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BreastScreen Australia Evaluation Medicare Benefits Schedule (MBS) Mammography Analysis Project

May 2009



Medicare Benefits Schedule (MBS) Mammography Analysis Project – May 2009

Prepared by the Department of Health and Ageing with the advice of Project Sponsors Professor David Currow, Professor Dallas English, Clinical Associate Professor Jonathan Osborne and Dr Frida Cheek – members of the BreastScreen Australia Evaluation Advisory Committee

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CONTENTS

List of Figures	X
List of Tables	X
Acronyms	X
Acknowledgements	X
Guide to interpretation of Project findings	X
EXECUTIVE SUMMARY	X
1 Project Overview	X
1.1 Background of Project	X
1.2 Project Aim and Evaluation Questions	X
1.3 Project Terms of Reference	X
2 Project Methodology	X
2.1 MBS Items used in the Project	X
2.2 Analysis of data	X
2.3 Methods used to estimate diagnostic and non-diagnostic mammography	X
2.4 Analysis of BreastScreen Australia and MBS Mammography Data	X
3 Impact of MBS funded mammography on BreastScreen Australia	X
3.1 Single breast mammograms	X
3.2 Other breast related procedures	X
3.3 Women at high risk	X
3.4 Estimation of diagnostic and non-diagnostic mammography	X
3.5 Impact of MBS funded mammography on BreastScreen Australia	X
4 Overall attendance in MBS funded mammography and BreastScreen Australia	X

5	Trends in MBS funded mammography	X
5.1	Analysis of MBS funded mammography by age	X
5.2	Analysis of MBS funded mammography rates by state and territory	X
5.3	Analysis of MBS funded mammography rates and breast cancer media events	X
6	Trends in other MBS funded diagnostic services for breast cancer	X
6.1	Ultrasounds	X
6.2	Fine needle aspiration (FNA)	X
6.3	Core biopsy	X
7	Discussion	X
7.1	Use of MBS funded mammography	X
7.2	Impact of MBS funded mammography on BreastScreen Australia	X
7.3	Trends in MBS funded mammography over time	X
8	Conclusions	X
9	References	X
10	Appendices	X
	Appendix A: Estimated resident population (ERP) figures, 50–69 years, Australia, 1987–2007	X
	Appendix B: Number of services provided and women accessing services by Medicare item, by age, 2006	X
	Appendix C: Type of medical provider requesting mammogram, 2006–2007	X
	Appendix D: Trends in MBS funded mammography, supplementary graphs and tables	X
	Appendix E: Trends in other MBS funded diagnostic services for breast cancer, supplementary graphs and tables	X
	Appendix F: AIHW analysis of BreastScreen Australia and Medicare Benefits Schedule-funded mammography	X

List of Figures

Figure 1: Flowchart estimating the proportion of diagnostic and non-diagnostic mammography, 40+ years, 2006	X
Figure 2: Flowchart estimating the proportion of diagnostic and non-diagnostic mammography 40–49 years, 2006	X
Figure 3: Flowchart estimating the proportion of diagnostic and non-diagnostic mammography, 50–69 years, 2006	X
Figure 4: Flowchart estimating the proportion of diagnostic and non-diagnostic mammography, 70–74 years, 2006	X
Figure 5: Number of women screened through BreastScreen Australia and number of MBS funded mammograms (both breasts, MBS item 59300), women 50–69 years, 1996–1997 to 2004–2005	X
Figure 6: Average annual attendance through BreastScreen Australia and MBS funded mammography, calculated to individual local government area (LGA), women 50–69 years, 2001–2005	X
Figure 7: Average annual attendance rates through BreastScreen Australia and MBS funded mammography, by state and territory, women 50–69 years, 2001–2005	X
Figure 8: Average annual attendance through BreastScreen Australia and MBS mammography, by geographic region, women 50–69 years, 2001–2005	X
Figure 9: Average annual attendance through BreastScreen Australia and MBS mammography, by socioeconomic status, women 50–69 years, 2001–2005	X
Figure 10: Annual age-standardised rate of mammograms, both breasts (MBS item 59300), 20–85+ years, 1987 to 2007	X
Figure 11: Annual numbers of mammograms, both breasts and one breast (MBS items 59300 and 59303), women 50–69 years, 1987 to 2007	X
Figure 12: Annual numbers of mammograms, both breasts (MBS Item 59300), by age group, 1987–2007	X
Figure 13: Annual age-specific rate of mammograms, both breasts, (MBS Item 59300), by age group, 2006 and 2007	X
Figure 14: Annual age-specific rate of mammograms, both breasts, (MBS item 59300), by age group, 2007	X
Figure 15: Annual age-specific rate of mammograms, one breast (MBS item 59303), by age group, 2007	X

