CALIFORNIA
HEALTH BENEFITS REVIEW PROGRAM

Analysis of Senate Bill 24: Tobacco Cessation

A Report to the 2007–2008 California Legislature
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PREFACE

The California Health Benefits Review Program (CHBRP) conducts evidence-based assessments of the medical, financial, and public health impacts of health benefit mandate and repeal bills, at the request of the California Legislature. In response to a request from the California Senate Health Committee on February 22, 2007, CHBRP undertook this analysis of Senate Bill 24 (Tobacco Cessation) pursuant to the provisions of Senate Bill 1704 (Chapter 684, Statutes of 2006) as chaptered in Section 127600, et seq. of the *California Health and Safety Code*. This report analyzes draft language (Appendix A) that was modified from SB 576, which CHBRP analyzed in 2005.

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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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EXECUTIVE SUMMARY

California Health Benefits Review Program Analysis of Senate Bill 24: Tobacco Cessation

The California Legislature asked the California Health Benefits Review Program (CHBRP) to conduct an evidence-based assessment of the medical, financial, and public health impacts of Senate Bill (SB) 24. In response to a request from the California Senate Health Committee on February 22, 2007, CHBRP undertook this analysis pursuant to the provisions of Senate Bill 1704 (Chapter 684, Statutes of 2006) as chaptered in Section 127600, et seq. of the *California Health and Safety Code*.

SB 24 would amend Section 1367.27 of the *Health and Safety Code* and Section 10123.175 of the *Insurance Code* to require health care service plans and health insurance policies[1] that provide outpatient prescription drug benefits to include coverage for tobacco cessation services.

- These tobacco cessation services, chosen by the enrollee and provider, shall include:
  - telephone counseling,
  - brief cessation intervention by a physician, and
  - all prescription and over-the-counter medications approved by the Food and Drug Administration to help smokers quit.
- Conditions that apply to the benefit include:
  - telephone counseling and medications may be limited to two courses of treatment per year,
  - compliance with Public Health Service-sponsored 2000 clinical practice guidelines,
  - no copayment or deductible may be applied to the benefit, and
  - coverage for interventions shall include reimbursement for physician advice, charting, and referral.
- In addition, SB 24 includes medical recordkeeping and policy disclosure requirements, and provisions for contracting with qualified local, state, and national providers.

SB 24 contains modifications of the language in SB 576, which was analyzed by CHBRP in 2005.

[1] Health care service plans, commonly referred to as health maintenance organizations, are regulated and licensed by the California Department of Managed Health Care (DMHC), as provided in the Knox-Keene Health Care Services Plan Act of 1975. The Knox-Keene Health Care Services Plan Act is codified in the California Health and Safety Code. Health insurance policies are regulated by the California Department of Insurance and are subject to the California Insurance Code.

Medical Effectiveness

Effectiveness of Tobacco Cessation Services

The literature on the efficacy of behavioral interventions (e.g., counseling, brief advice) and pharmaceuticals to improve smoking cessation rates and continued abstinence once cessation occurs is large, including numerous meta-analyses of randomized controlled trials (RCTs), the strongest form of evidence for CHBRP analyses. The literature indicates that behavioral and pharmacological interventions and combinations of the two improve quit rates and continued abstinence.

- Various types of counseling administered to individuals and groups increase smoking cessation.
    - Brief counseling by physicians and other health professionals, often as little as a few minutes, increases smoking cessation.
    - Telephone counseling is an efficacious mode in smoking cessation.
    - Psychologists, physicians, and nurses are all effective in providing tobacco cessation counseling.
- Pharmacological agents for smoking cessation are commonly divided into those used in initial attempts to quit smoking ("first-line agents"), followed by those used when initial attempts to quit have not been successful ("second-line agents"). First-line agents for smoking cessation include nicotine replacement therapy (NRT), administered by gum, patch, nasal sprays, and inhalers, and the non-nicotine agent bupropion, an antidepressant useful in treating certain addiction syndromes. Second-line agents include clonidine, nortriptyline, and varenicline, a newly approved drug that is a form of cytisine.
    - Among first-line agents:
        - NRT administered by gum, lozenges, patches, nasal sprays, and inhalers increase smoking cessation.
        - Bupropion also increases smoking cessation.
    - Among second-line agents:
        - Varenicline and other forms of cytisine increase smoking cessation.
        - Clonidine and nortriptyline also increase smoking cessation.
- This conclusion about the efficacy of smoking cessation interventions is not likely to be diminished or altered with the publication of new studies, because of the large quantity of literature summarized in the meta-analyses.

The rates of abstinence from smoking found in RCTs summarized above may be greater than those that would be achieved if SB 24 were enacted. Most of these RCTs used strict inclusion/exclusion criteria to maximize their ability to determine whether counseling or pharmacotherapy increases smoking cessation. These studies may have excluded some smokers

who would have coverage for these services under SB 24. In addition, smokers who take the initiative to enroll in RCTs are probably more highly motivated to quit than the average smoker. Clinician researchers may also work harder than other clinicians to ensure that smokers use recommended amounts of counseling and/or pharmacotherapy.

