EXECUTIVE SUMMARY:
Analysis of Assembly Bill 1894: HIV Testing

A Report to the 2007–2008 California Legislature
April 7, 2008

CHBRP 08-04
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California Health Benefits Review Program Analysis of Assembly Bill 1894: HIV Testing

The California Assembly Committee on Health requested on February 6, 2008, 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) 1894. 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. According to the bill author, the AB 1894 will be amended to reflect the language submitted to CHBRP for analysis, as show in Appendix A of this report. Henceforth, whenever this report refers to “AB 1894” it is referring to the amended version of the bill presented for analysis.

AB 1894 requires health care service plans regulated by the Department of Managed Health Care (DMHC) and group insurance policies regulated by the California Department of Insurance (CDI) to provide coverage for the testing for human immunodeficiency virus (HIV) antibodies and acquired immune deficiency syndrome (AIDS), regardless of whether the testing is related to a primary diagnosis. Although a variety of HIV and AIDS tests exist, this report focuses on the use of HIV testing as a screening tool used to identify new cases among asymptomatic individuals (or individuals receiving care for symptoms unrelated to HIV).

AB 1894 allows CDI-regulated plans discretion in contracting with testing providers but is makes no similar provision for DMHC-regulated plans. Assuming the difference in statutory treatment is purposeful, CHBRP interprets AB 1894 as requiring DMHC-regulated plans (but not CDI-regulated policies) to provide coverage for HIV testing in out-of-network emergency settings even if the test is not related to the emergency episode.

AB 1894 includes mandates beyond CHBRP’s purview. This report analyzes the benefit mandate provisions of the bill, as per the provisions of CHBRP’s authorizing statute, SB 1704. Specifically, this report focuses on the provisions requiring DMHC-regulated health care plan service contracts and CDI-regulated health insurance policies regulated to cover HIV and/or AIDS testing, regardless of primary diagnosis. The bill’s additional requirements would be placed on health care facilities, which are beyond CHBRP’s statutory charge for analysis. Although a variety of HIV and AIDS tests exist, this report focuses on the use of HIV testing as a screening tool used to identify new cases among asymptomatic individuals (or individuals receiving care for symptoms unrelated to HIV).

Currently, DMHC-regulated health care service plans regulated are required to provide diagnostic services as part of the minimum “basic health care services” benefit. CDI-regulated health insurance products have no statutory minimum services, except specific mandated benefits. Nonetheless, health insurance products generally cover physician and hospital services and medical tests.

1 California Health and Safety Code, Section 1345 and Section 1300.67 of the California Code of Regulations, Title 28.
Although not related to the benefit mandate contained in AB 1894, there are likely to be increases in HIV screening in the near future. Current national guidelines for HIV screening are broadening the population for whom screening is recommended. The US Preventive Services Task Force (USPSTF) and the Centers for Disease Control and Prevention (CDC) both support testing for all pregnant women and testing for adults and adolescents considered to be at risk for HIV. However, the CDC has recently recommended the screening for all adolescents and adults, regardless of perceived risk. Regardless of AB 1894’s benefit mandate, the change in CDC recommendations may influence provider behavior and, therefore, utilization.

Medical Effectiveness

- Although no studies have directly assessed whether testing asymptomatic persons for HIV decreases morbidity and mortality, there is substantial indirect evidence that screening for HIV is effective.

- There is a preponderance of evidence from multiple studies that tests for HIV are highly accurate (i.e., have high sensitivity and specificity). The studies also showed that:
  - Rapid tests for HIV are almost as accurate as standard tests, and
  - The speed at which rapid test results are available over standard tests can increase the number of persons who can be referred for treatment when they test positive.

- There is clear and convincing evidence from multiple controlled studies that the following treatments for HIV reduce the risk of clinical progression, opportunistic infection, and death:
  - Highly active antiretroviral therapy (HAART) for most patients with CD4 T-cell counts below 350 cells/mm³;
  - Prophylaxis for pneumocystis carinii pneumonia, tuberculosis, and mycobacterium avium-intracellulare complex and possibly cytomegalovirus; and
  - Vaccination against hepatitis B and influenza.

- A preponderance of evidence suggests that delivering infants born to HIV-positive mothers by elective cesarean section instead of vaginally and choosing formula feeding over breastfeeding reduces the risk of HIV transmission from mother to infant.

- There is also evidence from studies of self-report of behavior that persons who are aware that they are HIV-positive are less likely to engage in unprotected intercourse.

- Acceptance rates for HIV testing among asymptomatic persons vary widely and are:
  - Generally lower in settings in which the prevalence of HIV is low, and
  - Generally higher among pregnant women when screening is offered on an “opt-out” basis, and when rapid tests are offered instead of standard tests.