Figure 16: Annual age-specific rate of mammograms, both breasts (MBS item 59300), women 50–69 years, by state and territory, 1987–2007	X
Figure 17: Quarterly number of mammograms (MBS item 59300) and selected media events, all ages, 1995–2007	X
Figure 18: Quarterly number of mammograms (MBS item 59300) and selected media event, by age group, 1995–2007	X
Figure 19: Annual number of breast related diagnostic services compared to annual number of mammograms, both breasts (MBS item 59300), women 20–85+ years, 1991–2007	X
Figure 20: Annual number of breast related diagnostic services compared to annual number of mammograms, both breasts (MBS item 59300), women 50–69 years, 1992–2007	X
Figure 21: Annual age-specific rate for referred and non-referred ultrasounds of one breast (MBS Items 55070 and 55073), women 20–85+ years, 2007	X
Figure 22: Annual age-specific rate for referred and non-referred ultrasounds of both breasts (MBS Items 55070 and 55073), women 20–85+ years, 2007	X
Figure 23: Annual age-specific rate for fine needle aspirations of the breast (MBS item 31533) women 20–85+ years, 2006 and 2007	X
Figure 24: Annual age-specific rates of core biopsy (MBS Item 31530), women 20–85+ years, 2006 and 2007	X
Figure 25: Annual age-specific rates of core biopsy of the breast (MBS Item 31548), women 20–85+ years, 2006 and 2007	X

List of Tables

Table 1: Description of MBS items used in the Project	X
Table 2: General assumptions made in analysing proportion of diagnostic and non-diagnostic mammograms	X
Table 3: Women who had a mammogram (both breasts) who had another breast related diagnostic service on the same day, all ages, 2006	X
Table 4: Women who had a mammogram (both breasts) who had another breast related diagnostic service on the same day, 50–69 years, 2006	X
Table 5: Number of mammograms (both breasts) on the same day as another breast related diagnostic service (MBS item 59303, 55070, 55073, 55076, 55079, 31533, 31530, 31548, 59306) all ages, 2006	X
Table 6: Total number of mammograms of both breasts (MBS item 59300) and estimated proportion of diagnostic, non-diagnostic and unknown mammography for selected age groups, 2006	X
Table 7: High, medium and low estimates of number of MBS funded non-diagnostic mammograms conducted annually and biennially, women 50–69 years, 2006	X
Table 8: High, medium and low estimates of participation for BreastScreen Australia with the addition of MBS funded non-diagnostic mammograms, women 50–69 years	X
Table 9: Annual numbers and age-standardised rates of mammograms, both breasts and one breast (MBS items 59300 and 59303), all ages 1996 to 2007	X
Table 10: Annual numbers and age-standardised rates of mammograms, both breasts (MBS item 59300), ages 20–85+ years, 1987 to 2007	X
Table 11: Annual age-specific rate of mammograms, both breasts (MBS item 59300), women 50–69 years, by state and territory, 1987–2007	X
Table 12: Annual number of diagnostic services, women 20–85+ years and 50–69 years, 1991–2007	X
Table 13: Annual number and age-specific rate of diagnostic services, women	X
Table 14: Annual number and age-specific rate of diagnostic services, women 50–69 years, 2006 and 2007	X

