



BreastScreen NSW
Ten Year Statistical Report
1988-1998

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References

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From the Director

I am pleased to present the *BreastScreen NSW Ten Year Statistical Report: 1988-98*.

Breast cancer continues to be the leading cause of cancer related death of women in NSW. It is the continuing aim of the Program to reduce the mortality due to breast cancer by providing high quality breast cancer screening and assessment services that are accessible and appropriate to the needs of women.

This report aims to summarise the activity of BreastScreen NSW in its first ten years as a population based screening program. This report will also provide direction for quality improvement and further research.

Breast screening and cancer data are stratified by each calendar year and age-groups with a focus on the target age-group of the program, women 50–69 years. Data collection in BreastScreen NSW was in accordance with the BreastScreen Australia Minimum Data Set and the BreastScreen Australia National Accreditation Requirements.

BreastScreen NSW has a priority of achieving a high quality of data collection and reporting. We are currently developing the BreastScreen Information System, which will provide us with improved data coverage, access and reporting. The challenge for future research and evaluation will be to inform and guide our efforts to continuously improve the already high quality of service for women of NSW.

This report is the result of hard work and dedication from the staff at the State Data and Evaluation Unit, BreastScreen NSW. I would also like to thank the Directors and Data Management staff of all of the Screening and Assessment Services in NSW for their diligence in data collection and quality assurance throughout this first decade of the Program. Without their involvement, this report would not have been possible.

I hope you will find this report useful and informative. Please look out for future publications from BreastScreen NSW.

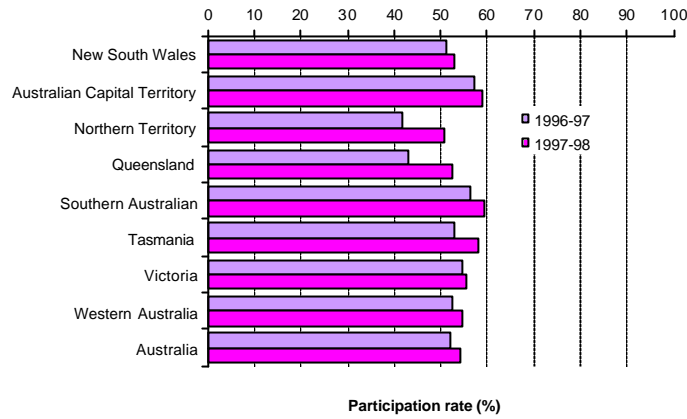
Ann Brassil
Program Director
BreastScreen NSW

Summary

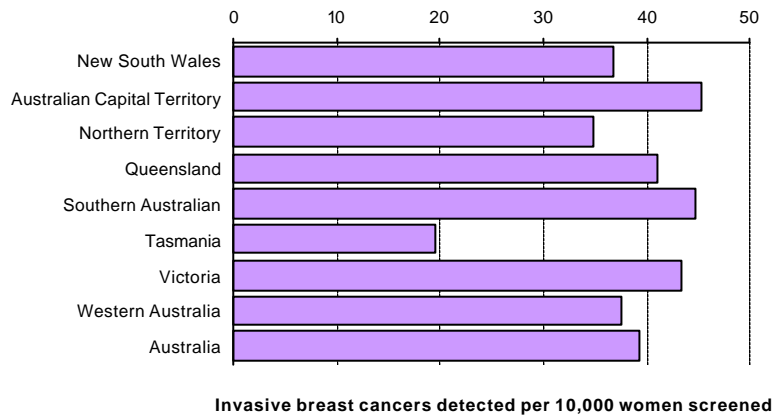
BreastScreen New South Wales Ten-Year Statistical Report: 1988-98

- BreastScreen NSW performed 1,265,305 screens in 1988-98.
- BreastScreen NSW performed 806,153 screens on women aged 50-69 in 1988-98.
- The rescreen rate in women aged 50-69 who returned within 27 months after their initial screen increased from 55.3% in 1990 to 66.8% in 1996.
- The rescreen rate in women aged 50-69 who returned within 27 months after their subsequent screen increased from 47.5% in 1990 and 80.1% in 1996.
- BreastScreen NSW diagnosed 4,539 women aged 40-79 with breast cancer in 1995-98. There were 3,082 women aged 50-69 diagnosed with breast cancer.
- For women aged 50-69 there were 64.9 breast cancers per 10,000 women at initial screen and 42.4 breast cancers per 10,000 women at subsequent screen in 1995-98.
- The invasive breast cancer detection rate was 53.5 per 10,000 women aged 50-69 at initial screen. The invasive breast cancer detection rate was 35.4 per 10,000 women aged 50-69 at subsequent screen in 1995-98.
- One in three invasive breast cancers found in women aged 50-69 at initial screen was between 0-10mm in size in 1995-98.
- The interval breast cancer rates in the first year after an initial screen was 7.0 per 10,000 women screened aged 50-69 in 1995-97.
- The interval breast cancer rates in the first year after a subsequent screen was 7.4 per 10,000 women screened aged 50-69 in 1995-97.
- BreastScreen NSW screened 270,428 women in 1998, of which 166,683 women were aged 50-69.
- There were 33,474 women screened from Non-English Speaking Backgrounds in 1998. Two thirds of NESB women screened were aged 50-69.
- There were 1,238 Aboriginal and/or Torres Strait Islander women screened in 1998. More than half of ATSI women screened were aged 50-69.
- The number of women aged 50-69 screened in a two-year period increased from 13,343 in 1989-90 to 308,637 in 1997-98. This corresponds to an increase in the two-year participation rate from 2.5 % to 52.7%.

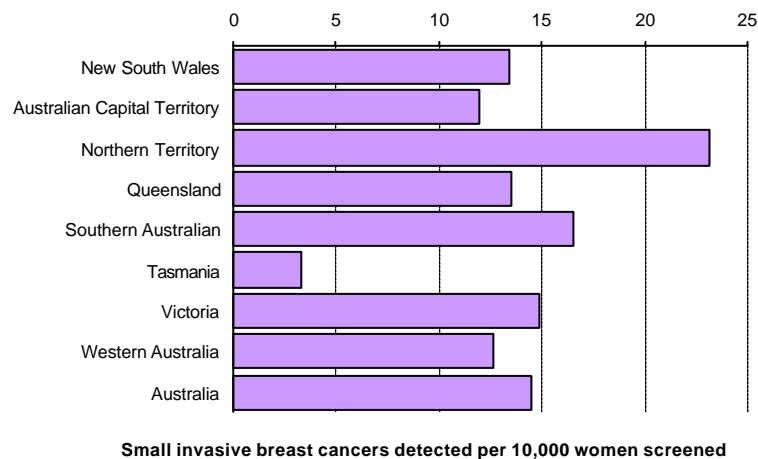
- The participation rate of women aged 50-69 in BreastScreen NSW of 52.9% in 1997-98 was similar to the national rate of 54.3% .1



- The invasive breast cancer detection rate in NSW for women aged 50-69 of 36.8 per 10,000 women screened in 1997 was similar to the national rate of 39.3 per 10,000 women screened.2



- The small invasive breast cancer rate (0-10 mm) in NSW for women aged 50-69 of 13.4 per 10,000 women screened in 1997 was similar to the national rate of 14.4 per 10,000 women screened. 2



Guide to Readers

BreastScreen NSW Background

BreastScreen NSW is a joint Commonwealth and State funded population-based screening program that targets well women aged 50-69.

In 1989, pilot breast Screening and Assessment Services were established in NSW in Central Sydney and in the Hunter region. Following this pilot phase of the Program, a decision was made to establish the National Mammographic Screening Program.

BreastScreen NSW is part of the National Program, BreastScreen Australia established in July 1991. The aims of the Program are:

- To achieve reductions in morbidity and mortality attributed to breast cancer in NSW;
- To maximise the early detection of breast cancer in women aged 50-69;
- To provide dedicated and accredited Screening and Assessment Services;
- To provide equitable access for women aged 50-69;
- To provide services that are acceptable and appropriate to women aged 50-69;
- To achieve high standards of program management, service delivery, monitoring and evaluation and accountability.

The NSW Program was formally established by the NSW Department of Health in June 1992 and managed by the NSW Cancer Council. In September 1996, the state management of BreastScreen NSW was transferred to Western Sydney Area Health Service.

BreastScreen NSW now has 10 Screening and Assessment Services operating across NSW with 36 permanent locations and 152 screening locations serviced by mobile screening units. The services are staffed by multidisciplinary teams of dedicated radiologists, radiographers, pathologists, surgeons, counsellors, recruitment officers, data managers, administrative personnel and clinical coordinators.

BreastScreen NSW aims for the highest standards of equity of access, acceptability to women and health professionals and service quality.

Source of data

The data in this report were abstracted from the BreastScreen NSW register and verified by the Screening and Assessment Services. The BreastScreen NSW Register receives data from the 10 Screening and Assessment Services. The register is used for the monitoring and evaluation of service delivery at the state and service level.

Age at screen

A woman's age has been defined as the number of completed years of life at the time of screening.

Screens

An initial screen performed in BreastScreen NSW refers to a woman's first attendance at the Screening and Assessment Service. A complete screen on a woman requires two technically adequate mammographic views of each breast.

Both initial and subsequent screens are interpreted by at least two independent radiologists. When the radiologists differ in interpretation, a third radiologist or a consensus opinion is required.

Following a normal result from a screen a woman is recommended to have subsequent screens at two-yearly intervals, unless a woman has a personal or significant family history of breast cancer, then an annual screening may be recommended.

Screens performed at a BreastScreen NSW Screening and Assessment Service were counted by actual attendance at that Service.

Rescreens

In this report, rescreen refers to women who returned for screening between 21-27 months after their previous screen. Rescreens have been tabulated by the year of the woman's previous screen.

Breast cancer data

Complete BreastScreen cancer data was available on the register for women screened during 1995-98. In accordance with the National Accreditation Requirements, breast cancers in this report refer to both invasive and *in situ* cancers found in women. There were 31 women with screen detected cancers whose histology was unknown in 1995-98.

Interval breast cancers

Interval cancer data was available for women screened in 1995-97. Interval cancer data was derived from automated matching of the BreastScreen NSW Register and the NSW Central Cancer Registry.³

Resolution of possible matches and attribution to either screen detected or interval cancer was performed by the Screening and Assessment Services.