The rates at which persons obtain the results of HIV testing vary widely, as do the rates at which persons with HIV receive treatment.
Utilization, Cost, and Coverage Impacts

- The number of individuals who are covered for HIV testing is expected to remain the same after enactment of AB 1894. However, since AB 1894 mandates coverage of HIV testing "regardless of primary diagnosis, there would be some expansion of coverage, postmandate.

  - Disregarding primary diagnosis would require DMHC-regulated plans and CDI-regulated policies to cover HIV testing for asymptomatic and persons for whom exposure is uncertain. It would also require plans and policies to cover testing done by an in-network emergency or urgent care service provider, even if the testing were unrelated to the emergency or urgent care episode.

  - As discussed above, CHBRP also assumes that AB 1894 (because it addresses CDI-regulated policies but is silent towards DMHC-regulated plans) would mandate coverage by DMHC-regulated plans for HIV testing provided by out-of-network emergency care providers, even if the testing was unrelated to the emergency episode.

- While there is some limited expansion in coverage is assumed CHBRP estimates that there would not be an overall effect on utilization of the HIV test. Instead, CHBRP estimates a shift in who pays for the HIV testing. Postmandate, testing currently paid for out-of-pocket or paid by other sources is expected to be paid for by insurance. CHBRP estimates that the shift would increase the rate of covered HIV testing by 0.8 tests per 1,000 members per year, or by 3%.

- CHBRP’s assumption of no utilization increase is supported by three factors: (1) AB 1894 would not increase the number of members who have coverage for HIV/AIDS testing; (2) physician testing practices are unlikely to change, since the barriers to HIV/AIDS testing at the physician level are unlikely to be removed after the mandate; and (3) patient requests for testing covered by insurance would remain low due to patient concerns about confidentiality and fear of job or insurance discrimination.

- Total net annual expenditures are estimated to increase by $554,000 annually, or 0.0007%, mainly due to the administrative costs associated with the implementation of AB 1894, and costs that would be absorbed by insurance for tests previously not covered.

- The mandate is estimated to increase health insurance premiums by about $512,000. For affected markets, premiums are expected to increase by 0.0007%. Increases as measured by per member per month (PMPM) payments are estimated to be less than 1 cent ($0.0019), ranging from $0.0017 PMPM in the small-group CDI-regulated market to $0.0029 PMPM in the individual DMHC-regulated market. CHBRP estimates no cost impacts to Medi-Cal managed care and the Healthy Families programs.

- CHBRP estimates that per-unit cost of HIV testing ($27.46) would remain the same after the enactment of AB 1894. At present, CHBRP estimates that, for a typical insured population, HIV tests have a total PMPM cost of about $0.06.
Long-term impacts: Recent studies demonstrate that voluntary HIV testing as a screening tool is cost-effective even in health care settings in which HIV prevalence is low. CDC revised their recommendations in September 2006 to urge providers to include HIV testing as a routine part of their patients’ health care. It is possible that this mandate may increase physicians’ awareness and adoption of the CDC guidelines, leading to an increase in utilization. CHBRP did not make this assumption in analyzing the impact of AB 1894 because the bill does not require the adoption of CDC guidelines. However, Appendix E presents an alternative scenario in which utilization would increase to conform to CDC guidelines. If this were to occur, CHBRP estimates that total expenditures would increase by about $10,151,000 or 0.0128% in the first year after the implementation.

Public Health Impacts

- It is estimated that AB 1894 would not stimulate an increase in HIV testing in the population defined in the bill. Because the covered population remains the same and the mandate is unlikely to alter practice patterns and utilization of HIV testing, no impact on overall public health is anticipated in the short term.

- There are significant racial/ethnic and gender differences in risk for HIV and AIDS. Men are infected with HIV at a rate 10 times that of women, and the AIDS incidence rates for blacks are almost four times greater than for Hispanic or whites. Disparities are evident even within high-risk groups. For example, men who have sex with men represent over two-thirds of cumulative HIV/AIDS cases, and the second largest high-risk group—injecting drug users—represent about one-tenth of those cases. It is unlikely that AB 1894 would alter coverage, practice patterns, or utilization of HIV testing in communities affected by the bill. Therefore, no public health impact on gender or racial/ethnic disparities is anticipated.

- Mortality rates due to HIV/AIDS have decreased markedly since the early 1990s. This decrease is attributable to the diagnosis and early treatment interventions for HIV/AIDS. Identifying HIV-positive persons before they exhibit symptoms helps to prolong their productive life by providing treatment at the most clinically opportune time; however, no change in test utilization is anticipated. Accordingly, no resultant reductions in death or economic loss are anticipated.

