



CALIFORNIA
HEALTH BENEFITS REVIEW PROGRAM

EXECUTIVE SUMMARY
Analysis of Assembly Bill 56:
Mammography

A Report to the 2009-2010 California Legislature
March 16, 2009

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EXECUTIVE SUMMARY

California Health Benefits Review Program Analysis of Assembly 56: Mammography

The California Assembly Committee on Health requested on January 16, 2009, that the California Health Benefits Review Program (CHBRP) conduct an evidence-based assessment of the medical, financial, and public health impacts of Assembly Bill (AB) 56. In response to this request, CHBRP undertook this analysis pursuant to the provisions of Senate Bill 1704 (Chapter 684, Statutes of 2006) as codified in Section 127600, et seq. of the California Health and Safety Code.

AB 56 requires health insurance policies regulated by the California Department of Insurance (CDI) to provide coverage for mammography upon provider referral. The bill does not alter the similar and already current mammography coverage mandate for Knox-Keene Health Service plans (Health & Safety Code Section 1367.665), which are regulated by the Department of Managed Care (DMHC). For both plans and policies, the bill mandates that every covered woman be notified in writing by her health care service plan or the carrier of her health insurance policy that she is eligible for testing during the year in which national guidelines indicate she should start screening for breast cancer.

Several terms and phrases in the bill are ambiguous, often due to differences in legal and medical terminology. The full text of AB 56 can be found in Appendix A of this report. The scope and intent of a bill must be defined to conduct an analysis of the bill. CHBRP makes the following assumptions based on conversations with the staff for the Assembly Member¹, discussions with regulatory agencies, including DMHC, and reasonable legal and layperson interpretation of the bill language.

Screening and Diagnosis—the report focuses on “screening,” which denotes testing of asymptomatic individuals in order to identify new cases.

National Guidelines—the bill does not specify any particular set of national guidelines. This report is based on the broad agreement between multiple national organizations (e.g., American Cancer Society, American College of Radiology, United States Preventive Services Task Force) that breast cancer screening should begin as early as age 40 years for women of average risk for breast cancer.

Written Notification and “One-Time, Generic Letter”—the bill language does not specify a precise means of compliance, and “written notification” may take many forms. It may be an article in annual newsletter or a tailored letter (which might include the individual’s screening history or other detailed information). In broader terms, notification strategies may differ in other important ways. A strategy may use more than written means (including following up by phone). It may be targeted (sent only to women who have not been screened) or comprehensive (sending notification to all women currently eligible for screening). It may be one-time or on-going

¹ Personal communication, Philip Horner, Office of Assembly Member Portantino, January 2009

(occurring every year or in alternate years). Several of the health plans and insurers surveyed by CHBRP indicated use of some strategy for notification. However, the language of the bill specifies that some form of written notification occur and mandates that all female members/enrollees receive that written notification during the year they become eligible for screening according to national guidelines.

For the purpose of analysis, CHBRP assumes universal compliance by carriers with an intermediate method of mandated notification, i.e., sending a *one-time, generic letter* (addressed by name and sent through first-class mail service) to each covered woman during the calendar year she reaches age 40.

Alternative notification strategies could lead to higher or lower estimates of cost and public health impacts than those provided in this report.

Medical Effectiveness

The medical effectiveness analysis considers three points in the AB 56 report: (1) does mammography screening reduce mortality due to breast cancer for women of all eligible ages; (2) does mammography screening reduce breast cancer mortality rates for women ages 40-49 years; and (3) does notification of eligibility for mammography increase the rate of completed screenings.