Effects of Coverage for Tobacco Cessation Services

The literature on the impact of coverage for tobacco cessation services is much less extensive than the literature on the efficacy of these services. Therefore, the evidence base from which conclusions can be drawn about the effects of coverage on utilization of tobacco cessation services and abstinence from smoking is much less robust than the evidence base regarding the efficacy of these services.

Use of tobacco cessation services

- Persons who have full coverage[2] for NRT and/or bupropion are more likely to use these tobacco cessation medications than are persons who do not have coverage for tobacco cessation services.

- The evidence of the effect of full coverage for tobacco cessation counseling relative to no coverage on obtaining counseling is ambiguous.

- Persons who have full coverage for NRT and/or counseling are more likely to use these tobacco cessation services than are persons who have partial coverage for them.

Abstinence from smoking

- Full coverage for tobacco cessation counseling and pharmacotherapy is associated with improved abstinence from smoking relative to no coverage for tobacco cessation services.

- The evidence of the effect of full coverage for tobacco cessation counseling and pharmacotherapy relative to partial coverage on abstinence from smoking is ambiguous.

Utilization, Cost, and Coverage Impacts

About 20.69 million Californians are currently enrolled in health plans regulated by the Knox-Keene Act or insured by policies regulated under the California Insurance Code. Currently, 95% of this population have coverage for prescription drugs and would be affected by SB 24—this includes 12.89 million adults ages 18 years and older.

- Currently, members largely have coverage for brief cessation interventions by a physician or other clinical staff as part of a regular physician visit, 59.4% have partial or full coverage for

[2] For purposes of this report, full coverage for tobacco cessation services is defined as coverage of 100% of costs associated with tobacco cessation medications and counseling without a deductible, copayment, or coinsurance.

prescription smoking cessation medications, 64.5% have coverage for personal counseling through telephone or other counseling services, whereas only 43.1% have coverage for NRT. Privately insured, California Public Employees' Retirement System (CalPERS), and Healthy Families members have only partial or no coverage for smoking cessation medications and counseling services. Medi-Cal, which covers 8% (1.03 million) of adults subject to the mandate, provides comprehensive tobacco cessation benefits at no charge to members.

- CHBRP used the 2002 California Tobacco Survey data and the RAND Health Insurance Experiment's (HIE) estimated impact of cost sharing for well care to estimate pre- and postmandate utilization. CHPRP estimated that premandate, among members with *partial or full* coverage, about 13.2% adult members who smoke used NRT, 8.4% used counseling, 4.2% used an antidepressant, and 18.1% used one or more services. Among members with *no* coverage, about 7.4% adult members who smoke used NRT, 4.8% used counseling, 2.4% used antidepressant, and 10.2% used one or more services. CHBRP estimated that the utilization of NRT would increase to 16.5%, counseling to 10.6%, an antidepressant to 5.3%, and one or more services to 22.6% after the mandate.

- Total net annual health expenditures are projected to increase by $70.05 million (0.10%), due to a $113.35 million increase in health insurance premiums ($94.38 million paid by employers and people who purchase individual insurance and $18.97 million paid by employees), partially offset by a net reduction in member copayments of $9.82 million and out-of-pocket expenditures of $33.49 million. The net increase of $70.05 million also includes a net savings of $4.28 million that represent the short-term (i.e., 1-year) savings resulting from a reduction in low birth-weight deliveries and in hospitalizations due to acute myocardial infarction (AMI), or stroke among those who quit smoking.

- Increases in insurance per member per month (PMPM) premiums vary by market segment (Table 5). Increases as measured by percentage changes in PMPM premiums are estimated to range from 0.01% to 0.54% in the affected market segments. Increases as measured by PMPM premiums are estimated to range from $0.01 to $0.81.

- In the large-group market, the increase in premiums is estimated to range from $0.47 to $0.74 PMPM (Table 5). For members with small-group insurance policies, health insurance premiums are estimated to increase by approximately $0.62 to $0.82 PMPM. In the individual market, the health insurance premiums are estimated to increase by $0.73 PMPM in Department of Managed Health Care (DMHC)-regulated market and by $0.81 PMPM in California Department of Insurance (CDI)-regulated market.

- In addition to gaining short-term savings in health expenditures, those who quit smoking may experience measurable long-term improvements in health status. A number of studies have examined the long-term cost consequences of reductions in tobacco use, and all generally find that smoking cessation is cost effective. For example, Warner et al. (2004) found that quitters gain on average 7.1 years of life at a net cost of $3,417 per year of life saved, or $24,261 per quitter.