The criteria for determining and identifying interval cancers was derived from the report *The Ascertainment and reporting interval cancers within the BreastScreen Australia Program*⁴. In particular, women diagnosed with cancer after the following scenarios are included as interval cancers:

Scenario	Interval breast cancer
Women who were sent a rescreen invitation letter but were diagnosed outside of the program before attending for a rescreen	✓
Women whose cancer detected at an early review within the program	✓

Women with a screening result of 'Symptomatic normal' subsequently diagnosed outside Program after initially being referred back to GP	✓
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Women screened

Women screened *in* BreastScreen NSW includes all women who attended a BreastScreen NSW Screen and Assessment Service regardless of their place of residence.

Women who had two or more screens in one calendar year, were counted only once in yearly statistics. Similarly for two-yearly statistics, women who had two or more screens in the two-year period were counted only once. A two-yearly period in this report is denoted by a dash between the constituent years. For example the two-year period from 1 January 1997 to the 31st of December 1998 is denoted as 1997-98.

Women screened *from* a Screening and Assessment Service were counted using the geographic area where the woman resided at the time of screening. The constituent Local Government Areas of each Screening and Assessment Service are included in the Appendices: Local Government Area by Screening and Assessment Service.

Women screened *from* an Area Health Service were counted using the geographic area where the woman screened resided at the time of screening. The constituent Local Government Areas of each Area Health Service are included in the Appendices: Local Government Area by Area Health Service.

Population data

The yearly estimated resident female population data by Statistical Local Area in 1988-98 was obtained from the Australian Bureau of Statistics.⁵

The populations in Statistical Local Areas were aggregated to urban, rural and remote area of residence as defined by the Commonwealth Department of Health and Human Service 1994.⁶ Urban areas consist of one or more statistical subdivisions which have an urban centre of population 100,000 or more in size. Remote areas are classified using the index of remoteness, which was related to distances from a point to the nearest urban centres of different size. Rural areas are also classified according to the degree of remoteness of an area and are less remote than "remote" areas. Due to the small populations of women in remote areas of NSW rural and remote women have been reported jointly in this report.

Screening and Assessment Service Areas of residence were aggregated according to the BreastScreen NSW Annual Report 1999/2000⁷. Screening and Assessment Services have been reported according to whether they are metropolitan or non-metropolitan. A metropolitan service has its main Assessment Centre located in large metropolitan centre.

Area Health Services boundaries are as defined by the NSW Department of Health 1996.

The border between Central and South Eastern Sydney Area Health Services transects Sydney and South Sydney Statistical Local Areas. Women in these Areas were aggregated to their Area Health Services proportionately, 60% to South Eastern Sydney and the remaining 40% to Central Sydney.

Participation rates

Participation rates were calculated by dividing the two-yearly number of women screened by the estimated resident female population in 1989-98.

Women who resided outside New South Wales and women whose residential address could not be allocated to a Statistical Local Area were excluded. There were 11,654 women screened from other states and 248 were unable to be classified.

Participation rates for Non-English speaking background and Aboriginal and Torres Strait Islander women were expressed as percentage of the 1996 census populations.

Confidence intervals

The 95% confidence intervals for this report were calculated using the STATA software⁸. For statistics where there were more than 50 instances, calculations were based on 1000 simulations using a binomial distribution. If there were less than 50 instances, the calculations were based on 1000 simulations using a Poisson distribution to ensure non-negative confidence limits.

Incidence and mortality

New cases of breast cancer and deaths from breast cancer were obtained from the NSW Central Cancer Registry.⁹

Age-specific incidence and mortality rates were calculated by dividing the number of cancer cases or deaths in each age group by estimated resident female population. The rates are expressed per 100,000 women.

Age-standardised rates enable comparisons to be made between populations having different age structure. The direct standardisation method was used in this report based on the Australian 1991 population.

Definition of terms

A definition of terms list is included in this report. Definitions listed were compiled from the *BreastScreen Australia Achievement Report 1997 and 1998*¹ and the *National Accreditation Requirements*¹⁰.

Appendices

To simplify presentation, descriptions, tables and figures in this report mainly represent women aged 50-69, the target age-group of Breast Screen NSW. Tabulations of statistics relating to all women screened by BreastScreen NSW are included in the Appendices: Additional tables.

Definition of Terms

Aboriginal and/or Torres Strait Islander: a person of Aboriginal and/or Torres Strait Islander descent who identifies themselves as an Aboriginal and/or Torres Strait Islander.

Age-specific rate: a rate for a specific age group. The numerator and denominator relate to the same age group.

Age-standardised rate: the weighted average of age-specific rates according to a standard distribution of the population by age to eliminate the effect of different age distributions to facilitate valid comparison of groups with differing age compositions.

Cancer death: a death where the underlying cause is indicated as cancer. Persons with cancer dying of other causes are not counted in as a cancer death in this report.

Confidence interval: a computed interval within which there is a specified (usually 95%) chance that the true value of a measure such as a rate, is contained within the interval.

Ductal carcinoma *in situ*: a non-invasive tumour of the breast arising from cells lining the ducts.

Eligible population: NSW resident women aged 40 years or over.

Incidence rate: the number of instances of illness commencing, or of persons falling ill, during a given period divided by the population at risk.

Initial screen: a woman's first attendance at a BreastScreen NSW mammography screening service.

Interval cancer: is any breast cancer, including Ductal carcinoma *in situ*, diagnosed in the 12 months following a negative screening episode. Interval cancers in this report also includes women who were sent a subsequent screen invitation letters but were diagnosed with cancer prior to attending for a screen, women with cancers detected at early review in the Program and women with symptomatic normal results being diagnosed outside the Program after being referred back to General Practitioner.⁴

Invasive cancer: a tumour whose cells have invaded healthy tissue external to their tissue of origin.

Mortality: the number of deaths during a given period divided by the population at risk.

New cancer case: a person who has a cancer diagnosed for the first time. One person may have more than one cancer and therefore may be counted twice in incidence statistics if it is decided that the two cancers are not of the same origin. This decision is based on a series of principles set out in more detail in Jensen.¹⁰

Program sensitivity: is the percentage of invasive breast cancers detected in the program that are screen detected.

Rescreen: a screening mammogram undertaken two years after the previous screen. For data purposes this is any period between 21-27 months.

Screen-detected cancer: both invasive and *in situ* breast cancers found during a screening episode.

Screening: Attendance by a woman for a mammogram to detect breast cancer.

Screening and Assessment Service: An integrated service consisting of an assessment centre/service and its associated screening units. Each Service has a defined catchment area. In this report the screens performed at a service refers to women attending in a screening unit of that Service regardless of where the women lives. Women screened from a service refers to women resident in the relevant catchment area who are screened at any unit offered by BreastScreen NSW.

Size of the tumour: Single measurement of the greatest dimension of the tumour from either the fixed or fresh specimen.

Small cancer: an invasive cancer 10 mm or less in size.

Statistical Local Area (SLA) : the base spatial unit used to collect and disseminate statistics other than those collected from the Population Censuses.

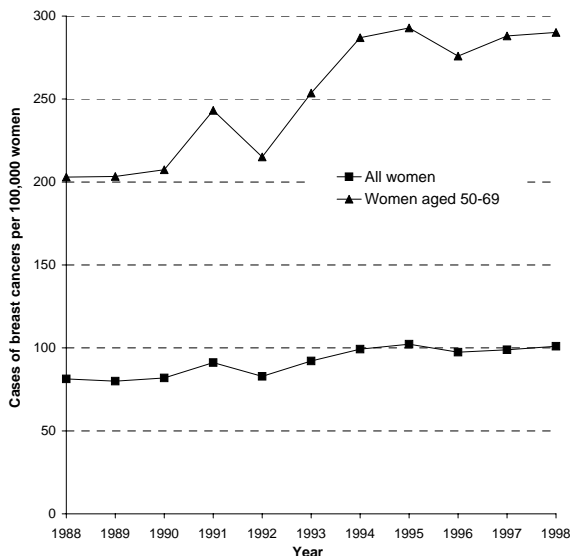
Subsequent screen: a woman's attendance to a BreastScreen NSW mammography screening service when she has attended such a service before.

Target population: women aged between 50 and 69 years.

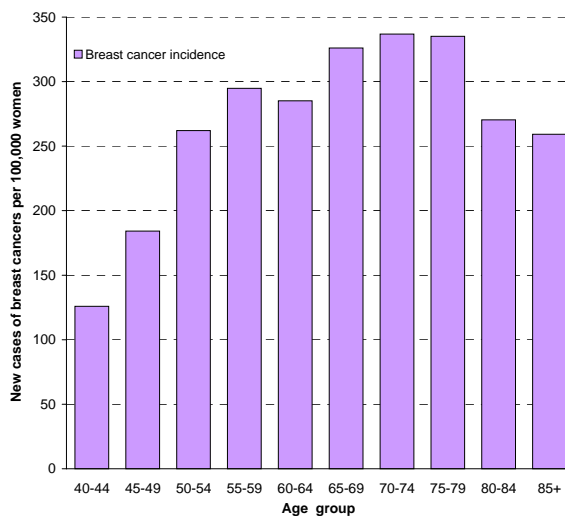
Urban/rural/remote areas: All Australian Statistical Local Areas (SLAs) have been classified by the Department of Human Services and Health as either urban, rural or remote.³

Overview

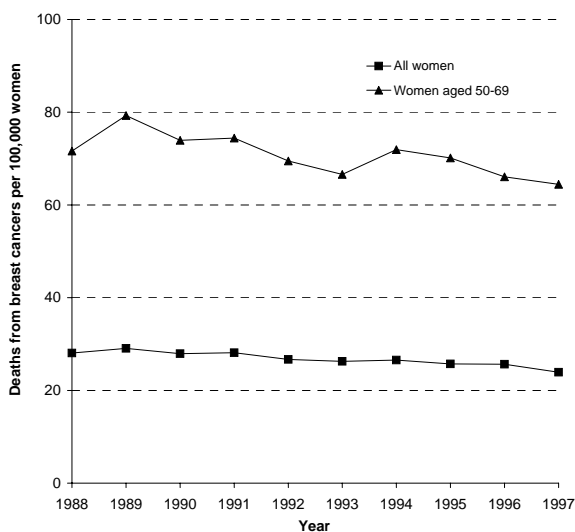
Age-standardised incidence rates for breast cancer in NSW women in 1988-98