Effectiveness of Mammography

- There is a preponderance of evidence that, among women ages 40 years and older, mammography screening reduces breast cancer mortality by:
 - 15%-26% after 7 to 9 years of follow-up for women ages 50 years and older, and
 - 15%-17% after 10 to 14 years of follow-up for women ages 40 to 49 years.
- The evidence supporting recommended mammography screening for women ages 40-49 years differs from women ages 50 years and older due to the heterogeneity of breast cancer studies, the difference in breast cancer incidence by age cohort, the difference in the accuracy of mammography (due to breast tissue density), and the resulting impact on breast cancer mortality.
- Harms associated with mammography screening are primarily false-positive readings that result in additional outpatient visits, additional diagnostic imaging, and biopsies. After weighing the evidence, seven national organizations determined that the benefits of mammography outweighed the harms. Each organization issued clinical guidelines recommending, for women of average risk for breast cancer, annual or biennial mammography screening beginning at age 40 (with some guidelines recommending that

screening decisions for the 40- to 49-year cohort be based on a woman's breast cancer risk, her preferences, and her provider's recommendation).

Effectiveness of Notification of Eligibility for Mammography Screening

- There is a preponderance of evidence that notifying women through written notice about routine mammography screening can increase the overall mammography screening rate by about one third.

Utilization, Cost, and Coverage Impacts

Coverage

- An estimated 100% of women insured under California Department of Insurance (CDI)-regulated policies in California currently have coverage for breast cancer screening in accordance with USPSTF guidelines. Therefore, there would be no measurable impact on coverage for mammograms as a result of AB 56.
- There are 160,000 women enrolled in CDI and Department of Managed Health Care (DMHC) regulated plans and policies who reach age 40 each year and would be subject to the AB 56 mandate to receive a one-time, generic letter (addressed by name) to inform them of breast cancer screening guidelines. CHBRP's survey of seven major California health plans and insurers indicates that about 35,000 (22%) of these women currently receive a written notification from their plans to inform them of breast cancer screening guidelines and eligibility for the benefit.

Utilization

- Among 41-year-old women, 51% report having received a mammogram within the past year, whereas 30% report never having received a mammogram and 19% had a mammogram over a year ago.
- An estimated 22% of women at age 40 enrolled in CDI- and DMHC-regulated health plans currently receive a written notification from their insurer to receive breast cancer screening based on USPSTF guidelines.
- Among women aged 40 enrolled in CDI- and DMHC-regulated health plans who do not currently receive annual mammograms and do not receive the mandated notification to do so, 32% are expected to receive mammograms after receiving a one-time, generic letter, leading to approximately 20,000 additional mammograms being performed as a result of AB 56; an increase of 0.38% in the total annual number of mammograms performed among women with coverage subject to AB 56.

Costs

- The unit cost of mammograms is estimated at \$169, which includes the costs of follow-up biopsies (procedure and lab costs), other noninvasive procedures (repeat mammograms, ultrasounds), and office visits due to false-positive results.
- The cost of mailing a one-time, generic letter (addressed by name) to 160,000 enrolled women who turn age 40 is estimated at \$96,000 based on \$0.60 per letter.
- The overall increase in total expenditures due to the mandate is estimated at \$3,691,000, or an increase of 0.004% in the year following the enactment of the mandate.
- Total premiums are estimated to increase by \$0.0090 to \$0.0156 per member per month (PMPM) depending on insurance type and market segment. The distribution of the impact on premiums is as follows:
 - Total premiums for private employers are estimated to increase by \$2,057,000, or 0.004%.
 - Total employer premium expenditures for California Public Employees' Retirement System (CalPERS) are estimated to increase by \$75,000, or 0.002%.
 - Of the amount CalPERS would pay in additional total premium, about 59%, or \$44,000, would be the cost borne by the General Fund for CalPERS members who are state employees.
 - Enrollee contributions toward premiums for group insurance are estimated to increase by \$537,000, or 0.004%.
 - Individual out-of-pocket costs in the form of copayments and deductibles are expected to increase by \$287,000 (0.004%).
 - Total premiums for those with individually purchased insurance are estimated to increase by \$361,000 (or 0.006%).
 - State expenditures for Medi-Cal are estimated to increase by \$374,000, or 0.009%.