- Based on the findings stated above, no long-term public health impacts are anticipated. However, due to the CDC’s revised guidelines issued in 2006, it is possible that practitioners may start to offer routine HIV testing to adolescents and adults in all health care settings. It is possible that this mandate could increase practitioners’ awareness of the CDC guidelines, but because AB 1894 does not require plans and carriers to adopt CDC guidelines, CHBRP did not make this assumption. However, CHBRP offers an alternative scenario (Appendix E) that assesses the long-term impact on public health due to increased testing utilization (as conforms to CDC guidelines).
Table 1. Summary of Coverage, Utilization, and Cost Impacts of AB 1894

<table>
<thead>
<tr>
<th></th>
<th>Before Mandate</th>
<th>After Mandate</th>
<th>Increase/Decrease</th>
<th>Change After Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of individuals subject to the mandate</td>
<td>22,190,000</td>
<td>22,190,000</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Percentage of individuals with coverage</td>
<td>100.0%</td>
<td>100.0%</td>
<td>0.0%</td>
<td>0%</td>
</tr>
<tr>
<td>Number of individuals with coverage</td>
<td>22,190,000</td>
<td>22,190,000</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Utilization and cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual covered utilization per 1,000 members</td>
<td>27.4</td>
<td>28.2</td>
<td>0.8</td>
<td>3%</td>
</tr>
<tr>
<td>Average per unit cost</td>
<td>$27.46</td>
<td>$27.46</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Expenditures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium expenditures by private employers for group insurance</td>
<td>$47,088,966,000</td>
<td>$47,089,306,000</td>
<td>$340,000</td>
<td>0.0007%</td>
</tr>
<tr>
<td>Premium expenditures for individually purchased insurance</td>
<td>$6,158,288,000</td>
<td>$6,158,355,000</td>
<td>$67,000</td>
<td>0.0011%</td>
</tr>
<tr>
<td>Premium expenditures by individuals with group insurance, CalPERS, Healthy Families, AIM or MRMIP</td>
<td>$12,819,308,000</td>
<td>$12,819,398,000</td>
<td>$90,000</td>
<td>0.0007%</td>
</tr>
<tr>
<td>CalPERS employer expenditures</td>
<td>$2,942,984,000</td>
<td>$2,942,999,000</td>
<td>$15,000</td>
<td>0.0005%</td>
</tr>
<tr>
<td>Medi-Cal state expenditures (a)</td>
<td>$4,044,192,000</td>
<td>$4,044,192,000</td>
<td>$0</td>
<td>0.0000%</td>
</tr>
<tr>
<td>Healthy Families state expenditures</td>
<td>$644,074,000</td>
<td>$644,074,000</td>
<td>$0</td>
<td>0.0000%</td>
</tr>
<tr>
<td>Individual out-of-pocket expenditures (deductibles, copayments, etc.)</td>
<td>$5,602,060,000</td>
<td>$5,602,102,000</td>
<td>$42,000</td>
<td>0.0007%</td>
</tr>
<tr>
<td>Out-of-pocket expenditures for non-covered services</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>0.0000%</td>
</tr>
<tr>
<td><strong>Total annual expenditures</strong></td>
<td>$79,299,872,000</td>
<td>$79,300,426,000</td>
<td>$554,000</td>
<td>0.0007%</td>
</tr>
</tbody>
</table>

Notes: The population includes employees and dependents covered by employer-sponsored insurance (including CalPERS), individually purchased insurance, and 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 employer-sponsored insurance. Premium expenditures by individuals include employee contributions to employer-sponsored health insurance and member contributions to public health insurance. (a) 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.  
Key: CalPERS = California Public Employees’ Retirement System.
ACKNOWLEDGEMENTS

Janet Coffman, MPP, PhD, Wade Aubry, MD, and Edward Yelin, PhD, of the University of California, San Francisco, prepared the literature analysis and review of medical effectiveness. Bruce Abbott, University of California, Davis, conducted the literature search. Douglas Owens, MD, MS, provided technical assistance with the literature review and expert input on the analytic approach. Dominique Ritley, MPH, Stephen A. McCurdy, MD, MPH, Banafsheh Sadeghi, MD, and Richard Kravitz, MD, MSPH, all of University of California, Davis, prepared the public health impact analysis. Ying-Ying Meng, DrPH, of the University of California, Los Angeles, prepared the cost impact analysis. Jay Ripps, FSA, MAAA, of Milliman, provided actuarial analysis. Susan Philip, MPP, and John Lewis, MPA, of CHBRP staff prepared the background section and synthesized the individual sections into a single report. Sarah Ordódy, BA, provided editing services. A subcommittee of CHBRP’s National Advisory Council (see final pages of this report) and a member of the CHBRP Faculty Task Force, Wayne Dysinger, MD, MPH, of Loma Linda University, reviewed the analysis for its accuracy, completeness, clarity, and responsiveness to the Legislature’s request.

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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All CHBRP bill analyses and other publications are available on the CHBRP Web site, www.chbrp.org.

Susan Philip, MPP
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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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