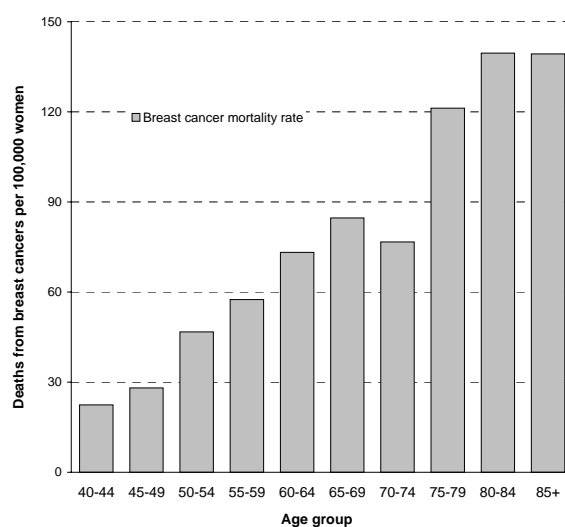
Age-specific incidence rates for breast cancer in NSW women in 1998



Age-standardised mortality rates for breast cancer in NSW women in 1988-97



Age-specific mortality rates for breast cancer in NSW women in 1997



Breast cancer was the most common cancer in NSW women aged 40 or more in 1998. The number of women diagnosed with breast cancer increased from 2,444 in 1988 to 3,668 in 1998. Age-standardised incidence of breast cancer for NSW women aged 50-69 increased from 202.9 to 290.2 per 100,000 women in 1988-98. The incidence of breast cancer increased with increasing age in 1998, peaking in women aged 70-74 years with 336.8 cases per 100,000 women in 1998. The age-standardised incidence of breast cancer for NSW women increased from 81.3 to 101.0 per 100,000 women between 1988-98.

Breast cancer was the most common cause of cancer death in NSW women in 1997. The number of women dying from breast cancer increased from 849 in 1988 to 885 in 1997. Age-standardised breast cancer mortality rate for women aged 50-69 fell from 71.6 to 64.4 deaths per 100,000 women in 1988-97. The mortality rates increased with increasing age in NSW, peaking in women aged 80-84 with 139.5 per 100,000 women in 1997. The age-standardised breast cancer mortality rate for NSW women fell from 28.0 to 23.9 deaths per 100,000 women between 1988-97.

Screens

Figure 1: Screens in BreastScreen NSW in 1988-98

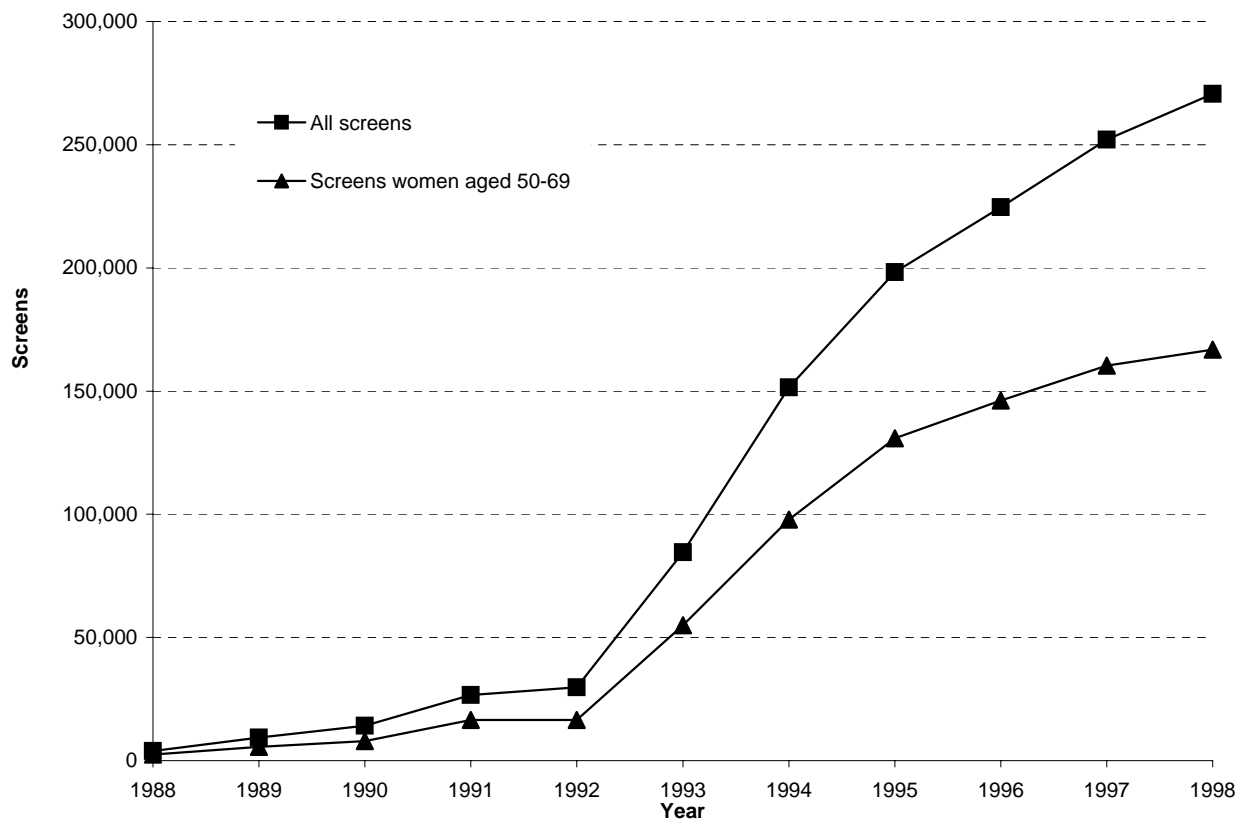


Table 1: Screens in BreastScreen NSW by age group in 1988-98

Year	Age at screening						Percent (%)*
	40-49	50-59	60-69	70-79	80+	40-80+	50-69
1988	846	1,356	1,176	446	64	3,888	65.1
1989	3,116	3,228	2,373	567	42	9,326	60.1
1990	5,114	4,566	3,361	990	107	14,138	56.1
1991	7,781	9,255	7,252	2,083	210	26,581	62.1
1992	10,883	9,480	7,062	2,137	228	29,790	55.5
1993	22,961	30,438	24,545	6,020	556	84,520	65.1
1994	40,405	55,281	42,519	12,113	1,128	151,446	64.6
1995	43,699	73,194	57,696	21,605	2,028	198,222	66.0
1996	49,196	82,161	64,027	26,640	2,595	224,619	65.1
1997	54,964	91,433	68,885	33,181	3,614	252,077	63.6
1998	63,306	95,661	71,204	36,494	4,033	270,698	61.6
Total	302,271	456,053	350,100	142,276	14,605	1,265,305	63.7

* As percentage of women screened 40-80+

There were 270,698 screens in BreastScreen NSW in 1998. There were 166,865 screens of women aged 50-69 in 1998.

Initial and Subsequent Screens

Figure 2: Initial and subsequent screens in BreastScreen NSW by age group in 1988-98

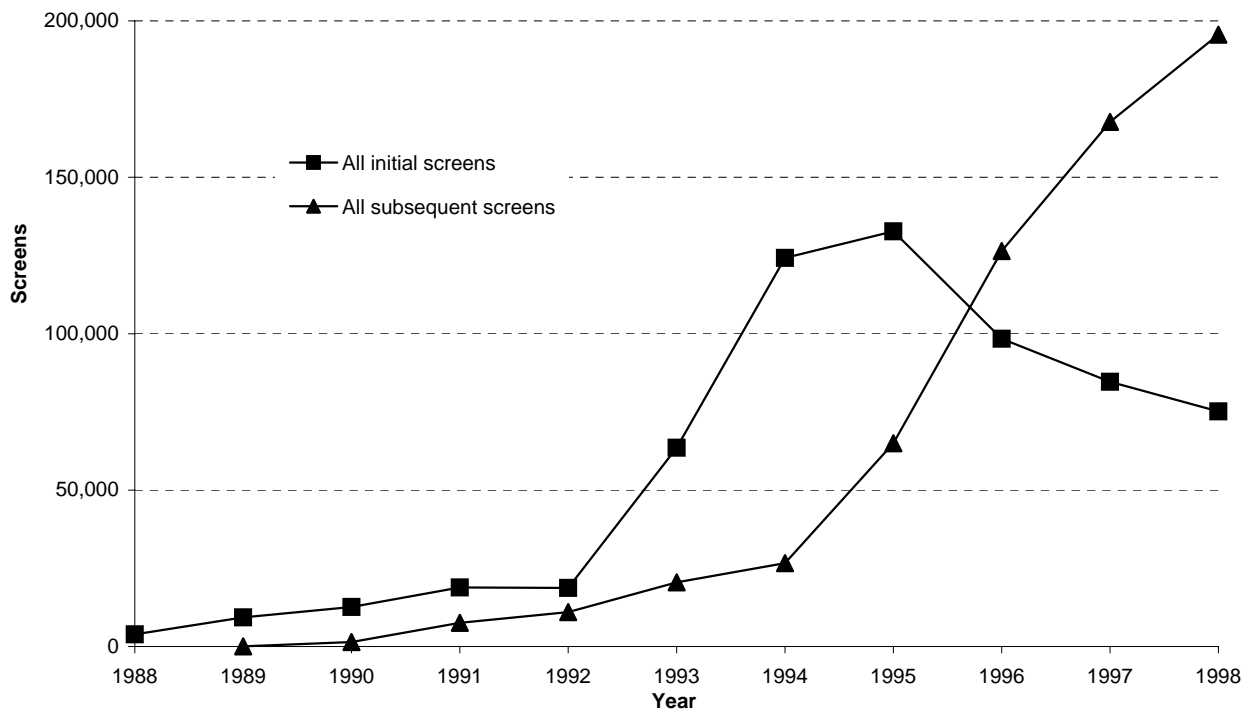


Table 2: Initial and subsequent screens in BreastScreen NSW by age group in 1988-98

Year	Age at screening						Percent (%)*
	40-49	50-59	60-69	70-79	80+	40-80+	
Initial screens							
1988	846	1,356	1,176	446	64	3,888	65.1
1989	3,108	3,221	2,367	565	42	9,303	60.1
1990	3,893	4,407	3,291	968	103	12,662	60.8
1991	6,787	6,292	4,618	1,089	105	18,891	57.8
1992	7,586	5,673	4,234	1,132	125	18,750	52.8
1993	18,377	23,048	18,173	3,667	305	63,570	64.8
1994	33,204	45,833	35,141	9,254	819	124,251	65.2
1995	31,007	49,664	36,750	13,952	1,348	132,721	65.1
1996	24,702	36,287	25,857	10,468	1,068	98,382	63.2
1997	28,193	31,090	16,759	7,601	1,001	84,644	56.5
1998	32,561	24,662	11,596	5,540	777	75,136	48.3
Subsequent screens							
1989	8	7	6	2	0	23	56.5
1990	1,221	159	70	22	4	1,476	15.5
1991	994	2,963	2,634	994	105	7,690	72.8
1992	3,297	3,807	2,828	1,005	103	11,040	60.1
1993	4,584	7,390	6,372	2,353	251	20,950	65.7
1994	7,201	9,448	7,378	2,859	309	27,195	61.9
1995	12,692	23,530	20,946	7,653	680	65,501	67.9
1996	24,494	45,874	38,170	16,172	1,527	126,237	66.6
1997	26,771	60,343	52,126	25,580	2,613	167,433	67.2
1998	30,745	70,999	59,608	30,954	3,256	195,562	66.8

* As percentage of women screened 40-80+

Initial screens in BreastScreen NSW peaked at 132,721 in 1995. There were 195,562 subsequent screens in BreastScreen NSW in 1998.

