include:

- *The SAR only includes Aboriginal and Torres Strait Islander health organisations that receive at least some Australian Government funding to facilitate access to primary health care.*
- *The SAR questionnaire collects a broad set of indicators for the services and did not aim to provide a comprehensive set of statistics on the activities of the services or their needs.*
- *These data provide a rough guide to service activity in this area but do not attempt to measure quantity or quality.*
- *These data also do not differentiate between services provided by the service and those facilitated by the service.*

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