Long-term impacts on costs

- Cost-effectiveness studies of mammograms for women ages 40 years and older indicate an incremental cost-effectiveness ratio of \$58,000 per quality-adjusted life-year (QALY) for screening annually and \$47,000 per QALY for screening every 2 years. These rates were based on the assumption of 100% mammogram rates and would be considerably lower given the current mammogram rates.
- CHBRP projects that AB 56 will have no measurable impact on the number of uninsured due to premium increases.

Public Health Impacts

- Approximately 51% of insured women in California report receiving a mammogram at age 40 years—the age clinical practice guidelines recommend beginning screening with mammography for women of average risk for breast cancer. AB 56 seeks to increase the utilization rate of mammograms through notification of eligibility of such screening through health insurance plans. This mandate, through notification by a one-time, generic letter (addressed by name), is expected to increase the number of women who receive mammograms each year by approximately 20,000.
- The USPTF concluded that 1,224 women need to be screened to prevent one death from breast cancer. Therefore, it is estimated that screening an additional 20,000 women with mammography would, over time, prevent approximately 16 deaths per year from breast cancer. It would take approximately 14 years following implementation of AB 56 for this reduction in mortality to be realized, although qualitative improvements, such as a decrease in the aggressiveness of the cancer and less treatment for metastatic disease would be expected sooner.
- Disparities in prevalence of breast cancer exist with the vast majority of the cases (99.4%) occurring among women. In addition, racial and ethnic disparities exist, not only in breast cancer prevalence, but in early diagnoses and mortality rates as well. Non-Hispanic white women have the highest rates of breast cancer, followed by blacks and Asian/Pacific Islanders. Hispanics have the lowest rates. The research on mammography utilization by race/ethnicity suggests that some of the differences in health outcomes among non-white women can be explained by their lower rates of mammography utilization. Therefore, to the extent that notification increases mammography screening among these groups, there is the potential for AB 56 to reduce the racial/ethnic disparities screening rates and health outcomes associated with breast cancer.
- There are approximately 4,200 deaths each year in California due to breast cancer, a rate of 23.2 deaths per 100,000 women. It is estimated that for each life lost prematurely to breast cancer, there is a loss of 22.9 life-years and a cost of lost productivity of \$272,000. An estimated reduction in 16 premature deaths each year due to AB 56 would translate into a savings of 366 life-years and \$5.2 million in productivity that would otherwise be lost.

Table 1. Summary of Coverage, Utilization, and Cost Impacts of AB 56

	Before Mandate	After Mandate	Increase/ Decrease	Change After Mandate
Coverage				
Total population in plans subject to state regulation (a)	21,340,000	21,340,000	—	0.000%
Total population in plans subject to AB 56	21,340,000	21,340,000	—	0.000%
<i>Percentage of individuals with mandated coverage for mammograms</i>				
Coverage similar to mandated levels: women covered for mammograms by CDI-regulated plans	100%	100%	—	0.000%
No coverage	0%	0%	—	0.000%
<i>Percentage of individuals turning 40 who receive mandated written notification for mammograms</i>				
Coverage similar to mandated levels: women age 40 receiving mammogram notification by CDI and DMHC regulated plans	22%	100%	78%	361.262%
Mandated notification not received	78%	0%	-78%	-100.000%
<i>Number of individuals with mandated coverage for mammograms</i>				
Coverage similar to mandated levels: women covered for mammograms by CDI-regulated plans	1,185,000	1,185,000	—	0.000%
No coverage	—	—	—	0.000%
<i>Number of individuals turning 40 who receive mandated written notification for mammograms</i>				
Coverage similar to mandated levels: women age 40 receiving mammogram notification by CDI- and DMHC-regulated plans	35,000	160,000	125,000	357.143%
Mandated notification not received	125,000	—	-125,000	-100.000%
Utilization and Cost				
Number of mammograms among women in CDI- and DMHC-regulated plans	5,298,000	5,318,000	20,000	0.378%
Average per unit cost- mammograms (including additional services due to false positive results)	\$169	\$169	\$0.00	0.000%
Average per unit cost of one time, personally addressed mammogram notification to women age 40	\$0.60	\$0.60	\$0.00	0.000%