Rescreens

Figure 3: Rescreen rate within 21-27 months of previous screen for women aged 50-69 in BreastScreen NSW in 1990-96

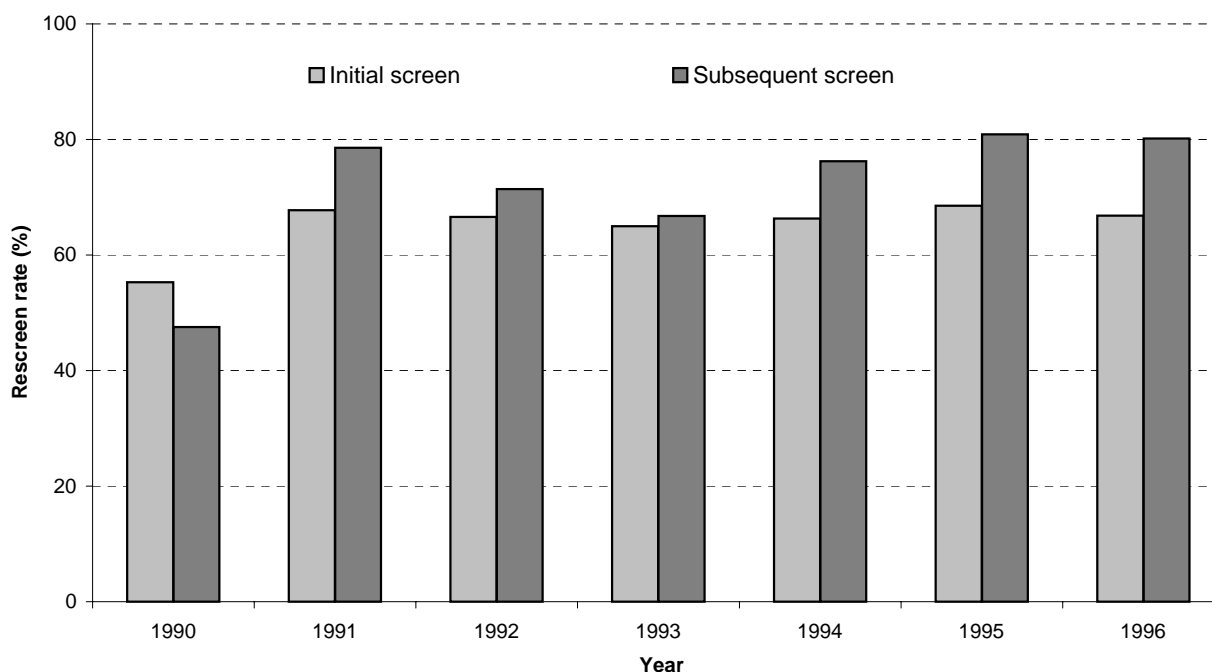


Table 3: Women rescreened within 21-27 months of previous screen and rescreen rate by age group in BreastScreen NSW in 1990-96

Year of previous screen	Age at previous screen					
	40-49		50-69		70-79	
	Rescreens	Rate (%)	Rescreens	Rate (%)	Rescreens	Rate (%)
Initial Screens						
1990	2,151	55.2	4,256	55.3	496	51.2
1991	4,052	60.8	7,254	67.8	663	62.3
1992	4,468	59.2	6,567	66.6	708	62.8
1993	9,936	54.6	26,511	65.0	2,259	62.0
1994	19,044	57.6	53,405	66.3	6,017	65.2
1995	18,941	61.6	58,759	68.5	9,366	67.7
1996	15,517	62.8	41,536	66.8	6,609	63.1
Subsequent Screens						
1990	965	79.6	105	47.5	7	36.8
1991	667	68.6	4,304	78.6	777	78.8
1992	2,395	72.9	4,725	71.4	677	67.6
1993	2,853	63.9	8,994	66.8	1,471	63.5
1994	5,292	75.5	12,560	76.2	2,115	75.0
1995	9,612	76.7	35,649	80.9	6,077	80.0
1996	18,800	76.8	67,327	80.1	12,545	77.7

* As percentage of women screened

There were 41,536 women aged 50-69 screened in 1996 who returned within 21-27 months from their initial screen in BreastScreen NSW. The rescreen rate for this group of women was 66.8%.

There were 67,327 women aged 50-69 screened in 1996 who returned within 21-27 months from their subsequent screen in BreastScreen NSW. The rescreen rate for this group of women was 80.1%.

Breast Cancers Diagnosed

Figure 4: Breast cancers diagnosed in women aged 50-69 screened in BreastScreen NSW in 1995-98

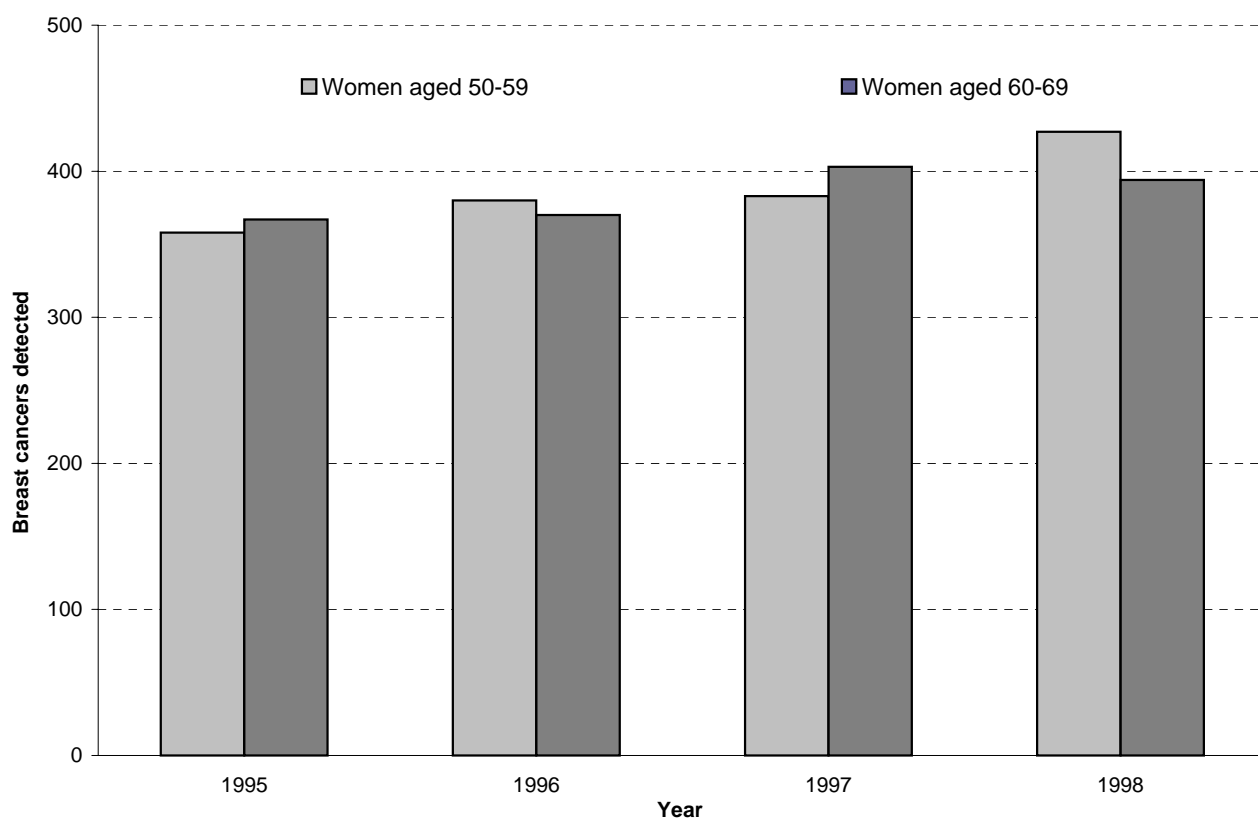


Table 4: Breast cancers* diagnosed in women screened in BreastScreen NSW by age group in 1995-98

Year	Age at screening				50-69
	40-49	50-59	60-69	70-79	
1995	110	358	367	201	725
1996	119	380	370	207	750
1997	136	383	403	252	786
1998	152	427	394	280	821
1995-98	517	1,548	1,534	940	3,082

* Includes both invasive breast cancers and ductal carcinoma *in situ*

There were 1,253 women diagnosed with breast cancer in BreastScreen NSW in 1998. There were 821 women aged 50-69 diagnosed with breast cancer in 1998.

There were 4,539 women diagnosed with breast cancer in BreastScreen NSW in 1995-98. There were 3,082 women aged 50-69 diagnosed with breast cancer in 1995-98.