ACRONYMS

ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
EAC	(BreastScreen Australia) Evaluation Advisory Committee
ERP	Estimated Resident Population
FNA	fine needle aspiration
LGA	local government area
MBS	Medicare Benefits Schedule
NBCC	National Breast Cancer Centre (now NBOCC)
NBOCC	National Breast and Ovarian Cancer Centre
SLA	statistical local area
The Program	BreastScreen Australia Program
The Project	MBS Mammography Analysis Project

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Project Sponsors

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Dr Frida Cheok	Health economics research consultant	Australian expert
Professor Dallas English	Director Centre for Molecular, Environmental, Genetic and Analytical Epidemiology University of Melbourne	Australian expert
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BreastScreen Australia Evaluation

The MBS Mammography Analysis Project is one of ten projects informing the Evaluation of BreastScreen Australia. The Evaluation was agreed to by the Australian Health Ministers' Advisory Council (AHMAC) in October 2005. An Evaluation Advisory Committee (EAC), comprising of Australian and international experts as well as jurisdictional and consumer representatives, was established by AHMAC to direct and advise on the evaluation.

GUIDE TO INTERPRETATION OF PROJECT FINDINGS

1. Medicare Benefits Schedule (MBS)

Medicare is Australia's universal health care system. A component of this system is the Medicare Benefits Schedule (MBS), which is a listing of professional services, such as a procedure, diagnostic test or pathology service that is subsidised by the Australian government. A consumer accessing a service listed in the MBS is able to claim an MBS rebate on fees paid to private practitioners (Medicare Australia, 2007). Mammograms (of both or of one breast) are two services listed in the MBS of which an individual can claim a MBS rebate for. The data in this report reflects the number of mammograms, of both or one breast/s, funded through MBS rebates.

2. Terminology

The data in this report is 'claims based' and reflects the number of mammograms of which a rebate was paid. 'MBS funded' is an additional term used to indicate that these were mammograms or breast related diagnostic procedures funded through the Medicare system via rebate claims.

To describe mammograms in this report, the term 'both breasts' and 'one breast' is used, except where noted.

3. Reporting of data

The MBS data obtained for this report is reported on a yearly basis (calendar year) and accordingly, the majority of information in this Project is reported as an annual figure. A 2-year time period has been used in some parts of the report to correspond with the recommended biennial screening interval of the BreastScreen Australia Program.

Reporting periods generally span a number of years, i.e. a 20-year timeframe from 1987 to 2007. Some data in this report is presented as an averaged annual rate and this was done to enable better comparison of trends over time.

EXECUTIVE SUMMARY

The availability of mammography through the Medicare Benefits Schedule (MBS) has previously been thought to be a contributing factor to the static participation rate in the BreastScreen Australia Program (the Program).

The MBS Mammography Analysis Project aimed to estimate the amount of non-diagnostic mammography funded through MBS rebates, particularly among women aged 50–69 years. Non-diagnostic mammography refers to mammograms that were categorised as not meeting the MBS item description for a mammogram of both breasts (MBS item 59300) and were therefore, inadvertently, ‘screening’ mammograms. This proportion of non-diagnostic mammography was used to analyse whether these mammograms are negatively impacting upon the BreastScreen Australia participation rate as these mammograms could potentially be delivered through the Program, where women 50–69 years are the target age group for breast cancer screening. The Project additionally examined trends in MBS funded mammography and diagnostic procedures associated with breast cancer diagnosis over the past twenty years (1987 to 2007).


The specific questions answered by the Project were:

- To what extent are women using MBS funded mammography when they could be accessing BreastScreen Australia services?
- What is the impact, on the BreastScreen Australia Program, of mammography outside the Program?
- What are the trends in MBS funded mammography over time and how do they relate to BreastScreen Australia participation rates?
- What changes have occurred in MBS funded breast cancer diagnostic procedures since the beginning of the BreastScreen Australia Program in 1991?