Table 1. Summary of Coverage, Utilization, and Cost Impacts of AB 56 (Cont'd)

	Before Mandate	After Mandate	Increase/ Decrease	Change After Mandate
Expenditures				
Premium expenditures by private employers for group insurance	\$50,546,208,000	\$50,548,265,000	\$2,057,000	0.004%
Premium expenditures for individually purchased insurance	\$5,944,229,000	\$5,944,590,000	\$361,000	0.006%
Premium expenditures by individuals with group insurance, CalPERS, Healthy Families, AIM, or MRMIP (b)	\$13,475,994,000	\$13,476,531,000	\$537,000	0.004%
CalPERS employer expenditures (c)	\$3,161,160,000	\$3,161,235,000	\$75,000	0.002%
Medi-Cal state expenditures (d)	\$4,112,866,000	\$4,113,240,000	\$374,000	0.009%
Healthy Families state expenditures	\$643,247,000	\$643,247,000	\$0	0.000%
Individual out-of-pocket expenditures (deductibles, copayments, etc.)	\$6,384,067,000	\$6,384,354,000	\$287,000	0.004%
Out-of-pocket expenditures for noncovered services	\$0	\$0	\$0	0.000%
Total Annual Expenditures	\$84,267,771,000	\$84,271,462,000	\$3,691,000	0.004%

Source: California Health Benefits Review Program, 2009.

Notes: (a) This population includes privately insured (group and individual) and publicly insured (e.g., CalPERS, Medi-Cal, Healthy Families, Access for Infants and Mothers [AIM], Major Risk Medical Insurance Program [MRMIP]) individuals enrolled in health insurance products regulated by DMHC or CDI. Population includes enrollees aged 0-64 years and enrollees 65 years or older covered by employment-sponsored insurance.

(b) Premium expenditures by individuals include employee contributions to employer-sponsored health insurance and member contributions to public insurance.

(c) Of the change in CalPERS employer expenditures, about 59%, or \$44,250, would be state expenditures for CalPERS members who are state employees.

(d) Medi-Cal state expenditures for members under 65 years of age include expenditures for MRMIP and AIM program enrollees who will newly receive notification.

Key: CalPERS=California Public Employees' Retirement System; CDI=California Department of Insurance; DMHC=Department of Managed Health Care.

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CHBRP gratefully acknowledges all of these contributions but assumes full responsibility for all of the report and its contents. Please direct any questions concerning this report to:

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A group of faculty and staff undertakes most of the analysis that informs reports by the California Health Benefits Review Program (CHBRP). The CHBRP **Faculty Task Force** comprises rotating representatives from six University of California (UC) campuses and three private universities in California. In addition to these representatives, there are other ongoing contributors to CHBRP from UC. This larger group provides advice to the CHBRP staff on the overall administration of the program and conducts much of the analysis. The CHBRP **staff** coordinates the efforts of the Faculty Task Force, works with Task Force members in preparing parts of the analysis, and coordinates all external communications, including those with the California Legislature. The level of involvement of members of the CHBRP Faculty Task Force and staff varies on each report, with individual participants more closely involved in the preparation of some reports and less involved in others.

As required by the CHBRP authorizing legislation, UC contracts with a certified actuary, Milliman Inc. (Milliman), to assist in assessing the financial impact of each benefit mandate bill. Milliman also helped with the initial development of CHBRP methods for assessing that impact.

The **National Advisory Council** provides expert reviews of draft analyses and offers general guidance on the program to CHBRP staff and the Faculty Task Force. CHBRP is grateful for the valuable assistance and thoughtful critiques provided by the members of the National Advisory Council. However, the Council does not necessarily approve or disapprove of or endorse this report. CHBRP assumes full responsibility for the report and the accuracy of its contents.

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