Breast Cancers Diagnosed at Initial Screens

Figure 5: Breast cancer detection rate per 10,000 women aged 50-69 at initial screen in BreastScreen NSW in 1995-98

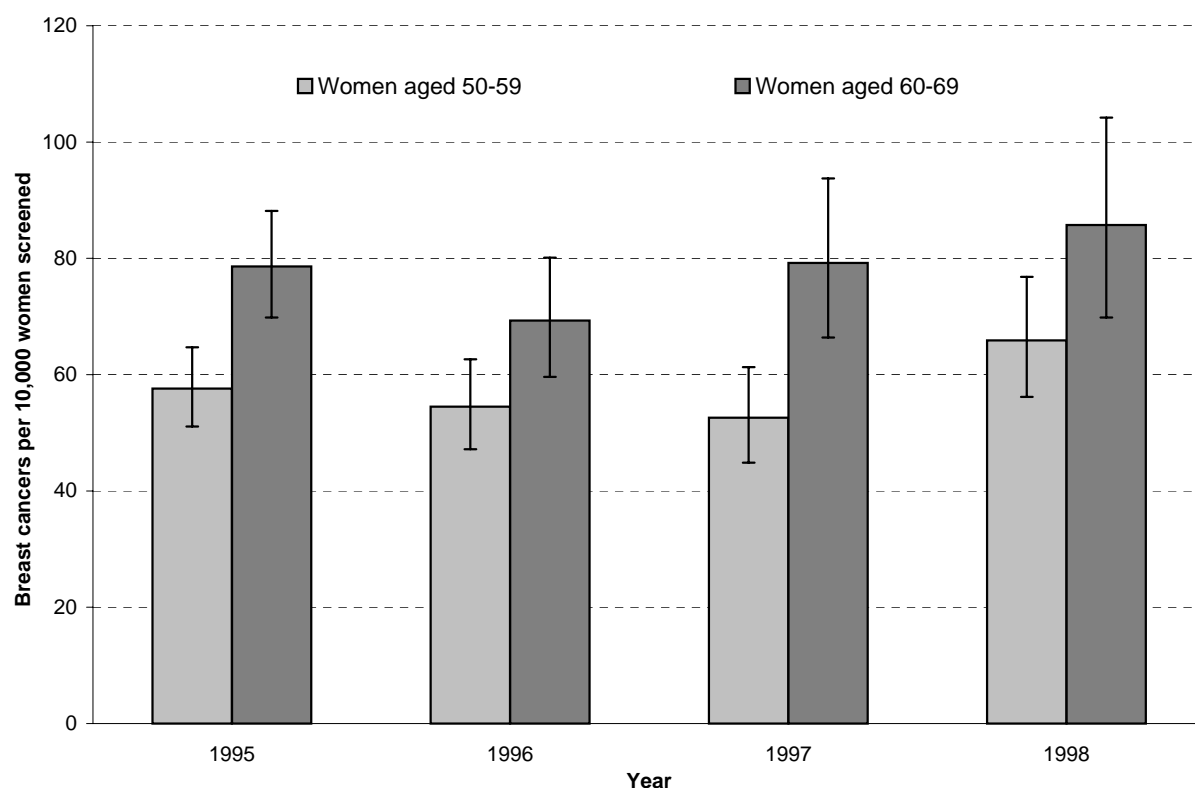


Table 5: Breast cancers* diagnosed and detection rate per 10,000 women at initial screen in BreastScreen NSW by age group in 1995-98

Year	Age at screening				50-69
	40-49	50-59	60-69	70-79	
Breast cancers					
1995	88	282	289	169	571
1996	74	197	181	119	378
1997	87	163	134	100	297
1998	78	162	100	88	262
1995-98	327	804	704	476	1,508
Breast cancers per 10,000 women screened					
1995	28.6	57.6	78.6	122.1	66.6
1996	29.9	54.5	69.3	113.5	60.7
1997	30.8	52.6	79.2	131.3	62.0
1998	24.0	65.9	85.7	158.7	72.3
1995-98	28.1	57.1	76.9	127.0	64.9

* Includes both invasive breast cancers and ductal carcinoma *in situ*

There were 1,508 women aged 50-69 diagnosed with breast cancer at initial screen in BreastScreen NSW in 1995-98.

The breast cancer detection rate at initial screen was 64.9 per 10,000 women aged 50-69 in 1995-98.

Breast Cancers Diagnosed at Subsequent Screens

Figure 6: Breast cancer detection rate per 10,000 women aged 50-69 at subsequent screen in BreastScreen NSW in 1995-98

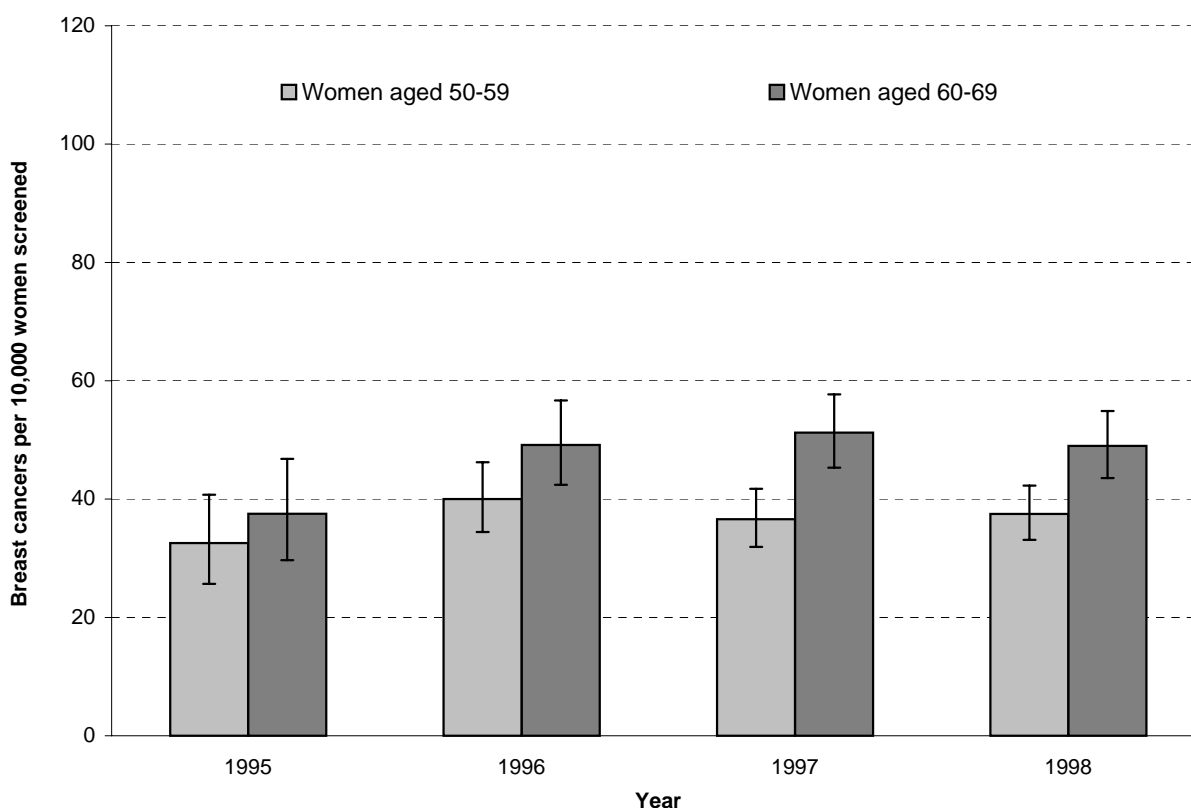


Table 6: Breast cancers* diagnosed and detection rate per 10,000 women at subsequent screen in BreastScreen NSW by age group in 1995-98

Year	Age at screening				50-69
	40-49	50-59	60-69	70-79	
Breast cancers					
1995	22	76	78	32	154
1996	45	183	189	88	372
1997	49	220	269	152	489
1998	74	265	294	192	559
1995-98	190	744	830	464	1,574
Breast cancers per 10,000 women screened					
1995	17.5	32.6	37.5	42.1	34.9
1996	18.4	40.0	49.2	54.4	44.2
1997	18.3	36.6	51.2	59.4	43.4
1998	24.1	37.5	49.0	62.0	42.8
1995-98	20.1	37.2	48.3	57.8	42.4

* Includes both invasive breast cancers and ductal carcinoma *in situ*

There were 1,574 women aged 50-69 diagnosed with breast cancer at subsequent screen in BreastScreen NSW in 1995-98.

The breast cancer detection rate at subsequent screen was 42.4 per 10,000 women aged 50-69 in 1995-98.

Invasive Breast Cancers Diagnosed at Initial Screens

Figure 7: Invasive breast cancer detection rate per 10,000 women aged 50-69 screened in BreastScreen NSW at initial screen in 1995-98

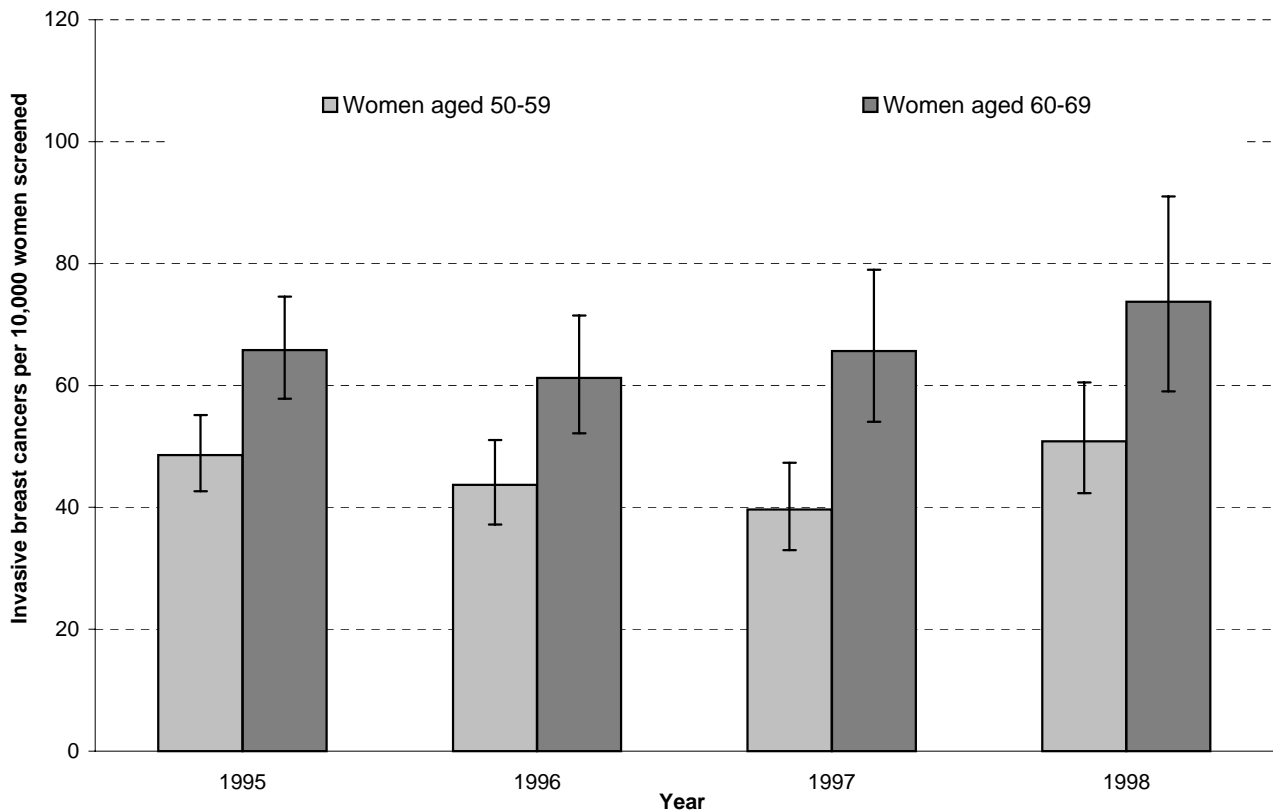


Table 7: Invasive breast cancers diagnosed and detection rate per 10,000 women screened in BreastScreen NSW at initial screen by age group in 1995-98