De-identified data was obtained on fourteen MBS items for the years 1987 to 2007, by age group and by state and territory. To approximate diagnostic and non-diagnostic estimates of mammography, MBS datasets were examined in conjunction with a set of assumptions. These assumptions were a basic statement as to what pattern of diagnostic procedures and mammography could be generalised as being for diagnostic or non-diagnostic purposes. This information was used to form a flowchart for the age groups 40+ years, 50–69 years, 40–49 years and 70–74 years. The non-diagnostic stream also included a conservative estimate to indicate the lowest possible use of MBS funded mammography for this purpose. An analysis of attendance rates at BreastScreen Australia and through the MBS was completed as well. An annual attendance rate for both services was calculated by local government area (LGA), geographic region, socioeconomic status and state and territory.

Key findings of the Project were that:

- In 2004 and 2005 (a 2-year time period), BreastScreen Australia screened 1,118,720 women aged 50–69 years. In the same time period, 255,350 mammograms of both breasts were claimed through the MBS.
- In 2006, of the total number of women aged 50–69 years who had a MBS funded mammogram of both breasts, 36,364 women (28%) were estimated to have had the mammogram for non-diagnostic purposes. The conservative estimate of non-diagnostic mammography approximated this at 6,833 women (5%). The unknown estimate for this age group, that is mammograms that could not be categorised with certainty as to whether it had been conducted for diagnostic or non-diagnostic purposes, was estimated at 44,822 women, or 34% of women who claimed a mammogram through the MBS.
- In 2006, of the total number of women aged 40+ years who had a MBS funded mammogram of both breasts, 57,017 women (23%) were estimated to have had the mammogram for non-diagnostic purposes. The unknown proportion of non-diagnostic mammography for this age group was estimated at 77,377 women (32%).
- The proportion of mammograms estimated to be for non-diagnostic purposes for other age groups ranged from 15% for women 40–49 years to 34% for the 70–74 year age group. Unknown estimates ranged from 26% (40–49 years) to 42% (70–74 years).
- MBS funded mammograms of both breasts peaked in 1991 (386,448 services) and 1993 (375,241 services) and has declined over time.
- In 2007, women in the 40–49 year age group had the highest age-specific rate for mammograms of both breasts. In the 45–49 year age bracket, there were 6,845 mammograms per 100,000 women; in the 40–44 year age bracket, 6,809 mammograms per 100,000 women were performed.
- An increase in MBS funded mammograms of both breasts has occurred during significant breast cancer media events, particularly in the younger age groups.
- Ultrasounds of both breasts and one breast have increased dramatically over time from 63,333 services in 1993 to 427,252 services in 2007 for all ages.
- Women 45–49 years have the highest age-specific rate of ultrasounds of both breasts at 6,160 ultrasounds per 100,000 women in 2007.
- The addition of the estimated number of non-diagnostic mammograms to BreastScreen Australia would increase the participation rate in screening by an estimated 3.5%, revising the participation rate over 2-years for the Program to 59.7%. The conservative estimate would only increase participation by 0.6% over 2-years.
- In Australia, annual attendance rate at BreastScreen Australia for women 50–69 years was 28.9% in 2001–2005. In comparison, the MBS mammography attendance rate was 6.0% in the same time period.



The availability of MBS rebates for mammography is not impacting upon the participation rate of women 50–69 years in the BreastScreen Australia Program as the proportion of MBS funded mammography categorised as being for non-diagnostic purposes is relatively small. Based on the current BreastScreen Australia participation rate of 56.2%, the addition of non-diagnostic mammograms would only minimally increase participation in the Program. The addition of women classified as using MBS funded mammography for non-diagnostic purposes to the Program would however contribute to improving the overall participation rate of BreastScreen Australia. Other factors impacting on participation rate of the Program are beyond the scope of this Project.

Trends in MBS mammography show that since 1991, mammograms of both breasts has declined significantly and is perhaps evident of the impact BreastScreen Australia has had on mammography rates. Overall, women aged 40–49 years claim a higher number of rebates for mammograms and ultrasounds of both breasts through the MBS when compared to other age groups. It is difficult to speculate why this may be occurring as the MBS data does not provide information on the reason for the procedure or outcome.