Table 1. Summary of Coverage, Utilization, and Cost Effects of SB 24

	Before Mandate	After Mandate	Increase/ Decrease	Change After Mandate
Coverage				
Percentage of insured individuals with partial/full coverage for mandated benefit				
NRT	43.1%	100.0%	56.9%	132.0%
Counseling	64.5%	100.0%	35.5%	55.1%
Antidepressant	59.4%	100.0%	40.6%	68.3%
Number of insured individuals in California with coverage for the benefit (a)				
NRT	8,430,000	19,557,000	11,127,000	132.0%
Counseling	12,607,000	19,557,000	6,950,000	55.1%
Antidepressant	11,623,000	19,557,000	7,934,000	68.3%
Utilization				
Percentage of members 18 yrs and older who smoke *with* partial/full covered benefit and who use:				
NRT	13.2%	16.5%	3.3%	25.0%
Counseling	8.4%	10.6%	2.1%	25.0%
Antidepressant	4.2%	5.3%	1.1%	25.0%
Total (one or more services used) (b)	18.1%	22.6%	4.5%	25.0%
Percentage of members 18 and older who smoke *without* covered benefit and who use:				
NRT	7.4%	16.5%	9.1%	122.2%
Counseling	4.8%	10.6%	5.8%	122.2%
Antidepressant	2.4%	5.3%	2.9%	122.2%
Total (one or more services used) (b)	10.2%	22.6%	12.5%	122.2%
Average cost				
NRT	$285	$285	$0	0.0%
Counseling	$185	$185	$0	0.0%
Antidepressant	$300	$300	$0	0.0%
Expenditures				
Premium expenditures by private employers for group insurance	$43,944,936,000	$44,018,063,000	$73,127,000	0.17%
Premium expenditures for individually purchased insurance	$5,515,939,000	$5,534,790,000	$18,851,000	0.34%
CalPERS employer expenditures	$2,631,085,000	$2,633,428,000	$2,343,000	0.09%
Medi-Cal state expenditures (c)	$4,015,964,000	$4,015,964,000	$0	0.00%
Healthy Families state expenditures	$627,766,000	$627,824,000	$58,000	0.01%
Premium expenditures by employees with group insurance or CalPERS, and by individuals with Healthy Families	$11,515,939,000	$11,534,912,000	$18,973,000	0.16%
Member copayments	$5,261,095,000	$5,251,275,000	–$9,820,000	–0.19%
Expenditures for noncovered services	$33,485,000	$0	–$33,485,000	–100.00%
Total annual expenditures	$73,546,209,000	$73,616,256,000	$70,047,000	0.10%

Table 1 (Continued)
(a) Of 20,694,000 members in plans subject to mandate, only the 19,557,000 members with prescription drug coverage are directly affected by the mandate.
(b) A member can use more than one of the treatment methods listed above.
(c) Medi-Cal state expenditures for members under 65 years of age include expenditures for Major Risk Medical Insurance Program (MRMIP) and Access for Infants and Mothers (AIM) program.

Source: California Health Benefits Review Program, 2007.
Notes: The population includes individuals and dependents covered by employer-sponsored insurance (including CalPERS), individually purchased insurance, or public health insurance provided by a health plan subject to the requirements of the Knox-Keene Health Care Service Plan Act of 1975. All population figures include enrollees aged 0–64 years and enrollees 65 years or older covered by employment-sponsored insurance. Member contributions to premiums include employee contributions to employer-sponsored health insurance and member contributions to public health insurance. Expenditures for adults insured through the Managed Risk Medical Insurance Board are included in Medi-Cal premiums.
Key: CalPERS = California Public Employees' Retirement System. NRT = nicotine replacement therapy

Public Health Impacts

SB 24 would likely have a positive impact on public health, based on scientific evidence of the medical effectiveness of tobacco cessation services, the impact of tobacco cessation on both short-term and long-term health outcomes, and the evidence of tobacco cessation cost-effectiveness.

- Approximately 15% of California adults are smokers, which is above the *Healthy People 2010* goal of 12%. Smoking prevalence varies markedly by gender (17.2% men versus 12.1% women), socioeconomic status (increased smoking among low-income groups), and racial and ethnic groups with Native Americans experiencing the highest smoking prevalence (32%), and Latinos/Hispanics experiencing the lowest (13%).

- Tobacco use is the leading cause of preventable death and disease in the California. Latest figures (2001) show that smoking caused 37,324 deaths in California, resulting in a lost-productivity cost of more than $8 billion.

- Tobacco cessation is proven to lower the risk for adverse health outcomes in the short term, (such as low birth-weight deliveries and AMIs and stroke) as well as in the long term for cardiovascular and respiratory diseases and cancer.

- During the first year after implementation, this mandate is estimated to result in 22 fewer cases of AMI or stroke and 35 fewer low birth-weight deliveries each year.

- We estimate that 31,716 smokers will quit, attributable to the mandate each year. Each of these will experience between 7.0 and 12.4 years of life gained due to prevention of premature death from smoking-related illnesses. This adds up to a total of 222,012 to 393,278 years of potential life gained across the state each year.

The full CHBRP report on SB 24 can be found at http://www.chbrp.org/documents/sb_24leg.pdf.