Year	Age at screening				50-69
	40-49	50-59	60-69	70-79	
Invasive breast cancers					
1995	69	238	242	145	480
1996	62	158	160	102	318
1997	60	123	111	78	234
1998	52	125	86	74	211
1995-98	243	644	599	399	1,243
Invasive breast cancers per 10,000 women screened					
1995	22.4	48.6	65.8	104.8	56.0
1996	25.1	43.7	61.2	97.3	51.1
1997	21.2	39.7	65.6	102.4	48.8
1998	16.0	50.8	73.7	133.5	58.2
1995-98	20.9	45.8	65.5	106.5	53.5

There were 1,243 women aged 50-69 diagnosed with invasive breast cancer at initial screen in BreastScreen NSW in 1995-98.

The invasive breast cancer detection rate at initial screen varied from 48.8 to 58.2 per 10,000 women aged 50-69 in 1995-98.

Invasive Breast Cancers Diagnosed at Subsequent Screens

Figure 8: Invasive breast cancer detection rate per 10,000 women aged 50-69 screened in BreastScreen NSW at subsequent screen in 1995-98

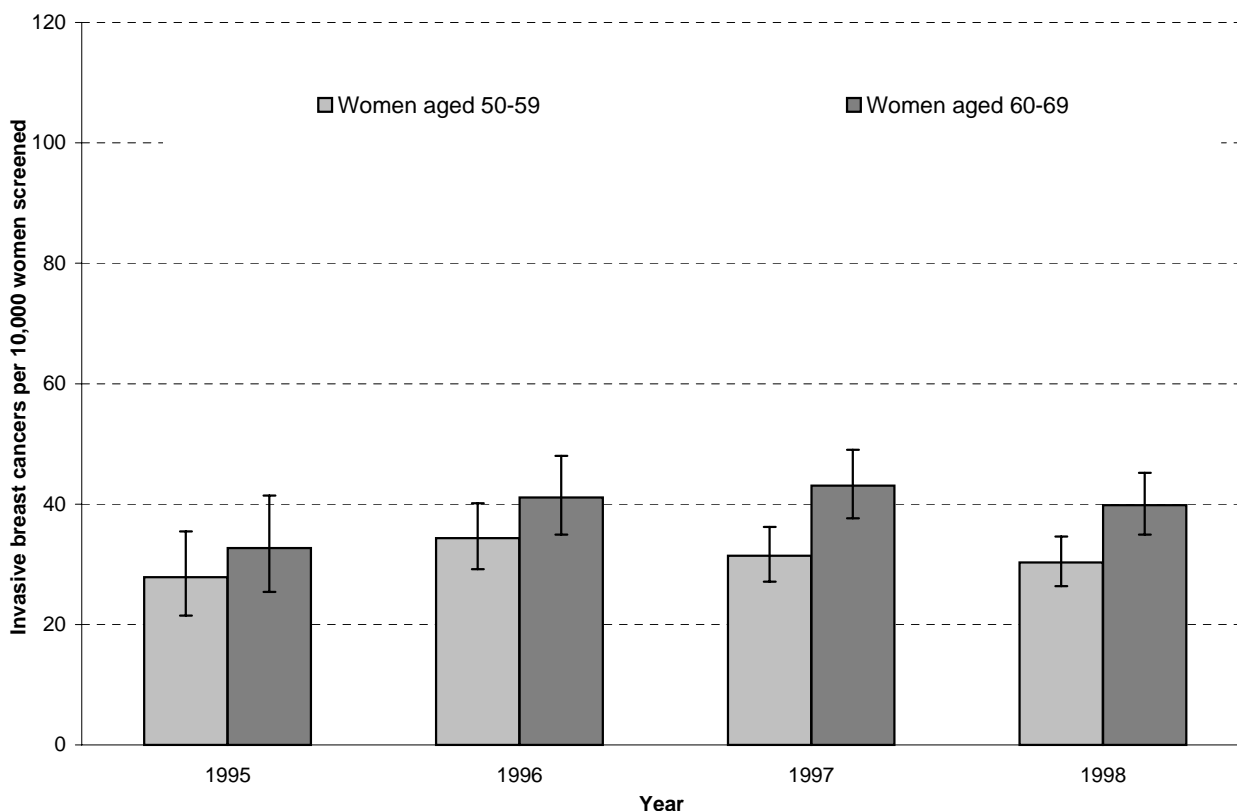


Table 8: Invasive breast cancers diagnosed and detection rate per 10,000 women screened in BreastScreen NSW at subsequent screen by age group in 1995-98

Year	Age at screening				50-69
	40-49	50-59	60-69	70-79	
Invasive breast cancers					
1995	18	65	68	28	133
1996	35	157	158	73	315
1997	34	189	226	131	415
1998	57	214	239	161	453
1995-98	144	625	691	393	1,316
Invasive breast cancers per 10,000 women screened					
1995	14.3	27.9	32.7	36.8	30.1
1996	14.3	34.3	41.1	45.1	37.4
1997	12.7	31.4	43.0	51.2	36.8
1998	18.5	30.3	39.8	52.0	34.7
1995-98	15.2	31.3	40.2	48.9	35.4

There were 1,316 women aged 50-69 diagnosed with invasive breast cancer at subsequent screen in BreastScreen NSW in 1995-98.

The invasive breast cancer detection rate at subsequent screen varied from 30.1 to 37.4 per 10,000 women aged 50-69 in 1995-98.

Women Screened

Figure 18: Women screened in BreastScreen NSW in 1988-98

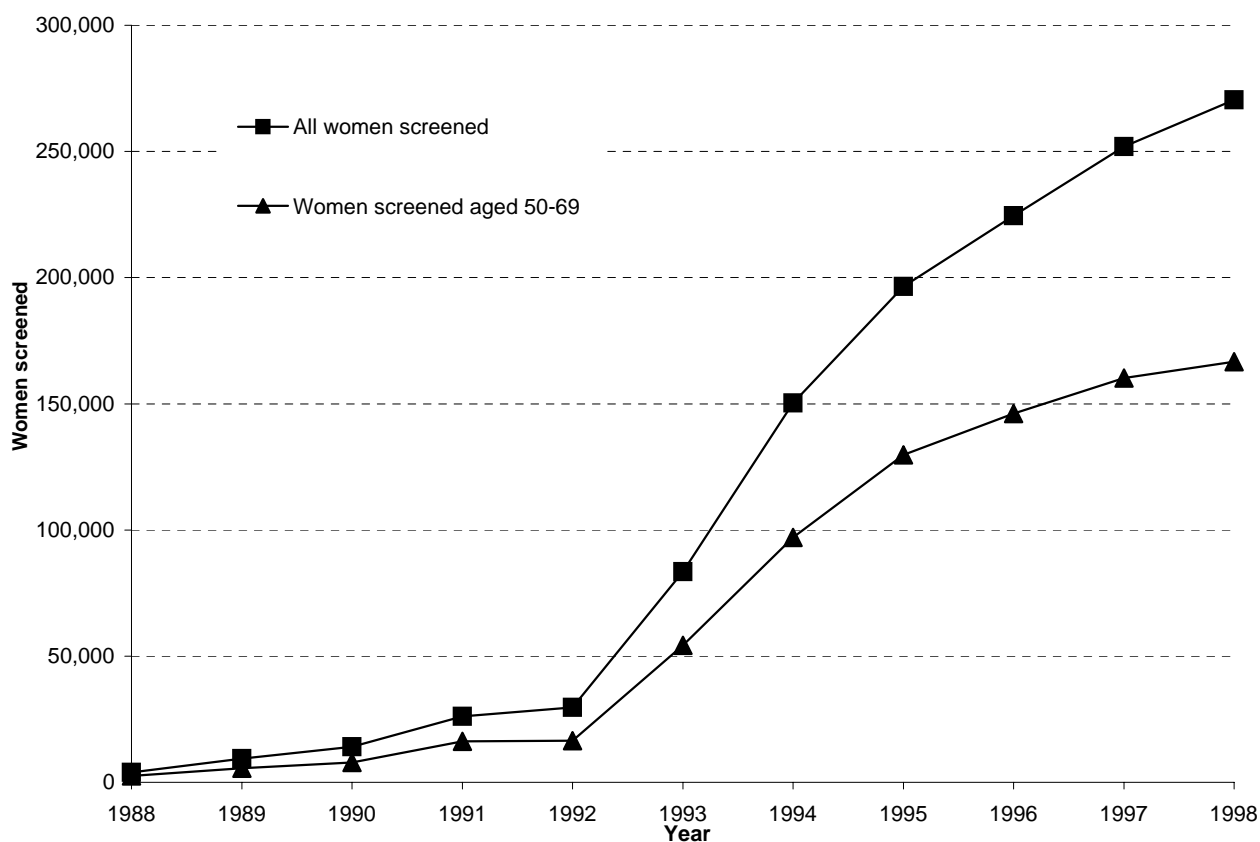


Table 20: Women screened in BreastScreen NSW by age group in 1988-98

Year	Age at screening						Percent (%)*
	40-49	50-59	60-69	70-79	80+	40-80+	50-69
1988	846	1,359	1,176	446	64	3,891	65.2
1989	3,118	3,228	2,372	567	42	9,327	60.0
1990	5,106	4,562	3,355	987	107	14,117	56.1
1991	7,638	9,067	7,118	2,051	207	26,081	62.1
1992	10,826	9,438	7,037	2,128	228	29,657	55.6
1993	22,666	30,048	24,222	5,957	547	83,440	65.0
1994	40,085	54,640	42,402	12,041	1,125	150,293	64.6
1995	43,296	72,253	57,563	21,429	2,008	196,549	66.0
1996	49,178	81,715	64,437	26,618	2,593	224,541	65.1
1997	54,980	90,985	69,247	33,105	3,598	251,915	63.6
1998	63,271	95,079	71,604	36,449	4,025	270,428	61.6

* As percentage of women screened 40-80+

There were 270,428 women screened in BreastScreen NSW in 1998. There were 166,683 women aged 50-69 screened in BreastScreen NSW in 1998.

Non-English Speaking Backgrounds

Figure 19: Women screened from Non-English speaking backgrounds in BreastScreen NSW in 1988-98

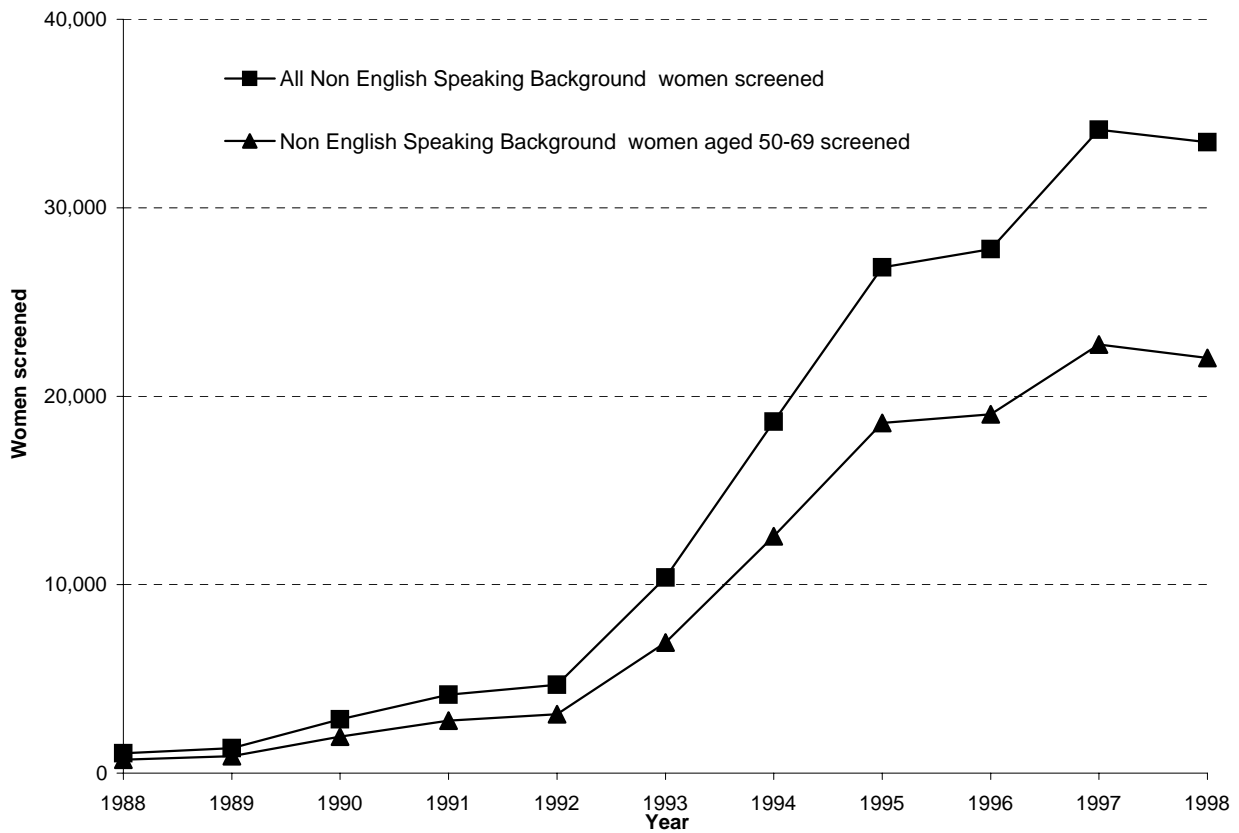


Table 21: Women screened from Non-English speaking backgrounds in BreastScreen NSW by age group in 1988-98

Year	Age at screening						Percent (%)*
	40-49	50-59	60-69	70-79	80+	40-80+	
1988	290	459	247	51	8	1,055	66.9
1989	370	600	306	45	1	1,322	68.5
1990	765	1,219	723	137	16	2,860	67.9
1991	1,176	1,789	1,001	190	11	4,167	67.0
1992	1,305	1,900	1,230	241	18	4,694	66.7
1993	2,872	4,247	2,691	527	34	10,371	66.9
1994	4,846	7,384	5,187	1,129	105	18,651	67.4
1995	6,198	10,909	7,667	1,909	149	26,832	69.2
1996	6,125	10,972	8,067	2,475	173	27,812	68.5
1997	8,110	13,291	9,446	3,064	233	34,144	66.6
1998	7,832	12,578	9,450	3,388	226	33,474	65.8

* As percentage of women screened 40-80+

There were 33,474 women screened in BreastScreen NSW from Non-English speaking backgrounds in 1998. There were 22,028 women aged 50-69 screened in BreastScreen NSW from Non-English speaking backgrounds in 1998.

Aboriginal and Torres Strait Islander

Figure 20: Aboriginal and Torres Strait Islander women screened in BreastScreen NSW in 1988-98

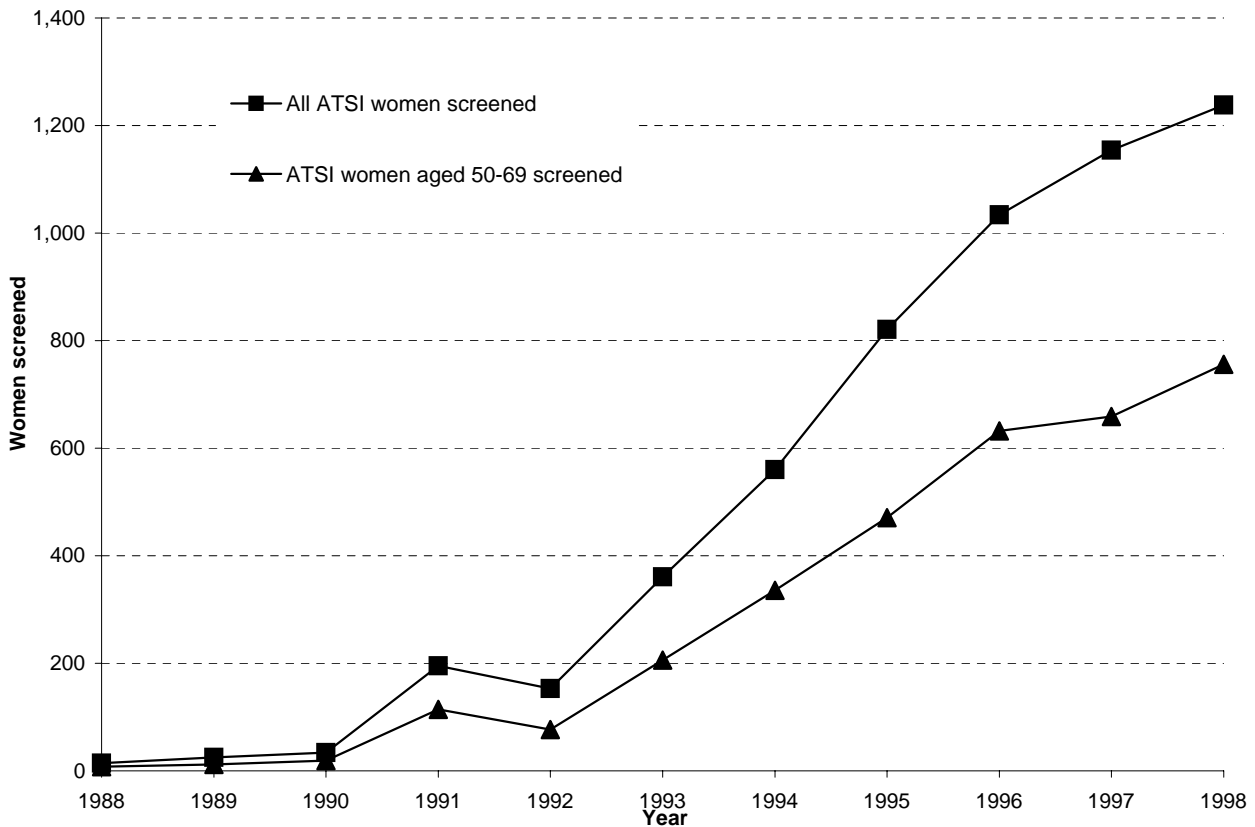


Table 22: Aboriginal and Torres Strait Islander women screened in BreastScreen NSW by age group in 1988-98

Year	Age at screening					40-80+	Percent (%)*
	40-49	50-59	60-69	70-79	80+		
1988	4	4	4	2	0	14	57.1
1989	12	8	4	1	0	25	48.0
1990	14	18	1	0	1	34	55.9
1991	75	80	34	6	0	195	58.5
1992	71	54	23	4	1	153	50.3
1993	137	150	56	17	1	361	57.1
1994	203	216	120	20	1	560	60.0
1995	307	301	170	39	4	821	57.4
1996	348	404	228	52	2	1,034	61.1
1997	424	431	228	60	11	1,154	57.1
1998	398	476	280	76	8	1,238	61.1

* As percentage of women screened 40-80+

There were 1,238 Aboriginal and Torres Strait Islander women screened in BreastScreen NSW in 1998. There were 756 Aboriginal and Torres Strait Islander women aged 50-69 screened in BreastScreen NSW in 1998.

Women Screened and Participation Rate

Figure 21: Participation rate of women from BreastScreen NSW by age group in 1997-98

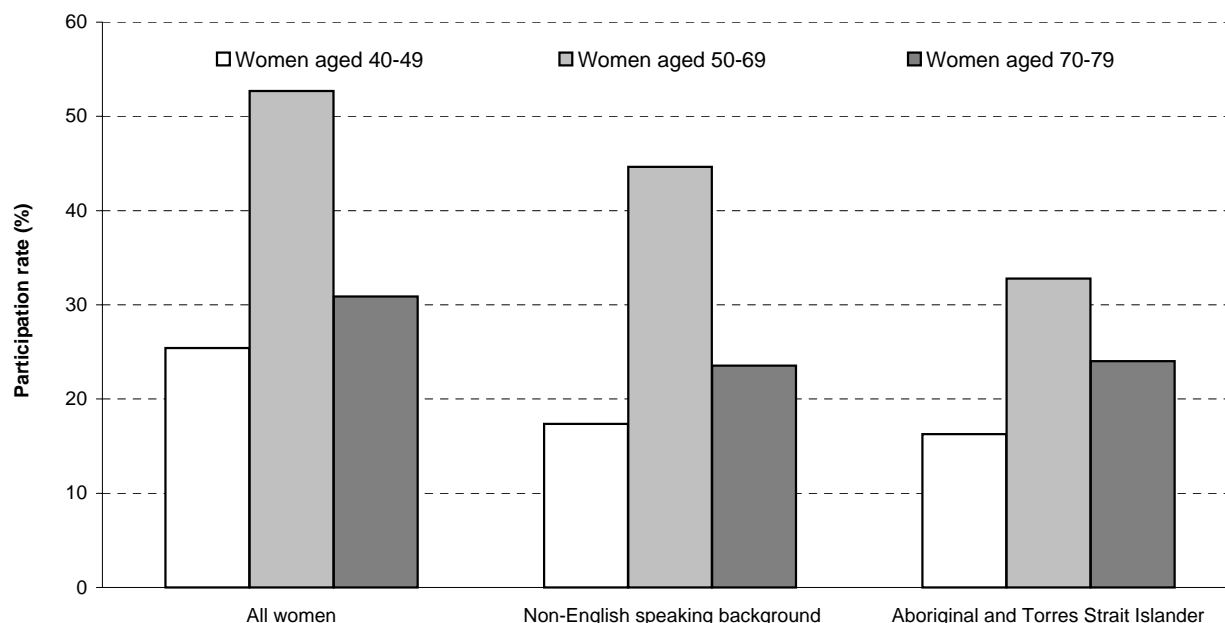


Table 23: Women screened and participation rate* from BreastScreen NSW in 1997-98

	Age at screening		
	40-49	50-69	70-79
All Women			
Women screened	113,432	308,637	65,007
Participation rate (%)	25.4	52.7	30.9
Non-English speaking background			
Women screened	15,590	43,120	6,139
Participation rate (%)	17.4	44.6	23.5
Aboriginal and Torres Strait Islander			
Women screened	802	1,374	133
Participation rate (%)	16.3	32.8	24.0

* All women expressed as percentage of estimated population in 1997-98; Non-English speaking background and Aboriginal and Torres Strait Islander women as a percentage of the 1996 Census Population.

There were 308,637 women aged 50-69 screened from NSW in 1997-98. The participation rate for women aged 50-69 from NSW was 52.7% in 1997-98.

There were 43,120 Non-English speaking background women aged 50-69 screened from NSW in 1997-98. The participation rate for Non-English Speaking Background women aged 50-69 was 44.6% in 1997-98.

There were 1,374 Aboriginal and Torres Strait Islander women aged 50-69 screened from NSW in 1997-98. The participation rate for Aboriginal and Torres Strait Islander women aged 50-69 was 32.8% in 1997-98.

Women Screened and Participation Rate by Area of Residence

Figure 22: Participation rate of women in BreastScreen NSW area of residence by age group in 1997-98

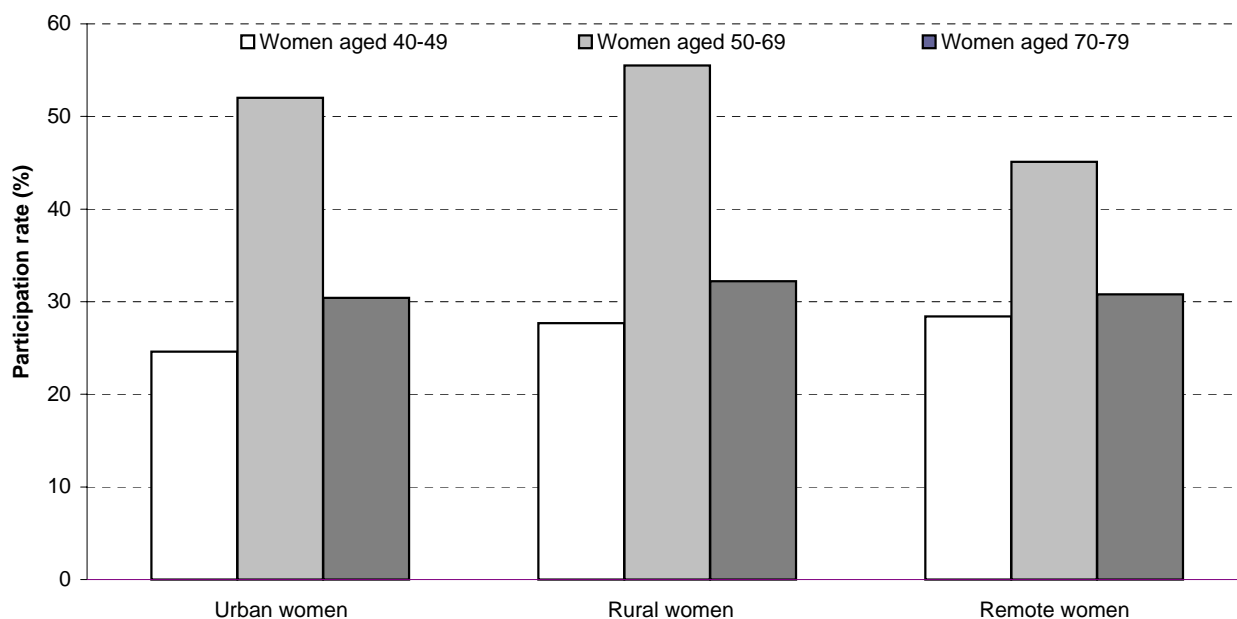


Table 24: Women screened and participation rate* in BreastScreen NSW area of residence in 1997-98

	Age at screening		
	40-49	50-69	70-79
Urban areas			
Women screened	83,793	223,012	47,054
Participation rate (%)	24.6	52.0	30.4
Rural areas			
Women screened	28,655	83,389	17,546
Participation rate (%)	27.7	55.5	32.2
Remote areas			
Women screened	984	2,236	407
Participation rate (%)	28.4	45.1	30.8

* As percentage of estimated urban, rural and remote resident population in 1997-98

There were 223,012 women aged 50-69 screened from the urban areas of NSW in 1997-98. The participation rate for women aged 50-69 from urban areas was 52.0% in 1997-98.

There were 83,389 women aged 50-69 screened from the rural areas of NSW in 1997-98. The participation rate women aged 50-69 from rural areas was 55.5% in 1997-98.

There were 2,236 women aged 50-69 screened from the remote areas of NSW in 1997-98. The participation rate for women aged 50-69 from remote areas was 45.1% in 1997-98.

Women Screened and Participation Rate in Metropolitan Area Health Service

Table 51: Women aged 50-69 screened and participation rate from metropolitan Area Health Service of residence in 1997-98

Area Health Service	All Women	Non-English Speaking Background	Aboriginal and Torres Strait Islander
		Women screened	
Central Coast	16,162	571	24
Central Sydney	19,651	9,537	36
Hunter	31,822	1,099	125
Illawarra	18,199	2,662	67
Northern Sydney	41,808	5,603	8
South East Sydney	36,053	9,473	115
South West Sydney	26,266	6,669	71
Wentworth	11,815	670	42
Western Sydney	27,511	4,806	77
All metropolitan	229,287	41,090	565
Participation rates (%)*			
Central Coast	57.8	54.4	17.4
Central Sydney	50.1	53.1	24.2
Hunter	63.2	47.6	38.7
Illawara	52.6	49.0	27.2
Northern Sydney	55.0	51.8	9.3
South East Sydney	49.8	53.0	35.4
South West Sydney	43.3	34.6	22.5
Wentworth	51.2	25.3	25.6
Western Sydney	48.8	33.9	27.9
All metropolitan	52.0	44.9	27.9

* All women expressed as percentage of estimated female population in 1997-98; Non-English Speaking Background and Aboriginal and Torres Strait Islander as a percentage of the population in 1996.

There were 229,287 women aged 50-69 screened from metropolitan Area Health Services in 1997-98. The participation rate for women aged 50-69 from metropolitan Area Health Services was 52.0% in 1997-98.

Women Screened & Participation Rate in Non-Metropolitan Area Health Service

Table 52: Women aged 50-69 screened and participation rate from non-metropolitan Area Health Service of residence in 1997-98

Area Health Service	All Women	Non-English Speaking Background	Aboriginal and Torres Strait Islander
Women screened			
Far West	2,127	48	103
Greater Murray	13,884	350	91
Macquarie	3,923	47	111
Mid North Coast	17,296	332	84
Mid Western	7,022	133	62
New England	11,230	150	250
Northern Rivers	14,653	311	46
Southern	9,215	659	62
All non-metropolitan	79,350	2,030	809
Participation rates (%)*			
Far West	47.0	24.1	36.5
Greater Murray	58.0	28.0	39.1
Macquarie	39.8	22.3	33.1
Mid North Coast	59.8	48.4	29.7
Mid Western	44.6	30.8	28.3
New England	64.2	44.1	57.7
Northern Rivers	57.1	44.9	17.4
Southern	49.4	53.3	52.5
All non-metropolitan	54.8	40.2	37.3

* All women expressed as percentage of estimated female population in 1997-98; Non-English Speaking Background and Aboriginal and Torres Strait Islander as a percentage of the population in 1996.

There were 79,350 women aged 50-69 screened from non-metropolitan Area Health Services in 1997-98. The participation rates for women aged 50-69 from non-metropolitan Area Health Service was 54.8% in 1997-98.

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